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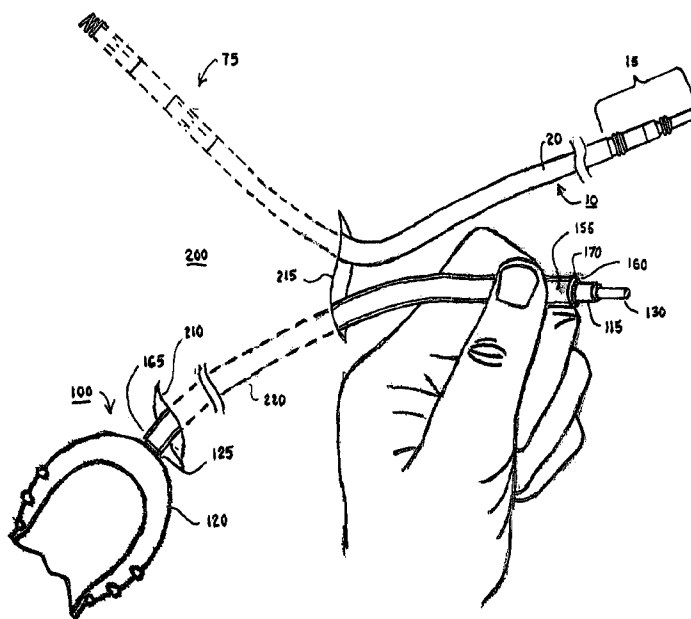
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Published:

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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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13 March 2008

(54) Title: A TUNNELING INSTRUMENT FOR AND METHOD OF SUBCUTANEOUSLY PASSING A MEDICAL ELECTRICAL LEAD



(57) Abstract: Methods and instruments forming a tissue pathway between the first and second skin incisions to draw a permanent or temporary elongated medical device or implant, e.g., a medical electrical lead, through the tissue pathway are disclosed. A tunneling instrument comprises an elongated sleeve and a needle that are mounted together to be used as the tunneling instrument to form the tissue pathway and separated so that the sleeve may be employed to engage the lead connector to pull the medical electrical lead through the tissue pathway.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/006889

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61N1/05
ADD. A61B17/34

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)
A61N 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. |
|-----------|---|-----------------------|
| X | US 2006/064101 A1 (ARRAMON YVES P [US]) 23 March 2006 (2006-03-23) figure 1 | 1, 2, 4-6 |
| A | US 2004/260370 A1 (LEY GREGORY R [US] ET AL) 23 December 2004 (2004-12-23) figure 3 | 1 |
| A | US 2004/044348 A1 (SKAKOON JAMES GRANT [US]) 4 March 2004 (2004-03-04) cited in the application the whole document | 1 |
| A | US 6 605 094 B1 (MANN CARLA M [US] ET AL) 12 August 2003 (2003-08-12) cited in the application the whole document | 1 |

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
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- *P* document published prior to the international filing date but later than the priority date claimed

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- *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.
- *Z* 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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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.: 11-21
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 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:

1. 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.:

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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|-------------------------|-----------------------------|
| US 2006064101 | A1 | 23-03-2006 | NONE |
| US 2004260370 | A1 | 23-12-2004 | US 2007191920 A1 16-08-2007 |
| US 2004044348 | A1 | 04-03-2004 | NONE |
| US 6605094 | B1 | 12-08-2003 | NONE |