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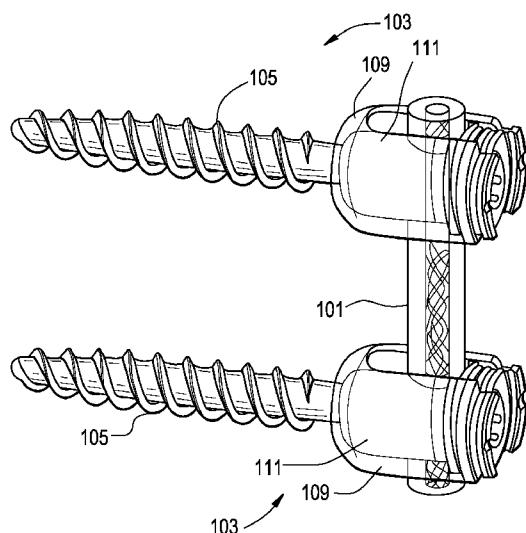
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[Continued on next page]

(54) Title: POLYMERIC PEDICLE RODS AND METHODS OF MANUFACTURING

FIG. 8



(57) Abstract: A spinal pedicle rod comprising an internally reinforced polymeric core that is at least partially encased within at least one polymeric coating. A dynamic stabilization device for bones in which flexible rods are combined with a pair of dynamic anchoring devices comprising i) a shank for anchoring into a bone or a vertebra, ii) a head connected to the shank, iii) a receiving part for the head and iv) a mobile element acting on the head.



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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 08/86979

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(8) - A61B 17/70 (2009.01) USPC - 606/254 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC: A61B 17/70 (2009.01) US: 606/254 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched IPC: A61B 17/68, 17/58, 17/60 (2009.01) US: 606/60, 246, 247, 248, 255, 261 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST (PGPB,USPT,USOC,EPAB,JPAB); Google Scholar; Google Patents; key words: spine, pedicle, polymer, continuous/chopped fibers, polymer matrix		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2007/0003598 A1 (Trieu) 04 January 2007 (04.01.2007) see paragraphs [0082]-[0083]	16-18
Y	US 5,181,930 A (Dumbleton et al.) 26 January 1993 (26.01.1993) see column 4 lines 9-14 and column 5 lines 4-52	1-20
Y	US 4,743,260 A (Burton) 10 May 1998 (10.05.1998) see column 4, lines 15-52	1-20
Y	US 5,540,689 A (Sanders et al.) 30 July 1996 (30.07.1996) see column 6, lines 43-56 and column 7, lines 6-21	2-5, 7
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>		
* 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 "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 08 April 2009 (08.04.2009)		Date of mailing of the international search report <b>16 APR 2009</b>
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 08/86979

**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:

There are considered to be 2 inventions as follows:

Group I: claims 1-20 characterized by a polymeric rod with a reinforced core

Group II: claims 21-47 characterized by anchoring devices for a polymeric rod

Groups I and II share the generic feature of a polymeric rod for spinal stabilization. This generic feature does not avoid the prior art, as evinced by US 4,743,260 A to BURTON which teaches a polymeric rod for spinal stabilization (col 4, ln 15-52).

The inventions listed above do not relate to a single general inventive concept under PCT rule 13.1 because, under PCT Rule 13.2 the inventions lack the same or corresponding special technical features. Neither of these technical features is common to the other group nor do they correspond to a special technical feature in the other groups.

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 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.:  
1-20

**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.