(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 26 November 2009 (26.11.2009)

(10) International Publication Number $WO\ 2009/141317\ A3$

(51) International Patent Classification: *A61B 17/16* (2006.01) *A61B 17/295* (2006.01)

(21) International Application Number:

PCT/EP2009/056020

(22) International Filing Date:

18 May 2009 (18.05.2009)

(25) Filing Language:

English

(26) Publication Language:

English

IT

(30) Priority Data:

MC2008A000080 19 May 2008 (19.05.2008)

(71) Applicant and

- (72) Inventor: MAGLIANI, Vincenzo [IT/IT]; 14, Via Bonolis, I-64100 Teramo (TE) (IT).
- (74) Agent: BALDI, Claudio; 13, Viale Cavallotti, I-60035 Jesi (AN) (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,

KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

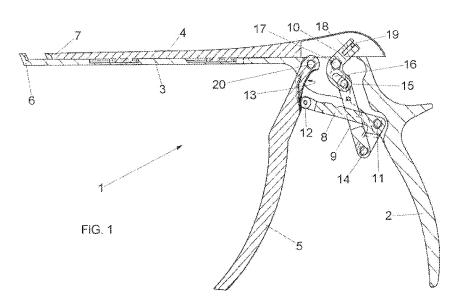
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
- (88) Date of publication of the international search report:

28 January 2010

(54) Title: LAMINECTOMY FORCEPS



(57) Abstract: The present invention relates to a laminectomy forceps (1) that is provided with a lever mechanism composed of at least two, preferably three arms (8, 9, 10) that multiplies the force exerted by thesurgeon on the actuation lever (5) of the forceps.



INTERNATIONAL SEARCH REPORT

International application No PCT/EP2009/056020

A. CLASSIFICATION OF SUBJECT MATTER ÎNV. A61B17/295 A61B17/16 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 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. X US 5 484 441 A (KOROS TIBOR [US] ET AL) 1,4,13 16 January 1996 (1996-01-16) abstract; figure 48 X US 5 273 519 A (KOROS TIBOR [US] ET AL) 1,4,13 28 December 1993 (1993-12-28) abstract; figure 6A Α GB 918 577 A (AMP INC) 1-4 13 February 1963 (1963-02-13) the whole document X Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. "P" document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 10 September 2009 11/12/2009 Authorized officer Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016 Strazdauskas, Gedas

International application No. PCT/EP2009/056020

INTERNATIONAL SEARCH REPORT

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:
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
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
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.: See annex
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: 1-4,13

A force multiplier lever mechanism as defined by the special technical features in claim 2, which relates to the problem of reducing the actuation force required for the cutting.

2. claims: 5-7

Tool holder portions (3A and 4A) as defined by the special technical features in claim 5, which relate to the problem of avoiding to early replacement of the entire forceps caused by wearing out of the cutting end.

3. claims: 8-12

Cleaning device for the sliding tray as defined by the special technical features in claim 8, which relates to the problem of getting stuck of the bone fragments inside the sliding tray.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2009/056020

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5484441	Α	16-01-1996	NONE		
US 5273519	Α	28-12-1993	NONE		
GB 918577	Α	13-02-1963	 CH	396128 A	15-07-1965