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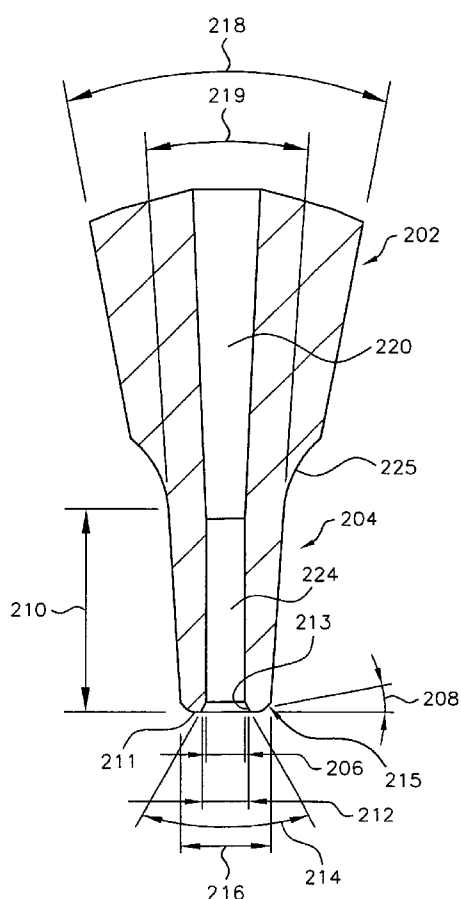
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(54) Title: ULTRA FINE PITCH CAPILLARY



(57) **Abstract:** A bonding tool for bonding a fine wire to bonding pads having a very fine pitch is disclosed. The bonding tool comprises a working tip at an end thereof. The working tip includes i) a tapered section having a predetermined angle with respect to the longitudinal axis of the first cylindrical section, ii) a working face with a first annular chamfer formed at an outside portion of an end of the working tip and, iii) a second annular chamfer formed at an inside portion of the end of the working tip. The first and second annular chamfer adjacent one another and a substantially cylindrical axial passage coupled to an upper portion of the second annular chamfer. The bonding tool is formed from a material containing at least 80 % ZrO₂ by weight.



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