# ENERGY SCIENCE: AN INTRODUCTORY OVERVIEW © HAROLD ASPDEN, 2004

# HAROLD ASPDEN Energy Science Ltd P.O. Box 35 Southampton SO16 7RB England

# **Preliminary Note**

The science literature dealing with the alternative energy sources needed once we confront depletion of conventional sources, and the escalating cost of power as that decline begins, includes a sector classified as 'free energy'. This is a field of energy research which tends to be shunned by conventional science owing to it being seen as based on the belief that 'perpetual motion' is an impossibility. Surely, as every scientist knows, energy is conserved in physical processes and cannot be destroyed or created, that being a proposition accepted as the first law of thermodynamics. Yet there is activity in this 'free energy' pursuit that warrants attention, as do the fascinating stories about pioneers in this field who are no longer with us. However, it is not our purpose here to capture your imagination be retelling those stories. You can read about them elsewhere as in references [1 to 4]. Instead, under this heading 'ENERGY SCIENCE', but guided by those stories, we will here engage in exploratory detective work as we try to solve the secret of their underlying physical processes that allow energy to be tapped, as if from nowhere. The solution of the mystery is needed now so that we can choose the best route to follow in our immediate efforts. We do not have many years to waste, if we are to win in the game of survival as our oil and gas reserves are burned away and avoid the dangers associated with nuclear power. We cannot just hope for the miracle discovery of some as yet unconceived technological breakthrough. The answer has to be in whatever is already of record.

### Scope of this Overview

By the using the word 'overview' it is meant that we shall not here be indulging in a full and detailed in depth presentation for the physics student. That can follow in due course. Here the intention is to summarize the factors and steps involved so as to focus rapidly on the issues that come into play in delivering excess energy. The comments to be made are not arbitrary statements, but reasoned deductions, many of which are based on research recorded elsewhere.

Thus, and without further ado, this whole account is based on there being two complementary options as to the energy source involved, both satisfying that first law of thermodynamics. The less exciting option involves thermodynamics, a breach of the second law of thermodynamics possible where magnetism is involved. We can tap into waste heat of our immediate environment and generate useful electric power by deploying that heat energy.

Alternatively, there is the fascinating prospect that we can exploit an insight into the way Mother Nature supplied the energy needed to create our Sun and Earth, and accept that a real aether exists from which we can borrow energy to power our machines before returning it after use by heat radiation. This may seem to be a bold objective but, as already stated, the research involved is of record elsewhere [see later references] and, to put it bluntly, given that there is no rival theory that can match what is covered by this overview, one has no choice but to hope that our story here is correct.

The onward account comes under 16 headings, each relating to a different example of an energy-related anomaly that has no feasible explanation other than the one suggested by this

author. Note that, concerning the description of the well known free energy experiments, the reader should refer to the appropriate references [1 to 4] already mentioned.

## (1) The Magnet System of Hans Coler

Coler had six bar magnets arranged in a loop with a small carefully-adjusted spacing between the adjacent end faces of the magnets. Each had a solenoidal winding and these were connected so as to set up some kind of interaction as between their magnetic flux pulsations that delivered output EMF via capacitors with a frequency in the 100 kHz region.

It is suggested that the relevant physical principles involved are those concerned with magnetostriction and the fact that magnetic permeability of iron changes according to internal strain, so that if there is a sustained longitudinal magnetostrictive oscillation of the bar magnets at that 100 kHz or so frequency the EMF induced in those solenoidal windings delivers the output power.

To understand the energy input source we need to understand the true nature of ferromagnetism. It involves electrons (the 3d state electrons in iron) adopting a coordinated orbital motion so as to produce a polarized magnetic state. Magnetic energy has negative potential as we know from the fact that energy in excess of the specific heat requirement has to be supplied (as heat) to destroy the ferromagnetic state upon upward transit through the Curie temperature. However, though this might suggest that all materials should exhibit magnetic polarization, this coordinated electron state involves an associated high stress and strain condition and that means mechanical stress energy. Iron, nickel and cobalt are three of the very few atoms for which the electron interplay (that of the 3d state electrons) can release more energy owing to the magnetized state than is needed to sustain the associated mechanical stress condition.

The implications of this are relevant to the discovery of Hans Coler. The magnets, when oscillating magnetostrictively at their resonant frequency, as determined by the elastic constants of the iron and as sustained by the superimposed magnetic field action produced by an oscillatory solenoidal current, will conserve mechanical oscillation energy whilst producing fluctuations of magnetic permeability, magnetic flux and negative potential energy of the magnetic state. The latter involves depletion of heat if electricity is drawn off as output. Therefore, the Coler's magnets should cool as they deliver power to the output circuit.

Though this might suggest a power source operating on ambient heat it cannot be a feasible prospect for solving the world's impending energy crisis and so we must look elsewhere.

For references to Coler's invention see pp. 210-212 of ref. [4] and p. 221 of ref. [1].

#### (2) Bowman's Permanent Magnet Machine

This is the best example of a perpetual motion machine. It is simple in construction and leaves no room for doubt as to its operability. Here it cannot be heat input that provides the motive power.

The machine uses rotors having axes of spin that are parallel. On these rotors there is an assembly of cylindrical Alnico magnets spaced around the rim, their axes being mutually parallel with the rotor axes. The arrangement is such that the magnets of one rotor come into end face to end face relationship with the magnets of another rotor as the rotors spin, meaning that their cyclical alignment causes an increase in their magnetic flux as they come into register followed by a decrease as they separate.

The magnets share the rotation speed of the rotors and so we know from the research of Michael Faraday that an EMF is set up in a radial direction between their axes and their outer cylindrical surfaces. Moreover, this EMF fluctuates owing to the encounters between magnets of adjacent rotors. Somehow this initiates inflow of angular momentum that sustains the rotor rotation and accounts for the perpetual motion property.

This is hardly likely to become a practical way of running the world's power generating plants of the future, but it gives us insight into the mystery involved and can guide us forward in our onward search for that free energy source.

What have we done in operating such a machine? We have displaced electric charge radially within an electrically conducting medium, the metal of those Alnico magnets. Something within the space occupied by those magnets has reacted as a result and delivered angular momentum. That surely is a pointer to the aether, the medium of the quantum underworld, the medium that has the built-in intrinsic property of determining universally the quantum unit of angular momentum that is basic to the theory of the atom. It is that medium that regulates the orbital motion of electrons in atoms and determines the motion of those 3d state electrons in iron as mentioned above and so we are now looking at the aether as the energy source that powers Bowman's perpetual motion machine.

See p. 27 of ref.[2] and p. of ref. [5].

## (3) The Homopolar Magnet Machines

A so-called homopolar magnet machine is a curious name for one which merely involves a large rotating magnet arranged to deliver electrical output by a current circuit including a radial path through the magnet itself or through a conductive disc rotating with it and linked by its magnetic flux, the input and output being via electrical brush contacts. Such machines have extremely low voltage output at high current and are not normally regarded as having anomalous energy properties. However, the researches of Bruce DePalma and Dr. Paramahamsa Tewari, amongst others, reveal the anomalous energy properties of homopolar machines. These two examples are discussed here because DePalma's machine was tested by Dr. Robert Kincheloe, Professor Emeritus of Electrical Engineering at Stanford University who agreed there was evidence of excess energy, whereas Tewari's machine had features which, owing to an a.c. aspect, promised better performance.

Quoting from Dr. Kincheloe's report noted in DePalma's paper at pp. 283-287 in ref. [6]: "During 1985, I was invited to test such a machine. While it did not perform as claimed, repeatable data showed anomalous results that did not seem to conform to traditional theory. In particular, under certain assumptions about internally generated output voltage, the increase in input power when power was extracted from the generator over that measured due to frictional losses with the generator unexcited seemed to be either about 13% or 20% of the maximum compound generated power, depending upon interpretation."

DePalma then added that 'after a thoroughgoing critique and examination of his data Kincheloe concludes:

"DePalma may have been right in that there is indeed a situation here whereby energy is being obtained from a previously unknown and unexplained source."

So why are we not seeing these machines scaled up for use in generating electricity? Well, in my opinion it is because physicists in general do not believe this excess power generation to be possible and do not understand the mysterious energy source. DePalma did not produce a commercially viable product. In my opinion such excess energy as was produced on a sustained basis owed its existence to the erratic pulsations in the brush contact output which affected the field within the rotor. Moreover, apart from its very low voltage, very high d.c. current ouput,

the machine would easily overheat and DePalma could not run the machine for prolonged periods. One can say that it is unlikely that the cumbersome machine technology of the homopolar motor can ever serve as a future power source, but here you have that pointer to the aether underworld as the supplier of energy and angular momentum as a result of charge displacement from a central axis, but it has to be a pulsating charge displacement because with no pulsation you merely have the one-off start-up input of aether energy and no sustained energy inflow.

### (4) The Discovery of John Searl

Here again we are told that magnets can seem to perform a magical trick or rather display a state of perpetual motion. Here the magnets are Alnico, meaning that, unlike ferrite magnets, they are a metal alloy that is electrically conductive. If they spin about their axes then they induce electric charge displacement, suggesting that charge of one polarity can be contained within an enclosing boundary surface to which charge of the opposite polarity has been displaced.

The key point of interest from the reports of Searl's experiments is his use of a large central non-rotating magnet around the rim of which cylindrically shaped magnets held in contact with the central magnet by magnetic attraction were free to roll. What Searl discovered was that, once set rolling, those magnets kept on rolling!

The motion escalated and seemed to bring into play what can only be described as an anti-gravitational effect, which led Searl into a fantasy world of flight rather than the down to Earth task of generating power in a new way. Getting the aether to spin whilst enveloping the apparatus inducing that spin may well affect the gravitational properties of that apparatus, but that is not what we are considering here. Our focus is on the extraction of energy from the aether and if those rolling magnets really do speed up for no apparent reason and with no visible power input then the aether as an energy source is in evidence.

However, yet again, given that powerful magnets are needed, this is hardly likely to become part of the technology of our future power generation industry, but it provides a further clue to the mystery role of the aether underworld. Here there is no pulsation of the magnetic strength of the magnet but that motion is sustained. Somehow whatever it is that imports angular momentum is being replenished at a steady rate. So what is different here? One answer is that those rolling magnets are moving laterally with respect to their spin axes. The other is the presence of that central magnet.

Now for a little creative detective work. Just suppose that, because we have referred to the aether, one can picture a chunk of aether coextensive with a spinning magnet as reacting to develop its own state of spin. Can it be that that spinning aether unit, which itself may have become a kind of quasi-magnet, is pulled free from its host magnet to be held in place by that central magnet? If so then the onward motion of the rolling magnet to a new position would imply regeneration of more aether spin, perhaps consolidating into a larger aether spin form and precessing or reorientating its spin axis direction as the initial process centred on each individual magnet is repeated. This is effectively a pulsation that generates a steady inflow of aether angular momentum that sustains the motion. Indeed, according to Searl, what he witnessed was not just sustained motion but escalating motion, speed up with somewhat alarming consequences!

It is submitted from this that, guided by certain experiments involving spinning magnets, there is good reason to point the finger at the aether as a reacting source of energy, a source triggered by producing a concentration of electric charge of the same polarity so as to set up a

radially-directed electric field in the vacuum medium, the aether. See pp. 200-216 of ref. [1] for an extensive description of Searl's efforts.

## (5) The Aspden Effect

This author has assembled a motor using disc-shaped ferrite magnets of the kind used in loudspeakers, mounted on a rotor shaft and interleaved with electrical sheet steel laminations each having eight poles. Here rotation causes the magnets to induce radial EMFs in those poled rotor laminations and the passage of those poles past the corresponding poles of a stator assembly causes flux pulsation. So we have the induction of a pulsating radial electric field in aether coextensive with the rotor assembly, a recipe according to what has been stated above for inflow of aether energy.

However, here again, this being an alternative version of a homopolar magnet machine, the thought of this ever being a way forward in meeting our future energy needs has been ruled out. However, the tests on this motor did give further insight into that interplay with the aether and the presence of an anomalous energy gain.

When the motor was first started, spinning at some 1500 rpm, it was noted that it reached that speed after switch-on in a period of 20-30 seconds. If it was then stopped and restarted, its speed-up time to that speed was some 5 seconds if no more that two or three minutes had passed since it had come to rest, but the longer the period waited before restart, the longer it took to reach 1500 rpm. It was as if there was something there having a weak inertial coupling with the rotor that was spinning separately and slowing down at a slower rate. Here was what seemed to be an aether phenomenon.

Before moving on from that research effort several tests were performed at different times of day and with different compass orientations of the rotor axis. The phenomenon varied with spin axis direction, suggesting that the quantum spin of the aether has a fixed orientation in space, a result consistent with the author's theoretical expectations dating back to the late 1950 period. This phenomenon has been named 'The Aspden Effect' by Dr. Hal Fox, editor of the U.S. publication New Energy News, which is why that expression is used as the title to this section.

For a detailed report of the author's tests on this machine (though not including that axial reorientation phenomenon) see ref. [7].

### (6) Thunderball Energy

It is appropriate here to include mention of a phenomenon that has long puzzled physicists, namely what it is that sustains for a noticeable period the glowing state of a spherical cluster of ionized air produced on occasion as a by-product of a lightning discharge. The answer, quite obviously in view of the above commentary, is that the concentration of electric charge, as by the so-called electrodynamic pinch effect associated with a high current discharge, can induce a reacting aether spin which lasts for several seconds, sometimes minutes, after the lightning discharge has ended. That aether spin would form a sphere in which the aether's own electric charge is displaced so as to have charge of one polarity in the body of the sphere and opposite polarity at the surface and, until it dissipates its energy in keeping coextensive air ionized, so we see what is known as a thunderball.

In this way the evidence mounts, the aether plays a role we cannot ignore in our search for a future energy source.

A paper on this by the author was published by the U.K. Institute of Physics, ref. [8].

## (7) The Sun's Energy Source

To add weight to the argument, there is now of record some very strong evidence concerning the role played by the aether in creating the Sun and then in sustaining its energy radiation. Given the size and mass of the Sun and our knowledge of Bohr's theory of the hydrogen atom, one can work out that those atoms must be so close together as to have electrons of adjacent atoms banging into one another. This means ionization and energy radiation, but energy replenished once the electrons are recaptured by a free proton to reestablish the hydrogen atom. The process by which the energy is replenished has to be whatever it is that determines the quantized state of electron motion, and that can only be the quantum underworld of the aether itself. So the aether has to be a medium alive with energy owing to it comprising a system of its own electric charges in harmonious motion, a system which, when subjected to a radially directed electric field, will react in retaining the synchrony of that motion, by spinning as a coextensive bodily unit. Aether spin plus the quantum interplay with matter account for the energy inflow and angular momentum that is shed to matter by the aether. Cosmologists have puzzled for centuries over why the Sun and all the planets rotate about their axes in the same directional sense. They like to think that angular momentum is conserved, just as energy is conserved, but need to factor the aether into their equations to keep the books in balance!

Those who see hot nuclear fusion as the way forward on the energy front, believing this is also the Sun's energy source, need to heed the message here presented.

Note that once an electron comes free from a hydrogen atom the proton is freed as well and so, since two protons have a mutual attraction by gravity that implies an acceleration rate 1836 times greater than that of the corresponding gravitational attraction of two electrons, the Sun must be positively charged body surrounding by a spherical boundary shell of electrons. Here you have the radial electric field needed to establish aether spin and import energy along with angular momentum.

This is fully described in ref. [9].

#### (8) Our Earth's Magnetism

To add further weight to the aether theme under discussion, just accept for the sake of argument, that when a magnet spins it may be that the aether coextensive with that magnet also develops a spin as the induced displacement of electric charge in magnet and aether complement one another. It has been argued above by reference to the author's motor research that aether spin can have a characteristic dependent upon orientation in space. The Earth is a magnetized body. It seems logical, it being so massive and it spinning at quite a steady rate for eons of time, that its aether would share the same spin velocity. However, that does not necessarily mean that the two spin axes have the same orientation. Earth and its aether being in effect two interacting magnets, it is conceivable that there could be precession of the Earth's aether spin axis relative to the Earth's proper axis. On that basis we have an explanation of why the North and South magnet poles precess around the Earth's North and South poles and that yields further information about the aether properties. Our quest to tap aether energy depends upon our acceptance that the aether exists and then probing its properties to see how we can gain access to its store of energy. So, before coming back to bench-type experiments, let us just look at one more factor of relevance, the Earth's electricity.

This subject is discussed in detail in ref. [10].

#### (9) Our Earth's Electricity

A sphere of aether that is spinning about an axis through its centre is a state in which aether charge of one polarity is displaced radially with respect to that axis relative to aether charge of the opposite polarity. So imagine the Earth as a sphere sitting within such an aether sphere with the Earth's ionospheric regions corresponding to its spherical boundaries. Both spheres rotate in the same sense.

The uniformly distributed negative aether charge set up within such boundaries by displacement will, of course, be cancelled by the Earth itself shedding enough electrons to provide enough positive ions to neutralize the charge. Those electrons will have migrated to those ionospheric boundaries, where there will be a residual net positive aether charge equal to that of the electrons. Those electrons, as a concentrated spherical shell of charge, will share the Earth's rotation and most of them will probably occupy aether sites vacated by displaced negative charge, though some, in repositioning between such sites, will be in transit and so seen as belonging to the ionospheric charge that we detect by its effect on radio waves. As to the residual positive aether charge associated with the spin-induced displacement, this will surely not be part of a sudden spherical boundary transition between spinning aether and enveloping non-spinning aether. Rather the boundary transition will be graded, with the mean effect that, on average, that residual positive aether charge will spin at half the speed of the main aether sphere. The net effect is to endow the rotating Earth-cum-aether combination with a magnetic moment attributable to a net negative charge. For the Earth's east-west motion this will account for its North and South magnetic poles. Furthermore, this theory leads to a precise account qualitatively and quantitatively for the Earth's measured magnetic moment, as shown elsewhere [10].

The physical picture thus portrayed tells us something else, namely that in the space between the Earth's surface and ionosphere, our atmosphere, there should be a prevailing negative charge density, meaning that when we walk around in the fresh air of the countryside we are walking through aether that exhibits a net electrical charge density.

We can measure its presence because it sets up a vertical electric field of more than one hundred volts per metre and this also fits well with the value derived from the aether spin theory under discussion.

In addition this author has performed a laboratory experiment which proves that this aether charge density exists even in the empty space within an earthed Faraday cage, a feature which may help to unravel the mystery of why certain precision measurements of G, the constant of gravitation, at different laboratory locations give slightly different answers.

Here, therefore, is one further factor confirming the claim that setting up radial charge electric displacement can induce aether spin and the converse that aether spin induces radial charge displacement in coextensive electrical apparatus, thereby giving us scope to tap aether spin energy.

The author will report on this separately in the near future.

## (10) The Correa PAGD Power Generator

The research of Alexandra and Paulo Correa has revealed excess power generation based on setting up a plasma discharge in gas at low pressure. PAGD is an abbreviation for Pulsed Abnormal Glow Discharge. Where there is cold cathode operation, meaning no heat input to cause electron emission from the cathode, the ion flow through the tube involving positive ions. These capture electrons from the cathode and as neutral units, atoms or molecules, migrate back to the anode where the high voltage pulls electrons free to sustain the current flow around the part of the closed circuit path external to the tube. The result of this is a concentration of positive charge, thereby setting up a radial electric field, and, given appropriate power input conditions, producing pulsations, we comply with the recipe for inducing aether energy inflow. This particular research venture by the Correas was the first to recognize that this author's theoretical insight into aether physics is relevant to their findings. Apart from the aether energy inflow there are anomalous aether forces at work which account for the excessive cathode reaction forces long recognized where cold cathode discharge tubes are involved. Electrodynamic action has a way of introducing such forces, attributable to imbalance of linear momentum, whereas electrostatic action can introduce imbalance of angular momentum, all based on aether reaction effects.

There is much of record concerning the Correa findings, including three U.S. Patents Nos. 5,416,391, 5,449,989 and 5,502, 354. See pp. 218-222 of Ref. [4] and also this author's commentary in ref. [11].

# (11) Geoffrey Spence's Power Generator

Keeping in mind the proposition that the induction of a radial electric field as between a central cylindrical electrode and an enveloping cylindrical electrode can be a direct way of inducing aether spin, it will be understood why this author was particularly interested in the 'free energy' claims made on the basis of what was disclosed by Spence's U.S. Patent No. 4,772,816.

See this author's reference to this in ref. [11] and be aware that Spence later told an audience at a talk he gave on the occasion of a political party meeting in Salisbury in England that he had closed the loop and his device was self-generating and delivered electrical power on a scale that could soon become commercial.

We therefore look forward to hearing how the Spence project is developing.

#### (12) Tesla's Free Energy Quest

There has been so much speculation about the 'free energy' aspect of the research efforts of Nikola Tesla that it is impossible to focus clearly on anything definite. He sought to tap into the radiant energy source of our electromagnetic environment. Had he built an enormous wireless system of antennas feeding energy into electromagnetic wave pulsations of the Earth's atmosphere then maybe he would have proved there is a way of tapping aether energy. He envisaged this as a way of delivering electric power without reliance on transmission by overhead power lines or underground cables. You see, one can argue that electromagnetic waves need energy input to establish them in the first place but it could be that the energy is merely absorbed by the aether over a short range of propagation, whereas the waves, as an oscillatory disturbance of the electric field of the aether merely ripple the sea of energy possessed by the aether. On that basis I can see scope for an energy gain that taps into the quantum underworld of aether energy, which is why I was interested in the research findings of Dave Giesking reported elsewhere [12].

As to whether Tesla did succeed in devising an over-unity power generating device, one can but speculate about the reports of an automobile he built in his later years that ran without gasolene and was powered electrically. Certainly, however, one can be sure that such technology was based on high voltage operating oscillatory circuits involving capacitors and inductors.

Atmospheric electricity was the energy source he sought to exploit in his early research but he may have discovered that producing a high voltage in an enclosed apparatus such as could be housed in an automobile was a sufficient catalyst for tapping some of the energy of the omnipresent aether.

As Keith Tutt states at p. 23 of his book 'The Search for Free Energy' [4]: "In one of his famous lectures of 1892 he (Tesla) told an astounded audience:

Ere many generations pass, our machinery will be driven by a power obtainable at any point in the universe .... Throughout space there is energy. Is this energy static or kinetic? If static, our hopes are in vain; if kinetic - and this we know it is, for certain - then it is a mere question of time when men will succeed in attaching their machinery to the very wheelwork of nature."

## (13) Dr. Henry Moray's Capacitor Power Generator

Moving on to 1914, and quoting again from Keith Tutt's book, I see that he opened his Chapter 3 entitled: 'T. Henry Moray - Capturing the Energy of the Universe' with the following quotation of that year's date by Moray:

"It is the belief of the writer that all space is saturated with energies which are doubtless electrical in their ultimate energies or very closely allied to electrical action. The relation of matter to energy and energy to matter then becomes the potential of the universe, one continuous series of oscillations to and fro like a great pendulum across the universe."

Here, hidden in these words, is a revelation that Moray could only have sensed but never explained. He had unknowingly referred to the universal rhythm of the quantum underworld of space, the aether with its cyclical motion at the frequency we associate with the name Compton, that at which the photon has energy equal to the rest-mass energy of the electron, the energy needed for electron creation.

However, the story of Moray is about his success in discovering how to power electrical appliances without any obvious source of power input other than an antenna strung between poles a few metres above ground.

I believe he needed the antenna input to provide a high enough voltage to prime his capacitors by a d.c. input which could not deliver a sustained inflow of energy, but by virtue of the electromagnetic fluctuations (noise) owing to atmospheric electrical effects, these were enough to trigger the oscillatory exchange of charge as between two capacitors. My guess is that these must have been of concentric electrode construction as otherwise there could be no radial oscillations of electric field in the coextensive aether region, the recipe for tapping aether energy. The reference to 'Swedish stone' in what has been written about Moray's demonstrations points to a component serving as a rectifier in converting the high frequency output into d.c. which could power the light bulbs and electric iron, the proof that here was a viable power source at least on a domestic scale.

To generate kilowatts of power from apparatus of the size used in Moray's demonstrations and by technology based on capacitors and inductors operating at what must have been a frequency of the order of 100 kHz implies scope for economic large scale exploitation, which is why this research of Moray in the early years of the 20<sup>th</sup> century is so important. If only he had disclosed every detail of what he had constructed! But, one wonders, did he really understand the underlying physics at work in what he had built?

### (14) The Methernitha Project

Now it is as good as certain that Moray's process of tapping energy from the aether is the secret also of the modern day apparatus hidden away in a reclusive community in Switzerland. What has been reported and demonstrated has all the necessary features, as I see it, in that there is a high voltage d.c. input provided by an influence machine (Wimshurst machine) of the kind I saw demonstrated in my youth in the physics laboratory of my school. The apparatus has two large Leyden jars (capacitors of concentric electrode construction) and the necessary inductors

to exploit resonant oscillations in transferring charge between the two capacitors. Here again, however, I suspect that those who have built this apparatus as well as those who have visited Methernitha and witnessed its operation have no idea how the device taps actually draws energy from the aether. Understanding the theory of its operation, meaning an in-depth insight into the physics involved is essential if one is to see a way forward on the commercial front and convince those in authority who need to sponsor and fund such effort on a large scale.

As to that knowledge, here we need to recognize the link with the creative underworld of the aether, as brought to bear in forming our Sun, as described in my book: 'The Physics of Creation' [9]

## (15) The Aspden Capacitor Project

It was early in 2002 that I was invited to be a speaker at an Energy Symposium in Berlin to be held in June. Having already reached the conclusion that it should be possible to draw energy from the aether by suitable interplay of two capacitors of concentric electrode construction I faced the choice of diverting my attentions into that experimental pursuit or simply publishing my ideas in the hope that others having the necessary facilities would engage in such effort. My primary aim was to consolidate my theoretical pursuit of aether science by writing a new book updating what I had published earlier and so, in 2003, a first and then a second edition of 'The Physics of Creation' duly appeared on my website <u>www.aspden.org.</u>

It made sense to file a patent application in U.K. before disclosing what I planned to say at the forthcoming event in Berlin and so that was duly filed at the U.K. Patent Office on March 3<sup>rd</sup>, 2002. I am writing this now owing to that Patent Application having just been published bearing the number GB 2390941, it being accessible via <u>http://gb.espacenet.com</u>. The presentation I made in Berlin has been of Internet record since 2002 and will not be repeated here. See Lecture No. 27 in the Energy science section of my website <u>www.aspden.org</u>.

One point, however, that I should add is that the basis of the invention recognizes that when a capacitor of cylindrical electrode construction is charged, its discharge returns the same net charge as was fed as input, but the voltage across the plates does not reduce as might be expected from standard theory. It is, at least so the theory based on aether involvement predicts, as if the capacitance during the discharge phase is somewhat higher owing to aether energy having been trapped and adding power to the discharge.

The cylindrical capacitor construction with well-spaced cylindrical electrodes to assure the spatial annular character needed to accommodate aether spin means using and a high voltage to provide an adequate level of energization and d.c. to avoid the high energy source itself delivering energy continuously. Two capacitors appropriately connected via inductors are then needed to encourage oscillation as the charge is exchanged cyclically between them and surplus energy as output can then be drawn inductively from the inductors.

It now remains to be seen whether what is here suggested will bear fruit in our free energy efforts, but at least I have presented the case as I see it, and so, until we know what emerges, I just now hope to be proved right.

The next and final note concerns an experimental anomaly I once encountered but never reported. I am still puzzling over it but suspect it has some bearing upon the free energy theme under discussion.

## (16) The Aspden Motor Project

I assembled a switched reluctance motor having eight rotor poles interacting with eight stator poles, the latter having windings powered by a pulsed d.c. input controlled by a Hall

sensor of rotor shaft position so as to run at a speed determined by the load and the voltage applied.

The special feature of this motor was that the poles of both rotor and stator were inclined to the radial direction at an angle of 45 degrees.

I just wanted to see if operation was more efficient according to whether rotation was clockwise or anticlockwise and so see if inclining the poles made any difference. The problem of fitting windings to the inclined stator poles meant that there was a price to pay design-wise because it limited the use of copper wire and meant higher resistance in the excitation circuit.

I confess that after building this machine the fitting of those stator windings was offputting and I moved on to more interesting motor research pursuit at the time, but only after seeing how the inclined pole motor operated.

I then witnessed something I had not bargained for. I had reasoned before building it that it would run steadily in either direction once given a torque impulse in the chosen direction, and my hope was that it would run on the same load at the same speed with less power in one or other direction. So I was quite astounded when I switched it on and gave it a starting turn in the anticlockwise sense. The motor increased in speed and ran well for a few minutes as I was assessing operation before gearing up to make measurements, but then I sensed that it was beginning to slow down even though the d.c. input voltage was unchanged. The slowing down action even escalated to the point where the motor passed through a standstill and started to rotate clockwise. Not only did it change its spin direction but, once rotating clockwise, it gained speed rapidly, accelerating much faster than it had on start-up in the other direction, settling eventually at a much higher speed in that direction that it had reached earlier in the clockwise direction.

This was a repeatable performance and I even demonstrated it to a friend and later videotaped its operation for my private records. I admit being baffled by this. I had hoped it would function better spinning one way than the other but when it did I then wondered if I had introduced a bias by not setting the commutation control symmetrically, which is probably why I did not pursue the tests further. However, on reflection, since it did run steadily initially as input power matched the load, how is it that the machine rotor could then slow down, actually stop and then decide to rotate the other way? Something was introducing an element of inertia, a time-lag in the governing physics at work in the machine, but something that was saying to the machine at its moment of standstill: "Go clockwise!". My thoughts then suggested two possibilities. The d.c. current input combined with the magnetic flux pulsations may have gradually introduced a polarizing bias in the magnetic state of the poles which may or may not have played a role. Yet this does not seem probable. Alternatively, in view of my awareness of the aether spin seemingly evident in the tests on the motor of quite different design (homopolar machine) mentioned above in note (5), I am now wondering if that same phenomenon was at work in the inclined-pole machine. At least, given aether spin building up and for some reason induced in a clockwise direction, this might explain why the machine, in coming to rest from its anticlockwise motion, had a hidden memory, an input that encouraged it to spin up in a clockwise sense.

I admit this is speculation at this stage as I have no firm theory for what I observed, but hopefully I shall one day find time to pursue this matter further. However, in ending on this final note, I stress that I do not regard motor technology as the best route forward in free energy research. The capacitor theme seems to me to be the best candidate. It has real promise in view of the pioneer research of Moray and those involved in the Methernitha venture.

# References

[1] John Davidson, 'The Secret of the Creative Vacuum', C.W. Daniel Co. Ltd (1989).

[2] David Hatcher Childress, 'The Free-Energy Device Handbook', Adventures Unlimited Press (1994).

[3] Jeane Manning, 'The Coming Energy Revolution', Avery Publishing Group (1996).

[4] Keith Tutt, 'The Search for Free Energy', Simon & Schuster (2001).

[5] Jim Kettner, Space Energy Journal, pp. 22-23, v. XIII, Issue IV (2003).

[6] Bruce DePalma, Speculations in Science and Technology, pp. 283-287, v. 13, No. 4 (1990).

[7] Harold Aspden, 'Power from Magnetism: The Transverse Reluctance Motor', Energy Science Report No. 7, Sabberton Publications, P.O. Box 35 Southampton SO16 7RB, England. [8] Harold Aspden, 'The Thunderball - an Electrostatic Phenomenon', Inst. Phys. Conf. Ser, No. 66: Session VI, Electrostatics 1983, Oxford, pp. 179-184 (1983).

[9] Harold Aspden, 'The Physics of Creation', Book Section of www.aspden.org.

[10] Harold Aspden, 'Physics Unified', Sabberton Publications, P.O. Box 35 Southampton SO16 7RB, England..

[11] Harold Aspden, 'Power from Space: The Correa Invention', Energy Science Report No. 8, Sabberton Publications, P.O. Box 35 Southampton SO16 7RB, England.

[12] Dave Gieskieng, 'An Antenna with Anomalous Radiation Properties', Appendix to Lecture No. 10, Energy Science Section of <u>www.aspden.org</u>.

Note: References [7, 10 and 11] are all of full Internet record. See www.aspden.org.