

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 February 2008 (21.02.2008)

PCT

(10) International Publication Number
WO 2008/020431 A2

(51) International Patent Classification:
H01L 41/09 (2006.01)

(21) International Application Number:
PCT/IL2007/001000

(22) International Filing Date: 9 August 2007 (09.08.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/822,237 13 August 2006 (13.08.2006) US
11/692,950 29 March 2007 (29.03.2007) US

(71) Applicant and
(72) Inventor: **SCHLESINGER, DANIEL** [IL/IL]; Hanasher
17, 30500 Beniamina (IL).

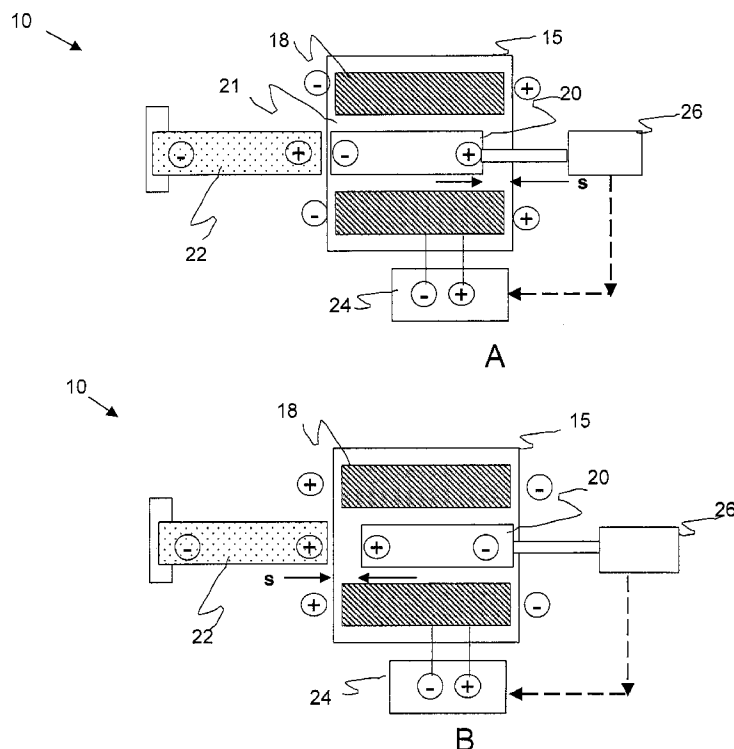
(74) Agent: **FRIEDMAN, Mark**; 7 Jabotinsky Street, 52520
Ramat Gan (IL).

(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:
— without international search report and to be republished upon receipt of that report

(54) Title: MAGNETICALLY DRIVEN RECIPROCATING SYSTEM AND METHOD



(57) Abstract: A magnetically driven reciprocating power output system including: at least one first electromagnet having a direction of elongation defining an axial direction, having a first end and a second end, and having an elongated opened core extending from the first end to the second end, the core having an axis of symmetry substantially coaxial with the axial direction; a control unit adapted to provide a first power input to the first electromagnet and adapted to cause the electromagnet to have a time-varying first magnetic field with a first polarity directed in substantially the axial direction; at least one stationary body having a second magnetic field with a second polarity directed in substantially the axial direction and configured substantially coaxially with the core region at the first end; at least one reciprocating ferromagnetic body configured substantially coaxially with the core, and not extending completely outside of the core at the second end, adapted to have a second magnetic field in response to the first magnetic field, the body displaceable axially in response to the first and second magnetic fields; and a transducer unit mechanically connected to the reciprocating body and adapted to convert a

displacement of the reciprocating body to a power output.