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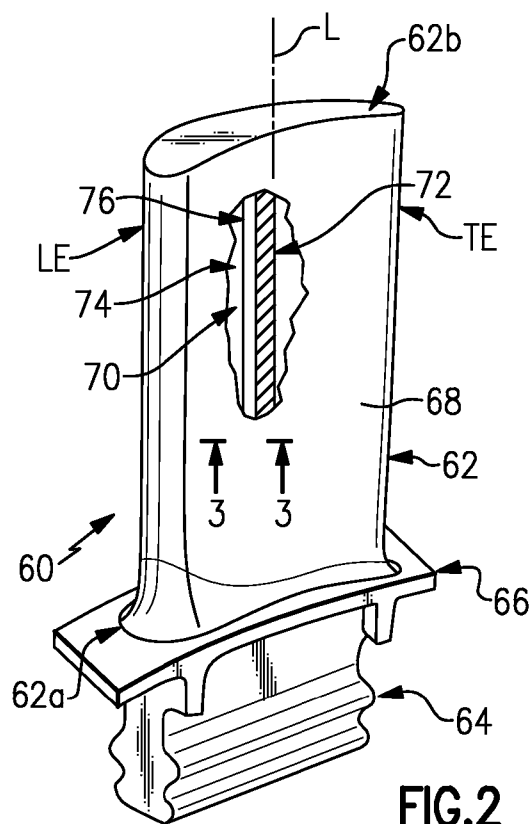
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(54) Title: CAST COMPONENT HAVING CORNER RADIUS TO REDUCE RECRYSTALLIZATION



(57) **Abstract:** A cast component includes a cast body that has a single crystal microstructure and an internal corner bounding an internal cavity. The single crystal microstructure defines a critical internal residual stress with respect to investment casting of the cast body using a refractory metal core beyond which the single crystal microstructure recrystallizes under a predetermined condition. The internal corner has a corner radius that is greater than a critical corner radius below which an amount of internal residual stress in the single crystal microstructure exceeds the critical internal residual stress. The internal cavity includes a cross section less than about 20 mils near the corner radius.



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