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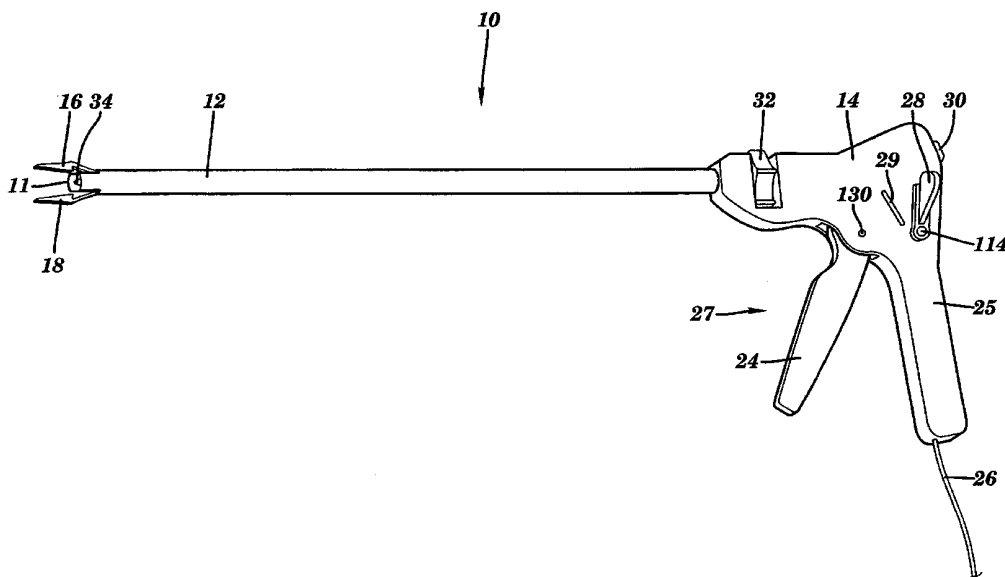
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **ELECTROSURGICAL COAGULATING AND CUTTING INSTRUMENT**



(57) **Abstract:** An electrosurgical coagulating and cutting instrument employing pairs of clamping arms having wrist portions proximal to closing ramps and jaws and configured to close at their wrists first, then their distal tips and lastly, their heels. The instrument includes mechanisms for preventing the advancement of a cutting blade when the jaws are not closed. An actuator for closing the jaws includes an actuator handle and a drive head having teeth formed therein and a pawl mounted in the handle for engaging the teeth, these latter structures forming a ratcheting mechanism. Said mechanism is controllably releaseable.

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INTERNATIONAL SEARCH REPORT

Int .ional Application No
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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B18/14

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.
A	WO 97 05829 A (CABOT TECH CORP) 20 February 1997 (1997-02-20)	1
A	page 5, line 2 - line 34; figures 3,4 page 6, line 9 - line 22; figures 3,4,6 ---	12
A	US 5 258 006 A (RYDELL MARK A ET AL) 2 November 1993 (1993-11-02) cited in the application	1
Y	column 5, line 40 -column 6, line 48; figures 1,4A,4B ---	9
A	US 5 458 598 A (FEINBERG MARC ET AL) 17 October 1995 (1995-10-17)	1
A	column 3, line 25 - line 31; figure 2 column 3, line 61 - line 8; figure 1 --- -/--	10,11



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
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- *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

Int l 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	DE 296 16 065 U (STAIGER STEUERUNGSTECH) 22 January 1998 (1998-01-22) page 2, paragraph 4 -page 3, paragraph 2; figures 1,2 ---	1
A	US 5 499 997 A (SHARPE LESLIE A ET AL) 19 March 1996 (1996-03-19) figures 4,5 ---	1
A	US 5 318 589 A (LICHTMAN PHILIP R) 7 June 1994 (1994-06-07) column 5, line 64 -column 6, line 59; figures 1,2 ---	1
A	US 5 665 100 A (YOON INBAE) 9 September 1997 (1997-09-09) abstract; figure 2 ---	1,11
A	US 5 222 973 A (SHARPE LESLIE A ET AL) 29 June 1993 (1993-06-29) abstract; figures 2,3,8-10 ---	1
Y	US 5 868 785 A (CHRISTIAN JEFFREY J ET AL) 9 February 1999 (1999-02-09) column 16, line 52 -column 17, line 50; figures 32,35,45,47 ---	9
A	US 5 562 655 A (MITTELSTADT WILLIAM A ET AL) 8 October 1996 (1996-10-08) abstract; figures 2-4 ---	9
A	US 5 735 849 A (BADEN MICHAEL ET AL) 7 April 1998 (1998-04-07) column 4, line 1 - line 6; figure 2 ---	9
A	EP 0 741 996 A (ETHICON ENDO SURGERY INC) 13 November 1996 (1996-11-13) abstract; figures 19,20 ---	10
A	EP 0 517 243 A (HEMOSTATIC SURGERY CORP) 9 December 1992 (1992-12-09) page 8, line 41 - line 46; figure 5 -----	12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/18343

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.: 13-15
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/ISA/ 210

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

1. Claims: 1-8

Endoscopic grasping tool comprising a tubular sheath, a handle, at least one pair of clamping arms having a jaw, a wrist and a ramp, and a drive chassis in the sheath having camming surfaces to urge the arms together at their wrists first, then their tip and lastly their heels.

2. Claim : 9

Endoscopic grasping tool comprising a tubular sheath, a handle, at least one pair of clamping arms having a jaw, a drive chassis in the sheath to close the jaws and a ratchet comprising a series of teeth and a pawl.

3. Claim : 10 and 11

Endoscopic grasping tool comprising a tubular sheath, a handle, two pairs of parallel clamping arms having a jaw, a drive chassis to move the jaws together, a surgical cutter coupled to a drive rod and a blockable drive plate.

4. Claim : 12

Endoscopic grasping tool comprising a tubular sheath, a handle, two pairs of parallel clamping arms having a jaw and camming ramps, a drive chassis having camming surfaces for engaging the ramps including at least one lug to maintain separation of the arms.

INTERNATIONAL SEARCH REPORT

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Int. Application No.

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