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[Continued on next page]

(54) Title: DEVICES AND METHODS FOR DELIVERY OF ATTACHMENT DEVICES

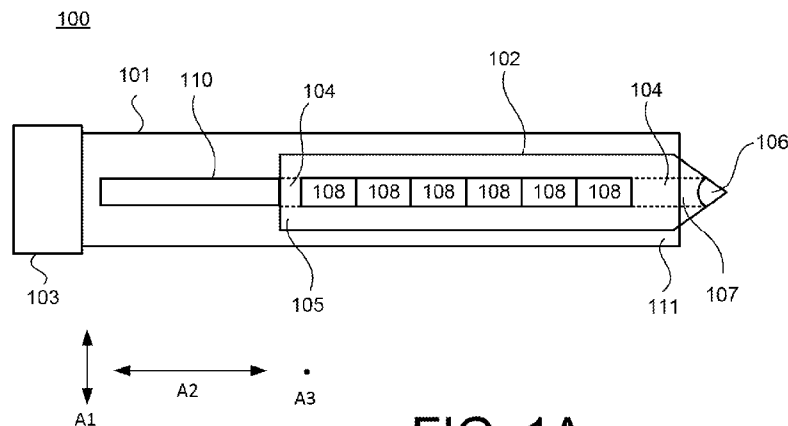


FIG. 1A

(57) Abstract: In a generic aspect, an apparatus for delivering attachment devices includes a needle defining a lumen and a distal opening, and a plurality of attachment devices disposed within the lumen of the needle. Each attachment device includes a first attachment part, a second attachment part, and a connecting member coupled to the first attachment part and the second attachment part. The apparatus further includes an actuator configured to drive each attachment device out of the distal opening of the needle during a surgical procedure.

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— *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))*

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61B17/00 A61B17/04 A61B17/06
 ADD. A61B17/42

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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/225305 A1 (EWERS RICH [US] ET AL) 11 November 2004 (2004-11-11) paragraph [0186] - paragraph [0198]; figures 25-26	1,3-5, 8-11,16, 18-21, 23-25
X	US 2005/251177 A1 (SAADAT VAHID [US] ET AL) 10 November 2005 (2005-11-10) the whole document	1-5,8,9, 16-21, 23,26-31

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 11 March 2016	Date of mailing of the international search report 26/07/2016
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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 Strazdauskas, Gedas
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2016/012191

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/112425 A1 (SCHALLER LAURENT [US] ET AL) 17 May 2007 (2007-05-17) paragraph [0079] - paragraphs [0090], [0093]; figures 1-3 paragraph [0111] - paragraph [0113]; figures 21-23 -----	1-5, 8-10, 16-21, 23,24, 26-31

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2016/012191

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.: 12-15, 32-35
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 surgery; Rule 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. 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.:
1-5, 8-11, 16-21, 23-31

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: 1-5, 8-11, 16-21, 23-31

an apparatus for delivering attachment devices according to claim 2 or claim 26, characterized by the features introduced by claim 2 or in that the needle "is configured to move to a first position and a second position in relation to the needle carrier, the needle having a curved portion when in the second position, the needle being substantially linear in the first position". The characterizing features relate to the technical problem of making the use of the apparatus for complicated placement paths of the anchor-suture-(anchor) combinations easier;

2. claim: 6

an apparatus according to claim 6, characterized by the features introduced by claim 6, which relate to the technical problem of finding an alternative means for attaching the connecting member;

3. claims: 7, 22

an apparatus according to claim 7 or 22, characterized by the features introduced by claim 7 or 22, which stricto sensu (when considering that the attaching member defines a lumen and connecting member extends through that lumen and is connected therein by some means) relate to the technical problem of increasing the attachment safety of the attaching member to tissue by allowing the connecting member to slide toward the centre of the attaching member after its application.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2016/012191

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
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