

ENERGY SCIENCE ESSAY NO. 1

THE REALITY OF PERPETUAL MOTION

Copyright, Harold Aspden, 1996

Abstract: This Essay was first published in 1996 at pp. 15-22, Vol. 2 No. 8 issue of 'Infinite Energy', a Magazine having the address P.O. Box 2816 Concord, NH 03302-2816, USA.

Having been appointed a new member of the Scientific Advisory Board of '*Infinite Energy*', I have been asked by the Editor-in-Chief, Dr. Mallove, to submit an article 'synthesizing from my previous work'. I will have much more of a specific nature to say in future writings, but think it best here to give a kind of introduction which will outline my approach to the 'free energy' field.

Based on simple Newtonian mechanics, perpetual motion within a purely mechanical device is impossible. However, once one understands the true electrodynamic nature of the force of gravity and how interactions are set up which involve energy transfer between electric charges, then perpetual motion, subject to machine wear and tear, is just a matter of exercising one's ingenuity. This is because electric charges in motion interact as a function of motion relative to one another and by virtue of their interaction with the all-pervading sub-quantum medium that some call a frame of reference but which we will here refer to by its proper name, the aether.

There are three ways in which one can contemplate building a 'perpetual motion' machine, which is really what we are all talking about when we use terms such as 'free energy'. They are:

1. Build something you imagine might work and then pray for a miracle as you try to set it running.
2. Be attentive to claims made by others who say they have built something that does perform such a miracle and then try to replicate it from the gist of what you can find they have disclosed.
3. Study the detail of the mechanism of an existing very large perpetual motion machine which you know does work and to which you have access and see if, by first probing the physics of that mechanism, you can devise a way of tapping into its energy activity, just as the alternator draws electrical power from the engine in your automobile.

The middle course above is the one normally adopted and it has its excitement but is very frustrating and I have chosen the third track, and even though that has had its frustrations I have advanced relentlessly. I believe I now understand the physics needed to access that hidden energy and so can help to build the new energy technology.

If too many would-be venturers in this field go along that second track each travelling separately and they try to replicate what they think others may have done, a state of chaos can result. However, even amongst that chaos, which is now becoming so very active, we are witnessing a kind of clustering as order is beginning to emerge at certain focal points. Thus we see 'cold fusion' or 'plasma discharges' or 'permanent magnet motors' as giving some of us the feeling that this is all real and that the era of new energy technology can now begin. There are still those, the vast community of scientists who sit on the side lines and watch, confident in their knowledge that all this effort is a waste of time. I say "watch", but it is more correct

to say that they look the other way and avoid all thought of getting something for nothing, at least in the 'free energy' sense.

My interest in this scenario has an unusual background. Being well brought up in the disciplines of science and engineering, I could never have dreamt that 'perpetual motion' would be something I would ever write about, far less get involved in experimentally.

Indeed, my Ph.D. thesis was more concerned with the mysterious loss of energy that was observed in the electrical steels used in power transformers and in the alternators used to generate power. I became interested career-wise in inventions and my knowledge of magnetism and its related technology was applied to secure patent protection for a major engineering company in U.K. before moving on to IBM at year-end 1959 as their U.K. Patent Manager. Then from 1963 to 1983 I was the director in charge of IBM's European Patent Operations.

I do not recall ever seeing an invention disclosure in IBM that could be classified as 'perpetual motion', yet even in the 1960s IBM's patent function was processing several thousand invention disclosures per year. I remember, however, from my pre-IBM years discussing with an elderly German visitor his offer of a 'free energy' machine. He declared it would replace the locomotive diesel engines manufactured at one of our plants. As his credentials he said he was chief engineer involved in U-boat design during World War II and then surprised me by saying 'You know Albert Einstein?', then allowing me a very brief glance at a letter addressed to him and signed by Einstein. He followed that by letters from Max Planck and Werner Heisenberg and thereafter went into a display of copious design details of thrust forces in a closed cycle gas turbine having no fuel input.

When I later studied his calculations I found that he had omitted the reaction forces which arise when gas goes around a bend and had only worked out the axial forces on the compression and expansion sets of turbine blades in his proposed engine. He had in fact not done a full analysis and was in breach of Newton's third law of motion, concluding that action and reaction were not in balance. He was wise enough to know that if one can breach that law then one can contemplate the perpetual motion machine.

I was, in those days, part of the conventional world that knows that 'perpetual motion' is impossible, but, unlike many in that world, I was attentive to alternative opinion. On the pure science front, as opposed to engineering proper, I was already rebelling against the Einstein philosophy, which ran contrary to my research findings on magnetism. I must say that, in view of that scientific interest, the names Einstein, Planck and Heisenberg made that little episode of the mid-1950 era stick in my memory. I did know enough German to know whether those letters were supportive, but was not allowed to read anything other than the signature, so you can draw the appropriate conclusion.

I have said above that, as far as I remember, IBM did not process any invention disclosures related to 'perpetual motion' and I now mention two news items from the Spring 1966 issue of 'Helpware' sent to me by IBM. They read:

Patent Power: IBM has topped the US patents table for the third year running. With a record 1,383 patents in 1995, IBM received 27% more patents than any other company.

Glueballs: Quarks have strangeness and charm, but IBM has glueballs. Three

IBM scientists working on the fundamental properties of matter have figured out the properties of the things that stick all the other particles together.

The latter item made me wonder if 'glueballs' could have something to do with 'cold fusion', because 'glue' has its hot and cold forms and there was a time when hot bonding techniques were used in manufacture, whereas today we also see cold-bonded resin technology.

IBM has doubled its patent filing rate since the 1960s and I wonder how many of those 1,383 US patents granted in 1995 are beginning to touch that forbidden boundary which we see blocking the field of 'cold fusion'? There will surely be some that are invasive and traverse the boundary set by the second law of thermodynamics, as I will explain below when I refer to superconductivity.

As a European Patent Attorney, I was well aware of the facts of patent law which declare, unambiguously, that an invention must be capable of industrial application. Under this heading comes the issue of 'perpetual motion'.

Inventions are excluded from patentability if the article or process is alleged to operate in a manner clearly contrary to well-established natural laws, a specific example being a 'perpetual motion machine'. Patent law is applied to reject such inventions by the use of a double-barrel gun. The Patent Examiner fires the first barrel if the claim specifies the intended function or purpose of the machine to be the generation of that 'free energy' we talk about. The second barrel is fired if the claim does not declare the intended function and merely specifies the construction of the machine, it being implicit somewhere in the specification that the objective really is to cover a 'perpetual motion' machine. We therefore confront the chicken-and-egg argument of which comes first, (a) demonstrating actual industrial application of a technology that can be categorized as based on 'perpetual motion' inventions so as then to contest a change of patent law or (b) getting scientists to accept that some of their 'well-established physical laws' are open to challenge and so can become disestablished. Without patent protection, R&D funding is not forthcoming. Even investors not interested in patents will not rely on what they see might work and so take independent scientific advice and that implies need for demonstration of a fully tested operable machine, which then takes us back to square one.

I retired early from IBM in 1983 expressly to get back to university and continue my private research on the third track introduced above. I had no idea in 1983 that IBM would later take up research aimed at calculating the masses of protons and neutrons, a subject I had written about years before at some length. You see, if we can understand how protons are created we can understand how energy was shed to create the universe. If that understanding shows us that energy radiated into space can be absorbed, stored for a while and then, by some statistical pattern of events, remolded into protons we have an insight into the operation of that perpetual motion machine we inhabit and which we call the 'universe'.

From 1952 onwards I had been dissecting and probing the operating system inside that perpetual motion machine, the aether that pervades the universe, recognizing that it had a demonstration model of itself locked in the domain structures we see inside iron crystals and other ferromagnetic substances. It was in 1988 that I switched to that second track, knowing enough by then of what I needed to know about Nature's own perpetual motion machine. That was just before the discovery of 'cold fusion', but just after the discovery of 'warm superconductivity'.

1988 was a year in which a paper of mine entitled 'The Proton Factor and its Unknown Effects' was published. Readers of 'Infinite Energy' (March-April 1996 issue No. 7) may have noticed a letter by Dr. Paul E. Rowe on p.6 in which he refers to the aether as a source of energy. The writing of that 1988 paper of mine was inspired by the experimental discoveries of Dr. Rowe concerning his finding that protons were actually being created in high energy electrical discharges in his gas discharge tubes. Here, at last, was some practical evidence that seemed highly relevant to my theory of proton creation.

Dr. Rowe's research was showing that high voltage discharges can add hydrogen into the gas in the discharge tube and it seemed not to originate in hydride decomposition of the electrodes. If the discharge meant that the aether was disturbed in a way which made it shed energy then the options are 'excess heat', anomalous electrical EMFs in the electrode circuit and/or creation of matter (hydrogen). I was interested in all this, but my main interest was the creation of protons from aether energy.

Meanwhile IBM scientists, in 1985, had announced that they had put together at their Yorktown Research Laboratory their GF11 parallel computer using 576 floating point processors to engage in the largest computing task ever confronting a physicist, that of calculating the mass of the proton and the deuteron. So far as I know it is still working on that problem. Yet ten years earlier I had been co-author on a paper published in the mainstream literature which deduced the proton-electron mass as being 1836.152 and, in the event, the leading scientists later measuring the proton-electron mass ratio to very high precision declared:

The value that they (Aspden and Eagles) calculate is remarkably close to our experimental value. This is even more curious when one notes that they published this result several years before direct precision measurements of this ratio had begun.

It was 'curious' because of the method used, which relied on energy in an aether ever-striving to create protons and only winning if it had spare energy to shed from its equilibrium requirements. The word 'aether' was something one normally did not mention in a scientific paper appearing in a mainstream physics journal. So the 'curious' note implies that information based on aether theory is something one should look for in the 'Old Curiosity Shop'. [It is in London, not too far from Chancery Lane and the Patent Office Library, a better search place for aethereal curiosity].

Other IBM scientists working in their research facility on the outskirts of Zurich in Switzerland were studying the electrical conducting properties of perovskites and, as we know, that led to the technology of 'warm superconductivity'. Here in fact was a breakthrough into the 'free energy' world, though it was not seen as such at the time.

One can, of course, patent chemical compositions which display unexpected properties having useful industrial application. One can do that even though what is involved seems contrary to well established physical law. Whatever happened to Ohm's law? 'Warm superconductivity' defies that law.

I authored a book entitled '*Physics without Einstein*' and published in 1969. It explained the nature of the neutron and deuteron, as well as pointing out that there is no neutron in the deuteron, but it also explained that a magnetic field acting on a metal locks the energy of that

field into a thermodynamic reacting state inside that metal. The book was read by Dr. Jaggi, an IBM scientist at that Zurich laboratory and, on one of my visits, he drew my attention to his experimental discovery, also published in 1969. He had found that there was a curious saturation condition and size-dependent non-ohmic behaviour occurring in germanium and silicon when the magnetic energy equated to kinetic energy within the conductor. See page 124 of my 1972 book *'Modern Aether Science'*.

The point I am making is that when warm superconductivity was discovered the scientific world should have realized that energy shed as heat owing to ohmic resistance loss has a way of regenerating electricity in the metal! I did not know it when I did my own Ph.D. research and discovered that the eddy-current losses in electrical sheet steels could, at certain stages in the B-H magnetization cycle, be as much as six times greater than theory predicted. What I did not then realize was that the energy shed as heat was regenerating EMFs which enhanced the current to levels far above the normal ohmic value. In short, what I am saying is that the power transformers in use today, though very efficient, are not as efficient as our natural physical laws say they should be, simply because they are doing what physicists say is impossible and regenerating electrical power from the heat they shed.

What I see in the discovery of 'warm superconductivity' is the corresponding discovery that heat released by ohmic heating regenerates EMFs in certain materials having an appropriately tuned response.

I am now saying that by understanding this fully we can break through new energy technology barriers and develop efficient ways of converting low grade heat into electricity in breach of the second law of thermodynamics.

It was on pp 29 and 30 of my book *'Physics without Einstein'* that I declared it might be possible to pump energy from the aether. The proposal involved a very powerful magnetic field such as can now be set up by a superconductive solenoid and it involved a ferromagnetic core. It was based on theory which some scientific critics then rubbished by declaring that space would need to reveal a preferred magnetic axis, which they said would have been discovered if it existed. I now draw attention to the item 'Testing Over-Unity Devices in Germany' on p. 7 of the March-April 1996 No.7 issue of *'Infinite Energy'*, in which we were told that high ranking authority in Germany was now ready to move forward and pay serious attention to what might be offered on the 'free energy' front. Professor Gruber received a response to this from an institutional source in Moscow. It was from Yu. A. Baurov, declaring that an engine running on physical vacuum energy has been developed and tested with a 'free energy' output of 0.5 kW. As back-up information Baurov refers in that communication to his co-authored paper in *Physics Letters A*, 162, pp. 32-34 (1992) entitled 'Experimental Observation of Space Magnetic Anisotropy'. The paper says that experiments in which test bodies are suspended in a superconductive solenoid display a preferred magnetic direction in space. The level of magnetic induction used is that we see in ferromagnetic materials.

Here is evidence of an aether that can do work, an aether which fits my theoretical prediction, the same aether that creates protons and I had good insight into its way of working because I had decoded how it determines the proton-electron mass ratio.

However, the shattering effect of the dawn of 'cold fusion' made 1989 the year when interest in the new energy field escalated. I was interested immediately, owing to my commitment to

a theory which was based on proton creation and deuteron formation without neutrons. I was interested because I was already involved in energy anomalies in metal. I was interested because I had written about anomalous forces acting on cathodes in discharge devices.

Indeed, I was interested enough to file patent applications on "cold fusion", securing patent grant in U.K. but was soon to realize that I was up against a Patent Examiner who reads the *Wall Street Journal* and if the *Wall Street Journal* says that cold fusion is a non-runner then the US Patent Office bows to that superior authority! I am being a little cynical here, but have noticed the "More Garbage from the U.S. Patent Office " item on page 60 of the March-April No. 7 issue of *Infinite Energy* and, well, I will not comment further at this time, save to say that the *Wall Street Journal* will be appropriately authoritative in reporting the eventual business success in Japan as 'free energy' takes off.

1989 was also a year in which a book entitled 'The Secret of the Creative Vacuum' by John Davidson was published. That book, now in its second printing and soon to appear in a German translation, was too early to refer to 'cold fusion', but it well reflects the status of the 'free energy' theme at that time. The caption under the title was '*Man and the Energy Dance*' and that is very apt because, when we shed energy as waste heat and it is radiated away into space, the sub-quantum aetherial world is, in fact, engaged in a kind of rhythmic waltz and that spent energy is captured and obliged to join in the rhythm of the dance. Order comes from chaos and from the order energy can be packaged into proton-electron form or even released by ferromagnetism or gravitation, the forming being quantized by that quantum dance and the latter being 'phase-locked' to its rhythm.

So, in 1989 I read pp. 245-259 in Davidson's book which refer to the spiral-turbine experiments of Viktor Schauberger. I could not believe what I read:

If water is rotated into a twisting form of oscillation a build up of energy results, which with immense power can cause levitation...

I could believe what John Davidson wrote on page 255:

Looking at things from first principles, we have to understand that motion is the essence of manifestation. Everything we perceive is an energy dance. At the physical level this subatomic dance is spun out of the energy of space or the vacuum state energy field. And the nature of the motion of these spinning, whirling energy vortices which we call subatomic particles is of the utmost importance, for it is a patten which gives rise to all the macroscopic forms we perceive with our senses and allied instrumentation.

Now, a physicist or engineer not tuned in to the 'free energy' scenario will see this as mere words with no scientific logic. I was not fully 'tuned-in' in 1989, but was attentive. I can now see that by centrifuging water, which comprises positive hydronium ions H_3O^+ and negative hydroxyl ions OH^- , one can separate the ions slightly and set up a radial electric field about a spin axis. You will presently see why this is relevant to the generation of 'free energy', though I am still thinking about the antigravity aspect.

Reverting to the task of 'converting' the scientific community so that that barrier of 'well-established physical law' does not unduly obstruct the scope for securing patent grant, I note that there are only three physical laws that we need to consider. The first law of

thermodynamics, otherwise known as the law of conservation of energy, is well-established and cannot be breached. It was well-established at the time scientists believed in the existence of an aether. Energy is conserved in all exchanges between matter and the aether. Today there is a foolish sector of the scientific community that lives in an imaginary world of virtual reality and can see no aether in their 4-space picture. Their opinions can carry no weight in the evaluation of the physics of 'free energy'. We conserve energy when it is transferred between aether and matter! One cannot 'establish' a physical law and then change its territorial jurisdiction without revising that law. Take away the aether and the law is no longer valid!

I have heard it said that if the aether were to create energy on its own account it would go out of control and we would all be blown up. The simple answer is that it is already in equilibrium with matter but protons, believe it or not, decay to shed their energy which then feeds the aether with a surplus from which it recreates new protons. All we have to do is to stick our finger in the pie while this ongoing cycle of events takes place and capture energy that has climbed to a higher potential but do that before it gets back to the proton creation stage. See my above and later references to 'phase locking'.

Secondly, there is the second law of thermodynamics. This is well established and cannot be breached so long as one keeps within its limitations. It concerns heat engines, as such, by which is meant engines that run on heat as fuel. Heat goes in at one temperature and comes out at a lower temperature doing mechanical work en route. There are two temperatures. Gas molecules have a temperature according to their kinetic (mechanical) activity. What may I ask is the temperature of a photon? Indeed, what is the temperature of electricity? What is the temperature of magnetism? You see, if I can input heat at one temperature and it is transported through metal by electrons subjected to a magnetic field, I can divert those electrons off course and tap some of that heat to generate electricity. Now ask yourself a simple question. Is this a heat engine? Does the fuel (the heat) have a temperature? Yes it does, but does that fuel (all that heat) flow out as in a heat engine through the one exhaust at a low temperature? Well, no, because there is something different here, those electrons in the metal do not really all flow from the hot temperature input to the cold temperature output. If they did they would carry current along with the heat flowing through a metal conductor and we do not see such a flow of electricity. The metal subjected to that magnetic field has a way of developing the electric power output transverse to the heat flow, without demanding any net electric current flow along the heat path. So, I say I know how to build a device for converting heat into energy without it being a heat engine within the scope of the second law of thermodynamics. It is bound by the first law only. I know this because I am a co-inventor of a device which generates electricity from melting ice placed on its top heat sink surface and then freezes water on that same surface when fed with a.c. electrical power input.

I note that if one can build two devices, one which defies the second law of thermodynamics and can convert heat into electricity with an efficiency much greater than the Carnot level set by that second law and couple that with a conventional heat pump complying with that law then, in their back-to-back operation, one has, not only a free energy generator, but refrigeration as well. The aether is not involved in this technology, which requires little more than a laminated assembly of thin films of nickel interleaved with a suitable dielectric material.

The third law considered is not the third law of thermodynamics, which relates to the impossibility of cooling matter down to absolute zero of temperature in one action cycle.

That law is connected with the name Nernst and textbooks on thermo electricity term the effect described above as the Nernst effect. It needs a little ingenuity to apply the Nernst effect to practical technology, but such technology is in sight.

No, the third law I mention is the law of electrodynamics, which I see as the basis for Newton's third law of motion, but if I delve into that then this article will become too long and I must now curtail my commentary somewhat.

Before I conclude I want to refer to the cover article of the March-April 1996 No. 7 issue of *'Infinite Energy'*, the article on the Correa technology and to introduce a book I have just published entitled *'Aether Science Papers'*.

In publishing a work under this title I am redeeming a promise I made to myself when I stated on the back cover of my book *'Modern Aether Science'*:

A mathematical extension of the new ideas presented in this work will be published separately under the title of *'Aether Science Papers'* and will be available from the same publishers.

That promise is redeemed after 24 years. The reason for this delay is the fact that that 1972 book was branded 'Physics in Fairyland' by a key reviewer. That 'fairyland' world is now our 'free energy' world.

It was on page 67 that I quoted Dirac as declaring that the universe may contain as many negative protons as positive protons and as many negative electrons as positive electrons, it being all a question of which stellar domain regions were considered. We happen to belong to a region with positive protons and negative electrons. On pages 44-45 I quoted a French cosmologist Alexandre Veronnet as presenting a vision of the aether which warranted attention owing to its connection with magnetism and in particular the unit we term the Bohr magneton which gave the aether a quantum feature and provided the link with ferromagnetism that I exploited. This was no 'fairyland' but it was a world of energy filling space and I was explaining how the universe was created from that energy.

More important, at the end of my book I urged that attention should be paid to an experiment performed by H.A. Wilson which bears upon our 'free energy' interest.

It had been suggested that a body in rotation might develop a magnetic field as a gravitational phenomenon. It had come to be known as the Schuster-Wilson hypothesis. If the mass of a body is multiplied by the square root of the constant of gravity and the result is assumed to be the measure of electric charge, that body in rotation should develop a magnetic field. This idea worked qualitatively and quantitatively using data for the two bodies, our earth and the sun. So Wilson set about experimenting. He found magnetic fields induced in this way in iron and could not get rid of them, suggesting therefore that here was something very fundamental.

That dates from 1923, but eventually in 1947, the year before he won his Nobel Prize, Blackett drew attention to the fact that the Schuster-Wilson hypothesis applied equally well to a star some ten billion times more massive than the earth. He then set about trying to test the hypothesis in a laboratory, this time by contriving to use a very large gold cylinder which was located in a shed in a remote location. He sought to measure the magnetism seated in this

gold cylinder as induced solely by its rotation with the earth. This required an enormously sensitive magnetometer, but the tests proved negative and so the Schuster-Wilson hypothesis stood rejected.

Now, when my aether theory showed me how rotating aether sets up a magnetic field I found that, if one assumed aether coextensive with the earth was rotating with it, then I found it gave the correct value for the geomagnetic moment. I knew then why the Blackett experiment had not worked. He had used an object which concentrates mass but not one that concentrates aether. In short, as the aether must extend to ionospheric altitudes and so pervade our atmosphere above ground, the gold cylinder would reveal no change of magnetic field by its presence or absence at the test location.

The aether was, however, seen by that critic who reviewed my book as something one could only relate to 'fairyland'. So, I will now come directly to the point of all this by declaring that the aether is 'phase locked', which means that if we try to rotate a sphere of aether there will be constraints asserted upon that spherical form the enveloping aether owing to that 'phase locking'. Analysis shows that this will develop a radial electric field centred on the spin axis. Conversely, if we can set up a radial electric field about an axis of spin then the aether coextensive with the range of that field will develop a spin. Since this comes about by a constraint asserted from the enveloping aether environment, the latter must contribute the energy needed to keep that 'phase lock' condition. So, for every joule put in as electric field energy to set up the spin, the aether delivers one additional joule as kinetic energy. That is the source of the 'free energy' I see at work in the Correa technology.

Can you now see why I referred above to the findings of Viktor Schauberger? By setting up that centrifugal separation of positive and negative ions in water he was setting up a radial electric field about the spin axis. There would be an inflow of free energy and if pockets of air in the pipework he used could make that flow pulsate in some way, setting up oscillatory effects, then that 'free energy' could be replenished over and over again.

As to how stars get their magnetic field the answer is that there was a cooling down of aether activity which allowed the aether to crystallize into a form that introduced gravitation. As in a ferromagnet when cooled through the Curie temperature, domains form as magnetism appears. The corresponding phenomenon in the aether is what we term gravitation. The protons that existed could then coalesce under gravity and, owing to their mutual gravitational attraction giving an acceleration 1836 times that set up between electrons, the initial state of stars thus nucleated would have a positive charge. This set up the radial electric field as powered by gravitational energy. The radial electric field in turn induced the spin condition of the aether, further poered directly by aether energy, which eventually transfers to the matter in the star, but which also sets up the star's magnetic field.

In my book *'Modern Aether Science'* I related this to the creation of thunderballs by lightning discharges, because a discharge that concentrates positive ions (as in the Correa technology or in the discharges of Rowe's experiments) must develop radial electric fields. We get inflow of 'free energy' supplied by the aether. That materializes either in a useful form or, as in the thunderball (or even the tornado), in a form that can be quite destructive. Yet all this is said to be 'Physics in Fairyland'.

In the case of the homopolar machine with a permanent magnet rotating to induce EMFs in a cylindrical disk we have exactly the same scenario. The 'free energy' potential is there but we

have to know how to extract the energy, as by setting up pulsations. In a practical 'free energy' device one needs to recover the priming energy of 1 joule for every 'free energy' joule delivered by the aether as a dividend. The energy capital invested has to be deposited and withdrawn repeatedly because the pay-off is a one-shot response which doubles the investment each time the radial field is reestablished.

This applies to the 'aether spin' method of tapping that 'free energy', as in the Correa apparatus where capacitive components have a feedback role, a 5:1 power gain in the device itself then being feasible. Once external storage and feedback is provided with this technology to close the loop a power gain factor of this kind will not be of overall relevance. It will simply be a question of the amount of start-up power input needed and its limited duration to set the system in operation and then the performance will be judged by the specification of its continuous power output.

As already indicated, the aether can shed energy by creating protons, but whether this may have practical consequences remains a matter for speculation. In the meantime, the 'cold fusion' theme is of primary interest. Aether theory concerns also the creation of neutrons and deuterons and can help to explain the absence of neutrons in the fusion reaction.

It seems, furthermore, that the aether will shed energy in responding to electrodynamic action by an action quite distinct from that associated with a radial electric field. The latter transfers angular momentum and related energy from the aether, but the electrodynamic reaction induces the precisely opposite response. In responding to electrodynamic interaction between two charges in motion, the aether will not develop an out-of-balance reaction as a couple or turning moment. It can, however, develop an out-of-balance linear force, which means a breach of Newton's third law of motion, coupled with the delivery of 'free energy' from the aether. This accounts for the anomalous cold-cathode reaction forces found in the researches of Correa and others, but these forces do useful work in compressing positive ions into a plasma ball which then can set up the radial electric fields which tap the primary input of energy from the aether.

Then there is the still undeveloped physics of magnetic actions in metals which offers enormous promise for the 'free energy' theme. There are ways of setting up non-linear electric field gradients inside a metal, given the trigger of an initial temperature gradient. Such a gradient means that sources of electric charge originate inside the metal. In other words a surplus of negative charge can exist and yet not be detected. A surplus of electron charge in a metal and sitting amongst free protons or deuterons which are free to migrate inside the cathode, owing to the anomalous electrodynamic forces accounting for cold-cathode reactions as just mentioned, can draw on aether energy. Such forces are accentuated and escalate in strength if the mass of the interacting charges differ, which is the case once we consider migrant protons or deuterons. That can trigger the merger of two deuterons, because the electrons are in surplus and an unexpected energy fluctuation is at hand. We may then see the makings of a fusion reaction resulting in excess heat.

In deliberating on this scenario, I have also to consider the involvement of the supergraviton'. My theory explains gravitation but requires the presence of a dynamically reacting 'graviton' system. The supergraviton has a mass slightly greater than 102 atomic mass units but is only present in dense matter. A palladium cathode constitutes dense matter, because its atomic nuclei are of mass commensurate with the supergraviton. Deuterons entering the cathode in the cold fusion cell are associated with a retinue of normal gravitons of much lower mass.

The aether sorts this out by converting gravitons into supergravitons and that process sheds some energy as heat. This is another factor to consider because that heat energy will be concentrated as motion imparted to deuterons in amounts sufficient to trigger fusion.

If the reader wonders what I mean by 'supergraviton', then take note that a typical warm superconductor perovskite La_2CuO_4 has a molecular mass of 407 atomic mass units, based on copper isotope 65. This means that it is highly tuned to dynamic resonance with the supergraviton, being close to four units of 102 atomic mass units. Such dynamic resonance means that electron collision with the molecules of such a material will not shed much energy as heat. It is as if the impact is transferred to the dynamic mass centre so that the energy is stored conservatively by a spin about that centre, only to be shed by being returned to electrons driven out of the molecules as the system reacts to conserve angular momentum.

The 'supergraviton' plays a key role in my interpretation of the warm superconductivity phenomenon. It cooperates with the energy stored by magnetic induction to sustain that electron current flow, even though that means slowing down the thermal motion of those molecules. In other words, there is superconductivity because heat of molecules is converted into electrical power. That means that scientists who discovered warm superconductivity also discovered a regenerative energy process which defies the second law of thermodynamics. It becomes a matter for technological development to harness that discovery to serve a 'free energy' purpose in generating electrical power from ambient heat, before the aether gets to work and packages that energy into protons and, of course, accompanying electrons!

The 'supergraviton' is a catalyst that can do the work of the Maxwell demon, but before you learn about 'supergravitons' you need to understand something about 'gravitons'.

I therefore invite readers to refer to my new book '*Aether Science Papers*', which will be the forerunner of my writings on the detailed operation of the specifics of the new energy technology in which I am interested. In that ongoing effort I will be referring to '*Aether Science Papers*' as the full explanation of the energy source being tapped. Essentially, apart from a 62 page commentary which relates the subject to the new energy field, the book comprises copies of fourteen published papers plus bibliographic references to many of my other published work, including the one in which the supergraviton mass is derived.

See the following summary as published on its back cover.

Before adding that 'summary' to complete the article as published by 'Infinite Energy', I wish to mention that I have deferred adding this Essay No. 1 to my Web pages until I had completed ten Tutorial Notes and made these available as background briefing. If you work through that tutorial course of ten lessons you will see how gravitons are created on one side of a dynamic aether balance and protons are created on the matter side of that same aether balance. Once you see how you can yourself calculate G, the constant of gravitation, in terms of the electron charge/mass ratio and in precise accord with its observed value, you will understand the 'graviton'. I will, in Essay No. 3, show you how the same 'graviton' theory leads to the 'supergraviton' and that will take us into the technological realm of 'warm superconductivity', which itself is a regenerative energy process as heat dissipated by ohmic resistance is deployed into generating the EMFs which sustain current flow.

AETHER SCIENCE PAPERS

BY HAROLD ASPDEN

The author has, for some 40 years now, sought to interest the world of science in his discoveries concerning the nature of the force of gravitation. His contribution has not been heeded because the research findings have not developed from the conventional theoretical stream. Yet, from his Ph.D. research at Cambridge on anomalous energy activity in ferromagnetism, Dr. Aspden could see so clearly where the mathematical philosophers had erred drastically in replacing the aether by mathematical symbols before they had fully understood how it stores energy. The aether plays a creative role, besides constituting a universal energy bank, giving us the means to deposit and withdraw energy. Left to its own devices it even absorbs the energy we shed as waste and which we write off under the heading 'entropy' but it does something our textbooks say is impossible. It thrives on that energy and regenerates it in a material form by creating the particles we know as protons and electrons. However, scientists have become blind and cannot 'see' such an aether in their vision of things. They look only at how created matter evolves and see no creative source. So they devise computer programs to test their imagination of a universe in a notional Big Bang scenario, with scant regard to the simple problem of how the energy of electromagnetic induction is actually stored in 'empty' space in our laboratories here and now on earth. In so doing they create obstacles in science where none exist, imposing their will on Nature's province and missing key issues which should be obvious to any mechanic. They use equations to represent electrodynamics, say energy has mass, introduce a quantum jitter which makes the position and momentum of that mass uncertain, and then forget to look for whatever it is that accounts for dynamic mass balance and so keeps their jittering wave mechanical universe from tearing itself into pieces. They try to understand gravity as a property of matter and cannot see that it is a property of the aether by which it responds to the presence of matter to keep it in dynamic balance. They complicate gravitation by declaring it to be a distortion of 'space-time' by matter but still cannot reach their objective of field unification. In adopting Einstein's theory mathematicians have confounded our understanding of physics, without realizing that there is a better way forward by which to solve the mystery of unification of gravitation and electrodynamics. Although this unification is of clear record in the scientific literature, one needs a guide map to find a way to the relevant clearing in the jungle of periodicals which line university library shelves. This book provides that guidance and goes further in presenting the full text of fourteen of the basic papers. The reader will see from these papers how easy it is to derive the constant of gravity in terms of the electron charge-mass ratio and determine by simple theory the precise value of the proton-electron mass ratio. Given this unifying connection between gravitation and matter creation, one can see a way forward by which to tap some further energy from the same source as that which fed the creation of the universe. We are now on the brink of a technological revolution that will deliver us energy in abundance with no risk of pollution, but we need to understand its source, that real medium, the aether, that so many think of as a mere vacuum.

Sabberton Publications, P.O. Box 35, Southampton SO16 7RB, England
