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[Continued on next page]

(54) Title: TISSUE CAVITATION DEVICE AND METHOD

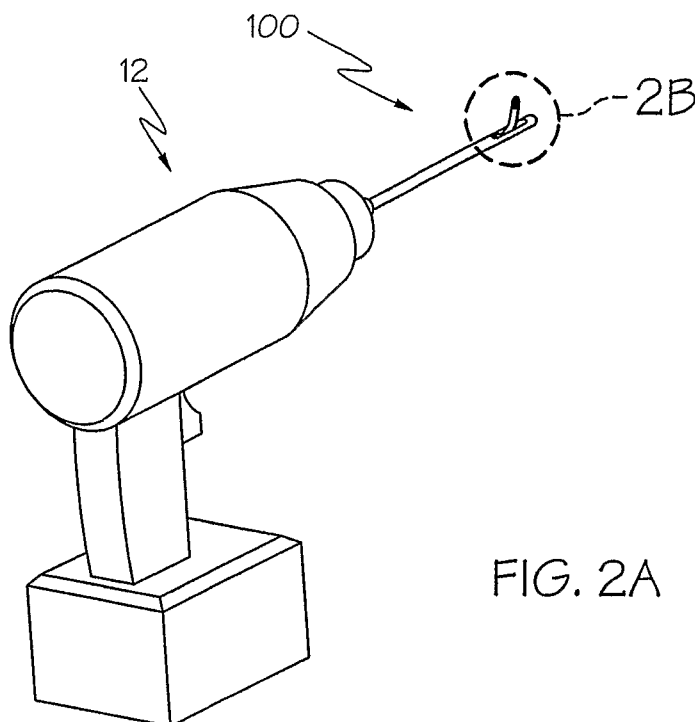


FIG. 2A

(57) Abstract: Provided is a medical device for forming or modifying cavities in tissue. Versions include a blade extendable laterally from a first shape to a second shape to cut tissue in a controlled manner. The first shape may be configured for insertion in accordance with minimally invasive procedures and the second shape may be configured for cutting or forming cavities.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B17/16 A61B17/32
ADD. A61B17/00 A61B17/88

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 2006/116689 A1 (ALBANS WILLIAM J [US] ET AL) 1 June 2006 (2006-06-01)	1-12, 43-52, 57, 59-69, 98-113, 120-128, 130-140, 216
Y	abstract; figures 4,6,7,13-21 paragraphs [0083], [0099], [0100], [0103], [0107] - [0108]	114-119, 129
Y	US 2006/235451 A1 (SCHOMER DONALD [US] ET AL) 19 October 2006 (2006-10-19) abstract; figures 20-24 paragraphs [0076], [0078]	114-119, 129
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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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

16 July 2007

Date of mailing of the international search report

22/10/2007

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2006/044340

Box 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, 26-29, 80-89, 141-185, 215**
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 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 fee, this Authority did not invite payment of any additional fee.

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.:
1-12, 43-52, 57, 59-69, 98-140, 216

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- 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: 1-12, 43-52,57,59-69,98-140,216

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, wherein the flexible cutting element has specific properties

2. claims: 14-25,30,90-97

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, wherein a distal aperture is provided in the insertion tube in addition to the lateral aperture and configured to accept passage of the second shape of the flexible element therethrough at a second time.

3. claims: 31-42

Medical device for cavity formation with a flexible element deformable outwardly through an aperture, wherein the flexible cutting element comprises a second (or a plurality of) projecting member and corresponding opening(s).

4. claims: 53-56

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, wherein selectable positions of the first and second shapes are possible.

5. claim: 58

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, comprising a guide element configured such that the flexible cutting element is mechanically encouraged to open through the lateral aperture.

6. claims: 70-74

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, wherein the flexible element has a helical configuration.

7. claims: 75-79

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, wherein the second shape has two concavities and two convexities.

8. claims: 186-191

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, comprising a detachable coupling between the flexible cutting element and the insertion tube.

9. claims: 192-194

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture, wherein the distal aperture is configured for the passage of fluid therethrough.

10. claims: 195-214

Medical device for cavity formation with a flexible element deformable outwardly through a lateral aperture and particular actuator mechanisms.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/044340

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 296 639 B1 (TRUCKAI CSABA [US] ET AL) 2 October 2001 (2001-10-02) abstract; figures 4-6B column 9, lines 39-52 -----	1-12, 43-52, 57, 59-69, 98-140, 216
X A	US 2002/183758 A1 (MIDDLETON LANCE M [US] ET AL) 5 December 2002 (2002-12-05) paragraphs [0038], [0040]; figures 3A-11C -----	101, 130-132, 216 1-12, 43-52, 57, 59-69, 98-100, 102-129, 133-140
X	US 2004/039406 A1 (JESSEN JONH W [US]) 26 February 2004 (2004-02-26) abstract; figures 1-4d -----	1-12, 43-52, 57, 59-69, 98-140, 216
A	US 5 693 011 A (ONIK GARY M [US]) 2 December 1997 (1997-12-02) abstract; figures 1-6,9-11 column 3, lines 25-38 -----	1,43,98, 101,129, 130,132, 216

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2006/044340
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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