Title: HANDHELD TRACKING SYSTEMS AND DEVICES FOR ALIGNING IMPLANT SYSTEMS DURING SURGERY

Abstract: The present invention discloses handheld tracking systems and devices comprising of at least one handheld tracking device for intra-operative aligning or positioning of surgical implant systems and instruments with reference to the anatomy of a patient. The handheld tracking system further comprises of at least one trackable element. The handheld device is mounted at the proposed implantation site using the holding means while trackable element(s) is/are mounted at predetermined location(s) such that data from said deployed trackable element(s) relating to the position of the patient and the surgical instruments are input continuously into the handheld devices. The handheld device then processes the data on the basis of pre-loaded preoperative scanned images in the processing means to monitor the accurate placement of said implant system onsite in sterile environment.
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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.1.7(i))
— as to applicant’s entitlement to apply for and be granted a patent (Rule 4.1.7(ii))
— as to the applicant’s entitlement to claim the priority of the earlier application (Rule 4.17(iii))
— of inventorship (Rule 4.1.7(iv))

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))

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INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61B 19/00 (2013.01)
USPC - 600/424

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)

IPC(8) - A61B 5/103, 6/00, 17/17, 17/56, 17/90 19/00; A61F 2/32, 2/34, 2/36, 2/46 (2013.01)
USPC - 235/380; 345/158; 600/424; 606/79; 81, 89, 91, 99, 102, 130

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

CPC - A61B 17/1668; A61F 2/34, 2/36, 2/4609 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase, Google Patents, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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</table>

Further documents are listed in the continuation of Box C.

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Date of the actual completion of the international search: 18 October 2013

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