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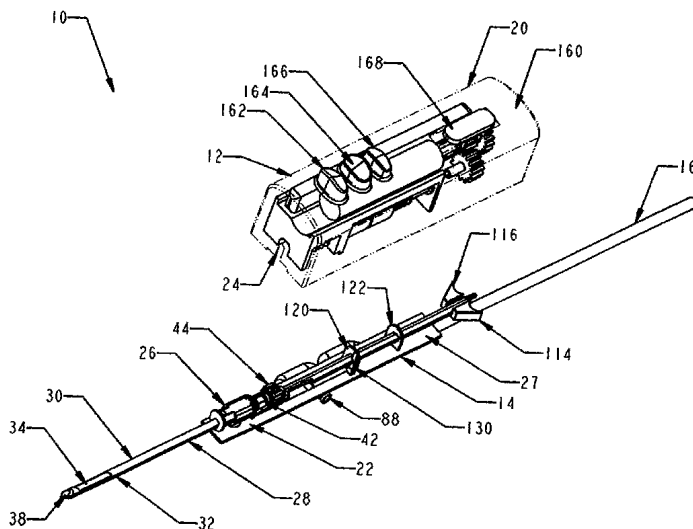
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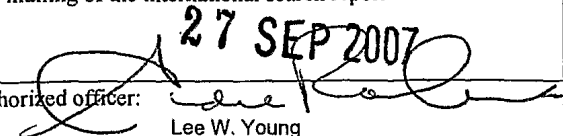
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(54) Title: BIOPSY DEVICE WITH REPLACEABLE PROBE AND INCORPORATING VIBRATION INSERTION ASSIST AND STATIC VACUUM SOURCE SAMPLE STACKING RETRIEVAL



(57) Abstract: A biopsy device and method are provided for obtaining a tissue sample, such as a breast tissue biopsy sample. The biopsy device includes a disposable probe assembly with an outer cannula having a distal piercing tip, a cutter lumen, and a cutter tube that rotates and translates past a side aperture in the outer cannula to sever a tissue sample. The biopsy device also includes a reusable hand piece with an integral motor and power source to make a convenient, untethered control for use with ultrasonic imaging. The reusable hand piece incorporates a probe oscillation mode to assist when inserting the distal piercing tip into tissue. A straw stacking assembly is automatically positioned by the reusable hand piece to retract multiple samples with a single probe insertion as well as giving a visual indication to the surgeon of the number of samples that have been taken.

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A. CLASSIFICATION OF SUBJECT MATTER IPC(8): A61B 10/00 (2007.01) USPC: 600/566; 600/567 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) USPC: 600/566; 600/567 IPC(8): A61B 10/00 (2007.01)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 600/300, 562-572, 600/411, 606/167, 606/171		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST (USPT,USOC,EPAB,JPAB; PLUR) and Google Patents (http://www.google.com/patents). Please see form 300 for a more comprehensive listing of search terms. However, search terms included, e.g., "biopsy" and "vacuum" and "probe" and "needle" and "tip" and "cutting lumen" and "sample" and "plurality."		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 6,237,862 B1 (PRIVITERA ET AL.) 14 August 2001 (14.08.2001): col 13, ln 24-26; fig. 1K, item 60; col 22, ln 1; col 22, ln 7-8; col 9, ln 2; col 3, ln 38; col 3, ln 40; col 11, ln 3-4; fig. 6A-6B, item 104; col 12, ln 7; col 3, ln 40; col 8, ln 37; col 9, ln 24-25; col 5, ln 21-22; col 5, ln 30-31; col 5, ln 21-22; col 5, ln 30-31	1-3, 6, 8-10, 17, 19, 30-32, 34 and 43 ----- 4-5, 7, 11-16, 18, 20-29, 33 and 35-42
Y	US 5,234,000 A (HAKKY ET AL.) 10 August 1993 (10.08.1993): col 4, ln 60-62; col 5, ln 18-20; col 5, ln 10; col 5, ln 17-20; col 2, ln 37; col 3, ln 55-56; col 4, ln 3; fig. 1, element 22; col 4, ln 61-63	4-5, 7, 23-24, 26, 39, and 42
Y	US 6,849,080 B2 (LEE ET AL.) 1 February 2005 (01.02.2005): col 22, ln 22	35-36
Y	US 3,630,192 A (JAMSHIDI) 28 December 1971 (28.12.1971): col 3, ln 35-37; fig. 4	11 and 29
Y	US 5,601,585 A (BANIK ET AL.) 11 February 1997 (11.02.1997): col 1, ln 51-53; 2, ln 3-10	12-13, 33, and 40-42
Y	US 4,600,014 A (BERAHA) 15 July 1986 (15.07.1986): col 3, ln 2; col 3, ln 5; col 5, ln 41-42	16
Y	US 5,645,209 A (GREEN ET AL.) 8 July 1997 (08.07.1997): col 30, ln 21-27; fig. 66, element 850; fig. 66, element 826; col 32, ln 46-49; col 33, ln 1-5; fig. 85, element 926	18 and 20-29
Y	US 4,051,852 A (VILLARI) 4 October 1977 (04.10.1977): col 3, ln 14-21	4-5 and 23
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer:  Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

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 6,638,235 B2 (MILLER ET AL.) 28 October 2003 (28.10.2003): col 12, ln 15-23	37-39
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Y	US 6,213,957 B1 (MILLIMAN ET AL.) 10 April 2001 (10.04.2001): col 8, ln 45-46; col 8, ln 41-42	15
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