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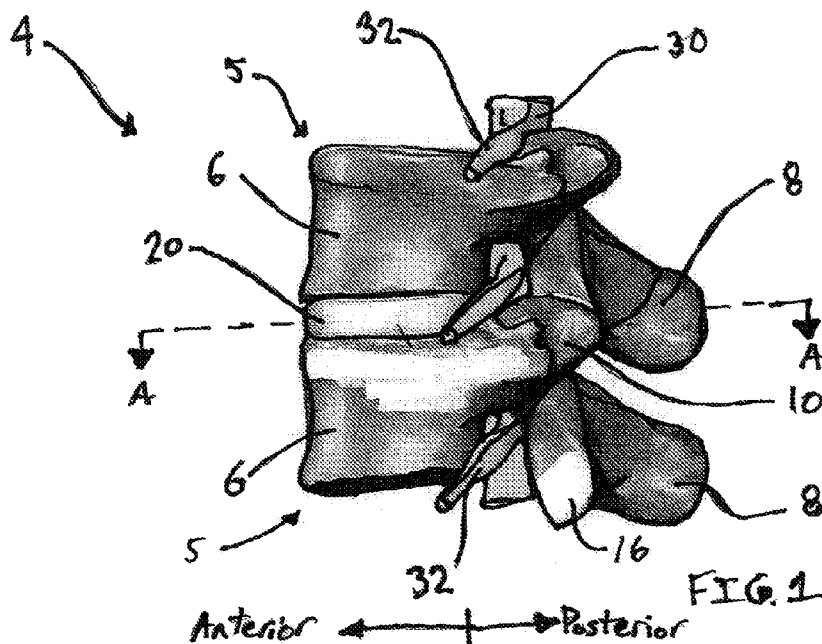
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Published:

- 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))

[Continued on next page]

(54) Title: SPINAL IMPLANT



(57) Abstract: A spinal implant 150, 151 comprises a first rolling-contact core 152 operably coupled to a first vertebra 106, said first rolling-contact core having a first convex surface 153 having a first axis 180, said first convex surface configured to provide a first rolling motion in a first direction 184 to said first vertebra relative to a second vertebra 108. At least one flexure 154 is connected to said first rolling-contact core, said flexure configured to constrain said first rolling motion.



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A. CLASSIFICATION OF SUBJECT MATTER*A61F 2/44(2006.01)i, A61L 27/14(2006.01)i, A61L 27/04(2006.01)i, A61B 17/70(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)

A61F 2/44

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)

eKOMPASS(KIPO internal) & Keywords: spinal implant, prosthesis, vertebral disc, plate, rolling and flexure.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2008-0195213 A1 (PETER HALVERSON et al.) 14 August 2008 See abstract; paragraphs [34]-[44]; claims 1-10, 17; Figs. 1, 2.	7-12 1-6, 13-17, 28-31
A	US 2006-0009850 A1 (ROBERT FRIGG et al.) 12 January 2006 See the whole document.	1-17, 28-31
A	US 2006-0190079 A1 (NAIM ISTEPHANOUS et al.) 24 August 2006 See the whole document.	1-17, 28-31
A	US 2007-0179618 A1 (HAI H. TRIEU et al.) 02 August 2007 See the whole document.	1-17, 28-31
A	US 2005-0125065 A1 (JAMES F. ZUCHERMAN et al.) 09 June 2005 See the whole document.	1-17, 28-31
A	US 2005-0261772 A1 (MICHAEL FILIPPI et al.) 24 November 2005 See the whole document.	1-17, 28-31



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 application or patent but published on or after the international filing date

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"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

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2010/027826**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.: 18-27
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 18-27 pertain to methods for treatment of human body by surgery, thus relate to a subject matter which this International Searching Authority is not required, under Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.
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:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
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.:

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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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