

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



PCT



(43) International Publication Date
29 May 2008 (29.05.2008)

(10) International Publication Number
WO 2008/062474 A3

(51) **International Patent Classification:**
A61B 19/00 (2006.01)

MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(21) **International Application Number:**
PCT/IN2007/000502

(22) **International Filing Date:** 22 October 2007 (22.10.2007)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) **Priority Data:**
1756/MUM/2006 23 October 2006 (23.10.2006) IN

(71) **Applicant and**

(72) **Inventor:** SAHNI, Hirdesh [IN/IN]; 17B Wanowrie Road, Wanowrie, Pune 411040 (IN).

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

(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, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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).

Declarations under Rule 4.17:

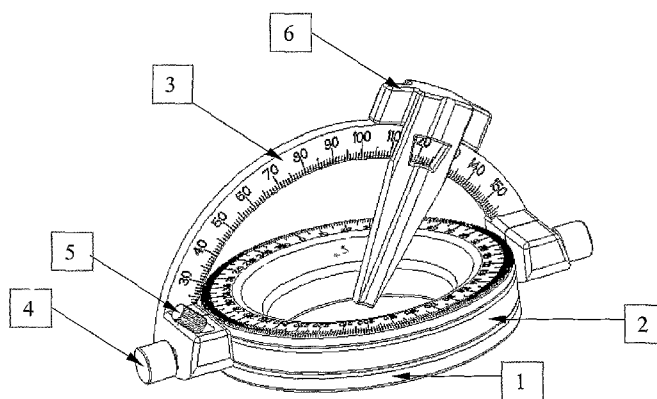
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(U))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))
- of inventorship (Rule 4.17(iv))

Published:

- with international search report

(88) **Date of publication of the international search report:**
9 October 2008

(54) **Title:** AN IMAGE GUIDED WHOLE BODY STEREOTACTIC NEEDLE PLACEMENT DEVICE WITH FALLING ARC



(57) **Abstract:** The present invention provides an Image guided whole body stereotactic needle placement device with falling arc (3), comprising a circular base plate (1), a circular supporting ring (2) that is placed in the groove (8) in base plate (1) for supporting ring 2), a carrying arc (3) for needle guide (6) which has a foot (23) on either side, a fixing screw (4) which fixes the carrying arc (3) for the needle guide (6) with the supporting ring (2) and the base plate (1), a locking pin (29) which fixes the carrying arc (3) for needle guide (6) with the supporting ring (2) making the carrying arc (3) for the needle guide (6) perpendicular to the base plate (1) and a needle guide (6) that slides on the superior surface of the carrying arc (3) for the needle. This device is both CT and MR compatible, and can be used for precisely positioning a needle tip at a particular point inside the body. The needle can be used for taking tissue samples / delivering drugs/ delivering energy to ablate tissues / aspirating cystic lesions. The patient has to hold breath while the needle is being passed into regions that move on respiration. This device has a falling arc that allows quick release of the needle after placement, so as to quickly allow free breathing for the patient. This feature allows utilisation of this device in chest and abdomen also. The device can be placed on the skin or on the exposed organ during surgery. The device is light weight, small and can be used in patients of any age.



WO 2008/062474 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/IN 2007/000502

A CLASSIFICATION OF SUBJECT MATTER IPC⁸: A61B 19/00 (2006.01) 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) IPC⁸: A61B 19/00 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 practicable, search terms used) WPI		
C DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 5 10041 1 A (KOUTROUVELIS) 31 March 1992 (31.03.1992) <i>whole document</i> --	1
A	US 5242455 A (SKEENS) 7 September 1993 (07.09.1993) <i>whole document</i> ----	1
☐ 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 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 6 June 2008 (06.06.2008)		Date of mailing of the international search report 21 July 2008 (21.07.2008)
Name and mailing address of the ISA/ AT Austrian Patent Office Dresdner Straße 87, A-1200 Vienna Facsimile No +43 / 1 / 534 24 / 535		Authorized officer NARDAI F. Telephone No +43 / 1 / 534 24 / 347

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/IN 2007/000502

Patent document cited in search report			Publication date		Patent family member(s)	Publication date
us	A	5100411			us A 5575798	1996-11 -19
					us A 5308352	1994-05-03
					us A 5100411	1992-03-31
us	A	5242455			us A 5464410	1995-11-07
					us A 5242455	1993 -09-07