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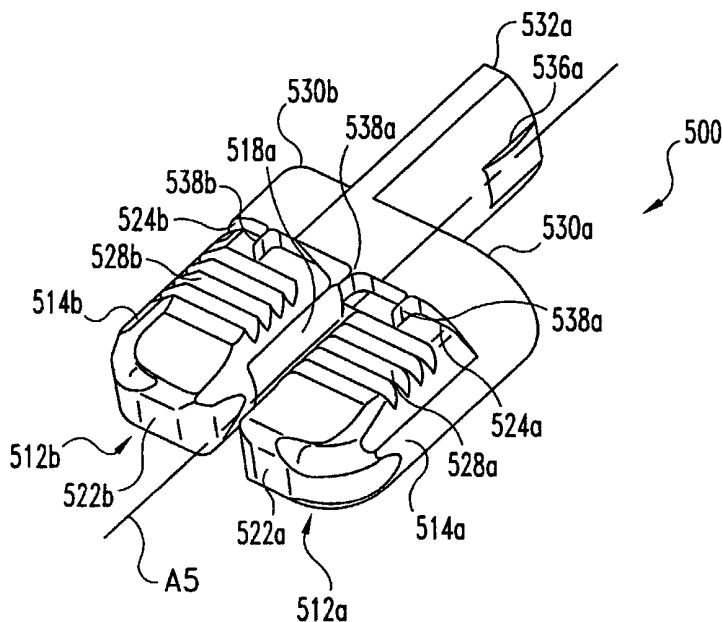
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[Continued on next page]

(54) Title: DEVICES AND METHODS FOR IMPLANTING FUSION CAGES



(57) Abstract: Methods and instrumentation for spinal interbody fusion are disclosed. The instruments and methods are particularly adapted for interbody fusion in an unreamed disc space. One instrument is a distractor assembly (500) including a first distractor and a second distractor (514) configured to be inserted in side-by-side relation in the disc space. Fusion cages adapted for insertion into an unreamed disc space are provided to enhance load distribution between adjacent vertebral bodies and lateral stability of the spinal column. The fusion cages may be inserted after distracting the disc space with the distractor assembly (500). Instruments for preparing the disc space through the inserted fusion cages or for use with the distractor assembly (500) are also provided.



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INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61B17/02 A61F2/44 A61F2/46

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 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.
A	US 5 797 909 A (MICHELSON) 25 August 1998 (1998-08-25) abstract; figures	1, 18
A	WO 99 09896 A (SULZER SPINE-TECH INC.) 4 March 1999 (1999-03-04) abstract; figures page 17, line 8-17	1, 18, 24-26, 28, 33, 34, 37-40, 58-60
A	WO 99 09913 A (SOCIETE DE FABRICATION MATERIEL ORTHOPEDIQUE (SOFAMOR)) 4 March 1999 (1999-03-04) abstract; figures page 11, line 19 -page 13, line 14	1, 18, 24, 37, 39, 58
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Further documents are listed in the continuation of box C.



Patent family members are listed in 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)
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- *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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INTERNATIONAL SEARCH REPORT

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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	EP 0 880 938 A (UNITED STATES SURGICAL CORPORATION) 2 December 1998 (1998-12-02) column 6, line 27 -column 7, line 37; figures -----	1,18, 24-26, 29,30, 36-39, 58,59, 61,62
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X	US 5 888 227 A (COTTLE WILLIAM) 30 March 1999 (1999-03-30) claim 1; figures -----	24
A	-----	32-34
A	US 5 782 919 A (RAY III EDDIE ET AL) 21 July 1998 (1998-07-21) figures 1-12 column 5, line 36 - line 58 -----	24-29, 31-34

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/23547

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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.: 42-57
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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

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.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-23

Apparatus for distracting a spinal disc space.

2. Claims: 24-41,58-62

Fusion cage insertable in the disc space between adjacent vertebra and apparatus for inserting said fusion cage.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/23547

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