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[Continued on next page]

(54) Title: MATERIAL DELIVERY APPARATUS FOR A BONE SCREW

(57) Abstract: A material delivery apparatus for a bone screw includes an attachment member having a lumen disposed therethrough and adapted to removably attach to the bone screw. The apparatus further includes a delivery cannula fixedly disposed through the lumen and adapted to extend into a central bore of the bone screw for the delivery of material thereinto.

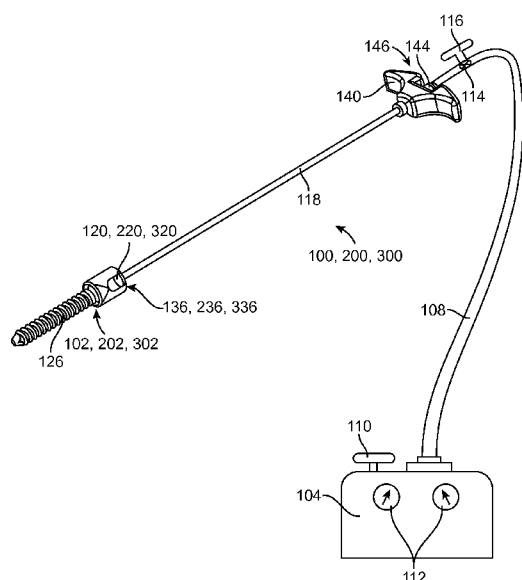


FIG. 1

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- *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))*

A. CLASSIFICATION OF SUBJECT MATTER*A61B 17/88(2006.01)i, A61B 17/90(2006.01)i, A61B 17/34(2006.01)i, A61M 25/01(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)

A61B 17/88; A61F 2/28; A61M 31/00; A61M 25/00; A61B 17/86; 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: bone screw, material delivery, attachment, cannula, groove, recess, threads

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2010-0030135 A1 (MITCHELL, MICHAEL DAVID) 04 February 2010 See abstract; figs. 1-3A, 4, 7; paragraphs 33-37, 50, 53; claims 9, 14.	1-3, 6-8, 10-12, 15 , 18 4-5, 9, 13-14, 16-17 , 19-20
X A	US 2010-0042215 A1 (STALCUP, GREGORY C. et al.) 18 February 2010 See abstract; figs. 6A, 6B; paragraphs 10, 69; claim 6.	1 2-20
A	US 2009-0204158 A1 (SWEENEY, PATRICK J.) 13 August 2009 See figs. 9, 21, 22; paragraphs 66, 68, 74, 76; claims 1, 5-7, 12.	1-20
PX	US 2011-0245881 A1 (MITCHELL, MICHAEL DAVID) 06 October 2011 See figs. 1, 2, 12, 12C; paragraphs 4, 19, 20, 25, 26, 30; claim 1.	1-3, 6-8, 10, 11, 15 , 18



Further documents are listed in the continuation of Box C.



See patent family annex.

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