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(71) Applicant (for all designated States except US): **BAKER HUGHES INCORPORATED** [US/US]; 2929 Allen Parkway, Suite 2100, Houston, TX 77019 (US).

(72) Inventors: **SHETH, Ketankumar, K.**; 5308 E. 80th Place, Tulsa, OK 74136 (US). **O'BRYAN, Suresha, R.**; 4407 Malaura Lane, Joplin, MO 64804 (US). **RUTTER, Risa**; 18935 Spring Creek Land, Claremore, OK 74017 (US).

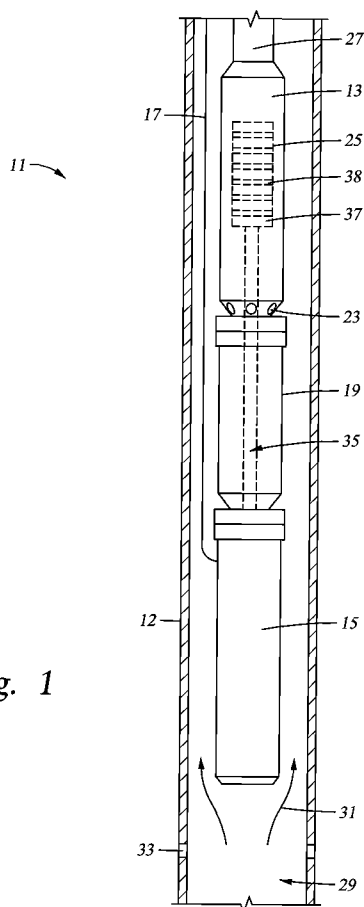
(74) Agent: **BRADLEY, James, E.**; Bracewell & Giuliani LLP, P.O. Box 61389, Houston, TX 77208-1389 (US).

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(54) Title: IMPELLER VANE WITH LEADING EDGE ENHANCEMENT

Fig. 1



(57) Abstract: A centrifugal pumping system having a stack of impellers and diffusers for pressurizing fluid. The impellers are rotated by a motor for pressurizing and lifting fluid from within a wellbore. Undulating profiles are provided on leading edges of the impellers for inducing turbulence in the fluid being pumped. Increasing turbulence better homogenizes the fluid, so that choked, flow is avoided when different density components are present in the fluid. Reducing the possibility of choked flow increases pump efficiency and lift capacity.



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