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(54) **Insert units for non-metallic slips**

(57) A slip assembly for a downhole tool, such as a bridge plug, has a slip body and at least one insert unit with a base and one or more inserts. The slip body has an incline at one end that interfaces with an inclined surface of a cone. As this occurs, the slip body is pushed away from the tool's mandrel against a surrounding casing wall. The insert unit is disposed in the slip body with

the base oriented at an angle relative to the incline, and with the one or more inserts extending from the base. In particular, the base can be disposed at or parallel to the incline, and the one or more inserts with less surface area than the base can extend perpendicular to the incline for the insert's distal ends to engage a surrounding wall of casing or the like.

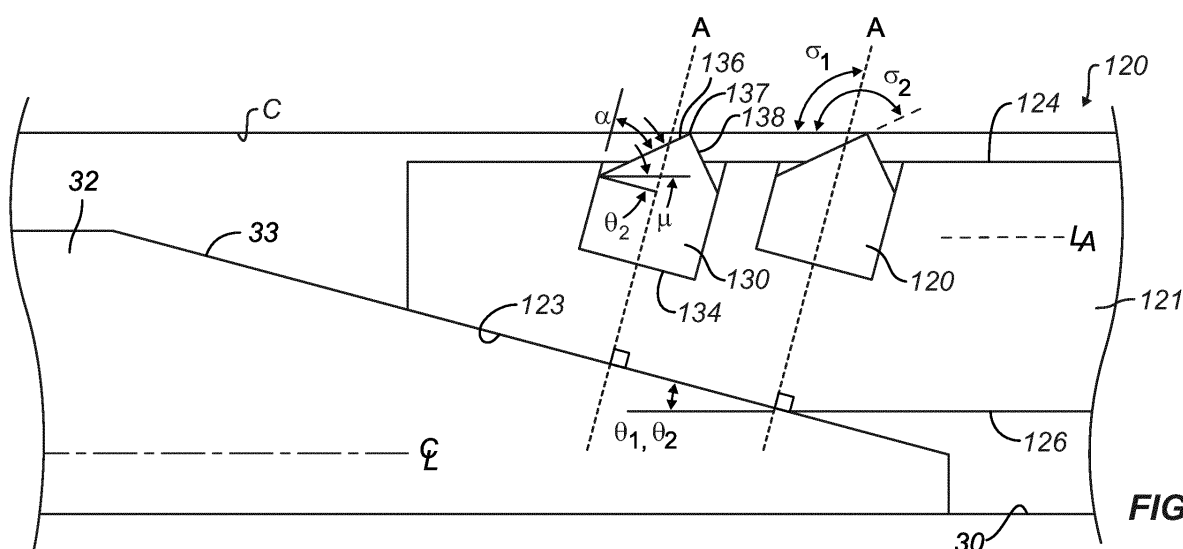


FIG. 5



EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 4 941 532 A (HURT FLOYD R [US] ET AL) 17 July 1990 (1990-07-17) * column 2, line 5 - line 39 * * column 3, line 3 - line 43 * * column 4, line 66 - column 5, line 47; figures 1, 2, 5-7 *	1-15	INV. E21B33/129
Y	US 2012/097384 A1 (VALENCIA ANTHONY [US] ET AL) 26 April 2012 (2012-04-26) * paragraphs [0029], [0030], [0032] - [0037]; figures 5-8 *	1-15	
X	US 5 131 468 A (LANE ANDREW R [US] ET AL) 21 July 1992 (1992-07-21) * column 5, line 30 - line 46 * * column 6, line 3 - line 64; figures 1-9 *	15 1	
A			
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC) E21B
Place of search The Hague		Date of completion of the search 26 November 2015	Examiner Jucker, Chava
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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26-11-2015

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82