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

(19) World Intellectual Property Organization

International Bureau





(10) International Publication Number WO 2012/125615 A3

- (43) International Publication Date 20 September 2012 (20.09.2012)
- (21) International Application Number:

(51) International Patent Classification:

PCT/US2012/028886

(22) International Filing Date:

A61B 17/115 (2006.01)

13 March 2012 (13.03.2012)

(25) Filing Language: English

(26) Publication Language: English

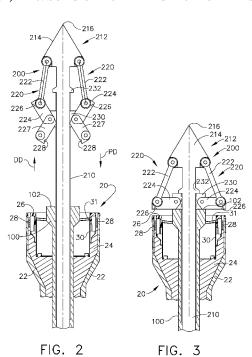
(30) Priority Data:

)	Priority Data:		
	61/452,432	14 March 2011 (14.03.2011)	US
	13/181,768	13 July 2011 (13.07.2011)	US
	13/181,827	13 July 2011 (13.07.2011)	US
	13/181,801	13 July 2011 (13.07.2011)	US
	13/181,779	13 July 2011 (13.07.2011)	US
	13/181,774	13 July 2011 (13.07.2011)	US
	13/181,807	13 July 2011 (13.07.2011)	US
	13/181,786	13 July 2011 (13.07.2011)	US
	13/181,831	13 July 2011 (13.07.2011)	US
	13/181,836	13 July 2011 (13.07.2011)	US
	13/181,842	13 July 2011 (13.07.2011)	US
	13/181,798	13 July 2011 (13.07.2011)	US

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[Continued on next page]

(54) Title: SURGICAL STAPLING INSTRUMENTS



(57) Abstract: Circular stapling instruments and anvil assemblies. The anvil assemblies may have collapsible anvil support members that may be inserted through an opening in a patient and then expanded to be attached to an anvil plate assembly that has a staple-forming surface thereon. The anvil support member is attachable to the anvil plate assembly in such a way that when the anvil assembly is coupled to the stapling head of a circular stapler, the staple-forming surface is in substantial registry with the staples supported in the stapling head. A variety of different anvil support members and anvil plate assemblies are disclosed.



- (74) Agents: JOHNSON, Philip, S. et al.; Johnson & Johnson, One Johnson & Johnson Plaza, New Brunswick, NJ 08933 (US).
- (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, CL, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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:

17 January 2013

INTERNATIONAL SEARCH REPORT

International application No PCT/US2012/028886

A. CLASSIFICATION OF SUBJECT MATTER INV. A61B17/115

ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{tabular}{ll} Minimum documentation searched (olassification system followed by olassification symbols) \\ A61B \end{tabular}$

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)

EPO-Internal

C. DOCUME	ENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/201989 A1 (OJEDA HERMINIO F [US]) 14 September 2006 (2006-09-14)	1-10, 12-14, 19-22, 26, 28-32, 36,38, 52-57
А	paragraphs [0061], [0062], [0065], [0082]; figures 1a,1b,3,6,9,10,12,14	39,58,67
X	US 4 893 622 A (GREEN DAVID T [US] ET AL) 16 January 1990 (1990-01-16)	1-8, 19-22, 26, 28-32, 36,38, 52-57
Y A	figures 6,13,14,17,18 	13,14 39,58,67
X Furth	ner documents are listed in the continuation of Box C. X See patent family annex.	

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X Furth	er documents are listed in the continuation of Box C.	See patent family annex.	
"A" docume to be o "E" earlier a filing d: "L" docume cited to special "O" docume means "P" docume	nt which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other reason (as specified) Int referring to an oral disclosure, use, exhibition or other	"T" later document published after the inter date and not in conflict with the applicathe principle or theory underlying the instance of the considered novel or cannot be considered to involve an inventive step combined with one or more other such being obvious to a person skilled in the "&" document member of the same patent for the same patent of the sa	ation but cited to understand invention Laimed invention cannot be ered to involve an inventive e laimed invention cannot be by when the document is a documents, such combination e art
Date of the a	actual completion of the international search	Date of mailing of the international sea	rch report
14	4 November 2012	23/11/2012	
Name and m	nailing 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	Authorized officer Assion, Jean-Char	les

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/028886

ontinuatio	on). DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/US2012/028886
Т	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	US 5 839 639 A (SAUER JUDE S [US] ET AL) 24 November 1998 (1998-11-24)	1-10, 12-14, 19-22, 26, 28-32, 36,38, 52-57
	columns 4-5; figures 1,3,6,9	39,58,67
	WO 2010/054404 A1 (BAROSENSE INC [US]; BALBIERZ DANIEL J [US]; HAMBLY PABLO R [US]; STEWA) 14 May 2010 (2010-05-14) figure 24	1,39,52, 53,58,67
	EP 2 153 781 A2 (TYCO HEALTHCARE [US]) 17 February 2010 (2010-02-17) figures 16,17,21	13,14 1,53
	US 5 562 690 A (GREEN DAVID T [US] ET AL) 8 October 1996 (1996-10-08) figures 3,6,7,8	1,53
	US 5 860 581 A (ROBERTSON JOHN CHARLES [US] ET AL) 19 January 1999 (1999-01-19)	39,40, 44-47, 52, 58-62, 66-71
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	US 2007/023475 A1 (CSIKY LASZLO [HU]) 1 February 2007 (2007-02-01) figures 1,3	39,52,53

International application No. PCT/US2012/028886

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:
1. X Claims Nos.: 15-18, 76, 77 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 surgeryRule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
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 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
1. X As all required additional search fees were timely paid by the applicant, this international search report covers all searchable olaims.
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.:
Remark on Protest 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. X 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: 1-14, 19-38, 53-57

anvil plate having anvil plate segments having a collapsed and an expanded orientations

2. claims: 39-52, 58-75

anvil support member, linkage assembly and means for coupling anvil support member to anvil plate

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2012/028886

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