



(51) International Patent Classification:

A61B 17/12 (2006.01) A61B 17/00 (2006.01)
A61F 2/84 (2006.01) A61F 2/06 (2006.01)

(21) International Application Number:

PCT/US2008/068930

(22) International Filing Date:

1 July 2008 (01.07.2008)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/949,830 13 July 2007 (13.07.2007) US

(71) Applicant (for all designated States except US):
BOSTON SCIENTIFIC SCIMED, INC. [US/US]; One Scimed Place, Maple Grove, Minnesota 55311-1566 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BASHIRI, Mehran** [US/US]; 296 Devonshire Blvd, San Carlos, California 94070 (US). **MERCHEL, Scott** [US/US]; 903 Roma Street, Livermore, California 94551 (US). **FORD, Russell** [US/US]; 851 Clark Way, Palo Alto, California 94304 (US).

(74) Agent: **BURSE, David, T.**; Vista IP Law Group LLP, 12930 Saratoga Avenue, Suite D-2, Saratoga, California 95070 (US).

(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).

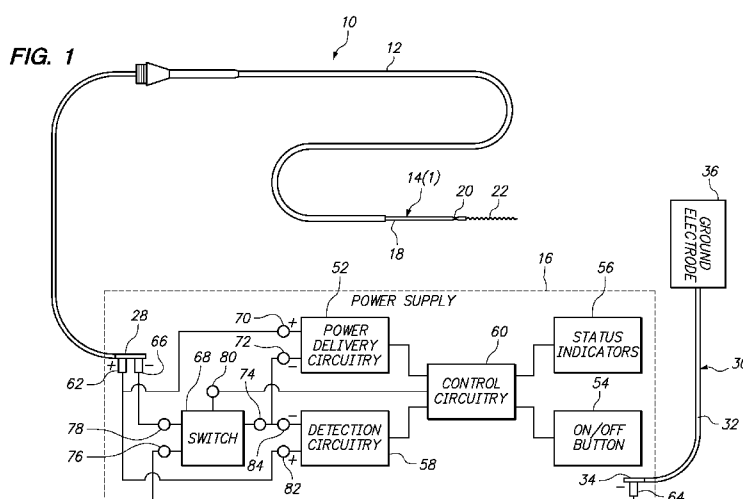
Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

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

17 September 2009

(54) Title: HYBRID AND PORTABLE POWER SUPPLIES FOR ELECTROLYTICALLY DETACHING IMPLANTABLE MEDICAL DEVICES



(57) Abstract: A medical system comprises a power supply coupled to an implant assembly, the power supply configured for detecting an energy delivery type of the implantable assembly and delivering electrical energy to the implant assembly in a mode corresponding to the detected energy delivery type, thereby electrolytically severing the joint. In another embodiment, a power supply is provided for use with a medical device having an elongated member and a terminal disposed on a proximal end of the elongated member. The power supply including power delivery circuitry, an electrical contact coupled to the power delivery circuitry, a port configured for receiving the proximal end of the elongated member, and an electrically insulative compliant member configured for urging the electrical terminal into contact with the electrical contact when the proximal end of the elongated member is received into the port.

WO 2009/012057 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/068930

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61B17/12 A61F2/84
 ADD. A61B17/00 A61F2/06

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 A61B

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.
A	EP 0 707 830 A (UNIV CALIFORNIA [US]) 24 April 1996 (1996-04-24) figure 1 column 3, line 40 - column 5, line 52	1-12
Y	US 4 944 746 A (IWATA HIROO [JP] ET AL) 31 July 1990 (1990-07-31) figures 1,2 column 1, line 9 - line 58 column 3, line 32 - column 9, line 19	1-7,11, 12
Y	US 5 569 245 A (GUGLIELMI GUIDO [US] ET AL) 29 October 1996 (1996-10-29) column 3, line 10 - line 39	1-7,11, 12
A	US 6 077 260 A (WHEELLOCK E THOMAS [US] ET AL) 20 June 2000 (2000-06-20) the whole document	1-12
	-/--	

 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
 E earlier document but published on or after the international filing date
 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)
 O document referring to an oral disclosure, use, exhibition or other means
 P document published prior to the international filing date but later than the priority date claimed

- *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
 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
 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.
 & document member of the same patent family

Date of the actual completion of the international search

27 January 2009

Date of mailing of the international search report

15/07/2009

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

Ließmann, Frank

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/068930

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/58365 A (SCIMED LIFE SYSTEMS INC [US]) 16 August 2001 (2001-08-16) the whole document -----	1-12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/068930

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see additional sheet(s)

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12

A medical system comprising an implant assembly, that electrolytically severs a joint between an implantable device and an pusher member using a power supply, that detects an energy delivery type of the implant assembly.

2. claims: 13-20

A power supply comprising first and second negative electrical contacts and a positive contact at the power supply.

3. claims: 21-37

A power supply comprising an electrically insulative compliant member configured for urging an electrical terminal into contact with an electrical contact .

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/068930

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
EP 0707830	A	24-04-1996	AT 199307 T	15-03-2001
			AU 704583 B2	29-04-1999
			AU 3429195 A	02-05-1996
			CA 2160640 A1	18-04-1996
			DE 69520186 D1	05-04-2001
			DE 69520186 T2	21-06-2001
			IL 115609 A	14-07-1999
			JP 3871070 B2	24-01-2007
			JP 8196544 A	06-08-1996
			US 4944746	A
JP 2084964 A	26-03-1990			
JP 4010831 B	26-02-1992			
US 5569245	A	29-10-1996	US 5851206 A	22-12-1998
US 6077260	A	20-06-2000	US 6409721 B1	25-06-2002
WO 0158365	A	16-08-2001	AT 412373 T	15-11-2008
			CA 2397196 A1	16-08-2001
			EP 1255492 A1	13-11-2002
			ES 2316432 T3	16-04-2009
			JP 2003521990 T	22-07-2003
			US 6397850 B1	04-06-2002