



- (51) **International Patent Classification:**
F03B 13/10 (2006.01) *F03B 13/18* (2006.01)
F03B 17/06 (2006.01)
- (21) **International Application Number:**
PCT/US2012/062621
- (22) **International Filing Date:**
30 October 2012 (30.10.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/628,518 31 October 2011 (31.10.2011) US
13/454,059 23 April 2012 (23.04.2012) US
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- (81) **Designated States** (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,
RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

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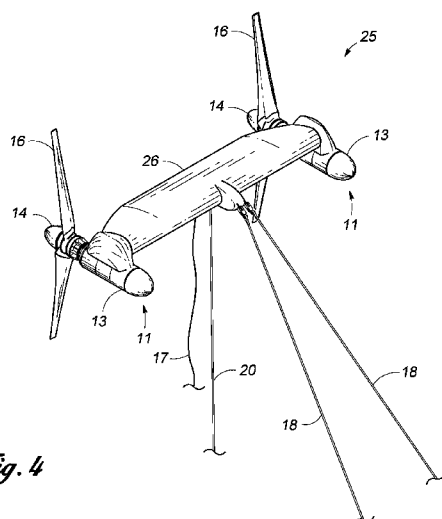
(54) **Title:** MULTI-MEGAWATT OCEAN CURRENT ENERGY EXTRACTION DEVICE

Fig. 4

(57) **Abstract:** An underwater apparatus for generating electric power from ocean currents and deep water tides. A submersible platform including two or more power pods, each having a rotor with fixed-pitch blades, with drivetrains housed in pressure vessels that are connected by a transverse structure providing buoyancy, which can be a wing depressor, hydrofoil, truss, or faired tube. The platform is connected to anchors on the seafloor by forward mooring lines and a vertical mooring line that restricts the depth of the device in the water column. The platform operates using passive, rather than active, depth control. The wing depressor, along with rotor drag control, ensures the platform seeks the predetermined operational current velocity. The rotors are directly coupled to a hydraulic pump that drives at least one constant-speed hydraulic-motor generator set and enables hydraulic braking. A fluidic bearing decouples non-torque rotor loads to the main shaft driving the hydraulic pumps.



Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

Published:

— *with international search report (Art. 21(3))*

(88) Date of publication of the international search report:

11 July 2013