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Johnson

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(54) **ENDODONTIC PROCEDURE EMPLOYING
SIMULTANEOUS LIQUEFACTION AND
ACOUSTIC DEBRIDGEMENT**

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Related U.S. Application Data

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A61C 1/07 (2006.01)

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See application file for complete search history.

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(57) **ABSTRACT**

An ultrasonic liquefaction endodontic system having a graspable hand piece includes a contra-angle tip assembly that has an insert and an internal fluid flow passageway. A portion of the fluid flow passageway passes through a C-shaped receiver located at the end of the receiver so that an ultrasonic frequency may pass directly to the fluid flowing through the passageway. The fluid flow passageway may be an injection tube and the tubular body portion of the tip assembly may be injection molded around the injection tube and the insert. A supply tube, which is held in position by tube guides connected to the hand piece, provides a source of flushing fluid with and without pulsed pressure. The fluid pressure pulses may have an ultrasonic energy superimposed thereon as the fluid is forced into a root canal.

15 Claims, 4 Drawing Sheets

