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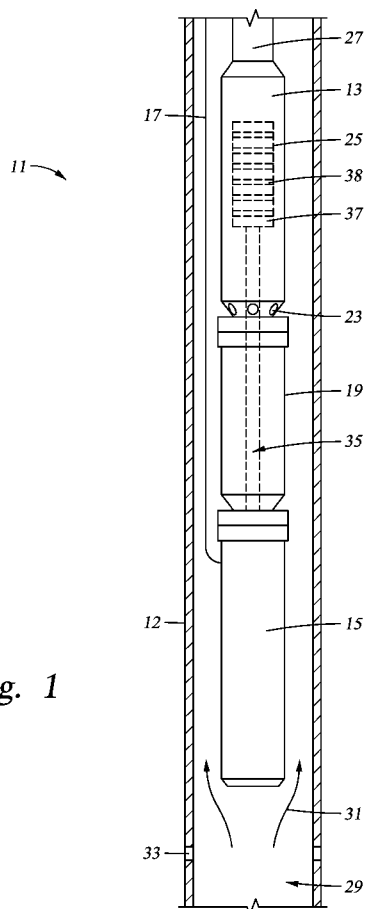
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(54) Title: IMPELLER VANE WITH LEADING EDGE ENHANCEMENT

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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