



(43) International Publication Date
17 August 2006 (17.08.2006)

PCT

(10) International Publication Number
WO 2006/086606 A3

(51) International Patent Classification:
A61F 2/40 (2006.01)

(21) International Application Number:
PCT/US2006/004673

(22) International Filing Date:
10 February 2006 (10.02.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/652,031 11 February 2005 (11.02.2005) US

(71) Applicant (for all designated States except US): **THE BRIGHAM AND WOMEN'S HOSPITAL, INC.**
[US/US]; 75 Francis Street, Boston, MA 02115 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **FITZ, Wolfgang**
[US/US]; 2 Joshua Path, Natick, MA 01760 (US).

(74) Agents: **GAUTHIER, Robert, W.** et al.; Foley Hoag LLP, Seaport World Trade Center West, 155 Seaport Blvd., Boston, MA 02210-2600 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

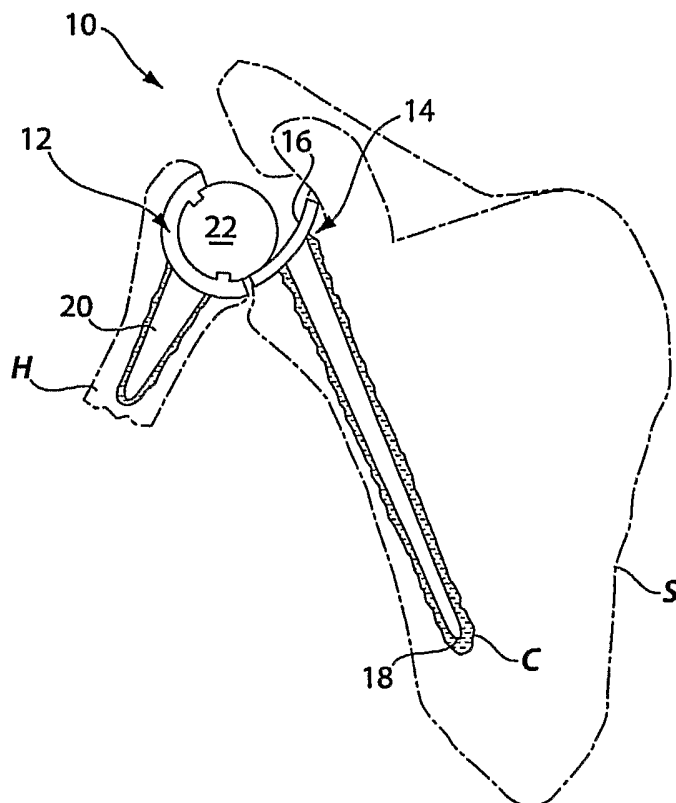
Published:

— with international search report

(88) Date of publication of the international search report:
7 December 2006

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR SHOULDER ARTHROPLASTY



(57) Abstract: A glenoid prosthesis (14) can include a bearing shell (16) for accommodating the head of the humerus and a stem (18) extending at an angle from a reverse face (26) of the shell so as to engage the stem within a canal (C) in the lateral border of the scapula (S) for anchoring the glenoid prosthesis to the scapula. The prosthesis can be one piece or modular, where the shell and the stem can be chosen from a plurality of shapes and sizes to most closely match the natural anatomy of the joint. A fastening means can attach the shell to the stem and a wearing surface (56) can be secured to the face (24) of the shell. The stem can be sized slightly larger than the canal and forcibly inserted into the canal to anchor the glenoid prosthesis to the scapula. Flutes, barbs, threads, etc. on the stem can further secure the stem within the canal.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/04673

A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61F 2/40(2006.01)

USPC: 623/19.11

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)
U.S. : 623/19.11-19.14

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)
EAST: Derwent & JPO: A61F 2/40

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 4,045,826 A (STROOT) 06 September 1977 (06.09.1977): figures; column 2, lines 23-43.	1, 13-15 ----- 8-12
X — Y	US 4,964,865 A (BURKHEAD et al.) 23 October 1990 (23.10.1990): entire document.	1-3, 5, 7, 8, 11-15 ----- 4, 6, 9, 10

☐ 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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"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	"&" document member of the same patent family

Date of the actual completion of the international search

19 August 2006 (19.08.2006)

Date of mailing of the international search report

22 SEP 2006

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Dave Willse

Telephone No. (703) 308-0858