47 repel each other and compress springs 53 and 55. When the shutter member 57 is again placed between magnets 45 and 47, the compressed springs 53 and 55 force magnets 45 and 47 back into the position shown in FIG. 3. Periodic action of shutter member 57 will produce a periodic reciprocating motion which may be converted to useful rotary motion by circular wheels 59 and 61. The shutter 57 may be mounted for rotary motions in a fashion similar to shutters 27 and 29 of FIG. 1.

What is claimed is:

1. A permanent magnet motor comprising

a pair of permanent magnets positioned in spaced relationship,

a reciprocating magnetizable member positioned between said permanent magnets,

power-take-off means coupled to said reciprocating member,

spring means biasing said reciprocating member between said permanent magnets,

a pair of magnetic shields positioned on either side of said reciprocating member and between said permanent magnets to shield said reciprocating member from the magnetic fields of said permanent magnets, and

means to move said shields in and out between said reciprocating member and said permanent magnets to alternately shield and expose said member to the magnetic fields of said permanent magnets,

whereby the actions of the magnetic fields of the permanent magnets and the spring means cause the reciprocating magnetizable member to reciprocate between the permanent magnets.

2. The combination according to claim 1 wherein said magnetic shields comprise

rotatable shutters positioned to be inserted and removed at right angles to the magnetic fields of the permanent magnets.

3. The combination according to claim 1 wherein said spring means comprise

a spring connected to either side of said reciprocating member whereby motion of said reciprocating member in one direction will elongate one spring and compress the other to provide restorative forces to the reciprocating member at each end of its travel.

4. the combination according to claim 1 wherein

said reciprocating magnetizable member is a permanent magnet.

5. A permanent magnet motor comprising

first and second permanent magnets,

first and second mounting means for mounting said first and second magnets in spaced relationship for reciprocating movement along a common axis with like magnetic poles adjacent each other,

power-take-off means coupled to said first and second magnets, and

magnetic shield means positioned between said first and second magnets for alternately shielding and exposing the magnets to the magnetic field of the other,

first and second spring means for biasing said magnets in positions immediately adjacent each other,

whereby the alternate withdrawal and replacement of said shield means causes the magnets to repel each other against the biasing action of the springs and to be returned to their original adjacent positions by the spring action.

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