

(19) World Intellectual Property  
Organization  
International Bureau



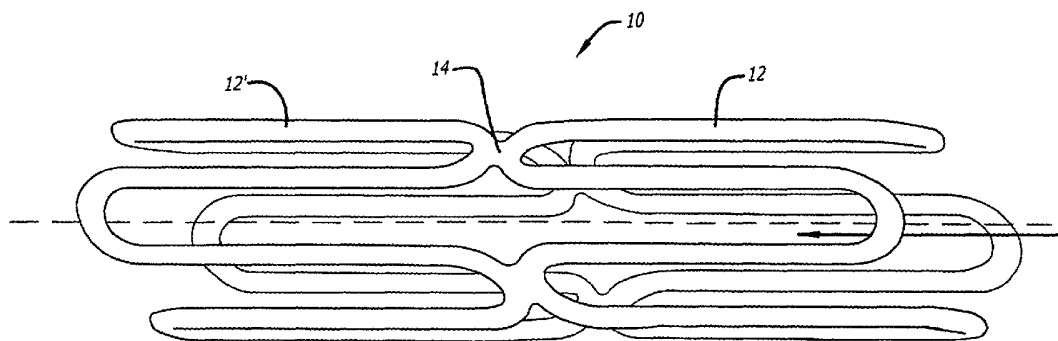
(43) International Publication Date  
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number  
**WO 2004/052237 A3**

- (51) International Patent Classification<sup>7</sup>: **A61F 2/06**
- (21) International Application Number:  
PCT/US2003/039290
- (22) International Filing Date: 9 December 2003 (09.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/432,278 9 December 2002 (09.12.2002) US
- (71) Applicant: **MEDTRONIC VASCULAR** [US/US]; 3576 Unocal Place, Santa Rosa, CA 95403 (US).
- (72) Inventor: **KANTOR, John**; 4414 Bally Bunion Lane, Santa Rosa, CA 95403 (US).
- (74) Agent: **CULLMAN, Louis, C.**; Stradling, Yocca, Carlson & Rauth, 660 Newport Center Drive, Suite 1600, Newport Beach, CA 92660-6441 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).
- Published:**  
— with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:  
19 August 2004
- 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.*

(54) Title: MODULAR STENT HAVING POLYMER BRIDGES AT MODULAR UNIT CONTACT SITES



(57) Abstract: A radially expandable modular stent (10) for implantation within the body of a patient is disclosed. The modular stent includes a first stent module (12) defining a first passageway, at least a second stent module (12') defining at least a second passageway, and at least one polymer bridge (14) in communication with the first stent module and the second stent module. The polymer bridge couples the first stent module to the second stent module such that the first passageway and the second passageway are in fluid communication.

WO 2004/052237 A3

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US03/39290

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : A61F 2/06 US CL : 623/1.46		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) U.S. : 623/1.46, 1.16, 1.38, 1.42		
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)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	WO 03/082152 A1 (HOLLOWAY et al.) 09 October 2003 (09.10.2003), See Figures 4-8: polymeric rings/connectors 46, 48, and 58.	1-3, 18-21, 28, and 29
A	US 5,817,152 A (BIRDSALL et al.) 06 October 1998 (06.10.1998), See entire document.	1-31
A	US 6,258,117 B1 (CAMRUD et al.) 10 July 2001 (10.07.2001), See entire document.	1-31
A, P	US 2003/0212449 A1 (COX) 13 November 2003 (13.11.2003), See entire document.	1-31
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> 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		Date of mailing of the international search report
17 June 2004 (17.06.2004)		08 JUL 2004
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 <i>Sharon H. Greene for</i> Javier G. Blanco Telephone No. 703-605-4259