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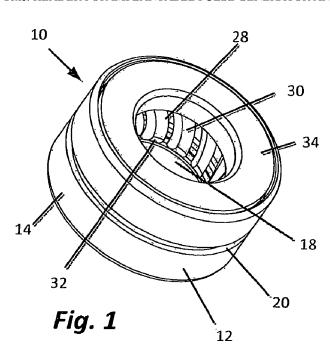
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Declarations under Rule 4.17:

 as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: HEADER FOR IMPLANTABLE PULSE GENERATOR AND METHOD OF MAKING SAME



(57) Abstract: A header for use in implantable pulse generator devices. The header is part of electrical connector assembly having one or more openings designed to receive the terminal pin of an electrical lead wire or electrode. The header is designed to provide and sustain long-term electrical and mechanical lead wire connections between the electrodes of a terminal pin and the implantable pulse generator device.



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 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))

International application No. **PCT/US2011/033770**

A. CLASSIFICATION OF SUBJECT MATTER

A61N 1/372(2006.01)i, A61N 1/36(2006.01)i, A61N 1/05(2006.01)i

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)

A61N 1/372; A61N 1/02; H01R 13/187; A61N 1/00; H01R 13/58; A61N 1/375

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: implantable, header, spring, bore, ring, strain, assembly, seal, molding, window, lock, sleeve

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 2008-0255631 A1 (ROBBIE J. SJOSTEDT et al.) 16 October 2008 See claim 8, abstract, figures 1-8	1-28
A	US 5662692 A (PAUL M. PASPA et al.) 02 September 1997 See claim 1, column 8, lines 19-51, figures 11-15	1-28
A	US 2006-0264122 A1 (KATHRYN AMAN et al.) 23 November 2006 See claims 1-3, paragraphs [0038]-[0039], figure 2	1-28
A	US 5261395 A (FARRELL G. OLEEN et al.) 16 November 1993 See claims 1, 2, abstract, figures 1A-4	1–28
A	US 7299095 B1 (ANNA BARLOW et al.) 20 November 2007 See claims 1-3, abstract, figures 4 and 5	1–28

	Further documents are l	listed in the	continuation	of Box C.
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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
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- "O" document referring to an oral disclosure, use, exhibition or other
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- "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

30 JANUARY 2012 (30.01.2012)

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/033770

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008-0255631 A1	16.10.2008	EP 2134406 A1	23.12.2009
		EP 2134418 A2	23.12.2009
		EP 2134418 A4 US 2008-0246231 A1	03.11.2010 09.10.2008
		US 8091226 B2	10.01.2012
		WO 2008-124685 A1	16.10.2008
		WO 2008-127990 A2	23.10.2008
		WO 2008-127990 A3	04.12.2008
		WO 2008-127990 A3	23.10.2008
US 5662692 A	02.09.1997	US 5534019 A	09.07.1996
US 2006-0264122 A1	23.11.2006	None	
US 5261395 A	16.11.1993	None	
US 7299095 B1	20.11.2007	None	