

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 April 2010 (22.04.2010)

PCT

(10) International Publication Number
WO 2010/045267 A3

(51) International Patent Classification:
G03B 42/04 (2006.01)

(21) International Application Number:
PCT/US2009/060559

(22) International Filing Date:
13 October 2009 (13.10.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/250,164 13 October 2008 (13.10.2008) US

(71) Applicant (for all designated States except US): **MDX LABORATORIES, LLC** [US/US]; 36 Lawrence St., Watertown, MA 02472 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **NGO, Peter, D.** [US/US]; Mdx Laboratories, Llc, 36 Lawrence St., Watertown, MA 02472 (US).

(74) Agent: **LONG, Michael, A.**; Aexius, LLC, 904 Silver Spur Road, #310, Rolling Hills Estates, CA 90274 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(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, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

[Continued on next page]

(54) Title: ANATOMICAL MARKER FOR X-RAY ORIENTATION

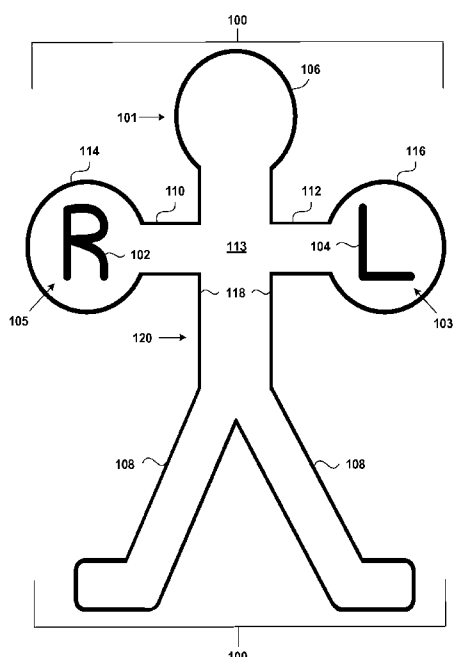


FIG. 1

(57) Abstract: A radiopaque marker (100) for more effectively orienting a radiological image (1106) to a patient's body position (1602) is disclosed. A method for orienting a radiological image with a patient's body position comprises forming (1400) a marker (100) with a first side indicator (102) and a second side indicator (104) substantially opposite the first side indicator (102). A device in accordance with the present invention comprises a radiopaque marker (100) comprising a first side indicator (102), a second side indicator (104), and a humanoid shape (100).



WO 2010/045267 A3



— *as to non-prejudicial disclosures or exceptions to lack of novelty (Rule 4.17(v))* — *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

Published:

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

(88) Date of publication of the international search report:

10 June 2010

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2009/060559

A. CLASSIFICATION OF SUBJECT MATTER
INV. G03B42/04
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)
G03B

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, PAJ, 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	US 5 592 527 A (RAY MICHAEL A [US]) 7 January 1997 (1997-01-07) figures 1,6 claim 13	1,35,36, 51,52
X	----- US 2004/052333 A1 (SAYRE JAMES [US] ET AL) 18 March 2004 (2004-03-18)	1-11,13, 15-31, 33,34, 38, 40-42, 46-50, 53-58
Y	paragraph [0019] - paragraph [0025] figure 2a	12,14, 32,37, 39,43-45
	----- -/--	

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

13 April 2010

Date of mailing of the international search report

19/04/2010

Name and mailing address of the ISA/
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Breccia, Luca

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2009/060559

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 5 640 438 A (TALLUTO VINCENT J [US] ET AL) 17 June 1997 (1997-06-17) figure 2 -----	12
Y	US 2005/000133 A1 (RUSSELL DONALD G [US]) 6 January 2005 (2005-01-06) figures 17,18 -----	14,32,39
Y	JP 2004 254933 A (SHIMADZU CORP) 16 September 2004 (2004-09-16) figure 6 -----	37,43-45
A	US 6 356 621 B1 (FURUMORI KENJI [JP] ET AL) 12 March 2002 (2002-03-12) abstract -----	14,32
A	US 5 077 778 A (FABIAN CARL E [US]) 31 December 1991 (1991-12-31) figure 2 -----	8,9,19, 20,58
A	US 5 657 366 A (NAKAYAMA MASANARI [JP]) 12 August 1997 (1997-08-12) figure 1 -----	15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/060559

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5592527	A	07-01-1997	NONE	
US 2004052333	A1	18-03-2004	US 2005152841 A1	14-07-2005
US 5640438	A	17-06-1997	NONE	
US 2005000133	A1	06-01-2005	US 2007163139 A1	19-07-2007
JP 2004254933	A	16-09-2004	NONE	
US 6356621	B1	12-03-2002	AT 333085 T DE 60029276 T2	15-08-2006 23-11-2006
US 5077778	A	31-12-1991	AU 8422291 A DE 69105208 D1 DE 69105208 T2 EP 0545959 A1 WO 9203760 A1	17-03-1992 22-12-1994 23-03-1995 16-06-1993 05-03-1992
US 5657366	A	12-08-1997	NONE	