

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

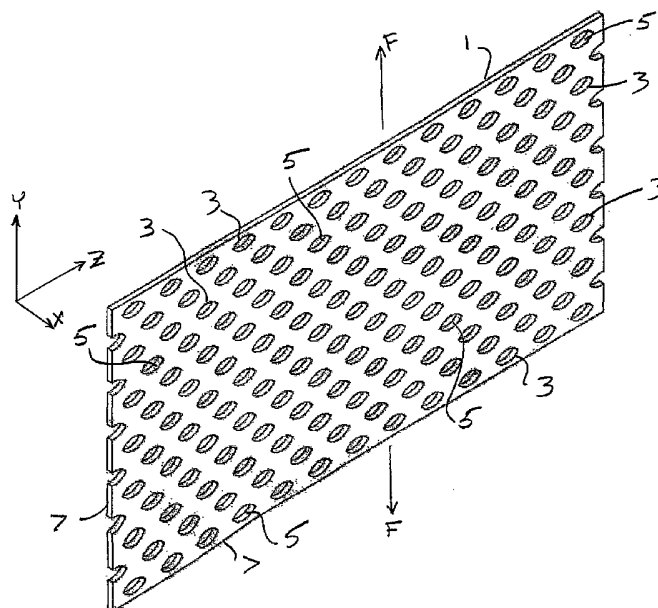
PCT

(10) International Publication Number
WO 2004/112644 A3

- (51) International Patent Classification⁷: A61F 11/00, A61M 29/00
 - (21) International Application Number: PCT/US2004/019268
 - (22) International Filing Date: 15 June 2004 (15.06.2004)
 - (25) Filing Language: English
 - (26) Publication Language: English
 - (30) Priority Data: 10/463,017 17 June 2003 (17.06.2003) US
 - (71) Applicant (for all designated States except US): C.R. BARD, INC. [US/US]; 730 Central Avenue, Murray Hill, NJ 07974 (US).
 - (71) Applicant and
 - (72) Inventor: DELL, Jeffrey, R. [US/US]; 9430 Parkwest Blvd., Suite 320, Knoxville, TN 37923 (US).
 - (72) Inventors; and
 - (75) Inventors/Applicants (for US only): DAVIS, Michele, Gandy [US/US]; 135 Cedar Court, Forsyth, GA 31029 (US). TEAGUE, Gary [US/US]; 2931 Chesterfield Way, Conyers, GA 30013 (US).
 - (74) Agents: ROSENTHAL, Lawrence et al.; Stroock & Stroock & Lavan LLP, 180 Maiden Lane, New York, NY 10038 (US).
 - (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
 - (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report

[Continued on next page]

(54) Title: EXPANDABLE TISSUE SUPPORT MEMBER AND METHOD OF FORMING THE SUPPORT MEMBER



(57) Abstract: An implant member has a body made from biocompatible material, and this body has slits formed therein. The slits open when the body is subjected to tension. The implant member is made by providing a body member and forming slits in the body. The slits are dimensioned and disposed so that the slits open when force is applied to the body.

WO 2004/112644 A3



(88) Date of publication of the international search report:
18 August 2005

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/US04/19268

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : A61F 11/00; A61M 29/00
 US CL : 606/108, 109, 192, 194, 198
 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. : 606/108, 109, 192, 194, 198

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

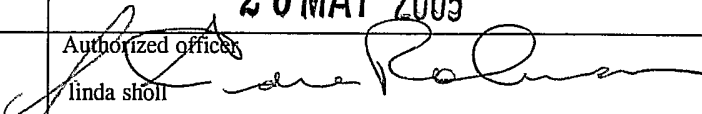
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,078,736 A (BEHL) 07 January 1992, see entire document.	1-9, 16-23
---		-----
Y		5, 9-15, 20, 24-29
A	US 6,312,455 B2 (DUERIG ET AL.) 06 November 2001, see entire document.	
A	US 6,068,654 A (BERG ET AL.) 30 May 2000, see entire document.	
A	US 6,468,300 B1 (FREIDBERG) 22 October 2002, see entire document.	
A, E	US 6,755,781 B2 (GELLMAN) 29 June 2004, see entire document.	
A	US 2002/0165576 A1 (BOYLE ET AL.) 07 November 2002, see entire document.	

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

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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 documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"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 16 May 2005 (16.05.2005)	Date of mailing of the international search report 26 MAY 2005
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  linda sholl Telephone No. (571) 272-4391