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- (71) Applicant (for all designated States except US): **WILSON-COOK MEDICAL INC.** [US/US]; 4900 Bethania Station Road, Winston-Salem, NC 27105-4191 (US).

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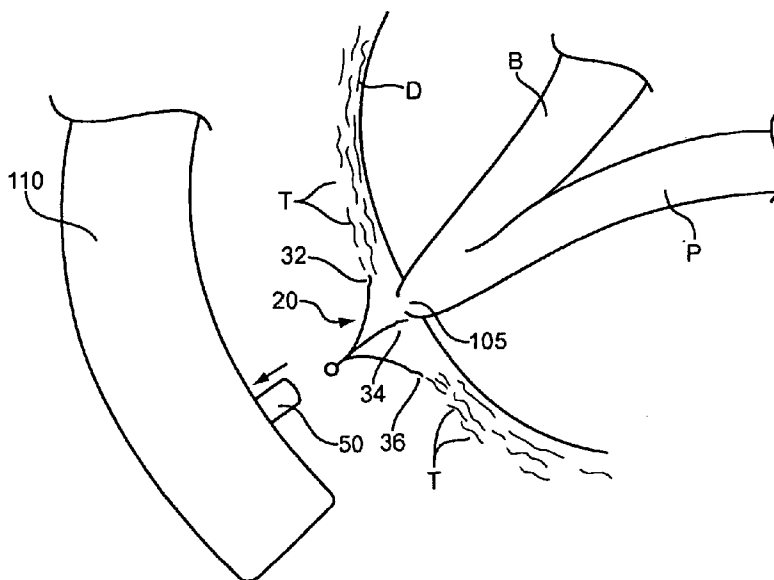
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **RUCKER, Brian, K.** [US/US]; 1148 Luke Street, King, NC 27021 (US).
- (74) Agent: **OGUSS, Douglas**; Brinks Hofer Gilson & Lione, P.O. Box 10087, Chicago, IL 60610 (US).
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(54) Title: PAPILLA SPREADER



(57) Abstract: The present invention provides apparatus and methods for facilitating entry through a bodily opening (105) comprising a spreader (20) having a plurality of arms, each of the arms being formed of a resilient material and shaped so that the distal ends tend to be spaced apart from each other when the spreader is in an open position. At least one of the arms has an engaging member having a sharpness adapted to grasp tissue. When the spreader is radially deployed to the open position the engaging member (32, 34, 36) grasps tissue adjacent the bodily opening and urges the tissue away from the opening to facilitate visualization of the opening and/or access into the opening. A catheter (50) or other device may subsequently be inserted between one or more arms of the spreader and through the bodily opening while the spreader holds the tissue in a spread position.

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## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
 INV. A61M29/00 A61B17/02

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)

A61M A61B A61F

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, 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	DE 199 55 614 C1 (KARLSRUHE FORSCHZENT [DE]) 26 July 2001 (2001-07-26)	1,4,6,9
A	column 2, lines 3-11 column 2, lines 48-52 column 3, lines 34-41; figures	3,17-19
X	US 4 655 219 A (PETRUZZI CLAUDE E [US]) 7 April 1987 (1987-04-07)	1,2,4,6
A	column 2, lines 15-35 column 3, lines 36-68 column 4, line 56 - column 5, line 13 column 5, lines 48-63; figures 1-4,6-8	7,17-19
A	US 2003/130680 A1 (RUSSELL SCOTT [US]) 10 July 2003 (2003-07-10) paragraphs [0021], [0044], [0047]; figures 1,9A-9C	1-4,6,8, 9,18-22
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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.

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

Date of the actual completion of the international search

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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

Merté, Birgit

## 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.
A	US 4 909 789 A (TAGUCHI AKIHIRO [JP] ET AL) 20 March 1990 (1990-03-20) column 1, line 63 - column 2, line 5; figures 1,2,5,12 -----	1,4,6, 18,19
A	EP 1 325 717 A (CORDIS CORP [US]) 9 July 2003 (2003-07-09) paragraphs [0071], [0104], [0107]; figures 1,2,12c -----	1,2,5,9, 18
A	US 2001/021842 A1 (OUCHI TERUO [JP]) 13 September 2001 (2001-09-13) abstract; figures 1,2 -----	

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 10-16

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery

A method for facilitating entry through a bodily opening is exclusively described in detail in the context of gallstone removal which necessitates access to a deep body cavity and hence must be considered as treatment by surgery.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2007/015803

## 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.: 10-16  
because they relate to subject matter not required to be searched by this Authority, namely:  
see FURTHER INFORMATION sheet PCT/ISA/210
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:

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.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/015803

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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