#### (19) World Intellectual Property **Organization**

International Bureau



## 

(43) International Publication Date 6 January 2005 (06.01.2005)

**PCT** 

#### (10) International Publication Number WO 2005/000097 A3

(51) International Patent Classification<sup>7</sup>:

A61B 18/18

(21) International Application Number:

PCT/US2004/018452

(22) International Filing Date: 9 June 2004 (09.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/477,532 10 June 2003 (10.06.2003)

(71) Applicant (for all designated States except US): THE FOUNDRY, INC. [US/US]; 199 Jefferson Drive, Menlo Park, CA 94025 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): GIFFORD, Hanson,

S. [US/US]; 3180 Woodside Road, Woodside, CA 94062 (US).

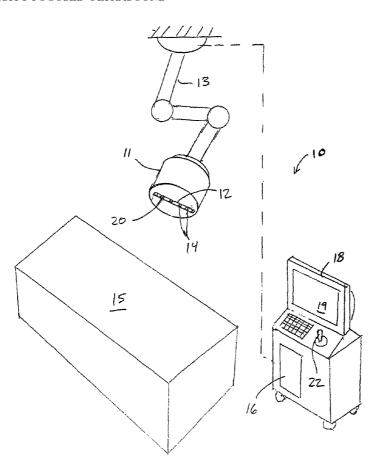
(74) Agent: HEISEY, David, E.; Luce, Forward, Hamilton & Scripps LLP, 11988 El Camino Real, Suite 200, San Diego, CA 92130 (US).

(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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,

(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,

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR NON-INVASIVELY TREATING ATRIAL FIBRILLATION USING HIGH IN-TENSITY FOCUSED ULTRASOUND



(57) Abstract: Methods and apparatus are provided that enable a physician to image tissue within the body that is to be ablated, and then to ablate that tissue using a device having an ultrasound imaging system and an aligned high intensity focused ultrasound system.

### WO 2005/000097 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, IT, LU, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

# (88) Date of publication of the international search report: $19~\mathrm{May}~2005$

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/US04/18452

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : A 61B 18/18  US CL : 606/27  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) U.S.: 606/27, 28, 29, 30; 607/96	
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)	
C. DOCUMENTS CONSIDERED TO BE RELEVANT	
Category * Citation of document, with indication, where a	ppropriate, of the relevant passages Relevant to claim No.
X US 2003/0014093 A1 (Makin) 16 Jan. 2003, see ent	ire document 1-22
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	"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
of particular relevance  "E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the art
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international rearch report
07 November 2004 (07.11.2004) Name and mailing address of the ISA/US	Authorized officer
Mail Stop PCT, Attn: ISA/US	- en la la
Commissioner for Patents P.O. Box 1450	Rosiland S Rollins Telephone No. 703/3080858
Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	1 telephone 140. 703/3000030
form PCT/ISA/210 (second sheet) (January 2004)	