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(54) **STAGE IN A SUBMERGED MULTIPLE-STAGE PUMP**

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(57) **ABSTRACT**

A multistage oil-well pump for pumping out formation fluid has a higher pressure head at low delivery rates and higher stability of performance when gas pockets are present in the medium being transferred. To this end, in the stage of a multistage submersible pump, having an impeller which comprises a driving disk and a driven disk with vanes interposed therebetween, and a guide vane assembly with shaped vanes whose leading edges extend beyond the outside diameter of the external lid of the guide vane assembly, triangular cells are provided at the periphery of the impeller driving disk on the lateral surface thereof, which cells are open towards the disk outer side, and a side annular channel is provided on the surface of the external lid of the guide vane assembly, which surface mates with the impeller. The surface of the lateral annular channel is paced apart from the upper edge of the impeller cells at least 0.3 times the depth of the latter, and the radial length of the cells is not in excess of 0.3 times the driving disk radius.

3 Claims, 3 Drawing Sheets