(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 January 2008 (17.01.2008)

PCT

(10) International Publication Number
WO 2008/006614 A1

(51) International Patent Classification:
H02K 7/18 (2006.01)

(21) International Application Number:
PCT/EP2007/006258

(22) International Filing Date: 13 July 2007 (13.07.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
06014667.7 14 July 2006 (14.07.2006) EP

(71) Applicant *(for all designated States except US)*: **OPEN-HYDRO GROUP LIMITED** [IE/IE]; 66 Fitzwilliam Square, Dublin 2 (IE).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: **SPOONER, Ed** [GB/GB]; Field Stile, Westgate, Bishop Auckland, County Durham DL13 1SL (GB).

(74) Agents: **O'NEILL, Brian** et al.; F.R. Kelly & Co., 27 Clyde Road, Ballsbridge, Dublin 4 (IE).

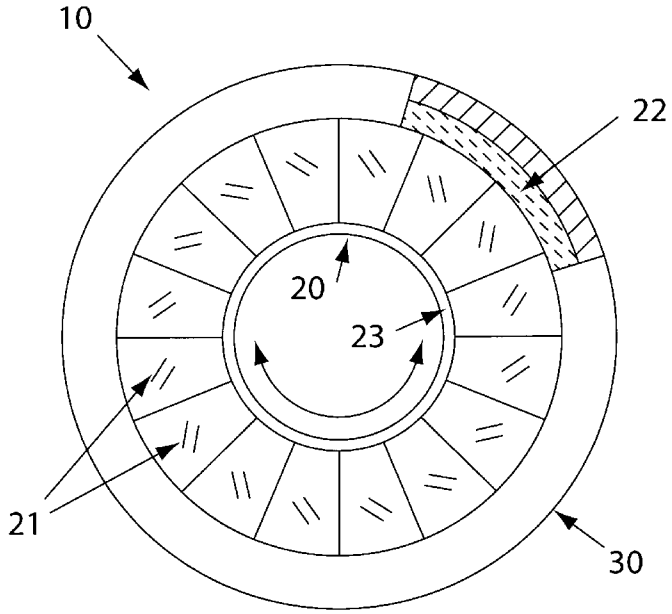
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** A HYDROELECTRIC TURBINE



(57) **Abstract:** The present invention provides a hydroelectric turbine comprising a stator and a rotor housed concentrically within the stator, the turbine comprising a circumferentially disposed array of magnets on a rim of the rotor, and wherein the stator is slotless in configuration and is formed from a wire winding as opposed to the conventional toothed laminations, the turbine further comprising an annular array of individual coils mounted on the stator concentrically inwardly of the wire winding, each coil being provided with a dedicated rectifier to convert AC current induced in the coil into DC, preferably for transmission to a remote location.

WO 2008/006614 A1