

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 December 2008 (04.12.2008)

PCT

(10) International Publication Number
WO 2008/146141 A3

(51) International Patent Classification:

A61F 2/34 (2006.01) B22F 3/00 (2006.01)
A61F 2/30 (2006.01) C23C 24/08 (2006.01)
B22F 7/00 (2006.01)

(21) International Application Number:

PCT/IB2008/001354

(22) International Filing Date: 29 May 2008 (29.05.2008)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:

UD2007A000092 29 May 2007 (29.05.2007) IT

(71) Applicant (for all designated States except US): LIMA - LTO SPA [IT/IT]; Via Nazionale, 52 - Frazione Villanova, I-33038 San Daniele Del Friuli (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PRESSACCO, Michele [IT/IT]; Via General Baldissera, 21/B3, I-33100 Udine (IT). LUALDI, Gabriele [IT/IT]; Via dei Faggi, 26, I-33034 Fagagna (IT). DALLA PRIA, Paolo [IT/IT]; Via Caccia, 10, I-33100 Udine (IT).

(74) Agents: PETRAZ, Gilberto et al.; GLP Srl, Piazzale Cavedalis, 6/2, I-33100 Udine (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available):

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, LY, MA, MD, ME, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

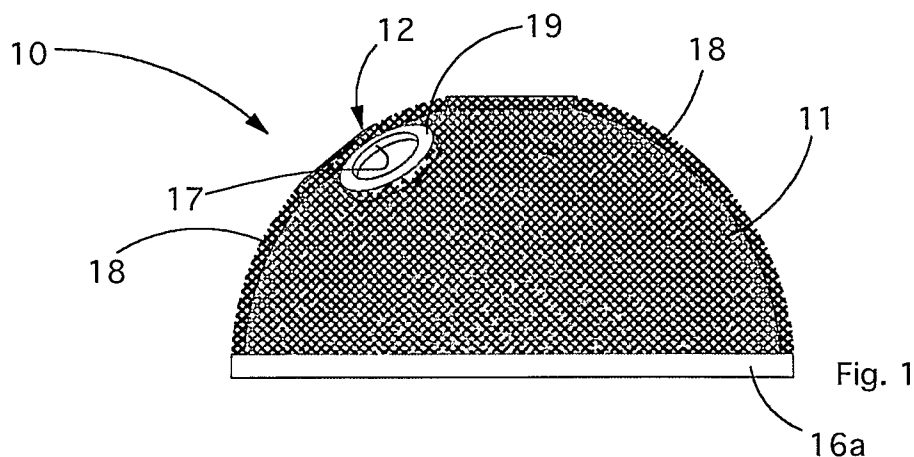
Published:

- 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:

22 May 2009

(54) Title: PROSTHETIC ELEMENT AND RELATIVE METHOD TO MAKE IT



(57) Abstract: Prosthetic element comprising a cap (11) made of metal material. At least part of said cap (11) consists of a lattice (12) that makes a plurality of open and intercommunicating cavities (18).

WO 2008/146141 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2008/001354

A. CLASSIFICATION OF SUBJECT MATTER INV. A61F2/34 A61F2/30 B22F7/00 B22F3/00 C23C24/08		
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) A61F B22F		
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 practical, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/147332 A1 (JONES) 6 July 2006 (2006-07-06)	1-7, 12, 14, 15, 18-25, 30, 31, 33
Y	paragraphs [0001], [0003], [0004], [0008], [0017], [0018], [0047], [0048], [0079], [0081], [0086] - [0097], [0101], [0102], [0104]; claims 1-5, 9, 13, 15, 23, 36, 45; figures 1C-10, 18A-18C, 28A-31D, 40; tables 1, 2, 4	8, 9, 13, 16, 17, 26, 27, 32
Y	WO 2005/018698 A (BIORETEC OY) 3 March 2005 (2005-03-03) page 14, lines 16-25; figure 2	8, 9, 26, 27
	-/--	
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.		<input checked="" type="checkbox"/> See patent family annex.
* Special categories of cited documents :		
<p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*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)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p>		<p>*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</p> <p>*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</p> <p>*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.</p> <p>*&* document member of the same patent family</p>
Date of the actual completion of the international search 31 March 2009		Date of mailing of the international search report 09/04/2009
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Klein, Christophe

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2008/001354

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US 4 636 219 A (PRATT) 13 January 1987 (1987-01-13) column 4, line 43 - line 57; claims 1,2; figures 2a,2b,4	13,16,32 1,9,12, 14,18, 22,31
Y	FR 2 685 192 A (LES LABORATOIRES OSTEAL MEDICAL) 25 June 1993 (1993-06-25) page 5, line 7 - line 32; figures 2,3	17
A	WO 2006/125711 A (MARIASAL INVESTMENT) 30 November 2006 (2006-11-30) page 4, lines 10-20; claims 1,5; figures	1-3,12, 15, 18-22,31
A	WO 99/62438 A (MATHYS MEDIZINALTECHNIK) 9 December 1999 (1999-12-09) claims 1,11,12; figures	1-3,12, 15,17
A	US 5 711 960 A (SHIKINAMI) 27 January 1998 (1998-01-27) figures 1,2,4	8-11, 26-29
A	DE 20 2006 015416 U (AESCULAP) 30 November 2006 (2006-11-30) paragraphs [0030], [0031], [0033]; figure 3	8,10, 12-14, 26,28, 31-33
A	US 2004/191106 A1 (O'NEILL) 30 September 2004 (2004-09-30) paragraphs [0004], [0005], [0007], [0012], [0032], [0051], [0082], [0090], [0118]; claims 1,28; figure 30	18-20, 23,24, 31,33
A	US 4 944 817 A (BOURELL) 31 July 1990 (1990-07-31) abstract; claim 1	23
A	US 5 108 435 A (GUSTAVSON) 28 April 1992 (1992-04-28)	
A	DE 196 14 949 A (BROZIAT) 23 October 1997 (1997-10-23)	

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2008/001354

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2006147332 A1	06-07-2006	AU 2005247021 A1 CA 2529884 A1 EP 1683593 A2	20-07-2006 30-06-2006 26-07-2006
WO 2005018698 A	03-03-2005	AT 416725 T EP 1660146 A1 FI 20031174 A US 2007141111 A1	15-12-2008 31-05-2006 21-02-2005 21-06-2007
US 4636219 A	13-01-1987	AU 579950 B2 AU 6631286 A CA 1265422 A1 DE 3683994 D1 EP 0225838 A2 ES 2029998 T3 FI 864973 A JP 62137050 A NO 864833 A	15-12-1988 11-06-1987 06-02-1990 02-04-1992 16-06-1987 16-10-1992 06-06-1987 19-06-1987 09-06-1987
FR 2685192 A	25-06-1993	NONE	
WO 2006125711 A	30-11-2006	EP 1898842 A1	19-03-2008
WO 9962438 A	09-12-1999	AT 314027 T AU 7423298 A EP 1082074 A1 JP 2002516711 T	15-01-2006 20-12-1999 14-03-2001 11-06-2002
US 5711960 A	27-01-1998	CA 2149900 A1 DE 69426414 D1 DE 69426414 T2 EP 0677297 A1 FI 952515 A WO 9508354 A1 JP 3243679 B2 JP 7148243 A	30-03-1995 18-01-2001 03-05-2001 18-10-1995 11-07-1995 30-03-1995 07-01-2002 13-06-1995
DE 202006015416 U	30-11-2006	DE 102006047663 A1 WO 2008040408 A1	03-04-2008 10-04-2008
US 2004191106 A1	30-09-2004	AT 287307 T AU 2003261497 A1 CA 2448592 A1 DE 60300277 D1 DE 60300277 T2 EP 1418013 A1	15-02-2005 27-05-2004 08-05-2004 24-02-2005 12-01-2006 12-05-2004
US 4944817 A	31-07-1990	NONE	
US 5108435 A	28-04-1992	AU 619134 B2 AU 6329490 A CA 2026301 A1 DE 9011363 U1 EP 0420542 A1 IE 903473 A1 IL 95730 A JP 1883115 C JP 3123546 A	16-01-1992 11-04-1991 29-03-1991 15-11-1990 03-04-1991 10-04-1991 08-12-1995 10-11-1994 27-05-1991

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2008/001354

Patent document cited in search report	Publication date	Patent family member(s)	Publication date		
US 5108435	A	JP ZA	6004082 B 9007724 A	19-01-1994 27-05-1992	
DE 19614949	A	23-10-1997	AT WO EP	193971 T 9738649 A1 0898469 A1	15-07-2000 23-10-1997 03-03-1999