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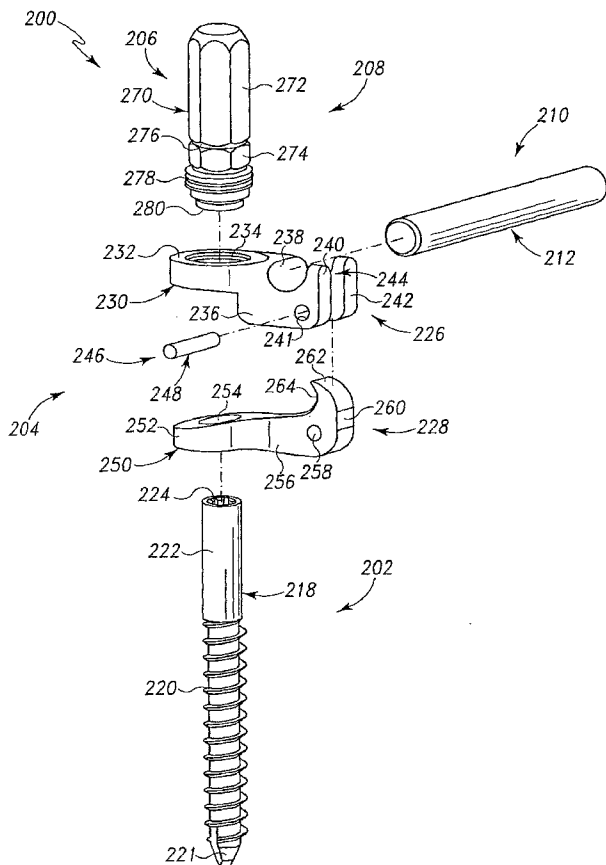
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[Continued on next page]

(54) Title: PEDICLE SCREW CONSTRUCTS AND SPINAL ROD ATTACHMENT ASSEMBLIES



(57) Abstract: Spine fixation constructs are configured to receive and retain a spinal rod onto a vertebral bone screw. The spine fixation constructs provide for 360° rotation about a bone screw and variable axial placement about the bone screw. In one form, a rod holder (204) of the spine fixation construct (200) is configured to be axially received onto the bone screw (202). Axial positioning of the rod holder (204) on the bone screw (202) is fixed through cooperation of the rod holder (204) with a fixation component (206). The fixation component (206) is axially received onto the bone screw (202). Retention of the spinal rod (210) by the spinal rod holder (204) is also provided via the fixation member (206). In one form, spinal rod retention is provided upon axial retention of the spinal rod holder (204) onto the bone screw (202) through cooperating action between the fixation mechanism (206) and the spinal rod holder (204). According to an embodiment, a member (228) of the rod holder (204) is caused to pivot and capture the spinal rod (210) upon receipt of the fixation member (206) onto the bone screw (202) and rod holder (204). According to another embodiment, pivoting motion of a pawl (328) of the rod holder (304) by the fixation member (306) not only locks the spinal rod (310) but skews the pawl (328) relative to the bone screw (302) to wedge the axial placement of the pawl (228) and thus the rod holder (304) relative to the bone screw (302).

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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))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
- *of inventorship (Rule 4.17(iv))*

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## INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61B 17/56; A61B 17/58, A61F 2/30 (2007.01)

USPC - 606/61

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)  
USPC: 606/61Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
USPC: all classes (text search--see keywords)Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
PubWEST (PGPB, USPT, EPAB, JPAB), Google Scholar, Google Patents

Spinal fixation, affix, rod, channel, holder, c-shaped, pawl, orthopedic, osteopathy

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/0138661 A1 (BAILEY) 15 July 2004 (15.07.2004) para [0024], [0025], [0031], [0032]; Fig 3, 4	1, 15
Y		2-14, 16-21
Y	US 2005/0277931 A1 (SWEENEY et al.) 15 December 2005 (15.12.2005) para [0079], [0080]; Fig 14, 15	2-14, 16-21

 Further documents are listed in the continuation of Box C. 

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"A" document defining the general state of the art which is not considered to be of particular relevance

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"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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