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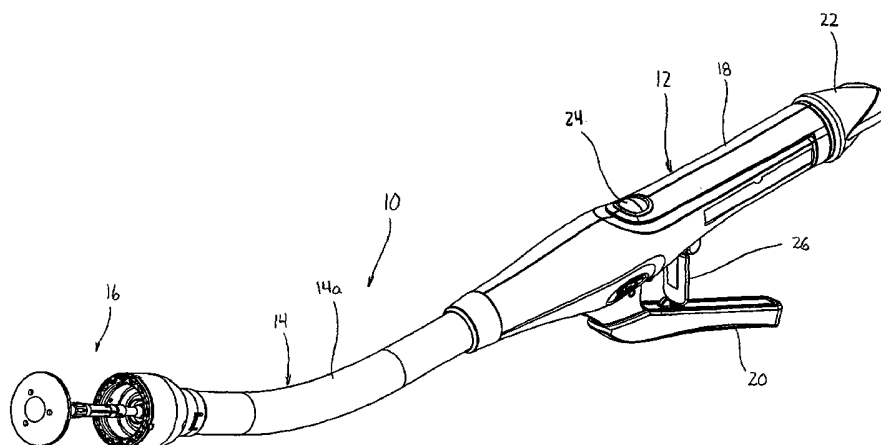
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[Continued on next page]

(54) Title: SURGICAL STAPLING DEVICE



(57) Abstract: A surgical stapling device is disclosed for performing circular anastomoses. The surgical stapling device includes a handle portion, an elongated body portion and a head portion including an anvil assembly and a shell assembly. The head portion includes an anvil assembly including a tiltable anvil which will tilt automatically after the device has been fired and unapproximated. The tiltable anvil provides a reduced anvil profile to reduce trauma during removal of the device after the anastomoses procedure has been performed. The stapling device includes a bulbous indicator which preferably extends above a top surface of the handle assembly of the device. The indicator includes indicia to identify to a surgeon that the device has been approximated and is in a fire-ready position. Preferably, the indicator includes a cover which is formed of a magnification material to prominently display the indicia. The anvil assembly of the stapling device preferably includes a retainer clip positioned on the anvil head. The retainer clip preferably includes at least one resilient arm which is positioned to engage a cutting ring during unapproximation of the stapling device.

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SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/31638

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B17/115

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)

EP0-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 5 533 661 A (MAIN LAUREN O ET AL) 9 July 1996 (1996-07-09) column 9, line 3 - line 20 column 15, line 21 - line 65; figures 1,8,11,12	1-12
A	----- US 5 882 340 A (YOON INBAE) 16 March 1999 (1999-03-16) column 11, line 10 - line 33; figures 8,9	1
A	----- US 4 379 457 A (GRAVENER ROY D ET AL) 12 April 1983 (1983-04-12) column 7, line 1 - line 10; figure 2	2
A	----- US 6 050 472 A (SHIBATA NORIKIYO) 18 April 2000 (2000-04-18) column 9, line 4 - line 45; figure 9 ----- -/--	1

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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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

29 January 2004

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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 6 066 145 A (WURSTER HELMUT) 23 May 2000 (2000-05-23) column 4, line 46 - line 52; figures 4,5 -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/31638

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.:
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 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.:

1-12

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/ISA/ 210

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

1. claims: 1-12

Surgical stapling device with indicator

2. claims: 13-20

Anvil assembly with cutting ring and retainer clip

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 03/31638

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