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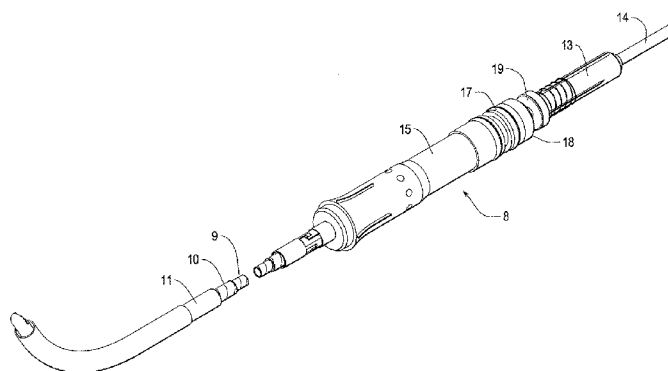


FIG. 2

(57) Abstract: A surgical tool (8) can include a main unit (21) and a first rigid sheath (11a). The main unit (21) includes an inner tube (9) that is received within an outer tube (10). The first rigid sheath (11a) removably receives the main unit (21) and connects to the main unit (21) via a coupling between a first connector portion (38) of the main unit (21) and a second connector portion (39) of the rigid sheath (11a). The first rigid sheath (11a) can be completely removed from the main unit (21) when the first connector portion (38) is decoupled from the second connector portion (39). A different rigid sheath (lib) having a different shape from the shape of the first rigid sheath (11a) can then be removably attached to the main unit (21) instead of the first rigid sheath (11a). A surgical tool kit includes a plurality of rigid sheaths (11a- f) having different shapes and having the ability to be removably attached to the main unit (21).



INTERNATIONAL SEARCH REPORT

International application No

PCT/US2011/054562

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B17/32

ADD.

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)

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 practicable, 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 5 282 821 A (DONAHUE) 1 February 1994 (1994-02-01)	1,12,13, 16,17, 26,30,32
Y	. column 3, lines 26-52 column 4, lines 7-13,54-60 column 5, lines 24-29,36-41; figures 1-4	2-11,14, 15, 18-25, 27-29, 33-35
X	----- US 5 741 286 A (RECUSET) 21 April 1998 (1998-04-21)	26,30,31
Y	. ..	14,15, 18-25
A	abstract column 2, lines 37-50 column 3, lines 16-26 column 4, lines 13-15,36-58; claims 12-20; figures 1,2,4,5 ----- -/-	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 application or patent 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

"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

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2011/054562

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 2010/087711 A1 (EDWARDS) 8 April 2010 (2010-04-08) paragraph [0038], lines 27,28; figure 3 -----	2-4, 19-21, 33-35
Y	WO 99/15237 A1 (UNITED STATES SURGICAL CORPORATION) 1 April 1999 (1999-04-01) figures 6,7 -----	5-11, 27-29
A	US 5 601 583 A (DONAHUE) 11 February 1997 (1997-02-11) column 3, lines 37-67 column 7, line 59 - column 8, line 30; figures 4,16 -----	1,18,26
A	US 5 911 701 A (MILLER) 15 June 1999 (1999-06-15) column 4; figures 3,4 -----	1,18,26
A	US 2006/264927 A1 (RYAN) 23 November 2006 (2006-11-23) abstract; figures 1,2 -----	1,18
A	US 2006/089628 A1 (WHITMAN) 27 April 2006 (2006-04-27) figures 13(a),13(b),13(e) -----	5,6,10, 28,29
A	US 5 192 292 A (CEZANA) 9 March 1993 (1993-03-09) figure 6 -----	7,8
A	US 2004/181250 A1 (ADAMS) 16 September 2004 (2004-09-16) paragraphs [0006], [0015] - [0019]; claims 8,9; figures 2,3,5 -----	14,15, 18, 22-25, 30,31
A	US 5 529 580 A (KUSUNOKI) 25 June 1996 (1996-06-25) column 5, lines 29-45 column 7, lines 26-31; figures 4(b)-4(e),9(b)-9(d) -----	14,15, 22-25,31

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/054562

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

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 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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-17, 26-35

A surgical tool comprising:

- a main unit including:

-- an inner tube having a first and a second ends, a cutting surface and a flexible portion;

-- an outer tube having a first and a second ends, a cutting window and flexible portion;

- a rigid sheath having a first and a second ends; and

- a connector including:

-- a first connector portion located on the main unit; and

-- a second connector portion located on the rigid sheath.

Problem solved:

Providing means for connecting and completely disconnecting the main unit and the rigid sheath of a surgical tool

2. claims: 18-25

A surgical tool kit comprising:

- a main unit including:

-- an inner tube having a first and a second ends, a cutting surface and a flexible portion;

-- an outer tube having a first and a second ends, a cutting window and flexible portion;

- a first rigid sheath having a first and a second ends; and

- at least one additional rigid sheath having a first and a second ends, and a shape that is different from a shape of the first rigid sheath.

Problem solved:

Providing means for changing the shape of a flexible surgical cutting blade while allowing the utilization of only one single such flexible cutting blade

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2011/054562

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