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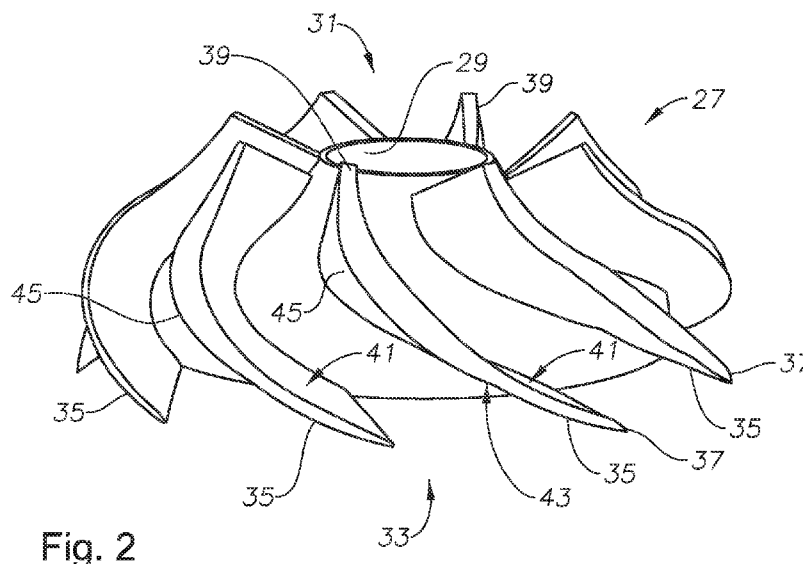
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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) **Title:** DIFFUSER BUMP VANE PROFILE**Fig. 2**

(57) **Abstract:** An electric submersible pump (ESP) assembly increases pump efficiency and pump head with a diffuser that includes a diffuser vane having a low pressure surface with a length greater than a length of a high pressure surface of the vane. The diffuser vane includes a leading edge at a downstream end of the vane and a trailing edge at an upstream end of the vane. The curved high pressure surface extends between the leading edge and the trailing edge. The curved low pressure surface extends between the leading edge and the trailing edge opposite the high pressure surface. The low pressure surface has a bump formed thereon to increase the length of the low pressure surface so that fluid flowing along the low pressure surface is substantially laminar, thereby increasing pump efficiency and pump head.



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