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- (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.
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Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.17(i))

[Continued on next page]

(54) Title: TISSUE THICKNESS COMPENSATOR COMPRISING PORTIONS HAVING DIFFERENT PROPERTIES

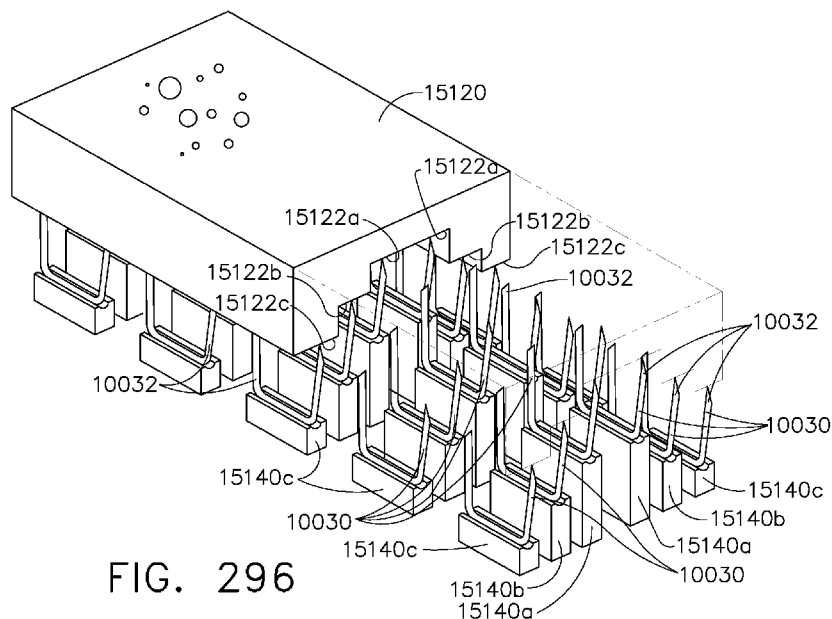


FIG. 296

(57) Abstract: A fastener cartridge can comprise a support portion, a tissue thickness compensator positioned relative to the support portion, and a plurality of fasteners positioned within the support portion and/or the tissue thickness compensator which can be utilized to fasten tissue. In use, the fastener cartridge can be positioned in a first jaw of a surgical fastening device, wherein a second jaw, or anvil, can be positioned opposite the first jaw. To deploy the fasteners, a staple-deploying member is advanced through the fastener cartridge to move the fasteners toward the anvil. As the fasteners are deployed, the fasteners can capture at least a portion of the tissue thickness compensator therein along with at least a portion of the tissue being fastened.





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- *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))*
 - *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:**
7 March 2013
- Published:**
- *with international search report (Art. 21(3))*

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/033429

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61B17/072 A61B17/064 A61B17/115
ADD.

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 practicable, 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 A	EP 2 116 195 A1 (TYCO HEALTHCARE [US]) 11 November 2009 (2009-11-11) paragraph [0069] - paragraph [0079]; figures 3,6	1-9, 13-20 10-12
X A	EP 2 090 244 A2 (ETHICON ENDO SURGERY INC [US]) 19 August 2009 (2009-08-19) figures 6,29,32,37	1-9, 13-20 10-12
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X	US 2009/001125 A1 (HESS CHRISTOPHER J [US] ET AL) 1 January 2009 (2009-01-01) figure 124	13-16,18
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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

"E" earlier application or patent but published on or after the international filing date

"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)

"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	Date of mailing of the international search report
13 December 2012	21/12/2012

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	Authorized officer Assion, Jean-Charles
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/033429

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X,P	WO 2012/044844 A2 (ETHICON ENDO SURGERY INC [US]; WOODARD JAMES A JR [US]; SCHEIB CHARLES) 5 April 2012 (2012-04-05) the whole document	1-9, 13-20
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A	US 5 542 594 A (MCKEAN WANDA L [US] ET AL) 6 August 1996 (1996-08-06) abstract; figure 1	10-12
A	EP 2 111 803 A2 (TYCO HEALTHCARE [US]) 28 October 2009 (2009-10-28) figures 4,6	10-12
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A	US 2011/011916 A1 (LEVINE JAMIE P [US]) 20 January 2011 (2011-01-20) abstract; figures 1,2A	10-12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/033429

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. 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 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. 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.:

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.
- 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: 1-9, 13-20

compressible portion with steps or voids to vary compression

2. claims: 10-12

compressible portion conforming to the undulating surface of the deck of the cartridge

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/033429

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