

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/091986 A3

- (51) International Patent Classification:
A61B 17/08 (2006.01) A61D 1/00 (2006.01)
- (21) International Application Number:
PCT/US2005/008876
- (22) International Filing Date: 16 March 2005 (16.03.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/554,564 19 March 2004 (19.03.2004) US
- (71) Applicant (for all designated States except US): TYCO
HEALTHCARE GROUP, LP [US/US]; 150 Glover Avenue,
Norwalk, CT 06856 (US).

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): MILLIMAN, Keith, L. [US/US]; 5 Marywood Road, Bethel, CT 06801 (US).
- (74) Agents: MOYLES, Lisa, J. et al.; U.S. Surgical, a division of, Tyco Healthcare Group LP, 150 Glover Avenue, Norwalk, CT 06850 (US).

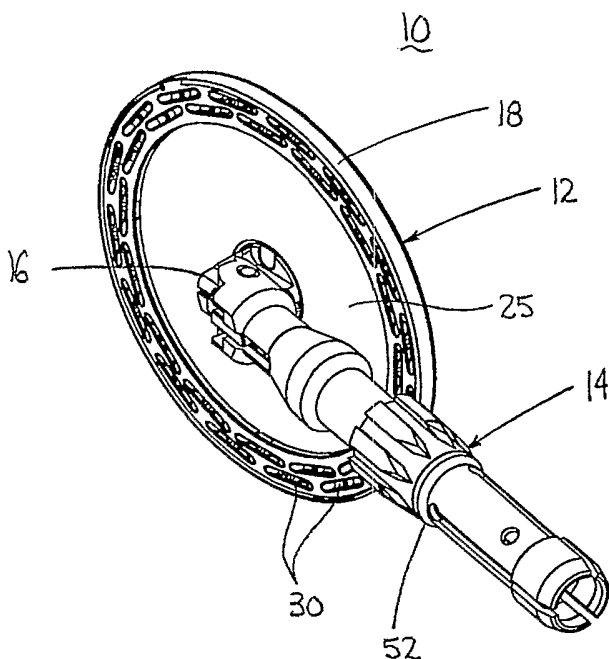
Published:
— with international search report

(88) Date of publication of the international search report:
27 April 2006

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

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: ANVIL ASSEMBLY WITH IMPROVED CUT RING



(57) Abstract: An anvil assembly for use with a surgical stapler is provided. The anvil assembly includes a cut ring assembly having a body and a cover. The cover has a first layer of material having a first hardness to allow penetration by a knife of a surgical stapler and at least one additional layer of material having a second hardness greater than the first hardness to minimize penetration of the cover by a knife of a surgical stapler.

WO 2005/091986 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/08876

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) : A61B 17/08; A61D 1/00
US CL : 606/219,220

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)
U.S. : 606/219,220

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,700,703 A (RESNICK et al.) 20 October 1987 (20.10.1987). See entire document.	1, 3, 16, 17 and 22
A	US 4,903,697 A (RESNICK et al.) 27 February 1990 (27.02.1990). See entire document.	1, 3, 16, 17 and 22
A	US 2005/0080439 A1 (CARSON et al.) 14 April 2005 (14.04.2005). See entire document.	3 and 17
A	US 2005/0228446 A1 (MOORADIAN et al.) 13 October 2005 (13.10.2005). See entire document.	3 and 17
A	WO 03/030745 A1 (TYCO HEALTHCARE GROUP LP) 17 April 2003 (17.04.2003). See entire document.	1, 7-9, 11, 12 and 16

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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

16 November 2005 (16.11.2005)

Date of mailing of the international search report

13 DEC 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Anh Tuan Nguyen *Sharon A. Nguyen for*

Telephone No. (571) 272-2975