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

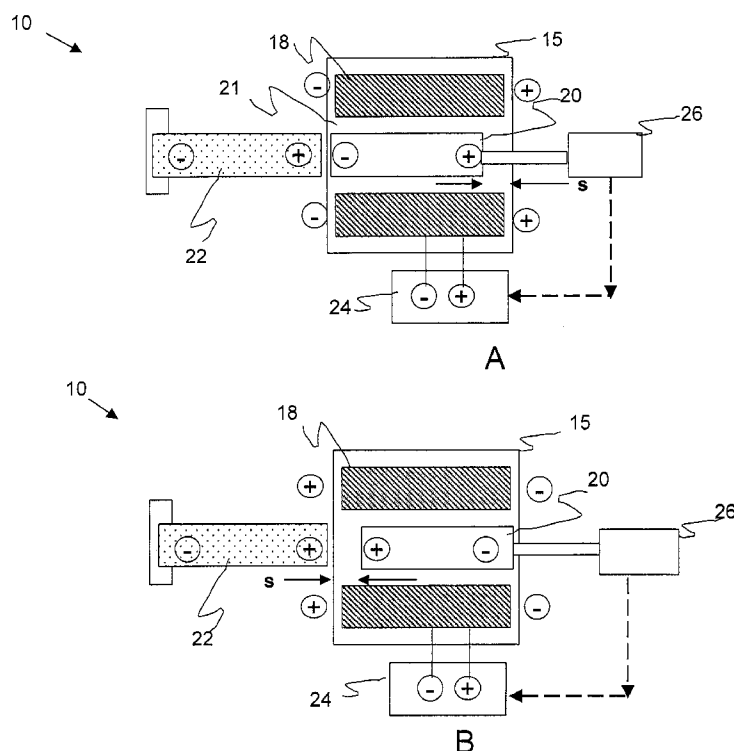
(74) Agent: **FRIEDMAN, Mark**; 7 Jabotinsky Street, 52520
Ramat Gan (IL).

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(54) Title: MAGNETICALLY DRIVEN RECIPROCATING SYSTEM AND METHOD



displacement of the reciprocating body to a power output.

(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