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(54) **ENDODONTIC INSTRUMENT**

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(57) **ABSTRACT**

An endodontic file is provided that is fabricated from a superelastic alloy material such as an alloy of nickel, titanium and niobium. The superelastic alloy material is selected to have a relatively high loading plateau greater than about 500 MPa. Such alloy material allows the formation of precision ground flutes and cutting edges with reduced incidence of burrs, rolled metal deposits and other imperfections. Thus, the cutting edges of an endodontic file constructed in accordance with the invention are sharper and cleaner than heretofore achieved and less susceptible to wear. The resulting file is also stiffer than comparable files fabricated from conventional NiTi alloys such that improved tactile feedback and manipulation control are provided.

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(22) Filed: **Dec. 17, 2001**

**Related U.S. Application Data**

(60) Provisional application No. 60/256,530, filed on Dec. 18, 2000.

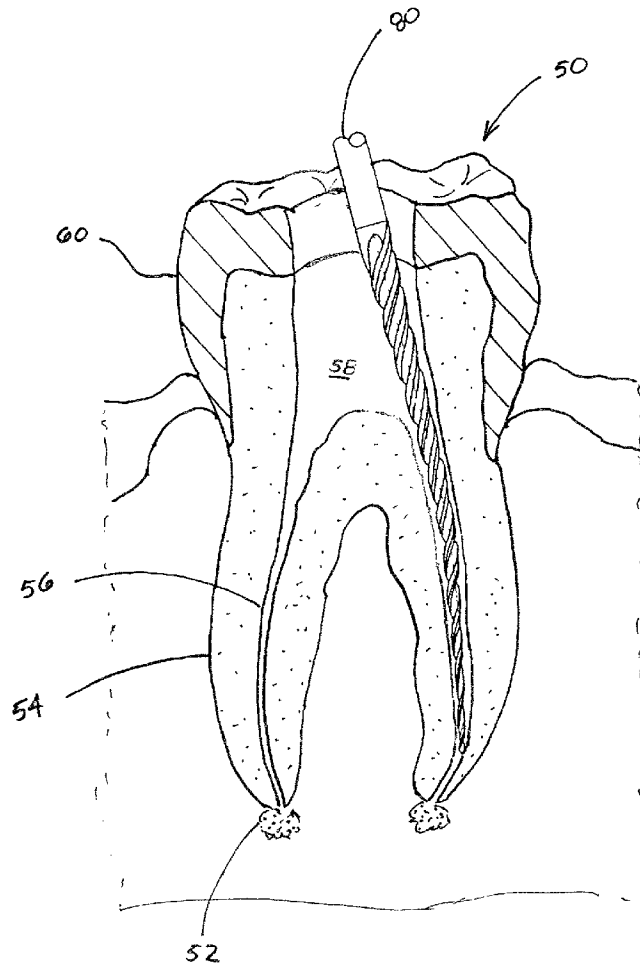
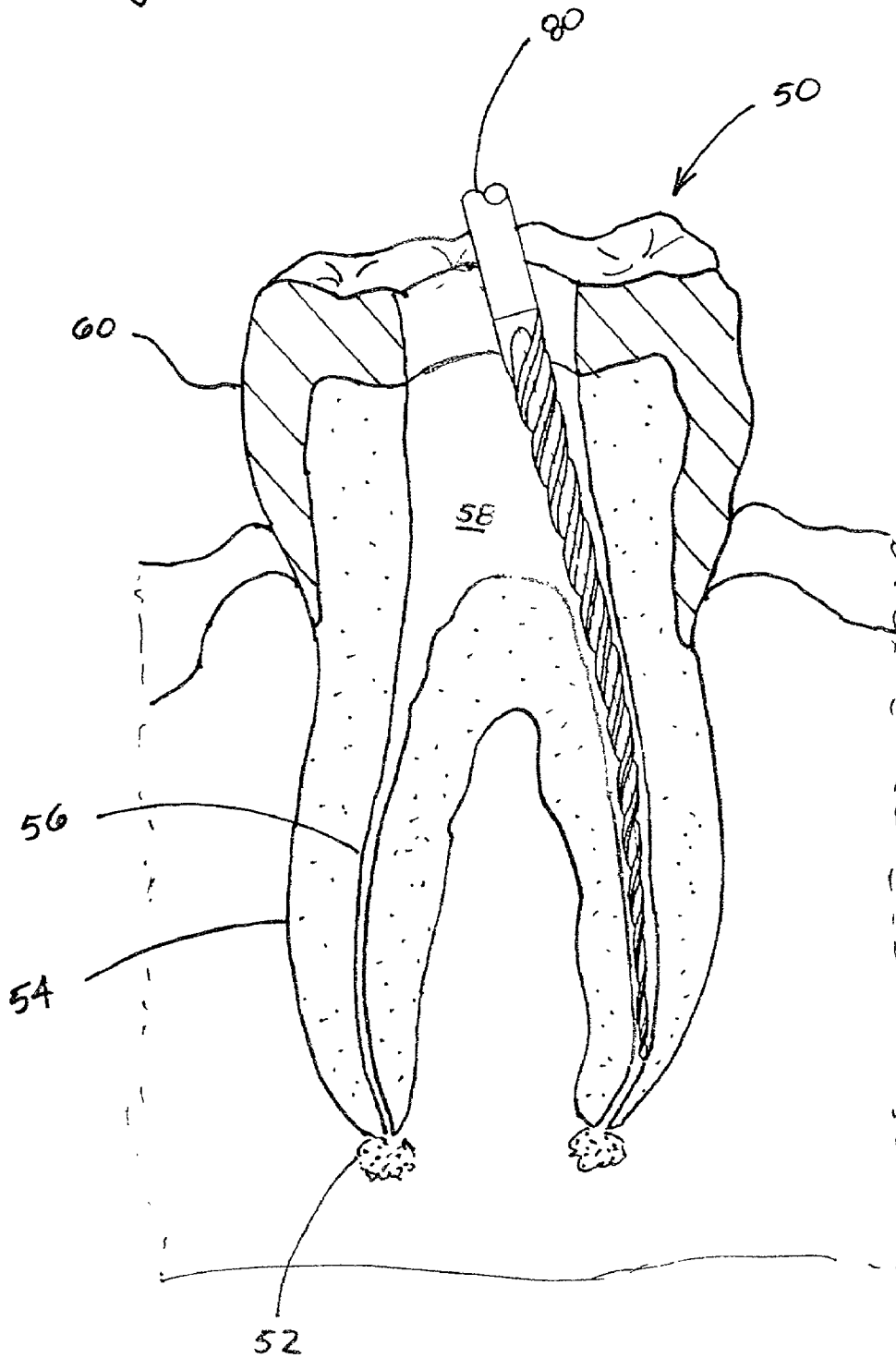


Fig. 1



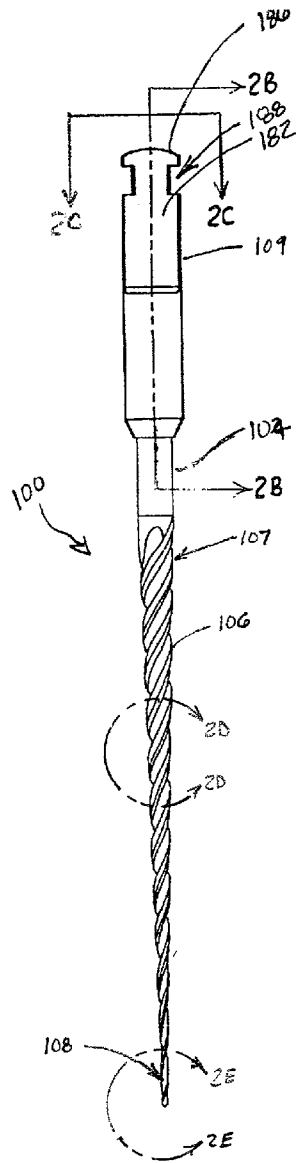


Fig. 2A

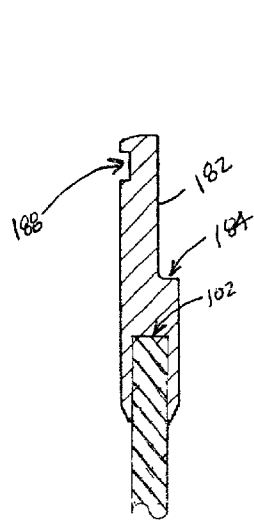


Fig. 2B

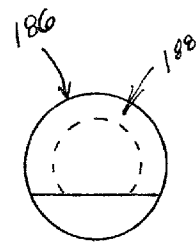


Fig. 2C

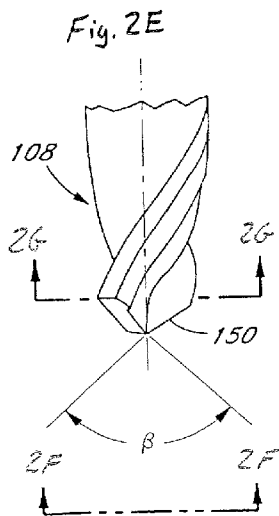


Fig. 2E

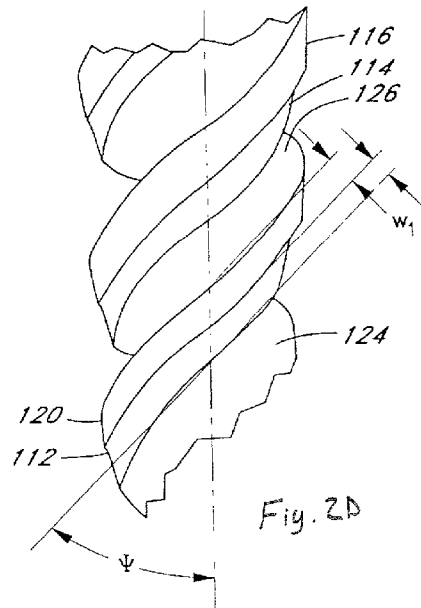


Fig. 2D

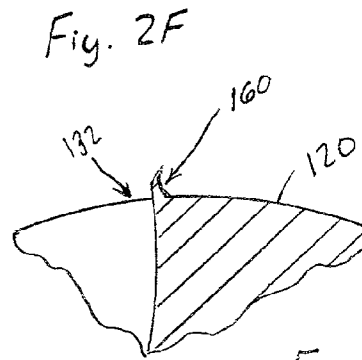
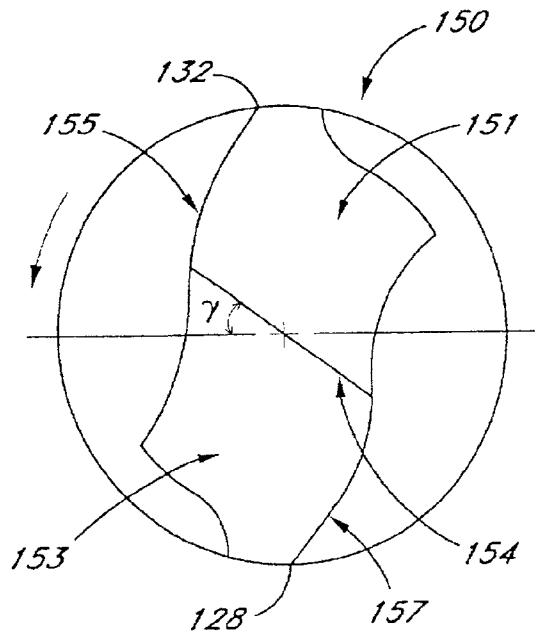


Fig. 2H

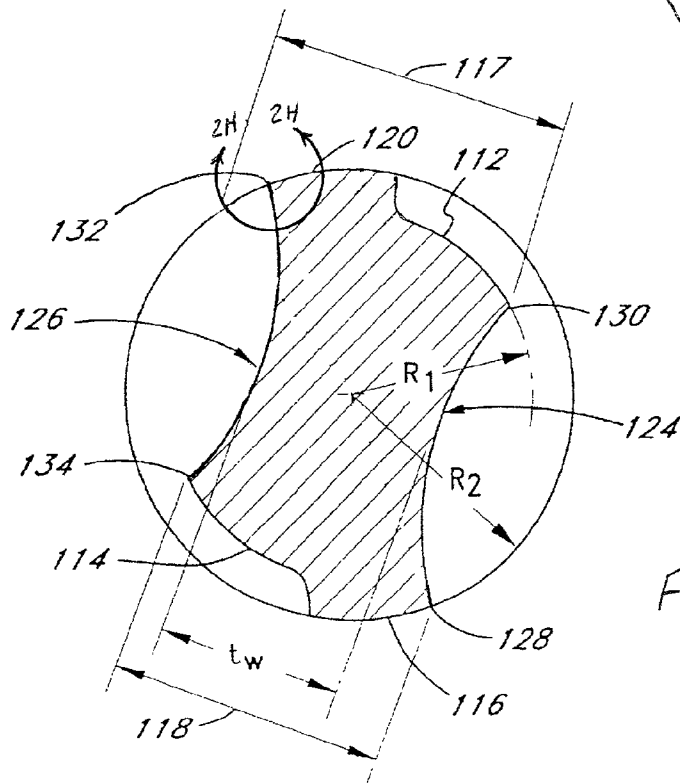


Fig. 2G

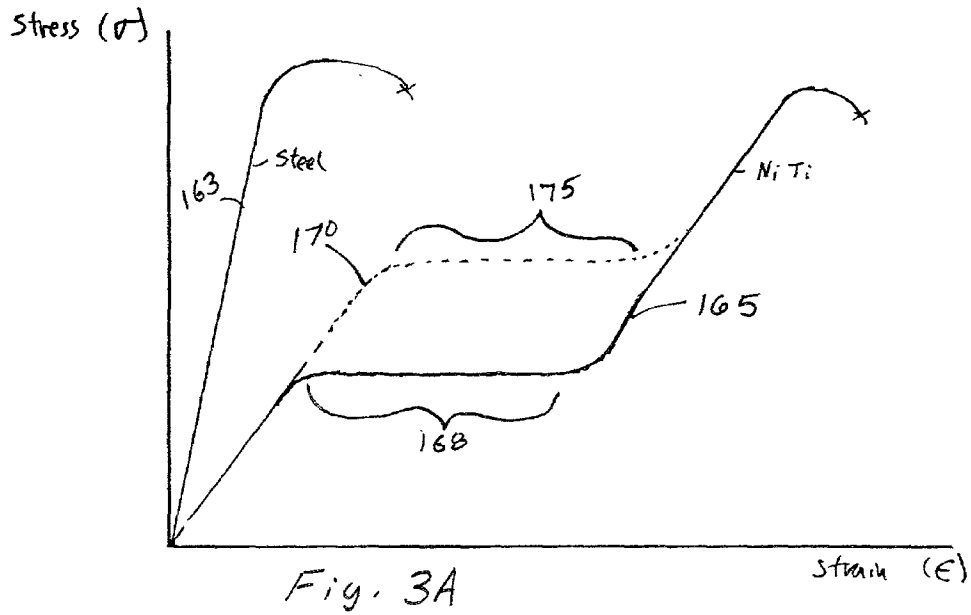


Fig. 3A

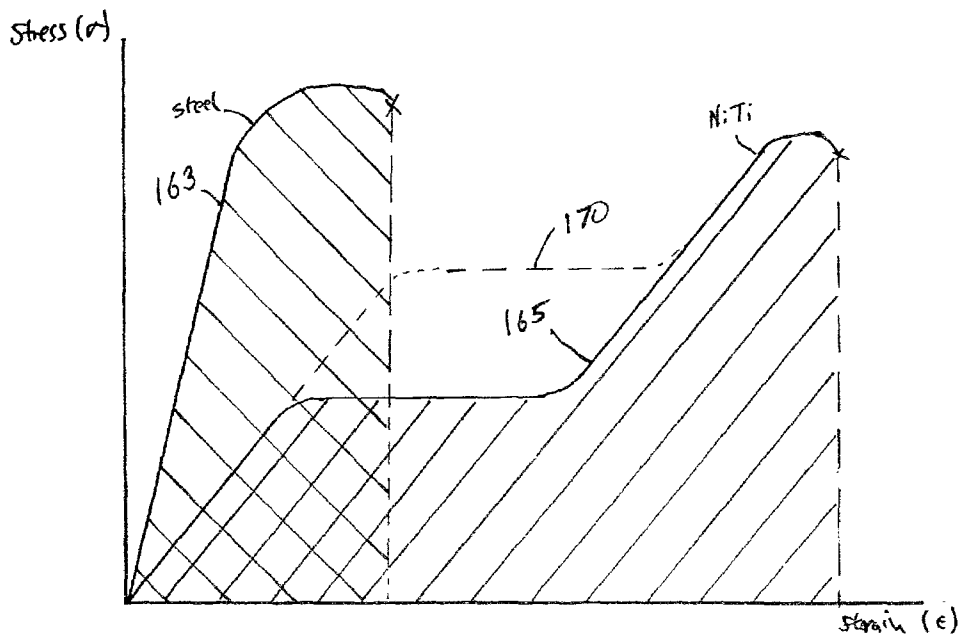


Fig. 3B

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