

Bruce E. DePalma: N-Machine

Extraction of Electrical Energy Directly from Space: The N-Machine

by
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Introduction ~

The extraction of energy directly from space has been suggested as a viable process for the solution of the energy problems of society. The accessibility of this energy has been limited by the necessity for the formulation of new energy paradigms. In the past, energy in space has been suggested by thoughts such as Orgone, Od, Prana, Bio-cosmic, Neutrino energy sea and so on, but the useful extraction of such energies has always awaited more explicit formulations of these ideas which could suggest the construction of simple practical energy extraction machinery.

Variable Inertial Mass ~

Experiments performed by this author have suggested a picture of space which is perfused with a "fine substance". This concept is one which lies between the ineffability of a space-time construct such as Einstein and the tangibility of gross matter. The important part about this "fine substance" is that it is shown that this substance confers inertia on physical objects. The substance of inertia can also be shown to have the property of polarization.

Normally the inertial mass of an object is anisotropic --- that is to say, an inertial measurement performed by applying a force vector to the object and measuring the resulting acceleration; the inertial mass obtained in this measurement would be a constant independent of the direction of the applied force vector. The important discovery is that the inertial mass of a rotating object becomes polarized and anisotropic --- in terms of the real behavior of a rotating object the inertial mass is found to increase for measurements performed in the direction of the axis of rotation, and perforce the inertial mass is found to decrease for measurements made in the direction of the plane of rotation. Complete inertial polarization of the rotating object takes place when the inertial mass taken in the direction of the plane of rotation of the test object decreases to zero with increasing rotational speed.

The "N" Effect ~

The interesting combination would be to combine the effects of inertial and magnetic polarization for the extraction of electrical energy directly from space.

With reference to the two diagrams, Figure A and Figure B, the "N" effect is demonstrated quite simply. A cylindrical bar magnet of alnico or other magnetized electrical conductor as shown is rotated around an axis passing through the two magnetic poles and perpendicular to the polished pole faces as shown. What is found is

a cylindrically symmetrical electric field is established within the magnet through rotation. Electrical current is simply extracted by placing the probes or sliding contacts of the appropriate ammeters and voltmeters, one on the axis of rotation and the other on the outer surface of the rotating magnetized conductor.

Figure A: N- Effect

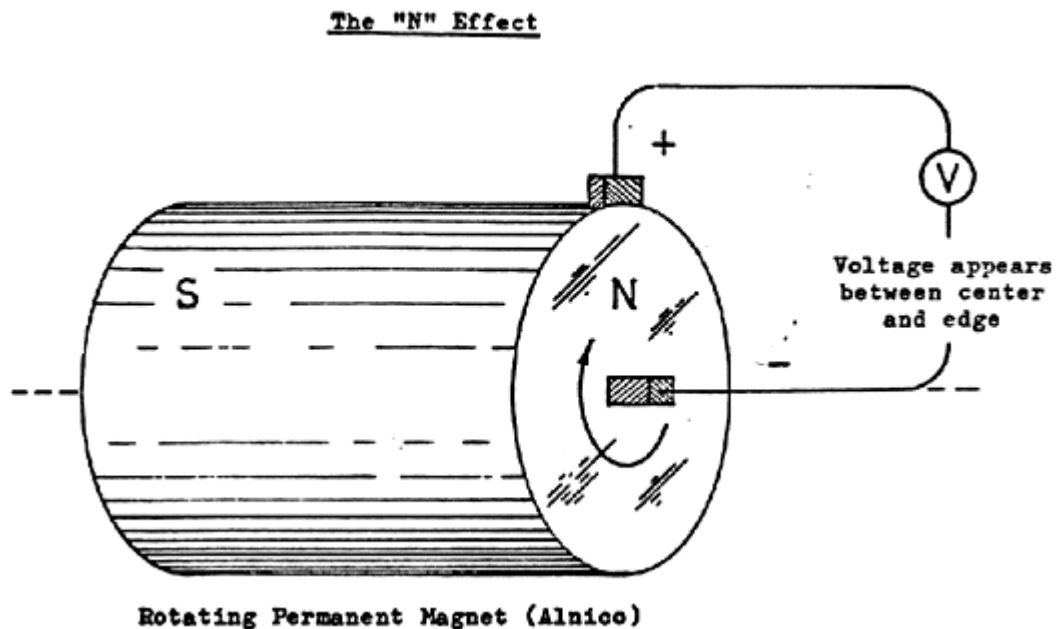
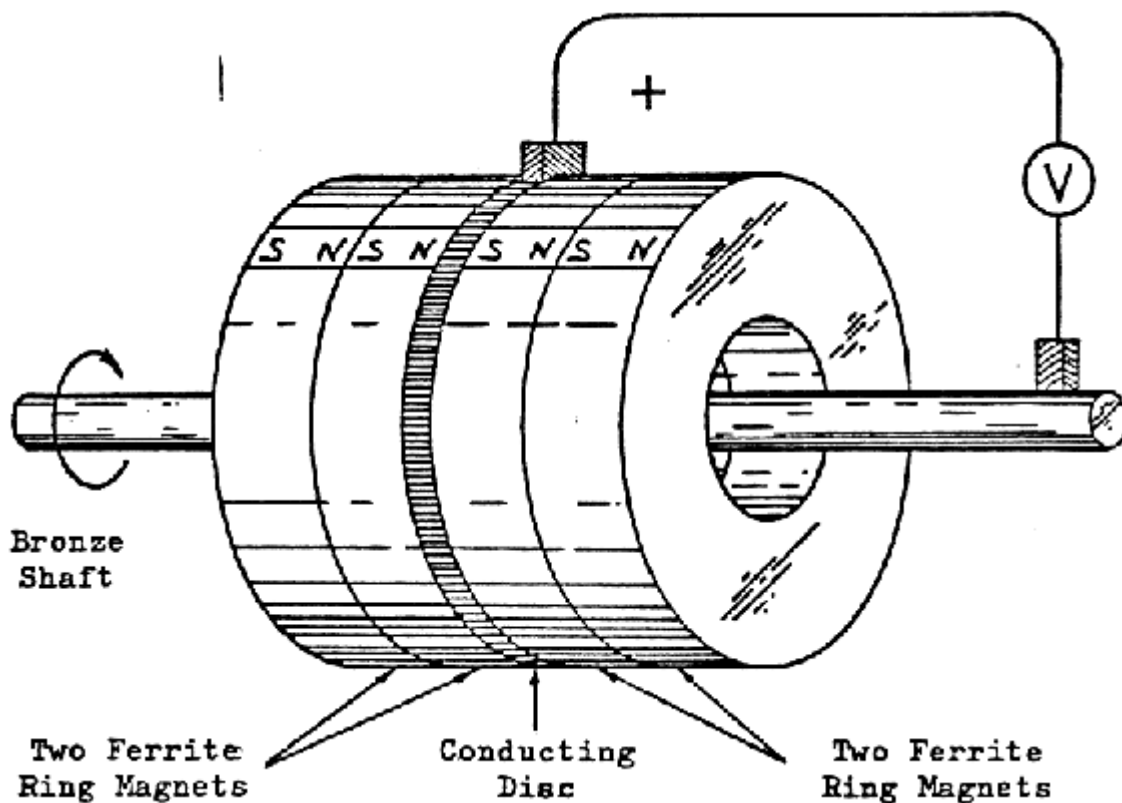


Figure B: N-Machine



The "N" Machine ~

In order to make full use of the current capabilities of an N generator and to accommodate the use of non-conducting "ferrite" permanent magnets or electromagnets, an N-machine is constructed as in Figure B. The N-machine utilizes a copper or bronze conducting shaft and disc and ferrite ring magnets cemented together as shown. A typical machine constructed with ordinary loudspeaker ring magnets of dimensions o.d. 2-7/8", i.d. 1-1/3" and 1/2" thickness, two of each epoxy-cemented on either side of a conducting disc 1/8" thick, delivers 30 millivolts at 3450 rpm. The field strength of the magnets as supplied is about 1000 gauss. The current obtainable from the machine is limited only by the resistance of the leads and sliding contacts. Since the aforementioned 30 mv can be developed across a heavy copper wire shunt of resistance less than .001 ohm, a current in excess of 30 amperes is developed by this simple toy.

Electrical energy developed out of centrifugal extraction of the electrical positive and negative poles from the free energy field of space is supplied in useful and controllable form from N generators which are scaled in order to supply requirements. Experiments show the voltage polarity depends on the sense of rotation. Output voltage goes directly as speed and magnetic field strength. Geometrically the output voltage increases as the square of the machine radius, r^2 .

Discussion ~

It was in the 1830s that Michael Faraday working in the basement of what is now the Royal technical College in London, discovered that a conducting disc held between the poles of a magnet with the lines of force perpendicular to the surface, would generate current if rotated and the current extracted between the center and the edge of the rotating conducting disc.

Conversely, if a voltage were applied between the center and the edge of such a disc it would rotate as a motor. These effects are presently known as the Faraday unipolar dynamo and Faraday motor respectively.

If Faraday had rotated the whole combination, magnets and disc together, he would have discovered as this author did in 1977 that the voltage output remained constant regardless of whether the disc was rotating independently of the magnets or not. Of course, if Maxwell or Faraday had known of the "N" effect, things would have been different. But it is probably true that such a discovery had to wait until the availability of strong, lightweight permanent magnets, a development that didn't take place until the 1930s.

What is important about the N machine is that unlike a conventional generator which exhibits a rotational drag when current is drawn, an N generator exhibits no such drag.

All of the currently used electrical generation rotating machinery has the property of being both motors and generators simultaneously. That is to say, an electrical machine which is used as a generator will operate as a motor when excited with the appropriate voltages and currents. With the foregoing in mind, we interpret the situation as follows.

In the conventional electrical power generation system we have an electrical generator coupled to an engine of some kind which supplies mechanical power which is interpreted in accord with present understanding to be converted from mechanical to electrical energy with a conversion efficiency not to exceed 100%. If we were to suppose however that that the energy obtained was extracted from some heretofore unsuspected property of magnetism; then it is simply apparent that the slowing down of the drive engine is due to the "generator" having the aspect of a motor also, and that is

the slowing of the drive engine with electrical load is simply the effect of the motor aspect of the generator energized by the load current. The generator being a motor also elicits a torque output in opposition to the drive engine torque. This is why an engine-generator combination slows down when an electrical load is thrown on the generator.

An N generator is only a generator and does not possess the dual aspects of presently used machines. Electrical loading of an N generator produces an internal torque between the conducting electrical disc and the attached ring magnets. However, since they are firmly cemented together, this torque cannot escape from the machine and load the drive motor or engine. Thus the N machine is a non-reciprocal machine, which, if a voltage were applied to it in the fashion of motor excitation between the center and the edge of the conducting disc, no motor action could result since the generated torque is constrained within the body of the machine.

Directions for Future Work ~

The discovery of a new physical phenomenon, the N effect, which relates phenomena of magnetism, inertia, and rotation together in a new machine for the liberation of electrical energy directly from space is a pregnant development of a new age in science which will energize the civilization of the 21st century. Although many ideas may have suggested themselves in the minds of the readers of this information, I would like to suggest a few possibilities which have occurred to this author in the time that he has been working and experimenting with N generators of various kinds.

1. *Control of Very High Currents at Low Voltage:* Simple calculations will show the N generator to be characterized as a very high current, low voltage electrical generation machine. For the sizes and rotational speeds normally associated with conventional automotive or electrical traction purposes it is easy to show that voltages of up to 100 or so vdc can be generated at currents limited only by the brush technology and the machine internal resistance. Standard texts detail methods whereby high currents have been conducted through liquid conducting metal electrodes. In this fashion, currents of 50,000 amperes have been conducted from Faraday unipolar generators for the excitation of ultra-high field strength magnets for physical experiments (Francis Bitter Magnet Laboratory Publication, MIT, Cambridge, MA).

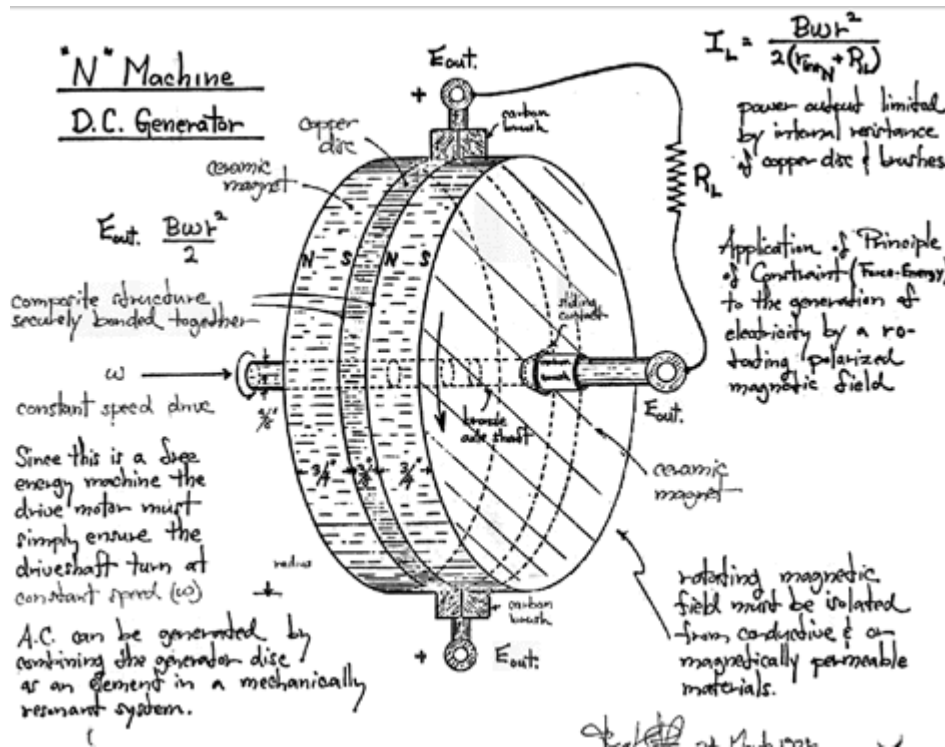
The important fact about the N generator is that once the appropriate brush technology has been adopted for the ultra-high currents, the control of the voltage becomes very simple. The N generator is constructed as an N machine with the permanent magnets replaced by a pair of electromagnets on either side of the conducting disc. Excitation of the electromagnets can vary the N generator output from zero to full in either polarity. Thus a current of thousands of amperes can be controlled in voltage and polarity by a few amperes or less of excitation current necessary to saturate the electromagnets in the chosen direction of magnetization.

It is easy to see that ac operation is possible if the electromagnets are built of laminations stacked in a cylindrical build with the direction of easy magnetization parallel to the axis of rotation of the machine.

2. *Self-Contained Power Generation Systems:* Since the N generator can generate many times the power needed to overcome bearing friction, windage losses and frictional losses in sliding contacts, the N generator can be combined with an electrical drive motor forming a self-sustaining combination. Reflection will show the appropriate motor for such a purpose is a Faraday motor; a simple copper disc rotor between the poles of strong field magnets. The ultra-low voltage, high current characteristics of this

machine combine perfectly with the low voltage, high current output of the N generator. Such a combination, an N generator on a common shaft with a Faraday motor, with the motor excited with a fraction of the generator output regulated through an appropriate series resistor (to prevent machine speed runaway) forms a power generation system. The basic power generation system then consists of a self-sustaining combination of N generator and Faraday motor which provides a mechanical and an electrical output.

Figure C: The N-I Power Generation System ~



An interesting line of development begins here since once the basic power generation system is constructed the mechanical output can be used to drive conventional generators -- which may be to some advantage since these machines are presently articles of commerce and can deliver higher output voltages than the basic dc generator. The point of all this is that once the free energy is liberated from space and converted into rotational form by a combination N generator-Faraday motor, the resultant energy is directly applicable economically, and with known conventional technology and machines.

3. *Inertial Guidance*: The N generator concept of the direct centrifugal extraction of the electrical poles from the spatial energy field has direct application to the field of inertial guidance. It is not necessary to have sliding contacts if the N generator is to be used to sense do/dt . Wires can be soldered to the ends of a diameter of an N generator disc and a voltage obtained between the two diametrical ends connected together and at the center. The polarity of this voltage will reflect the sense of rotation and its magnitude will be proportional to do/dt . Appropriate integrators on the output of a 3-axis combination will provide all the information necessary for an inertial guidance system replacing cumbersome mechanical gyroscopes spinning at fantastic speeds together with excessively sophisticated and expensive ancillary mechanical and electrical instrumentation.

Conclusion ~

The powerful physical principle resulting from the interaction of rotation, inertia, and magnetism, for the liberation of unlimited controlled energy directly from the energy medium of space, the N effect, opens the door to the continued social development of a society freed from the limitation of the present energy conservation paradigm.

Freedom from the limitations imposed by the present formulations, the so-called Laws of Physics, is important since it allows the upward spiraling of free thought which eventually expresses itself in new forms of machinery. In terms of 1979 science, it is an unexpected pleasure to be reminded that the present closed system of equations of electricity, Maxwells' equations, do not represent all there is to know about electricity and magnetism.

The Laws of Thermodynamics and the so-called conservation of energy relationships are 150 years old. Of course, the discovery of the inertial anisotropy of rotating objects taken together with new information this author has elicited regarding the elastic collisions of rotating objects impacting on identical non-rotating controls -- free energy is liberated in the collision of a rotating object with a non-rotating one [sic]. New information such as this imposes new degrees of freedom in the thermodynamic interactions of colliding atoms and will help explain much of the anomalous new information which is being accumulated in the present search for more "efficient" ways of liberating or extracting energy from Nature.

A thorough intelligent analysis of the N generator will show that to produce any voltage whatsoever, such a combination of magnets and a conducting disc in rotation as shown, invalidates the physical interpretations of Newton and Einstein, special relativity and general relativity. The loss of these ideas I do not regard as a terribly great tragedy since in their overcoming we shall eventually perfect the anti-gravity spacedrive and will send humans to the stars. In this short paper I can only suggest some of these ideas.

Closer to what is at hand, I would like to suggest that the presently conceived ideas regarding the operation of the magnetron radio frequency transmitting tube can be re-examined in the light of the N effect. In such a tube a rotating disc electronic cloud excites a series of resonant chambers around its periphery at microwave frequencies. The very high power microwave impulses obtained in this way form the basis of radar transmitters in current use.

Interpreting the magnetron operation as a higher order property of the Faraday unipolar dynamo, we can suspect that we might be able to obtain ac excitation of a series resonant LC circuit connected between any two separate points on the periphery of a rotating N generator conducting disc. For most of us who have spent our lives in the conventional applications of electricity and electrical rotating machinery, it may be enlightening to obtain alternating current in this way. What is important is, anyone can say that a certain formulation or set of ideas is invalid, i.e., the Einstein geometrical interpretation of space. The important thing is what we have to offer in terms of new machinery, i.e., free energy or anti-gravity to substantiate new ideas.

Experiments performed by this author have obtained 2-3 millivolts ac (p-p) generated in this way employing a 1 microfarad capacitor in series with the appropriate inductance to obtain a resonance between 100 and 600 cps. In consideration of the utilization of this effect for the generation of megawatt power levels at powerline frequencies (60 cps) the size of the components becomes important since a resonant circuit must be employed in conjunction with the N generator. The L and C elements would have to be fabricated to reach the megawatt power levels with suitably low internal impedance. Such limitations do not appear to assert themselves at the magnetron operating frequencies, so the

possibility of the liberation of megawatt power levels of microwave power radiation from an N machine in a UHF cavity suggests itself.

Without becoming prolix it is interesting to consider all the ramifications of the electricity which originally was known in the Galvanic wet cell or the lightning arrestor. Now pictures are sent through the "air" (television), and sound is recorded (magnetism). Many other things are done. We live in an age where the conceptualization of such a development has taken place in many fields. Thus there is some basis for understanding of the possibilities which can result from the evolution of a new basis of understanding. With this in main, I have tried to indicate what some of the thoughts I have had have led me to in consideration of the newly discovered inertial anisotropy of rotating objects and the interaction of magnetism and rotation, the N effect.

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(Died 1998)
