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(71) Applicant: **RAINBOW MEDICAL LTD** [IL/IL]; 85 Medinat Hayehudim Street, P.O. Box 4100, 46140 Herzliya (IL).

(72) Inventors: **GROSS, Yossi**; 10 HaNotea Street, 73160 Moshav Mazor (IL). **KARDOSH, Michael**; Hakeshet 4, Kiriat Ono (IL). **KISHON, Amir**; Yael Rom 3/38, Petach

Tikva (IL). **SADAN, Ido**; Emanuel Haromi 18, Tel Aviv (IL). **YALOM, Jonathan**; Shlonski 56/13, Tel Aviv (IL). **SOHN, Zev**; 18 HaHadas Street, 44853 Ginot Shomron (IL). **GINO, Omri**; Ramhal 6, Herzliya (IL). **YANOVITZ, Leonid**; 18 Yehezkel Hanavi, Rishon Lezion (IL). **RIMER-COHEN, Ofir**; 9 Kalman Bialer St., Rehovot (IL).

(74) Agent: **COLB, Sanford T.**; Sanford T. Colb & Co., 4 Shaar Hagai Street, P.O. Box 2273, Rehovot 76122 (IL).

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[Continued on next page]

(54) Title: PERICARDIAL ACCESS DEVICE

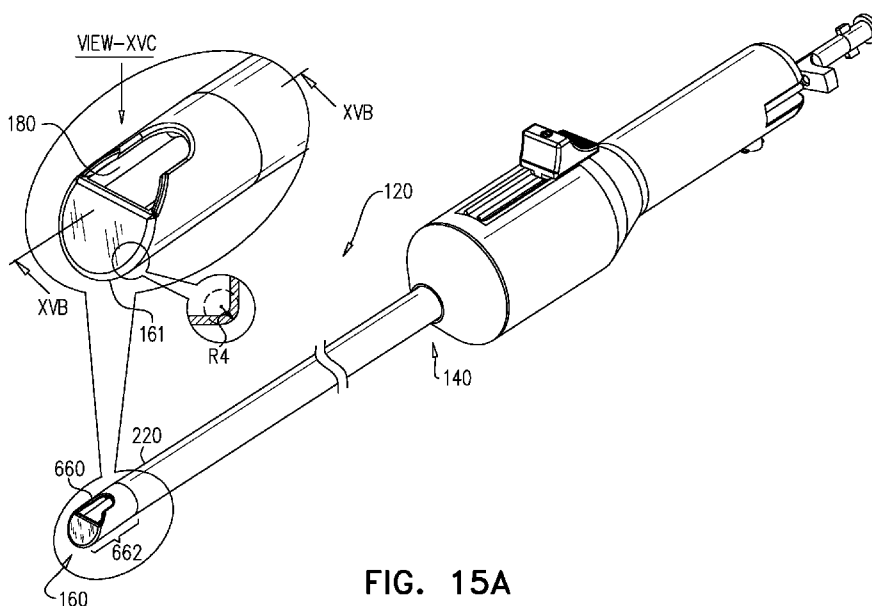


FIG. 15A

(57) Abstract: Apparatus (120) is provided comprising: a longitudinal guide member (220) (a) comprising a blunt distal end (160) having an outer surface (164) at least part of which is transparent, (b) configured to be advanced distally toward a heart of a subject, and (c) shaped to define an at least partially distally-facing and side-facing suction port (660) at a distal portion (662) of the longitudinal guide member (220). The apparatus is configured to facilitate drawing a portion of a pericardium of the heart through the suction port and into the longitudinal guide member. The apparatus additionally comprises a puncturing element (50) configured to puncture the portion of the pericardium while the portion of the pericardium is in the longitudinal guide member. Other applications are also described.



DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT,
LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE,
SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B17/34

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A61B17/32 A61B1/00 A61B1/018 A61B1/313 A61B1/06

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 practicable, search terms used)

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 518 498 A1 (ETHICON ENDO SURGERY INC [US]) 30 March 2005 (2005-03-30)	1,3, 5-15, 30-33
Y	paragraphs [0036] - [0039], [0053] - [0060], [0066] - [0068], [0076], [0079], [0080] figures 4-7, 10, 17-21 -----	2,16,26, 27
X	DE 101 26 062 A1 (OLYMPUS OPTICAL CO [JP]) 13 December 2001 (2001-12-13)	1,3-15, 28-33
Y	paragraphs [0023] - [0040], [0053] - [0062] figures 1-7 -----	2,16,26, 27
Y	US 2010/217151 A1 (GOSTOUT ZACH [US] ET AL) 26 August 2010 (2010-08-26) paragraphs [0101] - [0105] figures 1-6E -----	2
	-/--	



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 application or patent 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

3 November 2015

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

Authorized officer

Mathis, Martin

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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 2014/015259 A1 (UNIV CREIGHTON [US]) 23 January 2014 (2014-01-23)	1,3, 5-13,15, 30-33
Y	pages 4-12 figures 1-3, 9	2,16,26, 27
Y	----- US 6 231 518 B1 (GRABEK JAMES R [US] ET AL) 15 May 2001 (2001-05-15) column 5, line 22 - line 26 figure 3	27
Y	----- US 2003/187460 A1 (CHIN ALBERT K [US] ET AL) 2 October 2003 (2003-10-02) paragraphs [0016] - [0028] figures 1-4A	26
A	----- DE 10 2006 058447 A1 (UNIV MARBURG PHILIPPS [DE]) 19 June 2008 (2008-06-19) the whole document	1-16, 26-33
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Y	----- US 2007/129719 A1 (KENDALE AMAR [US] ET AL) 7 June 2007 (2007-06-07) paragraphs [0320], [0322], [0347] figure 2B	16
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2015/053280

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2015/053280

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2015/053280

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.: 35-37
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
2. ☐ Claims Nos.:
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:
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:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable 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.:
1-19
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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16, 26-33

An apparatus comprising the features as defined in claims 1-15 and 26-33, and further comprising the features of dependent claim 16, in particular a barrier, so that fluid communication between between the imaging device chamber and the suction port is prevented.

2. claims: 17-19

The apparatus further comprising specific features and a specific arrangement of the imaging device, so that simultaneous imaging of the suction port and tissue beyond the blunt distal end of the longitudinal guide member is provided.

3. claims: 20-25

The apparatus further comprising specific features and a specific arrangement of at least one illumination-providing element, so that glare is reduced from reaching the imaging device.

4. claim: 34

The apparatus further comprising a light-reflector, so that alternate imaging of the suction port and tissue beyond the blunt distal end of the longitudinal member is provided.
