

[A Practical Guide to 'Free Energy' Devices](#)

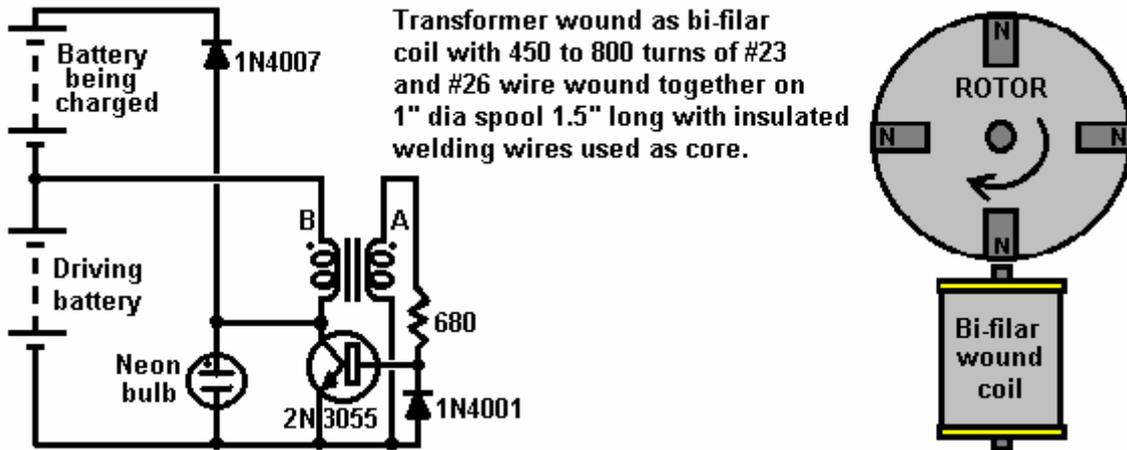
Devices Part 3: Last updated: 15th April 2007

Author: Patrick J. Kelly

2. Energy can be captured via a strong and very brief magnetic pulse (continued)

Ed Gray snr/Creative Science, Robert Adams, John Bedini, Peter Lowrie, Paul Baumann

John Bedini. John Bedini has produced many working devices over the past years. Probably the most important are the devices for tapping the surrounding energy field. John has constructed devices which look like pulse motors and which have run non-stop for years. These devices are not motors but are mechanisms for collecting energy from the local environment. Several of his circuits have been published. Here is one:



The circuit operates as follows:

1. The rotor moves round passing the bi-filar wound electromagnet.
2. This generates a voltage in winding A of the coil.
3. The voltage at A is fed to the base of the 2N3055 transistor, switching it on.
4. The transistor drives a heavy current through winding B of the coil.
5. This pushes the rotor, keeping it rotating.
6. The magnet moves away and the voltage at A collapses and overshoots the -ve rail (the battery 0V line).
7. The 1N4001 diode protects the transistor by restricting the reverse voltage to -0.7 V.
8. The voltage at B collapses, overshoots the rail by a major amount and is fed into the recharging battery via the 1N4007 diode. This charges the second battery.
9. The neon is included only to protect the transistor if the battery connections are broken.

The 1N4001 diode can carry 1A current and has a peak repetitive inverse voltage of 50V while the 1N4007 diode can carry 1A current and has a peak repetitive inverse voltage of 1000V.

This looks like a motor but it is not. It is a generator which taps the external energy field in step 8 above, returning 'cold' electricity to the battery under charge. It is said that if the charging battery is almost fully discharged and after a few minutes of charge, that battery is disconnected, it continues to bubble for a considerable time, and its voltage continues to rise although it is disconnected. The rotor is only to move a permanent magnet past the bi-filar coil and is not intended to power-generating coils. The moving magnet system has been found to be much more effective than providing a solid-state pulse through an additional winding.

A very experienced experimenter describes the situation clearly as follows:

Using a 12 volt, 1.6 AHr gel cell batteries for both the driving battery and an identical one as the charging battery, the joules of energy which can be drawn from the charging battery after it has been charged up exceed the joules of energy required to drive the device during the charging period. This is clearly a system which has a power efficiency which is greater than 100%.

However, the Bedini circuits themselves are not over 100%, and John Bedini never claimed them to be over 100%. The extra energy winds up in the batteries on the output. That happens because the charging battery connected to the output of the device, is converted into a "negative resistor" which attracts energy from the surrounding energy

field.

On one test performed, after disconnecting the charging battery, it continued to charge for over 45 minutes, just sitting there! I mean, that was a real eye-opener. That is like some cold fusion type of effect...definitely a negative resistor. The capacitor bank I was using was 330,000 microfarads and I charged it to 14 volts, just 2 volts over the 12 volts it measures when it has been discharged. I repeated that test over and over and over and over and the results got slightly better each time.

The batteries which are used as charging batteries, need to be conditioned - just like the electrode tubes or plates used in high-efficiency electrolyzers. The plates inside the charging batteries get covered with a white powder coating, exactly like the coating produced on the electrodes in Stanley Meyer's Water Fuel Cell when it has been operated many times. The batteries on the output continue to become more and more efficient until they reach their optimum efficiency level. This is exactly what I experienced during my Water Fuel Cell tests. This was borne out when I took my water cell apart and cleaned all the parts. When I did that, the gas production was very, very poor. However, when I repeatedly ran the cell and then left it idle, over and over again, the tubes developed the white powder coating little by little, and the gas production increased each time, even though it drew the same amount of input power. This Meyer-style water splitting can also be produced by charging the Bedini capacitor banks and discharging them rapidly into the water cell.

The Bedini circuits automatically select their own optimum running speed. It is a characteristic of the circuit that it times its own triggering. These circuits automatically speed up by themselves to the highest rate of revolutions with the minimum amount of current draw. This is all automatic, and it depends on the impedance of the output battery being used at the time. This can be seen in the video: <http://www.thequantumrealm.com/bedini-sg.wmv> where you see it speed up to 5,000 rpm, drawing 1,000 milliamps, but it then achieves resonance with the input current dropping from 1,000 milliamps to just 200 milliamps while the rate of rotation increases to 10,000 rpm. The work done in turning the wheel has gone **up**, while at the same time, the input power has gone **down**.

Why does this happen? Well, the drive which turns the wheel changes from repelling mode, where the magnet on the rotor is pushed away by the electromagnetism of the coil, to an attracting mode, where the coil operates earlier and pulls the magnet towards itself. This is a more efficient mode of operation which draws less current from the driving battery.

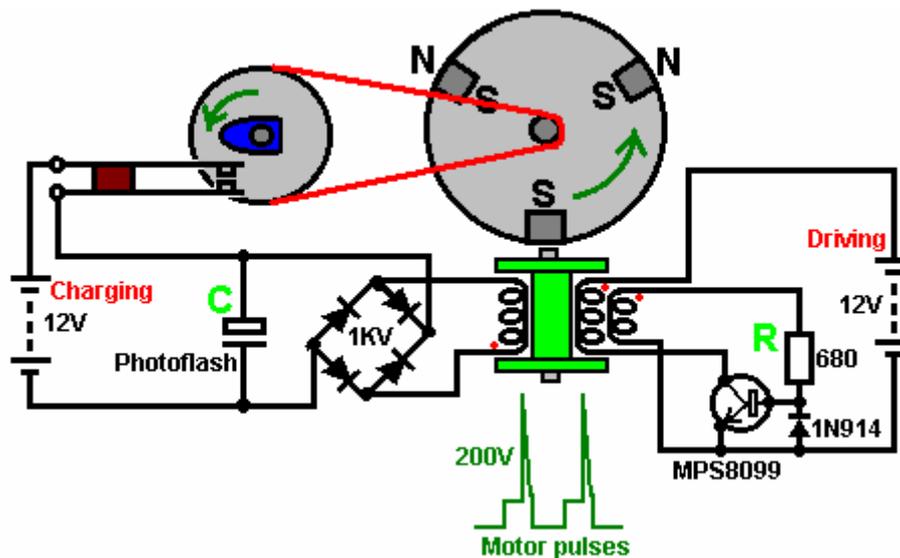
In the video, the device runs at those particular speeds because the output is **not** connected to anything. If a small battery is connected to the output, then the energiser will slow down by a major amount because of the impedance on the output. **But**, without knowing what frequency the energiser needs to be at for maximum rpm and the minimum amount of current draw, it will automatically find the optimum combination because of the way the circuit triggers itself.

Surprisingly, if a large battery is connected to the output, then the energiser will actually run faster. This is because the larger battery has a lower impedance and because the energiser automatically selects the optimum speed of operation, it speeds up to reach the most efficient operation possible. It always maximises the output power and minimises the input power due to its design.

This feature of the circuit can be used to advantage with Stan Meyer's Water Fuel Cell. The bigger the water cell, the better. Depending on the electrode spacing, the conductivity of the water, and all other factors, the frequency of the radiant impulses will **automatically** adjust to the most efficient possible for that particular cell, giving the best possible drive for the minimum current. If the water in the cell is not replenished as it is used up, and the water level in the cell is allowed to drop, altering the characteristics of the cell, then the Bedini circuit automatically adjusts its frequency of operation to the optimum for the new conditions. This overcomes the biggest difficulty of operating a Meyer Water Fuel Cell, namely the problem of the resonant point of the cell changing as it operates.

An interesting point about the above circuit is the fact that it can be expanded as much as you like by adding in additional "B" windings to the transformer/coil component. The trigger pulse going to the base of the transistor can be passed to the base of the next transistor/diode/coil/output set which boosts the output power considerably. A large amount of practical detail is provided later in this document, where Ron Pugh kindly shares his building information on his fourteen transistor version. John Bedini is using a forty transistor version. With these larger systems, it is not practical to put all the windings on a single coil former, so additional coils are placed around the circumference of the rotor. If you run out of rotor space, there is always the possibility of mounting more than one rotor on the shaft of the device.

A simple upgrade of the basic Bedini circuit uses a third winding and has full-wave rectification of the pulses when they are fed to the charging battery as shown here:



With this system, the rotor is started spinning by hand. As a magnet passes the triple-wound “tri-filar” coil, it induces a voltage in all three coil windings. The magnet on the rotor is effectively contributing energy to the circuit as it passes the coil. One winding feeds a current to the base of the transistor via the resistor ‘R’. This switches the transistor hard on, driving a strong current pulse from the battery through the second coil winding, creating a ‘North’ pole at the top of the coil, boosting the rotor on its way. As only a changing magnetic field generate a voltage in a coil winding, the steady transistor current through coil two is unable to sustain the transistor base current through coil one and the transistor switches off again.

The cutting of the current through the coil causes the voltage across the coils to overshoot by a major amount, moving outside the battery rail by a serious voltage. The diode protects the transistor by preventing the base voltage being taken below -0.7 volts. The third coil, shown on the left, picks up all of these pulses and rectifies them via a bridge of 1000V rated diodes. The resulting pulsing DC current is passed to the capacitor, which is one from a disposable camera, as these are built for high voltages and very rapid discharges. The voltage on the capacitor builds up rapidly and after several pulses, the stored energy in it is discharged into the “Charging” battery via the mechanical switch contacts. The drive band to the wheel with the cam on it, provides a mechanical gearing down so that there are several charging pulses between successive closings of the contacts. The three coil windings are placed on the spool at the same time and comprise 450 turns of the three wires (mark the starting ends before winding the coil).

The operation of this device is a little unusual. The rotor is started off by hand and it progressively gains speed until its maximum rate is reached. The amount of energy passed to the coil windings by each magnet on the rotor stays the same, but the faster the rotor moves, the shorter the interval of time in which the energy is transferred. The energy input per second, received from the permanent magnets, increases with the increased speed.

If the rotation is fast enough, the operation changes. Up to now, the current taken from the ‘Driving’ battery has been increasing with the increasing speed, but now the driving current starts to drop although the speed continues to increase. The reason for this is that the increased speed has caused the permanent magnet to move past the coil before the coil is pulsed. This means that the coil pulse no longer has to push against the ‘North’ face of the magnet, but instead it attracts the ‘South’ pole of the next magnet on the rotor, which keeps the rotor going and increases the magnetic effect of the coil pulse. At this point in time, the drive system is operating at, or over, 95% efficiency. But we are also taking charging current from the system and feeding it into the second battery. Overall, this system is considered to be more than 100% efficient. Try it for yourself and see what you think.

The standard practice with one of these devices is to ‘condition’ the charging battery. If the charging battery is discharged at a rate which empties it in twenty hours and immediately recharged using John’s device, an unusual result occurs. After a few charge/discharge cycles, the battery starts to operate in a different way. It can supply current for a much longer period - typically twice as long as before - and it recharges much faster - typically in one hour. It is important that there are no gaps in this conditioning cycle, i.e. the battery should not be left unused for weeks. Also, it is important that a standard mains powered battery charger is never used to charge the battery. It is clear that the ‘cold electricity’ produced by a properly tuned Bedini device is substantially different to normal electricity although they can both perform the same tasks when powering electrical equipment.

It is important to use the transistors specified in any of John’s diagrams, rather than transistors which are listed as equivalents. Many of the designs utilise the badly named “negative resistance” characteristics of transistors.

These semiconductors do not exhibit any form of negative resistance, but instead, show reduced positive resistance with increasing current, over part of their operating range.

It has been said that the use of "Litz" wire can increase the output of this device by anything up to 300%. Litz wire is the technique of taking three or more strands of wire and twisting them together. This is done with the wires stretched out side by side, by taking a length of say, three feet, and rotating the mid point of the bundle of wires for several turns in one direction. This produces clockwise twists for half the length and counter-clockwise twists for the remainder of the length. Done over a long length of wire, the wires are twisted repeatedly clockwise - counter clockwise - clockwise - counter clockwise - ... along their whole length. The ends of the wires are then cleared of their insulation and soldered together to make a three-strand cable, and the cable is then used to wind the coils. This style of winding modifies the magnetic and electrical properties of the windings. It has been said that taking three long strands of wire and just twisting them together in one direction to make a long twisted three-strand cable is nearly as effective as using Litz wire. The websites www.mwswire.com/litzmain.htm and www.litz-wire.com are suppliers of ready made Litz wire.

A website which shows pictures of John's devices is: www.rexresearch.com/bedini/images.htm

A re-worded excerpt from John's patent for his motor/generator is in the 'Patents' section of this set of documents.

CAUTION: Care must be taken when working with batteries, especially lead-acid batteries. A charged battery contains a large amount of energy and short-circuiting the terminals will cause a very large current flow which may start a fire. When being charged, some batteries give off hydrogen gas which when mixed with air is highly dangerous and which could explode if ignited by a spark. Batteries can explode and/or catch fire if grossly overcharged or charged with an excessively large current, so there could be danger from flying pieces of the casing and possibly acid being thrown around. Even an apparently clean lead-acid battery can have caustic traces on the case, so you should be sure to wash your hands thoroughly after handling a battery. Batteries with lead terminals tend to shed small fragments of lead when clips are put on them. Lead is toxic, so please be sure to wash your hands after handling any part of a lead-acid battery. Remember too that some batteries can develop slight leaks so please protect against any leakage. If you decide to perform any experiments using batteries, that you do so entirely at your own risk and on your own responsibility. This set of documents is presented for information purposes only and you are not encouraged to do anything other than read the information.

Also, if you get one of John's pulse motors tuned correctly, it will accelerate to perhaps 10,000 rpm. This is great for picking up energy but if ceramic magnets are used, the speed can cause them to disintegrate and fly in all directions. People have had magnet fragments embedded in their ceiling. It would be wise to build a housing enclosing the rotor and magnets so that if the magnets disintegrate, all of the fragments are contained safely.

Ronald Knight of the Bedini_Monopole3 Yahoo group, has many years of professional experience in handling batteries and in pulse-charging them using the techniques of John Bedini. He comments on battery safety as follows:

I have not heard of anyone having a catastrophic failure of a battery case in all the energy groups to which I belong and most of them use batteries in the various systems which I study. However, that does not mean that it cannot happen. The most common reason for catastrophic failure in the case of a lead-acid battery, is arcing causing failure in the grids which are assembled together inside the battery to make up the cells of the battery. Any internal arcing will cause a rapid build up of pressure from expanding Hydrogen gas, resulting in a catastrophic failure of the battery case.

I am a former maintenance engineer for U.S. Batteries, so I can say with confidence, that when you receive a new battery from at least that manufacturer, you receive a battery which has undergone the best test available to insure the manufacturer that he is not selling junk which will be sent back to him. It is a relatively easy test, and as it takes place during the initial charge, there is no wasted time nor is there one battery that escapes the pass-or-fail test. The battery is charged with the absolute maximum current which it can take. If the battery does not blow up due to internal arcing during the initial charge it is highly likely that it will not blow up under the regular use for which it was designed. However, all bets are off with used batteries that have gone beyond their expected life.

I have witnessed several catastrophic failures of battery cases daily at work. I have been standing right next to batteries (within 12 inches) when they explode (it is like a .45 ACP pistol round going off) and have only been startled and had to change my under shorts and Tyvek jump-suit, and wash off my rubber boots. I have been in the charge room with several hundred batteries at a time positioned very closely together and have seen batteries explode almost every working day and I have never seen two side by side blow, nor have I ever seen one fire or any flash damage to the case or surrounding area as a result. I never even seen a flash but what I have seen tells

me it is wise to always wear eye protection when charging.

I have my new gel cells in a heavy plastic zip-lock bags partly unzipped when in the house and in a marine battery box outside in the garage, that is just in the remote chance of catastrophic failure or the more likely event of acid on the outside of the battery case.

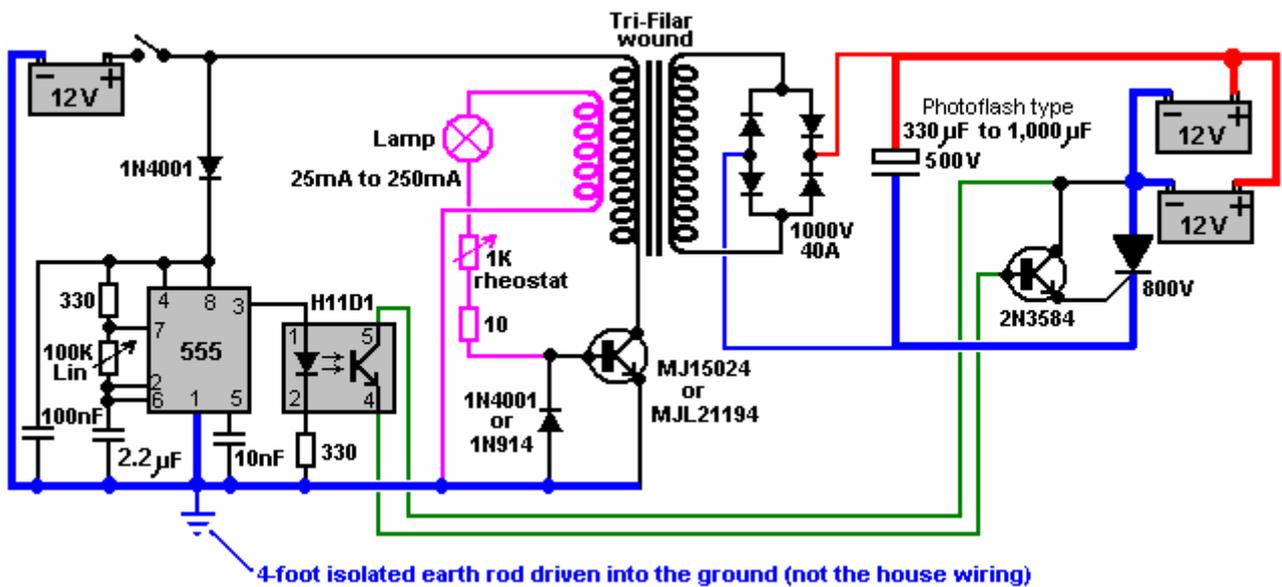
Vented batteries are always a risk of spillage which is their most common hazard, they should always be in a plastic lined cardboard or plastic box with sides taller than the battery and no holes in it. You would be surprised at how far away I have found acid around a vented lead acid battery under charge.

Have an emergency plan, keep a box of baking soda and a water source around to neutralise and flush the acid in case of spillage. It is best to have plastic under and around wherever your lead-acid batteries are located.

When considering battery charging, It is interesting to notice the comments by Joseph Newman in his book “The Energy Machine of Joseph Newman (download: <http://www.megaupload.com/?d=2ZU2ZVM0>), where he considers current flow through a coil.

He remarks that all of the current flowing into the coil, flows out of the coil unchanged. When the current is cut off, the coil responds with a hefty current output, usually called the “Back Electromotive Force”. He then asks the penetrating and perceptive question: “As all of the operating current provided by the user has already exited from the coil, then where is the additional current coming from?” That is a good question, formulated by a brilliant and methodical man. Joseph went on to build a device which was independently tested in 1982, and shown (much to the consternation of the sceptical tester, Dr Roger Hastings), to have an output well in excess of the input power, with an 800% efficiency. Dr Hastings was at that time, the Principle Physicist of the Sperry Univac Corporation and former Associate Professor of Physics at the North Dakota State University. He stated “This photo also shows the (to me amazing) fact that the coil current is over three times the current at the battery”. Dr Hastings was clearly not aware that free-energy is there for the taking. Joseph Newman is continuing his research, and his latest device is shown on YouTube video, powering a car, although only at low speed.

In 2005, John Bedini shared the details of a modified version of his circuit. This can be used with a rotor or run as a solid-state stand-alone device. The circuit operates by charging a capacitor to a high voltage and then discharging it suddenly. This sudden discharge creates conditions where the local environment feeds large amounts of free energy into the circuit. This energy is “cold” electricity or “negative” electricity and it acts in the opposite way to our everyday “hot” electricity. Items such as resistors, transformers, coils, etc. which cause losses in a circuit driven by “hot” electricity, act in exactly the reverse way for “cold” electricity and actually gather additional energy into the circuit from the surrounding environment.



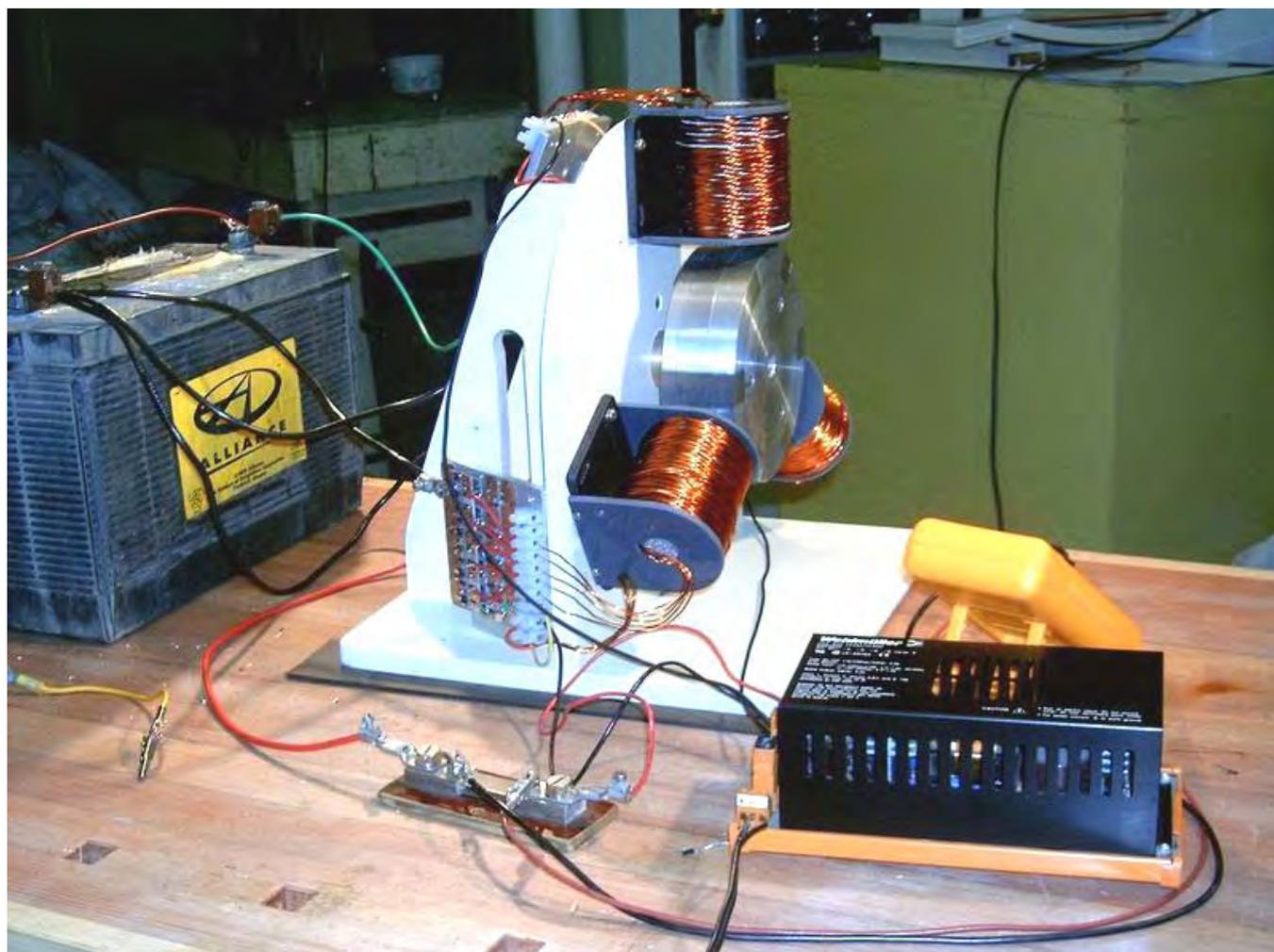
It would not be unusual for the circuit shown below to have an input of just 200 milliamps and yet generate an output power of 300 kilowatts. The overall strategy is to have the circuit powered by a battery, and arrange for the circuit to charge a bank of batteries which can then be used to drive equipment and power other loads. A circuit of this type can reasonably be expected to have a COP (Coefficient of Performance, i.e. Power Out / Power In) of anything from 20 to 100.

The rate of charging of the output batteries increases gradually over a period of a week or so, and eventually the batteries can be charged about 50 times faster than is possible with conventional "hot" electricity. The circuit looks very simple, and indeed it is simple to build, but do not be fooled into thinking that it is a normal circuit - it isn't. This circuit is designed to capture external energy and its design is based on an understanding of exactly what the zero-point energy field is, how it operates, and how to take power from it. This circuit can run continuously day and night. In fact, it actually operates slightly better at night, due to reduced interference from other energy sources.

Ron Pugh's Implementation

John Bedini's designs have been experimented with and developed by a number of enthusiasts. This in no way detracts from fact that the whole system and concepts come from John and I should like to express my sincere thanks to John for his most generous sharing of his systems. Thanks is also due to Ron Pugh who has kindly agreed for the details of one of his Bedini generators to be presented here. Let me stress again, that if you decide to build and use one of these devices, you do so entirely at your own risk and no responsibility for your actions rests with John Bedini, Ron Pugh, Patrick Kelly or anyone else. Let me stress again that this document is provided for information purposes only and is not a recommendation or encouragement for you to build a similar device.

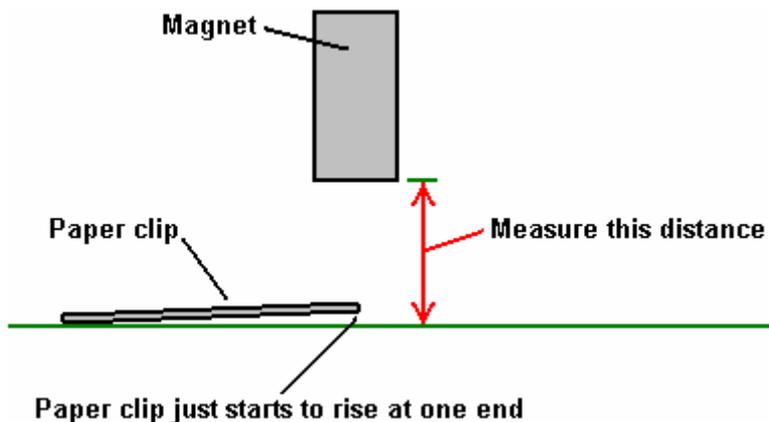
Ron's device is much more powerful than the systems shown above and it performs most impressively. Here is a picture of it rotating at high speed:



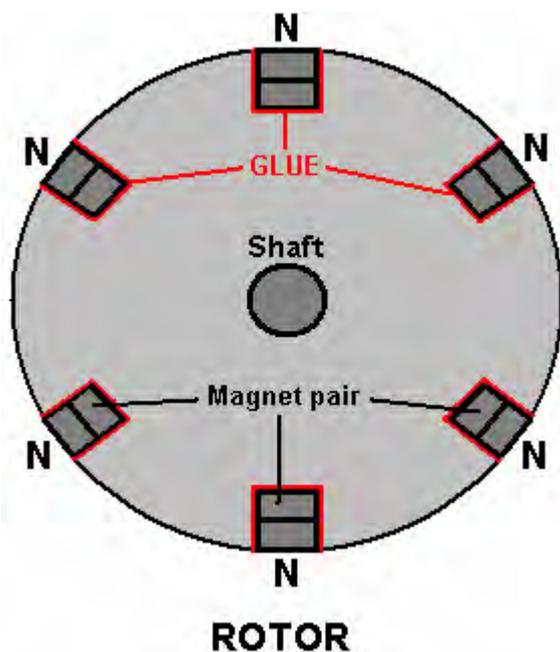
This is not a toy. It draws significant current and produces substantial charging rates. This is how Ron chose to build his device. The rotor is constructed from aluminium discs which were to hand but he would have chosen aluminium for the rotor if starting from scratch as his experience indicates that it is a very suitable material for the rotor. The rotor has six magnets inserted in it. These are evenly spaced 60 degrees apart with the North poles all facing outwards.

The magnets are normal ceramic types about 22 mm wide, 47 mm long and 10 mm high. Ron uses two of these in

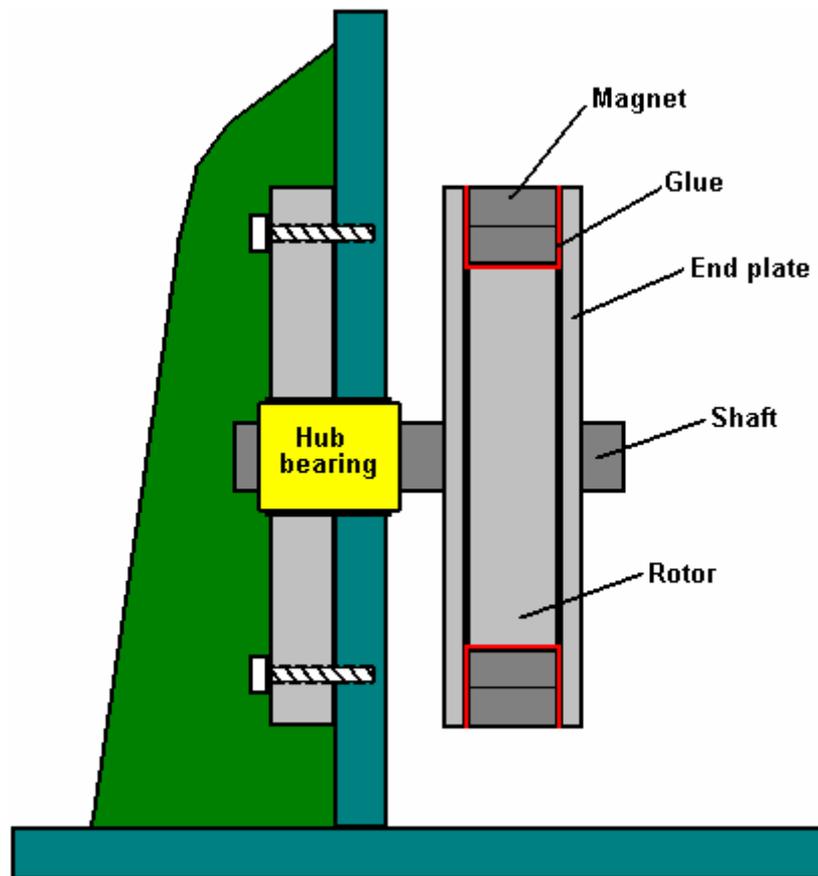
each of his six rotor slots. He bought several spare ones and then graded all of them in order of their magnetic strength, which varies a bit from magnet to magnet. Ron did this grading using a gauss meter. An alternative method would have been to use a paper clip about 30 mm in size and measure the distance at which one end of the clip just starts to rise up off the table as the magnet is moved towards it:



Having graded the magnets in order of strength, Ron then took the best twelve and paired them off, placing the weakest and strongest together, the second weakest and the second strongest, and so on. This produced six pairs which have fairly closely matching magnetic strengths. The pairs of magnets were then glued in place in the rotor using super glue:

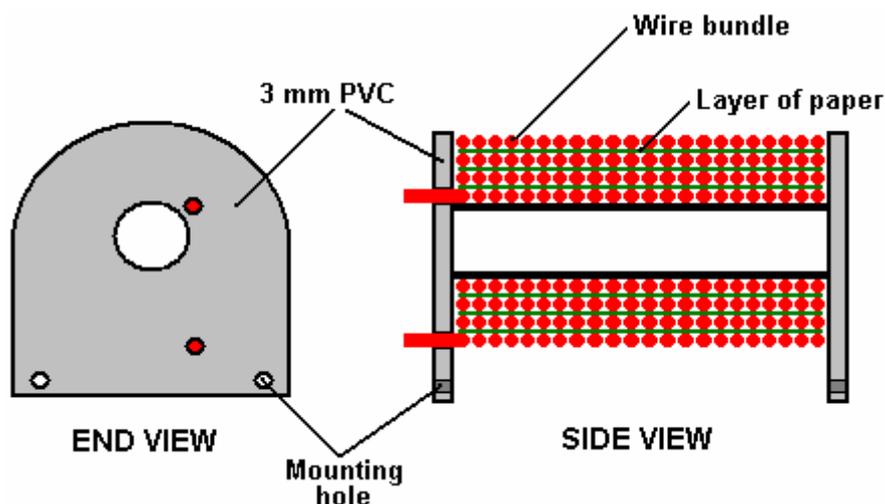


It is not desirable to recess the magnets or place a restraining layer around the circumference of the rotor as the clearance between the magnet faces and the coils needs to be as small as practical. The North poles of the magnets face outwards as shown in the diagram above. If desired, the attachment of the magnets can be strengthened by the addition of blank side plates to the rotor which allows the magnet gluing to be implemented on five of the six faces of the magnet pairs:

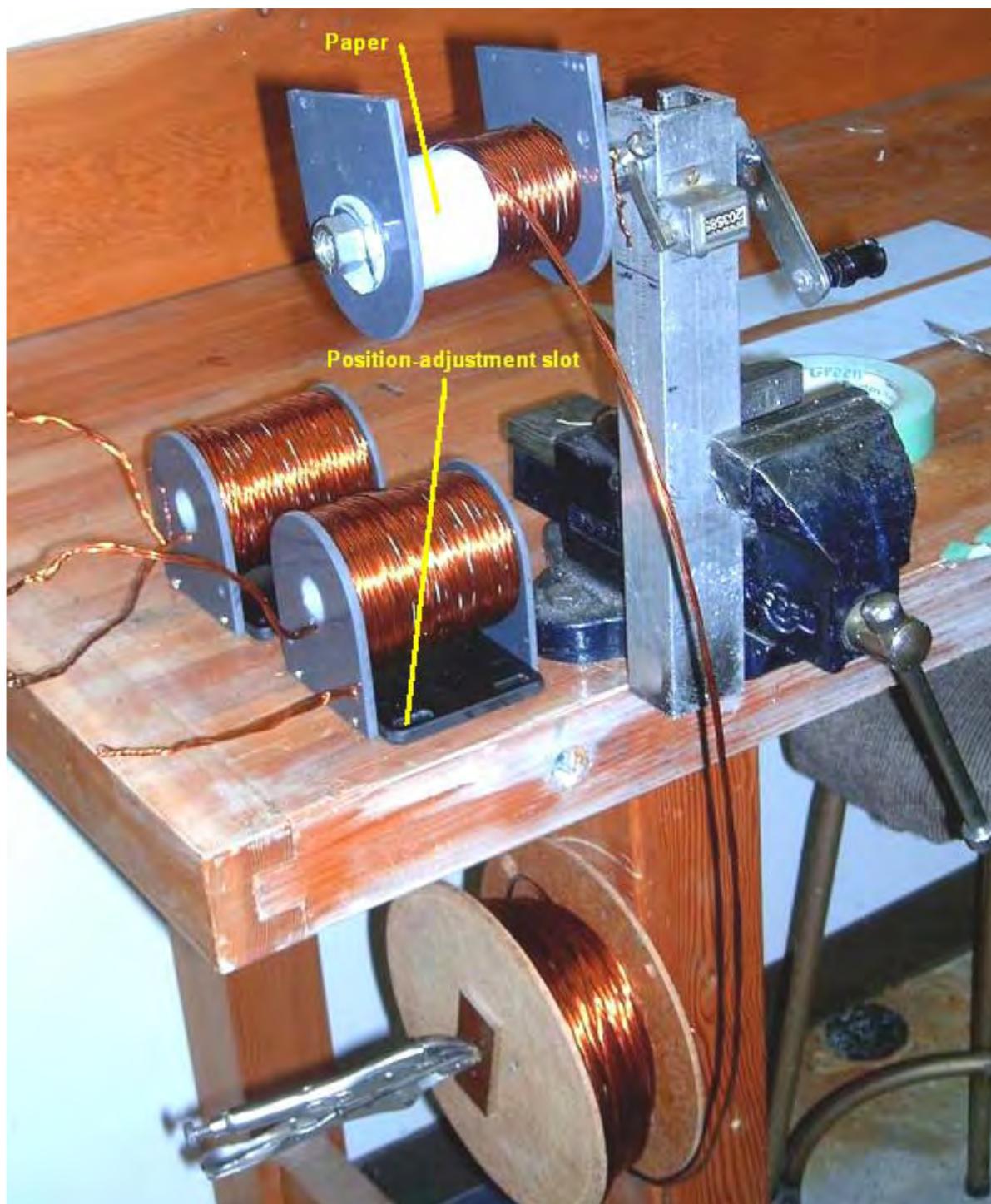


The magnets embedded in the outer edge of the rotor are acted on by wound “coils” which act as 1:1 transformers, electromagnets, and pickup coils. There are three of these “coils”, each being about 3 inches long and wound with five strands of #19 AWG (20 SWG) wire. The coil formers were made from plastic pipe of 7/8 inch (22 mm) outer diameter which Ron drilled out to an inner diameter of 3/4 inch (19 mm) which gives a wall thickness of 1/16 inch (1.5 mm). The end pieces for the coil formers were made from 1/8 inch (3 mm) PVC which was fixed to the plastic tube using plumbers PVC glue. The coil winding was with the five wires twisted around each other. This was done by clamping the ends of the five wires together at each end to form one 120 foot long bundle.

The bundle of wires was then stretched out and kept clear of the ground by passing it through openings in a set of patio chairs. A battery-powered drill was attached to one end and operated until the wires were loosely twisted together. This tends to twist the ends of the wires together to a greater extent near the end of the bundle rather than the middle. So the procedure was repeated, twisting the other end of the bundle. It is worth remarking in passing, that the drill turns in the same direction at each end in order to keep the twists all in the same direction. The twisted bundle of wires is collected on a large-diameter reel and then used to wind one of the “coils”.



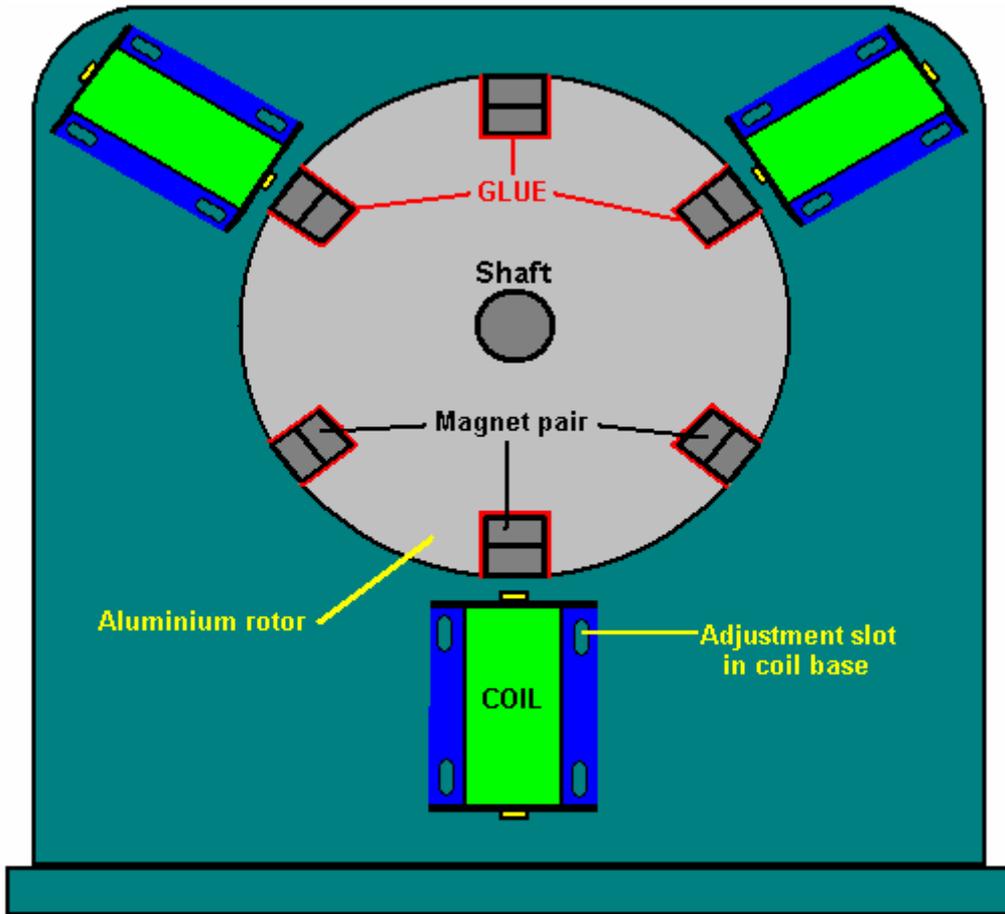
The coils are wound with the end plates attached and drilled ready to screw to their 1/4 inch (6 mm) PVC bases, which are the bolted to the 3/4 inch (18 mm) MDF supporting structure. To help the winding to remain completely even, a piece of paper is placed over each layer of the winding:



The three coils produced in this way were then attached to the main surface of the device. There could just as easily have been six coils. The positioning is made so as to create an adjustable gap of about 1/4 inch (6 mm) between the coils and the rotor magnets in order to find the optimum position for magnetic interaction. The magnetic effects are magnified by the core material of the coils. This is made from lengths of oxyacetylene welding wire which is copper coated. The wire is cut to size and coated with clear shellac to prevent energy loss through eddy currents circulating around inside the core.

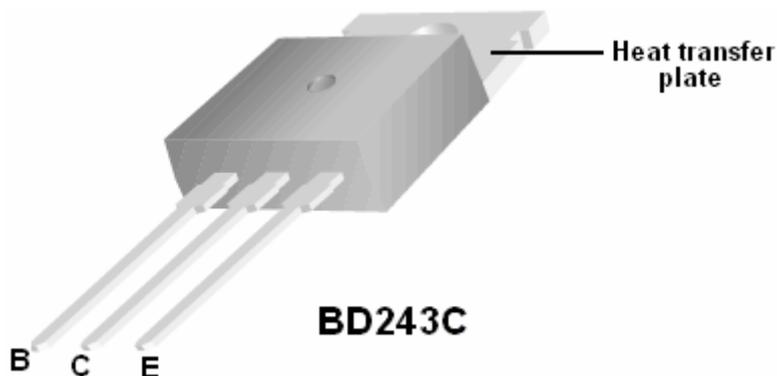
The coils are positioned at equal intervals around the rotor and so are 120 degrees apart. The end pieces of the coil formers are bolted to a 1/4 inch (6 mm) PVC base plate which has slotted mounting holes which allow the

magnetic gap to be adjusted as shown here:

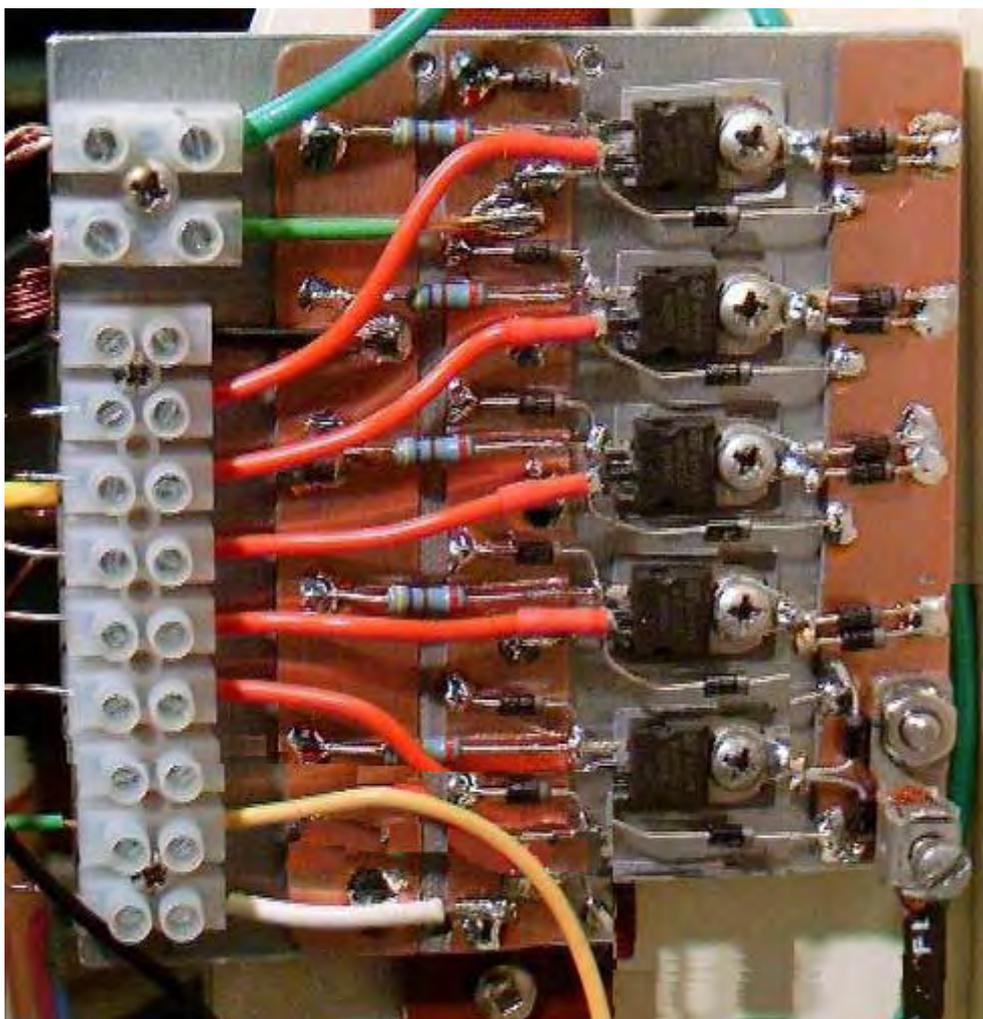


The three coils have a total of fifteen identical windings. One winding is used to sense when a rotor magnet reaches the coils during its rotation. This will, of course happen six times for each revolution of the rotor as there are six magnets in the rotor. When the trigger winding is activated by the magnet, the electronics powers up all of the remaining fourteen coils with a very sharp, pulse which has a very short rise time and a very short fall time. The sharpness and brevity of this pulse is a critical factor in drawing excess energy in from the environment and will be explained in greater detail later on. The electronic circuitry is mounted on three aluminium heat sinks, each about 100 mm square. Two of these have five BD243C NPN transistors bolted to them and the third one has four BD243C transistors mounted on it.

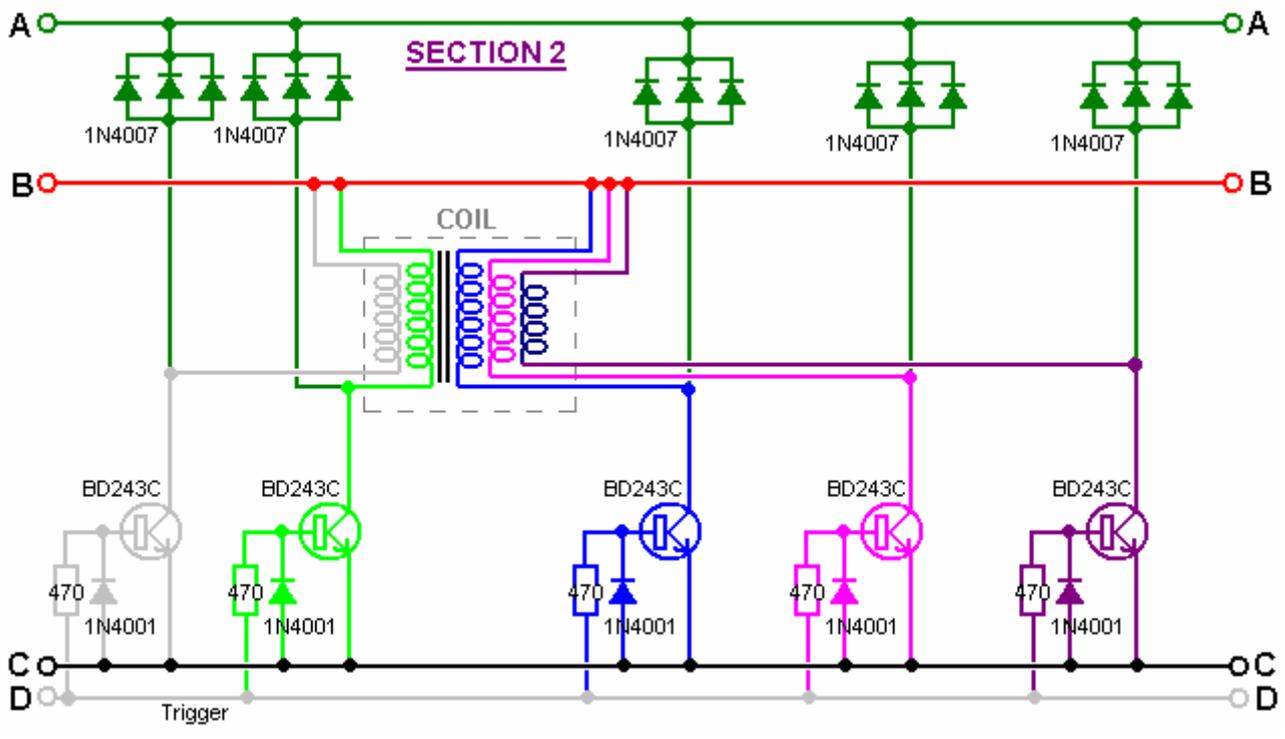
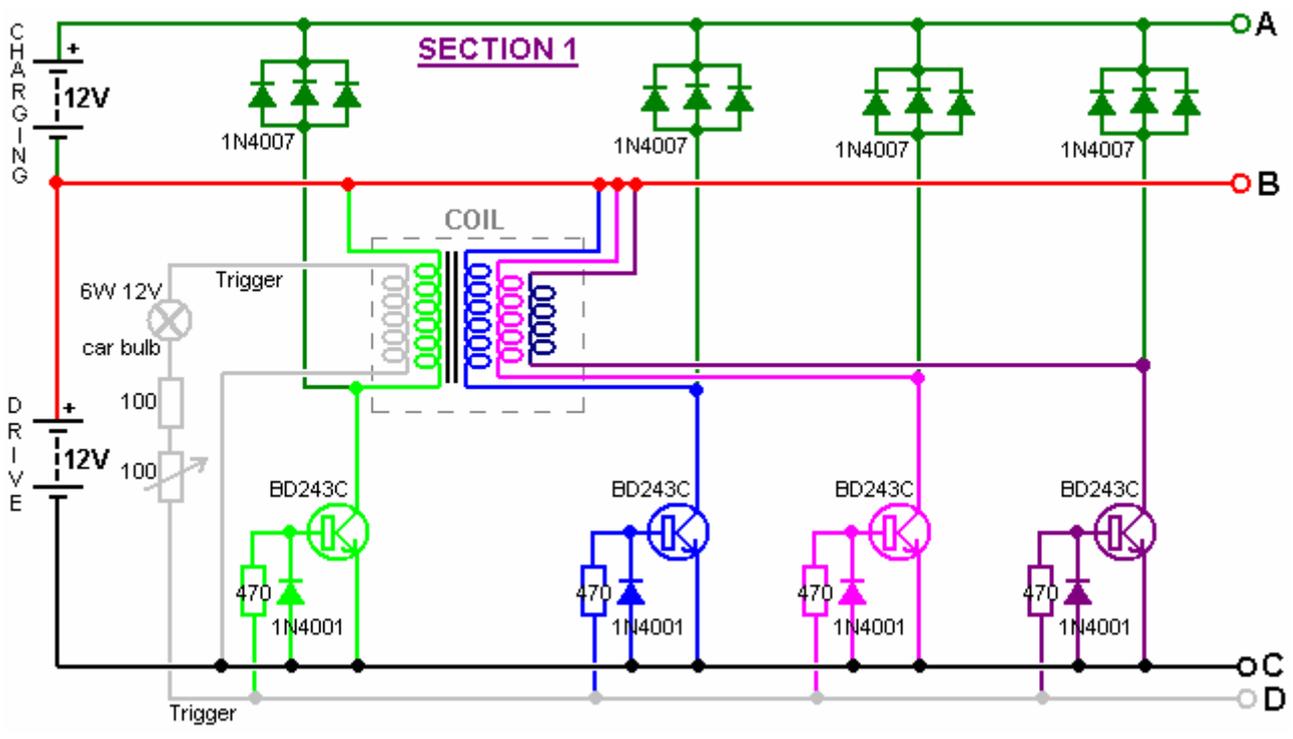
The metal mounting plate of the BD243 transistors acts as its heat sink, which is why they are all bolted to the large aluminium plate. BD243C transistors look like this:

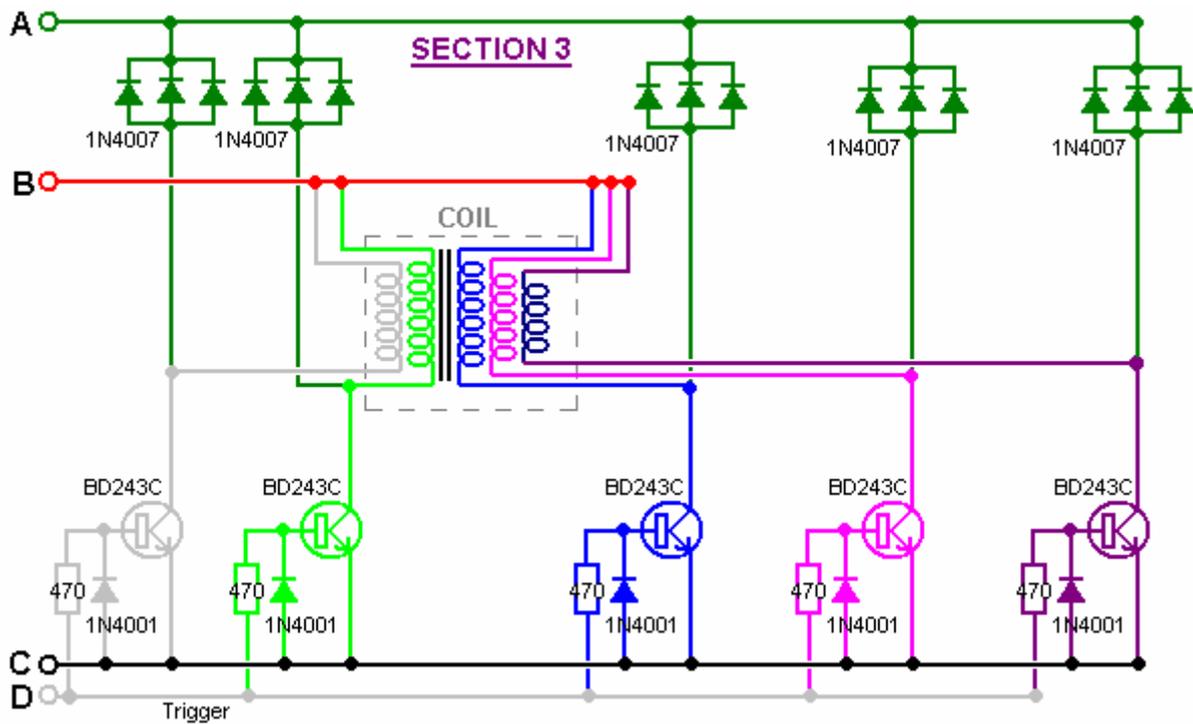


The circuit has been built on the aluminium panels so that the transistors can be bolted directly on to it, and provided with insulating strips mounted on top of it to avoid short circuits to the other components. Standard strip connector blocks have been used to inter-connect the boards which look like this:

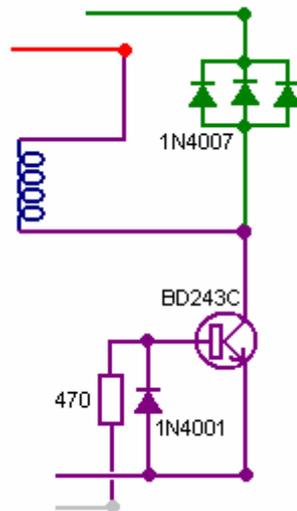


The circuit used with this device is simple but as there are so many components involved, the diagram is split into parts to fit on the page. These parts are shown here:



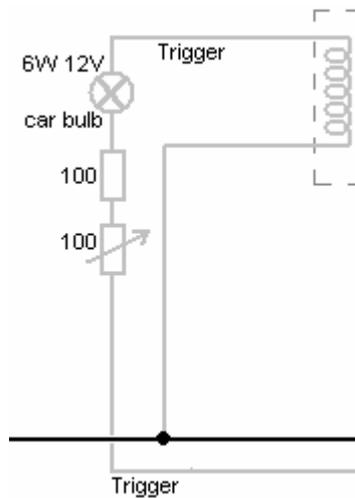


While this looks like a fairly large and complicated circuit, it actually is not. You will notice that there are fourteen identical circuit sections. Each of these is quite simple:



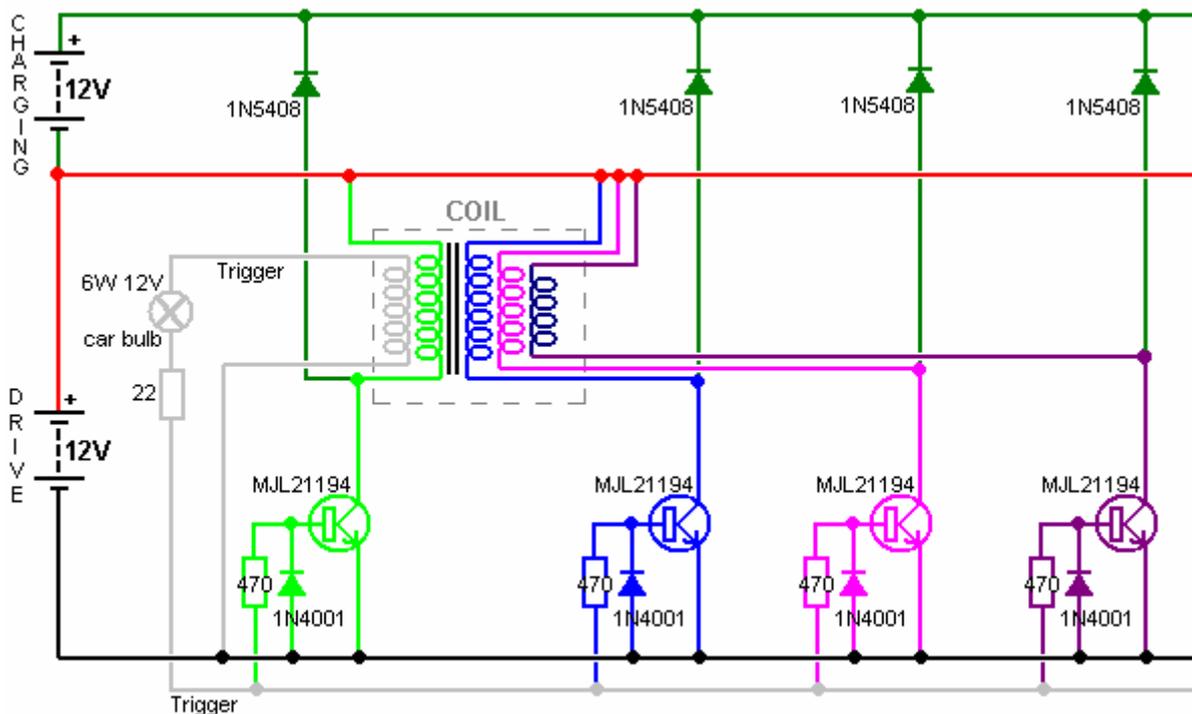
This is a very simple transistor circuit. When the trigger line goes positive (driven by the magnet passing the coil) the transistor is switched on hard, powering the coil which is then effectively connected across the driving battery. The trigger pulse is quite short, so the transistor switches off almost immediately. This is the point at which the circuit operation gets subtle. The coil characteristics are such that this sharp powering pulse and sudden cut-off cause the voltage across the coil to rise very rapidly, dragging the voltage on the collector of the transistor up to several hundred volts. Fortunately, this effect is energy drawn from the environment which is quite unlike conventional electricity, and thankfully, a good deal less damaging to the transistor. This rise in voltage, effectively "turns over" the set of three 1N4007 diodes which then conducts strongly, feeding this excess free-energy into the charging battery. Ron uses three diodes in parallel as they have a better current-carrying capacity and thermal characteristics than a single diode. This is a common practice and any number of diodes can be placed in parallel, with sometimes as many as ten being used.

The only other part of the circuit is the section which generates the trigger signal:

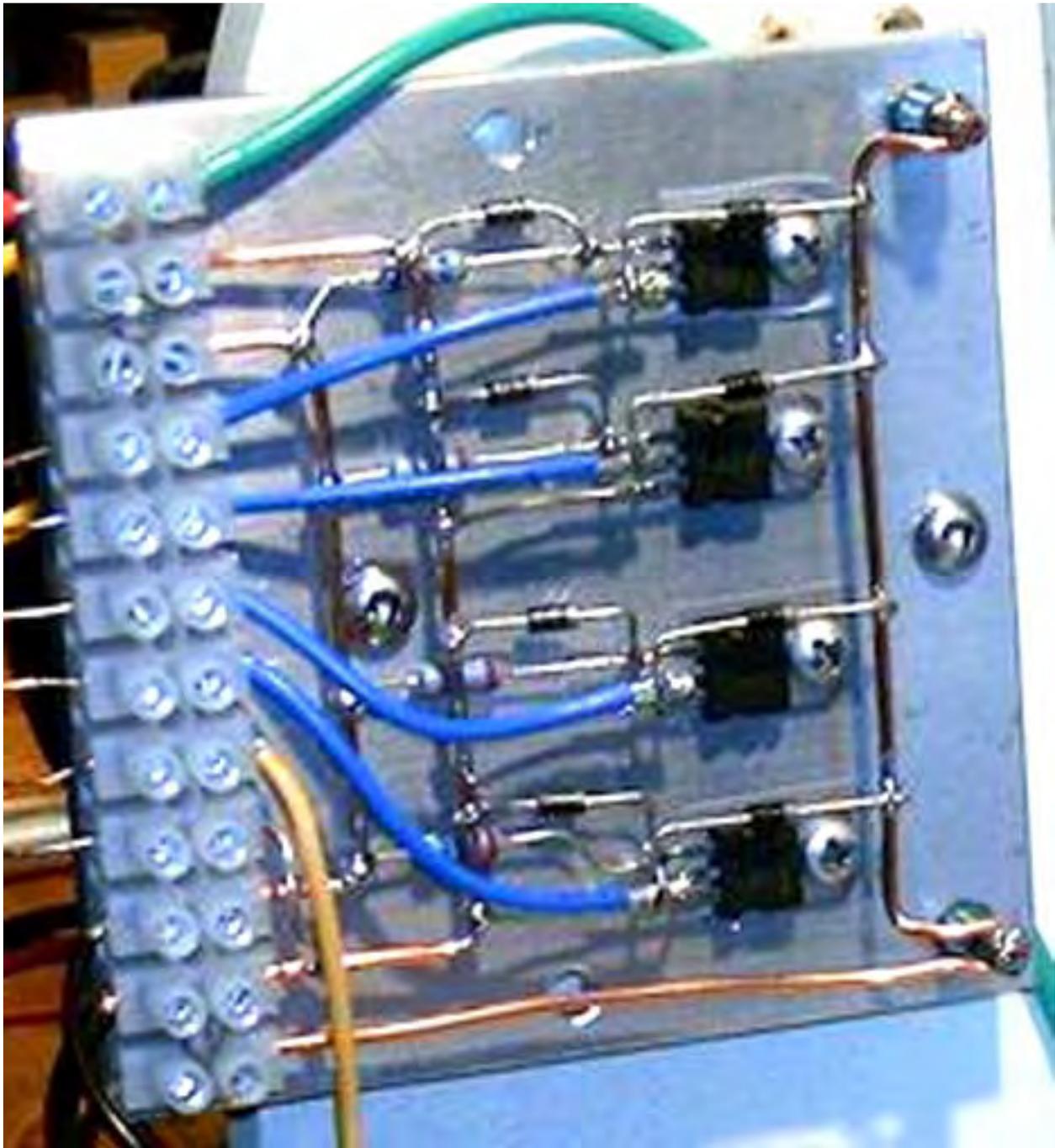


When a magnet passes the coil containing the trigger winding, it generates a voltage in the winding. The intensity of the trigger signal is controlled by passing it through an ordinary vehicle 6 watt, 12 volt bulb and then further limiting the current by making it pass through a resistor. To allow some manual control of the level of the trigger signal, the resistor is divided into a fixed resistor and a variable resistor (which many people like to call a "pot"). This variable resistor and the adjustment of the gap between the coils and the rotor are the only adjustments of the device. The bulb has more than one function. When the tuning is correct, the bulb will glow dimly which is a very useful indication of the operation. The trigger circuit then feeds each of the transistor bases via their 470 ohm resistors.

John Bedini aims for an even more powerful implementation, wiring his circuit with AWG #18 (19 SWG) heavy-duty copper wire and using MJL21194 transistors and 1N5408 diodes. He increases the trigger drive by dropping the variable resistor and reducing fixed resistor to just 22 ohms. The MJL21194 transistor has the same pin connections as the BD243C transistor. This is the starting section of John's circuit:



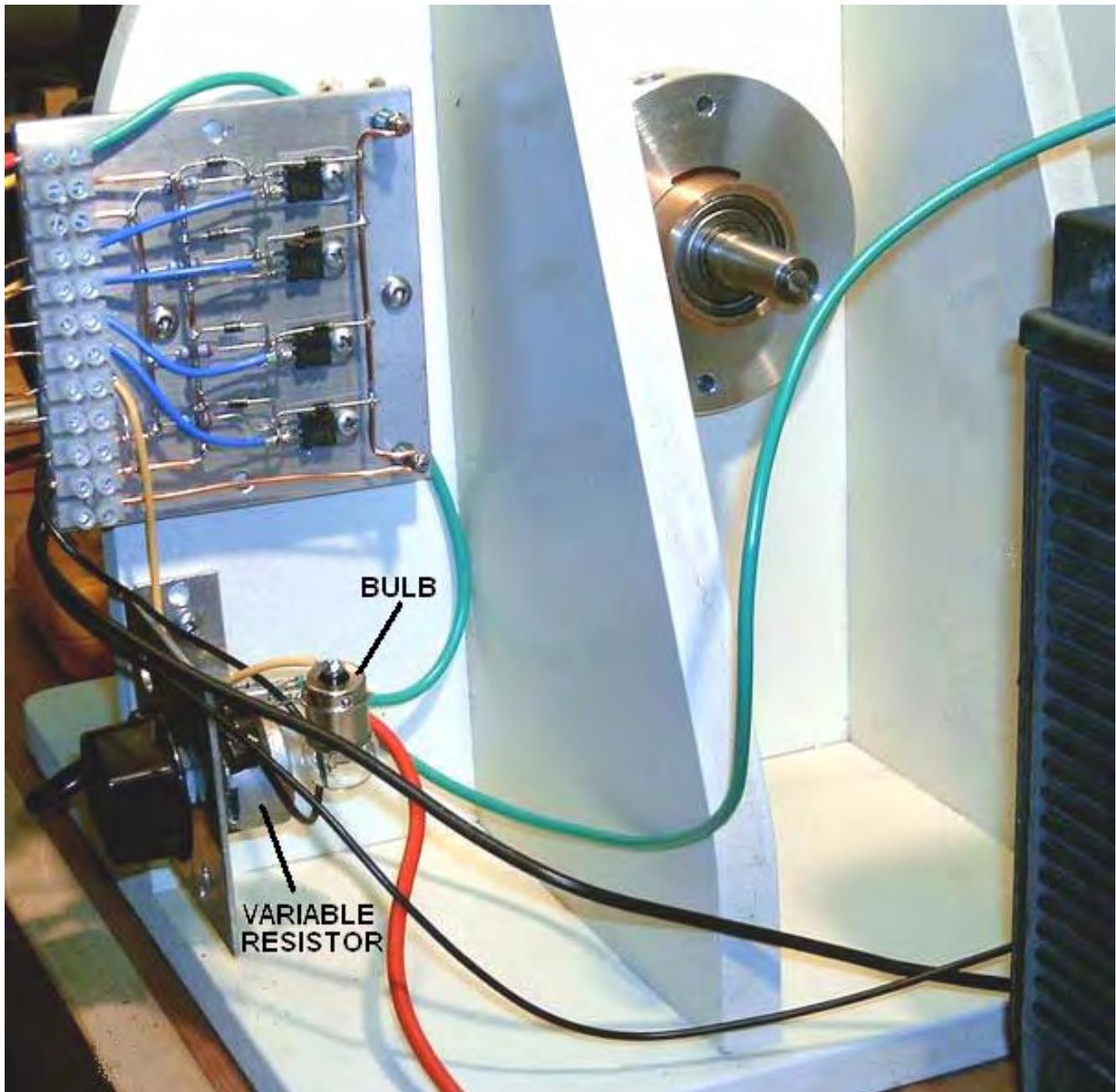
There are various ways of constructing this circuit. Ron shows two different methods. The first is shown above and uses paxolin strips (printed-circuit board material) above the aluminium heat sink to mount the components. Another method which is easy to see, uses thick copper wires held clear of the aluminium, to provide a clean and secure mounting for the components as shown here:



It is important to realise that the collector of a BD243C transistor is internally connected to the heat-sink plate used for the physical mounting of the transistor. As the circuit does not have the collectors of these transistors connected together electrically, they cannot just be bolted to a single heat-sink plate. The above picture might give the wrong impression as it does not show clearly that the metal bolts fastening the transistors in place do not go directly into the aluminium plate, but instead, they fasten into plastic tee-nuts.

An alternative, frequently used by the builders of high-powered electronic circuits, is to use mica washers between the transistor and the common heatsink plate, and use plastic fastening bolts or metal bolts with a plastic insulating collar between the fastening and the plate. Mica has the very useful property of conducting heat very well but not conducting electricity. Mica "washers" shaped to the transistor package are available from the suppliers of the transistors. In this instance, it seems clear that heat dissipation is not a problem in this circuit, which in a way is to be expected as the energy being drawn from the environment is frequently called "cold" electricity as it cools components down with increasing current as opposed to heating them up as conventional electricity does.

This particular circuit board is mounted at the rear of the unit:



Although the circuit diagram shows a twelve volt drive supply, which is a very common supply voltage, Ron usually powers his device with a mains operated Power Supply Unit which shows a power input of a pretty trivial 43 watts. It should be noted that this device operates by pulling in extra power from the environment. That drawing in of power gets disrupted if any attempt is made to loop that environmental power back on itself or driving the unit directly from another battery charged by the unit itself. It may be just possible to power the unit successfully from a previously charged battery if an inverted is used to convert the power to AC and then a step-down transformer and regulated power rectification circuit is used. As the power input is so very low, off-grid operation should be easily possible with a battery and a solar panel.

It is not possible to operate a load off the battery under charge during the charging process as this disrupts the energy flow. Some of these circuits recommend that a separate 4 foot long earthing rod be used to earth the negative side of the driving battery, but to date, Ron has not experimented with this. In passing, it is good practice to enclose any lead-acid battery in a battery box. Marine chandlers can supply these as they are used extensively in boating activities.

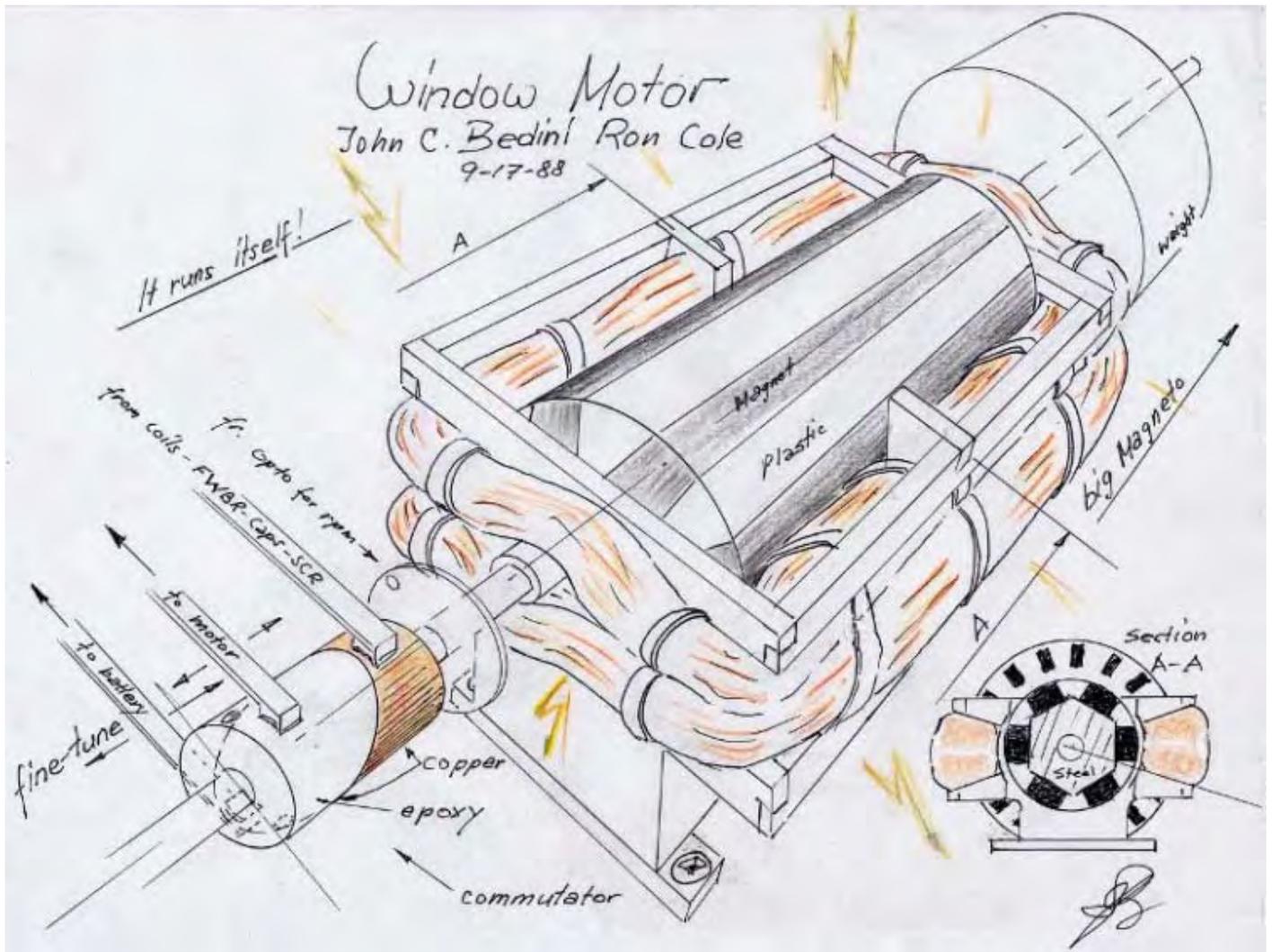
When cutting the wire lengths for coating and pushing into the coil formers, Ron uses a jig to ensure that all of the lengths are identical. This arrangement is shown here:



The distance between the shears and the metal angle clamped to the workbench makes each cut length of wire exactly the required size while the plastic container collects the cut pieces ready for coating with clear shellac or clear polyurethane varnish before use in the coil cores.

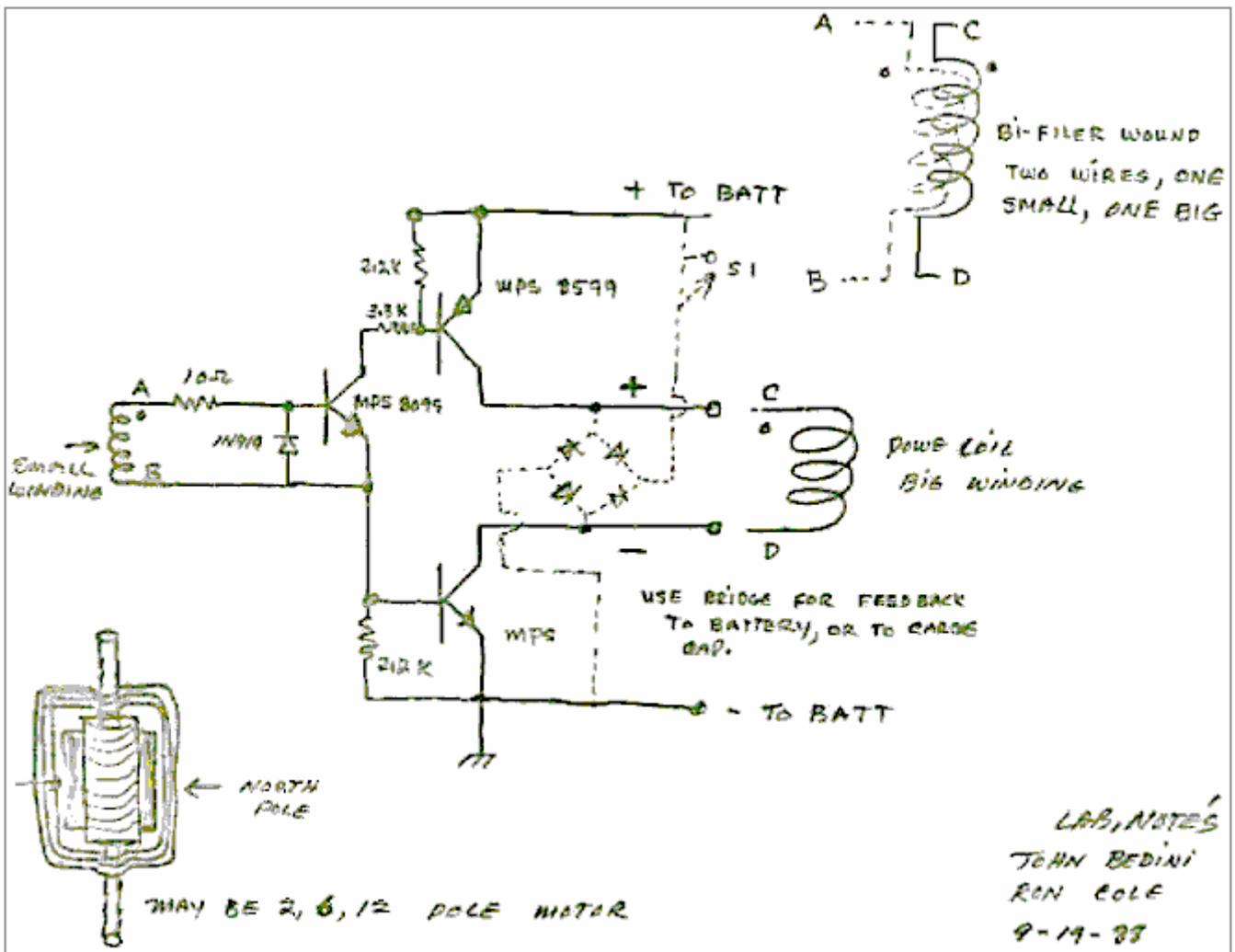
The Bedini / Cole “Window” Motor

In September 1988, John Bedini and Ron Cole produced a very interesting motor. This motor does not produce any great output power as it spins, and yet it is an important device because it can run indefinitely without needing a battery to power it. Instead of a battery, the motor uses a capacitor. Initially, the capacitor is discharged fully, showing that the device is definitely at a minimum power level. The motor is then given a gentle spin, from which it develops its own power and accelerates to its normal operating speed. The fact that it accelerates from the initial spin rate, demonstrates that the power is not coming from the starting energy. This is the drawing produced by John and Ron in 1988:

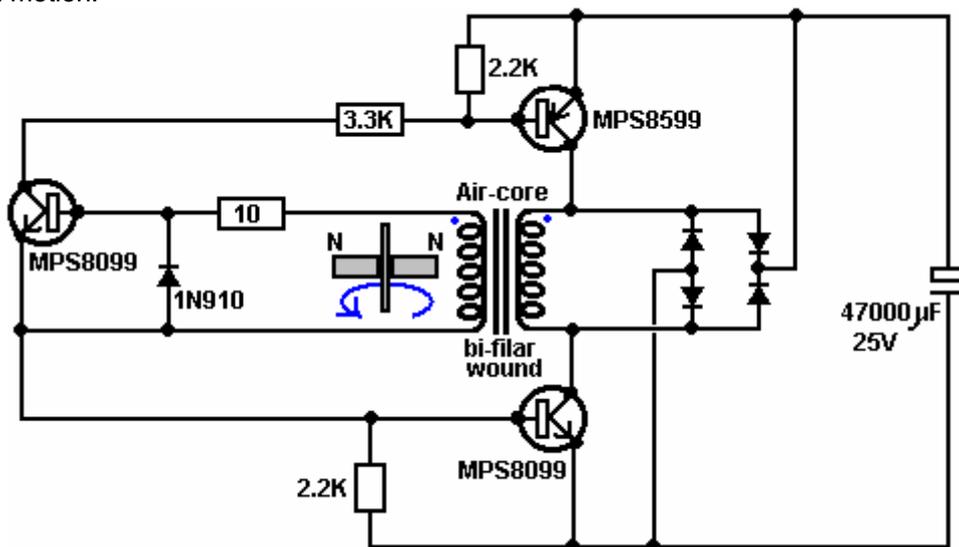


This device is a perpetual-motion machine, and that is a major problem for conventional science of today, which fondly imagines that perpetual motion is impossible. No calculations with their assumptions and possibilities for error, are needed with this motor. There is no external input power, and yet the device produces motion, sound, heat, mechanical wear and in addition, it generates increasing charge on the capacitor. That charge could be taken off to charge a battery, but this is not done so that there is no possibility of people thinking that the battery being charged is actually powering the device.

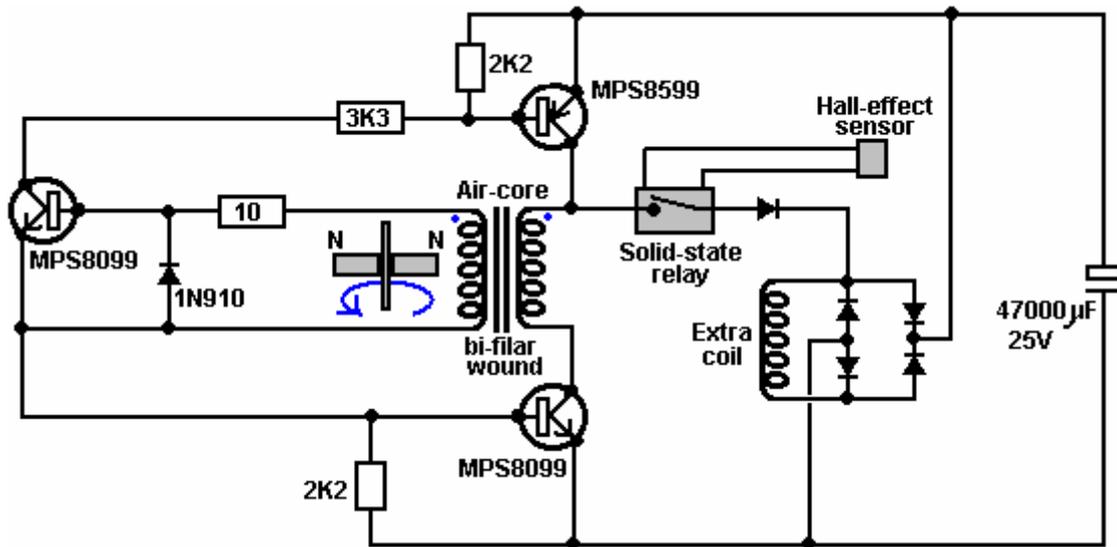
And their circuit drawing:



In this circuit drawing, the option is given for either battery charging or operating from a capacitor. We are interested primarily in the capacitor version as it demonstrates very clearly that conventional science needs to be revised to encompass both perpetual motion and the Zero-Point Energy field which provides the power for what we see as perpetual motion:



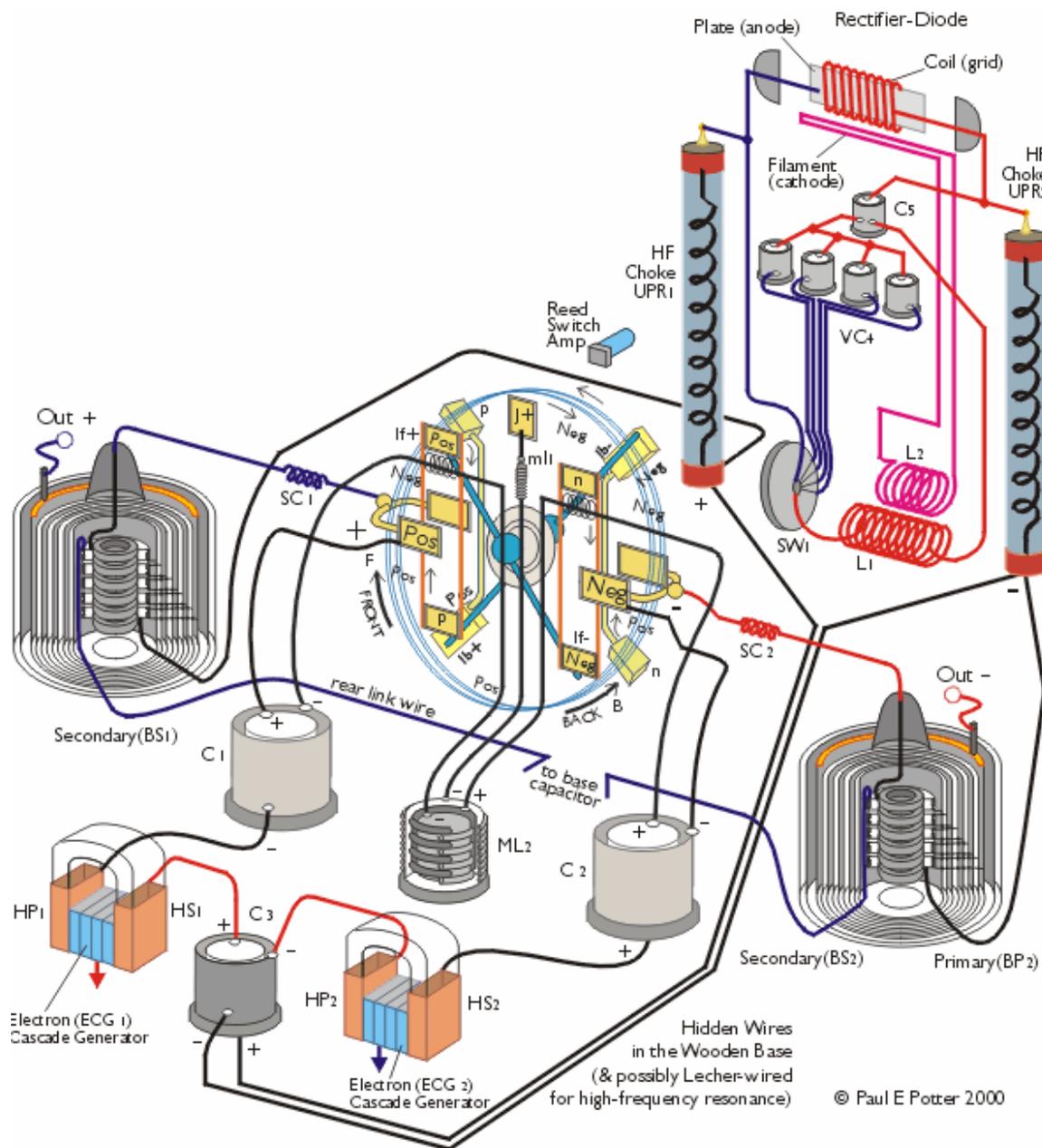
Several variations for this design are possible. John shows the timing for the pulses taken directly from a commutator where sliding contacts move across a copper strip on the shaft of the motor with fine adjustment being provided by moving the contacts sideways as the copper strip on the shaft has a diagonal edge as shown in the perspective drawing. The version shown in the video of this motor running, uses a Hall-effect semiconductor to sense the position of the shaft magnetically and utilises solid-state relay switching:



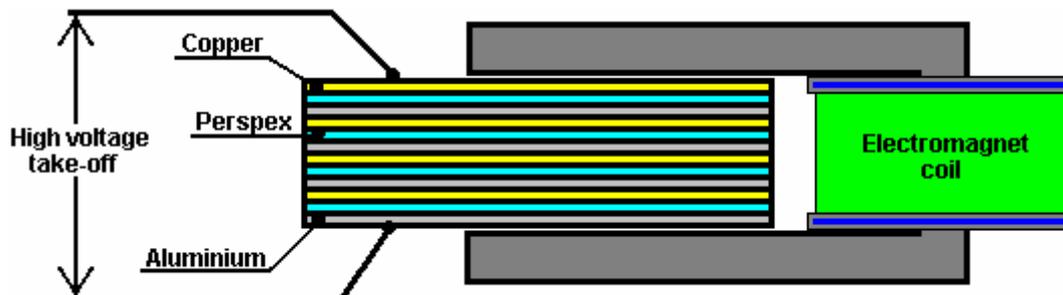
The original construction of the motor used six bar magnets attached to a central hexagonal former surrounding the central shaft. Very simple construction. The bi-filar coil is wound with thin wire being used for the signal drive to the MPS8099 timing transistor.

Paul Baumann's 'Thestatika' Machine. This machine works beautifully. It is self-powered and produces in excess of 2 kW of electrical output continuously. It has two electrostatic discs which are rotated by motor to produce a continuous current. It works best in dry atmospheric conditions. The snag is, it was developed by the late Paul Baumann who was part of a Swiss commune which is not willing to explain its operation.

Paul E Potter has attempted to deduce the operating principles and has published interesting information at the <http://website.lineone.net/~aarekhu/> website. His picture from that location is:



One very interesting fact which has been reported by the Swiss group is that if a series of copper, aluminium and perspex sheets are placed in a magnetic field, they generate a high voltage. This is worth investigating. It is not clear if the magnetic field should be constant or oscillating. The sequence of plates is said to be: cpacpacpacpa ("c" being copper, "p" being 'Perspex' (acrylic or 'Plexiglas') and "a" being aluminium). The following set-up might be worth investigating:

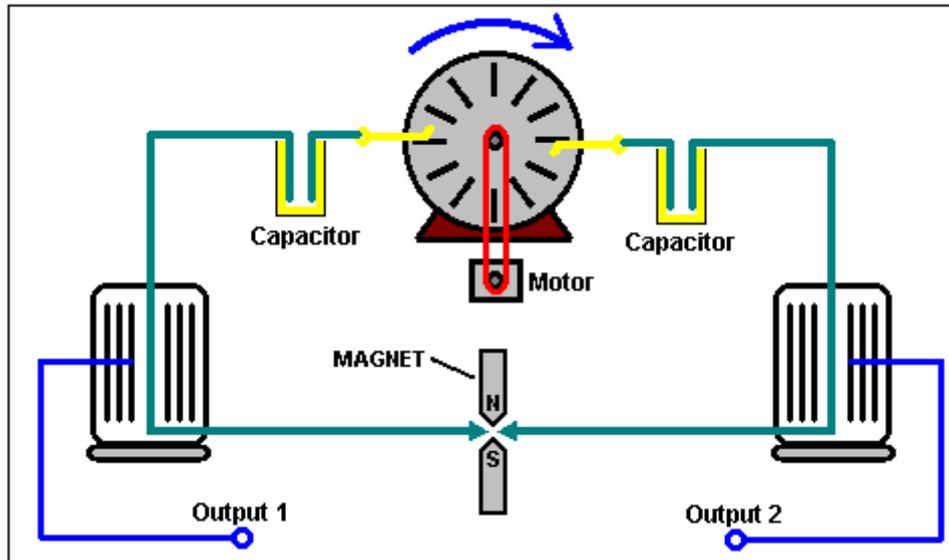


The information recently released by John Bedini has thrown extra light on Paul Baumann's device. John was shown the exact working details of Edwin Gray's very successful Radiant Energy pick-up system and he has now allowed those details to be published in Peter Lindemann's book "The Secrets of Cold Electricity". From this information it can be seen that Nikola Tesla's "Magnifying Transmitter", Edwin Gray's power tube, and Paul

Baumann's "Thestatika" device all appear to operate in the same way, with just slight differences in their implementation.

If this is so, Paul's device operates by creating a series of very short, high-power electrical discharges in the conductors passing through the centre of the two cylinders. These cylinders are effectively the same as Ed Gray's discharge tube (described in detail in the "D1.pdf" document), both having metal shells around the pulsed conductor. The shells pick up the waves of Radiant Energy created by the electrical pulses and feed that energy to the workload. Paul uses a motor-driven version of a Wimshurst machine to pick up 'static' energy to create the sparks, while Ed used a pulsed transformer to generate the equivalent high voltage for the sparks. The electrical pulses **must** be unidirectional and shorter than one millisecond in duration for the equipment to work properly.

Shorn of all of its frills, I would expect the operation of Paul's machine to be as shown here:



The operation is basically simple. The drive motor is powered by part of one of the outputs, so no input power is required. The capacitors charge up quickly and cause a train of sparks. These sparks get cut off very sharply by a strong magnetic field provided by a strong permanent magnet (or electromagnet) as recommended by Nikola Tesla. These very sharp, short, electrical bursts generate a shock wave of Radiant Energy which surges outwards through the metal cylinders surrounding the cabling to the spark gap. These cylinders are normally made out of copper sheet drilled with a matrix of holes and they pick up some of the radiant energy which forms the output of the device. The McGraw-Hill book "Homemade Lightning" by R.A. Ford (ISBN 0-07-021528-6) gives full details of Wimshurst machines and plans for constructing your own, improved version. Ready-built Wimshurst machines are available from the web site:

<http://scientificsonline.com/product.asp?pn=3070070&bhcd2=1154180654>

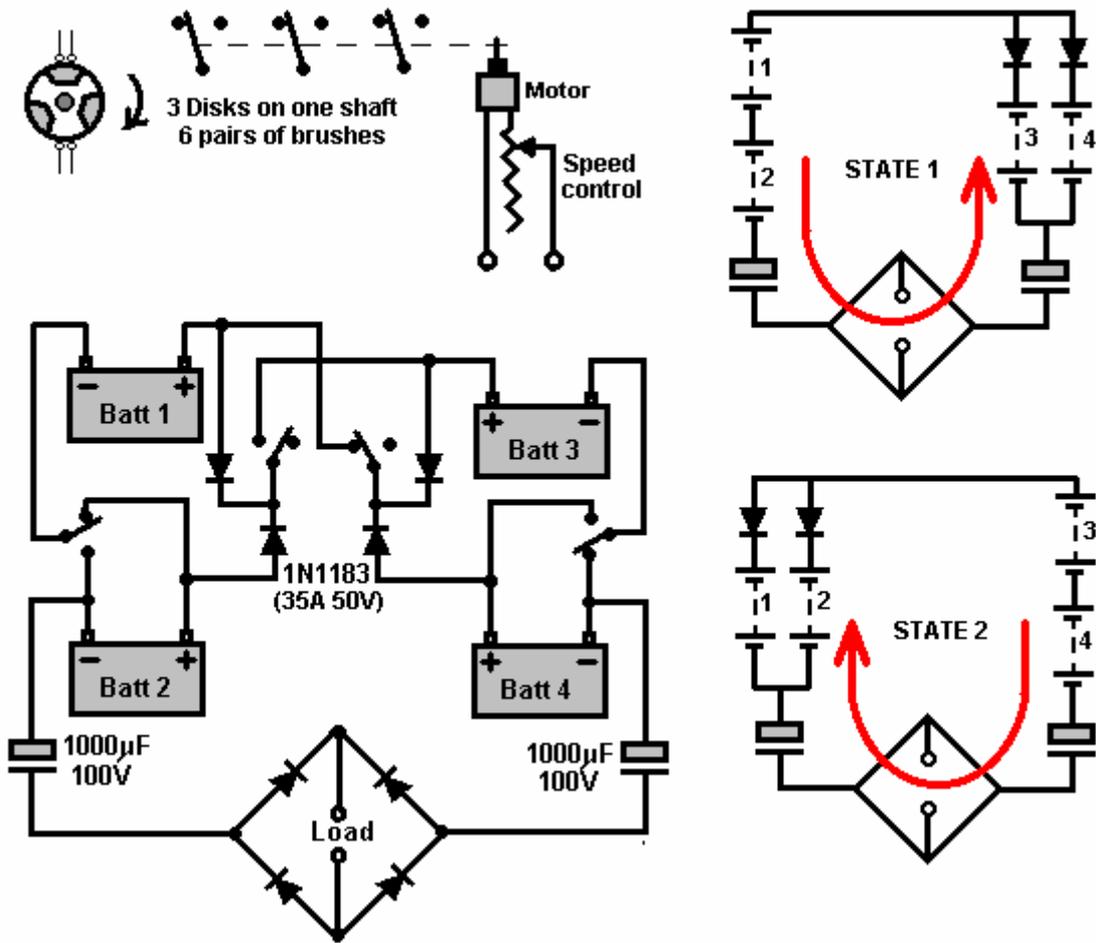
Wire Sizes: The wire sizes specified by John are American Wire Gauge so a comparison table showing the UK Standard Wire Gauge and the American Wire Gauge is given here:

AWG	Dia mm	Area mm ²	SWG	Dia mm	Area mm ²
1	7.35	42.40	2	7.01	38.60
2	6.54	33.60	3	6.40	32.18
3	5.88	27.15	4	5.89	27.27
4	5.19	21.20	6	4.88	18.68
5	4.62	16.80	7	4.47	15.70
6	4.11	13.30	8	4.06	12.97
7	3.67	10.60	9	3.66	10.51
8	3.26	8.35	10	3.25	8.30
9	2.91	6.62	11	2.95	6.82
10	2.59	5.27	12	2.64	5.48
11	2.30	4.15	13	2.34	4.29
12	2.05	3.31	14	2.03	3.24
13	1.83	2.63	15	1.83	2.63
14	1.63	2.08	16	1.63	2.08
15	1.45	1.65	17	1.42	1.59
16	1.29	1.31	18	1.219	1.17
17	1.15	1.04			
18	1.024	0.823	19	1.016	0.811
19	0.912	0.653	20	0.914	0.657
20	0.812	0.519	21	0.813	0.519
21	0.723	0.412	22	0.711	0.397
22	0.644	0.325	23	0.610	0.292
23	0.573	0.259	24	0.559	0.245
24	0.511	0.205	25	0.508	0.203
25	0.455	0.163	26	0.457	0.164
26	0.405	0.128	27	0.417	0.136
27	0.361	0.102	28	0.376	0.111
28	0.321	0.0804	30	0.315	0.0779
29	0.286	0.0646	32	0.274	0.0591
30	0.255	0.0503	33	0.254	0.0506
31	0.226	0.0401	34	0.234	0.0428
32	0.203	0.0324	36	0.193	0.0293
33	0.180	0.0255	37	0.173	0.0234
34	0.160	0.0201	38	0.152	0.0182
35	0.142	0.0159	39	0.132	0.0137

3. Energy can be returned to a battery power source by its own load

Tesla 4-battery system, Bedini 3-battery system, Ron Cole's 1-battery system

Nikola Tesla. Nikola Tesla's 4-battery switch circuit is shown here:



This circuit is said to be able to power its load indefinitely. It is also said that if one of the batteries is fully discharged, or nearly fully discharged, then putting it in any of the four positions returns it to full charge within one minute. Those who have used this circuit recommend a switching frequency of 100Hz to 800Hz. A rate of less than 100 cycles per second is ineffective and greater than 800 cycles per second is said to be dangerous.

The upper sketch indicates three rotors mounted on a single motor shaft. They are insulated from each other and the conducting sectors are aligned, as are the brushes. The arrangement gives a mechanical switching such that when the upper brushes are short-circuited together, the lower brushes are open-circuit. Obviously, it is vital that at no point in the rotation are the two sets of brushes connected at the same time, i.e. a "Break Before Make" switching arrangement.

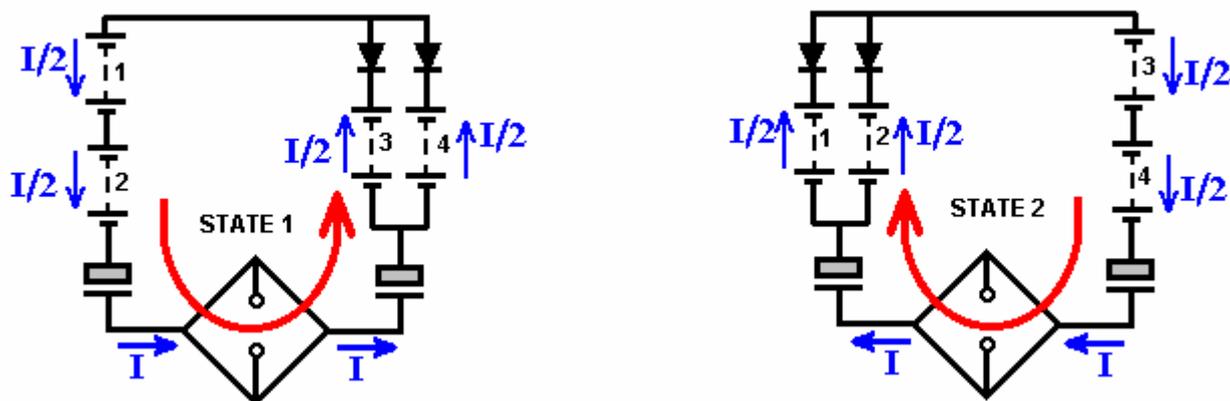
The connecting wires should be at least 30 Amp current carrying capacity and the diodes and the bridge are rated at 35 Amps 50 Volts. It is possible to build this circuit using solid state components to replace the mechanical switching, but it might be advisable to confirm the circuit operation with the mechanical switching before attempting a solid state circuit. The circuit is intended for use with lead/acid batteries but I understand that John Bedini has used rechargeable NiCad batteries in one implementation of this circuit.

The circuit operates by placing two of the batteries in series to provide 24V (if 12V batteries are used) and two in parallel to provide 12V. The voltage difference is used to drive a current briefly through the rectifier bridge, powering the load. Immediately afterwards, the battery combinations are switched over to drive a current in the reverse direction. This Drain/Charge cycle is said to alter the way a lead/acid battery operates. This circuit was invented by Nikola Tesla who was an intuitive genius, and shown to his close friend Ronald Brandt, who in turn disclosed it in 1983 to John Bedini. John provided the details in a paper which he presented to the Tesla Centennial Symposium in 1984. At the symposium, John showed his solid state implementation of the circuit powered by NiCad batteries. During a continuous twenty-four hour period, John's device powered a load and at the end of the period, the batteries were shown to be fully charged.

It is probably worth explaining the operation of this circuit in more detail. It is probably an instance of “splitting the positive” which some of the successful free-energy experimenters speak of, as the output flow from the load does not loop back to the negative of the driving battery, but instead, it contributes in a positive way to the condition of two other batteries. That way, it does not destroy the “dipole” of the battery driving the load.

Consider it from the point of view of the current flow. This is conventional “hot” electricity and the current flow is electrons flowing from the battery, through the load. However, an important point to consider is that the electrons are not in any way “used up” or “consumed” in the load. They merrily sail on through the load, quite unchanged in any way, so if you can collect them at the far side of the load, then nothing is lost in spite of the load being powered. So, why do batteries get discharged when they are used normally? They get discharged because the chemical power in the battery is used to create a “dipole” where the battery has a positive terminal, physically near to it’s negative terminal - that is what is meant by an electrical “dipole”. The negative electrons flow through the load and the instant they reach the positive side of the dipole, they immediately destroy it because a plus and a minus cancel each other out. The chemical process inside the battery instantly creates another dipole, and it is that continuous creation of dipole after dipole which causes the discharge of the battery - it has nothing to do with the load being powered, it has everything to do with the battery dipole being destroyed.

If you can set up a circuit which has current flowing through the load without destroying the battery dipole, then you have unlimited power from a battery. That is exactly what the Tesla 4-battery switch does. To explain it further, check out the current flows:



For this description let us assume that 12V batteries are being used, although the battery voltage is not particularly important, except that the diode bridge supplying the load will drop about 1.3 volts if silicon diodes are used, so the battery voltage needs to be some reasonable value.

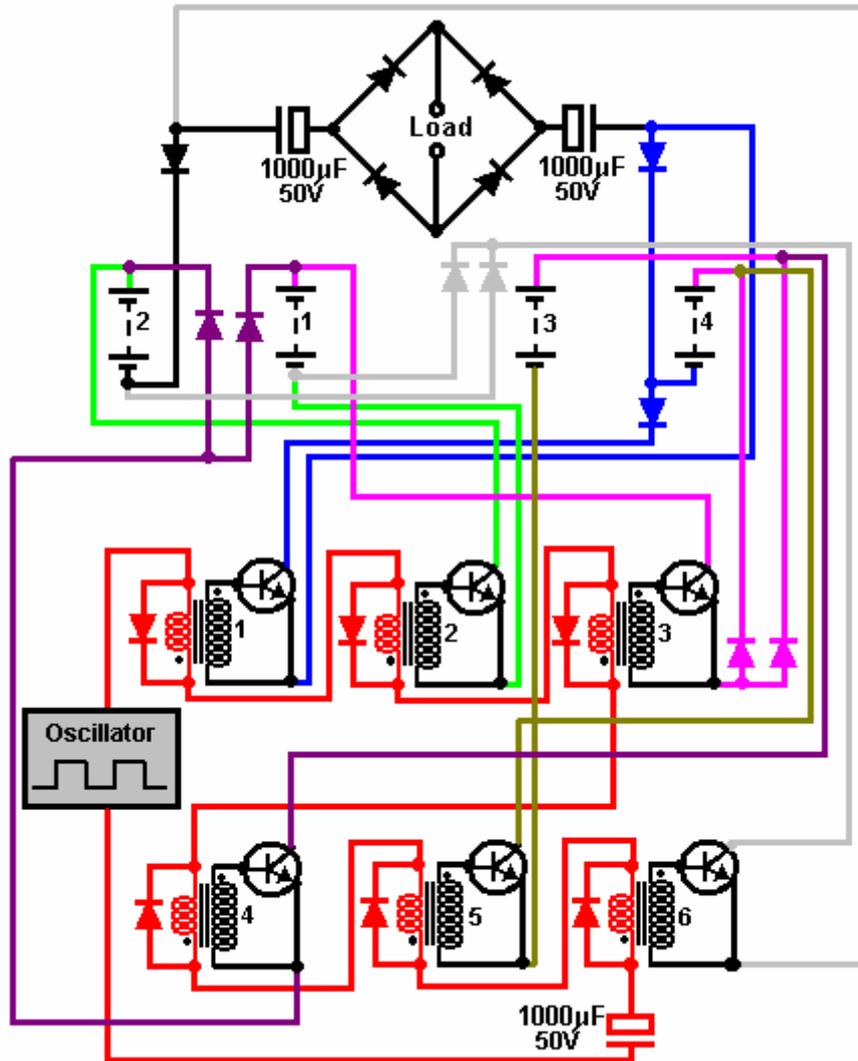
In “State 1”, batteries 1 and 2 are in series and effectively form one 24 volt battery containing twelve 2-volt cells. Each of these twelve cells contributes one twelfth of the electrons flowing around the circuit, so each battery contributes half of the total current flow. If we call the intensity of this current flow “I” then battery 1 and battery 2 each supply an electron current flow of I/2.

On the receiving side, batteries 3 and 4 are in parallel, forming a higher capacity 12 volt battery bank. The current “I” reaching them divides equally between them, so each receives an electron current flow of I/2. So in “State 1” each battery provides or receives exactly half of the current flowing through the load. In passing, the term “load” just means some piece of useful equipment which we might want to operate, say, a light, a fan, a heater, a drill, or whatever. The circuit described provides about 12 volts as the output, so mains equipment would be operated using a standard, commercial “inverter” which converts this low voltage to normal mains voltage capable of powering TV sets, DVD players, or whatever.

In “State 2” the process is reversed, but the current flows are exactly the same, except that those batteries providing current in “Stage 1” are now receiving the same amount of current back. There is no destruction of the dipole in any of the batteries and so they do not get discharged.

There is an overall current draw caused by the switching circuitry, but there does not appear to be any reason why that circuitry should not be made part of the load driven by the circuit itself.

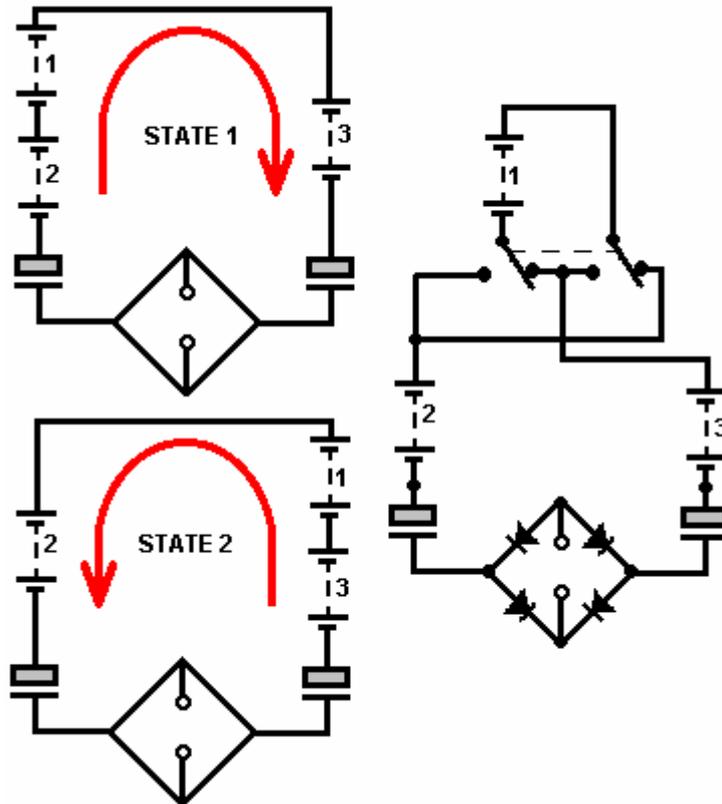
There have been several different solid-state versions of the Tesla 4-battery switch. One designed by John Bedini is shown here:



Here, six 2N3055 transistors (60V, 15A, gain 20 to 70) are powered on and off via six audio transformers (Radio Shack #273-1380 transformers are suggested). The 8 ohm primaries are wired in series and driven by a square wave generator through a large capacitor. This circuit is shown in red. When the square wave is positive, the upper three transformers (numbers 1 to 3) have their primaries loaded by a forward-biased diode which will hold the voltage across them to a maximum of some 0.7 Volts thus limiting their operation. The other three transformers (numbers 4 to 6) have the diodes across their primaries biased off for a positive voltage and so have little effect on the pulse applied to their windings. The operation of the two groups of transformers is reversed for the negative pulse from the square wave generator. The diodes across the transformers are 1N4148 (100V, 300 mA, high speed) and the others 1N1183 (50V, 40A).

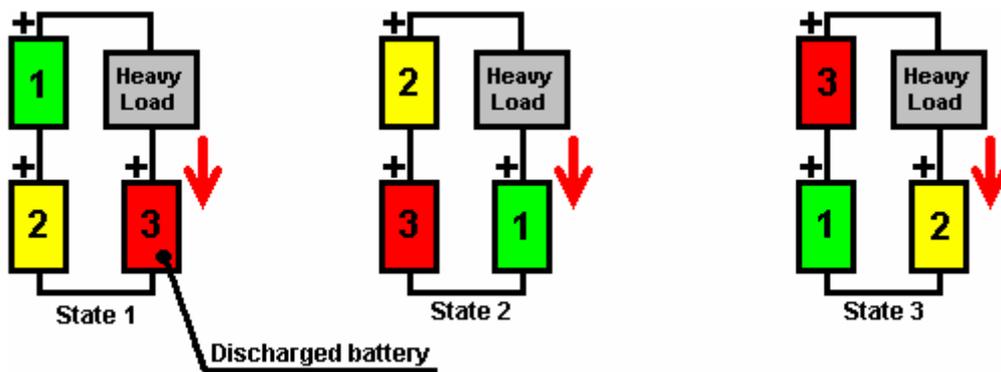
My concern with this arrangement is that the secondaries are 1000 ohm windings which gives a nominal step-up ratio of 125. If 0.7 Volts is applied as a pulse to the primary, theoretically, 87.5 volts would be generated at the secondary if it were open-circuit. Obviously, this will not happen as the base/emitter junction of the 2N3055 transistor loads the secondary heavily. However, in my opinion, there is the potential for at least partial switching on of the transistors which are supposed to be biased hard off. I would therefore suggest that if this circuit is used, that the output from the square wave generator be taken through two separate drivers to the two chains of three transformer primaries. That way, it can be ensured that the second set of transformer primaries is receiving zero volts when they are supposed to be off.

Bedini 3-battery system. John Bedini has pointed out that the electrical effect of the Tesla 4 battery switch can be reproduced with just three batteries:



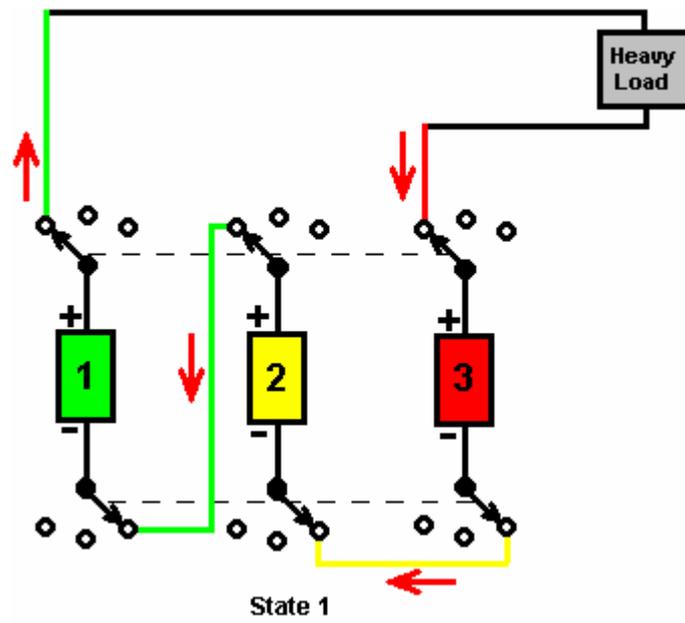
However, in the above arrangement, the battery marked '1' never has its flow direction reversed. This may not be critical as the energy being provided is being taken from the zero-point energy field and not the batteries.

The block diagram used by John when he was designing his circuit was:

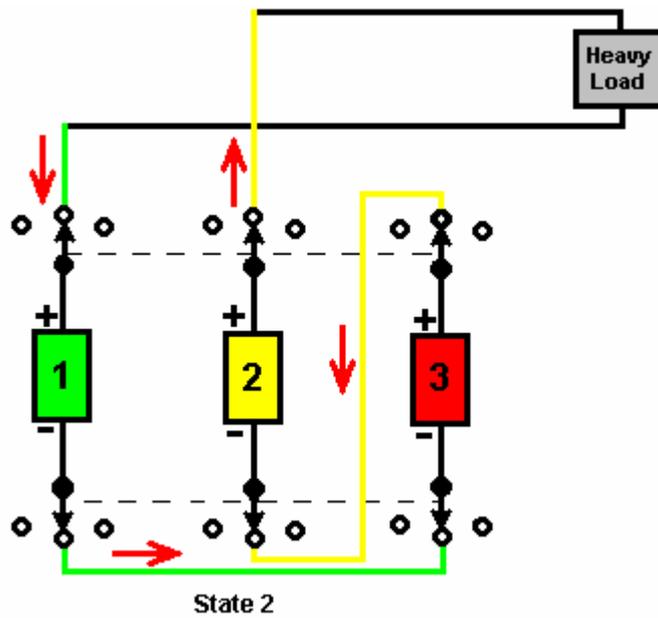


This is a much more difficult switching circuit to construct. If one battery, say '3' in the diagram above, is fully discharged when placed in the circuit, it is said that it gets fully recharged in less than one minute.

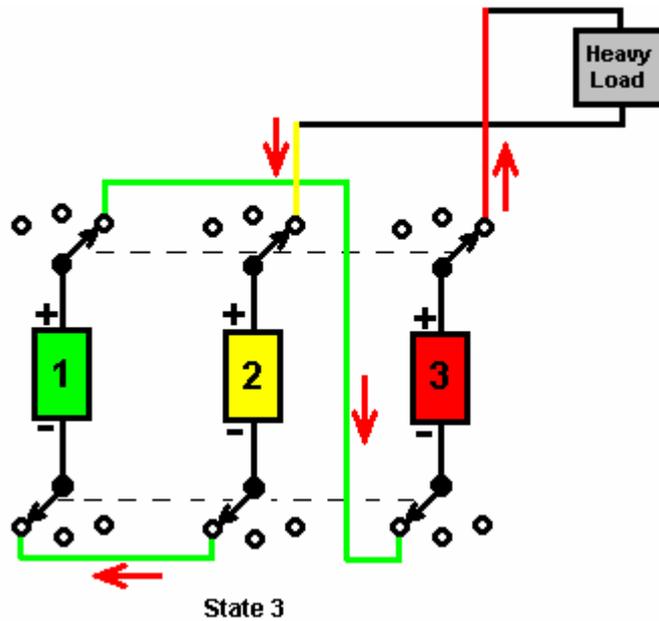
If mechanical switching were being used (which it isn't as it would be much too slow), the connections could be like this for state 1:



And this for state 2:

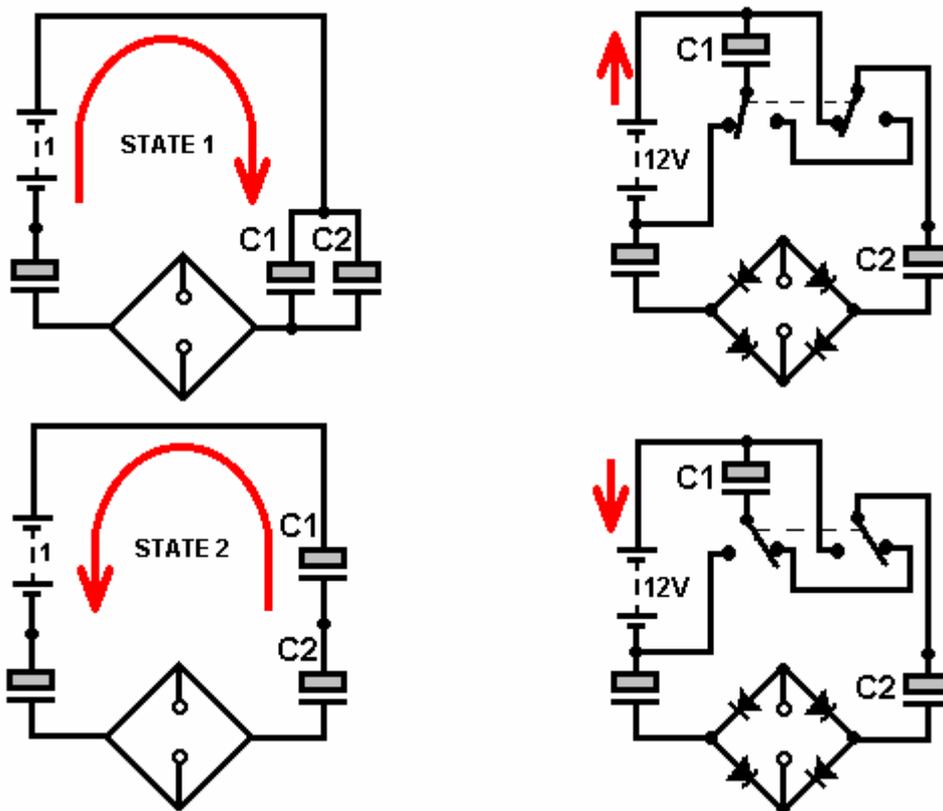


And this for State 3:



The challenge then, is to construct this using solid-state electronics and so produce a switching system with no moving parts.

Ron Cole's 1-battery system. Ron Cole has suggested that it would be possible to get the same effect by using two capacitors:



Here, two capacitors are used instead of two batteries. If the size of the capacitors is matched to the switching frequency, it should be possible to arrange it so that both capacitor C1 and Capacitor C2 reach the full battery voltage ('State 1' in the diagram) before the switch flips to the opposite state ('State 2' in the diagram). This then generates the reverse current cycle which is used to condition the battery.

Harold Aspden. Scientists freely acknowledge that more than 80% of the matter and energy in the universe is “dark matter” and “dark energy” where “dark” only means that we cannot readily see that form of matter and energy. The highly respected Harold Aspden has been awarded a patent for a system to collect this energy directly. The patent, which is one of several similar patents included in this set of documents, is reproduced here:

Patent GB2390941

21st January 2004

Inventor: Dr. Harold Aspden

ELECTRICAL POWER GENERATING APPARATUS

Abstract

An electric generating device includes two capacitors **1** and **2**, each having a pair of concentric electrodes and in-series connection to inductors **3** and **4**. Each capacitor has an electrode connected to a high voltage DC source **5** and another connected to a low-voltage or earth terminal **6**. An AC Power output may be produced from terminals between each capacitor and inductor or from a transformer where the inductor is the primary winding. Electricity production may be sustained by drawing energy from the vacuum medium surrounding the electrodes.

Field of the Invention

This invention relates to a new and non-conventional means for the generation of electrical power. The energy source is the quantum underworld of space, the aether medium of the vacuum state, long recognised for its ability to allow the storage of electric field energy by reacting as its intrinsic charge is displaced, a process understood by physicists by reference to the research findings of Clerk Maxwell.

Background of the Invention

The current state of the art of electrical power generation does not recognise the possibility of ultimately tapping energy from the aether. Physics is taught on the basis that energy cannot be created or destroyed, inasmuch as it is conserved in all physical processes, though it can be degraded in its usefulness, as by burning of hydrocarbons and conversion into heat which dissipates as by radiation into outer space. The aether as a source or as an absorber of energy is not deemed to serve any specific role in the physics of energy deployment, it having been dismissed from consideration by invoking the notion of 'field energy' without admitting the specific physical reality of something in space that accounts for the properties involved.

Theoretical physicists have, however come to suspect that space devoid of matter is nevertheless a seething sea of activity subject to sporadic energy fluctuations which can create electron-positron pairs that exist momentarily before decaying back into their quantum underworld. Yet those same physicists deny all possibility that this energy resource of space itself can be exploited to provide useful power on a scale large enough to rival the role played by atomic power plants and fossil fuel generating installations.

Curiously, they do subscribe to the belief that one day they may be able to generate power on a viable commercial scale from fusion reactors by processes replicating what they believe sustains the Sun's heat output as hydrogen is transmuted into different atomic forms. In contrast with this rather elusive objective, it having proved beyond reach even after half a century of effort, this invention is based on success in generating power by replicating, not the Sun's onward energy decay, but rather a process akin to that by which the Sun itself was created from energy drawn from the enveloping aether medium.

The invention to be described below has emerged from an in depth theoretical investigation into the properties of the aether and quite independently of any of the well known claims of published record which feature at the fringe of mainstream scientific literature. A recent and very well-presented account of what amounts to a century of relevant energy history is the book 'The Search for Free Energy' by Keith Tutt, published in 2001 by Simon Schuster (ISBN 0-684-86660-9). Here in this book is a comprehensive background of information concerning the energy devices of several researchers but the references to Nikola Tesla and T. Henry Moray are particularly pertinent to the subject of this invention and, though imposing a limitation on what can be legitimately claimed by this patent application, they serve also as a basis for a very important lesson to those engaging in this field of invention.

The lesson is that it is not sufficient to build and demonstrate something that works, if you do not fully understand why what you have devised actually does work. This is especially the case here where one is claiming a source of

energy hitherto unknown. The invention to be described below will, in its broadest sense, appear to be quite similar to what T. Henry Moray is said to have demonstrated in showing that substantial electrical power could seemingly be drawn from the aether using a simple wire antenna strung between two poles.

However, as will be seen, the antenna is not needed and the reason is that the energy source is not the radiant emission by some process involving radio wave propagation through the aether, but rather what can best be described as a phase-lock that couples the apparatus with the quantised motion of electric aether charge. There is a technique, to be described below, by which it is possible to exploit this phase-lock condition by setting up an energy oscillation involving an apparatus component and its enveloping aether, the result being that energy in an immediately useful electrical form is imported into the apparatus from that aether.

Brief Description of the Invention

According; to one aspect of the invention, an electric power delivery circuit comprises two capacitors, each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor series-connected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors a DC bias voltage which primes them with electric charge, and power output terminals. one at each point of connection between a capacitor and its associated inductor, whereby to provide for an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.

According to another aspect of the invention, an electric power-delivery circuit comprises two capacitors, each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor series-connected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors, a DC bias voltage which primes them with electric charge, each inductor being the primary winding of an electrical transformer, the secondary winding of which serves to provide an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.

According to a feature of the invention the capacitors have no intervening solid or liquid dielectric medium separating their concentric electrodes.

According to another feature of the invention, two inductors are coupled electromagnetically by having a common ferrite core and their primary windings are connected to their associated capacitors in the polarity configuration which assures that, in their mutually resonant state, electric charge is exchanged between the two capacitors.

According to yet another feature of the invention, the central axes of both cylindrical electrode capacitors are mutually parallel.

According to a further feature of the invention, an electrical power delivery system comprises a plurality of these electric power delivery circuits, where the central axes have different angular orientations as between the different circuits.

According to a still further feature of the invention, in such a power delivery system, the difference in angular orientation of the central axes is at least 60° .

Brief Description of the Drawings

Fig.1 shows an electrical power generating circuit incorporating two concentric cylindrical capacitors having central axes which are parallel.

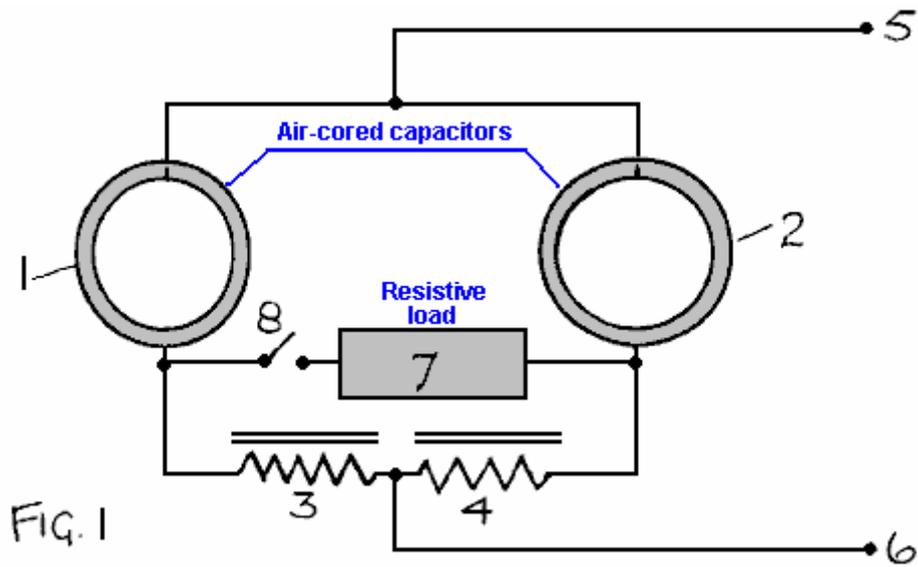


Fig.2 shows a modified version of the circuit of **Fig.1** with a transformer system providing the inductors and an output winding.

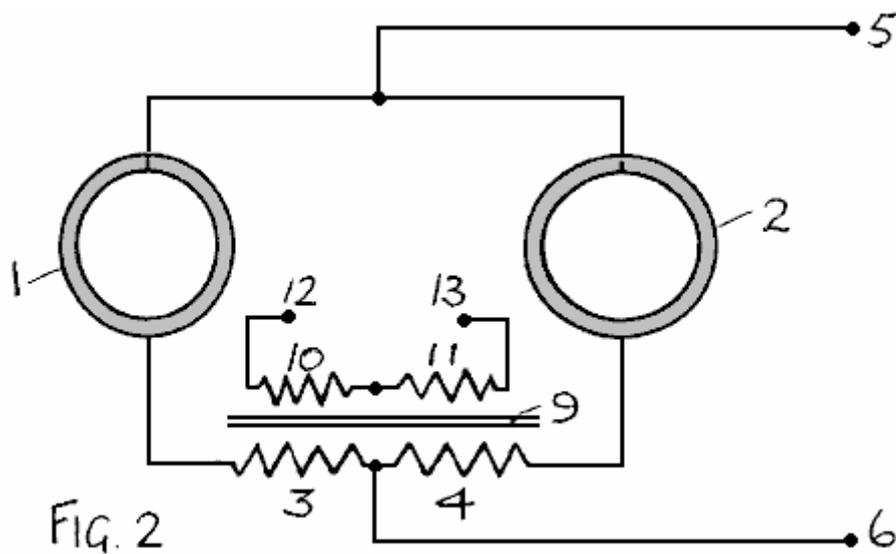
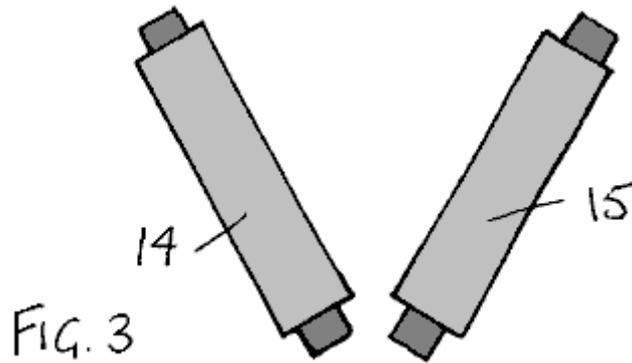


Fig.3 illustrates a mutually inclined capacitor system comprising two pairs of concentric cylindrical capacitors.



Detailed Description of the Invention

The invention draws energy from the aether. To understand why the invention works, one needs to understand the process by which the aether stores energy when an electric field is set up across the dielectric separating two capacitor plates. Moreover, one needs to understand the means by which the aether determines the quantum of action, specifically in the form of the Bohr magneton and the unit of angular momentum linked to Planck's constant.

It is not sufficient to imagine that electric charge in the aether is displaced from a rest position in a background continuum of opposite charge polarity to which it is attracted by a restoring force. Indeed, one must consider such action to be superimposed on a system of charge which has an underlying jitter motion, a quantum theory theme associated with the German physicist Heisenberg (Zitter-bewegung, which has the dictionary meaning 'Circular fluctuation movement, of spin'). When these two factors are combined, and the constraint added of there being a phase-lock which keeps that jitter motion in synchronism as between the charges, one finds that the physical theory involved has some very interesting consequences.

One of these consequences is that a spherical or cylindrical volume of aether, if spinning bodily about a central axis, will acquire a magnetic moment and set up an electric field inside that sphere or cylinder that is directed radially with respect to the spin axis. A summary analysis is presented in the Appendix to this specification, being, in part a quotation from pages 31-33 of a booklet entitled 'The Theory of Gravitation' which the Applicant of this invention, Dr. Harold Aspden, authored in 1959 and duly published early in 1960.

The induction of electric charge by 'aether spin' was there shown to give a physical basis, both qualitative and quantitative, for the geomagnetic moment, the property of body Earth of setting up a magnetic field which created magnetic North and South poles at latitudes offset from the geographic poles, with the geomagnetic polar axis precessing slowly around the Earth's spin axis at a rate of several hundred years per revolution. By identifying its source as a rotation of a sphere of aether coextensive with body Earth, a volume of aether relative to which the Earth could have a component of motion even though the aether spin frequency is equal to that of the Earth, this axial tilt of some 17 degrees has a physical explanation. However, that aspect of the aether's role was not seen at the time as offering anything of promise technologically. The physics involved is nevertheless very relevant and directly pertinent to the experiments on which this invention is based, the findings of which would otherwise be quite baffling scientifically.

The applicant has, over the 40 or so years since the theory was first published, given a great deal of consideration to the theoretical implication that, just as aether spin can set up electric charge displacement inside coextensive matter, so the setting up of an electric field directed radially with respect to an s axis can induce aether spin about that axis and with it develop angular momentum. Indeed, in the author's onward publications on this subject, as, for example, 'Physics Unified' published in 1980 by Sabeton Publications, P.O. Box 35, Southampton, England (ISBN 0 85056 0098), it is shown how the onset of the force of gravitation when a disordered aether consolidated into an orderly structured form caused protons to accrete more rapidly than electrons, owing to their higher mutual rate of gravitational acceleration. This created stars with all initial positive charge and the associated aether spin resulted in the stars acquiring their spin states and shedding matter which consolidated into planets which share the angular momentum so generated. The aether with its property of spin as related by its electric charge density according to the formula presented in the Appendix is therefore the key factor if we attempt to account for the creation of the stars which populate our universe.

That same formula, however, is equally valid if applied to the circumstance where a radial electric field is set up between the concentric cylindrical electrodes of a capacitor formed around a hollow dielectric cylinder. It tells us how fast the aether within that dielectric will spin. The related theoretical analysis shows that the quantum phase-lock feature of the aether imports from the external aether world an amount of energy equal to that supplied in setting up aether charge displacement, this imported energy being the dynamic energy corresponding; to the acquired aether angular momentum. Guided by the argument concerning stellar creation one can see that this aether angular momentum can be transferred to matter and this process also has its energy transfer implications.

However, one can wonder what happens if, after setting up a radial electric field in that capacitor having concentric electrodes, the applied voltage is reduced, thereby withdrawing electric field energy from the capacitor. The imported energy present in kinetic energy form as a cylindrical shell of aether spins about the central axis of the capacitor will tend to sustain electric charge displacement. To conserve energy, since the aether phase-lock cannot force the expulsion of energy by obliging the enveloping aether universe to keep in step, this energy can only be shed by augmenting that released electrostatically. In other words, the net result is that an up and down fluctuation of the electric charge condition of the capacitor must give rise to an electric energy output that is, for the lowest dielectric constant (the permittivity of the vacuum), double the input in each cycle of change. One can then envisage an oscillation escalating in energy content powered almost wholly by aether input before one taps into that source of power to draw off energy at a rate consistent with stable operation.

This is, of course, a bewildering prediction that no physicist could imagine as being at all possible and yet, given the relevance of the theoretical argument involved, as applied to the phenomenon of geomagnetism and stellar creation, which are supported by strong evidence in that book 'Physics Unified', once such a notion is conceived it surely has to be put to the test by experiment. This then, after decades of effort before this realisation has dawned, is the basis on which the Applicant has only now come to appreciate the amazing technological possibilities that lie before us and is asserting by this patent specification that energy can in fact be tapped from the aether on a commercially viable scale.

Given that aether theory indicates that the special form of capacitor described above will, if subject to an oscillatory charge condition, generate an excess of energy, a question to consider is why such a phenomenon has not manifested itself in bench-type experiments performed in numerous electrical laboratories over the past one hundred years. Ostensibly the implication is that the capacitor will exhibit a negative resistance if used with an inductor as a component in what would become a self-resonating circuit. The answer to this may be that if such a phenomenon has occurred it has passed unnoticed or been regarded as spurious or noise-related, being something connected with radio interference etc. Alternatively, and as a function of the size and scale of the apparatus, the effect may have lacked an exciting trigger needed to overcome an energy threshold set by such factors as circuit contact resistance or contact potentials as well as the basic resistance of the inductors which, with the capacitors, form the resonant circuit.

Note that, even for a capacitor of quite large physical dimensions, having regard to its accommodation on top of a laboratory bench, the actual capacitance is necessarily quite small. being of the order of a billionth of a farad. This means that a capacitor charge fluctuation of the order of a volt would only imply energy fluctuations that are of the order of a billionth of a joule per cycle. The situation is quite different if perchance a DC bias voltage of, say, 5,000 volts is applied to the capacitor. Then a small superimposed voltage fluctuation makes the related energy fluctuations very much larger with much greater prospect of an escalating self-resonance being triggered.

With this in mind the applicant perceived a possible prior art link with the experimental claims reported by Dr. Moray who, in 1929 is said (see pages 46-50 of the above-referenced recently-published book by Keith Tutt) to have powered six 100 watt light bulbs plus a standard 575 watt electric flat iron, merely by providing an earth connection and coupling an input lead to an overhead wire antenna. The apparatus involved had no other source of input power but included a special arrangement of capacitors and presumably some kind of high frequency inductor/transformer unit.

In spite of the attention given to the Moray demonstrations, it seems that the secrets involved in the design and construction of the apparatus remain unknown and so cannot feature in the prior art of published record. Nor, indeed, can the anecdotal evidence of Moray's efforts serve to show that the subject invention has been put to prior use. The technology as to how to replicate the Moray device, always assuming it did perform as claimed, has therefore to be rediscovered and, indeed, given that there is reference to his detectors incorporating some special substance which was referred to as 'Swedish stone', possibly the dielectric he used in his capacitor construction, there is a considerable mystery to unravel. More to the point, however, one is led to believe that Moray was implying that the energy he was tapping was radiant energy drawn from the aether, with that antenna featuring prominently because, without it being connected, the energy output fell to zero. However, as he surely may well himself have known, one just cannot draw power on such a scale from a simple overhead wire strung between two

poles and so, without know how, he would have suspected that the energy inflow was coming into his capacitors via the action of that mystery substance he called 'Swedish Stone'.

The applicant here suggests that, based on an insight into the quantum workings of the aether medium as outlined above, the curious discovery demonstrated decades ago by Dr. Moray may have been attributable to setting up an oscillation in a resonant circuit including, a concentric cylindrical electrode capacitor which had a voltage bias of the order of a thousand and more volts fed from a connection to that overhead antenna but drawing no significant current from that antenna other than enough to prime his capacitor with charge and stimulate a high frequency fluctuation which could initiate an escalating circuit oscillation tapping aether energy from the aether spin induced in the capacitor dielectric.

This is speculation, but it is sufficient to justify the Applicant's interest in constructing a capacitor and seeking to verify the assumptions just made. Notwithstanding, the reference allude to Dr. Moray and the note below concerning Nikola Tesla, what it leads to is new invention by virtue of full disclosure of details of operation and manufacture of something hitherto unknown, the actual means by which to harness a source of energy latent in the aether medium and deemed by those familiar with state of the art knowledge to be beyond man's reach. Furthermore, there are supplementary inventive features of a special nature because of the way the subject invention exchanges energy between two capacitors and also because the optimisation of aether power output from the capacitors is found to be a function of the orientation of the capacitor axes relative to the cosmic background owing to the Earth's rotation.

It seems here appropriate to mention something described by Nikola Tesla in his U.S. Patent No. 685,958. This was filed on 21 March 1901 and granted on 5 November 1901. It was entitled: 'Apparatus for the Utilisation of Radiant Energy'. By installing two metal plates, one high above the ground and the other at ground level, with wires connecting the plates to separate electrodes of a capacitor, it was stated that the capacitor became charged to a very high potential, the energy input being that radiated to Earth from outer space. This may well have motivated the efforts of T. Henry Moray but, so far as this Applicant's invention is concerned, no such input from overhead components is necessary as a quite different energy source is at work, namely the zero-point vacuum energy activity of our quantum underworld.

Referring now to **Fig.1**, two capacitors **1, 2** formed by concentric cylindrical metal electrodes and having their central axes parallel, form part of a resonant circuit combination by each being series-connected to an inductor **3, 4** having a ferrite core. Their inner electrodes are connected to a high-voltage DC source **5** and their outer electrodes are separately connected through their corresponding inductors to a low-voltage or earth terminal **6**. A resistive load device **7** is connected via switch **8** between the junction points of the capacitors and inductors.

In operation, owing to spurious electrical signals induced in the inductors, or to an imposed electrical stimulus provided by means not shown, the priming electric charge of the two capacitors will develop oscillations as charge is exchanged between the two capacitors. There is energy inflow owing to the quantum coupling of electric charge displaced between the concentric electrodes of each capacitor and the quantum activity of the underworld of the enveloping aether. This affords an electrical energy output which is supplied upon closure of switch **8**.

Referring to **Fig.2**, the inductors **3, 4** are shown to have a common ferrite core **9** and to have secondary windings **10,11**, which, by transformer action, can supply electrical power output between terminals **12** and **13**.

The apparatus of **Fig.1** and **Fig.2** will, when viewed in side elevation, appear as having a capacitor form with an outer cylindrical electrode within which there is a slightly elongated inner cylindrical electrode, to facilitate the high-voltage connection to that inner electrode. **Fig.3** shows, in very simple diagrammatic form, two such arrangements **14, 15**, with the central axes of the two pairs of capacitors mutually inclined. There may, however, be three or more such pairs of capacitors, each pair constituting a circuit such as is depicted in **Fig.1** or **Fig.2**.

The reason for configuring multiple capacitor systems, each with its own power output, in a combined manner with the outputs merged to supply an overall energy producing system is that the aether energy output of each capacitor unit is a function of axis orientation. This is because the quantum activity of the aether has its own preferred axis and, as the Earth rotates there is variation of the relative axial orientation in a daily cycle. Also, one needs to cater for systems applying, this invention in a mobile application, which also implies change of orientation and by having; the mutually inclined capacitor axis configurations one can be assured that the potential power output avoids the null situation that can occur if the capacitor axes of a stand-alone unit of **Fig.1** or **Fig.2** were to be at right angles to the aether quantum spin axis.

The capacitor electrodes can be of thin metal sheet foam and so of light weight and preferably are not spaced apart by any dielectric medium, whether liquid or solid. They need to be held apart by a simple insulating frame structure. The reason is, that the only dielectric medium that is operative in the functioning of the invention is the

vacuum medium and to have a normal dielectric present implies more capacitance and so extra current oscillation without extra energy gain per cycle of oscillation. The key factor assuring operation is the need for circuit resistance to be low compared with capacitance that is solely attributable to the vacuum medium combined with the high voltage priming which greatly enhances the power output to weight factor.

The two capacitors of a pair are preferably of identical capacitance and structure, as are the inductors, so that the oscillation period of the two resonant sectors of the circuit is the same. The common ferrite core feature of the **Fig.2** configuration assists in this role.

The apparatus will normally be designed to operate at a capacitor frequency of the order of 100 KHz or more, and a voltage of 10,000 V or higher, and so the transformer output of **Fig.2** will be preferable with voltage duly adjusted to suit the application. The high frequency AC so produced can then be converted as needed by using the appropriate technology of known form.

Appendix

Extract from pp. 30-31 of 'The Theory of Gravitation', 1960 printed publication by the Applicant. Note that the earlier pages explained that the aether comprises a system of electric particles in a cubic crystal-like distribution set in a uniform background continuum of opposite charge polarity, the particle system and the continuum both sharing a common circular orbital motion of radius r and the relative velocity between the particles and continuum being the speed of light.

The Effect of Aether Rotation

Consider what happens when a large volume of the aether is rotating bodily. The continuum and particle system rotate together. There will be no resultant magnetic moment unless the particle distribution is disturbed. An evident disturbance is the centrifugal effect arising from aether rotation, but for the angular velocities of magnitude found in the solar system this effect is of negligible consequence. A much more important effect arises from the synchronising interaction between particles in the rotating volume. This requires that the particles shall move about their neutral points at the same angular velocity. Thus if a particle is to have a velocity component V directed in the plane of its orbit, whilst retaining a mean velocity $C/2$, its speed along its orbit must be of the form $C/2 + V \cos P$, where P is the angle subtended by a line joining the particle and the centre of its orbit relative to a fixed reference datum in the inertial frame. To satisfy the above requirement the centre of the orbit cannot be the neutral point. Evidently the particle is distant from this neutral point by $r + (2Vr/C) \cos P$. As V is much less than C the effect of this is that the particle is moving around a circular orbit whose centre has been displaced a distance $2Vr/C$ perpendicular to V in the plane of the orbit. If V is much less than $w x \cos A$, where w is the angular velocity at which the aether rotates, x is the distance of the aether particle from the axis of rotation, and A is the angle of tilt of the axis to the common axial direction of the aether particle system, this displacement distance is $2(w x r / C) \cos A$. Consider a disc-like section of the rotating aether of radius x and unit thickness. Then, the effective charge displacement arising from the effective physical displacement of the particles is $2 \pi x s (2 w x r / C) \cos A$. The disc has acquired a uniform charge density of $4(w r s / C) \cos A$ esu/cc. The polarity of this charge depends upon the direction of rotation of the aether.

When evaluated from the aether data already presented, the charge density is found to be: $4.781 w \cos A$ esu/cc. This charge density represents a charge component which rotates with the aether.

Calculation of the Geomagnetic Moment

For Earth, w is 7.26×10^{-5} rad/sec and A is 23.5° . Thus the Earth's charge density is, from the above expression, 0.000319 esu/cc. The rotation of this charge gives rise to a magnetic moment of:

$(0.000319)(4 \pi / 15)w R^5 / C$ where R is here the radius of the Earth's aether.

If R is greater than the Earth's radius (6.378×10^8 cm) by a small factor k , the Earth's theoretical magnetic moment becomes $(1 + 5k)6.8 \times 10^{25}$ emu. This may be compared with the measured value of the Earth's magnetic moment of 8.06×10^{25} emu.

An upper limit of 0.035 is imposed on k suggesting the Earth's aether terminates at a mean height of about 140

miles above the Earth's surface. This suggests that the ionosphere may be a phenomenon arising at the aether boundary.

Claims

- 1** An electric power delivery circuit comprising two capacitors each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor series-connected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors, a DC bias voltage which primes them with electric charge, and power output terminals, one at each point of connection between a capacitor and its associated inductor, whereby to provide for an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.
- 2** An electric power delivery circuit comprising two capacitors, each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor series-connected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors a DC bias voltage which primes them with electric charge, each inductor being the primary winding of an electrical transformer, the secondary winding of which, serves to provide an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.
- 3** An electric power delivery circuit according to Claim 1 or 2, wherein the capacitors have no intervening solid dielectric medium separating their concentric electrodes.
- 4** An electric power delivery circuit according; to Claim 1 or 2, wherein the capacitors have no intervening liquid dielectric medium separating their concentric electrodes.
- 5** An electric power delivery circuit according to Claim 1 or 2, wherein the two inductors are coupled electromagnetically by having a common ferrite core and their primary windings are connected to their associated capacitors in the polarity configuration which assures that, in their mutually resonant state, electric charge is exchanged between the two capacitors.
- 6** An electric power delivery circuit according to Claim 1 or 2, wherein the central axes of both cylindrical electrode capacitors are mutually parallel.
- 7** An electric power delivery system comprising a plurality of electric power delivery circuits according to Claim 6, wherein the central axes have different angular orientations as between the different circuits.
- 8** An electric power delivery system according to Claim 7, wherein the difference in angular orientation of the central axes is at least 60° .

Comment by Dr. Aspden on 19th March 2006:

OUR ENERGY FUTURE

A Message of Vital Importance

The website www.energyscience.org.uk presents a deliberately concise summary account of something of vital importance to the future of mankind. The world needs a new source of energy, one that is not an exhaustible commodity subject to powerplay as between nations. Yes, one can dream and then awake to say this is impossible, but I urge those with the necessary skills to heed what I have to say in my three messages below.

First, however, let me introduce myself. My name is Dr. Harold Aspden. I am retired and elderly but have had a lifelong scientific interest in fundamental physics relevant to the energy theme. My 6-year university education in U.K. was at Manchester University and Cambridge University (Trinity College). My 33-year working career in U.K. comprised 9 years with English Electric and 24 years with IBM. Though having high technical qualifications (see below), being interested in the specialised field of protecting inventions pertaining to electrical engineering, I became a Chartered Patent Agent and later a European Patent Attorney. My last 19 years with IBM were spent as Director of IBM's European Patent Operations. This was followed, in my early retirement, by 9 years as a Visiting Senior Research Fellow at Southampton University and thereafter my scientific interest has been a private pursuit evidenced by my writings as on this and my related websites. My formal qualifications are: B.Sc., Ph.D., C.Eng., F.I.E.E., F.I.Mech.E., C.Phys., M. Inst.P., C. Sci., Wh.Sc.

Message No. 1: Physicists have come to recognise that there exists a quantum underworld alive with energy and permeating all space. However, their related research aims merely at probing experimentally the spectrum of elementary particles that have a transient existence as a product of that energy activity. The reward they seek is recognition should new particles be discovered and, by their properties, reveal connections with other particles that help in formulating a new theory or verifying an existing theory. Sadly, they do not see that quantum underworld as a potential source of energy that we can harness. Nor have they understood how most of the energy shed in creating matter formed the elementary particle which bears the name proton and which, together with the electron, constitutes the hydrogen atom.

There is also a secret they have yet to fathom. It is the effect of creating a radial electric field centred on electrical charge around which that quantum underworld can develop a state of spin that causes it to shed energy. In the presence of a radial electric field set up by an electrically charged body, whatever constitutes that quantum underworld that permeates all space shares a motion like that of sequence dancers who keep in step with one another as they move around the dance floor, a synchronous motion, which, in the presence of that radial electric field can only be held if a secondary motion develops around an axis centred in that radial field.

How else could the Sun spinning about its own axis have come into existence? Here we have gravity attracting hydrogen atoms and pulling them so closely together that ionisation occurs, meaning freeing some electrons from their proton bonding, and so, because the mass of a proton is very much greater than that of the electron, creating a Sun having a body that is positively charged sitting within an outer shell of negative electron charge. Two free protons experience a mutual rate of gravitational acceleration that is 1836 times that experienced by the interaction of two electrons. The body of the Sun, therefore, has a uniform mass density and a uniform positive charge density enclosed within a compensating negative charge at its surface. This is because gravitational compaction forces balance the expansion forces attributable to electrostatic repulsion. It further means the presence of a radial electric field within the body of the Sun and, in turn, owing to the effect of this field on the space medium of the quantum underworld, this induces a state of spin accompanied by release of energy from that medium to feed the kinetic energy of that spin.

In depth analysis of the physics involved, meaning the effect of the resulting radial electric field on that quantum underworld, then allows one to calculate the resulting rate of spin and thereby understand how the solar system was created.

So, if the reader is a physicist, here is the way forward and full guidance on this is to be found on my parallel website www.aspden.org or in a new book of mine entitled Creation - The Physical Truth, that will be published in the near future. However, if the reader is not a physicist but has the technological aptitudes of the university-trained electrical engineer then it is Message No. 2 below that warrants attention.

Message No. 2: If it were possible to generate electrical energy by tapping an omnipresent medium it is surely to be expected that the occasional natural phenomenon might already have hinted at this possibility. Consider,

therefore, the thunderball, a glowing spherical object sometimes seen, especially following a lightning storm. It appears aethereal in the sense that it can move unimpeded through matter, yet remains an enigma, an unsolved mystery of record in the annals of science. Lightning strokes are high current discharges which, as electrical engineers well know, can develop a 'pinch effect' squeezing the electron-carried current into a filamentary flow within a cylindrical channel of positively charged air. That implies a radial electric field, a pulsating radial electrical field if the discharge surges, a sure recipe for something to happen that could form a miniature Sun, the thunderball. So when we look at a thunderball we are looking at a natural phenomenon that has drawn energy from that quantum underworld of space, energy which is then dissipated, but energy shed by a process we can surely harness, once we understand the physics involved.

Scientists lacking the necessary imagination do not seek to understand how the thunderball is created and so they seldom write about it. So here we have something to think about. It is Nature's message telling us: "Produce a radial electric field, one that pulsates, and you can develop a spin that taps energy from the quantum underworld of space." As engineers, however, we need to be practical and, if possible, we should avoid trying to replicate a phenomenon that involves powerful electric discharges, if there are better ways in which to proceed.

So now I come to my primary theme in this Message No. 2. It is a brief survey of a few of the claims of record that have declared a mysterious energy gain and have features which I see as relevant to what has been said above. In particular I draw attention to the research findings of four different pioneers in what has come to be termed 'The Search for Free Energy', this being the title of a really excellent book by Keith Tutt, published by Simon & Schuster in 2001. Three of these are described in considerable detail in that work. I now ask you to keep in mind my reference to a radial electric field as I mention each of them below and do realise that electrical structures of cylindrical form are a key feature.

Nikola Tesla is famous for his research concerning electromagnetic induction and high voltage solenoidal transformer apparatus (Tesla coils) and he is said to have demonstrated an automobile which derived its power by tapping energy from space. He did not disclose its design details and died leaving us with a mystery. Tesla coils comprise large solenoidal windings concentrically mounted and operate with high voltage pulsations between their cylindrical forms which must produce a pulsating radial electric field between those windings. So, although electromagnetic induction effects are the primary focus of attention, there is here scope for the electrical action described in Message No. 1 above. Tesla may well have stumbled experimentally upon a way of tapping energy from space, but without understanding the true underlying physical process.

Dr. Henry Moray, a pioneer of the 1920-1930 era, demonstrated something which merely needed a kind of antenna, a wire connected from tree tops to earth via electrical apparatus in the boot (trunk) of his automobile. It is said that the latter included several capacitors and that a kilowatt level of power was generated. In this case the automobile merely carried the test apparatus for demonstration at a location remote from a built-up area and any electrical power line interference. No doubt Moray was seeking to follow in Tesla's footsteps by drawing energy from the Earth's electric field, known to be measured in hundreds of volts per metre. It is likely that those capacitors were of Leyden jar type configuration, that is cylindrical in structural form, and that the wire linked to tree tops tapped charge at a kilovolt voltage level. However, the output power claimed could surely not have come from that source. Therefore one must assume that Moray used that treetop voltage input merely to prime the voltage across his capacitor electrodes, whilst incorporating some special feature in the operation of his electrical circuit that gave access to the energy of the quantum underworld. Capacitors having concentric electrodes of cylindrical form will, when charged electrically, have a radial electric field in the space between the electrodes. Several capacitors coupled together could give rise to oscillations of charge as between the capacitors and so lead to a pulsating radial electric field. Yet though demonstrating as possible something that should not be possible, a mysterious inflow of energy able to illuminate several light bulbs, Moray could surely not have understood the true physical process that was feeding energy into his apparatus. Again I see this as relevant to what is stated in Message No. 1.

Stan Meyer demonstrated apparatus that included sets of concentric tubular electrodes enclosed in a cylindrical container filled with water, the electrodes being fed by high voltage (5 KV) pulses. Combustible gas was generated, a mixture of hydrogen and oxygen, the burning of which generated far more heat than could be accounted for by the electrical energy input. Energy was being tapped as if from nowhere unless the source was the ambient medium of space itself. Here there was a pulsating radial electric field and electric charge oscillating between different components in Meyer's apparatus. Meyer did not offer any useful explanation as to the physical process underlying what he could demonstrate but persisted in conveying the message that the invention was wonderful and talking about a multiplicity of applications such as powering automobiles, ships etc. This is the project not mentioned in Keith Tutt's book. As for the Tesla and Moray projects Meyer's research was a U.S. based activity. It did, however, attract the interest of a British Admiral, Admiral Tony Griffin who was concerned with the impact of new technology upon the marine industries. Griffin witnessed Meyer's demonstrations and was interested in its development. Indeed an article on the subject mentioning Admiral Griffin and entitled 'Free Energy for Ever' was published in the January 1991 issue of the U.K. magazine *Wireless World*. The importance of the article was

evident from the fact that the Editor of that magazine was the author.

Paul Baumann, a member of a Christian community in a isolated valley high in the Swiss Alps has constructed working free energy devices which have been demonstrated to visitors. The first working prototype was relatively small and included a pair of glass Leyden jars, concentric capacitors. Keith Tutt in his book devotes 30 pages to this subject. The high voltage needed to prime the capacitor operation was generated by a Wimshurst machine driven by the electric power generated. The community has, however, kept design details secret. In spite of such information as is available the underlying physical process governing its operation remains a mystery. Yet I can but feel confident that what I say in my Message No. 1 provides the answer.

Message No. 3: My Message No. 1 has drawn attention to the physical process by which the vast amount of energy needed to create the Sun was extracted from the quantum underworld that permeates all space. My Message No. 2 has drawn attention to the reported efforts of just some of the several energy research pioneers who actually demonstrated apparatus that, contrary to accepted scientific principles, drew energy from a mystery source. My Message No. 3, based on recognising the common physical feature can but be the suggestion that technology for generating our power needs from the hidden underworld of space has to be possible. Accordingly, I will now outline what I see as the basis on which to build the ultimate power generating device that harnesses the physical principles presented in Message No. 1.

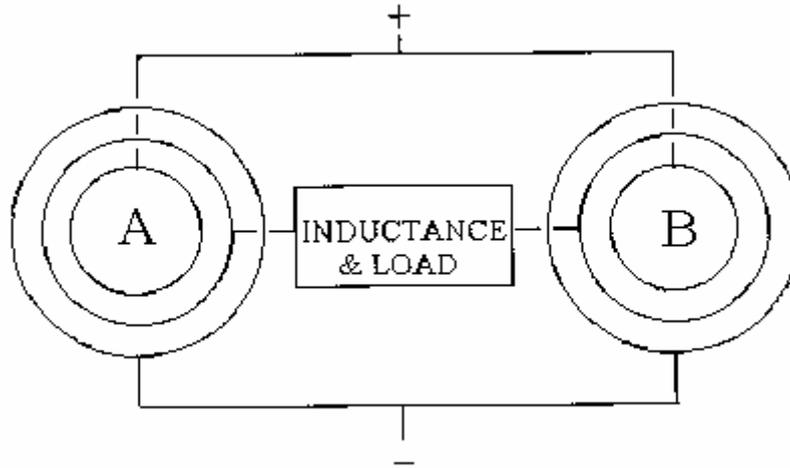
Being 78 years of age and no longer having access to university research laboratory facilities, I can but leave it to others to take note and, hopefully, prove me right. If proved right then the world will benefit and the impending energy crisis will be avoided. Hopefully also, the scientific community might then be willing to accept my claim as to how the quantum underworld deploys its energy into proton creation and is active in producing the phenomenon of gravitation. I know of no other theory that has been able to derive theoretically the value 1836.152 of the proton/electron mass ratio. I would like to see that recognised as my contribution to man's knowledge.

Consider a capacitor formed by a pair of concentric cylindrical electrodes, something many of us remember from the school physics laboratory, the Leyden jar. However, the capacitor structure I have in mind is very much larger and has to be operated at a quite high voltage. When that voltage is applied between the electrodes electric charge is displaced in the underlying vacuum medium located between those electrodes. A commensurate amount of electric charge is thereby held in place on those electrodes, a negative polarity charge on one and a positive polarity charge on the other. Given my claim that this is accompanied by 'vacuum spin', aether rotation, which has imported an equal amount of energy owing to a quantum phase-lock as between the charge of the vacuum medium, we have the energy gain we seek to exploit.

The problem, however, is that, with this simple capacitor configuration, the only control parameter available is the reduction of the voltage between the electrodes. This will shed energy within the circuit of the apparatus used, the outflow of electric charge at the voltage difference merely delivering energy equal to that originally supplied by our voltage source. The added energy imported from space is merely dispersed by the 'vacuum spin' slowing down but expanding beyond the bounds of the capacitor electrodes as it conserves its angular momentum. The energy imported from the quantum underworld of space has no way of enhancing the energy output of the capacitor circuit and so is left to dissipate itself and eventually be reabsorbed by that quantum underworld that pervades all space.

However, now consider a concentric electrode capacitor having a third cylindrical electrode intermediate the inner and outer electrodes. Here we have a control parameter other than the voltage between the outermost and innermost electrodes, because we can wonder about the voltage of the central electrode whilst retaining the other voltage difference at a constant high level. In fact, by keeping the latter voltage difference constant but varying the voltage of the intermediate electrode we can decrease the capacitor energy of one half of the overall capacitor as that of the other half decreases. The imported energy shed by one half of the overall capacitor can then contribute to the action that energises the other half and thereby induce oscillations from which energy can be extracted and deployed as a power source.

One needs two such capacitors having their central electrodes coupled through a load circuit in order to capture the 'free energy' inflow and get it to do useful work rather than being dissipated. An inductance in the coupling circuit can determine the oscillation frequency and, since the energy inflow increases with frequency, this should no doubt be well into the kilocycle region. The figure below is a simple schematic diagram of the electrical apparatus that I have in mind.



So my Message No. 3 is what I may describe as a 'thought experiment', one that I cannot verify myself, owing to my age and lack of facilities. I therefore can but record my thoughts and hope that others will prove me right and not wrong.

The capacitors depicted in the figure should have their electrodes spaced so that the capacitance C as between their central and outermost electrodes is the same as the capacitance C between their central and innermost electrodes. Suppose that the outermost electrodes are maintained at a voltage of 20,000V relative to the innermost electrodes. This means that the two central electrodes will be at an intermediate voltage which we expect to be 10,000V in the absence of oscillations. However, as with any ever-active electrical system, there will be minor voltage fluctuations affecting the central electrodes. So we may ask what happens if the voltage of the central electrode of capacitor A decreases owing to electric charge being shed by the inner capacitance C but gained by the outer capacitance C . Think about that for a moment. You will see that it implies reciprocal action in the opposite sense by capacitor B, as current flows from A to B via the central inductor coupling. Yet no net current flows from the 20,000V power source.

Now, of course, common sense backed by our scientific training assures us that this system can but keep its equilibrium without those minor voltage fluctuations building up in some way. Yet, if we heed Message No. 1 and keep in mind Message No. 2, there is a question we must ask. If current does flow through that central link between A and B, one half of A and one half of B both shed energy and so release the imported 'vacuum spin' energy, if such is present. This occurs as other halves of A and B have to gain energy and as angular momentum of the imported 'spin energy' spreads into the other sections of the capacitors. The question then is: "Does that imported energy escape, as it does for the two-electrode capacitor configuration, or might it be retained and so augment the action?"

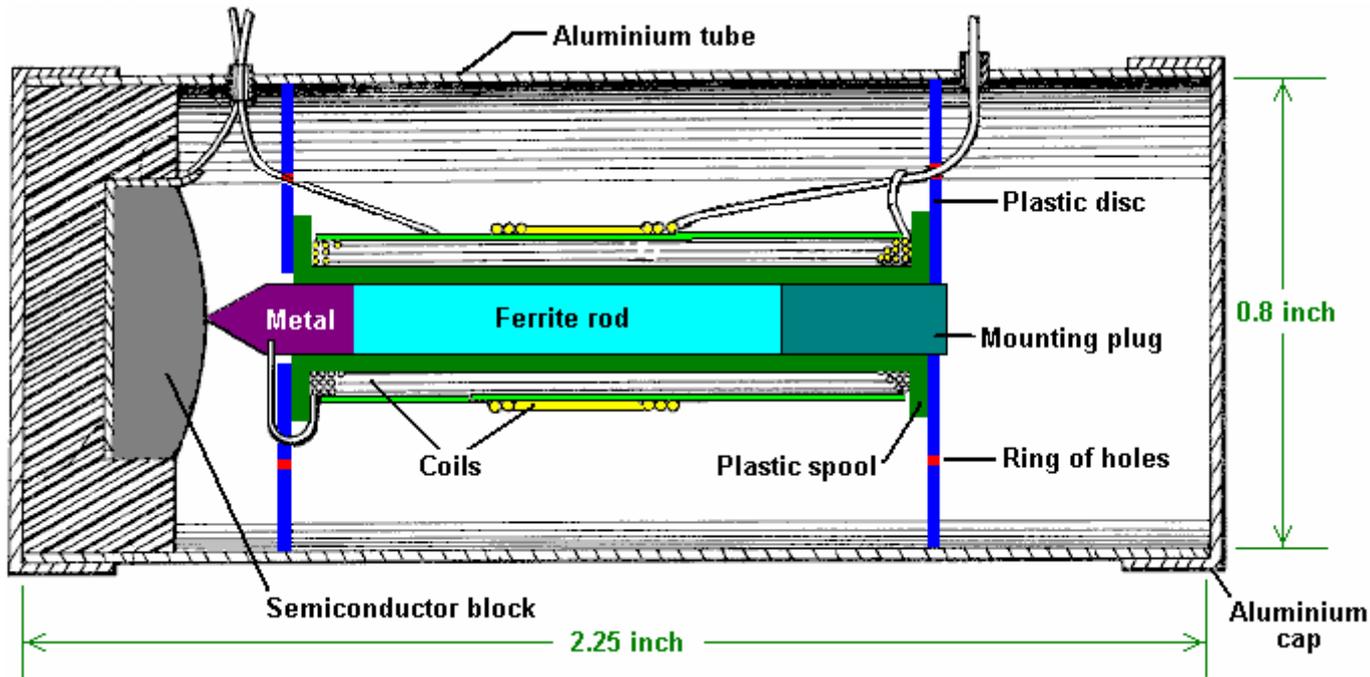
I submit the answer can only be provided by actual experiment. If the energy does escape then there is nothing further to discuss. However, if some of that energy is captured then we can expect an escalation of oscillations in that inductive link and so can then say that a new source of energy has been discovered. Those oscillations will be a function of the capacitance C and the inductance of the load circuit. Given a high frequency and a high voltage a significant level of power per unit volume of capacitor structure will be produced. If power output at a level commensurate with the claims of Tesla, Moray, Meyer and Baumann results the world's energy future is then assured. A pollution-free energy resource powered by the quantum underworld of space will be at hand wherever we are on body Earth.

Michael Ognyanov's Self-powered Power Pack. A patent application US 3,766,094 (shown in detail in an accompanying document) gives the details of an interesting device. While it is only an application and not a full patent, the information implies strongly that Michael built and tested many of these devices.

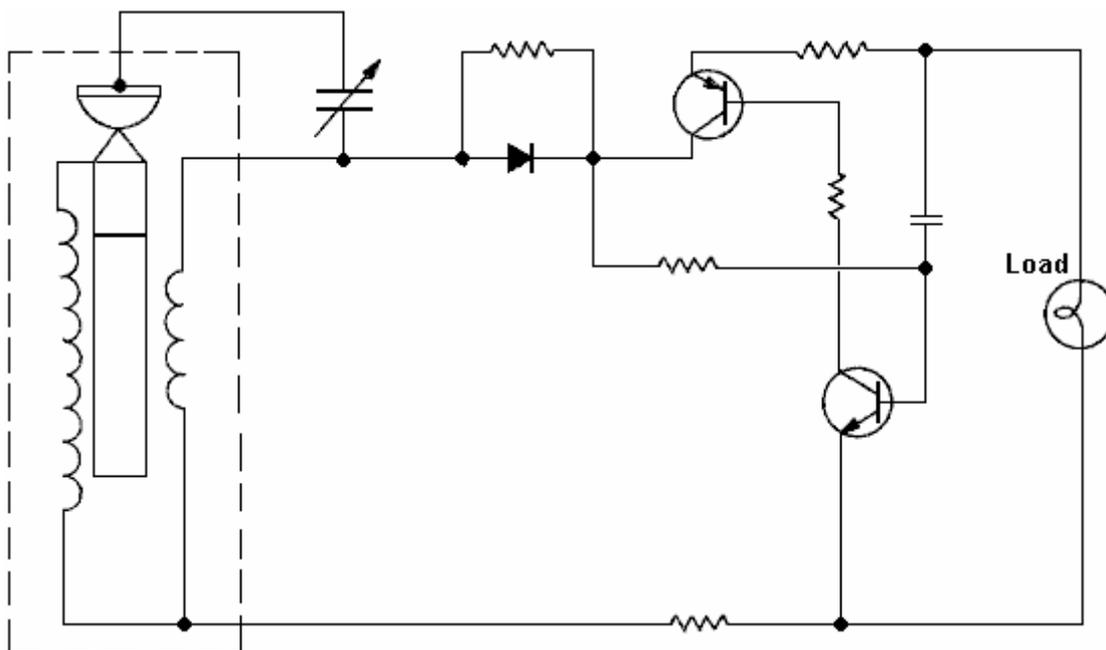
While the power output is low, the design is of considerable interest. It is possible that the device works from picking up the output from many radio stations, although it does not have anything which is intended to be an aerial. It would be interesting to test the device, first, with a telescopic aerial added to it, and second, placed in an earthed metal box.

The device is constructed by casting a small block of a mixture of semiconductor materials such as Selenium with, from 4.85% to 5.5% Tellurium, from 3.95% to 4.2% Germanium, from 2.85% to 3.2% Neodymium, and from 2.0%

to 2.5% Gallium. The resulting block is shaped with a dome on one face which is contacted by a short, pointed metal probe. When this arrangement is fed briefly with an oscillating signal, typically in the frequency range of 5.8 to 18 Mhz, it becomes self-powered and can supply electric current to external equipment. The construction is as shown here:



The circuit used with this component is shown as:



Presumably the output power would be increased by using full-wave rectification of the oscillations rather than the half-wave rectification shown. Michael says that increasing the dimensions of the unit increases the output power. The small unit shown in this example of his, has been shown to be able to provide flashing power for an incandescent lamp of up to 250 mA current requirement. While this is not a large power output, it is interesting that the output is obtained without any apparent input. Michael speculates that the very short connecting wires may act as radio reception aeriels. If that is the case, then the output is impressive for such tiny aeriels.

Other documents in this series can be downloaded free from <http://panacea-bocaf.org/files/patrickkelly/Start.html> which has additional information.