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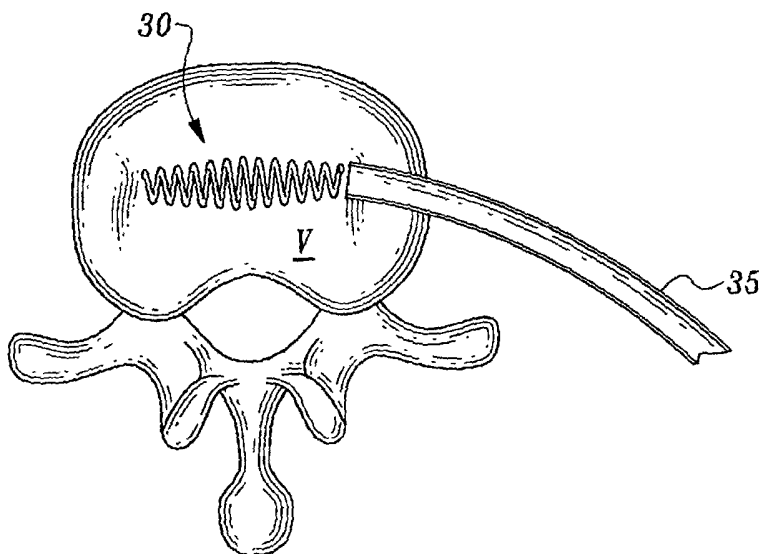
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(54) Title: INTERVERTEBRAL DISK NUCLEAR AUGMENTATION SYSTEM



(57) Abstract: Various implants are provided to at least partially replace a nucleus of a spinal disk (D). The implants are spring-like in nature. In one embodiment, a helical spring (10) is provided with various different unique outlines to act as the implant. The helical spring is oriented with a center line substantially perpendicular to the spine and to a direction of compression loads experienced within the disk space. The helical spring or other implant is preferably delivered through a delivery cannula (28) which has a size which is smaller than a cross-sectional size of the implant. The implant is preferably formed of nickel titanium or otherwise configured so that it can be compressed significantly within the delivery cannula and then become enlarged after being advanced out of the delivery cannula and into the intervertebral space (S). In other

embodiments the implant is generally cylindrical and expandable in height after delivery.

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : A61F 2/44
 US CL : 623/17.13
 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)
 U.S. : 623/17.13, 17.11, 17.15, 17.16

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)

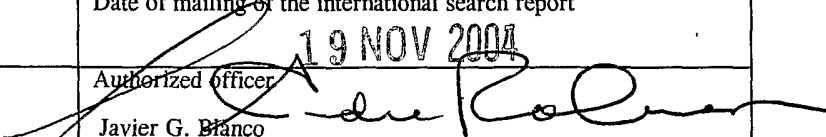
C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,468,309 B1 (Lieberman) 22 October 2002 (22.10.2002), see Figures 1 and 3, see entire document.	1-3, 7, 9, 15, and 16
A	US 5,055,104 A (RAY) 8 October 1991 (08.10.1991), see entire document.	1-45
A	US 5,306,310 A (SIEBELS) 26 April 1994 (26.04.1994), see entire document.	1-45
A	US 5,458,642 A (BEER et al.) 17 October 1995 (17.10.1995), see entire document.	1-45
A	US 6,206,923 B1 (BOYD et al.) 27 March 2001 (27.03.2001), see entire document.	1-45

Further documents are listed in the continuation of Box C. See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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"O" document referring to an oral disclosure, use, exhibition or other means	
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