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(71) Applicant (for all designated States except US): **AXIOM
WORLDWIDE, INC.** [US/US]; 9423 Corporate Lake
Drive, Tampa, FL 33634 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **JOHNSON, Scot**
[US/US]; 2002 Blind Pond Avenue, Lutz, FL 33549 (US).

(74) Agent: **PETTY, David Z.**; MCANDREWS, HELD
& MALLOY, LTD., 500 W. Madison St., 34th Floor,
Chicago, IL 60661 (US).

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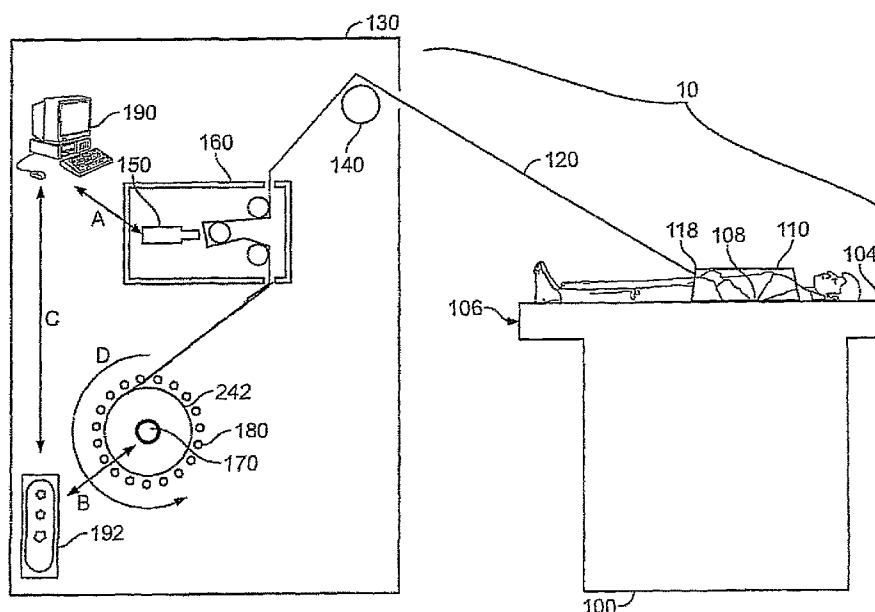
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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: SYSTEM FOR PATIENT SPECIFIC SPINAL THERAPY



(57) Abstract: A system for applying a patient-specific treatment profile during spinal therapy. The system includes a control system (190) for implementing a spinal treatment profile, an actuator (170) for producing a tensile force as defined in the treatment profile based on commands from the control system, a patient interface device (120) configured to apply the tensile force from the actuator to the spine of a patient, and a feedback system (160) configured to provide a metric resulting from the application of the tensile force to the spine to the control system, wherein the treatment profile includes a limit based on the metric related to the application of the tensile force to the spine such that, when the application of the tensile force to the spine results in a metric that exceeds the limit, the control system reduces the tensile force applied by the actuator to the spine.

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/020573

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61H1/02

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)

A61H A61F

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/007027 A (NORTH AMERICAN MEDICAL CORPORATION) 27 January 2005 (2005-01-27) page 10, line 24 - page 11, line 9; figures 1,4-9	1-8,17, 18
A	-----	9-16
X	DE 33 08 809 A1 (STEINDORF, SUSANNE, RUTH) 6 September 1984 (1984-09-06) page 20, paragraph 2 page 21, paragraph 3 - page 22, paragraph 1 page 27, paragraph 2; figures 1-4,7,8	17,18
A	----- -/--	9-16



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.

G document member of the same patent family

Date of the actual completion of the international search

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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

Fischer, Elmar

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 31 34 999 A1 (CHATTANOOGA CORP; CHATTANOOGA CORP., CHATTANOOGA, TENN., US) 27 May 1982 (1982-05-27) page 22, paragraph 1 page 24, paragraph 2; figures 1-3,6,7	17,18
A	-----	9-16
X	WO 00/09065 A (DYER, ALLAN, E) 24 February 2000 (2000-02-24) page 6, line 9 - page 7, line 25 page 12, last paragraph; figures 1,2	17,18
A	-----	9-16
X	WO 84/02075 A (LUNDBLAD, LEIF) 7 June 1984 (1984-06-07) page 3, lines 15-18 page 9, lines 30,31; figures 1,2	17,18
A	-----	9-16
A	DE 35 32 444 A1 (SCHNELL JOSEF SCHNELL JOSEF [DE]) 19 March 1987 (1987-03-19) column 3, lines 19-52 column 6, lines 19-30 -----	9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2006/020573

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.: 19, 20
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 therapy.
In particular, both independent method claims 19, 20 are directed to applying tension profiles to a spine of a patient, the purpose and inevitable effect
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.:

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

Continuation of Box II.1

Claims Nos.: 19, 20

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy.

In particular, both independent method claims 19, 20 are directed to applying tension profiles to a spine of a patient, the purpose and inevitable effect being therapeutic.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-6, 8, 17

A system for applying a distance based treatment profile, the system comprising a control system that monitors elongation of a spine of a patient relative to an intended elongation program.

2. claims: 7, 9-16, 18

A system for applying a tension based treatment profile, the system comprising a control system that monitors the work performed by an actuator relative to a predetermined work limit of the treatment profile.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/020573

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005007027 A	27-01-2005	NONE	
DE 3308809 A1	06-09-1984	NONE	
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