

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 May 2007 (10.05.2007)

PCT

(10) International Publication Number
WO 2007/051568 A3

(51) International Patent Classification:

A61F 2/24 (2006.01)

(21) International Application Number:

PCT/EP2006/010379

(22) International Filing Date: 27 October 2006 (27.10.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/732,477 2 November 2005 (02.11.2005) US

(71) Applicant (for all designated States except US): **POTENCIA MEDICAL AG** [CH/CH]; Zugerstrasse 74, CH-6341 Baar (CH).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **FORSELL, Peter** [CH/CH]; Aegeristrasse 66, CH-6300 Zug (CH).

(74) Agent: **KLUNKER.SCHMITT-NILSON.HIRSCH**; Patentanwälte, Winzererstrasse 106, 80797 Munich (DE).

(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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

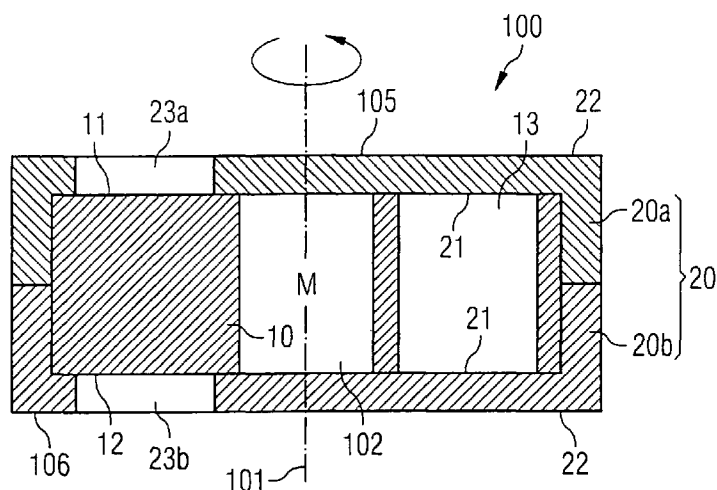
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

28 June 2007

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: ARTIFICIAL VALVE FOR IMPLANTATION



(57) Abstract: An artificial valve (100) for implantation in a patient's blood vessel (200), in particular an artificial heart valve, comprised of a first (10) and a second (20) valve member each having a first smooth surface (11, 21) facing each other so as to form a sealing contact between the first and second valve members and further having at least one blood flow passage (13, 23a) extending from the first surface to a second surface (12, 22) located on an opposite side of the respective valve member, wherein at least one (10) of the valve members is arranged so as to be displaceable relative to the other (20) valve member in a slidable manner such that the passage (23a) of the second valve (20) member can be brought into at least partial alignment with the passage (13) of the first valve member (10) while maintaining the sealing contact between the first and second valve members, and a displacing mechanism (M; 50-56) for the relative displacement of the valve members (10, 20). Preferably, the valve members are made from ceramics. A valve system comprises the artificial valve (100) and additional components such as a motor (M), an energy source (E), a control unit (C), a pressure sensor (P), a feed back system and/or an alarm system.

WO 2007/051568 A3