

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/089295 A3

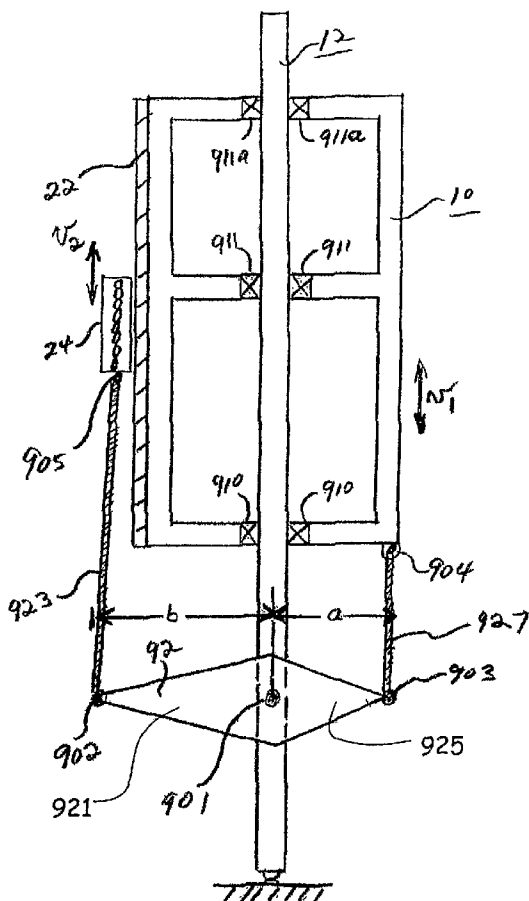
- (51) International Patent Classification:
F03C 1/00 (2006.01)
- (21) International Application Number:
PCT/US2005/008495
- (22) International Filing Date: 15 March 2005 (15.03.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/553,666 16 March 2004 (16.03.2004) US
- (71) Applicant (for all designated States except US): OCEAN
POWER TECHNOLOGIES, INC. [US/US]; 1590 Reed
Road, Pennington, NJ 08534 (US).
- (72) Inventors: SABOL, Thomas; 3 Stoney Creek Place,
Lawrenceville, NJ 08648 (US). STEWART, David, B.; 2
Symmes Court, Cranbury, NJ 08512 (US).
- (74) Agent: SCHANZER, Henry, I.; 29 Brookfall Rd., Edi-
son, NJ 08817 (US).

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

[Continued on next page]

(54) Title: WAVE ENERGY CONVERTERS (WECs) WITH VELOCITY MULTIPLICATION



(57) Abstract: A WEC system embodying the invention includes a column and shell, arranged to move relative to each other, and a lever-like apparatus having an input end and an output end and an intermediate point, between the two ends, the intermediate point being rotatably connected to the column. The input end is connected to the shell and moves at the same velocity and in the same direction as the shell. The output end moves in the opposite direction and at a rate which is a multiple of the shell velocity. The multiple being a function of the ratio of the length of the intermediate point to the output and input ends. In systems embodying the invention, one of two components (a PMA or an ICA) of a linear electric generator may be attached to the shell and the other of the two components may be attached to the output end of the lever-like apparatus to produce high relative velocity between the two components resulting in higher amplitude and higher frequency output voltages.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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.

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

22 February 2007

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/08495

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **F03C 1/00**(2007.01)

USPC: 60/497,498

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 60/495, 496, 497, 498; 290/42, 53, 54

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,328,539 B1 (HUNG) 11 December 2001 (11.12.2001), see figure 1.	1-4 ----- 5-9
X --- Y	US 1,223,184 A (LARSON) 17 April 1917 (17.04.1917), see figure 1.	1-4 ----- 5-9
Y	US 6,644,027 B1 (KELLY) 11 November 2003 (11.11.2003), see figure 1.	5-9

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"&"

document member of the same patent family

Date of the actual completion of the international search

28 October 2006 (28.10.2006)

Date of mailing of the international search report

26 DEC 2006

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Hoang M. Nguyen

Telephone No. (703) 308-0861

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/08495

Continuation of B. FIELDS SEARCHED Item 3:

EAST:

search terms: linear generator, lever arm, output linkage or mechanism or lever