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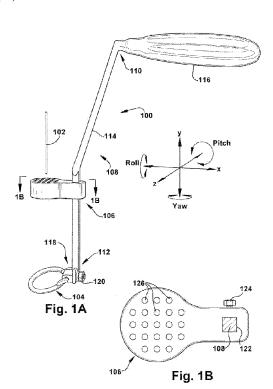
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(54) Title: METHOD AND APPARATUS FOR INSERTION OF AN ELONGATE PIN INTO A SURFACE



(57) Abstract: A trajectory structure is configured for contact with a surface to dictate an insertion trajectory of a pin relative to the surface. A location structure is configured to allow longitudinal passage of at least a portion of the pin therethrough to dictate an insertion location of the pin relative to the surface. An elongate handling rod is connected to the trajectory structure and the location structure. The handling rod supports the trajectory structure and the location structure for manipulation by a user. The handling rod spaces the trajectory structure and the location structure longitudinally apart. The trajectory structure is connected to the handling rod for trajectory adjustment in at least two degrees of freedom relative to the handling rod. The insertion trajectory of the pin insertion is substantially dependent upon the trajectory adjustment. A method for inserting an elongate guide pin into a bone surface is also provided.





 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: 21 July 2011

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2010/045132

Box No. II	Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This internat	ional search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
bec re	ims Nos.: 23-31 ause they relate to subject matter not required to be searched by this Authority, namely: The subject matter of claims 23-31 pertains to the method for the treatment of human body by surgery. Thus, the claims elate to a subject matter which this ISA is not required to search under the PCT Art. 17(2)(a)(i) and Rule 39.1(iv) of the egulations under the PCT.
└ bec	ims Nos.: ause they relate to parts of the international application that do not comply with the prescribed requirements to such an ent that no meaningful international search can be carried out, specifically:
	nims Nos.: cause 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 Internat	ional Searching Authority found multiple inventions in this international application, as follows:
2. As of a	all required additional search fees were timely paid by the applicant, this international search report covers all searchable ms. all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment any additional fee. only some of the required additional search fees were timely paid by the applicant, this international search report covers
onl	y those claims for which fees were paid, specifically claims Nos.:
	required additional search fees were timely paid by the applicant. Consequently, this international search report is cricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on	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.

PCT/US2010/045132

A. CLASSIFICATION OF SUBJECT MATTER

A61F 2/46(2006.01)i, A61B 17/88(2006.01)i, A61B 17/64(2006.01)i, A61B 17/16(2006.01)i

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 2/46; A61B 5/05; A61B 19/00; A61F 5/00; A61B 17/56

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: trajectory, insert, pin, handle

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005-0119561 A1 (THOMAS KIENZLE) 02 June 2005 See abstract, figures 2-3, paragraphs 0016, 0031, claim 2	1-22
A	US 2008-0183191 A1 (SCHOEPP HANS) 31 July 2008 See abstract, figures 1-2, paragraphs 0014, 0015, 0026, 0036-0038, claim 1, 5 , 15	1-22
A	US 6752812 B1 (TRUWIT; CHARLES L.) 22 June 2004 See abstract, figures 2-3, columns 3, 10, 11, claim 1, 8-10	1-22
A	US 05403322A A (HERZENBERG; JOHN E. et al.) 04 April 1995 See abstract, figures 1-3, columns 1, 4, 5, claim 1, 2	1-22
A	US 05980526A A (JOHNSON; WESLEY et al.) 09 November 1999 See abstract, figures 1, columns 1, 2, 4, claim 1-3, 5	1-22

		Further documents are l	listed in the	continuation	of Box C.
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See patent family annex.

- * Special categories of cited documents:
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- "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

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Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/045132

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