

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 October 2000 (05.10.2000)

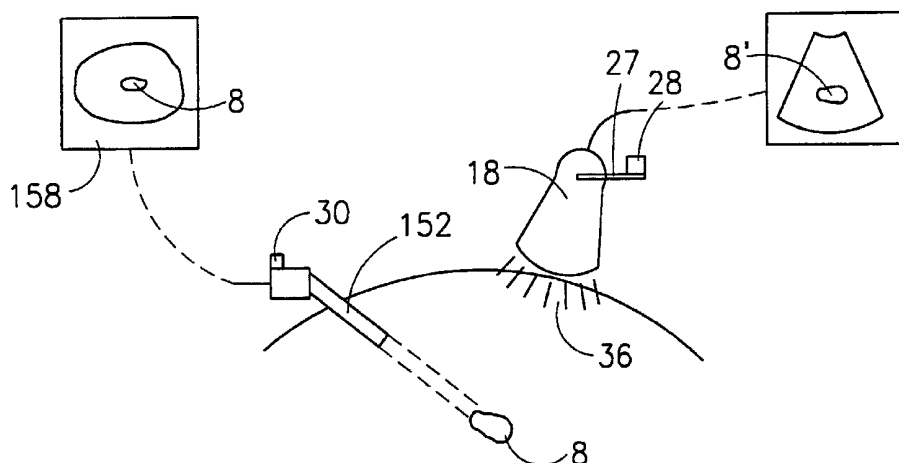
PCT

(10) International Publication Number
WO 00/57767 A3

- (51) International Patent Classification⁷: **A61B 8/00** (74) Agent: **EITAN, PEARL, LATZER & CO-**
HEN-ZEDEK; Gav Yam Center 2, Shenkar Street 7,
46725 Herzlia (IL).
- (21) International Application Number: **PCT/IL00/00202**
- (22) International Filing Date: **30 March 2000 (30.03.2000)** (81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE,
DK, DM, DZ, EE, 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, NO, NZ,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
60/127,267 31 March 1999 (31.03.1999) **US**
- (71) Applicant (*for all designated States except US*): **UL-**
TRAGUIDE LTD. [IL/IL]; Etgar Street 1, 39032 Tirat
Hacarmel Industrial Park (IL).
- (72) Inventors; and (84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent
(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GW, ML, MR, NE, SN, TD, TG).
- (75) Inventors/Applicants (*for US only*): **SEGALESCU, Vic-**
tor [IL/IL]; Keren Hiesod Street 15, 34970 Haifa (IL).
PALTIELI, Yoav [IL/IL]; Einstein Street 75, 34602 Haifa
(IL).
- Published:
— With international search report.

[Continued on next page]

(54) Title: APPARATUS AND METHODS FOR MEDICAL DIAGNOSTIC AND FOR MEDICAL GUIDED INTERVENTIONS AND THERAPY



(57) Abstract: The apparatus, and methods introduced in the present invention are enabled to measure the relative position between different medical imaging devices (18)(152), between the image planes, and/or image volumes produced by them by means of using a position measuring system based with attachable position measuring components (28)(30). This facilitates image fusing when images of the same plane/volume are available from different medical imaging systems. Additionally/alternately it enables to position a second medical imaging device over a desire area/volume according to information received from the image produced by the first medical imaging device.



(88) Date of publication of the international search report:
11 January 2001

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/IL00/00202

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :A61B 8/00

US CL :600/427

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. : 128/899; 600/407, 417, 427, 429, 439, 446, 459, 461; 606/130

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 appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/03609 A (PALTIELI) 06 February 1997, entire document.	1-38
Y	US 5,529,070 A (AUGUSTINE et al.) 25 June 1996, Figs. 5-7, and col. 6 line 31 to col. 7 line 9.	1-38
Y	US 5,662,111 A (COSMAN) 02 September 1997, Figs. 4-7, col. 6 lines 9-49, and claims 1-9.	1-38
Y	US 5,829,444 A (FERRE et al.) 03 November 1998, Figs. 8-13, col. 5 lines 40-52, col. 6 lines 3-8, and col. 7 lines 11-39.	1-38



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	"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
"E" earlier document 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 being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

09 SEPTEMBER 2000

Date of mailing of the international search report

12 OCT 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

SHAWNA J. SHAW

Telephone No. (703) 308-2985