

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 February 2008 (21.02.2008)

PCT

(10) International Publication Number
WO 2008/020439 A3

(51) International Patent Classification:

A61B 10/02 (2006.01) A61B 19/00 (2006.01)
A61B 17/00 (2006.01) A61B 10/04 (2006.01)
A61B 17/34 (2006.01)

(21) International Application Number:

PCT/IL2007/001017

(22) International Filing Date: 19 August 2007 (19.08.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

177550 17 August 2006 (17.08.2006) IL

(71) Applicant (for all designated States except US): **SIALO TECHNOLOGY ISRAEL LTD** [IL/IL]; 11/27 Ben Gurion St., 78281 Ashkelon (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BRESLAUER, Reuven** [IL/IL]; 11/27 Ben Gurion St., 78281 Ashkelon (IL). **NAHLIELI, Oded** [IL/IL]; 41 Givati St., 78471 Ashkelon (IL).

(74) Agent: **DR EYAL BRESSLER LTD**; Lazrom House, 11 Tuval St., 52522 Ramat-gan (IL).

(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, 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.

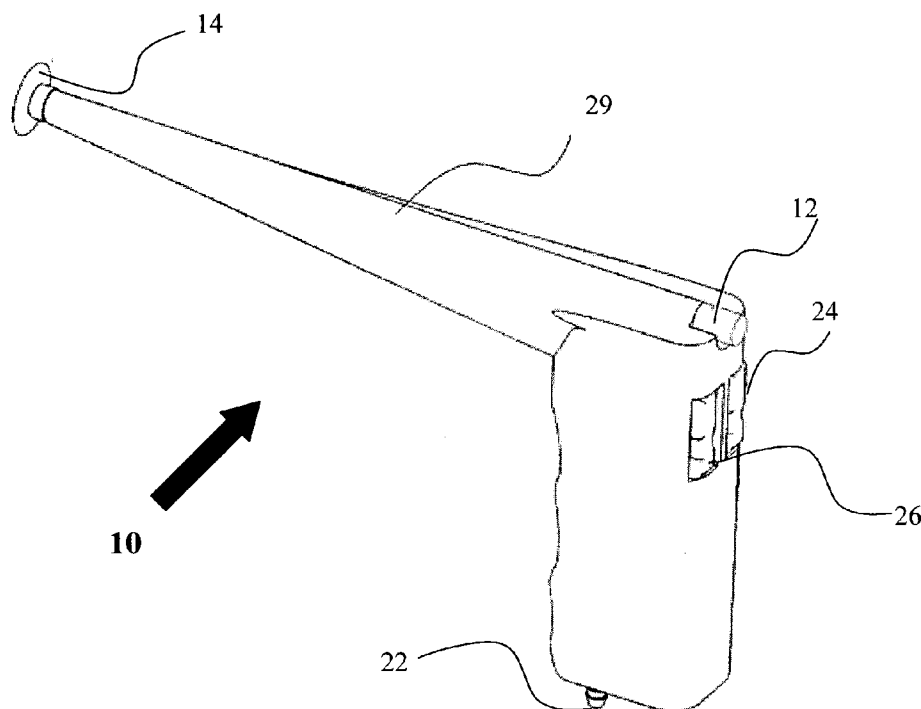
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, 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).

Published:

— with international search report

[Continued on next page]

(54) Title: ALL-IN-ONE OPTICAL MICROSCOPIC HANDLE



(57) Abstract: The present invention discloses an all-in-one fine needle aspiration means (FNA) for precision guidance and improved control of needle for ease of insertion, manipulation and efficient extraction of sample and a method thereof. Said FNA comprises means selected from a mechanically or electronically stabilized effector; a mechanical or automated needle insertion and manipulation mechanism; optical means; a mechanical or automated vacuum or suction mechanism; and a biopsy collection receptacle.

WO 2008/020439 A3



-
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*
- *the filing date of the international application is within two months from the date of expiration of the priority period*
- (88) Date of publication of the international search report:
3 April 2008

INTERNATIONAL SEARCH REPORT

International application No

PCT/IL2007/001017

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B10/02

ADD. A61B17/00 A61B17/34 A61B19/00 A61B10/04

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)

A61B

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 practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 228 039 B1 (BINMOELLER KENNETH F [US]) 8 May 2001 (2001-05-08) column 1, line 12 column 3, lines 10-12 column 3, line 40 - column 4, line 55 figures 2,3	1-4,6-8, 11,13, 15-17,19
X	WO 2005/096953 A (WILSON COOK MEDICAL INC [US]; SURTI VIHAR [US]) 20 October 2005 (2005-10-20) figures 1,2,4,7 paragraphs [0003], [0004], [0009], [0023], [0028], [0030], [0031], [0035], [0036], [0038] ----- -/--	1-4,6-8, 11,13, 15,19

☒ 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 document 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

28 January 2008

Date of mailing of the international search report

04/02/2008

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Louka, Maria

INTERNATIONAL SEARCH REPORT

International application No

PCT/IL2007/001017

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/01074 A (BOSTON SCIENT CORP [US]) 15 January 1998 (1998-01-15) page 1, lines 20-25 page 4, lines 1-22 page 5, lines 11-19 page 6, lines 20-30 page 7, lines 14-16,31 figures 4,5,10,12 -----	1-13, 15-21
A	WO 94/10920 A (CLARUS MEDICAL SYSTEMS INC [US]; FINN MILES A [US]; POSS THOMAS A [US]) 26 May 1994 (1994-05-26) claims 5,6 figures 1,3a -----	17,20-22
A	DE 39 20 706 A1 (FOERSTER ERNST [DE]; DOMSCHKE WOLFRAM [DE]) 10 January 1991 (1991-01-10) column 2, lines 38-65 figure 5 -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL2007/001017

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 24
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery, see the step "inserting and manipulating the mechanical or automated needle mechanism"
2. ☒ Claims Nos.: 14, 23, 25
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

Continuation of Box II.1

Claims Nos.: 24

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery, see the step "inserting and manipulating the mechanical or automated needle mechanism"

Continuation of Box II.2

Claims Nos.: 14, 23, 25

Lack of clarity:

i) The handset specified in claim 23 has no antecedent in claim 1 and the features present in claim 23 are identical to those of claim 1, hence it is unclear what the difference between claim 23 and claim 1 is.

ii) The method of utilising a handset (as the one specified in claim 23, hence unclear scope of protection) of claim 25 comprises the step or steps of providing adaptation for precision guidance and improved control of needle for ease of insertion, manipulation and efficient extraction of sample which is, due to unclear, undefined wording ambiguous.

iii) The insert referred to in claim 14 has no antecedent in claim 1 and makes ambiguous its scope of protection.

The use of the above explained ambiguous wording is considered to lead to a lack of clarity that makes it impossible to compare these claims to the prior art. As a result, the application does not comply with the requirement of clarity under Article 6 PCT.

The lack of clarity is to such an extent, that no meaningful search could be performed

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2)PCT declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IL2007/001017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6228039	B1	08-05-2001	AT 336943 T 15-09-2006
		DE 29708149 U1	25-09-1997
		DK 0983021 T3	27-12-2006
		EP 0983021 A2	08-03-2000
		ES 2271998 T3	16-04-2007
		WO 9849943 A2	12-11-1998
		JP 2002505595 T	19-02-2002
WO 2005096953	A	20-10-2005	US 2005228312 A1 13-10-2005
WO 9801074	A	15-01-1998	CA 2260147 A1 15-01-1998
		DE 69728277 D1	29-04-2004
		DE 69728277 T2	12-08-2004
		EP 0925034 A1	30-06-1999
		JP 3943600 B2	11-07-2007
		JP 2000516112 T	05-12-2000
		US 6296608 B1	02-10-2001
		US 2001047135 A1	29-11-2001
WO 9410920	A	26-05-1994	AU 3069392 A 08-06-1994
		DE 69229486 D1	29-07-1999
		DE 69229486 T2	11-11-1999
		EP 0726733 A1	21-08-1996
DE 3920706	A1	10-01-1991	NONE