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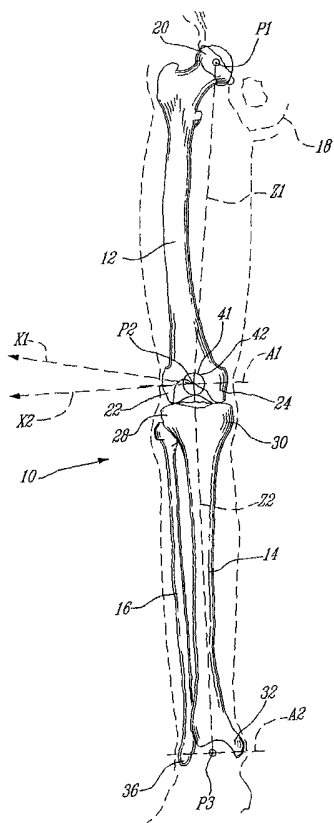
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[Continued on next page]

(54) Title: METHOD OF CALIBRATION FOR THE REPRESENTATION OF KNEE KINEMATICS AND HARNESS FOR USE THEREWITH



(57) Abstract: A method for creating a frame of reference of a leg of a subject for subsequent 3-D kinematic analysis of the leg with non-invasive trackable references secured to the femur and the tibia of the leg. The method comprises the steps of: i) obtaining tibial and femoral axes with respect to the trackable references by tracking points and motions of the leg; ii) registering a known posture of the subject with respect to the trackable references; iii) obtaining a desired posture of the subject with respect to the trackable references as a function of the known posture by tracking a predetermined motion of the leg; and iv) setting a frame of reference to said tibial and femoral axes of the leg in the desired posture of the subject with respect to the trackable references.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 02/01916

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61B5/103

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, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A A A	US 5 611 353 A (AUCHINLECK GEOFFREY F ET AL) 18 March 1997 (1997-03-18) column 3, line 11 -column 4, line 24 --- WO 00 48507 A (PICARD FREDERIC) 24 August 2000 (2000-08-24) page 7, last paragraph -page 13, paragraph 1 --- ALEXANDER L BELL ET AL: "A COMPARISON OF THE ACCURACY OF SEVERAL HIP CENTER LOCATION PREDICTION METHODS" JOURNAL OF BIOMECHANICS, PERGAMON PRESS, NEW YORK, NY, US, vol. 23, no. 6, 1990, pages 617-621, XP002109057 ISSN: 0021-9290 the whole document -----	1,2,4,5, 12 13,20 1,12 1,12,13, 20

☐ 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
- "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

26 March 2003

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA 02/01916

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.:
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 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.:

1-20

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: 1-20

Method for creating a reference frame for a leg of a subject

2. Claim : 21

Harness for attachment to the knee

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 02/01916

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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