

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 January 2007 (25.01.2007)

PCT

(10) International Publication Number
WO 2007/012040 A3

(51) International Patent Classification:
E04C 2/52 (2006.01) G06K 7/08 (2006.01)
G02B 7/04 (2006.01)

R. [US/US]; 54 Doubling Road, Greenwich, CT 06830 (US).

(21) International Application Number:
PCT/US2006/028226

(74) Agent: RZUCIDLO, Eugene, C.; Hunton & Williams/New York, Intellectual Property Dept., 1900 K Street, N.W., Suite 1200, Washington, DC 20006-1109 (US).

(22) International Filing Date: 20 July 2006 (20.07.2006)

(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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, 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, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/701,106 20 July 2005 (20.07.2005) US

(71) Applicant (for all designated States except US): OPTI-MUS SERVICES, LLC [US/US]; 50 East 72nd Street, New York, NY 10021 (US).

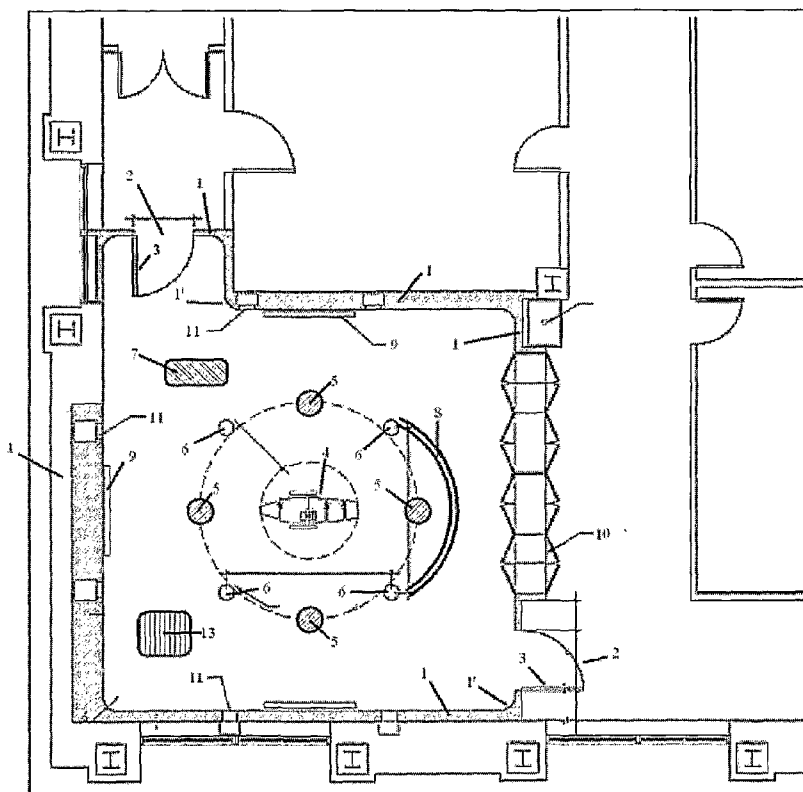
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

(72) Inventor; and

(75) Inventor/Applicant (for US only): MANGIARDI, John,

[Continued on next page]

(54) Title: HOSPITAL OPERATING ROOM RE-DESIGN



(57) Abstract: An improved operating room design is disclosed. Interfering connection devices, such as wires, cables, and hoses, are eliminated from the working area by use of disappearing floor pods mounted between a sub-floor and a finished floor. The floor pods recess flush with said finished floor, thereby allowing floor cleaning by a robotic device that incorporates disposable, sterile cleaning cartridges. Movable carts, such as an anesthesiology cart, are adapted for docking with said pods on the upper surface of said pods with connectors presented underneath said carts. Said pods provide numerous utility connections such as gas, vacuum, and electric. Gas and vacuum lines are preferably supplied from a universal adaptor. A surgical table is mounted on the sub-flooring of the operating room. AU utilities are fed to the table from underneath the floor. The surgery operating room has a wall with an array of built-in compartments for carrying medical supplies that allows access to personnel both in and outside the operating room. The operating room preferably also includes a ceiling with

focusing, "shadow-less" lights and/or a mounted imaging C-arm. Flat panel monitors are also embedded in one or more walls for real-time displays of information. In addition, the operating room walls provide a calming, ambient light by way of surfacing with translucent materials which are backlit.

WO 2007/012040 A3



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*

(88) Date of publication of the international search report:
13 December 2007

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.

PCT/US 06/28226

A. CLASSIFICATION OF SUBJECT MATTER IPC(8): G06F 017/60 (2007.01), G02B 704 (2007.01), G06k 7/08 (2007.01), B25J 8/00 (2007.01) USPC: 52/220.1, 705/2, 250/201.2, 4, 235/385, 901/1 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) USPC: 52/220.1, 705/2, 250/201.2, 4, 235/385, 901/1 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 52/220.1, 220.2, 220.3, 220.4, 220.5, 220.6, 220.7, 220.8, 312/283, 286 (text search, see terms below) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(USPT,PGPB); Search Terms: floor, flush, even, transparent, window, receptacle, disposable, clean, sweep, sterilize, battery, floor, interlock, dovetail, backlight																												
C. DOCUMENTS CONSIDERED TO BE RELEVANT																												
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:10%;">Category*</th> <th style="width:70%;">Citation of document, with indication, where appropriate, of the relevant passages</th> <th style="width:20%;">Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">X - Y</td> <td style="vertical-align: top;">US 6,202,360 B1 (RATTNER et al.) 20 March 2001 (20.03.2001), col 1, ln 44 to col 6, ln 55, Fig 1 and 2</td> <td style="vertical-align: top;">1,6-9,13-15,21-24,26-30, 38,42-51,54,55,59-61,67, 68,77,81-84,88-91,93 ----- 2-5, 10-12, 16-20, 25, 31-37, 39-41, 52, 53, 56-58, 62-66, 69-76, 78-80, 85-87, 92, 94-105</td> </tr> <tr> <td style="vertical-align: top;">Y</td> <td style="vertical-align: top;">US 5,967,780 A (MORRISSEY) 19 October 1999 (19.10.1999), col 2, ln 5-18, col 4, ln 27-33, col 4, ln 27-33, Fig 1-4</td> <td style="vertical-align: top;">2-5 and 53</td> </tr> <tr> <td style="vertical-align: top;">Y</td> <td style="vertical-align: top;">US 6,415,552 B1 (KHOSROPOUR) 09 July 2002 (09.07.2002), col 2, ln 3-15, col 2, ln 63 to col 4, ln 12, col 5, ln 36-48, Fig 1-3</td> <td style="vertical-align: top;">10-12, 56-58, 92</td> </tr> <tr> <td style="vertical-align: top;">Y</td> <td style="vertical-align: top;">US 5,097,950 A (WEISS et al.) 24 March 1992 (24.03.1992), col 3, ln 38-51, col 5, ln 33-51</td> <td style="vertical-align: top;">16-20 and 62-66, 98</td> </tr> <tr> <td style="vertical-align: top;">Y</td> <td style="vertical-align: top;">US 2003/0161152 A1 (JESURUN et al.) 28 August 2003 (28.08.2003), Fig 1</td> <td style="vertical-align: top;">25, 52</td> </tr> <tr> <td style="vertical-align: top;">Y</td> <td style="vertical-align: top;">US 5,959,423 A (NAKANISHI et al.) 28 September 1999 (28.09.1999), col 1, ln 62-67, col 2, ln 66 to col 3, ln 2, col 4, ln 60 to col 5, ln 40, col 13, ln 44-49</td> <td style="vertical-align: top;">31-33, 39-41, 69-72, 78-80, 87, 97, 99, 100</td> </tr> <tr> <td style="vertical-align: top;">Y</td> <td style="vertical-align: top;">US 5,992,108 A (FALCEY) 30 November 1999 (30.11.1999), col 3, ln 42 to col 4, ln 32, Fig 2</td> <td style="vertical-align: top;">34, 73</td> </tr> <tr> <td style="vertical-align: top;">Y</td> <td style="vertical-align: top;">US 6,311,441 B1 (BEAVERS et al.) 06 November 2001 (06.11.2001), col 5, ln 14-33</td> <td style="vertical-align: top;">35, 36, 74, 75, 94, 95</td> </tr> </tbody> </table>	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X - Y	US 6,202,360 B1 (RATTNER et al.) 20 March 2001 (20.03.2001), col 1, ln 44 to col 6, ln 55, Fig 1 and 2	1,6-9,13-15,21-24,26-30, 38,42-51,54,55,59-61,67, 68,77,81-84,88-91,93 ----- 2-5, 10-12, 16-20, 25, 31-37, 39-41, 52, 53, 56-58, 62-66, 69-76, 78-80, 85-87, 92, 94-105	Y	US 5,967,780 A (MORRISSEY) 19 October 1999 (19.10.1999), col 2, ln 5-18, col 4, ln 27-33, col 4, ln 27-33, Fig 1-4	2-5 and 53	Y	US 6,415,552 B1 (KHOSROPOUR) 09 July 2002 (09.07.2002), col 2, ln 3-15, col 2, ln 63 to col 4, ln 12, col 5, ln 36-48, Fig 1-3	10-12, 56-58, 92	Y	US 5,097,950 A (WEISS et al.) 24 March 1992 (24.03.1992), col 3, ln 38-51, col 5, ln 33-51	16-20 and 62-66, 98	Y	US 2003/0161152 A1 (JESURUN et al.) 28 August 2003 (28.08.2003), Fig 1	25, 52	Y	US 5,959,423 A (NAKANISHI et al.) 28 September 1999 (28.09.1999), col 1, ln 62-67, col 2, ln 66 to col 3, ln 2, col 4, ln 60 to col 5, ln 40, col 13, ln 44-49	31-33, 39-41, 69-72, 78-80, 87, 97, 99, 100	Y	US 5,992,108 A (FALCEY) 30 November 1999 (30.11.1999), col 3, ln 42 to col 4, ln 32, Fig 2	34, 73	Y	US 6,311,441 B1 (BEAVERS et al.) 06 November 2001 (06.11.2001), col 5, ln 14-33	35, 36, 74, 75, 94, 95	<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>
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* 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 application or patent 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 17 May 2007 (17.05.2007)	Date of mailing of the international search report <div style="text-align: center; font-size: 1.2em; font-weight: bold;">26 SEP 2007</div>																											
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: <div style="text-align: right;">Lee W. Young</div> PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774																											

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 06/28226

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/0224729 A1 (ARNOLD) 04 December 2003 (04.12.2003), para [0007], [0028]-[0032]	37, 76, 85, 86, 96, 101-105

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 06/28226

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:
Four inventions comprising the following claim sets:

- 1. 1-45 and 84-98;
- 2. 46-83;
- 3. 101-105;
- 4. 99-100.

- 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 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.:

- 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.