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(54) Title: SHOULDER PROSTHESIS COMPONENTS AND ASSEMBLIES

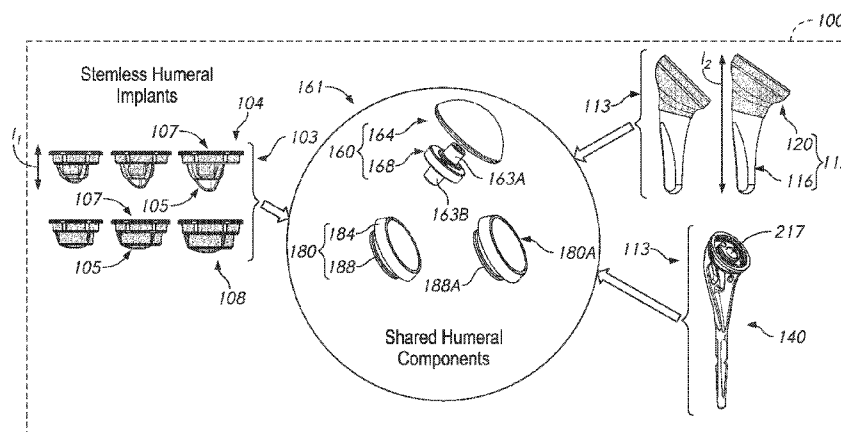


FIG. 2A

(57) Abstract: Various embodiments disclosed herein relate to stemmed and stemless humeral anchors for use in shoulder arthroplasty procedures. The humeral anchor includes a first end (204B), a second end (208B), and an interior surface extending between the first end and the second end. The interior surface is disposed about a recess (216B) disposed between the first end and the second end. The recess is configured to secure a coupling of a shoulder articular body directly to the interior surface.



UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *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:

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2019/054007

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61F2/40
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)
A61F

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	WO 2017/184792 A1 (IMASCAP SAS [FR]; BALL ROBERT [US]) 26 October 2017 (2017-10-26)	1-7
Y	the whole document	8-11
Y	----- WO 2016/094739 A1 (TORNIER SAS [FR]) 16 June 2016 (2016-06-16)	8-11
A	the whole document	1-7
A	----- US 2007/173945 A1 (WILEY ROY C [US] ET AL) 26 July 2007 (2007-07-26)	1-11
A	the whole document	1-11
A	----- EP 2 815 726 A1 (ARTHREX INC [US]) 24 December 2014 (2014-12-24)	1-11
A	the whole document	1-11
A	----- GB 2 405 346 A (STANMORE IMPLANTS WORLDWIDE [GB]) 2 March 2005 (2005-03-02)	1-11
	the whole document	1-11

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 7 January 2020	Date of mailing of the international search report 07/04/2020
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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 Mingrino, Alessandra
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2019/054007

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.:

1-11

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: 1-11

Humeral anchor with an interior surface disposed in a recess and extending between two ends of the anchor, comprising a fin disposed at the second end.

2. claims: 12, 13

A kit comprising:
a humeral anchor comprising a stem and a metaphysis portion
and
a stemless humeral anchor with an exterior surface.

3. claims: 14-28

A stemless humeral anchor comprising a bowl-shaped anchor body, shaped to fill at least a portion of a metaphysis of a humerus of a patient. The humeral anchor being provided with a plurality of fins with at least a portion of each of the fins extending distally from the second distal portion to a distal end of the stemless humeral anchor.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2019/054007

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