

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 April 2006 (20.04.2006)

PCT

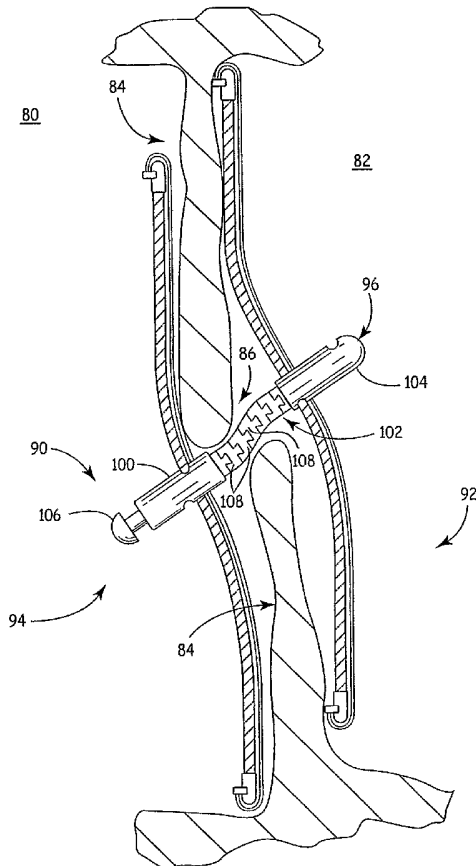
(10) International Publication Number
WO 2006/041612 A3

- (51) International Patent Classification:
A61M 25/00 (2006.01)
- (21) International Application Number:
PCT/US2005/033061
- (22) International Filing Date:
14 September 2005 (14.09.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/961,667 8 October 2004 (08.10.2004) US
- (71) Applicant (for all designated States except US): **CARDIA, INC.** [US/US]; 13770 Frontier Court, Burnsville, Minnesota 55337 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **CORCORAN, Michael, P.** [US/US]; c/o CARDIA, INC., 13770 Frontier Court, Burnsville, Minnesota 55337 (US). **MARINO, Joseph, A.** [US/US]; C/O CARDIA, INC., 13770 Frontier Court, Burnsville, Minnesota 55337 (US).
- (74) Agents: **FAIRBAIRN, David, R.** et al.; KINNEY & LANGE, PA, Kinney & Lange Building, 312 South Third Street, Minneapolis, Minnesota 55415-1002 (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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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, IS, IT, LT, LU, LV, MC, NL, PL, PT,

[Continued on next page]

(54) Title: FLEXIBLE CENTER CONNECTION FOR OCCLUSION DEVICE

(57) Abstract: A center connection has a flexible section that allows a portion of the center connection to be highly flexible while maintaining the ability to transmit torque. One method of forming the flexible center connection is to form a flexible section of the center connection of a series of individual interlocked segments.



WO 2006/041612 A3



RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
21 December 2006

Published:

— with international search report

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/US05/33061

A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61M 25/00(2006.01)

USPC: 604/523

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. : 604/523, 264

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 6682493 (Mirigian) 27 January 2004 Note: Please review the entire patent.	1-29
A	US 3674014 (Tillander) 4 July 1972 Note: Please review the entire patent.	1-29

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 August 2006 (16.08.2006) Date of mailing of the international search report: 03 OCT 2006

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. (571) 273-3201

Authorized officer: Manuel Mendez (signature), Telephone No. 703-000-0000