A Practical Guide to 'Free Energy' Devices

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4. Energy can be taken from "permanent" magnets

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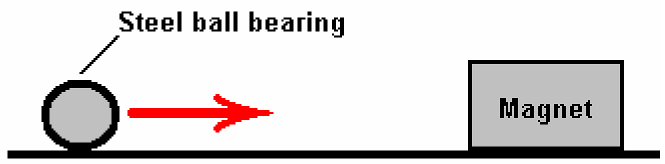
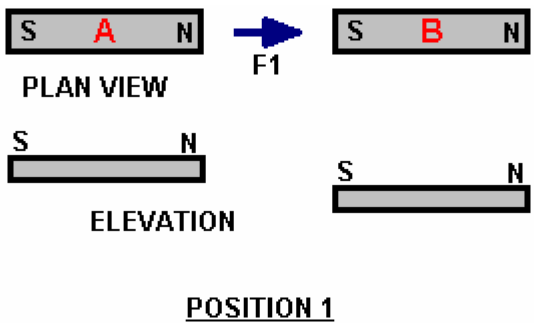
Several motor designs have been published where the motor uses permanent magnets as the motive power. These stir up an incredible amount of indignation on the part of those who believe that such motors are not possible. Several more motor designs have been published where the permanent magnets have their operation or position modified by electromagnets or small electric motors. It is generally conceded that these will work but most people do not believe that the resulting device will operate as an Over-Unity device. I have never seen a working motor powered by permanent magnets alone, so I merely present the information to you for your assessment and/or investigation.

One major objection to permanent magnet motors comes from the belief that permanent magnets can't do work. This is clearly not true. Take the case of a steel ball bearing placed near a strong permanent magnet:



What will happen? As soon as it is released, the ball bearing accelerates towards the magnet and rolls all the way over to it. Work is being performed, and if you don't believe that, then try pushing a car for a couple of miles. The level of exhaustion which results from doing that should convince you that work *is* being done. In addition to the movement, air is being pushed out of the way as the ball bearing moves. It takes power to push air around. If the magnet is on a board, then sound will be produced by the ball bearing moving and it takes power to make sounds. If the magnet is powerful, the ball bearing can be made to roll up a slope to the magnet. In that instance it is especially easy to see that work is being done since the whole weight of the ball bearing is being raised from its starting position to its finishing position. The difficult part is to devise a system where this power to do work can be used to drive a useful mechanism.

The single biggest objection to a permanent magnet motor is that the rotor magnets will find a point of magnetic balance with the stator magnets and lock in a stationary position at that point. This appears to be a perfectly reasonable opinion to hold. Let's apply some layman common sense to the problem and see if we can come up with at least a reasoned opinion on the subject. Suppose we have two identical bar magnets, 'A' and 'B' as shown here in 'Position 1':



Magnet 'A' is held in a plane slightly higher than magnet 'B' so that they do not touch if they pass each other. There are four forces acting in this position:

The North pole of magnet 'A' is attracted to the South pole of magnet 'B'; this is the largest force in this position.

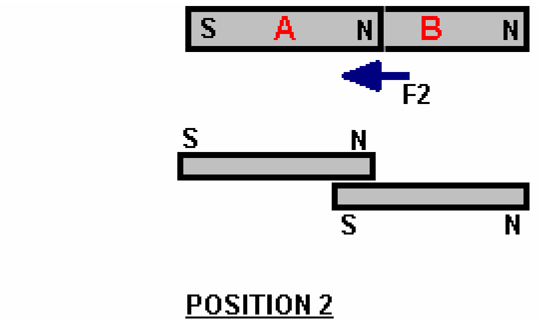
The North pole of 'A' is repelled by the North pole of 'B' but as they are so far apart, the force is relatively weak.

The South pole of 'A' is repelled by the South pole of 'B' but as they are so far apart, the force is relatively weak.

The South pole of 'A' is Attracted to the North pole of 'B' but as they are so far apart, the force is very weak.

Let us say that these four forces combine to give a composite force shown as 'F1' in the above diagram. Assuming that magnet 'B' is a stator magnet which is fixed in position and that magnet 'A' is a rotor magnet which is free to move in a plane just above magnet 'B', then, if friction forces are small enough, magnet 'A' will start to move towards magnet 'B'.

As it moves, the forces change. The nett change is an increase in the composite force moving the two magnets towards each other. However, when the North pole of 'A' reaches a position directly above the South pole of 'B', the balance of the forces has changed so much that there is a radically different situation. The momentum of the rotor will carry the North pole of ‘A’ just past the South pole of ‘B’ as shown here:

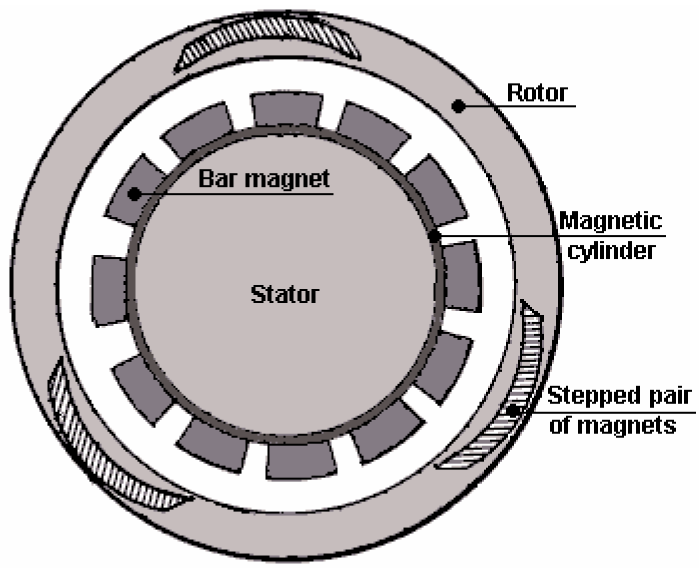


The resultant force ‘F2’ is in the opposite direction and is very large. The North pole of ‘A’ is strongly attracted backwards to the South pole of ‘B’. The North pole of ‘A’ is experiencing a serious level of repulsion from the North pole of ‘B’. The South pole of ‘A’ is also experiencing a serious level of repulsion from the South pole of ‘B’. The only force which tends to keep magnet ‘A’ moving onwards is the very much weaker attraction force between the South pole of ‘A’ and the North pole of ‘B’.

In this situation, it is clear that the rotor will rapidly come to rest with the North pole of ‘A’ directly above the South pole of ‘B’. Even if the rotor is heavy and given a good spin to start the system, with this arrangement, it will still come to rest in its equilibrium position and not continue to rotate.

It does not necessarily follow that every other arrangement will also do that although an intuitive guess would be that it is likely to be so. If the stator magnets are much shorter than the rotor magnets and there are two or more rotor magnets held together in a stepped position there may well be a situation where there is a continuous nett forward force. Many people have come up with ingenious arrangements for using permanent magnets. These include introducing a magnetic screen at the moment when a reverse force would be encountered and removing it when the nett forward thrust situation starts. Other systems move the “stator” magnets, some on rotating discs, some on rocker arms. Some examples are given here:

Howard Johnson. Howard Johnson built, demonstrated and gained US patent 4,151,431 on 24th April 1979, from a highly sceptical patent office for, his design of a permanent magnet motor. He used powerful but very expensive Cobalt/Samarium magnets to increase the power output and demonstrated the motor principles for the Spring 1980 edition of *Science and Mechanics* magazine. His patent is included in this set of documents. His motor configuration is shown here:

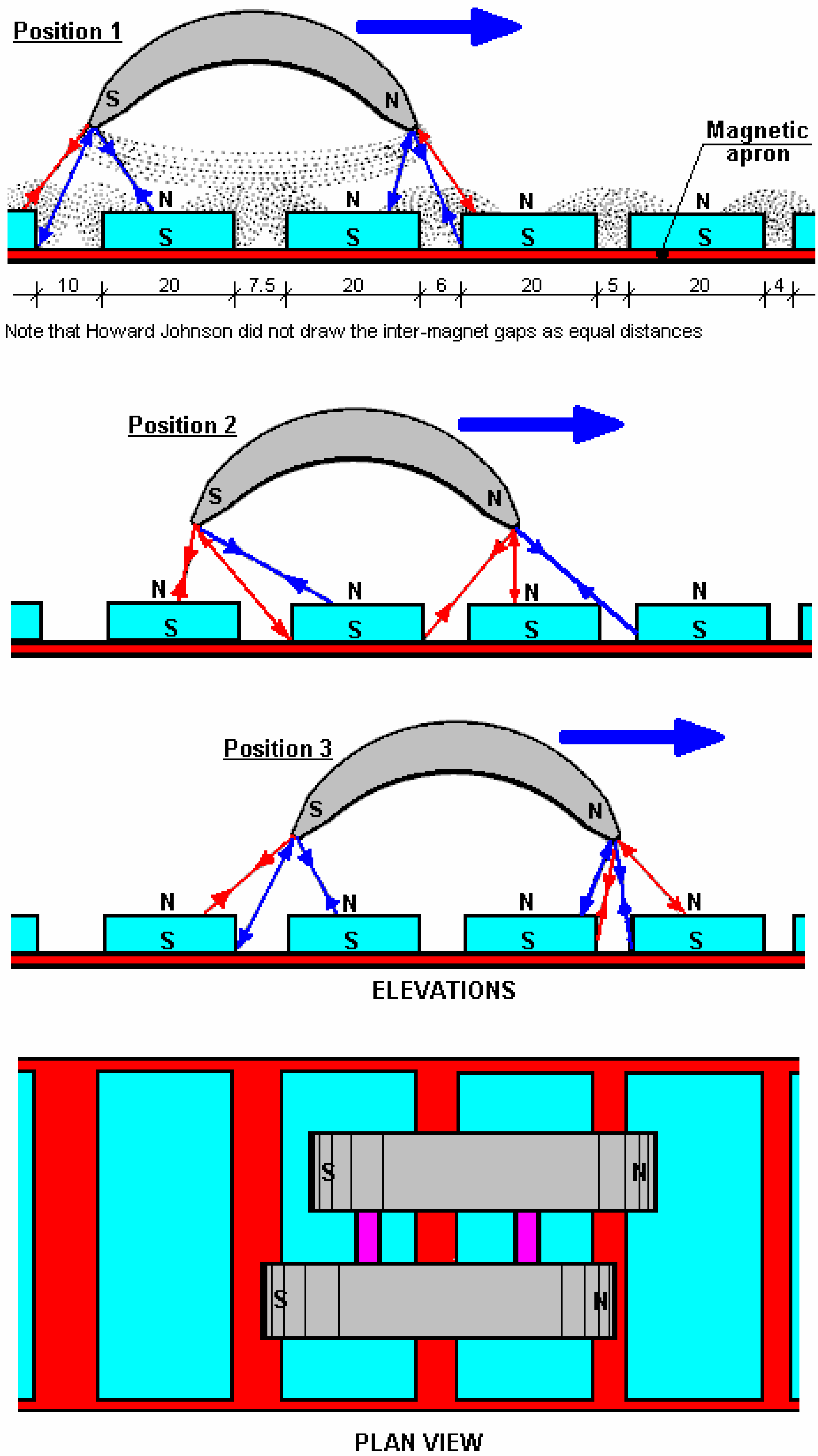


Note that the gaps between the magnets are not a constant width.

The point that he makes is that the magnetic flux of his motor is always unbalanced, thus producing a continuous rotational drive. The rotor magnets are joined in stepped pairs, connected by a non-magnetic yoke. The stator magnets are placed on a mu-metal apron cylinder. Mu-metal is very highly conductive to magnetic flux (and is expensive). The patent states that the armature magnet is 3.125” (79.4 mm) long and the stator magnets are 1” (25.4 mm) wide, 0.25” (6 mm) deep and 4” (100 mm) long. It also states that the rotor magnet pairs are **not** set at 120 degrees apart but are staggered slightly to smooth out the magnetic forces on the rotor. It also states that the air gap between the magnets of the rotor and the stator are a compromise in that the greater the gap, the smoother the running but the lower the power. So, a gap is chosen to give the greatest power at an acceptable level of vibration.

Howard considers permanent magnets to be room-temperature superconductors. Presumably, he sees magnetic material as having electron spin directions in random directions so that their nett magnetic field is near zero until the electron spins are aligned by the magnetising process which then creates an overall nett permanent magnetic field, maintained by the superconductive electrical flow.

The magnet arrangement is shown here:



Note that Howard Johnson drew the rotor magnets with a 3% difference in length

Howard made measurements of the magnetic field strengths and these are shown in the following table:

Measurements taken at the North and South poles of the armature magnet shows that there is a constant off-balance situation.

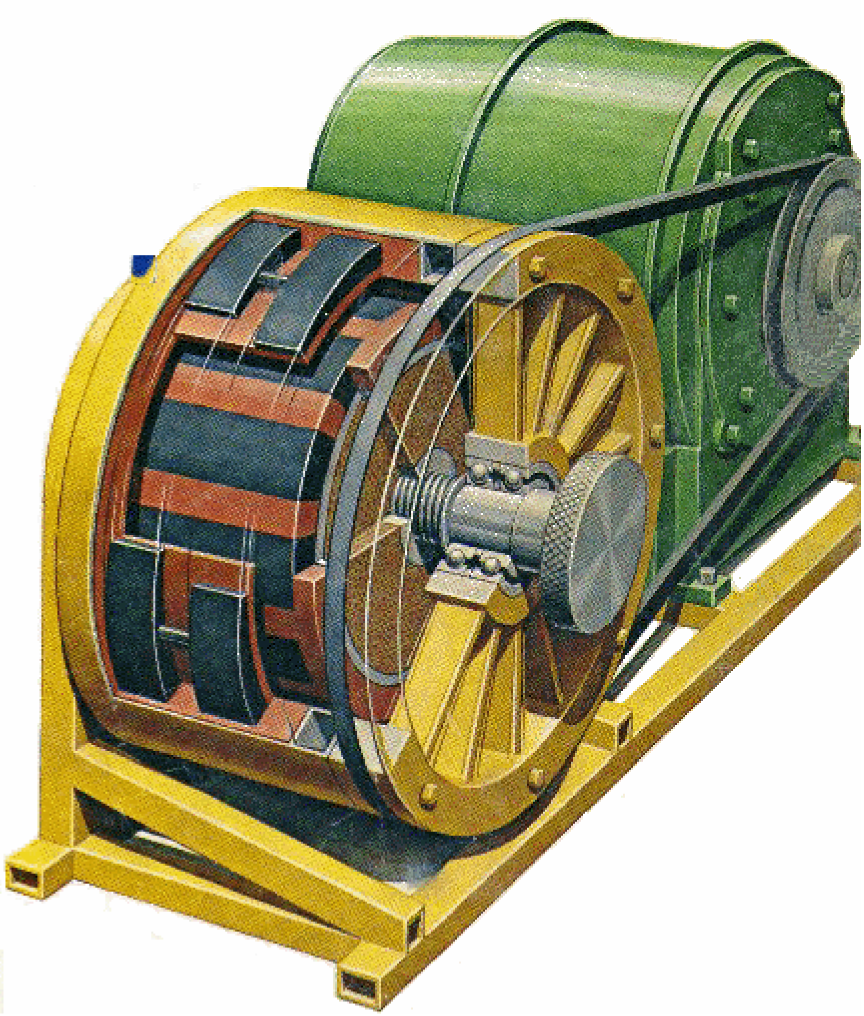
"Zero" Air Gap SOUTH POLE of Armature over: Spaces (Repulsion)	Stator Magnets (Attraction)	1/8" Air Gap SOUTH POLE of Armature over: Spaces (Repulsion)	Stator Magnets (Attraction)
925	1650	950	1250
675	2220	550	1175
600	2200	650	1150
500	2175	650	1150
375	2325	800	1150
300	2275	600	1175
525	2150	750	1150
600	2275	700	1200
450	1800	800	1100
550	1700	850	1150
575	1825	650	975
400	2050	850	1250
475	2150	675	1350
6,950 Gauss	26,775 Gauss	9,475 Gauss	15,225 Gauss
33,725 Gauss (Total)		24,700 Gauss (Total)	

9,025 Gauss (Difference)

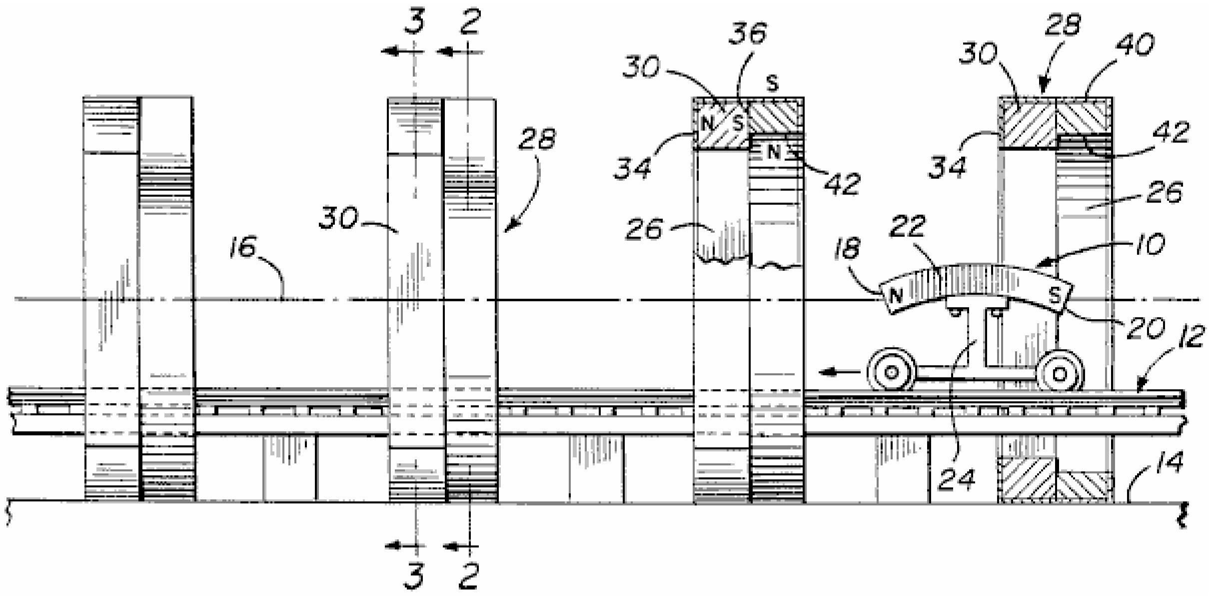
"Zero" Air Gap SOUTH POLE of Armature over: Spaces (Repulsion)	Stator Magnets (Attraction)	3/8" Air Gap SOUTH POLE of Armature over: Spaces (Repulsion)	Stator Magnets (Attraction)
750	1600	875	1100
700	1450	950	1450
850	1500	950	1400
1175	1600	925	1375
950	1400	925	1350
900	1400	950	1450
950	1575	925	1350
800	1350	925	1350
1050	1550	1000	1350
1000	950	925	1100
850	1700	875	1250
800	1900	775	1275
550	1400	600	1300
11,325 Gauss	19,375 Gauss	11,800 Gauss	17,100 Gauss
30,700 Gauss (Total)		28,700 Gauss (Total)	

2,000 Gauss (Difference)

the magazine article can be seen at http://newebmasters.com/freeenergy/sm-pg48.html.

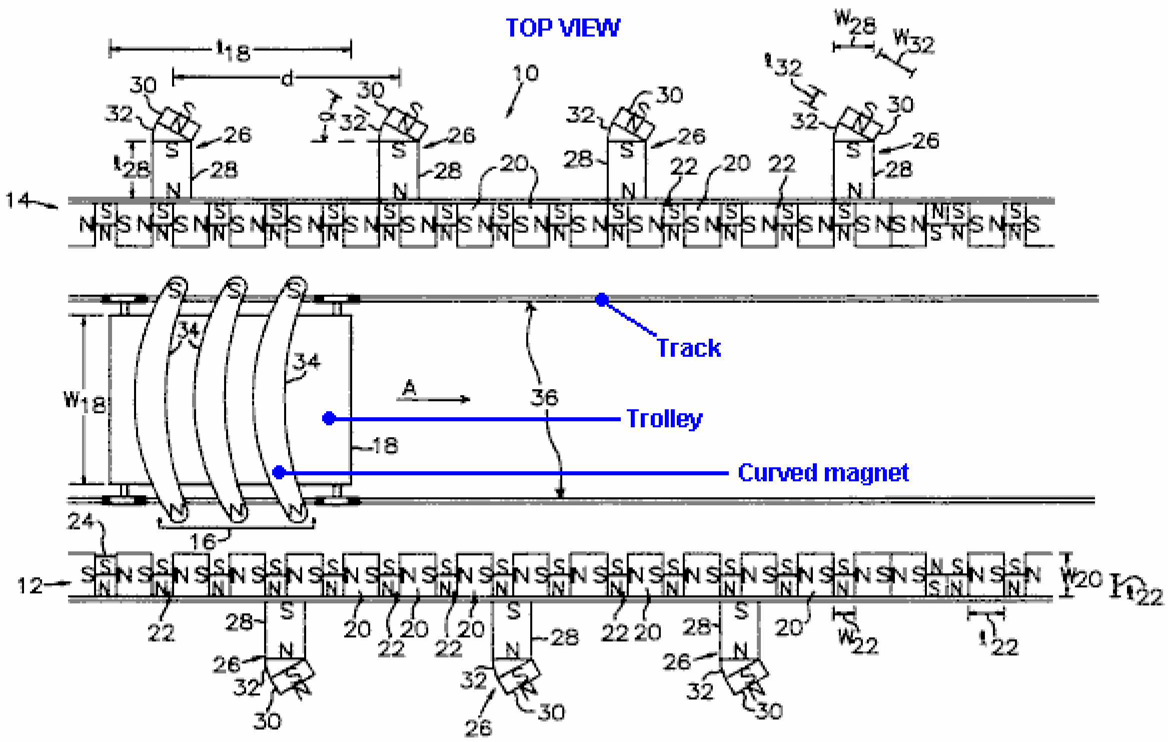


Howard Johnson also has other patents. US Patent Number 4,877,983 granted on 31st October 1989 entitled “Magnetic Force-Generating Method and Apparatus” shows a method of arranging magnets in a group so that a uni-directional driving force is produced:



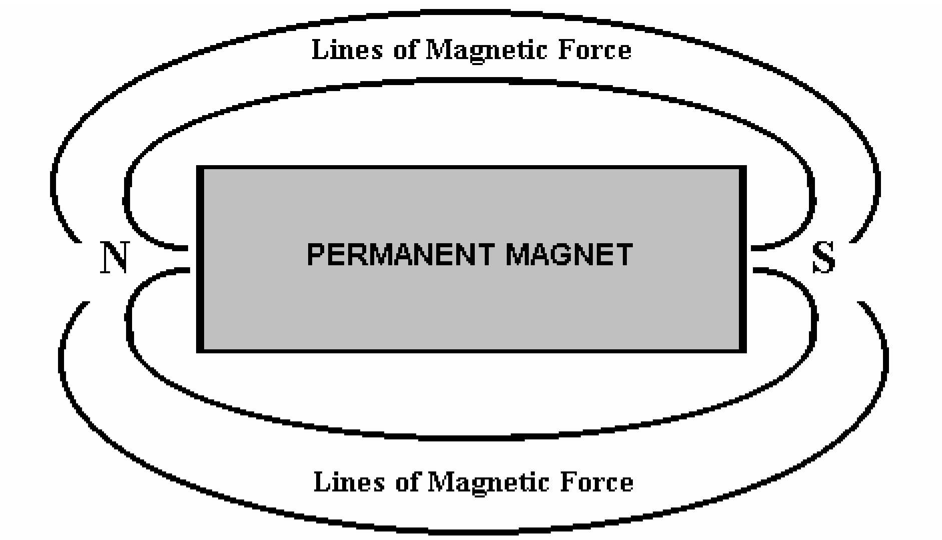
Howard demonstrates the force by placing miniature railway tracks inside the magnet rings and showing that a wheeled carriage is pushed along the tracks.

His US Patent Number 5,402,021 granted on 28th March 1995 is entitled “Magnetic Propulsion System” is also for an arrangement of permanent magnets which generates a continuous linear force:

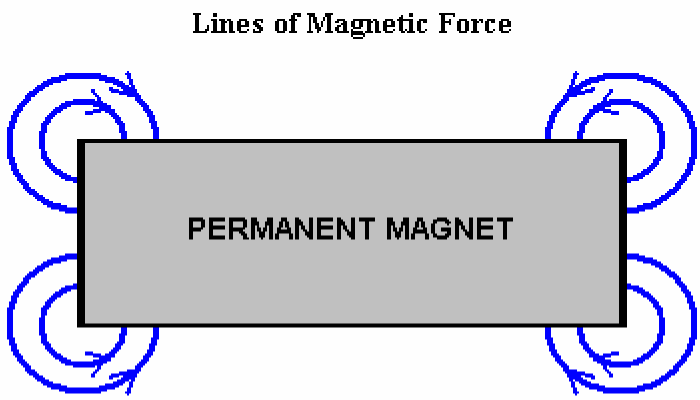


This shows clearly that while there is a null-point in most permanent magnet arrangements, it is definitely not the case for every arrangement.

Schools currently teach that the field surrounding a bar magnet is like this:

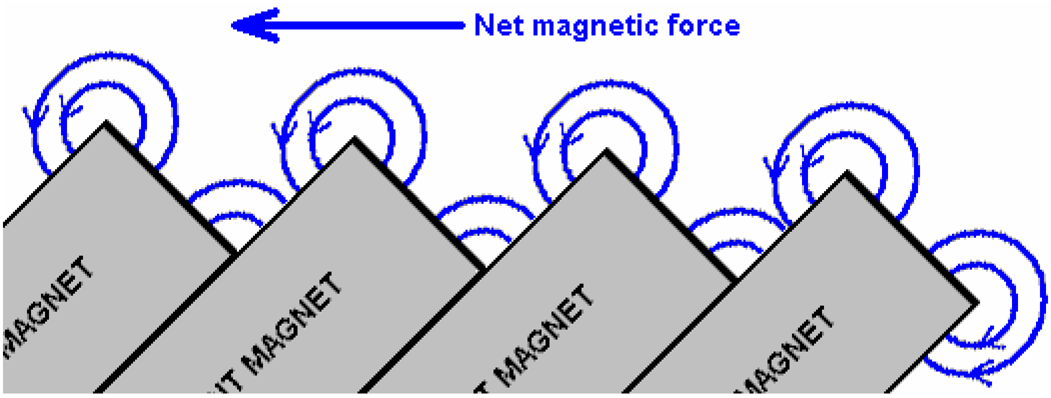


This is deduced by scattering iron filings on a sheet of paper held near the magnet. Unfortunately, that is not a correct deduction as the iron filings distort the magnetic field by their presence. More careful measurement shows that the field actually produced by a bar magnet is like this:



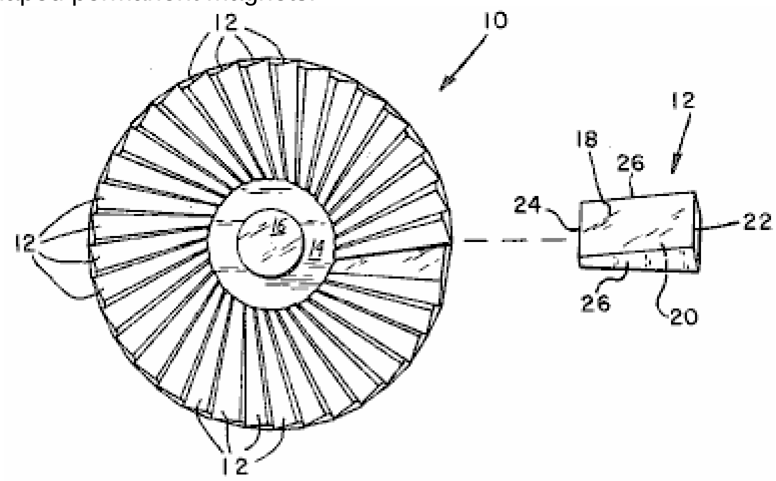
There are many lines of force, although the sketches shown above only show two. The important factor is that there is a circling field at each corner of the magnet.

It follows then that if a row of magnets is placed at a an angle, then there will be a resulting net field in a single direction. For example, if the magnets are rotated forty five degrees counter clockwise, then the result could be like this:

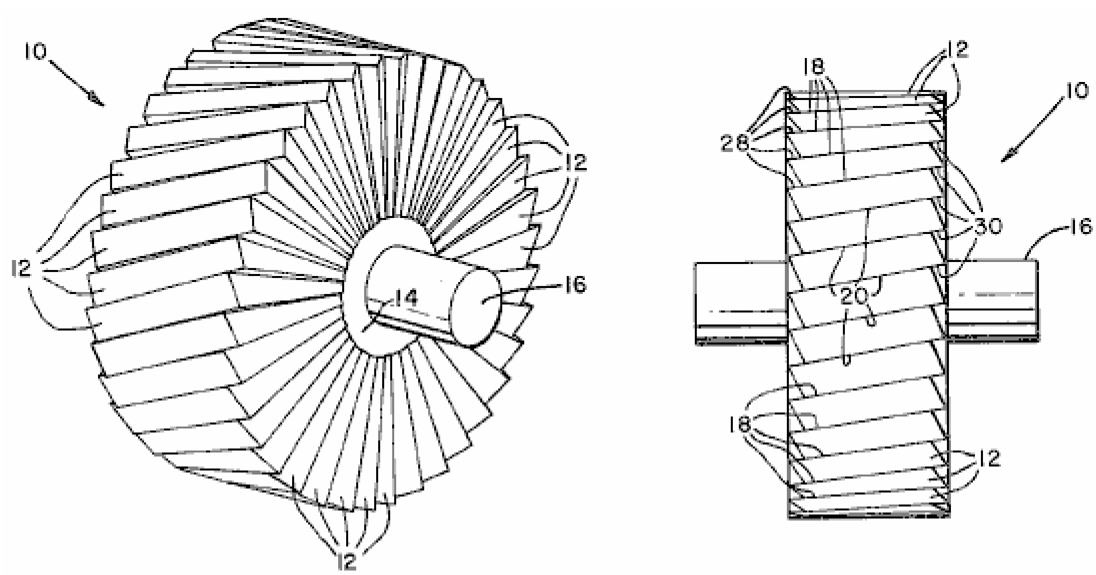


Here, the opposing corners of the magnets are lower down and so there should be a net magnetic force thrust path. I have not tested this myself, but the supposition seems reasonable. If it tests out to be correct, then placing the angled magnets in a ring rather than a straight line, should create a motor stator which has a continuous one-way net field in a circular path. Placing a similar ring of angled magnets around the circumference of a rotor disc, should therefore give a strong rotary movement of the rotor shaft - in other words, a very simple permanent magnet motor.

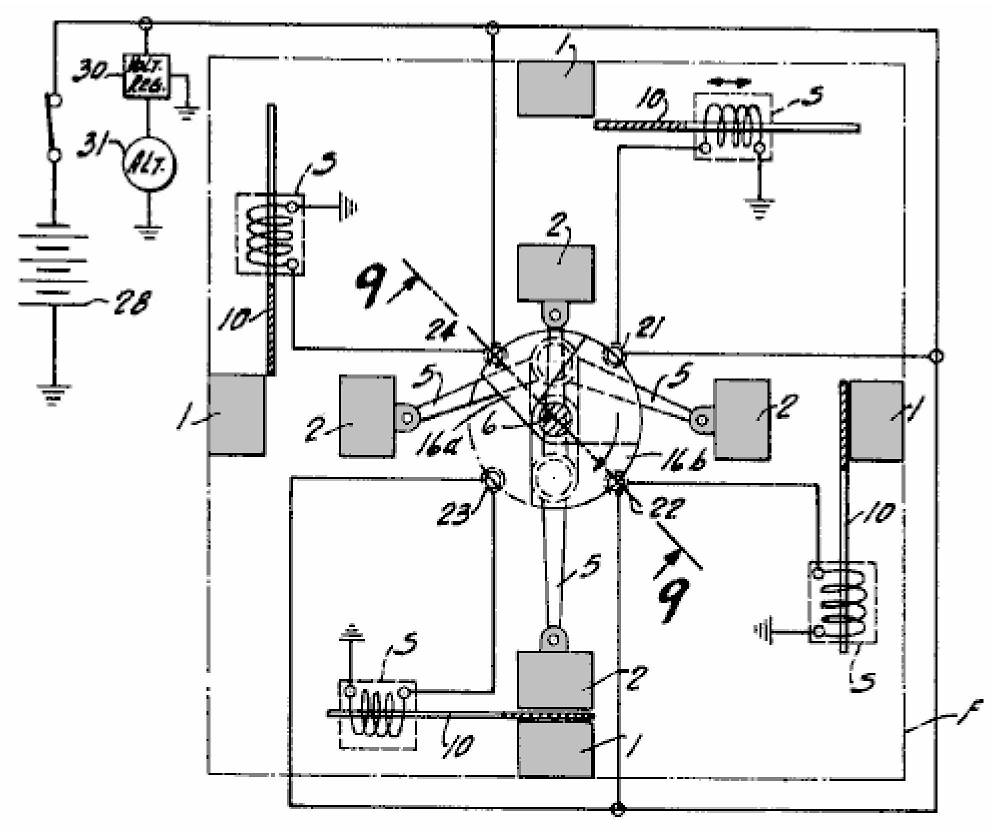
Something rather like that is shown in David Cunningham's US Patent Number 4,443,776 dated 17th April 1984, where he uses a bank of wedge-shaped permanent magnets:



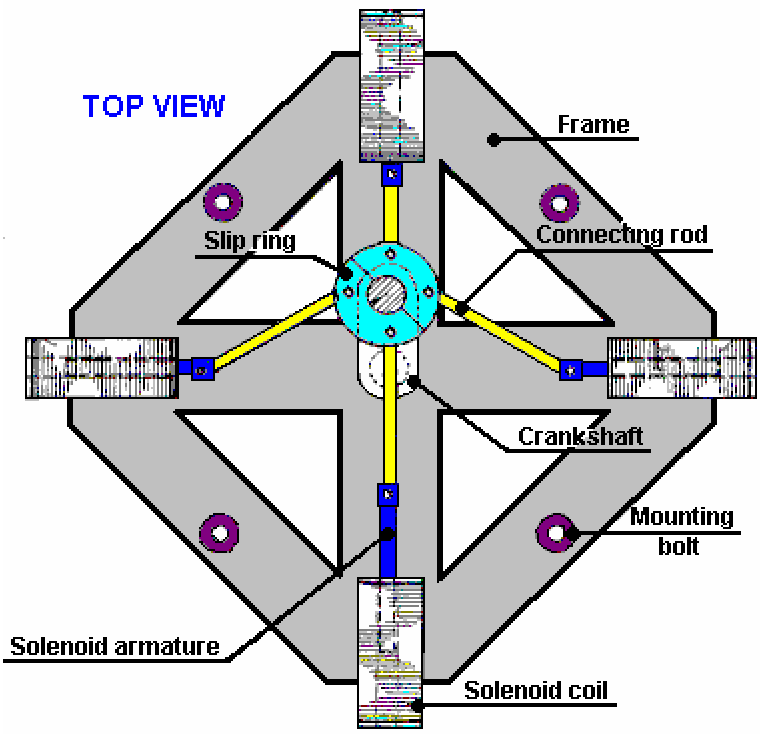
to create a series of rotor rings formed in a rather similar way:



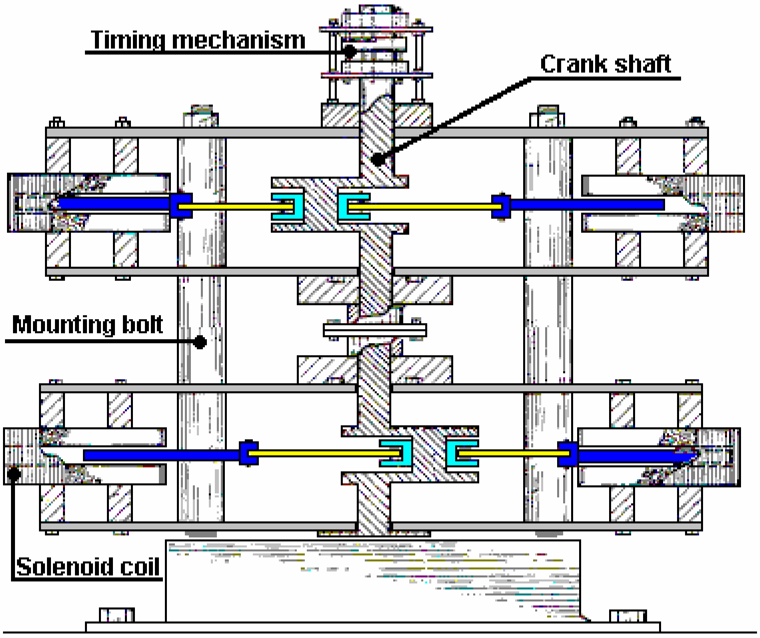
Some people have opted for permanent magnet motors where the field is shielded at the appropriate moment by a moving component of the motor. For example, Robert Tracy was awarded US Patent Number 3,703,653 on 21st November 1972 for a "Reciprocating Motor with Motion Conversion Means". His device uses magnetic shields placed between pairs of permanent magnets at the appropriate point in the rotation of the motor shaft:



Motors of this kind are capable of considerable power output. For example, take the very simple motor, originally built with wood as the main construction material, by Ben Teal who was awarded US Patent Number 4,093,880 in June 1978. He found that, using his hands, he could not stop the motor shaft turning in spite of it being a very simple motor design:



SIDE VIEW



The motor operation is as simple as possible with just four switches made from springy metal, pushed by a cam on the rotor shaft. Each switch just powers it's electromagnet when it needs to pull and disconnects it when the pull is completed. The resulting motor is very powerful and very simple. Additional power can be had by just stacking one or more additional layers on top of each other. The above diagram shows two layers stacked on top of one another. Only one set of four switches and one cam is needed no matter how many layers are used, as the solenoids vertically above each other are wired together in parallel as they pull at the same time.

The power delivered by the Teal motor is an indication of the potential power of a permanent magnet motor which operates in a rather similar way by moving magnetic shields to get a reciprocating movement.