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(54) Title: TISSUE DISSECTION DEVICE AND METHOD

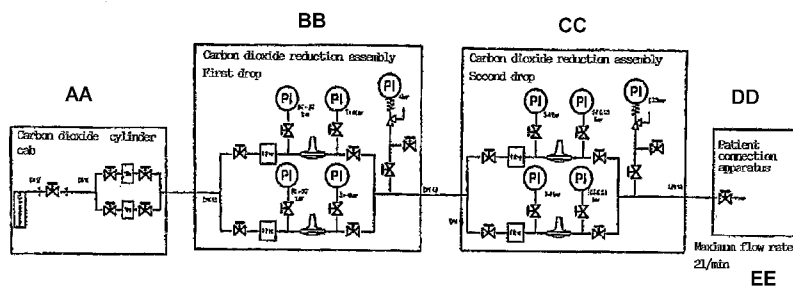


FIG. 1

FF		Gas safety valve
GG		Manual control valve
HH		Intercepting valve
II		Reducing and stabilizing filter
JJ		Manometer
KK		Connection joint
LL		Stainless steel tubing

(57) Abstract: A tissue dissection device comprises a pneumatic manipulator configured to be connected to an insufflator, so as to insufflate gas, preferably CO₂, at a constant, yet adjustable pressure into the tissues, in order to dissect them during surgery interventions.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2009/052375

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B17/32
ADD. A61B17/00

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	WO 99/02089 A (COOK UROLOGICAL INC [US]) 21 January 1999 (1999-01-21) page 10, line 8 - page 15, line 9 figures 1-9	1-7
X	US 2005/159764 A1 (KASAHARA HIDEYUKI [JP] ET AL) 21 July 2005 (2005-07-21) page 5, paragraph 83 - page 6, paragraph 98 figures 11,27,30A-31C	1-3,5,6
A	US 2008/119759 A1 (MCLAIN ROBERT F [US]) 22 May 2008 (2008-05-22) page 2, paragraph 41 figures 1,2	2,7
	-/--	

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
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- *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
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- * & * document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International application No
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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.
P,X	EP 1 977 696 A (OLYMPUS MEDICAL SYSTEMS CORP [JP]; TERUMO CARDIOVASCULAR SYS [US]) 8 October 2008 (2008-10-08) column 9, paragraph 56 - column 11, paragraph 69 figures 7A-13 -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2009/052375

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.: 13-16
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.:
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.:

1-7

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: 1-7

Tapered dissection probe with a conduit for housing a metallic blunt tipped mandrel and delivering gas to tissue to be dissected.

2. claims: 1,8-12

Dissection probe with a conduit for delivering gas to tissue to be dissected and associated pressurized gas delivery system.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/IB2009/052375

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9902089	A	21-01-1999	AT 269668 T 15-07-2004
			AU 745353 B2 21-03-2002
			AU 8402098 A 08-02-1999
			CA 2296305 A1 21-01-1999
			DE 69824728 D1 29-07-2004
			DE 69824728 T2 04-08-2005
			EP 0996368 A1 03-05-2000
			JP 2001509411 T 24-07-2001
US 2005159764	A1	21-07-2005	NONE
US 2008119759	A1	22-05-2008	NONE
EP 1977696	A	08-10-2008	JP 2008253785 A 23-10-2008
			US 2008249556 A1 09-10-2008