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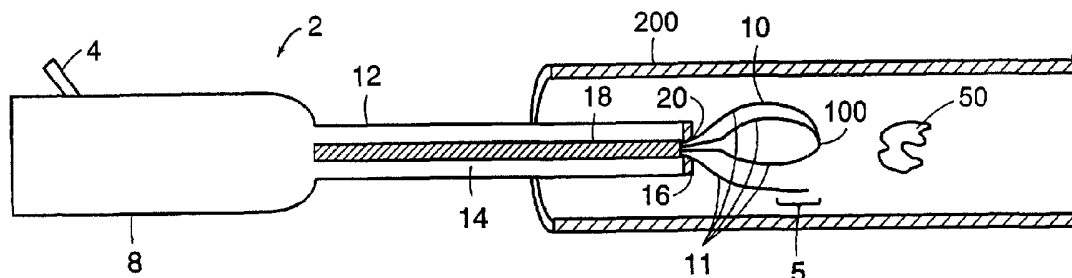
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10/342,785 15 January 2003 (15.01.2003) US
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(54) Title: MEDICAL RETRIEVAL DEVICE WITH FRANGIBLE BASKET



(57) Abstract: The invention relates to a medical retrieval device (2) with a basket (10) that has at least one leg (11a, 11b, 11c, 11d) that is frangible (i.e., easily breakable) and/or able to dissociate from at least one other leg (11a, 11b, 11c, 11d) upon the application of a predetermined force to the basket (10). The invention allows an operator to release captured material (50) (e.g., a stone) from the basket (10) when the device (2) is still inserted in the body. In an embodiment, the basket legs (11a, 11b, 11c, 11d) associate by a magnetic interaction that can be overcome by applying a predetermined force to the basket (10). In yet another embodiment, the invention provides a basket (10) with at least two legs (11a, 11b, 11c, 11d) that are joined together by a joining member by means of at least one shear pin (46) that can break upon the application of a predetermined force.

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|--|---|---|---|---|
| A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A61B17/22 | | | | |
| 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) IPC 7 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. | | |
| Y | US 2002/091394 A1 (BOWEN MARK ET AL) 11 July 2002 (2002-07-11) paragraph '0007! - paragraph '0011! paragraph '0044! - paragraph '0048! paragraph '0053! - paragraph '0059! paragraph '0062! - paragraph '0063! figures | 1-7, 11-18 | | |
| Y | US 5 462 553 A (DOLGIN STUART) 31 October 1995 (1995-10-31) column 1, line 30 - line 39 column 2, line 30 - line 60 column 3, line 8 - line 33 column 3, line 38 - line 41 figures 1-3 | 1-7, 11-18 | | |
| ----- -/-- | | | | |
| <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. | | | | |
| <input checked="" type="checkbox"/> Patent family members are listed in annex. | | | | |
| ° Special categories of cited documents : | | | | |
| <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <ul style="list-style-type: none"> *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 </td> <td style="width: 50%; border: none; vertical-align: top;"> <ul style="list-style-type: none"> *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 </td> </tr> </table> | | | <ul style="list-style-type: none"> *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 | <ul style="list-style-type: none"> *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 |
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| Date of the actual completion of the international search <div style="text-align: center; font-size: 1.2em;">12 July 2004</div> | | Date of mailing of the international search report <div style="text-align: center; font-size: 1.2em;">19/07/2004</div> | | |
| 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 <div style="text-align: center; font-size: 1.2em;">Nistor, L</div> | | |

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 2001/001315 A1 (BATES JAMES S ET AL) 17 May 2001 (2001-05-17) paragraph '0058! paragraph '0060! figures 1G,2C ----- | 1-7, 11-18 |
| X | US 2002/173817 A1 (PACKARD BRIAN M ET AL) 21 November 2002 (2002-11-21) paragraph '0128! ----- | 8-10 |
| A | US 2 054 149 A (CHARLES WAPPLER FREDERICK) 15 September 1936 (1936-09-15) the whole document ----- | 19-21 |
| A | US 4 493 320 A (TREAT MICHAEL R) 15 January 1985 (1985-01-15) column 4, line 35 - column 6, line 6 figures ----- | 19-21 |

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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.: 22-26
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:

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.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/001009

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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| US 4493320 A | 15-01-1985 | NONE | |