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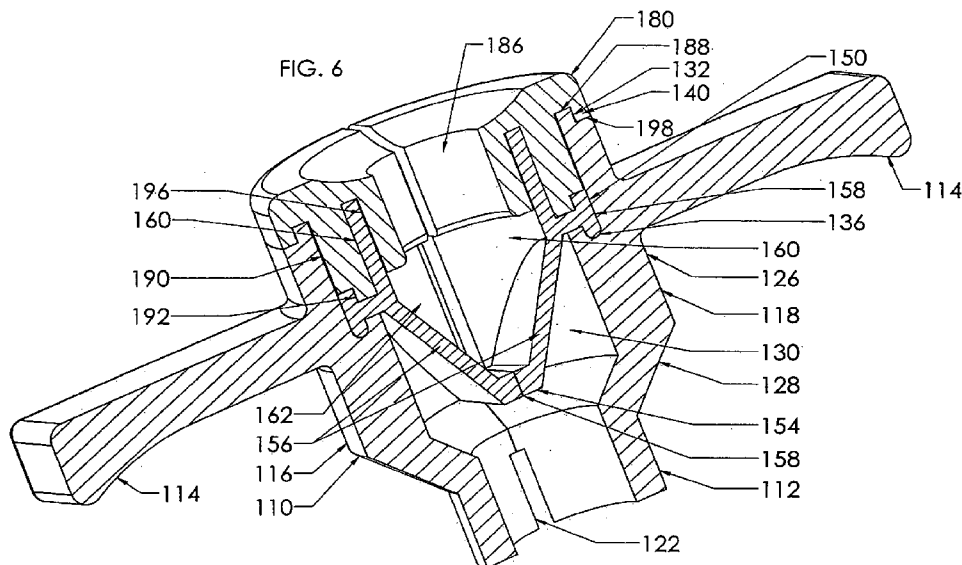
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19 February 2009

(54) Title: TEARAWAY SHEATH ASSEMBLY WITH HEMOSTASIS VALVE



(57) Abstract: A tearaway sheath assembly (100) having a splittable sheath tube (102) a splittable hub (110), a splittable valve (150) and a split cap (180). The valve (150) is of the elongated duckbill type and having a slit (158) almost completely across the distal end wall (154) such that two diverging sides (156) of the distal valve portion may be moved apart during insertion therethrough of a dilator or a catheter. A two-part cap (180) is affixed to the hub proximal end (120) and traps a seating flange (168) of the valve between itself and a seating groove (136) of the hub. Pairs of opposed gaps (184, 122) of the cap (180) and the hub (110) are aligned with frangible sections or seams (108) of the sheath tube (102) and frangible sections (172) and slits (166) of the valve, facilitating splitting of the assembly (100) when desired by the practitioner to peel it away from the inserted catheter.



WO 2009/002828 A3

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2008/067631

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. A61M25/00 A61M25/06

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

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	WO 2006/036653 A (MEDICAL COMPONENTS INC [US]; SCHWEIKERT TIMOTHY [US]; NARDEO MAHASE [U] 6 April 2006 (2006-04-06) page 14, lines 5-23 page 15, lines 1-7,17-23 page 16, lines 1-10 page 20, lines 21-23 page 21, lines 18-23 page 22, lines 1-18 figures 5-9	1-5,9
A	US 6 562 049 B1 (NORLANDER BARRY E [US] ET AL) 13 May 2003 (2003-05-13) abstract figures 1-19	1-13

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
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- \*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.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

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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.
A	US 5 125 904 A (LEE HONGPYO H [US]) 30 June 1992 (1992-06-30) abstract figures 1-3	1-13
A	US 6 083 207 A (HECK ALICIA [US]) 4 July 2000 (2000-07-04) abstract figures 1-11	1-13
A	US 4 772 266 A (GROSHONG LEROY E [US]) 20 September 1988 (1988-09-20) abstract figures 1-5	1-13

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2008/067631

## 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.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
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

- 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.:

1-13

### 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: 1-13

A tearaway sheath assembly comprising a sheath tube, a hub and a hemostasis valve, the sheath tube having a pair of opposed frangible seams there along, the hub having a distal end portion that is affixed to the sheath tube's proximal end portion, the hub comprising two opposing sections divided by a pair of opposing gaps aligned with the frangible seams of the sheath, the two opposing hub sections being joined together within portions of the gaps by frangible webs, and the hemostasis valve having a pair of opposed frangible webs aligned with the gaps of the hub and the seams of the sheath tube.

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## 2. claims: 14-18

A hemostasis valve for a tearaway sheath assembly, comprising a valve body, a pair of opposed frangible webs defined along the cylindrical wall and a pair of opposing side walls along a distal end portion of the valve the valve including a slit axially through the distal end and at least partially there across that is aligned with the frangible webs of the valve.

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## 3. claims: 19-21

A hub for a tearaway sheath assembly, comprising a hub body, two opposing sections divided by a pair of opposing gaps joined together by frangible webs, wherein the frangible webs of the hub are provided at the transition section of the hub proximate the distal end portion and traverse the gaps.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/067631
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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			ES 2288144 T1 01-01-2008
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