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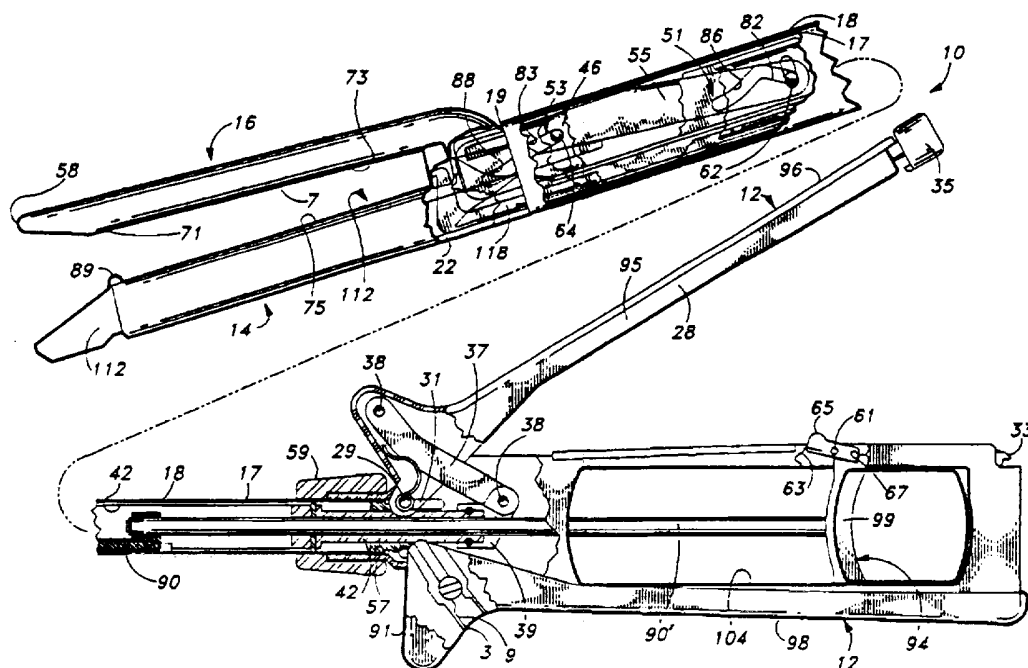
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Published*With international search report.**Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.*

(88) Date of publication of the international search report:

25 January 1996 (25.01.96)

(54) Title: SURGICAL STAPLER WITH MECHANISMS FOR REDUCING THE FIRING FORCE



(57) Abstract

Surgical staplers for use during open and/or laparoscopic surgical procedures are disclosed. Novel firing device trapping assemblies, pushers, staple lines and firing handles are described. Many of the novel devices reduce the overall firing force experienced by the surgeon.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 95/04661

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A61B17/072

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 6 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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US,A,4 767 044 (GREEN) 30 August 1988 cited in the application see column 8, paragraph 2; figure 28 ---	1
A	EP,A,0 545 029 (AMERICAN CYANAMID) 9 June 1993 cited in the application see the whole document ---	1
A	EP,A,0 167 217 (SENMED) 8 January 1986 see abstract ---	1
A	WO,A,81 03303 (USSC) 26 November 1981 see abstract -----	1

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

☒ Patent family members are listed in annex.

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* "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

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* "&" document member of the same patent family

Date of the actual completion of the international search

8 September 1995

Date of mailing of the international search report

14. 12. 95

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BARTON, S

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 95/04661

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 ANNEX

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.:

1-7

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US95/04661

FURTHER INFORMATION CONTINUED FROM PCT/ISA/210

1. Claims: 1-7 A surgical stapler with first, second and third pusher camming surfaces.
2. Claim : 8 A surgical stapler with moment-free firing rod.
3. Claims: 9-15 A surgical stapler with longitudinally offset staple rows.
4. Claims: 16-26 A surgical stapler with trapping means for trapping at least part of the firing means in the fired position.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 95/04661

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INTERNATIONAL SEARCH REPORT

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