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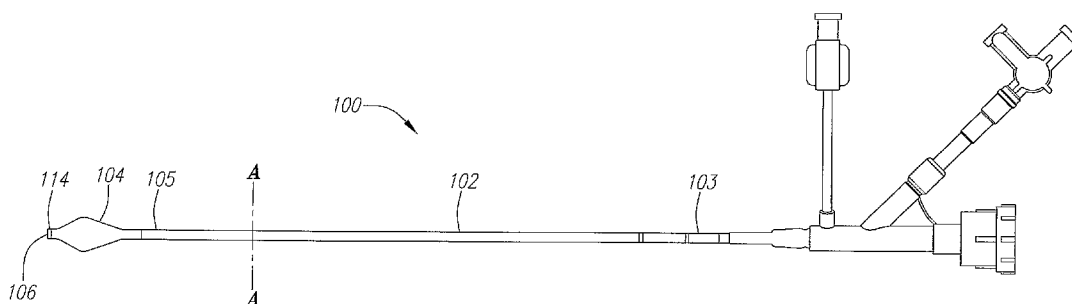
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(54) Title: EMBOLIC PROTECTION DEVICE AND METHODS OF USE



(57) Abstract: An evacuation sheath assembly and method of reducing or removing a blockage within a vessel without permitting embolization of particulate matter is provided. The evacuation sheath assembly includes a first elongate tubular member, having proximal and distal ends and a main lumen configured to be placed in fluid communication with a blood vessel. An expandable member is provided on a distal portion of the tubular member and is configured to form a seal with the blood vessel. The evacuation assembly further includes a second elongate tubular member having proximal and distal ends and an inflation lumen configured to be placed in fluid communication with the expandable member and a gas inflator. The gas inflator includes a high pressure gas source and a mechanism for regulating the pressure of the gas delivered by the gas inflator.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8): A61M 29/00 (2007.01)
 USPC: 604/93.01
 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)
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 WEST (USPT,USOC,EPAB,JPAB; PLUR) and Google Patents (<http://www.google.com/patents>). Search terms, e.g., included "inject and lumen and extract and pressure and tubular".

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,517,515 B1 (EIDENSCHINK) 11 February 2003 (11.02.2003): col 18, ln 25-27; col 18, ln 28-29; col 40, ln 28; col 10, ln 38; col 12, ln 54; col 3, ln 23; col 10, ln 19-22; col 3, ln 29.	1-4
Y		5-49
Y	US 4,994,033 A (SHOCKEY ET AL.) 19 February 1992 (19.02.1992): col 4, ln 56-59; col 4, ln 60-61	15, 40
Y	US 5,728,064 A (BURNS ET AL.) 17 March 1998 (17.03.1998): col 4, ln 5-6; col 5, ln 27; fig. 8	24-25
Y	US 5,916,193 A (STEVENS ET AL.) 29 June 1999 (29.06.1999) : col 10, ln 1-2; col 43, ln 7; col 16, ln 3-4; col 10, ln 33; col 10, ln 15; col 4, ln 1; col 43, ln 44; col 18, ln 33; col 38, ln 22	36-49
Y	US 6,716,183 B2 (CLAYMAN ET AL.) 6 April 2004 (06.04.2004): col 2, ln 33-34; col 6, ln 46; fig. 1	5-14
Y	US 5,755,704 A (LUNN) 26 May 1998 (26.05.1998): col 3, ln 23; col 2, ln 18; col 10, ln 19-22; col 3, ln 29	8-14
Y	US 6,234,996 B1 (BAGAOISAN ET AL.) 22 May 2001 (22.05.2001): col 8, ln 7; col 8, ln 47-49; col 2, ln 2-3; col 8, ln 4-9; col 1, ln 1; col 21, ln 19; col 3, ln 52-54; col 5, ln 16-17; col 2, ln 31; col 15, ln 18; col 5, ln 1-4; col 5, ln 8-10; col 17, ln 31; fig. 28-30	16-32, 48
Y	US 6,098,405 A (MIYATA ET AL.) 8 August 2000 (08.08.2000): col 5, ln 20-21; col 41, ln 64-65	16-32, 46-48

Further documents are listed in the continuation of Box C.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
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"O" document referring to an oral disclosure, use, exhibition or other means	
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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.
Y	US 4,917,667 A (JACKSON) 17 April 1990 (17.04.1990): col 17, ln 16-20	18, 35, 48
Y	US 4,228,125 C1 (LOBDELL ET AL.) 14 October 1980 (14.10.1980): col 7, ln 52	33
Y	US 5,964,223 A (BARAN) 22 October 1999 (22.10.1999): col 6, ln 60	33
Y	US 5,019,041 A (ROBINSON ET AL.) 28 May 1991 (28.04.1991): col 11, ln 44-46; col 12, ln 3	21-32, 46-48
Y	US 6,811,550 B2 (HOLLAND ET AL.) 2 November 2004 (02.11.2004): col 7, ln 42-50; col 8, ln 1-2	18, 46-48
Y	US 5,058,570 A (IDEMOTO ET AL.) 22 October 1991 (22.10.1991): col 4, ln 48-56; fig. 1	22-32, 47-48
Y	US 3,208,467 A (EICHELMAN) 28 September 1965 (28.09.1965): col 13, ln 12-18	22-32
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Y	US 5,413,549 A (LESCHINSKY) 9 May 1995 (09.05.1995): col 7, ln 1; fig. 1-4	28-32, 44-45
Y	US 4,482,346 A (REINICKE) 13 November 1984 (13.11.1984): col 6, ln 5-8; col 6, ln 25; fig. 3	31-32
Y	US 5,459,700 A (JACOBS) 17 October 1995 (17.10.1995): col 3, ln 1-2; col 3, ln 14	47-49
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