

US008419779B2

# (12) United States Patent

# Rinner

# (10) Patent No.: US 8,419,779 B2 (45) Date of Patent: Apr. 16, 2013

# (54) SYSTEMATIC DISPLACEMENT BONE SCREW

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- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 598 days.

- (21) Appl. No.: 12/633,277
- (22) Filed: Dec. 8, 2009

# (65) **Prior Publication Data**

US 2011/0137355 A1 Jun. 9, 2011

- (51) Int. Cl. A61B 17/86 (2006.01) A61F 2/08 (2006.01)

See application file for complete search history.

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Primary Examiner — Anu Ramana

## (57) ABSTRACT

The present invention is a systematic displacement bone screw having minor and major thread diameters that are constant instead of tapered. The crests at the tip of the screw are narrower than the crests near the screw head resulting in a smaller distance between the thread flanks, which displaces and/or compresses more bone matter. Because the major diameter remains constant, the diameter of the hole made by inserting the screw is consistent over the length of the screw allowing the screw to be adjusted without loosening. The systematic displacement screw with varying crest thicknesses also avoids the need to use a larger diameter screw in place of a removed screw during a repair procedure. Rather than increasing the size of the hole, the systematic displacement screw can be used for the both the original screw and the replacement screw.

### 6 Claims, 5 Drawing Sheets

