

[54] RIVER TURBINE

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[58] Field of Search 415/2-4, 415/7, 121 G, 161, DIG. 1, 122 A; 290/54, 55; 210/448; 60/39.09 P; 416/85, 189

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[57] ABSTRACT

A turbine wheel on a horizontal shaft is coaxially mounted within a primary nozzle, for support in a river current below a platform carrying electrical power generation equipment. The turbine shaft and primary nozzle are submerged and oriented to enable flow of a portion of river current through the nozzle and past the turbine wheel.

The external surface of the nozzle is shaped and has structure to accelerate and/or direct the flow of the adjacent surrounding mainstream river current in a manner to generate a sheath which aids the efflux of that portion of the river current which has passed through the turbine. Part of the said structure is a secondary nozzle surrounding the primary nozzle; the secondary nozzle is arranged to accentuate the control of the surrounding mainstream river current. Bearing means, support means, power take-off means, speed control means and blade shapes are disclosed.

10 Claims, 18 Drawing Figures

