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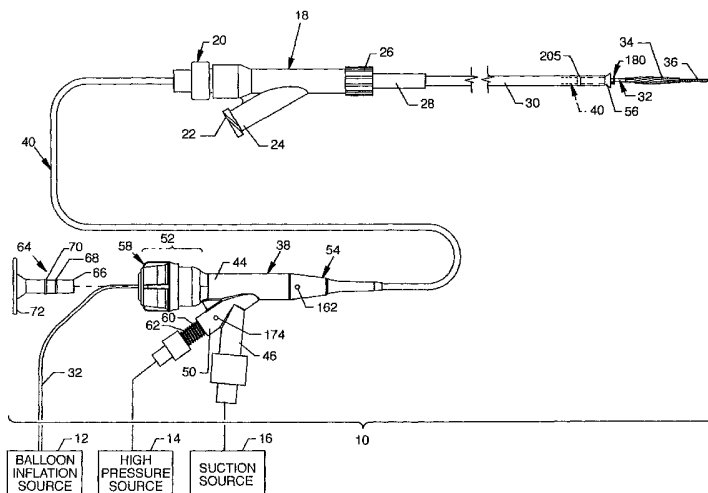
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[Continued on next page]

(54) Title: THROMBECTOMY CATHETER SYSTEM WITH OCCLUDER AND METHOD OF USING SAME



(57) Abstract: A thrombectomy catheter system with occluder and method of using same for removal of tissue, such as thrombus and the like, from a vessel in the body. Multiple catheters and an occluder-bearing guidewire tube at a thrombus site provide for expandable deployment of a compliant occluder against the vasculature walls distal to the thrombus. The expanded occluder is maneuvered proximally to urge thrombus into close proximity with a retractable capture cone located distally on a capture catheter where the thrombus is dislodged, entrained, and broken into pieces by the action of a fluid jet emanator and then evacuated through the capture catheter.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US04/36451

<p><b>A. CLASSIFICATION OF SUBJECT MATTER</b>                  IPC(7) : A61B 17/22                  US CL : 606/200, 159; 604/35                  According to International Patent Classification (IPC) or to both national classification and IPC</p>																						
<p><b>B. FIELDS SEARCHED</b>                  Minimum documentation searched (classification system followed by classification symbols)                  U.S. : 606/200, 159, 114, 127, 128, 168, 114; 604/35                  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)</p>																						
<p><b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b></p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 6,524,323 b1 (NASH et al) 25 February 2003 (25.02.03) column 13, line 59-column 15, line 11; column 19, line 52-56; column 27, line 53-Column 28, line 63</td> <td>1,3,5-8,11-12,15-17</td> </tr> <tr> <td>Y</td> <td>US 6,485,502 B2 (DON MICHAEL et al) 26 November 2002 (26.11.02) Column 6, line 8-24; column 8, line 25-column 9, line 25</td> <td>1-6,11-19</td> </tr> <tr> <td>Y</td> <td>US 6,544,209 B1 (DRASLER et al) 08 April 2003 (08.04.03) column 9, line 8-column 10, line 5</td> <td>1, 5, 6, 9, 10, 16</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 6,524,323 b1 (NASH et al) 25 February 2003 (25.02.03) column 13, line 59-column 15, line 11; column 19, line 52-56; column 27, line 53-Column 28, line 63	1,3,5-8,11-12,15-17	Y	US 6,485,502 B2 (DON MICHAEL et al) 26 November 2002 (26.11.02) Column 6, line 8-24; column 8, line 25-column 9, line 25	1-6,11-19	Y	US 6,544,209 B1 (DRASLER et al) 08 April 2003 (08.04.03) column 9, line 8-column 10, line 5	1, 5, 6, 9, 10, 16								
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C.      <input type="checkbox"/> See patent family annex.</p>																						
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T"</td> <td>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</td> </tr> <tr> <td>"E"</td> <td>earlier application or patent published on or after the international filing date</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"L"</td> <td>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)</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td>"&amp;"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			"A"	document defining the general state of the art which is not considered to be of particular relevance	"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	"E"	earlier application or patent published on or after the international filing date	"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	"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)	"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	"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family	"P"	document published prior to the international filing date but later than the priority date claimed		
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<p>Name and mailing address of the ISA/US                  Mail Stop PCT, Attn: ISA/US                  Commissioner for Patents                  P.O. Box 1450                  Alexandria, Virginia 22313-1450                  Facsimile No. (703) 305-3230</p>		<p>Authorized Officer                  Anh Tuan Nguyen                  Telephone No. n/a</p>																				