

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
22 May 2003 (22.05.2003)

PCT

(10) International Publication Number  
WO 03/041611 A3

(51) International Patent Classification<sup>7</sup>: A61B 19/00

(21) International Application Number: PCT/US02/36391

(22) International Filing Date:  
14 November 2002 (14.11.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/332,686 14 November 2001 (14.11.2001) US

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

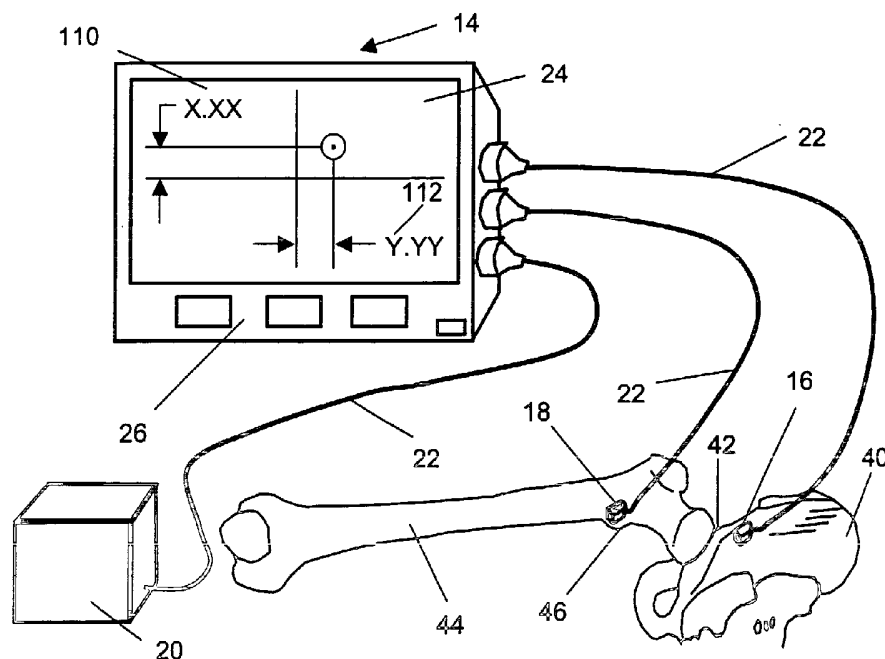
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

(88) Date of publication of the international search report:  
11 December 2003

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.

(54) Title: APPARATUS AND METHODS FOR MAKING INTRAOPERATIVE ORTHOPEDIC MEASUREMENTS



(57) Abstract: Apparatus and methods for making intraoperative orthopedic measurements are provided. Using telemetry devices (16, 18, 20) attached to a patient, relative measurements of the positions and orientations of the patient's bones may be determined. Using the relative measurements of the positions and orientations of the patient's bones, a differential measurement may be determined in connection with the orthopedic medical procedure.



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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/36391

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61B19/00

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)  
IPC 7 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, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 249 581 A (NOWACKI CHRISTOPHER ET AL) 5 October 1993 (1993-10-05) cited in the application column 5, line 12 - line 65; figures 8-10 ---	8,9, 36-38, 42,43,45
X	WO 01 30257 A (WINCHESTER DEV ASSOCIATES ;HUNTER MARK W (US); KESSMAN PAUL (US);) 3 May 2001 (2001-05-03) page 5, line 23 - line 28 page 7, line 3 - line 8; figure 3 ---	8-12, 36-45
X	US 5 611 353 A (AUCHINLECK GEOFFREY F ET AL) 18 March 1997 (1997-03-18)  column 5, line 43 -column 6, line 31; figure 5C  --- -/--	8,9, 36-38, 42-45

Further documents are listed in the continuation of box C.

Patent family members are listed in 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

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"P" document published prior to the international filing date but later than the priority date claimed

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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

"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

7 March 2003

Date of mailing of the international search report

16.06.2003

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/36391

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 23956 A (SATI MARWAN ;SYNTHES AG (CH); SYNTHES USA (US)) 20 May 1999 (1999-05-20) abstract; figure 1 ---	8,9, 36-38, 42,43,45
P,X	DE 201 15 254 U (AESCULAP AG & CO KG) 13 December 2001 (2001-12-13)  page 17, paragraph 3; figure 1 ---	8,9, 36-38, 42,43,45
A	WO 00 48507 A (PICARD FREDERIC) 24 August 2000 (2000-08-24) abstract; figure 2 -----	8,36

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/36391

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 02/36391

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 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.: 1-7, 24-35  
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 II Observations where unity of invention is lacking (Continuation of item 2 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.:  
**8-12; 36-45**

### 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: 8-12,36-45

apparatus for orthopedic differential measurements

2. Claims: 13-23,46-52

apparatus for attachment of a telemetry device to a bone