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(12) United States Patent

Luebke

(54) DENTAL AND MEDICAL INSTRUMENTS COMPRISING TITANIUM

- (75) Inventor: **Neill Hamilton Luebke**, Brookfield, WI (US)
- (73) Assignee: Gold Standard Instruments, LLC, Brookfield, WI (US)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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- *A61C 5/02* (2006.01)
- (52) U.S. Cl. USPC 433/102

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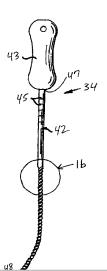
Primary Examiner — Todd Manahan Assistant Examiner — Matthew Nelson

(74) Attorney, Agent, or Firm - Quarles & Brady LLP

(57) **ABSTRACT**

Endodontic instruments for use in performing root canal therapy on a tooth are disclosed. In one form, the instruments include an elongate shank having a cutting edge extending from a distal end of the shank along an axial length of the shank. The shank comprises a titanium alloy, and the shank is prepared by heat-treating the shank at a temperature above 25° C. in an atmosphere consisting essentially of a gas unreactive with the shank. In another form, the endodontic instruments have an elongate shank having a cutting edge extending from a distal end of the shank along an axial length of the shank. The shank consists essentially of a titanium alloy selected from alpha-titanium alloys, beta-titanium alloys, and alpha-beta-titanium alloys. The instruments solve the problems encountered when cleaning and enlarging a curved root canal.

17 Claims, 7 Drawing Sheets



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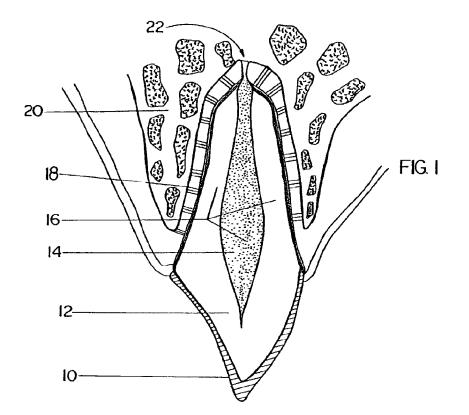
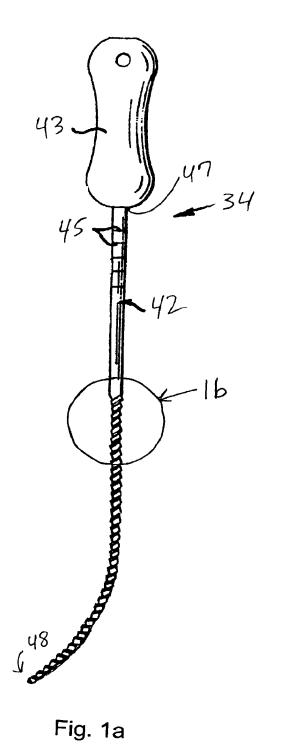
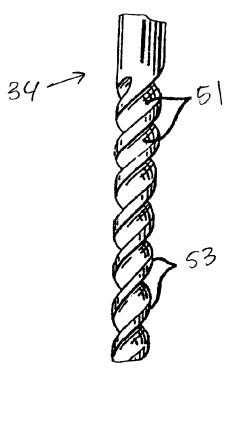


FIG.2 FIG.2 26 24 28 30 32 32 34 d d 36q

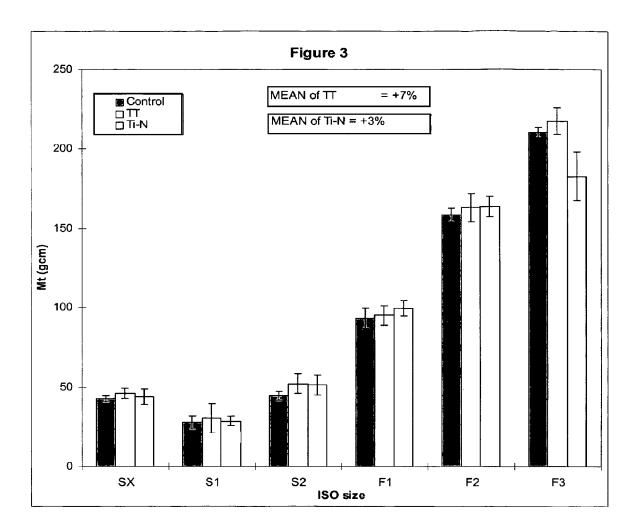
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