

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 June 2006 (29.06.2006)

PCT

(10) International Publication Number
WO 2006/069089 A3

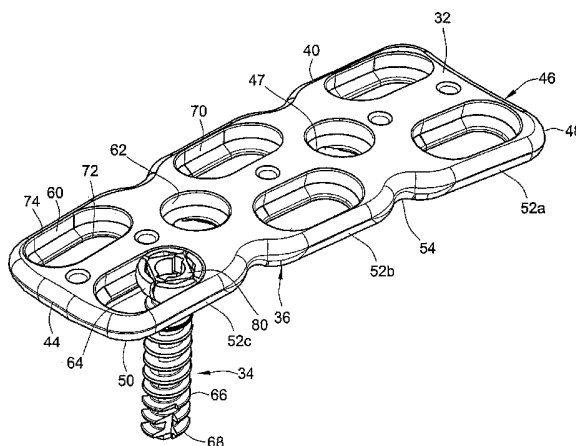
- (51) International Patent Classification:
A61B 17/86 (2006.01) A61B 17/80 (2006.01)
- (21) International Application Number:
PCT/US2005/046243
- (22) International Filing Date:
21 December 2005 (21.12.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/637,690 21 December 2004 (21.12.2004) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

- Published:
 - with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:
2 November 2006

[Continued on next page]

(54) Title: CERVICAL PLATE SYSTEM



(57) Abstract: A device, system and method for securing a plate to a bone. An anchor device has a screw (34,104) (with a head portion (64,116)) and a locking disc (80). The head portion includes a slotted wall defining a plurality of petals (76,118) disposed around a central opening (78). The screw further includes an internal bore (120). The locking disc (80) is rotatably disposed within the central opening (78), such that in a first rotational position the petals (76,118) may flex inwardly, and in a second rotational position the petals (76,118) are substantially prevented from flexing inwardly. A tool (130) for manipulating the anchor device (34, 104) has a shaft (134) with its end (138) configured to mate with the internal bore (120) of the screw to permit selective rotation of the screw, and a sleeve member (140) rotatably and slideably mounted on the shaft having an end (114) that mates with the locking disc (80) to permit selective rotation of the disc.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.
PC1 2005/046243

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61B17/86 A61B17/80

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)
 A61B

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 practical, search terms used)
 EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 88/03781 A (RAVEH, JORAM) 2 June 1988 (1988-06-02) page 4, line 26 - page 6, line 3 page 7, line 17 - page 8, line 12 page 12, line 18 - page 15, line 13 figures -----	1,15
A	DE 20 2004 015912 U1 (AESCULAP AG & CO. KG) 9 December 2004 (2004-12-09) paragraph [0059] - paragraph [0074] figures -----	1,15
A	EP 1 090 595 A (STRYKER SPINE; STRYKER SPINE SA) 11 April 2001 (2001-04-11) paragraph [0044] - paragraph [0047] figures 14A-17 -----	1-15
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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 document 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
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Date of the actual completion of the international search 23 March 2006	Date of mailing of the international search report 01. 09. 2006
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <p style="text-align: center;">Nistor, L</p>
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INTERNATIONAL SEARCH REPORT

International application No
PC 2005/046243

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 117 173 A (TADDIA ET AL) 12 September 2000 (2000-09-12) column 3, line 27 - column 4, line 47 figures -----	1,15
A	US 6 579 290 B1 (HARDCASTLE PHILIP HOBSON ET AL) 17 June 2003 (2003-06-17) column 7, line 33 - column 8, line 37 figures 13-16 -----	1,15

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/046243

Box 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.: 26-28
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
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 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:

see additional sheet

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.:

1-25

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-25

An anchor device comprising a screw having a head portion comprising a plurality of spaced petals disposed around a central opening, the device further comprising a locking disc rotatably disposed within the central opening and provided with a plurality of protrusions, the locking disc having a first rotational position in which the annular wall is spaced from protrusions and the petals may flex inwardly and a second rotational position in which the annular wall is contacted by protrusions and the petals are prevented by the protrusions from flexing.

2. claim: 29

A driving tool comprising a handle, a shaft and a sleeve member, the shaft mating with an internal bore in a screw member of an anchor device and the sleeve member mating with notches in a locking disc component of the anchor device.

INTERNATIONAL SEARCH REPORT
 nation on patent family members

International application No
 PCT 005/046243

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