

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 April 2001 (26.04.2001)

PCT

(10) International Publication Number
WO 01/28496 A3

(51) International Patent Classification⁷: A61B 19/00

(21) International Application Number: PCT/US00/41213

(22) International Filing Date: 18 October 2000 (18.10.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/419,538 18 October 1999 (18.10.1999) US

(71) Applicant and

(72) Inventor: JESSEPH, Jerry, M. [US/US]; 2131 Meadow Bluff Ct., Bloomington, IN 47401 (US).

(74) Agents: USHER, Arthur, J., IV et al.; Woodard, Emhardt, Naughton, Moriarty & McNett, Bank One Center/Tower, Suite 3700, 111 Monument Circle, Indianapolis, IN 46204 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, 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, MZ, 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.

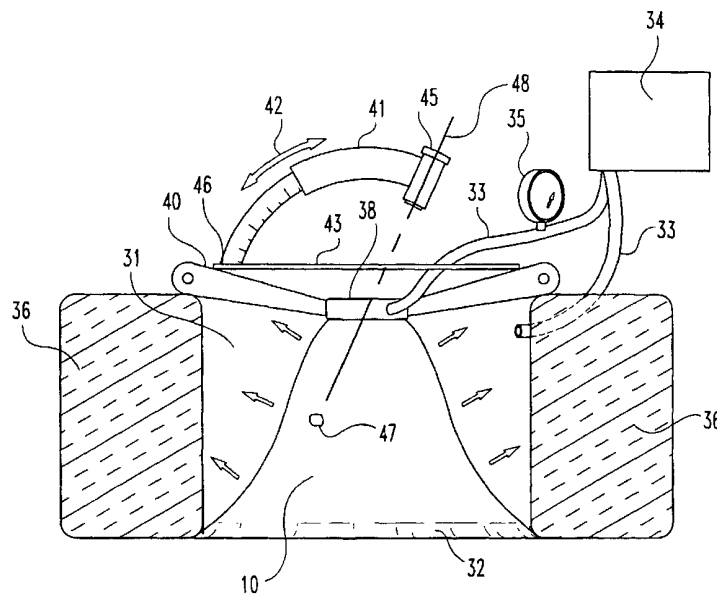
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

(88) Date of publication of the international search report:
10 January 2002

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.

(54) Title: DEVICE AND METHOD FOR IMPROVED DIAGNOSIS AND TREATMENT OF CANCER



(57) Abstract: A device (20, 30), in several configurations, which fixes a breast (10) in distended, stable position using negative pressure, and minimizes or halts lymphatic flow from the breast (10). The invention allows for improvement in imaging (26, 36) and intervention in diagnosis and treatment of early stage human breast cancer. An image-guided system (40, 41, 42) which allows accurate and bloodless access to breast tissue; guided by MRI or CT (26, 36); using a unique saw (101, 160, 260) and cautery (133, 135, 175, 185, 233, 235, 275, 285, 295) device; in linear (110, 210) and rotary (166, 266) configurations to remove small or large lesions (47, 80) from the breast (10).



WO 01/28496 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/41213

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :A61B 19/00
US CL :606/130

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. : 606/130, 177, 39, 82; 601/14, 7; 600/106.

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)

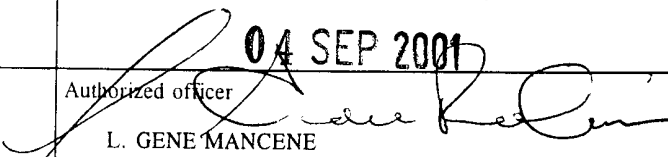
cauter\$ AND cannula AND cut\$
saw WITH tissue

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y --- A	US 5,415,620 A (Chen) May 1995, entire document.	14, 16 and 17-19 ----- 15 --- 1-13 and
Y	US 3,786,801 A (Sartorius) 22 January 1974, Fig. 5.	15
X --- A	US 5,632,717 A (Yoon) 27 May 1997, all.	48 --- 49-52
X --- A	US 5,846,244 A (Cripe) 08 December 1998, Fig. 3.	20 & 21 ----- 22-38 and 53-61

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier document published on or after the international filing date	"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
"L" document which may throw doubts on priority claims, or which is cited to establish the publication date of another citation or other special reason (as specified)	"R" document member of the same patent family
"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	

Date of the actual completion of the international search 10 JANUARY 2001	Date of mailing of the international search report 04 SEP 2001
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  L. GENE MANCENE Telephone No. (703) 308-2696

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/41213

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,869,268 A (Yoon) 26 September 1989, Figs. 48-55.	39-47