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(74) Agent: ROBINSON, Eagle, H.; Fulbright & Jaworski L.L.P., 98 San Jacinto Boulevard, Suite 1100, Austin, TX 78701 (US).

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(71) Applicant (for all designated States except US): KCI LICENSING, INC. [US/US]; P.O. Box 659508, San Antonio, TX 78265 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): STROH, Glenn [US/US]; c/o KCI Licensing, Inc., P.O. Box 659508, San Antonio, TX 78265 (US). VRZALIK, John [US/US]; c/o KCL Licensing, Inc., P.O. Box 659508, San Antonio, TX 78265 (US). LINA, Cesar [US/US]; c/o KCI Licensing, Inc., P.O. Box 659508, San Antonio, TX 78265 (US).

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— with international search report (Art. 21(3))

[Continued on next page]

(54) Title: PATIENT SUPPORT APPARATUSES AND METHODS

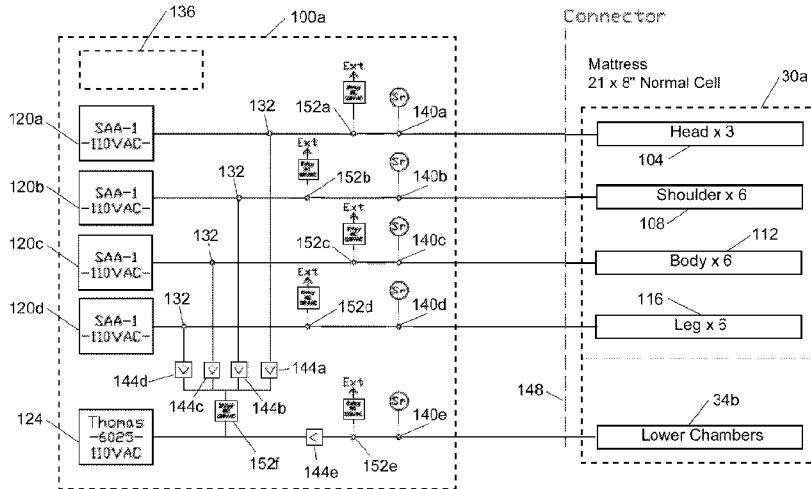


FIG. 7

(57) Abstract: Improved patient-support apparatuses and methods for rapid mattress inflation and pressure-compensation for changes in patient position.



(88) Date of publication of the international search report:
16 July 2015

INTERNATIONAL SEARCH REPORT

International application No PCT/US2011/049745

A. CLASSIFICATION OF SUBJECT MATTER INV. A61G7/057 ADD.

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)
A61G A47C

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
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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2008/060138 A1 (PRICE JAMES H [US] ET AL) 13 March 2008 (2008-03-13) paragraphs [0022] - [0053]; figures 4,6-9	1,4-8, 10,11
X	US 2004/237203 A1 (ROMANO JAMES J [US] ET AL) 2 December 2004 (2004-12-02) paragraphs [0060] - [0077]; claims 1,3,8; figures 13,14	1-4,6,7, 11-13
X	WO 02/45656 A2 (AUTONURSE INC [US]) 13 June 2002 (2002-06-13) page 19, line 3 - page 21, line 25; figure 7	1,4-7,11
X	EP 1 920 681 A2 (WANG CHENG-CHUNG [TW]; WANG KENNETH [TW]) 14 May 2008 (2008-05-14) paragraphs [0016] - [0027]; figures 11-21	1,4-7,11

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

Date of the actual completion of the international search

25 November 2011

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Name and mailing address of the ISA/
European Patent Office, P.O. 5818 Patenlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3018

Authorized officer

Petzold, Jan

INTERNATIONAL SEARCH REPORT

International application No.
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Box No. 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.: 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 No. 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 fees, this Authority did not invite payment of additional fees.

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.:

1-13

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 1-13

Patient-support apparatus with secondary fluid source for rapid inflation

2. claims: 14-27

Patient-support apparatus having an adjustment sensor to isolate a chamber if adjustment is ongoing

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2011/049745

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2008060138	A1	13-03-2008	US	2008060138 A1		13-03-2008
			US	2009183312 A1		23-07-2009

US 2004237203	A1	02-12-2004	US	2004237203 A1		02-12-2004
			US	2007163052 A1		19-07-2007

WO 0245656	A2	13-06-2002	AU	2596702 A		18-06-2002
			AU	2596802 A		18-06-2002
			US	2002133877 A1		26-09-2002
			US	2002144343 A1		10-10-2002
			WO	0245655 A2		13-06-2002
			WO	0245656 A2		13-06-2002

EP 1920681	A2	14-05-2008	CA	2610119 A1		10-05-2008
			CN	101219024 A		16-07-2008
			CN	102160725 A		24-08-2011
			EP	1920681 A2		14-05-2008
			JP	2008119473 A		29-05-2008
			SG	143164 A1		27-06-2008
			US	2008109958 A1		15-05-2008
			US	2008109962 A1		15-05-2008
			US	2008109963 A1		15-05-2008
			US	2010162489 A1		01-07-2010
