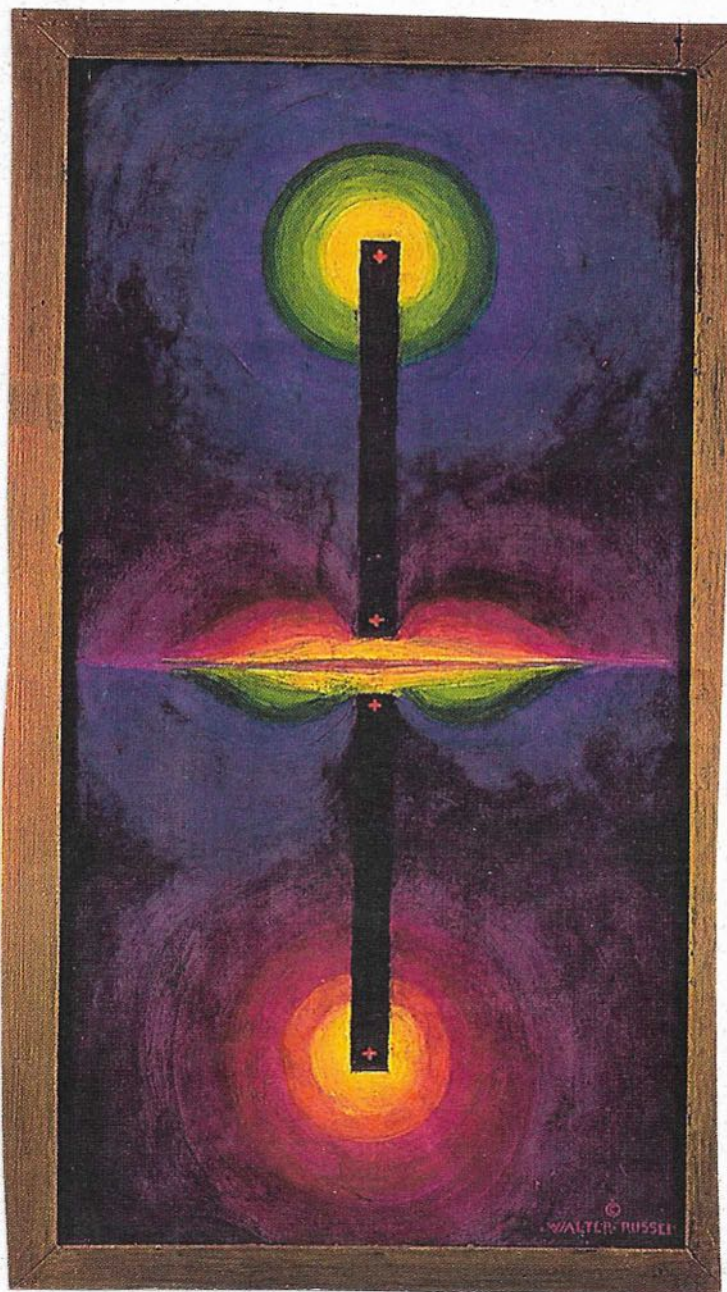


FULCRUM

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The University Of Science And Philosophy*



FULCRUM

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December 1998

The cover painting & description following both copied from "In the Wave Lies the Secret of Creation."

The third chart in this series shows the two gravity bars at a further stage of voiding separateness in a simulation of stillness at an eventual point of contact. As they approach this voidance, the color spectrum polarized male-female fields change shape from the preceding more nearly spherical fields to toroid or doughnut-shaped fields. It is between such approaching opposites that matter is formed.

The center field represents the center of any system where maximum gravity, pressure, heat and visible light exist. Once the contact point becomes a point of zero polarity, all polarization is voided as if it had never been.

As in the previous chart, both poles are represented with a plus (+) sign because both the male and the female poles are positively charged. Anything that is capable of uniting with another thing - such as an element with another element - does so because it has sex polarity.

An inert gas from this point of view does not have sufficient polarity to exhibit sex and therefore cannot unite with any other polarized element or any other polarized element or any other inert gas. The inert gases are like young children without developed sexual characteristics and correspond to the close-to-center-point "bloch wall" of the magnet (also called gravity bar zero polarity point or a cathode base pole).

All elements, indeed all things, unite or exchange because of the basic law of sex interchange or polarity.

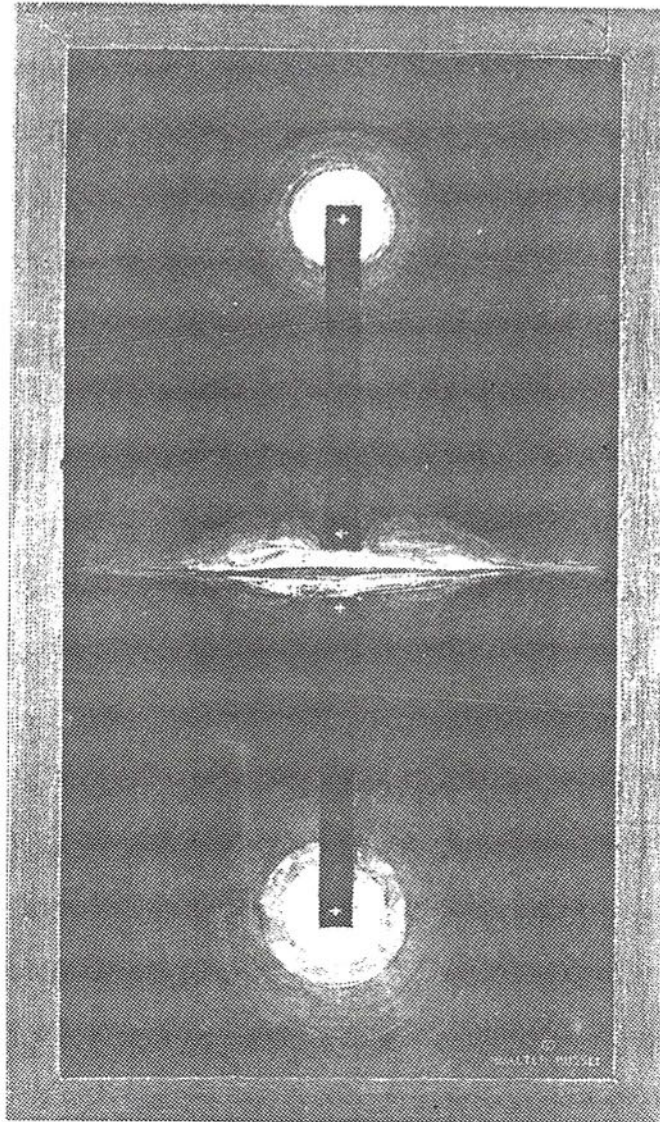


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Notice of cessation of publication of *Fulcrum*

This will be the last issue of *Fulcrum*. Budget constraints and a dearth of subscribers have resulted in this being the last issue. I have enjoyed working on *Fulcrum* the six years of its existence and feel its demise somewhat like the death of a good friend. I grieve it and move on to the rest of life. Not being bound to putting this together will give me another couple of months to devote to focusing on the science research I am involved in. There are a number of projects that I will finish this next year that I will publish a report about that may be available to students that are interested. Contact the University by December of next year for the details about this. If anyone wishes to contact me directly they can reach me at 406- 363-4041 or at 173 Blodgett Camp Road Hamilton, MT 59840.

Dialogue: Responses to Previous Questions

Questions:

Question #1. Walter Russell had Luminon in his periodic chart right after hydrogen or in the mass two position. He put deuterium and tritium in the positions right preceding hydrogen. Establishment science and mass spectroscopy or "experiential evidence" both recognize masses two and three as elements that follow hydrogen as they all have their respective masses which we recognize. In addition tritium is recognized as a radioactive element. Experiential evidence shows it to be a beta emitter even though it only has a mass of three. There are other radioactive elements of relatively low mass compared to the ninth octave of radioactive elements such as radioactive potassium. The Russells spoke of the radioactive elements as being the result of compressing so much mass into form that it could no longer be contained, like pumping a tire so full to the point that it would start to explode and pop holes in it to let the excessive pressure escape. In this sense the radioactive elements are mass that can no longer be "frozen" into form. 1) How might we explain the apparent contradictions of Russells placements of luminon, deuterium and tritium with mass spectroscopy and 2) the appearance of a radioactive element in his third octave of elements rather than only in the ninth

octave where he placed the radioactive elements?

Question #2. Each octave becomes more dense up to carbon and from carbon to the last octave it again loses density but the mass increases continually. Walter said that carbon was the densest element but plutonium or uranium was the heaviest or has the most mass. So the question for me in this case is what is the difference between density and mass? Or, how can carbon be more "dense" than plutonium or lead or other higher octave elements when they have more "mass"? What is the essence of this difference?

FROM TIMOTHY A BINDER

Question 1

Part One

It appears to me that Russell simply made a mistake in placing deuterium and tritium before hydrogen in his revised chart of the elements. I must conclude this when considering that deuterium and tritium do have a mass of two and three and hydrogen a mass of one. Heavy water is called heavy because it has deuterium with a mass of two instead of hydrogen with a mass of one. On page 225 of *Atomic Suicide?* the Russells say that "This embarrassing situation actually arose when it was discovered that hydrogen was not the first element". Here they were speaking among other things about science's claim that hydrogen is the first element. Yet, hydrogen does indeed appear to be the first known element and deuterium and tritium the second and third. While the Russells did not say luminon was a prehydrogen element, If luminon exists as a prehydrogen element with a mass of less than one no one has yet found evidence of its existence that I am aware of nor of any of the prehydrogen elements he predicted. If the properties that Russell predicted for luminon might be demonstrated in deuterium then at least some of his predictions for luminon and its placement as mass two in his revised chart will be vindicated. We are engaged in research with deuterium to investigate this possibility. He placed luminon after hydrogen in both his revised charts and in his ten octave charts as given in *The Universal One*. He also placed ethlogen and belegen, the names he gave for what has become known as deuterium and tritium, after hydrogen in his ten octave chart. It was only in the revised chart that they came before hydrogen. See page 13 of *The Universal One* for a version of this ten octave chart. He also predicted other isotopes after hydrogen coming before luminon as well as an inert gas before hydrogen

in his ten octave chart. On page 100 of *The Universal One* he says hydron is a non flammable inert gas lighter than hydrogen or helium that could be a very inexpensive transportation lifting gas and that it and luminon, which he said would be the basis of the cold light of the future, could be produced from transmutation very inexpensively. Of luminon he said that, "luminosity of better color can be produced by regenerative excitation of this radiative gas at about one forty- thousandth of the expenditure of energy necessary to produce the same degree of luminosity by the use of a tungsten filament."

Part two

There are several elements that are "naturally" radioactive in octaves other than the ninth such as tritium, radioactive isotopes of potassium, carbon 14 and many others. I suspect that the answer to how these isotopes are radioactive where other isotopes of the same element are not will be found in the geometry of the isotopes. Perhaps the radioactive isotopes have a structure that is geometrically less stable, for example such as the stability of a triangle over a rectangle. I guess that at the time he did his original ten octave charts he was unaware of science finding radioactive isotopes in the lower octaves and also when he did the revised chart sometime in the 1940's. In principle he gave acknowledgement of the possibility where he considered all the octaves as having preponderantly generative elements in the male, red side of the spectrum and those more radiative elements in the female, blue side of the spectrum. He also considered those elements before carbon as preponderantly generative and those after it as preponderantly radiative. All the octaves have this characteristic. In *Atomic Suicide?* the Russells stated that world wide radioactive pollution would "loosen" the lower octave metals and make them more dangerous which to me means more radiative if not radioactive. On page 262 of *Atomic Suicide?* They say, "It is also this power of penetration and speed of the ninth octave which not only unlocks the pressures of the lower inert gases, octave by octave, but also unlocks the pressures of the 8th, 7th, 6th and 5th octaves of radioactive elements. Most deadly among these are radium, thorium, actinium, strontium, barium, calcium, potassium, arsenic and phosphorus". Here they explicitly recognize "radioactive" isotopes of these lower octave elements, although radium, actinium and thorium are ninth octave elements.

The interesting questions that occur to me in considering this are: 1) when were the radioactive isotopes of lower octave elements such as tritium, carbon 14 etc.

recognized? & 2) can any element be made radioactive? & 3) what occurs in the geometry of the element when it becomes a radioactive isotope? Since there will be no more *Fulcrums*, if any readers have answers to this they can send them to me and / or Larry Tiegs who is now working for the University and will be sharing his knowledge and interpretations of the Cosmogony with interested folks on the internet daily.

Question 2

Standard definitions for mass and density are something as follows: Mass. It is a matter of observation that a force applied to a body produces an acceleration proportional to the force. The constant of proportionality is the *mass* of the body. Density. Measured as mass per unit volume; expressed in grams per c.c. in metric (C.G.S.) units. In these units, numerically equal to the specific gravity (q.v.).

Given these commonly agreed upon definitions I think the following might apply to carbon having a greater density than any other element: As carbon has the only true cube/sphere geometry then this would allow for the tightest packing of carbon atoms over other atoms of non cube/sphere geometry and therefore less ether space in-between the packing. the cube wave fields could fit cube wall to cube wall for tightest packing and point to point or point to cube wall for less tight packing giving perhaps some reason for the differences between diamond and graphite. all other elements would have less tight packing compared to the cube wall to cube wall of carbon. So, perhaps this tight packing gives the greatest mass per unit volume and thus the greatest density for carbon; if we are considering not an individual atom but a group of them. Even with this closest of all packings with less mass it still will take greater force to accelerate say plutonium than carbon as plutonium has more mass in each individual atom though they don't pack as closely as carbon does. While I am not yet completely satisfied with this explanation it is the best I can come up with now.

Also it appears to me that Walter Russell simply was giving his own definition to the word density, but did not alert us to this fact. In saying that he did not alert us to this fact I mean he did not say for instance, 'by saying carbon is the most dense element while it clearly has atomic mass of about 12 and plutonium over 200, I am redefining the meaning of density in saying that carbon is the densest element. I am redefining by saying that carbon is the densest element by virtue of being the only

element that has true cube/sphere geometry and the greatest apparent ability to appear to attract and repel - and perhaps by virtue of its ability to more closely stack and pack than any other element'. He redefined so many things in his own unique vision that he likely thought it unnecessary to alert us to the fact that he was redefining - figuring that it was obvious he was doing it.

Letters to the editor

* REFERENCE: For Fulcrum / 90 Tom Barber 5/31/98

SPACE ENERGY ASSOCIATION-SEA/US

Alternate Energy Systems

* DIS-INFORMATION IN THE NEW ENERGY FIELD

P.O. Box 1136
Clearwater, FL 34617

May 23/98 (813) 442-3923

There are some ominous events happening in the new energy field at this time which must be counteracted before they begin to take hold and accepted by the public.

Some recent releases on the INTERNET, and in some magazine articles show the description of some past new energy projects which have been distorted so that they bear little resemblance to the original project work.

Specifically, the release of the Swiss M-L Converter, or "Testatika" system, is certainly the most distorted- version of this first class N/E system that we have yet seen. While most researchers agree that the "Testatika" is the most complex and labor-intensive N/E system yet devised, it is also the very best and preeminent system on the N/E scene today!

It has earned this position as a true free energy generator by the self-running feature by the use of twin electrostatic discs, which are both motorized and function as high voltage E/S generators.

Very few researchers have yet recognized- the true value in these twin self-running discs, and that they are actually electrostatic simultaneous dynamos. These twin E/S disc arrangements are motorized, via the Poggendorff principle, and generate an E/S field in the usual way, represent a major component in new energy, with other probable major applications.

It has become a very strange planet that we live on today, when some very promising scientific principles lie fallow in our physics books, while many in the science?? establishment, go along chasing the Hot Fusion fiasco.

The Swiss M-L Converter is also unique as being the only hybrid type of N/E system, (dynamic and solid-state) in which "free" high voltage is reduced to useful voltage and amperage levels. Although its non-inductive D.C. output may be seen as a drawback to some, it is quite easy to use an inverter at the output terminals to convert the system to A.C. operation.

A major distortion shown in the InterNet release of 2/2/98, is the information that radioactive radium chloride can be used within multiple capacitors associated with the "Testatika", which is totally absurd!!

In all the information already received over the past fifteen years, from both inside and outside of "Methernitha" the commune group which has evolved the "Testatika", there was never any indication that any type of radioactive material was ever use, or even contemplated, for its operation.

Such a belief and presentation of this major "Testatika" system has absolutely no merit, and is viewed as a blatant attempt to "put down", both this specific project work, and the new-energy field in general. It has now become clear that the "Testatika" functions quite well and continuously using high electrostatic voltage and the conversion of high E.S. down to useful output levels.

Another error in this InterNet release of 2/2/98, is the depiction of the twin E/S discs and their motorization and generating functions, which discloses twin horseshoe magnets and their associated windings in close, -interacting proximity to the twin E/S discs, This information was taken from an early study (1984) in "Magnets" magazine of that approximate date

These were the early days in the study of the Swiss M-L converter, ie "Testatika", which were later to be shown to be incorrect. If "rogue" researchers choose to "lift" items from various sources, it should be "real" and that works!!

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DIS-INFORMATION in the N/E Field, -Continued:

There appears to be a loosely organized attempt to trash and "tar" various new energy projects with the radioactive/nuclear material nonsense?

If this is not the true case, then why should a 1997 magazine article carry such a writeup which trashes with "nuke tar", such projects as:

- 1) T.H. Moray R/E Project
- 2) The Hendershot Device
- 3) Harry Perrigo project.

The only nearly valid case for the use of radioactive material was the Hubbard Generator, by Alfred Hubbard, in of 1926, in which the evidence pointed to the use of radioactive/radium in the excitation of the primary winding of his large coil/transformer configuration.

To class the T.Henry Moray radiant energy system as a radioactive system is not only outrageous, it is blatantly stupid, since the last time that we checked it, the element "germanium" is not classed in any other way than a solid-state transistor type of material, which was used in the Moray system.

In the case of the Lester Hendershot device, one of the brighter "stars" in the N/E firmament, due to its basic simplicity and clear o/u/o operation, the "trashing" of this excellent N/E device follows the pattern of the above Moray- evaluation.

To believe that the Hendershot generator was activated by some sort of radioactive material, is to "go through the looking glass, with Alice in Wonderland," since this is a clear example on incompetent scientific research in action.

If this geek had taken the time to do a thorough research effort on the Hendershot device and concept, he would have found that Hendershot's "basketweave coils", are most unique, and were designed to resonate at the ELF frequency to produce an o/u/o function??

During the initial phase in the study of these "basketweave" coils, a blowup was made of the crossover pattern provided in this concept. In a close study of the crossover pattern of the coils, it was found that they produced an 84% inductive flow, and a 16% non-inductive current flow. This was first believed to be the true significance of these special coils.

Upon later reflection, it was seen that the induction and non-inductive characteristics of the coils, is not the real purpose in them, but rather is in the distinctive uniform pulsed D.C. pattern that they produce.

It is now believed that the uniform D.C. pattern closely coincides with the E.L.F. (Schumann frequency) at around 7.6.Hertz., and that this frequency pattern produces the closed loop o/u/o within the Hendershot device. It is further believed that the small electromagnetic "clapper" will reinforce the E.L.F. frequency beat within the Hendershot circuitry, and thus produce a full resonance within the circuitry.

-2-

Sincerely,
Dan Kelly for S.E.A.

Editor's comments - This is an example of what has been happening in the new energy field for years whether through ignorance or skullduggery. I don't think the old tricks will work on most folks anymore. Once burned, three times as cautious; and once fooled three times as discerning.

Featured Articles

PROLOGUE

The Russell Cosmogony, published in several different written editions, is a result of Walter Russell's spiritual awakening which culminated in 1921 with his 39 day cosmic illumination experience. The cosmic illumination experience is well documented in human history. Christ, Thoreau, Buddha, Krishna, & Whitman, among others, each had their own experience in the Light of All-Knowing, an event which radically changed their understanding of life and their purpose for being on earth.¹ As Russell describes it, he was severed from his earthly senses, giving him the 360° vision of *knowing* the intimacies and intricacies of God's creative process. Our Universe is an extension of the One substance of God—a two-way, ever birthing/ever dying Creation.

In the 1920's, he engendered a lively discussion in the New York Times with leading physicists of his day about his understanding of how our Universe is created; the scientists finally concluding that someone must prove his concepts in the laboratory. Walter Russell knew he was the only person with sufficient understanding of Universal dynamics to successfully undertake that task. He got his opportunity from the Westinghouse Corporation in 1927. At the Westinghouse Lamp Co. in Bloomfield, NJ (a light bulb production facility), he designed and had built a transmutation device which transmuted water into varying amounts of hydrogen, nitrogen, helium and oxygen at ordinary temperatures and pressures. His success was not believed, ignored, beyond the capabilities of a light bulb production facility to further research, and eventually lost in the bureaucracy of a large corporation.

In 1941 Walter Russell received an honorary Doctorate of Science from the American Academy of Sciences for his scientific contributions (among which are Russell's prediction of deuterium, tritium and the transuranium elements). Despite this honor, Russell's 35 years of communicating his knowledge of God's creation processes to scientists and lay persons had little impact on mainstream physics and chemistry.

In 1992 through 1994 a team of researchers catalyzed by Dr. Timothy Binder, president of the University of Science and Philosophy (formerly the Walter Russell Foundation), transmuted small amounts of fluorine from water using the concepts of the Russell Cosmogony. Ron Kovac, a member of the original team, later transmuted nitrogen

into helium and a solid element of atomic mass five (5) utilizing vortex shaped electronic plasmas of his own design. Texas A & M University has confirmed the existence of the atomic mass 5 element in Mr. Kovac's test tubes. An atomic mass 5 element has been predicted but never before seen in any laboratory. Mr. Kovac's remarkable breakthrough thus provides irrefutable evidence for the validity of Dr. Russell's concepts of Creation and establishes the efficacy of transmutation at what is considered ordinary laboratory conditions.

The primer which follows details the specific concepts of the Russell Cosmogony relevant to transmutation. I have also included descriptions of Russell's, Binder's and Kovac's transmutation experiments and my assessment of laboratory research considerations. At this writing there is scant parametric inventory from which to develop basic research design criteria. We have only the concepts of the Russell Cosmogony to guide us. The science of transmutation is indeed fledgling; the possibilities for research and application stagger the imagination.

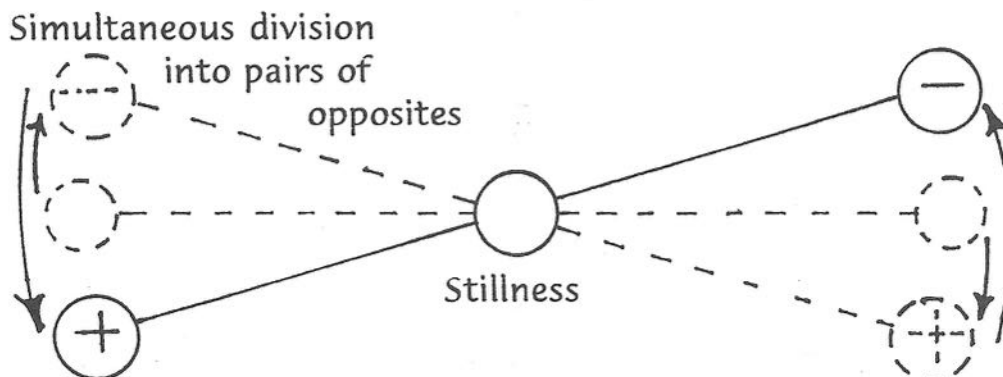
A PRIMER ON TRANSMUTATION

by Chester A. Hatstat, Jr.

This primer is a brief review of the transmutation principles set forth by Walter Russell. The Russell Cosmogony is a unified practicum of the laws of cosmic creation. The laws of science are now effused with a Creator. Spirituality, philosophy, science and religion can be understood in light of Cause and the primary relationship between God and God's Creation. In this primer I have only scratched the surface of the cosmic truths revealed within the Russell Cosmogony. I invite the reader to explore in depth this wonderful and inspiring message of God given to us by Walter Russell—a message of Oneness and Love, a message vital to our successful evolution into God-conscious beings.

The Russell Cosmogony explains the causal relationships of how God's balanced thinking sets the One substance of God's body into motion—the physics of the One Idea for Creation expressing into form. From the One comes the two simultaneous generating and degenerating, opposing and interchanging polarities (wave-forces). The interweaving and interchanging of the two positive and negative wave-forces, centered and controlled by the transcendental Stillness (God) give rise to the myriad forms seen in our Universe. This triune sets the One substance of God's body into conditioned motion resulting in the appearance and disappearance of matter.

Russell once termed the two wave-forces the positive electric force or polarity of generation and the negative electric force or polarity of degeneration. Both wave-forces seek to negate themselves through their interchanging and interweaving to return again to the Stillness from whence they originated. Russell often used the analogy of a see-saw with its centering fulcrum to describe this triune relationship.



Sequential division
reverses polarity

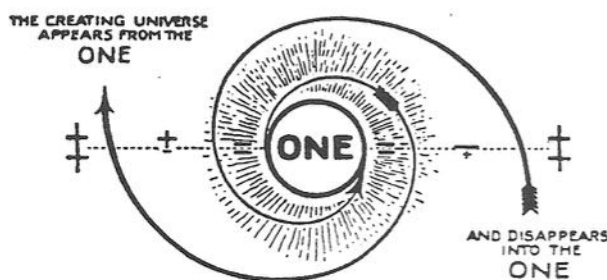
HSC, p. 696 (1951)

This polarity process is the primal cause of the formation and disintegration of all systems of matter, be they atomic, planetary, solar, galactic or cosmic. Matter, at any scale, is a geometric, pressure, and electric potential conditioning of the motion of God's body caused by God's thinking and powered by God's desire to express Love. Each atomic element represents a unique resonant conditioning of motion which makes it appear different from other elements.

What is God's body? The ether? What is set in motion? How does one label or describe the indescribable? Thankfully we don't need to know what is in motion to effect transmutation. Knowledge of the cause of matter/motion gives us the principles to reconfigure its conditioning.

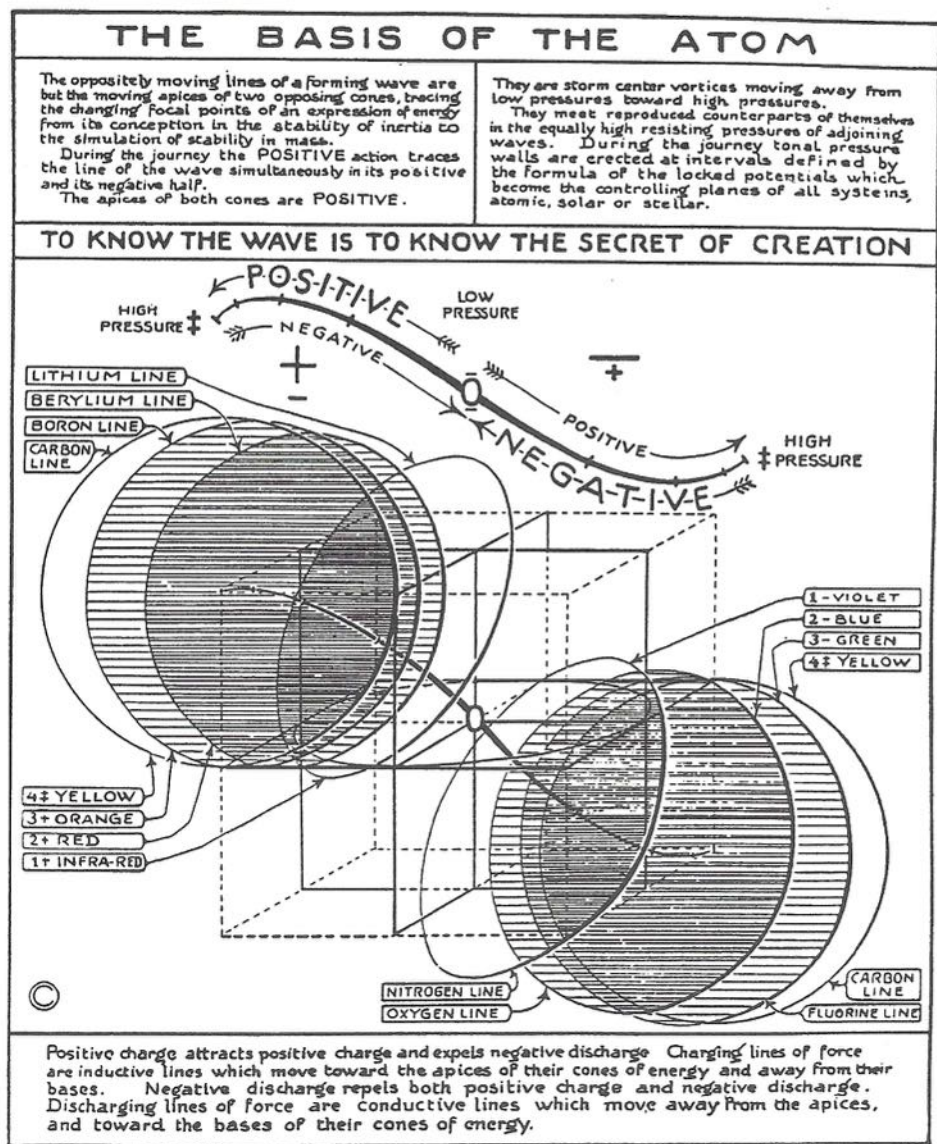
Russell stated that this Universe is created for the transmission and manifestation of thought. God's thinking causes an apparent polarity within God's body. God thinks from low frequency, long wavelength thoughts to high frequency, short wavelength thoughts. God's thinking is rhythmic and repetitive. God's thinking is a cyclic, continuous flow to and from a crest of generative (formative or positive) thought to a trough of degenerative (dispersive or negative) thought. This is the primal polarity—integration vs. disintegration.

Knowing—Omniscience, the One Reality, the One Idea—is Cause; thinking is effect, polarity, and duality and simulates Reality. Cyclic thinking creates a cyclic Universe, ever birthing, ever dying. God's desire to express God's One Idea of creation is the only power within our Universe. Creation is manifested by endless thought wave-cycles of expansion/compression, ying/yang, involution/evolution, generation/degeneration, etc. Our Universe and all its parts are in eternal, continuous and repetitive thought wave-cycles of birthing and dying. Therefore all of Creation is wave-like, and frequency and resonance are key ingredients to manipulating the geometry and energy states of motion/matter.



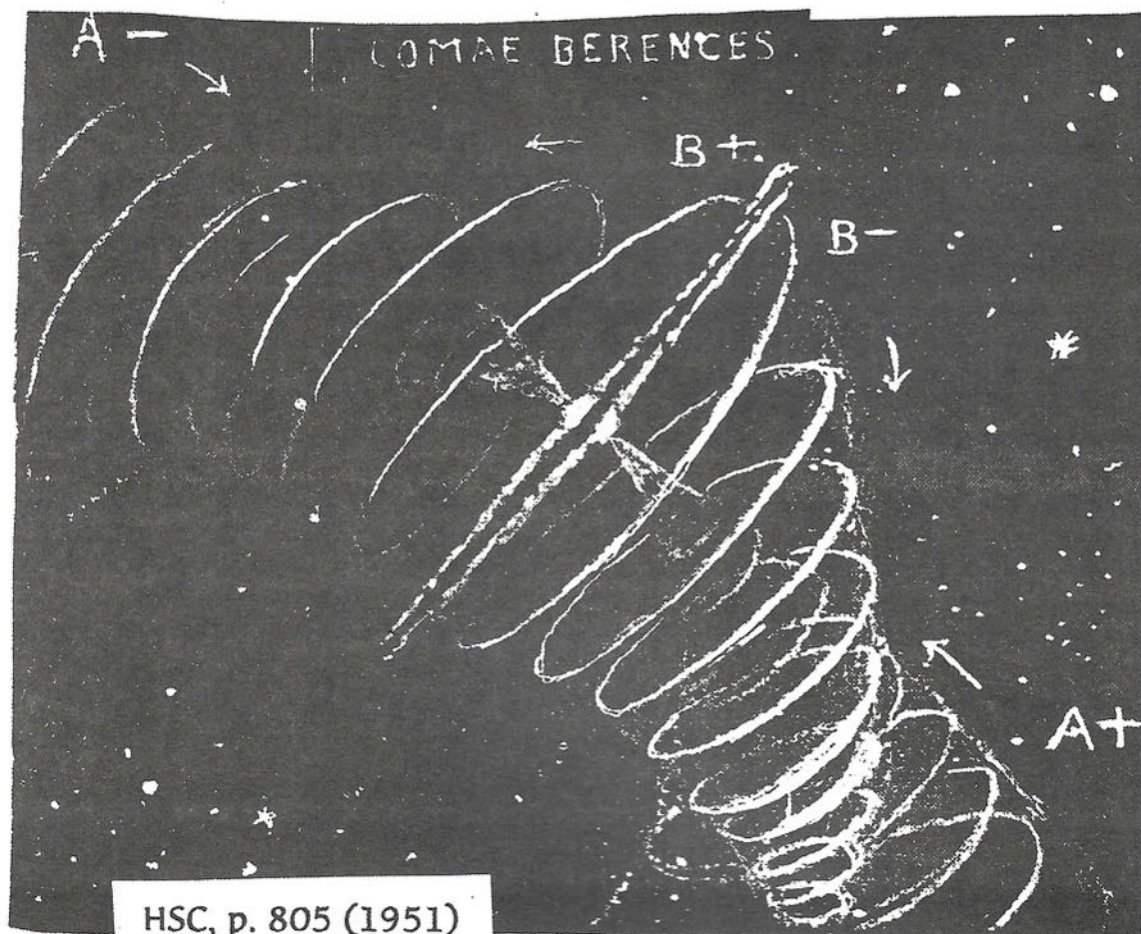
Secret of Light, p.91.

Systems of matter are controlled and conditioned by transcendental cubic arrays of planes of Stillness, centering points of Stillness, and wave-axis shafts of Stillness. The planar boundaries of the cubes act to reflect and refract the transmission of thought waves. Compressive thought waves emanating from cubic boundary planes of Stillness interact with expansive thought waves simultaneously emanating from system centers (points of Stillness). Interference patterns from these two spherical wave fronts create convex and concave lenses which act to converge and expand, respectively, motion. Further investigation of the Russell literature will reveal the optical nature of motion and potential. Such knowledge may be important for maximizing transmutation efficiencies but not, I think, for initial research.



THE PRESSURE WALLS OF ANY WAVE SHOWN IN THEIR LOCKED POTENTIAL POSITIONS. THESE PRESSURE WALLS ARE THE BASES OF THE ELEMENTS AND THE CONTROLLING PLANES OF ALL SYSTEMS.

Motion is induced by the electric potential difference (polarity) between expansive thought waves at system centers vs. compressive thought waves at system peripheries. Resistance to expansion caused by the compressive wave (and vice-versa) in conjunction with the convex and concave lenses cause motion to curve in spiral fashion. All motion follows a vortex shaped, curved path centered by a wave-axis shaft of Stillness, and all motion is to and from cubic centers of Stillness and cubic planes of Stillness. Motion's purpose is to simulate the Balance existing within the One Idea for Creation.

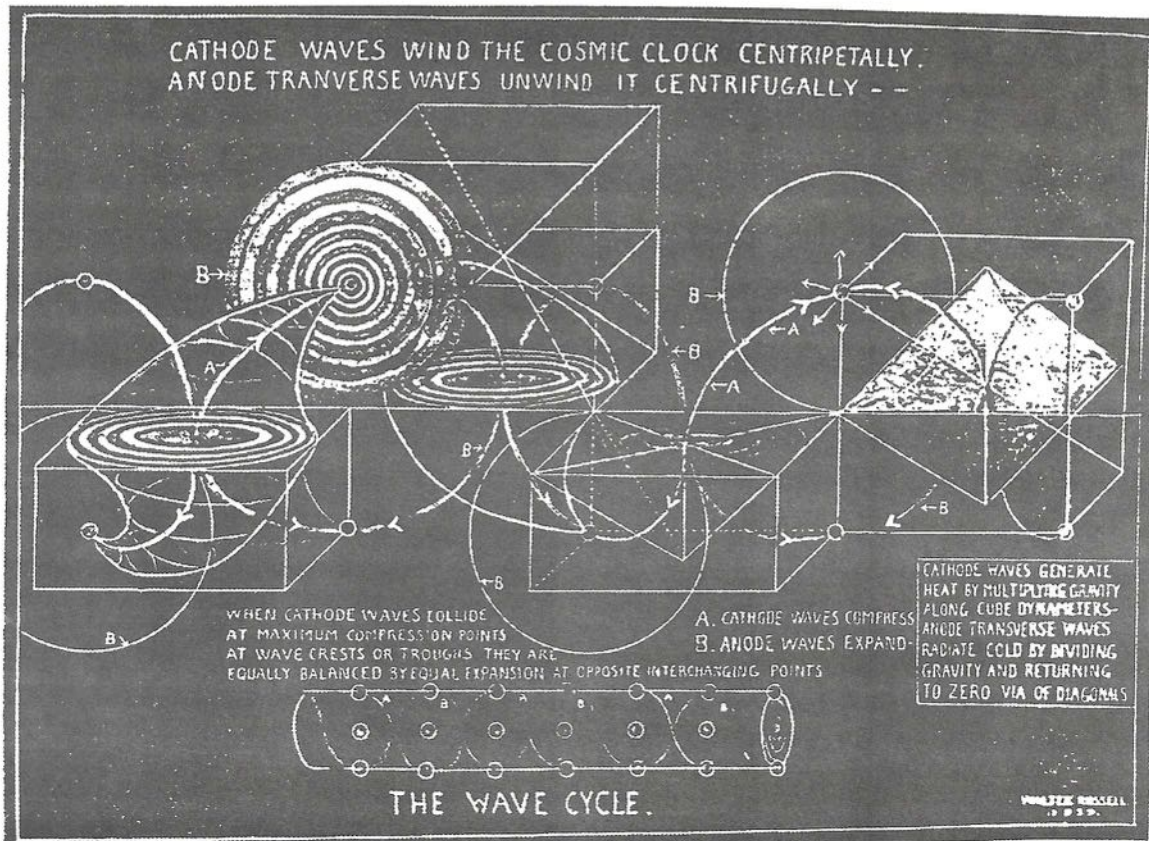


The cube and the sphere embody the geometric equivalent of polar opposite forms within our 3 dimensional universe. Systems of matter fully expanded (disintegrated) meet at cubic wave field boundaries, and systems of matter fully compressed (integrated) meet at spherical centers. Thus matter in all its forms and combinations is seeking to form the perfect sphere or perfect cube and takes on all shapes and configurations in-between these two primal geometric shapes.

I. THERE ARE TWO OPPOSING, INTERWEAVING & INTERCHANGING THOUGHT WAVE-FORCES THAT INITIATE AND CONDITION MOTION:

COMPRESSION/EXPANSION—MALE/FEMALE—
 INWARD/OUTWARD—
 INTEGRATION/DISINTEGRATION—INVOLUTION/EVOLUTION—
 IMPLOSION/EXPLOSION—GENERATION/DEGENERATION

The implosive thought wave-force is maximum at its origin—the system’s cubic wavefield boundary plane of Stillness, while its maximum effect (solidity) is at the system’s centering point of Stillness. The explosive thought wave-force is maximum at its origin—the system’s centering point of Stillness, while its maximum effect (tenuity) is at the system’s cubic wavefield boundary plane of Stillness. The generative wave-force’s convex lenses shape the positive electric potential wavefield of generation, multiplying motion inwardly in tornado fashion along a wave-axis of Stillness at 90° to the originating cubic boundary plane, cathode base. The degenerative wave-force’s concave lenses shape the negative electric potential wavefield of disintegration, simultaneously dividing motion outwardly at 90° to the wave-axis of Stillness from the cubic center.



In the Wave Lies the Secret of Creation, p. 89

The electric potential field created by the interweaving and interchanging of these two opposing wave-forces (centered, controlled and conditioned by the neutral and Still axis, apex center, and basal cubic planes) freezes or contains motion into more or less spherical shapes. During the system's birth to maturity to death cycle, the geometry of the containment's shape or boundary oscillates from a planar disc (inert gas) to a toroid, to a sphere, to a toroid, and back to a planar disc (inert gas). The generative wave-force acts to close toroid centers creating solid spheres. The degenerative wave-force bores holes from within solid spheres to create toroids.

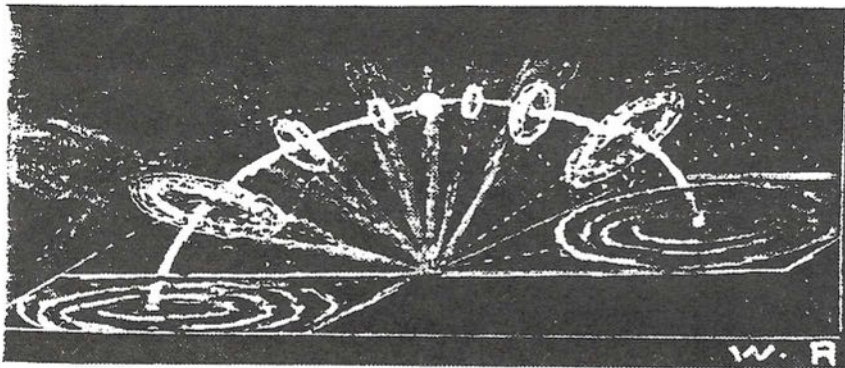
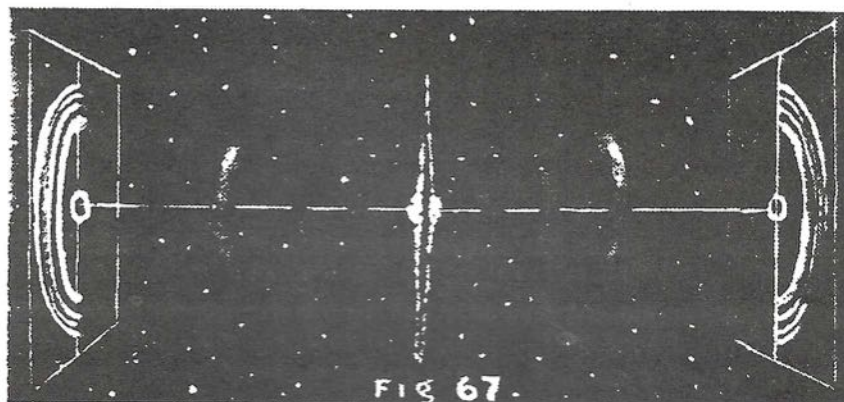


FIG. 35. Illustrating principle of construction of matter by the projection of polar rings from cathodes to collide as anodes.

Atomic Suicide, p. 127

The Bridge Between Man and God

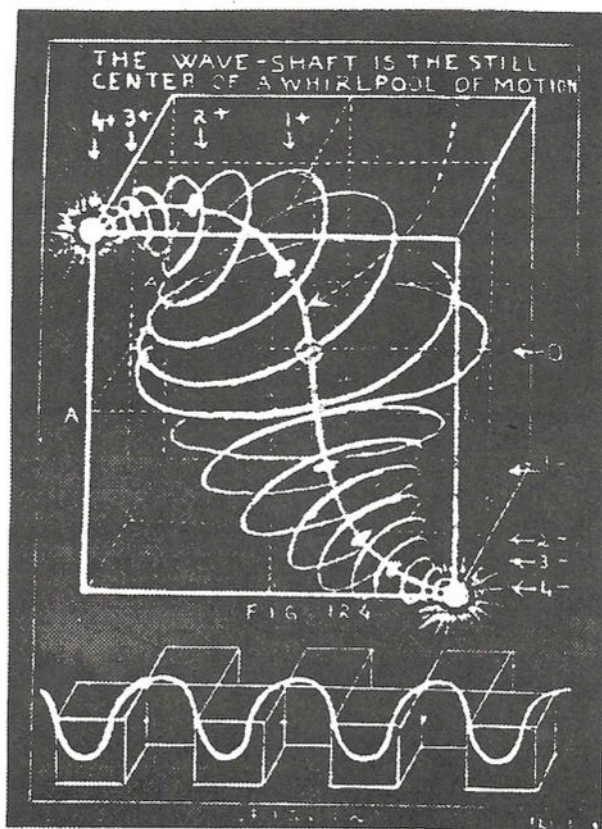
259



Illustrating principle of projection of Mind-desire energy into pairs of tones to create the nine octaves of tones, which constitute Nature. The spiral nebula—seen edgewise—which occupies the amplitude position in the wave current, corresponds with the loop of force which centers every polarized unit of an electric current.

Atomic Suicide, p. 259

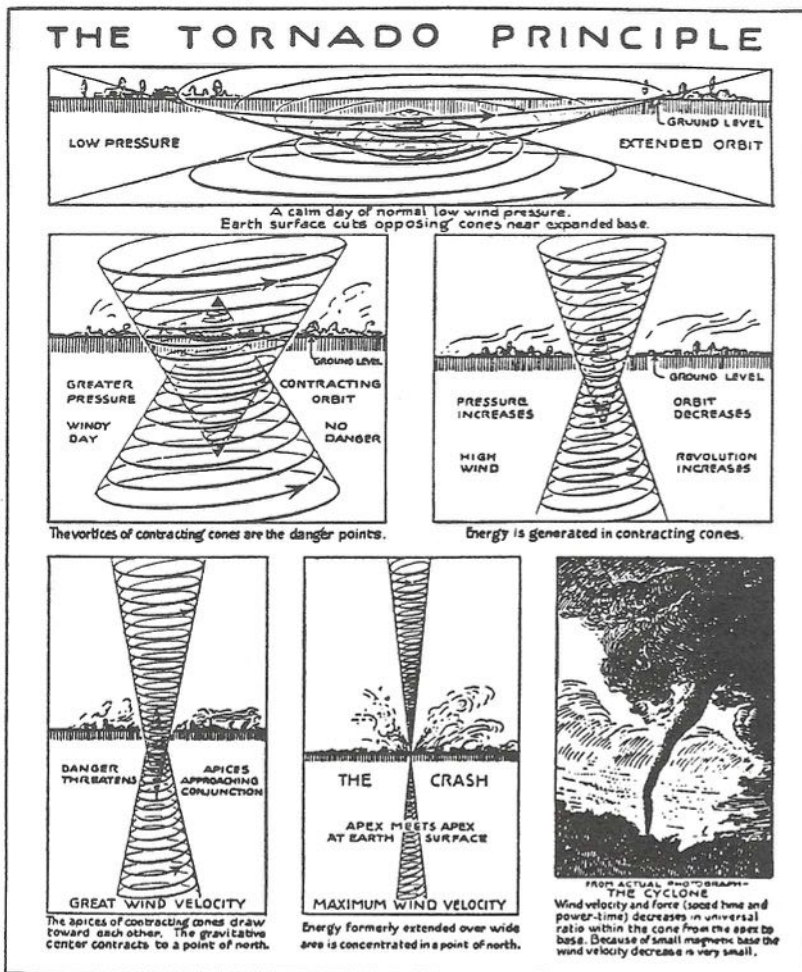
1. **GENERATIVE WAVE-FORCE:** This wave-force acts implisively, causing motion wind-up or multiply centripetally from two cathode planes of Stillness towards an anode apex point of Stillness. Vortices of symmetric, mirror image, inwardly directed positive electric potential are created along which low potential motion is multiplied into high potential motion.



ILLUSTRATING NATURE'S METHOD OF WINDING LIGHT UP INTO SOLID SPHERES TO CREATE THE CONDITION OF GRAVITY AT TROUGHS AND CRESTS OF WAVES. THE EFFECT OF GRAVITATION IS PRODUCED BY THE INWARD THRUST OF CENTRIPETAL FORCE.

A New Concept of the Universe, p. 161

The generative wave-force acts from cathode bases as it invisibly and implisively concentrates low potential motion into high potential motion at anode apices. The inward multiplication of motion occurs maximally along a conic, hyperbolically curved path—a tornado. Imagine setting two, apex to apex, hyperbolic cones spinning in the same direction and simultaneously tracing a mark on the surface of both cones from base to apex. The paths traced on the two cone's surfaces are spiral and mirror images of each other. The imploding motion's centering wave-axis (the tornado's shaft of stillness) manifests as the polar magnetic axis of the system—be it atom, planet, moon, star or galaxy.



THE DANGER POINT OF A WHIRLWIND IS A STRONG GRAVITATIONAL POINT OF NORTH TOWARD WHICH HEAVY OBJECTS RISE AS NAILS RISE TO A "MAGNET."

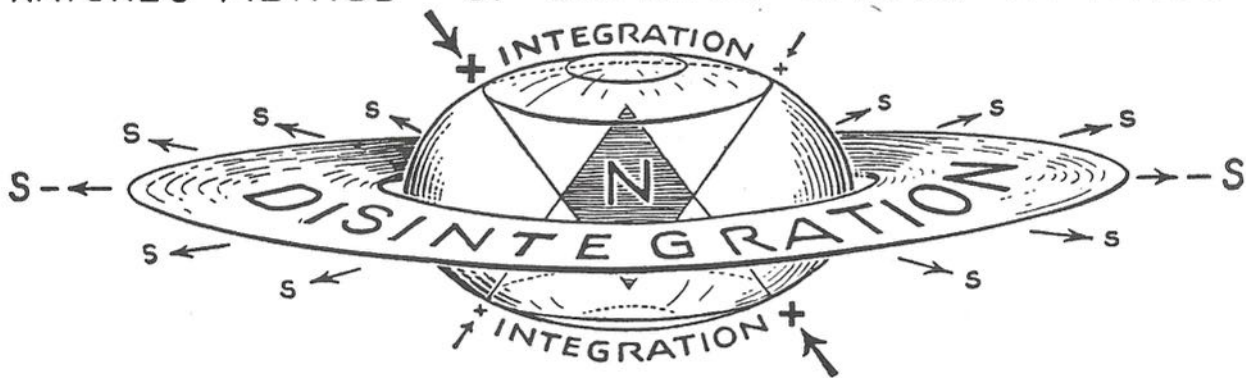
The Universal One, p. 138

Russell's use of the tornado sketches shows how the apices of the centripetal spirals move towards each other as the system matures. This direction of movement results in toroid shaped systems forming from disc shaped systems which then develop into spheres as the toroid is closed. The intersection of the two conical surfaces can be recognized as the center of a toroid whose surface acts as a containment boundary of electric potential and motion. The direction of apex movement reverses at maturity. The mature sphere is caused to age into a toroid as a hole is bored into the sphere by the interpenetrating centripetal wave-forces.

Matter is a compressed condition of motion, space is its opposite tenuous condition of motion. We cannot see the generative wave-force. What we do see or sense is the radiating or unwinding at system centers of the cumulative effects (high potential motion) of this wave-force. We feel the effects of the generative wave-force as the pull of gravity: the push/pull of a body's high potential condition seeking the high potential condition of a planet, solar or galactic anode system center created by the centripetal, spirally curved, positive electric potential field of the system's generative wave-force.

2. DEGENERATIVE WAVE-FORCE: This wave-force acts explosively from system centers causing motion to unwind or divide centrifugally from the apex center of Stillness. Due to the simultaneous compressive wave-force acting from two opposing directions towards the apex, a negative electric potential field is created causing high potential motion to spiral outward from the system's anode center at 90° to the wave-axis. The degenerative wave-force acts simultaneously with the generative wave-force; whenever one is present, the other is also.

NATURE'S METHOD OF STORING ENERGY IN MASS



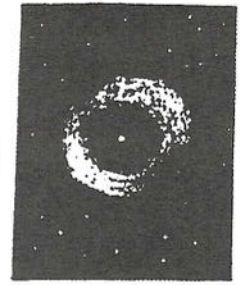
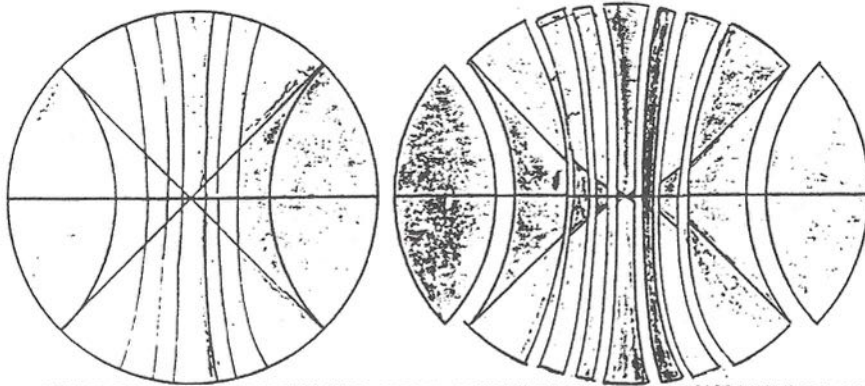
178

The Universal One, p. 178

The centrifugal nature of the negative electric potential field caused by the degenerative wave-force creates the mechanical spin of the system. We can see and feel the effects of this force as radiant energy, atoms, planets, planetary rings and moons, stars, solar systems, ring nebulae, star filled galactic spiral arms, and the revolution and rotation of matter. The radiative, discharging electric potential field created by the degenerative wave-force also acts to repulse one atom from another.

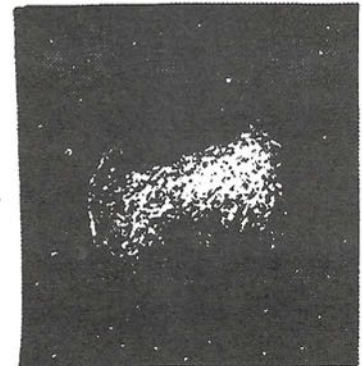
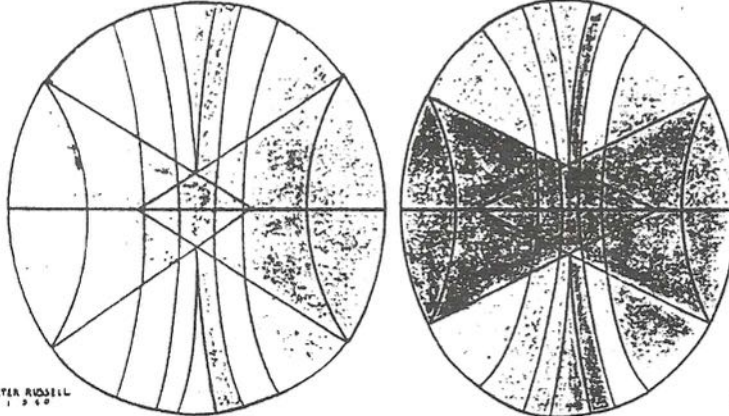
The visible, sensed world is the degenerating or exploding half of the whole, continuous and repetitive cycle of creation. The other unseen half of the cycle is the imploding concentration of tenuity into form caused by the generative wave-force. The simultaneous action of both wave-forces results in concave and convex electrical potential lenses. These lenses create hyperbolically curved spiral paths (vortices) of electric potential which motion follows.

EXEMPLIFYING NATURE'S DISINTEGRATING PROCESS



A MIGHTY STAR BECOMES A RING

ALL OCTAVE SPHERE LENSES HAVE BUT ONE CENTRAL FOCUS OCTAVE SPHERES CONSISTS OF NINE LENSES - SEVEN ARE CONCAVE - TWO ARE CONVEX.



THE DUMBBELL NEBULA EXEMPLIFIES THIS PROCESS.

WALTER RUSSELL
1904

AS SPHERES OBLATE, THEIR LENSES DEVELOP TWO EVER WIDENING FOCI, BETWEEN WHICH HOLES DEVELOP AND RINGS ARE PROJECTED.

In the Wave Lies the Secret of Creation, p. 96

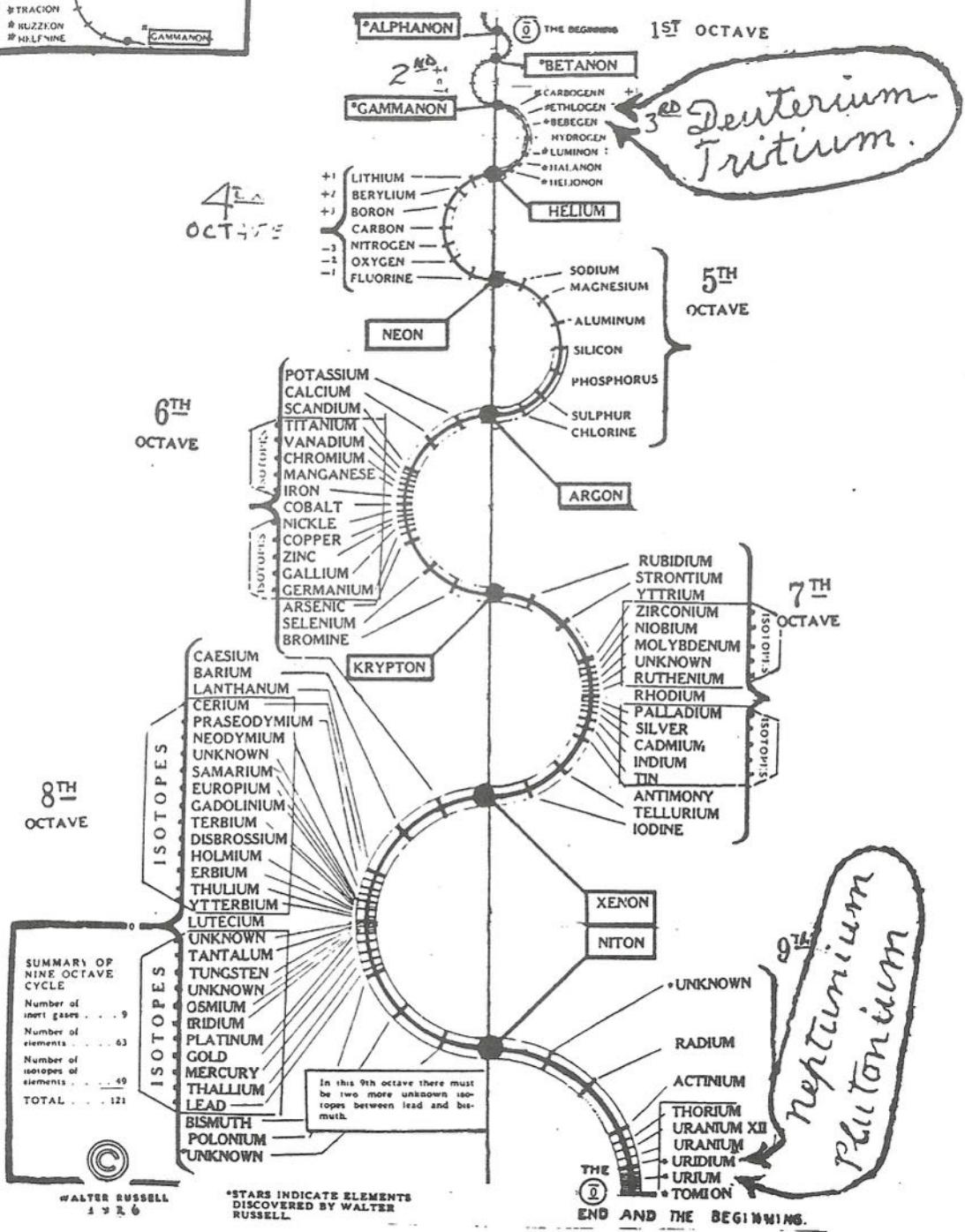
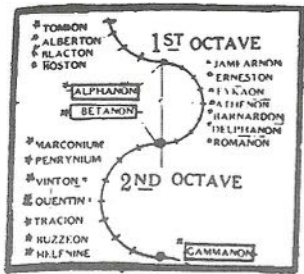
The two interweaving electric force fields generate, between them, a containment surface of electric potential. Within this containment high potential motion circulates. Russell used analogies of spinning tops and tires being pumped up to describe the effects of, respectively, the centrifugal action of the degenerative wave-force and the centripetal action of the generative wave-force. The *smoke ring* of ether envisioned by turn-of-the-century physicists to describe atoms is an apt analogy. The faster these rings churn the heavier and larger they appear.

II RELATIONSHIPS BETWEEN THE TWO FORCES DETERMINE THE GEOMETRY OF THE MOTION AND THE TYPE OF ELEMENT WE SEE

All motion is evolutionary and repetitive. Anode apices evolve into cathode bases which evolve into anode apices which evolve into cathode...etc. Creation is in a constant state of flux—ever seeking and attaining balance, ever losing it. The opposing wave-forces are each in their turn waxing and waning, each evolving into the other, and each alternately dominant over the other. Thus systems of matter age or evolve from one resonant state into another as the two polar wave-forces exchange intensities and relative dominance. This is the continuous and repetitive cycle of involution/evolution.

This rhythmically balanced interchange (measured and controlled by points, shafts and planes of Stillness) produces progressions of birth to death to birth cycles within the periodic chart of the elements. Russell's periodic chart of the elements contains nine cycles or octaves with the inert gases dividing and bounding each octave. Elements age. They age (transmute) through each octave and through the entire nine octaves as a whole. They are born out of and age into the octave boundary inert gases.

We transmute one element into another by affecting the relationships and interactions between the two wave-forces. We thereby affect the resonance of the pressure, electric potential, and geometric conditioning of the motion of the atomic system.



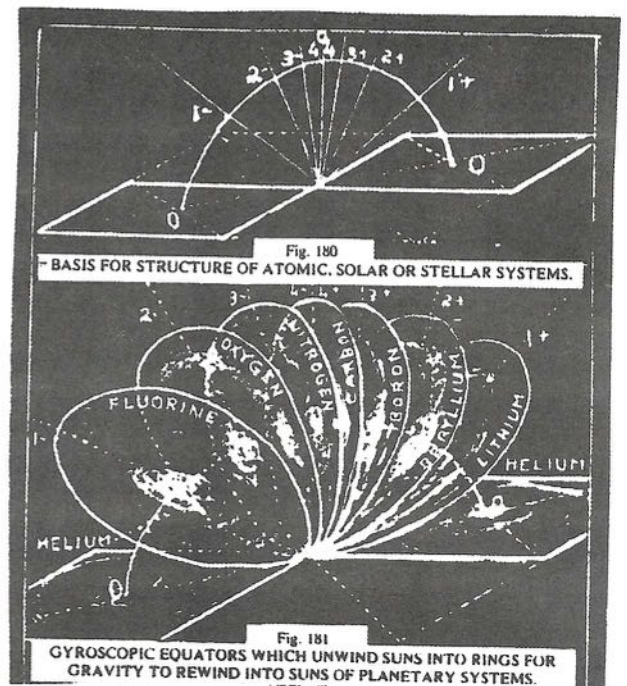
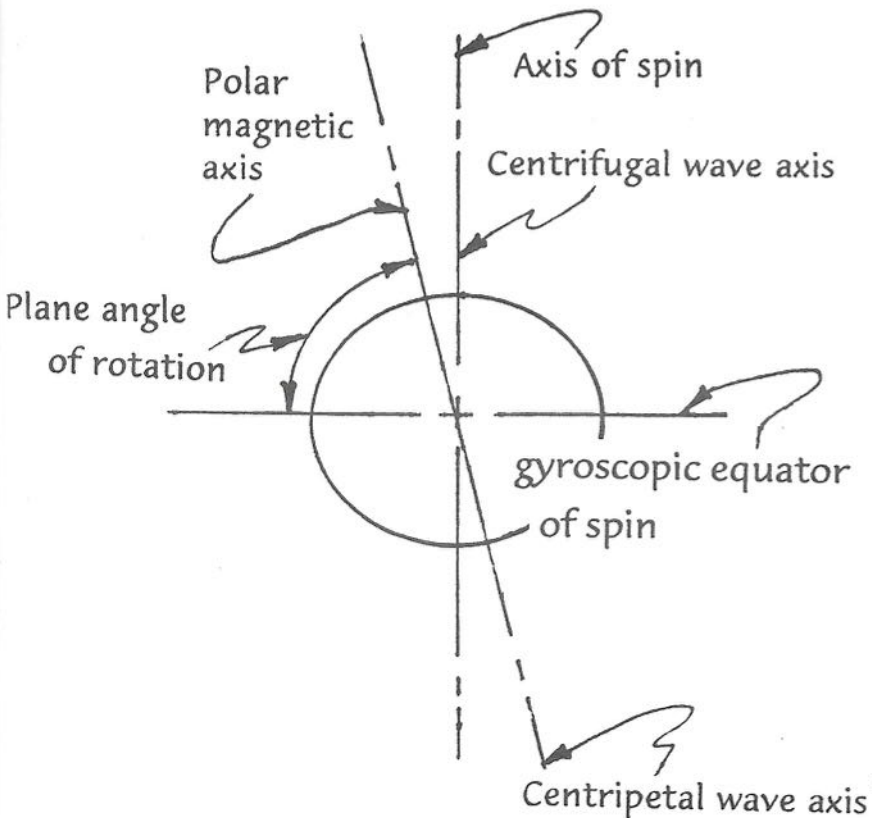
RUSSELL'S PERIODIC CHART OF THE ELEMENTS #1

RELATIONSHIPS BETWEEN THE TWO POLAR WAVE-FORCES INCLUDE:

1. **PLANE ANGLE OF ROTATION:** the angle between the magnetic polar axis (wave-axis of the centripetal, charging wave-force) and the gyroscopic equator of spin (the plane perpendicular to the wave-axis of the centrifugal, discharging wave-force). Calculation of these angles from ratios given in Russell's *Universal One*, i.e. 1:2:4:8, yield the following:

<u>Octave position</u>	<u>Plane angle of rotation</u>
±1	48°
±2	72°
±3	84°
4	90°

These are ideal angles. Per Russell, the ideal is approximated only in the fourth octave. Carbon, the fourth octave's fourth (mid-octave) position element, is the only fourth position element to exhibit true spherical geometry and a 90° plane angle of rotation. The plane angles of rotation must be experimentally determined for each atom and are expected to be somewhere close to the ones calculated above.



A New Concept
of the Universe, p. 173

Russell wrote that an element could be tuned up or down at each octave position, thus altering its physical and possibly chemical properties. My take on this idea is that naturally occurring resonant geometries form a bell curve at each octave position. By varying conditions of pressure, heat and electric field, we should be able to shift the bell curve to either side. A cooling or low pressure environment in the transmutation cell will shift the curve towards the lower potential and lighter weight side of the periodic chart. Conversely, a heating or high pressure environment will shift the curve towards the heavier elements. Similarly, a shift in charging or discharging electric potential may affect the atomic system's resonance point.

2. Preponderance of one wave-force over the other: Within each octave cycle of elements, an element emerges (births) out of an inert gas, matures to a mid-octave position element, and ages (dies) into the next octave's beginning inert gas to begin the birthing/aging cycle anew. The generative wave-force dominates from birth to maturity, while the degenerative wave-force dominates from maturity until death. These opposing wave-forces are equal at the mature mid-octave position. I do not know the ratios of the wave-forces within the octaves at the other positions. Laboratory research will determine these ratios. I expect the first element positions of each different octave to have similar ratios, as will the 2nd, 3rd, etc., however this needs verification. Russell used a difference of turns ratios in the coil magnets of his transmutation device to effect differing ratios of the two wave-forces.

An interesting phenomenon occurs at each inert gas. The element which precedes an inert gas in atomic number has a maximum ratio of degenerative to generative wave-force, while the element which immediately follows an inert gas in atomic number has a minimum ratio of degenerative to generative wave-force. I expect the ratio to be 1:1 at the inert gas position just as it is at the mature, mid-octave fourth position. Russell characterizes the inert gases as minimum motion-in-opposition positions and the mid-octave position as maximum motion-in-opposition positions.

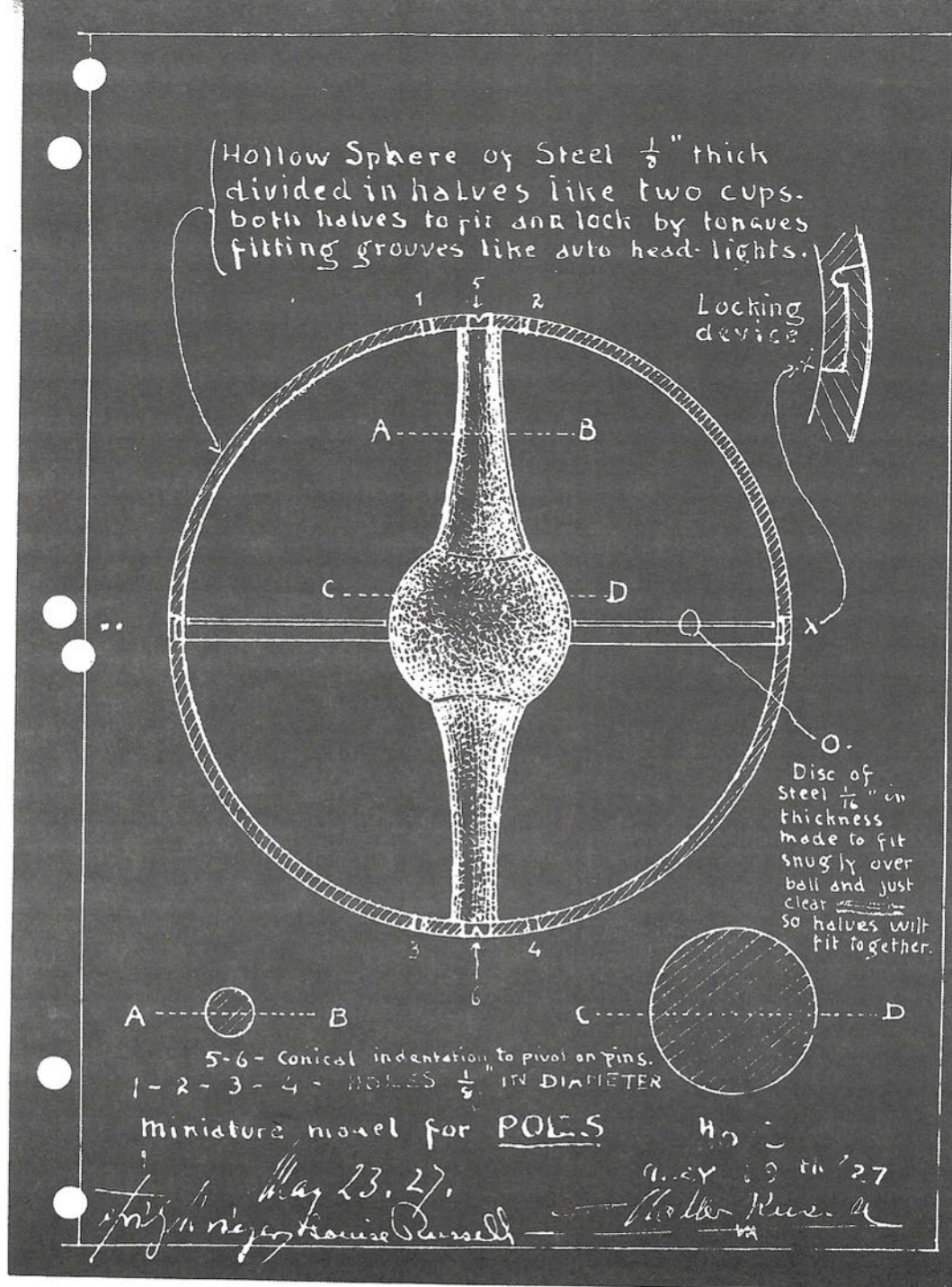
3. Intensity of each wave-force: I think the intensity of both wave-forces increases from octave #1 through octave #9. The intensities increase while the ratios at each octave position remain relatively the same. The higher weight elements have both a greater wave-force of compression and a greater wave-force of explosion. The motion within the spheres and toroids is of higher electric potential and, I think, of greater motion—both internally and as a system. Russell uses the analogy of a spinning top, the more energy pumped into the system the faster it goes. Russell noted that radioactivity is due to the explosive wave-force overpowering the compressive wave-force.
4. Difference between rotational velocities of the integrating centripetal spiral vortex and the disintegrating centrifugal spiral. This relationship difference is purely conjecture on my part. I think different transmuting efficiencies will occur when we spin either or both of the opposing electric fields or the transmutor contents.

III REVIEW OF PREVIOUS EXPERIMENTS

1. Walter Russell performed his only transmutation experiments in 1927 at the Westinghouse Lamp Co. production facilities in Bloomfield, NJ. Russell heated 5 cc of H₂O to 300 °C, placed the specimen within his device, turned on the electromagnetic coils, and allowed the specimen to cool to room temperature with the magnetic coils left on. The only lab report I know to be in the Russell archives states that 17 different results were obtained during the experiments and gives the following analysis of one experiment:

Nitrogen—	69.0%
Oxygen—	14.9%
Hydrogen—	16.0%

Russell writes that he varied the magnetic coil intensities and/or their angular relationships to obtain the different results, and that one other of the experiments produced 80% hydrogen and 20% helium.

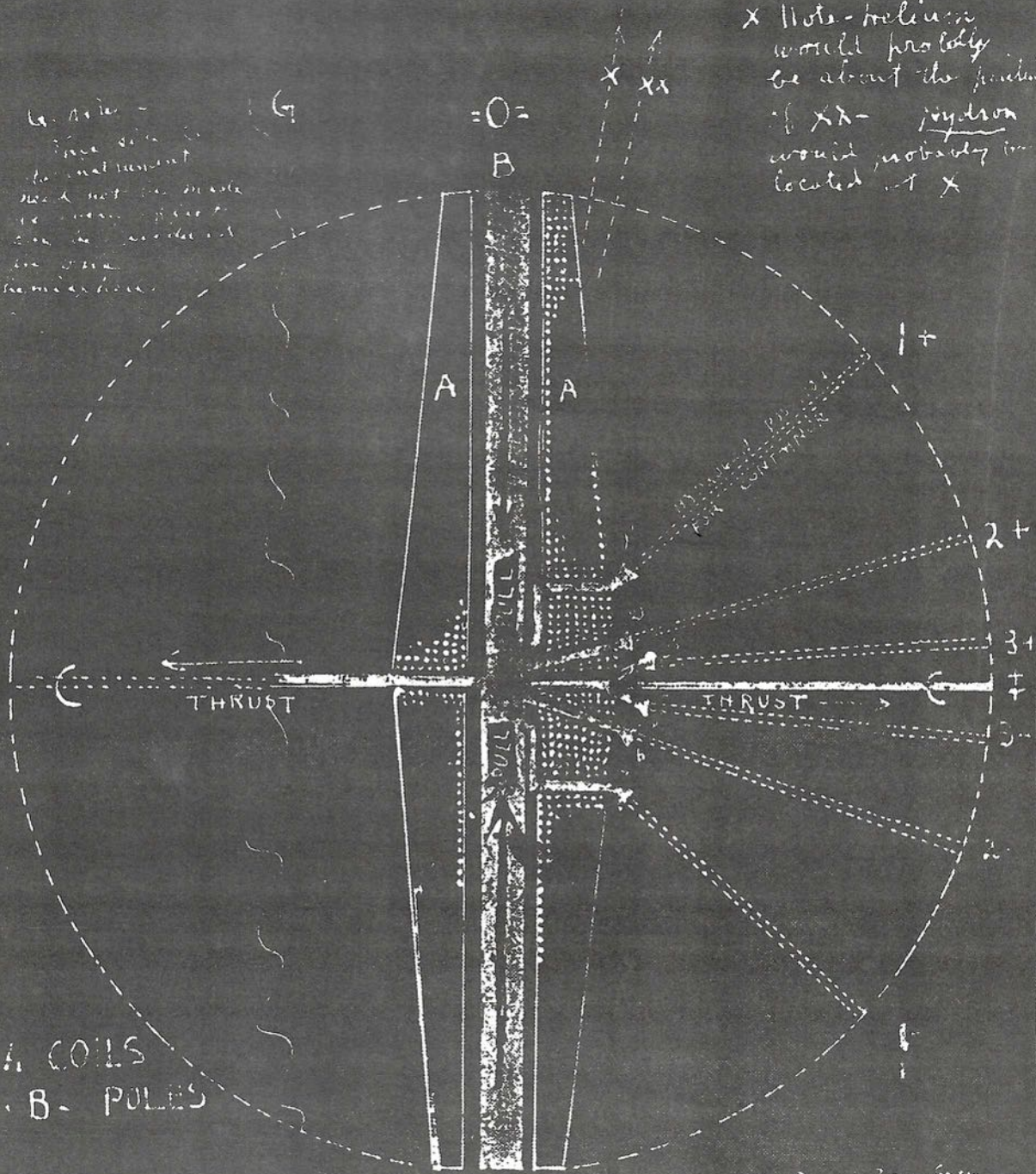


DIAGRAMS OF RUSSELL'S 1927 TRANSMUTOR

In Russell's device the central steel plate acts as a reference plane simulating the planar, centrifugal, discharging field of the degenerating wave-force. The centripetal, charging field is simulated by the vertical coils. Russell pivoted the vertical coils and varied their wiring turns ratios enabling his research device to effect different octave position plane angles of rotation. Specific octave position resonant states of electric potential/motion/geometry were thereby be created within the chamber.

In order -
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X Note - helium
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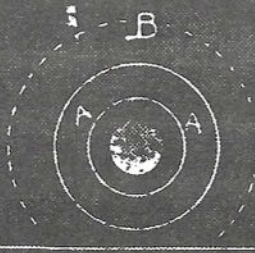


A. A. COILS
 B. B. POLES

NO 1 -

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Holla, Russell - Louis Russell



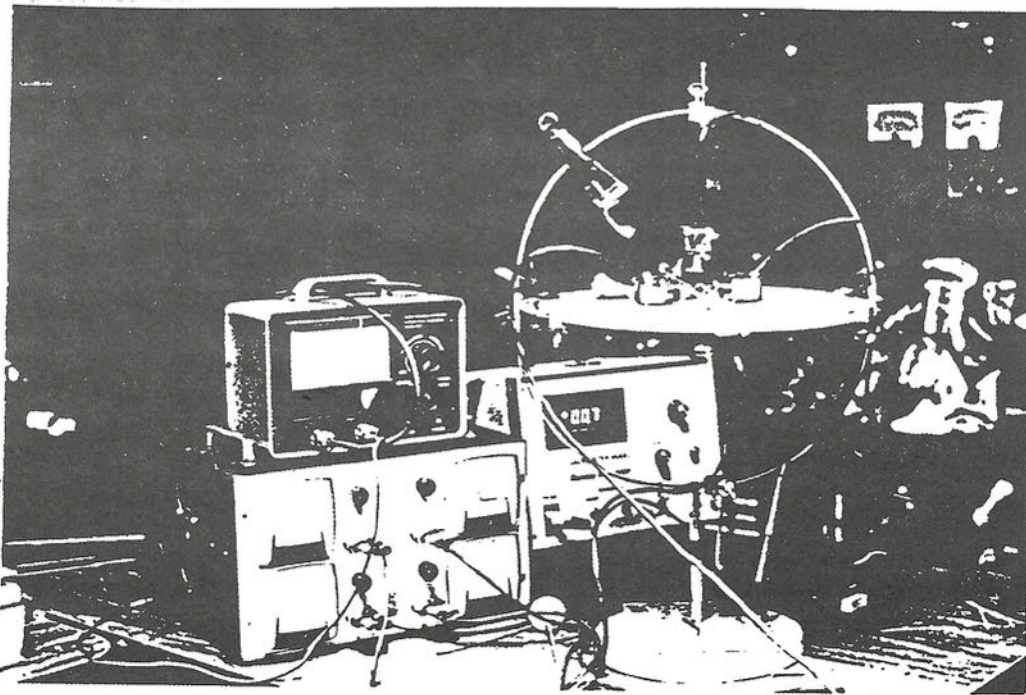
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Fritz Aringer May 20 27

III 2. 1991-92 EXPERIMENTS PERFORMED BY COLORADO TEAM OF:

- Dr. Tim Binder— Natureopathic and chiropractic physician was president of the University of Science and Philosophy during this time.
- Toby Grotz— Electrical engineer, past president of the U.S. Tesla Society.
- Ron Kovac— Analytical chemist (M.S.) who owns and operates the spectrographic equipment used to chemically analyze their experiments.

This group, working in Boulder, CO, attempted to reproduce Dr. Russell's 1927 transmutation of H_2O . Their 1991 and 1992 experiments used gas spectrographic analysis to detect the production of fluorine from H_2O .

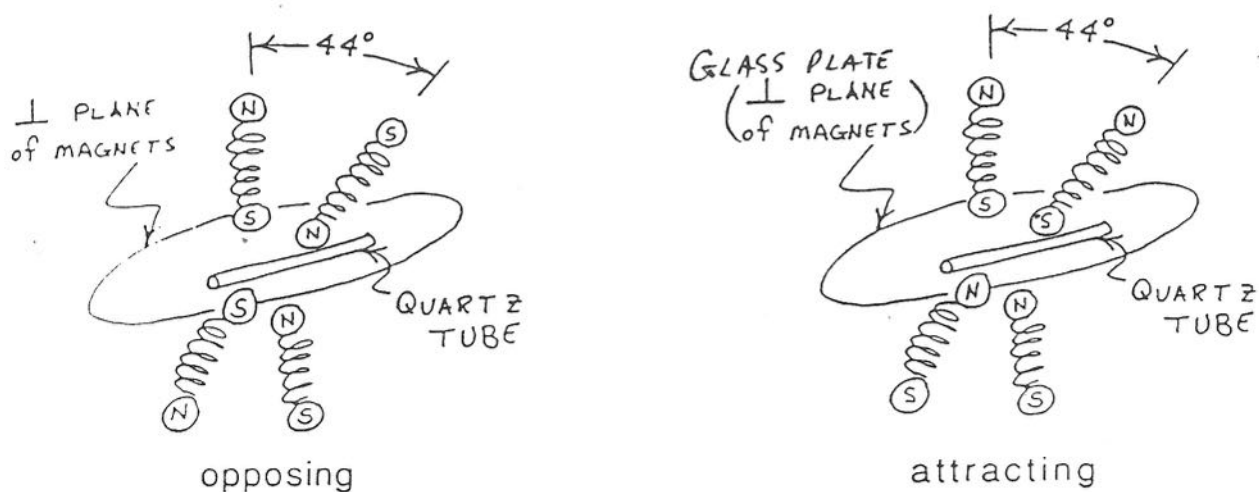


1991/1992 Transmutor

The glass plate (reference plane for the centrifugal, discharging effects) and vertical magnet fields working with the angularly aligned magnetic fields (centripetal, charging effects) produced an environment wherein a percentage of the atoms were reconditioned (transmuted) into a different form (fluorine).

A quartz tube fitted with electrodes was filled with de-ionized and de-mineralized H₂O. The tube was heated to 300°C using the electrodes to excite the water vapor with a 5KV AC source. The tube was placed in the apparatus and allowed to cool to room temperature with the magnetic coils energized. The magnetic field strength measured at the center surface of the solenoid core was 1450 Gauss with a 600ma current. The vertical magnets were energized with 500 ma and the angled magnets with 250 ma to simulate the turns ratio in Russell's device. The gases in the tube were then analyzed by gas spectrometry utilizing the fitted electrodes. Due to restrictions imposed by the size and shape of the magnetic coils, only the first octave position at a rotational angle of 44° was researched.

To my knowledge, the field strengths of the magnetic coils were not varied during the experiments. Polar alignment of the coils was varied, using opposing or attracting alignments as shown below. The spectral line for fluorine (first octave position of the third octave) appeared and varied in intensity as a function of repetition, polar alignment and time. We reported the results in Fulcrum, V.1, #2. The results were not conclusive.

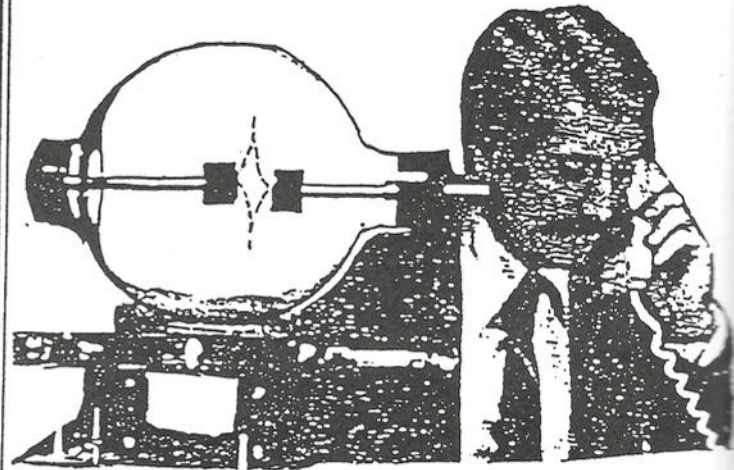
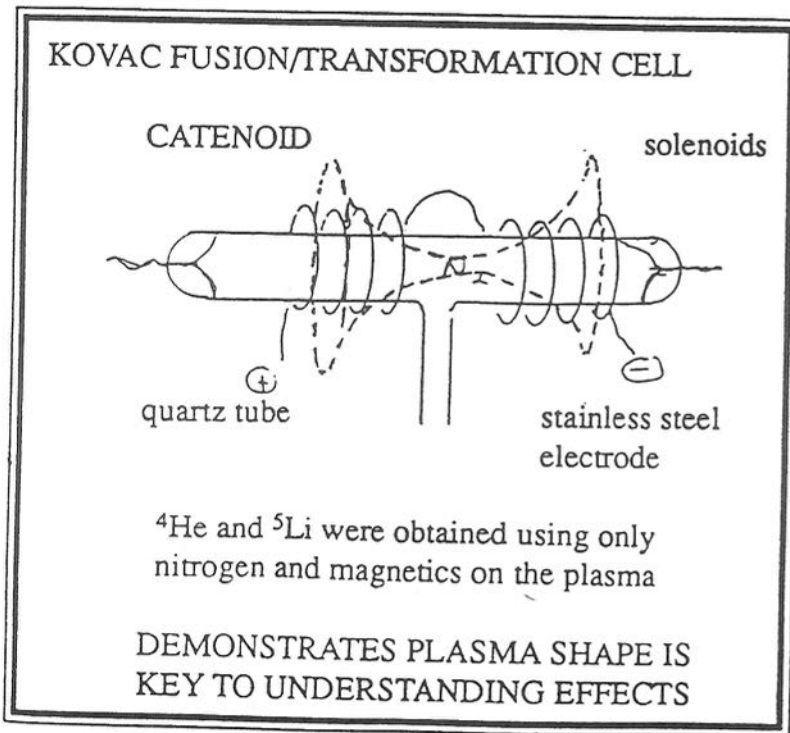


Sketch of electro-magnet alignments

Fulcrum, V.1,#2

III 3. 1994 EXPERIMENTS PERFORMED BY RON KOVAC:

As reported in *FULCRUM*, Vol. 3, #2, Ron Kovac successfully transmuted nitrogen into lithium and helium. With his mass spectrometer, Ron identified the formation of a predicted but never before seen isotope of lithium with atomic mass five (5). His *Kovac Fusion Cell* transmutor initially produced 93.75% nitrogen-14, 3.75% helium-4, and 2.5% lithium-5, and after reprocessing it obtained 6.5% lithium-5.



Fulcrum, V.3,#2

KOVAC FUSION CELL TRANSMUTOR

The Kovac Fusion Cell (KFC) produces a rarefied nitrogen plasma in a vortex shape. The externally mounted electromagnets with opposing magnetic fields (B fields) when brought into close proximity produce counter-rotating lines of equal potential having a pseudosphere shape. A

plasma introduced into these counter-rotating, pseudosphere shaped magnetic field lines will twist like a rubber band and form a knot. Continued energy input overcomes inter-ion attractions, and the knot transforms into a geometrically and electromagnetically self-sustaining toroid. The toroid is then expelled from the rotating magnetic fields, and another cycle of twisting, knotting, toroid formation, and toroid expulsion occurs.

A distinct resonant conditioning environment is created within the twisting, vortex shaped plasma. The patterned resonant conditioning of motion called nitrogen (atomic mass 14) is entrained and reconditioned to the resonant, geometric, electric potential condition or pattern of a mass five element. I think changing the internal conditions of pressure, temperature, electric field strengths, plasma shape, etc. will change the resonant conditioning environment and change the types and amounts of elements produced. Quoting Ron Kovac from *FULCRUM*, "only the geometry of space" is involved in transmutation; the KFC is reconditioning or reshaping the nitrogen's atomic geometry of motion.

The *FULCRUM* article does not give any of the parameters Ron Kovac used in this experiments. He said he uses a superimposed AC frequency on top of the plasma producing HVDC. I do not know this frequency or voltage or the electromagnetic coils' amperages or field strengths.

IV. REVIEW OF PRINCIPLES FROM THE RUSSELL COSMOGONY

1. God's rhythmic, balanced and repetitive thinking sets the One substance of God's body into apparent motion. The eternal One Idea for Creation is thus reproduced or simulated in dynamic, eternally borning/dying form. Motion is an electric effect caused by polar differences between the two opposing wave-forces of creation: Generation & Degeneration.
2. All motion is curved and spiral due to resistance of opposing wave-forces and electric potential lenses created by interference patterns of the two opposing thought wave-forces.

3. Motion is rhythmic and therefore exhibits qualities of frequency, harmony and resonance. All qualities of Nature are derived from the wave nature of the primal polarity process of creation.
4. Matter results from an electric potential, pressure conditioning of motion. Systems of matter at any scale (atomic, planetary, stellar or galactic) result from the one polar, opposing wave-force process of motion conditioning.
5. Atoms are different due to different geometries of motion of the One substance of God. The geometric resonant conditioning of motion is determined by the interplay of the two opposing wave-forces (polarities) of Creation.
6. The generative wave-force multiplies motion inwardly and centripetally towards apices (center of systems). It multiplies low potential into high potential.
7. The degenerative wave-force divides motion outwardly and centrifugally along gyroscopic equatorial planes. It divides high potential into low potential.
8. The two opposing wave-forces of Creation engage in a balanced and rhythmic dance of dominance and interchange. The interchange can be likened to a birthing/dying or involution/evolution, one giving to and becoming the other producing periodic alteration of effect.
9. Within any one of the nine octave wave-cycles on Russell's periodic chart of the elements, there are seven (7) primary element positions between the inert gas boundary elements. These positions are resonant energy/geometric configurations which are repeated from one octave to the next. Russell likened the geometric progression of the positions within an octave as a series of rings or toroids which closed to form spheres at the mid-octave position which then opened to form toroids to finally again become the inert gas disc.
10. Inert gases are described by Russell as nebulous and disc-like. They begin and end each octave. They are Nature's recording devices, being a record of the elements preceding them and containing the idea for the elements which follow them in the periodic chart.
11. The angular relationship between an atom's magnetic and gyroscopic axes (Russell calls it the *plane angle of rotation*) is critical to the resonant geometry of motion and subsequently to transmutation of the elements.

12. Time, temperature and pressure are experimental variables. Russell states that temperature and pressure are effects resulting from the compression and expansion processes.
13. Magnetic and electric fields can be used to 'reshape' the geometry of an atom.
14. The geometry of motion which characterizes the differentiation of elements is a resonance of the interplay of the two forces of creation. This resonance is a combination of the intensity, relative location, relative dominance, magnetic axis/gyroscopic axis relationship, rotational velocities, temperature, pressure, and valence of each atomic system.
15. Russell states that within each octave the frequencies of light are an overlay of the resonant frequencies of motion's conditioning. The diagram on page three of this primer reveals Russell's categorizations of the different octave positions with color:
 +1—infra-red, +2—red, +3—orange, 4-0-4—yellow-white-yellow
 -3—green, -2—blue, -1—ultraviolet
16. In *The Universal One* Russell describes 18 dimensions of matter: length, breadth, thickness, duration, sex, pressure, potential, temperature, ionization, crystallization, valence, axial rotation, orbital revolution, mass, color, plane, tone, and ecliptic. These different dimensions are subjects for investigative research.
17. Systems of matter are dynamic and evolutionary.

VI RESEARCH CONSIDERATIONS

1. Walter Russell transmuted water into nitrogen, oxygen and hydrogen on one occasion and into helium and oxygen on another occasion. I think we can use his concepts to disassociate water into hydrogen and oxygen and then use these products as fuel. This avenue of research seems to me to be the simplest to perform and the quickest and least expensive to design. Its application is immediate and worldwide. The one environmental concern I have is the amount of heat from burning H_2O that potentially may pollute our ecosystem.
2. Russell, Binder, Grotz, and Kovac all used a steel or glass plate to provide a centrifugal spin axis reference plane.

3. Kovac used a vacuum of 4.5×10^{-4} Torr. I think he produced mass-5 and He-4 from nitrogen-14 as they are lower pressure elements than nitrogen-14 in the Russell scheme. I am not sure if water is considered a higher pressure condition than the constituent elements H and O.
4. Russell heated his samples to 300°C and then allowed them to cool in the magnetic field configuration he established for each experiment. Unfortunately there is no data on the pressure within Russell's sample tubes or magnetic field strengths.
5. Atoms are resonant geometries of motion. The resonance is rotational spin, pressure, temperature and electric field related.
6. I am thinking a magnetic resonance can be simulated with alternating electric fields to effect a *twisting* of the water molecule. Then its geometric form can be *popped* into the resonant forms of hydrogen and oxygen. Laser optics may also be capable of simulating and stimulating the resonance of the water molecule into the resonance of hydrogen and oxygen after the *twisting* is effected.
7. Lasers may work within either or both magnetic or electric fields to create conditions within the test chamber that will induce the resonant geometry of one element or molecule to *jump* to another.
8. The higher octave elements are more explosive as evidenced by radioactivity and are therefore under greater pressure in order to maintain their integrity. Within each octave the pressure conditioning increases from the 1st position to the 7th. Pressure can be expected to determine which octave or where in an octave a transmuted element may appear.
9. Temperature considerations parallel pressure's.
10. Time is a variable for experimentation.
11. The experimental environment is a resonance chamber intended to entrain or induce a specific resonant conditioning of motion.
12. Pulsing of the electric fields is another oscillation effect which may increase the yield of the transmutor. Pulsing allows for longer duration at charging or discharging potentials. It may introduce a tensioning/relaxing oscillation of the atom which could be effective for different reasons. One reason would be to allow for the alignment of the atom or molecule with the induced electric fields. Another might be a conditioning of the induced resonance which

favors either a discharging or charging potential, thereby favoring the discharging or charging half of the targeted octave.

13. The optimal experimental environment for reconditioning one element's motion/geometry into another requires:
 - a. a charging electric field with a hyperbolic vortex shape converging from two directions to a center.
 - b. a discharging electric field with a planar shape expanding from the charging field's convergence.
 - c. spinning either of the charging or discharging fields.
 - d. varying the angular relationship between the fields.
 - e. varying the intensity of the different electric fields.
 - f. throughput of material
 - g. real-time mass spectral analysis.
 - h. varying time, temperature and pressure.
 - i. introducing sound and light of varying intensities and frequencies.
 - j. inducing mechanical spinning of transmutor contents.
 - k. pulsing the electric fields.
 - l. shaping the electric fields
 - m. varying the spacing of electrodes.
 - n. varying the strengths of the electric fields.

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ON PLANETARY MOTION CAUSED BY SOLAR SPACE-VORTEX

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Introduction

Rene Descartes, in 17th century before the formulation of mechanics by Newton, had postulated Vortex Theory, which explained motion of the planets in elliptical orbits around the Sun due to the eternal existence in space of a fluid matter, ether, that as a vortex with the Sun at its center, moved the planets. He also proposed that, on similar lines, the satellites were propelled around their parent planets, that too have *ether circulation* around them; and the ether surrounding the Sun and the planets had no *relative motion* with respect to these cosmic bodies.

Near the end of the seventeenth century (1689), Leibniz too believed that the planets are moved by their ethers², and had proved that such a motion will lead to Kepler's third law, as per which, the area swept by the radius drawn from the center of circulation to the planet will be proportional to the time elapsed. In 1673 Huygens stated that a body, in uniform circular motion, will experience a central force (centrifugal force) which is directly proportional to the square of the speed and inversely proportional to the radius of the circle. With the discovery of the electron by the close of the nineteenth century, knowledge on its *annihilation* with positron in the thirties of this century, quantitative values of mass and charge of electron, and the postulate of Einstein, at the start of this century, that speed of light is the *highest possible* speed in the universe; it had been possible (mid seventies) for the author to postulate *space vortex structure* for the electron, which shows further in this article that the *centrifugal force* of Huygens is produced only when there is *relative motion* between the space and a body in circular motion. Therefore, the question arises whether such a force will be exerted on the planets even if they have no *relative motion* with their surrounding space. And if the radial and outward centrifugal force on the planets does not exist, the centripetal force as gravitational attraction postulated by Newton becomes redundant in celestial mechanics. The following analysis shows that such, indeed, is the case for the motion of the planets and the satellites of the solar system and, therefore, will be generally applicable for all the cosmic bodies in the universe. Brief description that follows on the *nature of space, mass, charge and inertia* of electron, will enable in providing proof to the above conclusion.

Nature of Mass

Taking the case of electron, which shows the property of *mass* as applied in Newtonian mechanics, it has been explained elsewhere [1,2,3] as to why the electron possesses *mass* and *inertia*. The structure of electron, Fig. 1a, shows that it is neither a *point-mass* nor a *point-charge*, as presently believed; It has a *spherical-void* at its center, where *void* is defined as a *field-less*, and *energy-less* zone, enclosed within a *spinning vortex of space*. The *space (absolute vacuum)* is postulated to be an *incompressible, homogeneous (continuous), non-viscous*, and *mass-less fluid* that has a limiting speed of flow at speed of light (c). The maximum speed of rotation of *space*, as shown in Fig.1a, is at speed of light. The space-vortex, which itself is electron, has *dynamic stability* [1,2]. During the translation of electron *relative to space*, it is the *combined action of the void and the fluid space* that endows it with the property of momentum and inertia (discussed further). The electron, due to its central void, is subjected to an *inward pressure* from space (Fig.1a), which determines the gravitational field [1,2,3]. The equation for the *rest mass* of electron has been derived as:

$$m_e = (\text{volume of spherical void}) c = (4\pi/3) r_e^3 c \quad (1)$$

where m_e is the rest- mass of electron; r_e is the radius of the spherical void, and c is the speed of light relative to the medium of space. In CGSE system of units, it is shown [2,3] that: gram = $7.8 \times 10^6 \text{ cm}^4/\text{s}$.

The *space* is the only entity of reality in the universe, and it follows from the postulates of the *Space Vortex Theory (SVT)* [1,2], that the electron is the *only fundamental particle* which is stable and can exist eternally, till it interacts with its own kind (positron) but oppositely *spinning vortex* relative to it, that leads to the phenomenon of annihilation. All stable particles of matter, including nuclei, atoms and cosmic bodies, are aggregates of electrons (conclusion from *SVT*), and hence are subjected to an *inward pressure* from space. With this structure of electron, gravity field is created in space at the time of creation of the electrons. The electron is not a *force-free* particle, and so also, all particles of matter, due to inward gravity pressure on them from space, are not *force – free* entities.

Nature of Charge

The electron (Fig.1b), due to the spin of space, which is termed as *velocity-field* around the central void, possesses electric charge, defined [1,2,3,] as

$$q_e = (\pi/4) (4\pi r_e^2) c \quad (2)$$

where q_e is the charge of electron. In CGSE system of units, $\text{cm}^3/\text{s} = \text{esu}$, which is CGSE unit of charge. Depending upon the direction of spin of the particle, it can be termed as electron or positron, and *negative or positive* charge respectively [1,2].

A cosmic body, if it has circulation of space, that is, *velocity-field* around it, will develop electric-charge in direct proportion to its velocity- field. Thus all rotating cosmic bodies like the Sun and the planets (excluding Mercury) will have electric- charge due to their axial rotation.

Solar Space Vortex

Refer Fig.2 which shows the side view of the Sun (taken spherical for simplicity of calculations) with radius R_s , and the Earth in the planetary plane which is transverse to the axis of the Sun. Consider an elemental-area dA on the rotating surface of the Sun such that

$$dA = 2\pi R_s \sin \theta R_s d\theta \quad (3)$$

The period of the axial rotation of the Sun varies from 26 days at the equator to 37 days at the poles. Let the average angular velocity of rotation be ω . Then the tangential velocity at the elemental surface will be

$$V_s = \omega R_s \sin \theta \quad (4)$$

where V_s is also the velocity-field of space in immediate vicinity of the surface and tangential to the elemental area dA .

Due to V_s at each point of space on dA , there will be an inward acceleration a_s , such that

$$a_s = V_s^2 / R_s \sin \theta. \quad (5)$$

The product, $dA a_s$, will be

$$d\phi_s = (2 \pi R_s^2 \sin \theta d\theta) (\omega R_s \sin \theta)^2 / R_s \sin \theta$$

where ϕ_s is defined as “*space acceleration flux*”.

Integrating for θ varying from 0 to π ,

π

$$\phi_s = 2\pi R_s (\omega R_s)^2 \int_0^{\pi/2} \sin^2 \theta d\theta = \pi^2 v_s^2 R_s, \quad (6)$$

where $v_s = \omega R_s \sin \theta$.

Assuming that ϕ_s , due to zero-viscosity of space, remains constant at any spherical space surface (Fig.2) that is central with the Sun, from (6)

$$v_s^2 R_s = \phi_s / \pi^2 = \text{constant}$$

$$\text{or } v_s \propto 1/\sqrt{R_s}. \quad (7)$$

From (7), and the constancy of ϕ_s mentioned above, *velocity-field of space* (v_f), at any point within the solar vortex, distant r in the planetary plane (equatorial plane of the Sun), will be given by

$$v_f = k / \sqrt{r} \quad (8)$$

where k is a constant pertaining to solar space-vortex.

Eq.8, derived from the *space dynamics* of the solar system, can be derived from Kepler's third law on planetary motion as follows.

$$T^2 \propto r^3 \quad (9)$$

where T is the period of any planet, and r is the mean distance of the planet from the Sun. Substituting $T = 2\pi r / v$, where, v , is the orbital velocity of the planet, we get

$$(2\pi r / v)^2 \propto r^3$$

or

$$v \propto 1/\sqrt{r} \quad (10)$$

which is similar to Eq.8, as per which the velocity- field of space within the solar vortex also falls in inverse proportion to the square root of the distance, just as it is the case with the planets [10]. Therefore, conclusion can be drawn that the solar space- vortex moves the planets at its own circulating motion provided the properties of the Sun and the planets like gravity field and electric-charge can be derived from it through methods independent of Newton's equations on gravitation and celestial mechanics as shown below.

Sun's Gravity Field

Consider the innermost planet of the solar system, mercury, which has orbital speed of 47.9km/s, and its mean distance from the Sun is 57.9×10^6 km. If v is its orbital speed, and r , the distance from the Sun, from (8),

$$v \sqrt{r} = k \quad (11)$$

or

$$k = 47.9 \times 10^3 \text{ m/s} \sqrt{57.9 \times 10^9 \text{ m}} = 11.52 \times 10^9 \text{ m}^{3/2}/\text{s}, \quad (12)$$

where k is a constant described before.

The tangential v_f in the Sun's equatorial- plane in close vicinity of its periphery where the radius $R_s = 6.96 \times 10^8$ m, from (7) and (8) will be

$$v_s = k / \sqrt{R_s} \quad (13)$$

Substituting the value of k from (10), and R_s from above, we get

$$v_s = (11.52 \times 10^9 / \sqrt{6.96 \times 10^8}) \text{ m/s} = 4.367 \times 10^5 \text{ m/s}. \quad (14)$$

In the equatorial plane on the periphery of the sun, the velocity field, v_s , will create an

inward acceleration field, v_s^2 / R_s , which from (12) is

$$a_s = (4.367 \times 10^5)^2 / 6.96 \times 10^8 \text{ m/s}^2 = 274 \text{ m/s}^2$$

which happens to be exactly equal to the presently accepted value of the gravity field of the Sun, that is, 274 m/s^2 . It is, therefore, concluded that the gravity field of the Sun is determined by the inward acceleration field created in the vicinity of its surface due to space circulation around it.

Earth's Gravity Field

Consider the motion of the Moon around the Earth at the orbital speed of 1017 m/s (derived from the orbital period: 27.3 days; orbital radius: $3.82 \times 10^8 \text{ km}$). From (8),

$$v_m \propto 1/\sqrt{r} = k/\sqrt{r}, \quad (15)$$

where v_m is the orbital speed of the Moon, r is its distance from the Earth, and k is a constant pertaining to the Earth's space-vortex. Substituting the values from above

$$k = 1017 \text{ m/s} \times \sqrt{3.82 \times 10^8 \text{ m}} = 1.987 \times 10^7 \text{ m}^{3/2}/\text{s}. \quad (16)$$

With the above value of k and from (8), the tangential velocity of space in the equatorial plane of the Earth in immediate vicinity of its periphery, will be

$$v_f = (1.987 \times 10^7 / \sqrt{6.37 \times 10^6}) \text{ m/s} = 7.8 \times 10^3 \text{ m/s}.$$

There exists a velocity-field due to space circulation at the periphery of the Earth and in the equatorial plane; it will produce an inward acceleration field given by

$$a_e = v_f^2 / R_e, \quad (17)$$

where R_e is the radius of the Earth. Substituting the values from above

$a_e = (7.8 \times 10^3)^2 / 6.37 \times 10^6 \text{ m/s}^2 = 9.55 \text{ m/s}^2$ against the presently accepted value of the gravity field of the Earth which is: 9.83 m/s^2 .

Gravity Field of Mars and other Planets

The satellite of Mars, Phobos, completes one orbital revolution in 7 hours and 19 minutes, that is, 26340 sec. The orbital radius r_p being 9400 km, the orbital speed v_p will be, 2.241 km/s . Similar to Eq.13,

$$v_p = k_p / \sqrt{r_p}.$$

Substituting the values from above,

$$k_p = 2241 \sqrt{9.4 \times 10^6} = 6.8 \times 10^6 \text{ m}^{3/2}/\text{s}.$$

With the equatorial radius of Mars $R_p = 3395 \text{ km}$, the velocity field of space-vortex around Mars will be

$$v_f = k_p / \sqrt{R_p} = 6.8 \times 10^6 / \sqrt{3.39 \times 10^6} = 3720 \text{ m/s}.$$

Gravity field on Mars = $(v_f)^2 / R_p = (3720)^2 / 3395 \times 10^3 = 407 \text{ cm/s}^2$, against the presently accepted value of 372 cm/s^2 . Similarly, the gravity fields of other planets derived from their respective space-vortices are: Jupiter 24.5 m/s^2 , Saturn 10.4 m/s^2 , Uranus 8.9 m/s^2 , Neptune 11.02 m/s^2 . The presently accepted values are: Jupiter 22.9 m/s^2 , Saturn 9.05 m/s^2 , Uranus 7.77 m/s^2 , Neptune 11 m/s^2 , that are quite close to the above computed values. *The derivation of the gravity fields of the sun and the*

planets without the use of Newton's equation provides a positive proof of the real existence of the space-vortices around the stars and the planets.

Solar Charge

The electric charge of electron from Eq.2 is proportional to the product of the *space-surface* around the central void and the *spin-velocity* c . Similarly, it is supposed that the Sun will develop electric-charge on its surface on account of axial rotation. The surface of the Sun possesses tangential velocity, V_t : 1.945 km / s, at its periphery in the equatorial plane. The solar charge Q will be given by

$$Q = (\pi/4) 4\pi R_s^2 V_t = (\pi/4) 4\pi (6.96 \times 10^{10})^2 \times 1.945 \times 10^5 \text{ cm/s} = 0.928 \times 10^{28} \text{ esu}, (18)$$

where $\text{cm}^3/\text{s} = \text{esu}$, in CGSE system. The value of the solar-charge derived above is very close to the presently accepted value of 10^{28} esu.

Axial Rotation of the Earth

In Fig.3, the space-vortex encircling the Earth within the solar space-vortex is shown. The velocity-field in the equatorial plane around the Earth earlier computed as 7.8 km/s, will exist in the higher layers of atmosphere (ionosphere) making the same electrically charged, and imparting momentum to the ionized particles to move them at high speeds. The terrestrial atmosphere reduces the velocity-field to about half a kilometer/s, at which the surface of the Earth is rotated by the space-vortex. *There is no relative motion between the medium of space and the Earth's surface, though there is gradient of velocity-field that gives rise to electric potential-gradient in clear weather, varying from 150 to 550 volt/meter vertically up in the atmosphere.* Beyond the ionosphere, the velocity-field falls inversely as the square-root of the distance from the center of the Earth as stated earlier.

Orbital Stability of the Planets

In Fig.4a, the Earth is shown within the velocity-field of solar space-vortex, while its own velocity-field due to space circulation around it, is shown in Fig.4b. The superposition of the velocity-fields within the larger solar vortex, changes the pattern of the streamlines that are shown in Fig.4c. The Eq.11 implies that the product of the velocity-field at any space-point in the solar space-vortex and the square root of its distance from the sun center, is a constant quantity. Since the velocity-field on the nearer side of the Earth has decreased, it (Earth) should move farther from the Sun experiencing an outward repulsive force in view of the above constancy. Similarly, on the farther side of the Earth, due to increase in velocity field, it should move closer to the Sun to satisfy (11), and thus should experience an inward attractive force as a reaction of the outward repulsive force. The equal and opposite forces, required for the above radial movements of the Earth are electrical in nature (discussed below); and are produced by the interaction of the velocity-fields of the two space-vortices. The Earth is dynamically stable with regard to the above forces acting on it. The movement of the Earth in elliptical orbit is due to the tangential force by the velocity-field on each point of its orbit as further shown in this article. All planets with axial rotation will have similar forces for planetary stability such that there is no resultant radial force on them. For more rigorous calculations, the inclination of the planet's axis of spin (at right angles to which, in the diametrical plane, its space-vortex exists), with the solar space-vortex in the diametrical plane of the Sun, will have to be taken into consideration, since the interactions between these two vortices may tilt the planet, that are smaller in mass, to produce just the required amount of repulsive force for the stability of the planet in the orbit.

Electrical Force of Repulsion between the Sun and the Earth

The electrical charge of the Sun was computed in Eq.18. Similarly, the charge of the Earth Q_e can be determined as:

$$Q_e = (\pi / 4) (4 \pi R_e^2) V_t, \quad (19)$$

where, V_t is the tangential velocity of space (peripheral velocity in the equatorial plane) at its periphery. With $R_e = 6.37 \times 10^8$ cm, and $V_t = 0.464 \times 10^5$ cm/s, substituted in (19),

$$Q_e = 1.85 \times 10^{23} \text{ esu.} \quad (20)$$

The electrical force of repulsion [2] between the Sun and the Earth, due to their axial rotation being in the same direction, and hence producing the same kind of charge, will be given by

$$F = (c / 4\pi) Q_s Q_e / r^2, \quad (21)$$

where r is the distance between the Sun and the Earth. Substituting the values from (18) and (20), and putting $r = 150 \times 10^{11}$ cm in Eq.21,

$$\begin{aligned} F &= (3 \times 10^{10} / 4\pi) (0.928 \times 10^{28}) (1.85 \times 10^{23}) / (150 \times 10^{11})^2 \\ &= 2.33 \times 10^{27} \text{ dyne.} \end{aligned} \quad (22)$$

As stated earlier, electrical forces of outward repulsion and inward attraction, produced on account of unequal strength of velocity-fields on the farther and the nearer side of the Earth (relative to Sun), are equal and opposite, thus making the planet dynamically stable.

The calculation made with *Newton's equation on gravitational attraction* between the Sun and the Earth gives

$$F = 3.52 \times 10^{27} \text{ dyne,} \quad (23)$$

which is one and a half times larger than the electrical repulsion (22) and would, therefore, lead to the instability of the planet in the orbit by forcing the Earth towards the Sun. Further, the outward centrifugal force on the Earth does not exist (shown below) to oppose the above gravitational force (23) as postulated by Newton.

Origin of Centrifugal Force, and Inertia

In Fig.5 the spherical void at electron center is shown moving *relative to space* at uniform velocity v . Due to the existence of the field-less void as earlier stated, the electron is subjected to an inward *pressure* from space, shown as "p" in Fig.6a. The space-vortex of electron is not shown in this figure since the velocity-field of the vortex of electron does not contribute to the properties of inertia and momentum as shown below. At point A at the interface, space is displaced horizontally at velocity v against the pressure p . While the radial component of the velocity-field at the *front* of the moving void indicates the velocity of the displacement of space; similar component at the *rear*, gives the *in-flow velocity* of space into the cavity left (Fig.5c) due to the motion of the void. Therefore, as regards the contribution to the *work done* in displacing space and moving the void against the space-pressure is concerned, the velocity-component, $v \cos \theta$, at the front, gets canceled with the similar component at the rear. The tangential component $v \sin \theta$, however, remains as resultant velocity-field.

The Fig.5b Shows an elemental volume $dV = \pi r_e^2 \sin^2 \theta r_e d\theta$, which displaces space at velocity $v \sin \theta$ as earlier stated. From *mass-equation* (Eq.1), in which the product of the *void-volume* and *speed of light* is defined as *mass*, the elemental volume will have mass, $c dV$, and momentum,

$$dP = (c dV) v \sin \theta = c \pi v r_e^3 \sin^3 \theta d\theta.$$

Integrating for θ varying from 0 to π ,

$$\int_0^\pi dP = \int_0^\pi \pi c v r_e^3 \sin^3 \theta d\theta = (4\pi/3) r_e^3 c v,$$

which from Eq.1 becomes,

$$P = m_e v. \quad (24)$$

In the above analysis, it was the *relative motion* between the electron-void and the medium of space that created the velocity, $v \sin \theta$, which produced momentum as derived above (24). Force was initially required to move the void against the space- pressure, however, the velocity-field created initially, due to zero-viscosity of space, carries forward the void. Since all the material particles and bodies must necessarily be built of electrons [1,2], the above derivation for the momentum and inertia are applicable in general. The property of inertia arises due to the fact that : (a) matter has void-content, (b) space exerts pressure on matter, (c) the medium of space is a non-viscous fluid.

The planets and the satellites are carried by their respective space-vortices, and hence there is no relative motion between their surfaces and the surrounding medium of space. It is therefore that the cosmic bodies orbiting around their respective primaries can not have outward centrifugal force acting on them.

Creation of solar matter

Consider the case when the Sun had no matter and around its present center existed the solar vortex. Since electron is created [1,2,3] when space has rotational speed reaching light speed, it is shown below that the speed of space- circulation at the solar- vortex center does reach the limiting speed of light, thus fulfilling the condition for the material creation. The Eq.8 can be written as

$$\sqrt{r} = k / v_f. \quad (25)$$

Substituting the values, $k = 11.52 \times 10^9$ m / s from (12), and $v_f = 3 \times 10^8$ m/sec (speed of light) in (25), the value of r is found as

$$r = 1474.5 \text{ m}. \quad (26)$$

It is thus seen that at the center of the Sun, within a diameter of 2949 meters, the medium of space is broken down and creation of matter, starting from electrons, is continuously taking place. It appears that the created matter accumulated within the Sun over some time will lead to intermittent bursts that should account for the solar flares from the Sun- spots as observed.

Conclusion

From the orbital rotation of the Moon, determination of the Earth's gravity field, which is an experimentally measured quantity, provides a clear proof that the space circulates around the Earth, and subjects it to an *inward pressure* that produces the gravity field. The exact value of the gravity field of the Sun, computed from the orbital motion of the planet, Mercury, points towards the universal applicability of some new principles:

1. *The space circulation around cosmic bodies causes their axial spin and produces gravity field by exerting pressure on matter.*

In terrestrial condition, the medium of space is stationary relative to the surface of the Earth (neglecting the velocity gradient vertically up in the atmosphere), and, hence, a body on the Earth, in uniform circular motion, develops centrifugal force; such a force is, however, absent in the orbital motion of the cosmic bodies where the space-vortices around the primaries (planets, stars, galactic centers) carry their respective secondary bodies in their orbits.

2. The cosmic bodies in orbital rotation have no relative motion between their surfaces and the surrounding medium of space in the immediate vicinity.

On the orbital stability of the planets it is concluded that the electrical repulsive force exists between the Sun and the Earth. As an universal principle it can be stated that:

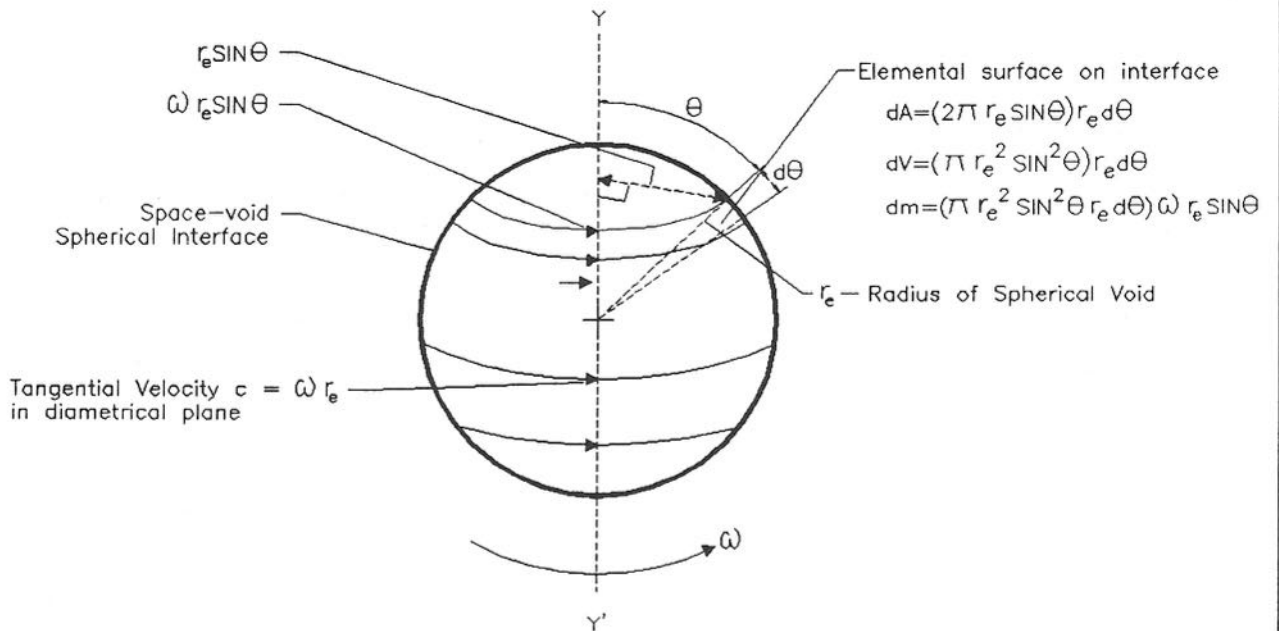
3. All cosmic bodies with axial spin will possess electrical charge that will result into repulsive forces between the bodies with the similar spin, and attractive forces with dissimilar spin. According to this, the movement of the galaxies speeding away from each other, should be due to repulsive electrical forces.

4. The Sun in its central zone creates its own matter including the matter for the planetary system. Since the Sun rotates axially, possibility exists for the existence of a three kilometer diameter cylindrical hole along the axis of the Sun from north to south pole.

In seventeenth century, Newton opposed the Vortex Theory of Descartes on the ground that it did not account for the quantitative observations on planetary motion, such as, Kepler's laws did. Though the principle of inertia for straight line motion postulated by Rene Descartes found place in Newton's Principia, and was used by him for planetary motion, he did not consider space to play role in driving the planets in their orbits. It was in this sense that Newton considered the medium of space inert, and generalized on the existence of the centrifugal force acting on bodies in uniform circular motion, in terrestrial as well as universal space. It has now been possible to derive from the postulates of the SVT (that pinpoints on the limiting speed of flow of space equal to the speed of light, and utilizes this process for the creation of universal matter), not only the third law of Kepler, but also the quantitative results on gravity field, charge, and electrical repulsion between the Sun and the planets. Newton's treatment of space as an *inactive* entity has been shown through the above analysis to be erroneous. It is concluded that while the celestial mechanics of Newton needs revision, Rene Descartes is vindicated for his most basic postulate that the planets are moved by the vortex of the fluid space.

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Universal Constant ω : Angular Velocity of Interface Around Y-Y' & equal to c/r_e

c : Speed of Light in absolute vacuum

q_e : Electronic charge
 m_e : Electron's mass

L : Angular momentum of electron

Space : Non-viscous, mobile, continuous, incompressible

Void : Fieldless, spherical hole in space

Radius of spherical void $r_e \simeq 4 \times 10^{-11}$ cm

$$q_e = \int_0^\pi dA \omega r_e \sin \theta = (\pi/4)(4\pi r_e^2 c)$$

$$m_e = \int_0^\pi dV \omega r_e \sin \theta = (4\pi/3)r_e^3 c$$

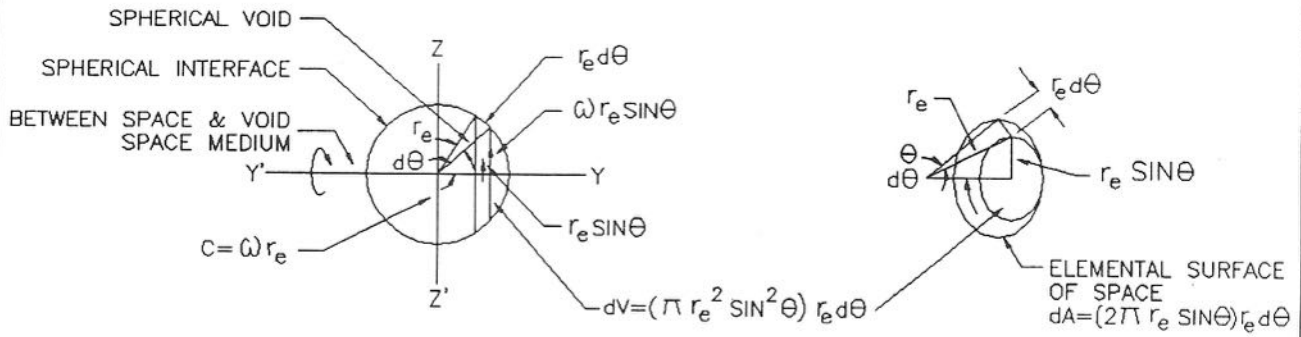
$$L = \int_0^\pi dm (\omega r_e \sin \theta) r_e \sin \theta = (4/5)m_e r_e c$$

$$\text{Gram} = 7.8 \times 10^6 \text{ Cm}^4/\text{s}$$

$$\text{Unit charge (CGSE)} = \text{Cm}^3/\text{s}$$

Generation of Mass, Charge & Angular Momentum of Electron from Absolute Vacuum

Fig.-1



ω = ANGULAR VELOCITY OF SPHERICAL INTERFACE AROUND Y-Y'

VOID = FIELDLESS SPHERICAL HOLE IN SPACE

SPACE = NON-VISCOUS, MOBILE, CONTINUOUS, INCOMPRESSIBLE

VOID-RADIUS $r_e \approx 10^{11}$ cm

CHARGE ON ELEMENTAL RING SURFACE (Dq) = RING AREA x SPEED OF CIRCULATING SPACE ON RING SURFACE

$$dq = dA(\omega r_e \text{ SIN } \theta)$$

$$\text{ELECTRONIC CHARGE } q_e = \int_0^\pi (2\pi r_e \text{ SIN } \theta r_e d\theta (\omega r_e \text{ SIN } \theta))$$

$$\text{DIMENSIONS OF } q_e = (\pi/4)(4\pi r_e^2 c)$$

$$\text{DIMENSIONS OF } q_e = \text{LENGTH}^3/\text{TIME}$$

REST MASS OF ELEMENTAL DISC VOID

$$dm = dv \times \text{SPEED OF CIRCULATING SPACE AT THE INTERFACE OF THE ELEMENT}$$

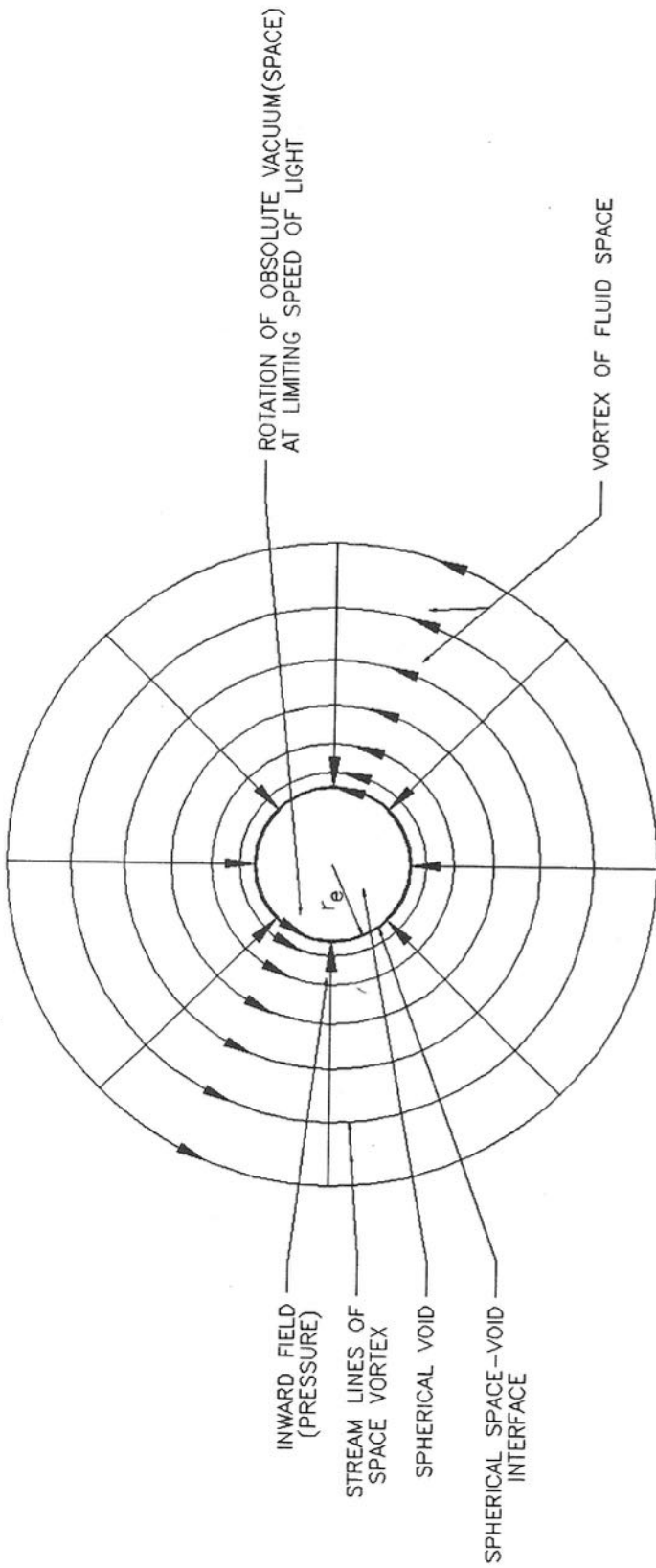
$$dm = (\pi r_e^2 \text{ SIN}^2 \theta r_e d\theta) \omega r_e \text{ SIN } \theta$$

$$\text{ELECTRONIC REST MASS } m_e = \int_0^\pi (\pi r_e^3 \text{ SIN}^3 \theta r_e d\theta) = (4\pi/3)r_e^3 c$$

$$\text{DIMENSIONS OF } m_e = \text{LENGTH}^4/\text{TIME}$$

GENERATION OF MASS & CHARGE OF ELECTRON FROM ABSOLUTE VACUUM

FIG.-1a



ABSOLUTE VACUUM WITH NON-MATERIAL PROPERTIES (INCOMPRESSIBILITY, ZERO-VISCOSITY, CONTINUITY & MASS-LESSNESS) OF AN IDEAL FLUID.

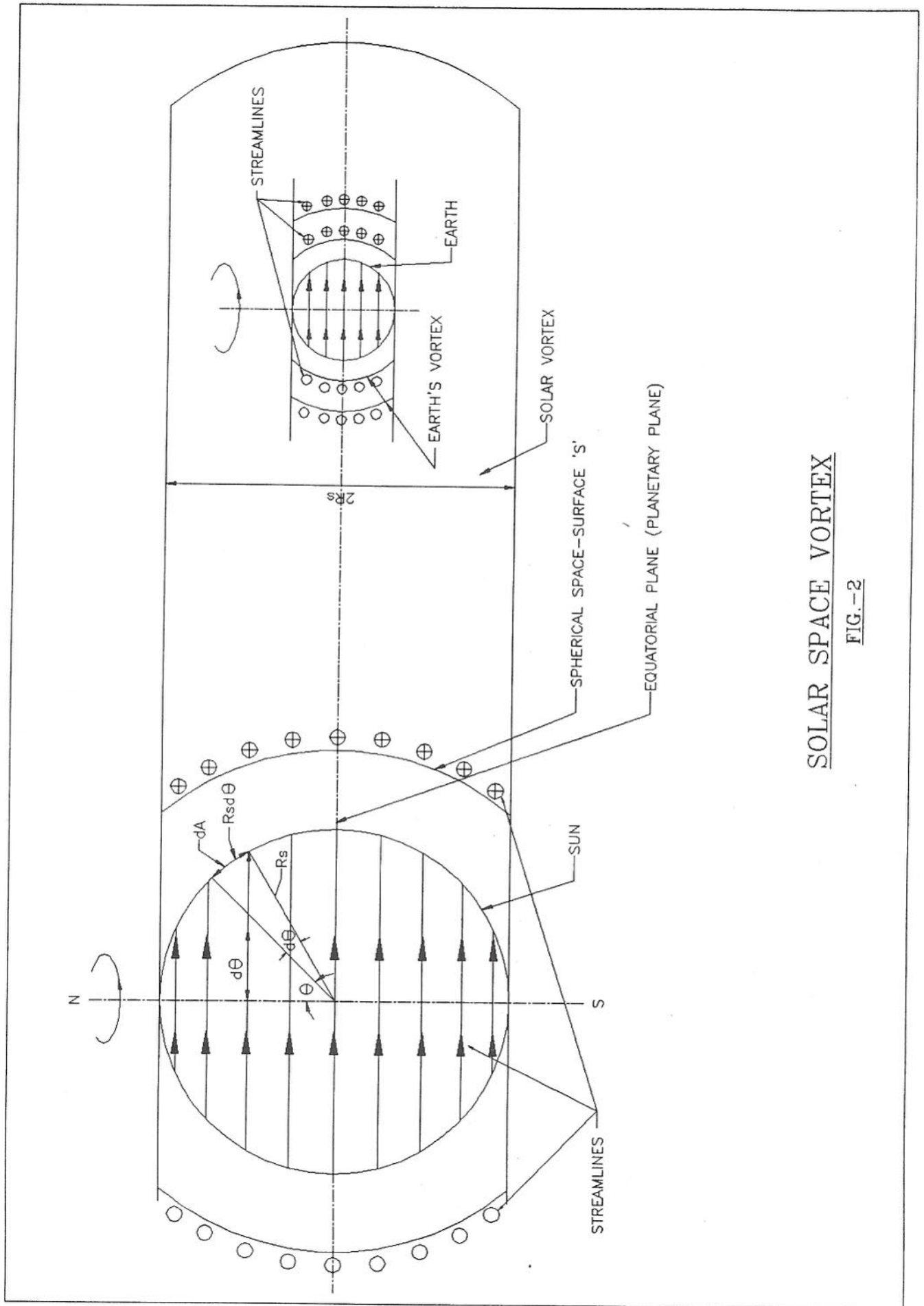
FIELDLESS, ENERGYLESS, SPHERICAL VOID, CREATED DUE TO ROTATION & BREAKDOWN OF OBSOLUTE VACUUM.

SPEED OF ROTATION OF SPACE FALLS OFF INVERSELY AS DISTANCE FROM THE CENTRE OF VOID.

RADIUS OF SPHERICAL VOID $r_e \approx 10^{-11}$ cm.

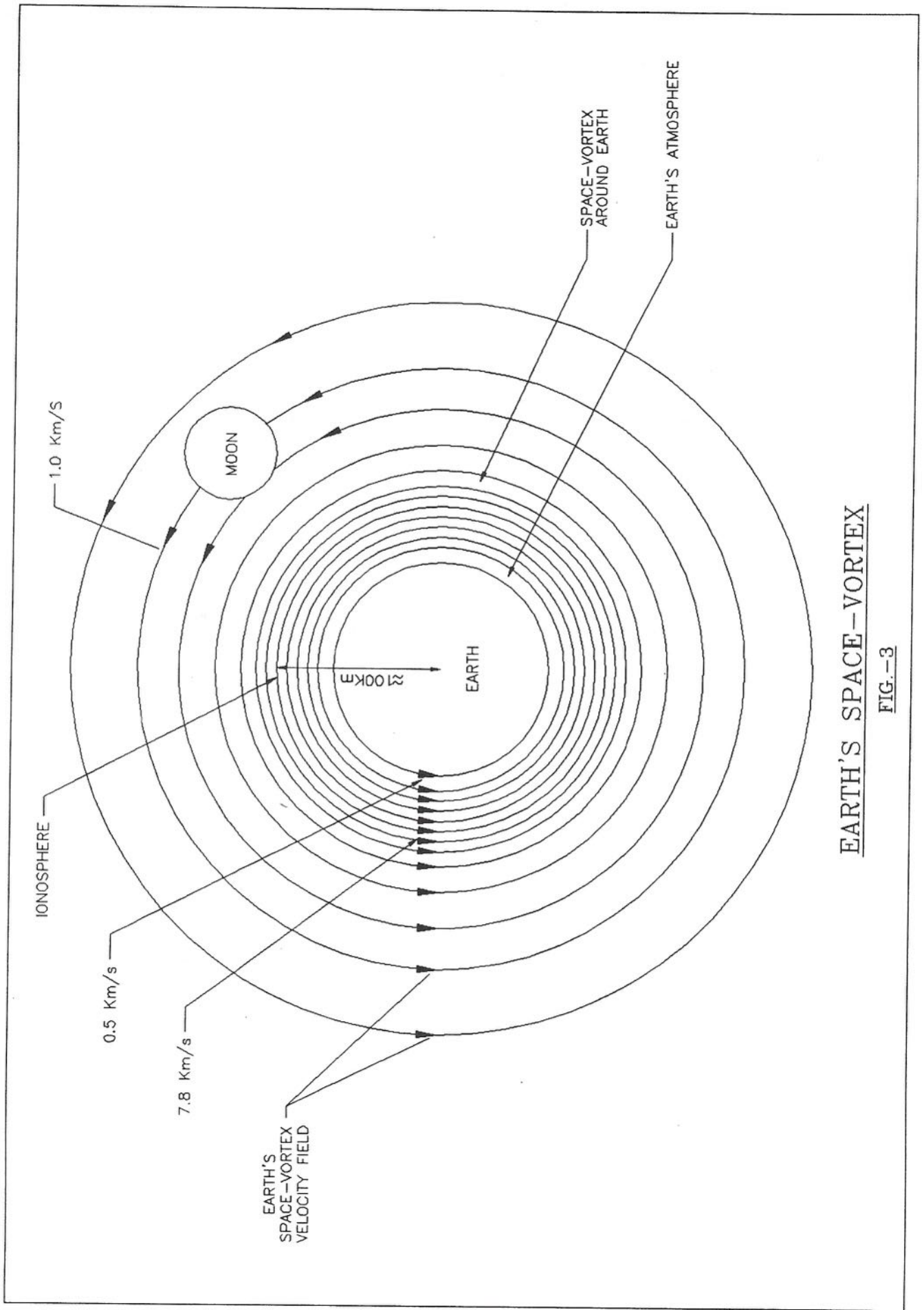
ELECTRON STRUCTURE

FIG.-1b



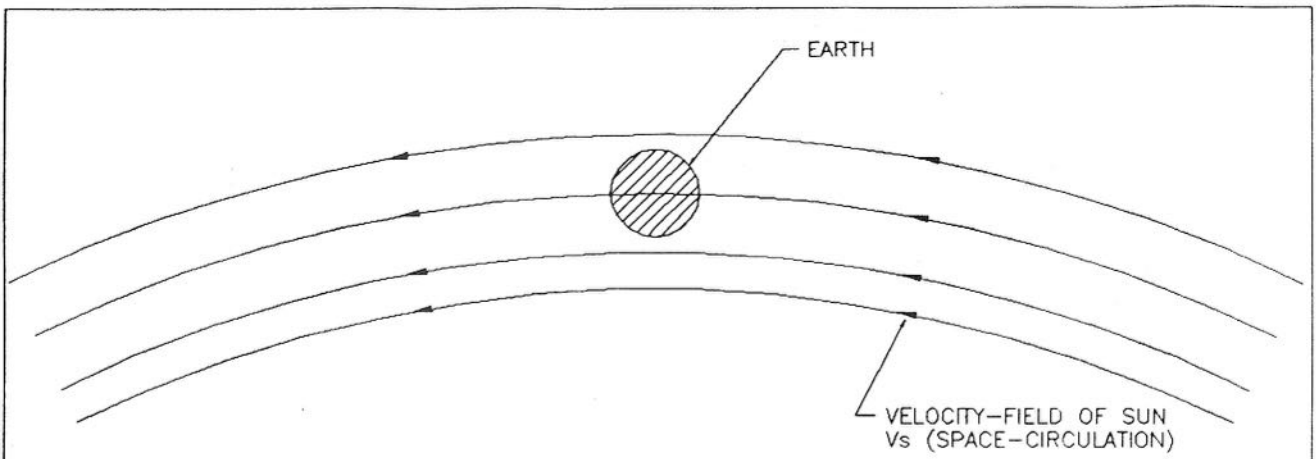
SOLAR SPACE VORTEX

FIG.-2

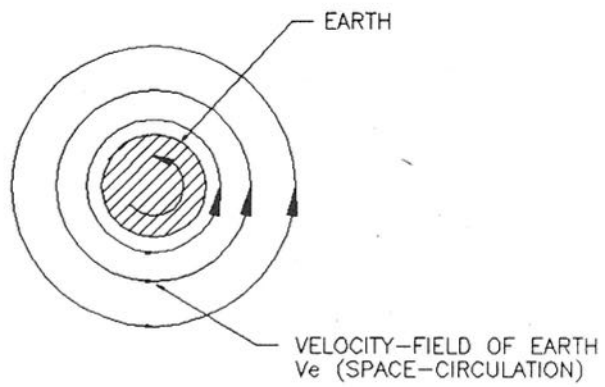


EARTH'S SPACE-VORTEX

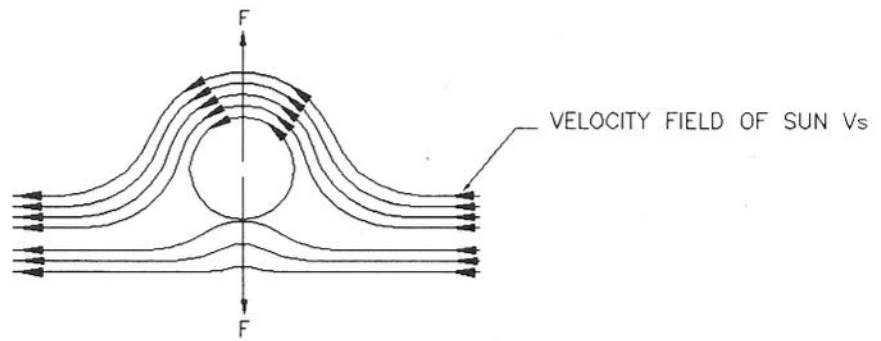
FIG.-3



(a)



(b)



(c)

ELECTRICAL FORCE ON EARTH

FIG.-4 .

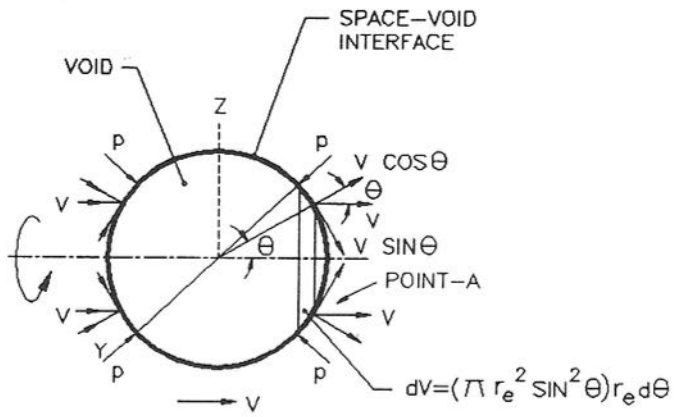


FIG.-5a

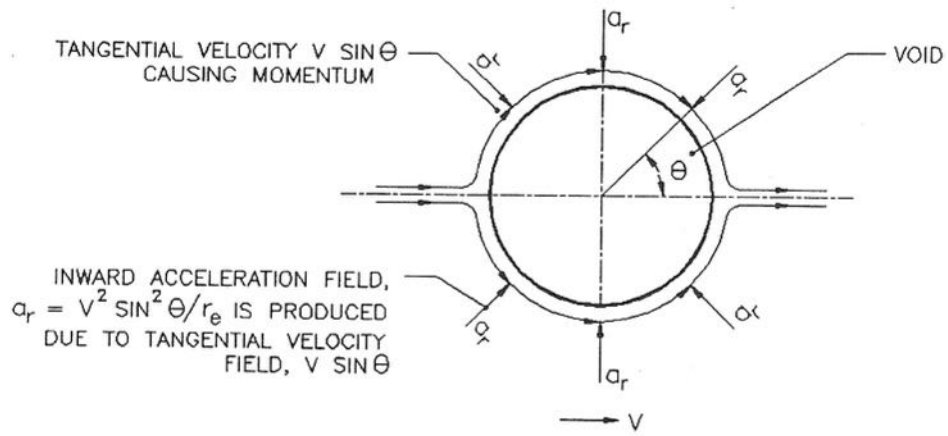


FIG.-5b

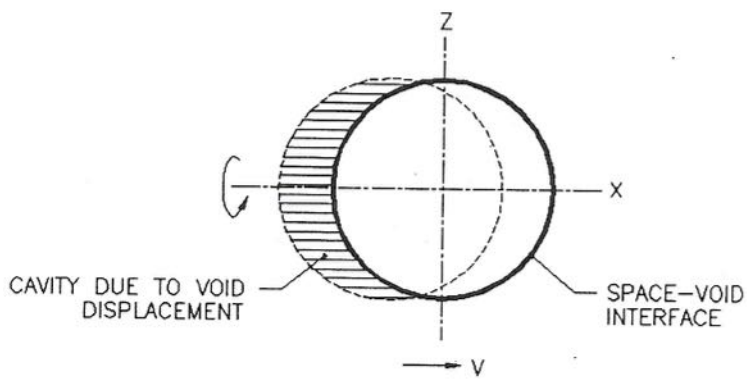


FIG.-5c

INERTIA & MOMENTUM

FIG.-5

A synopsis of the Russell Science Research experiments and results - spanning the years 1927 and 1954 to 1963 and 1991 to 1998. By Dr. Timothy A Binder

In 1926 Walter Russell published *The Universal One*. In this book he gave his principles as seen by him then for opening up the "age of Transmutation". Later he changed the expression of his ideas, going from 10 to 9 octaves of elements and from about 134 to 121 elements and isotopes. He also later spoke of gravity as being only the inward thrust of centripetally directed motion while at the same time speaking of it as both the inward thrust of gravitation and the outward thrust of centrifugally directed radiation. Possibly before this, in 1910 or 1926, it is not clear to me from the copyright, he published *The Russell Genero- Radiative Concept* where he outlined more of his ideas on fundamental physics.

In 1927 he was involved in transmutation research at the Westinghouse Lamp Laboratories. While his lab notebook leaves much to be desired in accurate details as to exactly what he did then it appears that indeed he did accomplish a transmutation of water into various other gases and elements. This has been reported on in previous *Fulcrums* especially Vol. 1 #2.

In 1946 he published *The Secret Of Light* which is the first known public presentation I know of the revised 9 octave periodic chart. In recent editions of this book I published footnotes attempting to update the accuracy of that chart.

In 1953 he published *The Russell Cosmogony* which has been updated with his own revisions edited by the late Emelia Lombardi now available as *A New Concept Of The Universe*. In this book he gives brief details of how he did his 1927 Westinghouse experiments and voluminous details on his Cosmogony. I believe it was the third edition of the *Home Study Course* that first had mention of the spiral coil windings to increase current and pulling power and the octave wave series of lenses to increase over unity of light and heat as well as a rudimentary design for the Russell Optico-Dynamo Generator.

Somewhere around 1954 to 1957 he again became actively involved in science research in the following areas: demonstration of 1) the transmutation of gases; 2) the Russell spiral wound coils; 3) the Russell Optico

- Dynamo Generator; 4) lenses as per the *Home Study Course* diagrams to multiply the heating power of sunlight and oxy-acetylene flame.

I was able to contact Shigeo Okubo in Hawaii about 6 years ago who worked with Walter in the 1950's on the gas transmutations. Apparently they were not able to duplicate Russells' Westinghouse work at that time. I have published the results of Walters' 1958 tests on the Russell spiral wound coils done by the Alco Valve Company in the *Fulcrum* Vols. 4 No. 3 and Vol. 5 No. 1. Apparently the way he envisioned them at that time and as presented in *The Home Study Course* did not work. In *Fulcrum* Vol.1 No. 1 we published an article on my synopsis of Toby Grotz's article on the patent by Earl Koenig that used 2 straight wound coils placed in mirror image symmetry that is more efficient than non mirror image symmetry for some applications that is similar to some of Walters' ideas on the two way male female pairing of the electric current that may prove to contain suggestions along with the Russell Cosmogony for windings aeometrical arrangements of two or more coils that may yet prove to be over unity.

I was able to find archival material revealing that Walter had ordered lenses and apparatus to test his ideas about the lenses but nothing to show the results. I have talked to others who did independent verifications of the coils and lenses with no success.

In *Fulcrum* Vol. 5 No. 2 I published archival material about transmutation, the coils and optico-dynamo generator. Other archival material shows that he was involved in another variation of the spiral coil windings to heat water and get current to create this machine and in a letter to a Colorado Springs contact at Raytheon Corp. connected to the Air Force he claims to have been successful. Remnants of the machine remain in the archives as well as diagrams but there has been no independent verification of its success nor anything written or otherwise that would point to this. An archival letter suggests that he was working at a research laboratory on a navy base in Florida almost up to the time of his death in the early 60's. There is archival correspondence documenting that General Chapman head of NORAD from CO Springs CO and his staff came to swannanoa to meet with the Russells and several years ago I made available audio tape copies of his lectures to them while they were there. If the optico-dynamo generator worked, perhaps it lies in the hands of the US military even now. His research ended with his death

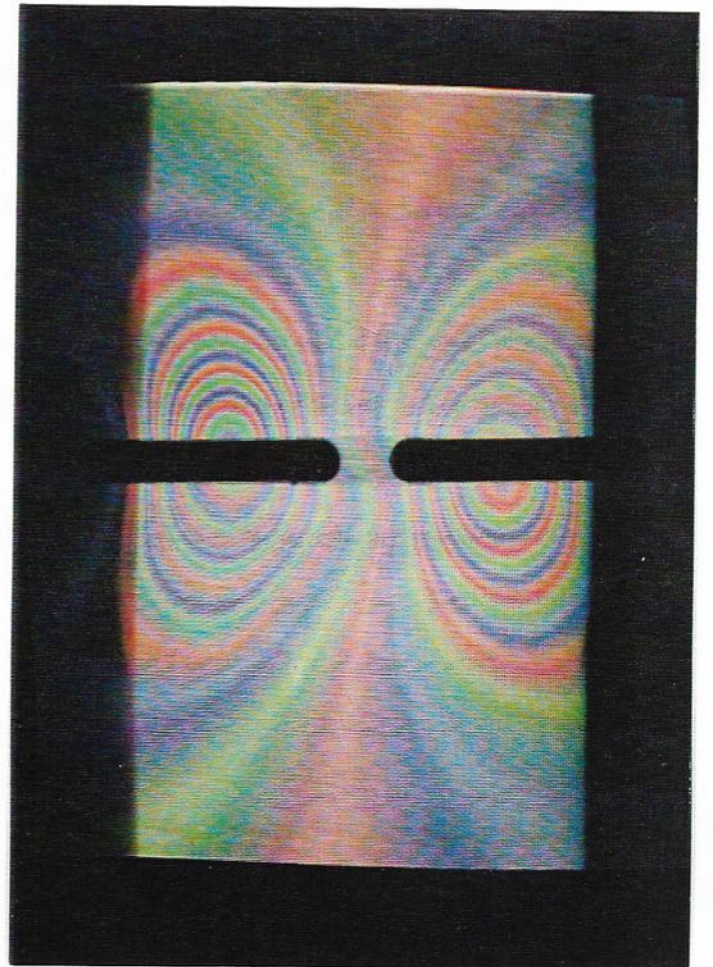
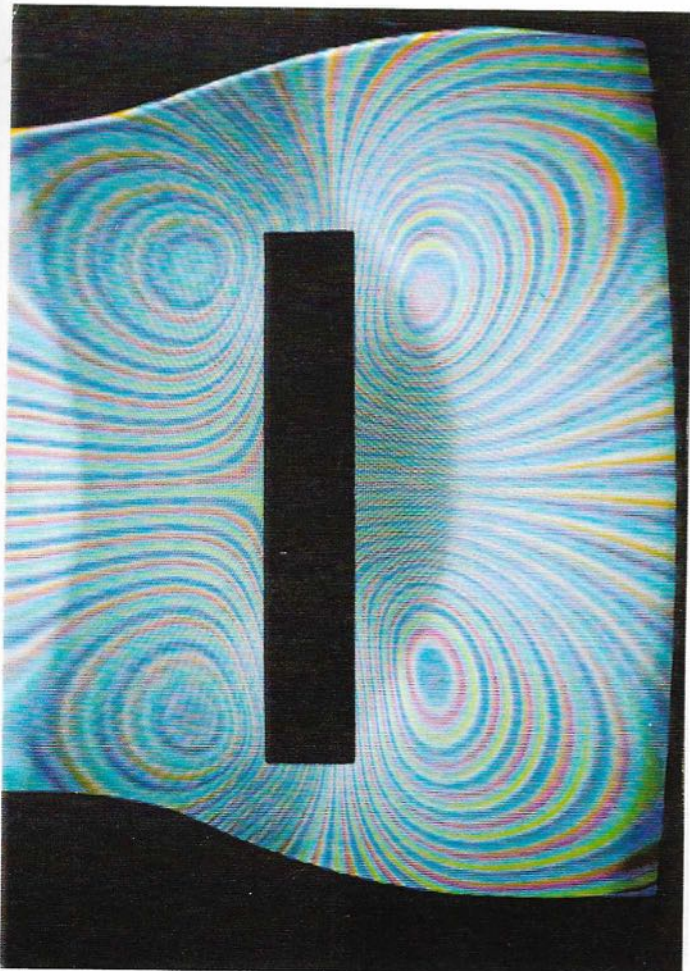
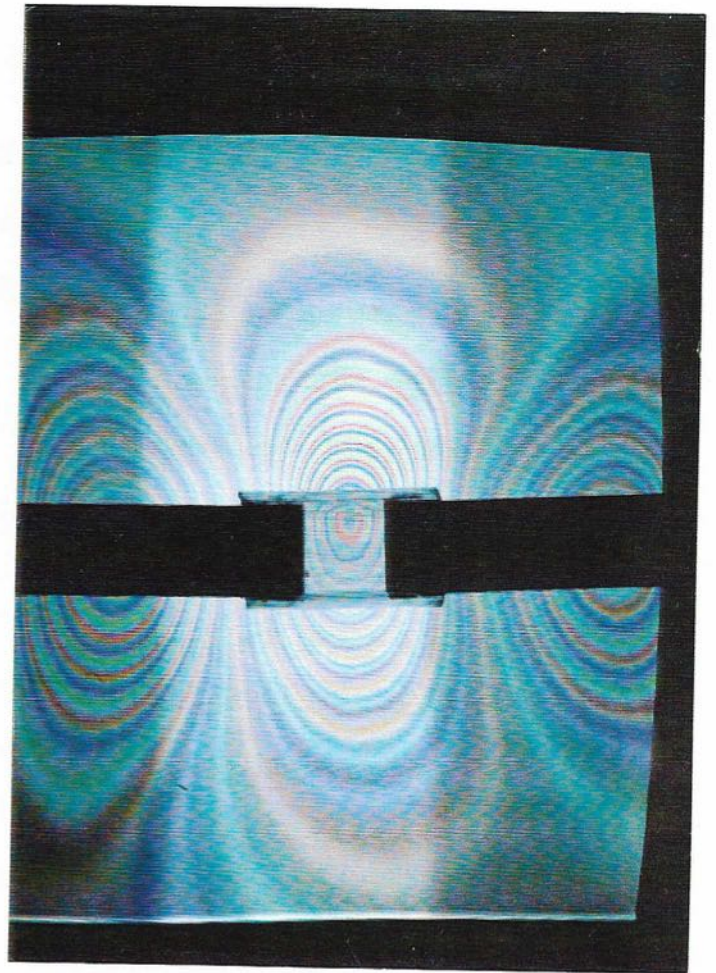
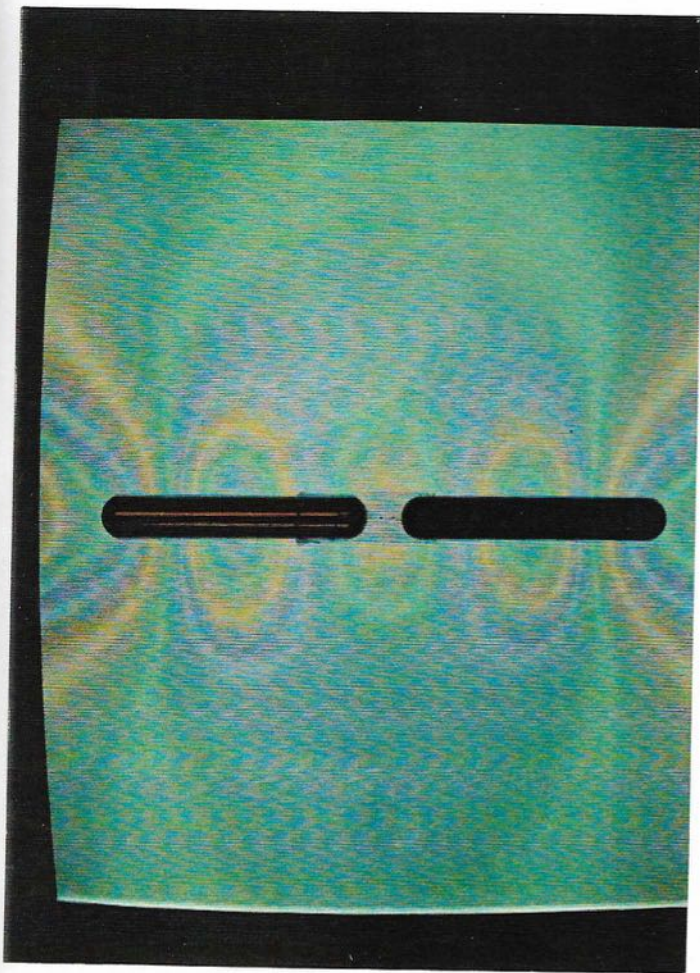
In October of 1991 Ron Kovac, Toby Grotz and I did our first experiments with the transmutations of gases at Ron's labs in Boulder CO. This was reported on in the *Fulcrum* Vol. 1 No.2 August 1992. In May of 1994 Ron and I were working on a transmutation of nitrogen to hydrogen with a mass spec that the University paid him \$10,000 to assemble for this work. Later upon analyzing the data Ron found that we had mass 5 showing up in the mass spec. This serendipitous event was reported on in *Fulcrum* Vol.3 No. 2. There have been other *Fulcrum* articles about this transmutation and others about our transmutation work generally. After this mass five transmutation was reported on in *Fusion Facts* and *New Energy News* I was contacted by Dr. John M O'Bockris Professor Emeritus of chemistry at Texas A&M who wanted to know more. I suggested a meeting and he arranged the first symposium on low energy transformations I believe in June of 1995 with himself, Ron, Toby and I and at least 34 others at Texas A&M. Since then the interest and research in transmutation has exploded around the world. Cold fusion researchers have observed such events in their work to where now some are saying we should call it transmutation and the excess heat is a by product.

Shortly after the Texas meeting Ron pursued this work independently while Toby and I have continued as a team effort. I have reported about our verification effort regarding the lenses in *Fulcrum* Vol. 6 No. 1 showing they do not work as envisioned in *The Home Study Course*.

This next year, 1999, Toby and I will finish work with the transmutation of gases and solid elements, the transmutation of radioactive wastes, investigation as to what luminon may be and its application to lighting devices, alternate designs for coil windings and arrangements for power production, polarized light and special lenses for power production and other approaches as they apply to these projects as well as antigravity experiments.

A visual proof of Walter Russell's clairvoyant vision - photographs of the fields around magnets illustrating the same form, colors etc. as the Russell paintings that illustrate the Cosmogony.

The accompanying set of colored photos of magnets as placed on a computer screen (or a T.V. screen with snow background) reveal an intriguing set of colored vortex rings to Russell students. Indeed they look incredibly similar to the paintings he did back in the early part of the century of the fields around magnets that he claimed to see long before computers or T.V.'s existed. The painting on the front of this issue is one of these paintings. You will find several more in my book *In The Wave Lies The Secret Of Creation* containing 45 full color paintings, charts and diagrams by Walter Russell and 10 more in black and white. In the photos and the painting note the male poles with red colored centers and the female poles with blue centers. I believe the photos in the book and those of the magnets on the computer screen speak for themselves as to Walter Russells ability to actually see the spectrum of colors around a bar magnet - and of course much more. As a teenager I remember telling my father about this same spectrum of colors that I could see around ordinary lights, and especially street lights, and hauling him outside to look at them to see if he saw them as well. He did not, but that did not dissuade my knowing that I saw them. We all know that science's not believing Walter's assertions about his seeing the fields around magnets and indeed all things, did not dissuade him either. Perhaps these revealing photos accompanying the cover painting will intrigue other than Russell students, should they happen upon them, to discover what else he saw and knew.



From The Archives

THE CYCLIC THEORY As The Cause Of SOLAR REGENERATION

by
Walter Russell.

- - - - -
The energy stored in the sun is degenerating by the gradual radiation of its heat.

It is simultaneously generating. In the attempt to answer the riddle of the cause of solar regeneration let us also consider the cause of its degeneration.

Let us write down a series of effects of motion which represent the tearing-down-wearing-away processes of Nature, all of which are either synonymous with Radiation or accompany it.

Then since "every action has its equal and opposite reaction" let us write down those effects of motion which represent the building-up-storing-away processes of Nature which are synonymous with, or accompany, effects of gravitation.

Radiation

The presumably
repellant force
which decomposes
matter radiatively

Degenerating.....

Gravitation

The presumably
attractive force
which composes
matter generatively

Generating.....

Radiation

Disintegrating.....
De-composing.....
Dissipating.....
Distributing.....
Emanating.....
Expanding.....
Cooling.....
Centrifugal.....
Melting.....
Tenuousity.....
Ionization - Evaporation.
Dissolution.....
Leaking.....
Disappearance.....
Increasing volume.....
Exhalation.....
Exothermic.....
Nebulousness.....
Conduction.....
Discharging.....
Repulsion.....
Lowering melting point...
Lowering potential.....
Low pressure.....
Negative.....
Minus.....
Softness.....
Wetness (hydrous).....
Vaporizing.....
Devolution.....
Death.....

Gravitation

Integrating.....
Composing.....
Accumulating.....
Assembling.....
Absorbing.....
Contracting.....
Heating.....
Centripetal.....
Freezing.....
Solidity.....
Condensation.....
Solution.....
Storing.....
Appearance.....
Decreasing volume....
Inhalation.....
Endothmermic.....
Distinctness.....
Induction.....
Charging.....
Attraction.....
Rising melting point.
Rising potential.....
High pressure.....
Positive.....
Plus.....
Hardness.....
Dryness (anhydrous)..
Licquefying.....
Evolution.....
Life.....

Are not these two series Nature's expressions of motion in opposing, balancing and sequential oscillations.

All motion in any direction is resisted. Are there any other directions than two, one of which is the direction of gravitation, confined only to condensed bodies of greater potential than their surrounding environment, and the other of which is the direction of

radiation, confined only to expanded bodies of lower potential than that which they displace?

Resistance to all motion of condensing bodies headed toward the high pressure points at the gravitational centers of maximum density, increases every one of the effects of gravitation within themselves and within the masses toward which they fall.

Condensing bodies mutually charge each other, thus increasing their density, pressure, potential and all kindred positive effects.

Condensing bodies are attracted to condensing bodies.

That quality which we call "weight" begins to be added to them. "Weight" is not a fixed quality of matter. It changes in every mass according to its distance from its high pressure point.

"Weight" is maximum at nucleal centers and lessens as the distance from those centers increases.

A pressure gradient evolves which also is maximum at nucleal centers and lessens as the distance from those centers increases.

This is the process of condensation whether it be in rain drop, planet or giant nebulae.

Condensation is resisted by the pressures

generated by the contracting process of condensation.

Resistance to condensation generates heat.

Radiation of generated heat increases condensation.

An effect of pulling inward from within is produced.

This effect of pulling inward from within exactly corresponds to the effect of an electric action which tends to shorten a line of force in the direction of its length.

This effect of electric action exactly corresponds to the attraction of gravitation.

This effect of gravitation exactly corresponds to the pulling inward from within contracting effect of generation.

The gravitation action of pulling inward from within meets with its own reaction, the resistance of the force which pushes outward from within.

There can be no expression of force without resistance.

Neither man nor cosmos can pull or push against a void. The cosmic force develops pressures against which it pulls and pushes.

The entire universe is made up of variable pressures running ⁱⁿ/gradient from high to low.

Along these pressure gradients of forming and formed masses, every mass of every system finds a proper orbit for its potential.

Radiative energy, such as the sound of a human voice for example, centrifically girdles the globe in these pressure gradients until it gradually loses itself in the low pressures of space and reproduces itself again in the next mass.

This effect is as applicable to the atom as to the planet.

All energy is transformed in this manner and is repeated by the resistance set up against the effort to transfer.

It is due to resistances that every action of free energy expresses itself in curved lines and makes an action in straight lines impossible.

Resistance to every action or reaction bends the line of direction of either of the opposed forces away from a straight line into a centripetal spiral.

The vortex of each spiral is the high pressure gravitative center of the mass, or system, so formed.

The high pressure so developed is the result of the contracting effect of condensation which stores energy from large volume to small volume by winding it up centripetally into systems of spheres.

Each consecutive sphere decreases in density from the nucleus outward to a low pressure line of inertia between it and the next sphere.

Each separate sphere decreases in density from its gravitative center outwards to its surface.

The action of that phenomenon of motion which pulls inward from within is the cause of the closing, or centripetal: spiral. The centripetal force of motion is the generating force. Centripetal spirals might be generalized as male and centrifugal, or opening spirals, as female.

We have accounted for the regeneration of the male, positive force which condenses, contracts, generates, integrates bodies which mutually charge each other in the action of contraction.

Resistance reproduces both sexes.

Let us consider the other sex.

That which is generated must be radiated.

The action of generation raises the potential of the mass by charging it.

Charged bodies eventually discharge their stored energy into the lower pressures of their environment.

All motion is seeking the equilibrium of an inertial position.

Charged bodies seek to discharge to the low pressure inertial position of equilibrium which lies between it and the next mass.

Charged bodies therefore discharge slowly into the insulating medium of poor conductivity which surrounds dense masses near the nucleus of a system, and quickly in the more tenuous masses far out in the system where the insulation against discharge is poor.

The environment of a mass acts as an insulator to protect its stored energy from discharging.

The more dense the mass the dryer and hotter is its insulating environment, therefore the poorer the conductivity for discharge and decomposition, and the greater its inductive quality of absorption of outer energy.

The less dense the mass, of the colder and wetter is its insulating environment, therefore the

better the conditions for discharge and decomposition and the poorer its inductive ability to generate.

The degenerative reaction to radiation is born in the same cradle with its generative action, and resistance is the father - mother of both.

The degenerative force of the repulsion of radiation is the decomposing force which destroys.

The generative force of the attraction of gravitation is the composing force which "creates", or produces.

Resistance of these forces to each other in their efforts to overcome inertia, is the reproductive force which repeats.

This so called "created" universe is one of production, destruction and reproduction in endless cycles.

Terms synonymous with these are generative, degenerative and regenerative.

The term "created" is not applicable to this universe of motion. It is a creating - destroying - recreating universe of continual change.

Let us write down a new terminology as follows: "The contraction of gravitation", and "the attraction of generation".

Are not these terms as exactly applicable as the familiar transposed ones?

Are they not in fact synonomous?

Is not a cold condition necessary to produce the effect of condensation?

If a cold condition condenses, cold must therefore generate.

The greater the condensation, the greater the heat generated by the pressure exerted from the opposite direction as resistance to generation.

The greater the radiation of heat, the greater the contraction of mass by the cooling of radiation.

Cold contracts; contraction generates; generation heats; heat radiates; radiation expands; expansion cools, and cold again contracts.

Thus we have the cycles of generation, radiation and regeneration, which continue motion forever and forever throughout endless ages.

Through these repeative cycles, form is "created" by the pulling inward from within pressures of generation, and is decomposed by the pushing outward from within pressures of radiation.

Vortices are formed which develop into striations.

The heavens abound with vortices and striations.

They are the whirlpools of generating or condensing matter winding themselves up around their nuclear centers of high pressure. Our sun is the high pressure center of such a whirlpool,

If condensing bodies are charging bodies and if condensing bodies fall toward condensing bodies in lines which eventually meet, it is logical to conclude that they are attracted toward each other. All bodies which approach each other mutually charge each other. It also follows that if condensing bodies are charging, and if charging bodies are endothermic, energy absorbing, contracting bodies, then they are increasingly plus, or increasingly positive, their increase being in the ratio of condensation toward greater density.

If approaching bodies mutually charge each other, and the evidence of it is indisputable, this mutual charging must be the cause of the attraction of gravitation. If this is true then that force which, through condensation, causes matter to store itself in less volume of greater solidity, must be the generative force.

On the contrary if receding bodies mutually discharge each other, this mutual discharge must be the cause of the repulsion of radiation. Is it not true that discharging bodies repel each other? Does

not every effect of decomposition or radiation depart from high to low pressures in mutually repellent lines as though pushed outward from within. If this is true then the word "charge" belongs only to the positive or plus force of gravitation and the word "discharge" belongs only to the negative or minus force of radiation.

In this gravitative effect of charging let us see if we haven't found the secret of generation in the storage of energy through the mutual attraction of positively charging, condensing bodies.

Is it not as logical to conclude that condensation is a generative effect as that dissipation is a degenerative effect?

Let us examine the effect of resistance on a falling condensing body.

We know that the greater the resistance to condensation, the greater the heat generated by resistance.

Does not heat always radiate? Is not radiation always accompanied by expansion?

Is not expansion the opposite of condensation or contraction?

Does not expanded radiation seek the direction opposite to that of condensation?

Radiation is the degenerative reaction to the

generative action of exerting force.

The reaction of radiation expresses itself centrifugally by pushing outward from within.

The purpose of radiation is to dissipate or decompose that which gravitation has integrated or composed.

The result of radiation is the distribution of mass into the formlessness of the so-called voids of space.

On the other hand, gravitation is the generative centripetal action of force caused by resistance to the expression of universal force.

The action of gravitation expresses itself centripetally by pulling inward from within.

The purpose of gravitation is to assemble or compose mass from large volume to small volume.

The result of gravitation is to accumulate energy into systems of relatively dense masses of "matter".

Matter is the dimensional evidence of the result of gravitation.

The desire for expression of force in the universe is resisted by an opposing desire for an inert universe.

The expression of force in overcoming inertia,

being resisted, results in the apparent division of the one force into two opposing forces.

These two forces are not different forces. They are but opposite expressions of the same force, for each one is part of a cycle and each one eventually becomes the other.

These are the sex divisions known as male and female, which divides every expression of force into apparently unstable "pairs of opposites", which, when united, become one bi-sexual force.

These two opposing forces are the generative and degenerative forces of gravitation and radiation.

Degeneration is merely dissipation or expansion of accumulated energy into larger volume of lower pressure and potential. Then, if the law of equal and opposite action and reaction is true generation must be the accumulation of energy by contraction into smaller volume of higher pressure, greater density and higher melting point.

The attraction of gravitation is the cause of solar generation as the repulsion of radiation is the cause of solar degeneration.

* * * * *

Notes and Observations of Nature's Processes Which Substantiate the Cyclic Theory of Generation, Degeneration and Regeneration of Energy Through The Attraction of Gravitation, The Repulsion of Radiation, And Resistance to Both.

Consider surface temperatures and pressures.

A glance at the weather map will show that the surface of the earth is divided into high and low pressure areas.

The low pressure areas are the cold zones of greatest condensation.

Vapors contract into smaller volumes, gather "weight" and fall to the ground as rain in mutually attractive converging lines.

Cold winds descend in eddies or spirals, sweeping ever toward the high pressure zones heating as they go.

The high pressure areas are the hotter zones of greatest radiation.

Waters vaporize and heated air loses "weight" by expanding its volume into greater space. These rise away from the earth in mutually repellant diverging lines.

Up in the colder strata of lower pressures the thin vapors condense into heavier vapors and draw together into cloud straitions.

At the poles of the sun and every planet we find maximum low pressure, greatest cold and maximum condensation.

At the poles an equatorial pound weighs more than a pound.

In these cold zones radiation is minus and generation is preponderant.

In the equatorical zones radiation is preponderant and generation is minus.

The equatorial belt of the sun is still licquid while the poles are condensed.

The corona of the sun tells us that radiation extends for millions of miles at its equator then bends toward its poles and condenses.

The excessive radiation of the earths equatorial belt is fast making it a desert.

Farther out in the lower pressures of this solar system the expansion of radiation. has developed upon Mars a completed desert area.

Still farther out the more oblate and less dense Jupiter has degenerated equatorially to belts and Saturn to rings which in Uranus have recondensed to satelites.

In every instance above quoted the generative force of energy accumulation corresponds to the attraction of gravitation and the degenerative force of energy dissipation to the repulsion of radiation.

In every instance also condensing substance is seeking the equilibrium high pressure inertial turning point for the return journey to low pressures, and the expanding substance is seeking the low pressure inertial turning point for the return journey to high pressures again.

Is it not logical therefore to assume that all motion is seeking an equilibrium pressure in inertia and never finding it.

Consider the apple.

From somewhere in the expanse of space the universal alternating expansion - compression pump gathers low potential into contracted high potential until an apple evolves to full maturity.

The apple has "weight" in respect to its environment.

It has accumulated much more energy and of a higher potential than the surrounding air because it has packed many hundreds of millions of atoms into each cubic centimeter of apple than the air contains.

For this reason the earth "attracts" this condensed object with greater force than it "attracts" the cold air or a cotton ball for exactly the same reason that a basket of sand is "attracted" more violently to the earth than the same basket of cotton. Now cut the stem and let the apple fall.

What happens?

This condensed high potential in seeking an equilibrium pressure appropriate to its own potential, drops toward the high potential inertial point of the condensed planet and comes to rest on its surface.

Now what happens?

Does it stop there? Does not the still higher potential of the plant inductively withdraw its charge of stored energy?

In other words does not the force of gravity still work upon it to borrow its energy?

Does it not in fact, degenerate, discharge or decompose?

In a few days does not the decomposed apple rise into the lower pressures from which it was generated?

Is not this cycle followed by ^{every} object in nature whether it be rain drop, apple, granite rock or bar of

steel?

What other difference than time and potential is there between them, or between the decomposing apple and the decomposing planet?

Are not all air and electric currents seeking equilibrium pressures?

Is not the direction of all composing things always the direction of gravitation?

Does not this direction correspond with the well known electric effect which tends to shorten a line in the direction of its length by pulling inward from within?

Can there be any question that this is the direction of the generative force?

Can there be any question that the opposite direction is the direction of degenerative force?

Striations

It seems perfectly evident that the universe is divided into high and low pressure zones wherever any active force takes place.

It is inconceivable that part of the universe is imbued with the force of motion and part of it is inert.

Wherever any action of force takes place a

difference of pressure immediately develops and runs its cycle.

In the heavens great spiral whirl-pools are demonstrating that low pressure cold areas covering hundreds of light years are generating into high pressure vortices with condensing focal centers.

These spiral nebulae such as that in Perseus, or our own Milky Way, give every evidence of flowing in double streams centripetally toward and centrifugally away from focal centers.

Do these awesome galaxial effects of motion differ in any way from the same actions and reactions caused by an electric current passing through a wire?

Let us consider this.

Pass an electric current through a wire passing through your right hand toward your left and what will happen.

Loops of force will circle around that wire in an anticlockwise direction.

These loops are not like continuous cylinders of force, they are divided into whirling buttons or discs separated from each other in accordance with the force of the current.

The whirling buttons are high pressure striations which can be made visible as whirling bands of light by enclosing the wire in an evacuated tube.

The spaces between these buttons are low pressure areas.

The nucleal center where the wire passes is also the high pressure point or gravitation center of each striation, and the edge of each disc is its low pressure zone.

What are these striations?

What causes them?

Is not the effect of electric gravitative, generative actions evident in shortening a line of force in the direction of its length?

Every action of force seems to register its repetitive striations in octave harmonics.

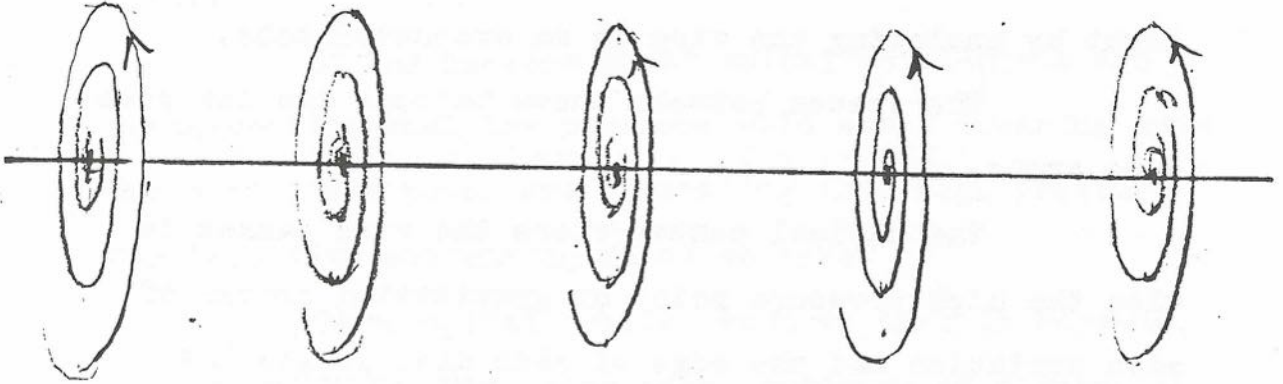
Is it not quite probable that this solar system is but a striation, a whirling button of force, spinning around the line of direction of the electric current of which our sun is the high pressure nucleal center?

Our whole solar system turns properly anti-clockwise in accordance with the direction of our suns journey.

Might there not be countless other buttons of force whirling around that curved direction?

If so what is happening in space as a result of it?

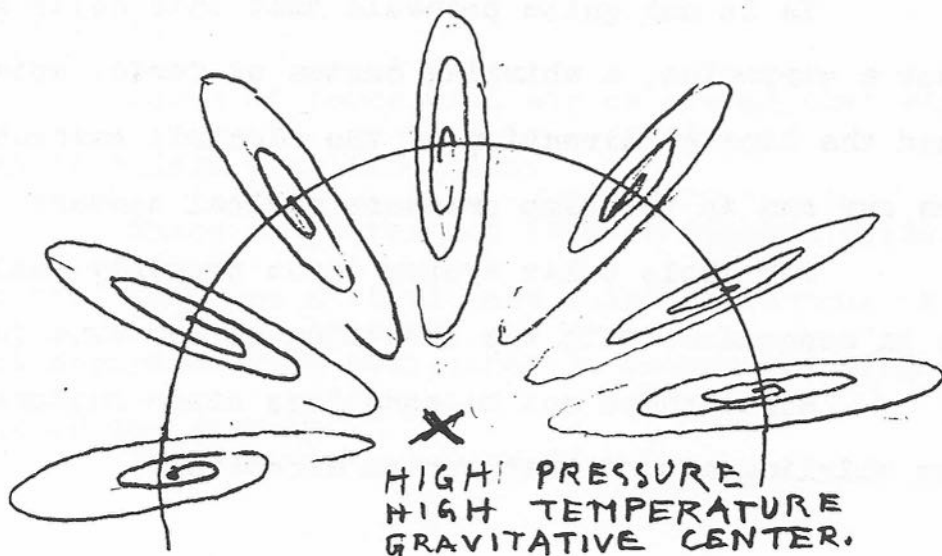
Let us consider this.



Pass a current in the manner indicated in diagram No. 1 through a straight wire and parallel loops of force result.

In nature an electric line of force cannot travel in a straight line because of the curvature of pressure gradients surrounding all masses and because of resistance.

In Nature then we get the effect indicated in diagram No. 2.



What happens?

A high pressure point develops at the point marked X which becomes the gravitative center of many systems and gradually absorbs them all.

This seems to be nature's accumulating process of condensation.

If we pass a current through ~~at~~ a coiled wire, a bar of steel ~~will~~ will remain suspended at its high pressure core.

If we pass a strong current through a heavy spirally coiled wire such a high pressure will develop at its center that a bar of steel will become red hot and its energy will radiate into the low pressures outside of the coil.

Is this not exactly akin to the high pressures generated in the same manner in our sun and in our planets?

Is not our sun the high pressure nuclear center of our striation?

Is not the coiled wire with a central elongated bar following the line of high pressure exactly analogous to the sphere whose every loop of gravitative force converges to a meeting point at its center in mutually attractive lines, and whose radiative force diverges radi-

ally in mutually repellant lines?

Is not the generative direction the inductive direction of greatest heat: and conversely is not the direction of cold the exactly opposite or conductive direction?

If these facts are correct then does it not necessarily follow that the direction in which radiation leads^{is} to the condensing zones of cold and low pressure?

If this is true then the direction that generates condensation must be away from cold toward heat.

Heat leads to cold and turns back again to heat in a never ending cycle.

What then can heat be but more energy packed into less volume under high pressure than when in that expanded state of low pressure known as cold?

S U N L I G H T

Let us consider the suns radiation, that which we call sunlight.

We accept as true that the suns radiation is degenerative in respect to the sun and regenerative in respect to this planet.

We even compute the weight in tons of the sun light which "falls" upon this earth.

We know it charges the earth where it shines and that the zone of maximum discharge is the night portion.

We know that the universal machine oscillates with greater frequencies in the sunshine and makes things "grow" which at night close their petals or their eyes in sleep.

How then can we explain that the negative, discharging force of radiating energy leaving the sun becomes a positive charging force of generative energy when it impacts against this planet?

Does not the answer lie in the reversal of degeneration into regeneration when its expansion limit is reached in the low pressure position between the two respective masses?

In this position expansion ceases, and contraction begins and increases as it penetrates further into the higher pressure gradient of this planet.

Contraction heats, therefore the degenerating "rays" of sunlight which expand into the cold of space after leaving the sun are reborn through resistance and arrive here hot.

This effect of motion is not one whit different from any other more simple regenerative effect.

Consider the rebirth of the human voice against the cliff side known as the echo.

Sound of the voice is an expression of accumulated energy which expands into silence in the surrounding low potential.

Approaching the cliff side however it impacts against the high pressure gradient of this concentrated energy and the resistance of this impact reverses its radiative expansion into regenerative contraction.

The Cycle Theory Applied to Elements

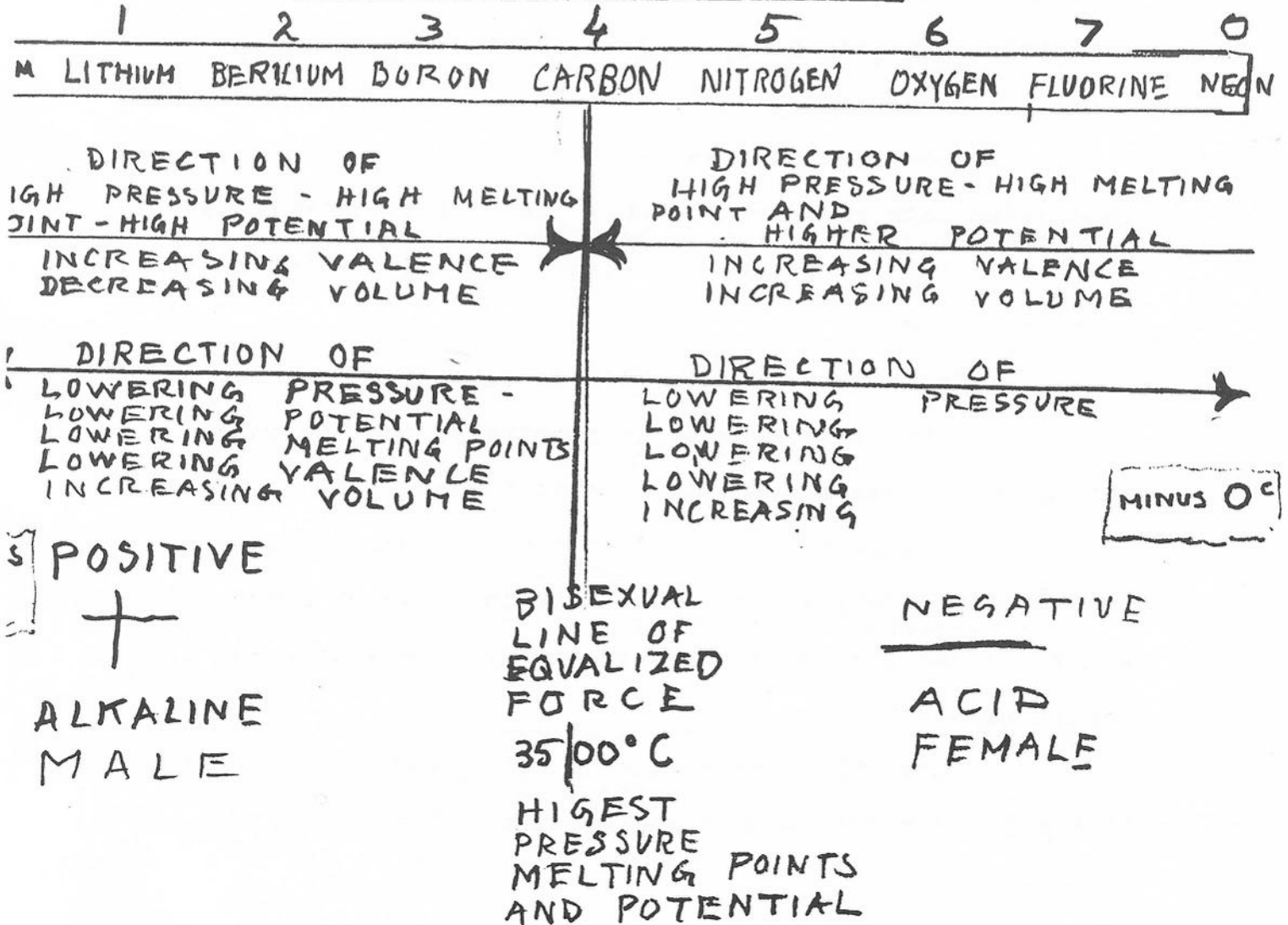


Diagram No. 3 clearly explains the generation of low pressure inert elements which freeze at minus zero centigrade up through the scale of increasing pressure to maximum in carbon then back again to degeneracy in the inert gases again.

ANNOUNCING THE RUSSELLS HARMLESS, COSTLESS, SPACE-POWERED GRAVITY REACTOR
TO REPLACE THE DANGEROUS, COSTLY NUCLEAR REACTOR.

THE EXHAUSTABLE FUEL-POWER AGE IS PASSING OUT
THE INEXHAUSTABLE GRAVITY-POWERD SPACE AGE IS HERE.

Dr. Walter and Lao Russell, of the University of Science and philosophy, Waynesboro, Virginia, have created a space-powered gravity reactor, based upon their new cyclic, photosynthetic concept of gravity which is totally unlike the unnatural and impossible Newtonian concept.

To the Russells gravity is the cyclic heartbeat of the universe which causes the emergence of the dynamic universe of matter and motion from the static cold of motionless space and returns it to its static condition for endless re-emergence. Their knowledge of the process made use of by gravity to create a dually curved light-wave universe, then makes use of that curvature opposition of convexity and concavity to compress and expand light into wave sequences, is the basis of their space-powered gravity reactor.

This discovery will be the greatest contribution to the human race and its economy the world has ever known, for it will not only do much more for industry and transportation than the nuclear reactor can ever do but will ~~render~~ ^{render} all fuels of earth, such as oil, coal and gases obsolete for power purposes for all time. It will also give to the world a new inexhaustable power age in which dangerous nuclear waste, factory chimneys, smoke, smog and the gas fumes of millions of automobiles will be a thing of the past.

The most valuable attribute of this discovery is that it will give to the world unlimited Niagaras of light, heat and power at no fuel-cost whatsoever. The only cost will be for the machines themselves and for servicing them.

ITS EFFECT ON WORLD ECONMY AND HUMAN RELATIONS.

Oil-barren countries, such as Western Europe, will no longer fear

for their survival by being cut off from oil supplies by war or other causes. This value alone to such countries is incalculable economically and psychologically, for the removal of such a fear will deeply add to the feeling of security which those countries now lack.

It will solve the world's No. 1 problem of water shortage by making it possible to desalt the ocean by the evaporation process which requires only heat in vast quantities. The removal of the impossibly high cost of obtaining heat from fuels of earth, by supplying unlimited quantities of heat at no cost, is the final answer to this greatest of all world worries and the cause of its greatest suffering. Henceforth the great and small Saharas of the world may now be reclaimed to fertility by limitless irrigation.

It will also solve the food and population increase problems by making continuous food crops possible in all the Northern snow countries of the temperate zone. Vast green-houses covering acres, and kept warm by costless heat, will multiply food-crops in this mid-planet area clear to the farthestmost arctic circle. Millions of miles of once frozen waste will be thickly interwoven with a thickly interwoven vast network of glass covered towns and connecting highways within which a teeming population can live in temperate, or even tropic zone comfort. A special form of architecture will undoubtedly be developed in which miles long connected glass-arched buildings and ~~glass-arched~~ streets, plentiful interspersed with trees and shrubbery on long stretches of lawn and parks, will transform the now wasted frozen North to a delightful, easily air-conditioned haven.

The imagination cannot reach into any form of activity from the farm to the great city, or from the ocean liner to the submarine and cargo-carrier plane, or from the simple home to the greatest steel plants or factories of Industry. All of the people of earth will have an abundance of costless light, heat and power for every purpose which requires these necessities of existence., without the necessity of digging

in the ground to rob it of its exhaustible resources during the short period of time—cosmically speaking— in which ^{there} ~~their~~ will be no more oils and coal to be found. We can soon say the same for all metal ores, for it will not be long before all the metals of the earth will be transmuted from silicon^s sand or granite.

This discovery of the principle of making use of power from its inexhaustible SOURCE IN SPACE is only the first which could come into being from the complete road-map into the secrets of space which the Russells possess and are endeavoring to teach to a resistant world from their unique two-man University.

The miracle of this first fruit of their new knowledge is that it simulates the perpetual motion machine which this universe is. This dynamic universe is self motivative and self renewable. The Russells Gravity Reactor is self motivative but the renewal of its worn out parts demands the service of its owners. With that one exception it will continue on forever with very little servicing for the reactor itself has no moving parts to wear out and should last for decades. It will be recalled that all that the nuclear reactor does is to heat water to pass on to its steam turbine assemblage. The Russells Gravity Reactor ~~does~~ just that at negligible cost and ⁱⁿ a few cubic feet of space as against a cost of millions and a large building.

The Russells have filed patents for a small 30 kilowatt assemblage as a demonstration model. This they are using to supply heat, light and power to their headquarters. Their requirements for electricity are 10 ~~and~~ kilowatts. For steam heating another two or three kilowatts during winter. The excess of 7 kilowatts more than supplies the self-motivative force and acts as a reserve for future additional lighting necessities.

BRIEF SCIENTIFIC EXPLANATION OF THE RUSSELLS GRAVITY REACTOR.

The Russells discard in its entirety the Newtonian concept that there is any such force as attraction of matter for matter in this universe. They include Farraday's inference of attraction in his discovery ~~and~~

of induction and its application to the electric current. Newton saw an apple fall to the ground and called that effect "the attraction of gravitation." Farraday observed that a current would flow through a wire ~~if~~^{by} a magnet centered it, and called that effect "induction." Each of these observers saw only one half of what was in each effect a compression, expansion cycle, similar to growth and decay, life and death, hot and cold, generation and radiation and other cycles of wave pulsations which constitute Creation. Newton did not wait to see the apple rise toward ^{space} ~~space~~ nor did Farraday realize that induction in one dense body of matter was ~~because~~^{caused by} of DEduction from another compressed dense body. Neither realized that they were but REdiscovering compression.

It is a strange thing that not one of all the philosophers, mathematicians or scientists of the ages has ever observed that all of the energy of this universe is in the cold static light of space and not in matter, as they believe it to be.

Science often states that the dynamic universe emerges from the static and is swallowed up by ~~static~~^{static} cold space in some mysterious manner. That means that heat MUST be generated by cold and radiated back into cold, yet ~~science~~^{science} firmly believes that energy cannot run up hill, but only down hill, and ~~has~~^{has} written thermodynamic laws to substantiate that belief.

The Russells knowledge of the source of energy as coming from cold space is the basis of their gravity reactor. They, therefore, build their heat up from space, as Nature does, and then use both halves of the cycle for light, heat and power instead of ~~beginning with heat~~^{beginning with heat} as science does, and using ~~only~~^{only} half of the cycle. The Russells have written a new group of thermodynamic laws appropriate to Nature's cyclic processes. They are as follows;

First Law. Gold generates energy. Heat radiates energy. Cold
~~MULTIPLIES~~.multiples. It cannot divide. Heat divides. It cannot multiply.

Second Law. Every action must be preceded and followed by its
equal and opposite reaction. Heat is the reaction of cold. Heat could
not come into being save for the compressive action of cold. nor could
it repeat itself without losing itself in basic cold.

Third Law. Cold is static, unchanging and unconditioned. It eternally
lives. Cold light is the basic ONE THING of this universe. Heat waves
are dynamic, dually conditioned and dually conditioned. They are eternally
living and dying to simulate life.

Fourth Law. Cold light is the ~~basismom~~ omnipresent basis of universal
intelligence and energy. Hot waves of light, which man calls matter, are
a simulation of intelligence and energy. There is no intelligence or
energy in matter.

Fifth Law. Static cold and dynamic heat express their opposite
identities at an angle of ninety degrees from each other. Cold retains
its static, motionless condition along wave axes where motion ceases
while heat extends along equators where motion and heat are maximum.

Sixth Law. Cold compresses. Cold multiples cold into heat. Heat expands.
Heat divides heat into cold. Varied temperatures and pressures of heat
constitute the octave color spectrum cycles and the octave chemical
cycles of matter.

Seventh Law. When cold static light is divided into spectrum
pairs heat and motion are its created product. This entire universe is
a varied measure of heat and motion. Both heat and motion cease to
exist at static zero cathodes of cold. When heat begins divided waves
of motion begin. Long low waves of low potential and high frequencies
constitute the invisible spectru and low density gases, while short
high waves of high potential and low frequencies constutute the visible
spectrum of high density solids.

THE RUSSELLS CONCEPT OF THE UNIVERSE.

The Russells completely reject the electro-magnetic concept of the universe. This includes electro-magnetic waves, two kinds of electricity, positive and negative, positively and negatively charged bodies, magnetism, magnetic poles and magnetic fields. To them there is nothing ~~making~~ but light in the universe of space, or whether it is compressed into visibility by the friction or induction of a dynamo, or by a falling meteorite, or by water power, or by a bi-convex lens. These are but processes which shorten long waves of invisible light of low heat potential to short waves of visible hot light. No matter what process is used the product is light, nothing but hot light, ^{is created,} and no one is warranted in calling that product electricity, if obtained by friction, or hydrolicity, ^{if obtained} ~~if gained~~ ~~obtained~~ by water power, or opticity if obtained by a lens.

Past observers rubbed amber, glass, silk and wool together and concluded that there is an attractive force called magnetism in Nature. The mysterious workings of lodestone, and the focal points of high compression in a bar of steel, and the flux flow from cathode to anode in a solenoid coil, plus a similar field flowing from poles to equators of our earth and sun, confirmed this belief. There is no such force as magnetism in all this universe. What science believes to be magnetism is gravity, and the flow of its pressures of compression and expansion by means of which ~~it~~ it creates this dynamic universe of heat in motion.

Gravity is the only motivative force in all this universe. By means of it static light is divided into sex-conditioned pairs of opposite spectrum pressures which science unjustifiably calls positive and negative electricity. Science does not realize that one of these is the red and infra-red side of the spectrum, and the other is the green-blue side. Neither does science recognize ^{that} this division ~~of~~ into mated pairs is the sex principle of Nature which includes every particle of inorganic matter as well as organic matter. "Charging" bodies are those

which are being compressed by the gravity wave cycle, while "discharging"
bodies are those which are being ^{expanded} ~~compressed~~ by it. These false
beliefs and misconceptions of the nature of gravity have led to the belief
that the universe is expanding to a "heat-death" called entropy, as a
result of the belief that there is no compensating generative force
to balance Nature's radiation force. Hence the belief that energy cannot
run up hill. These are the beliefs which have held ^{sc} ~~sc~~ ^{ence} back to this
primitive stage for centuries.

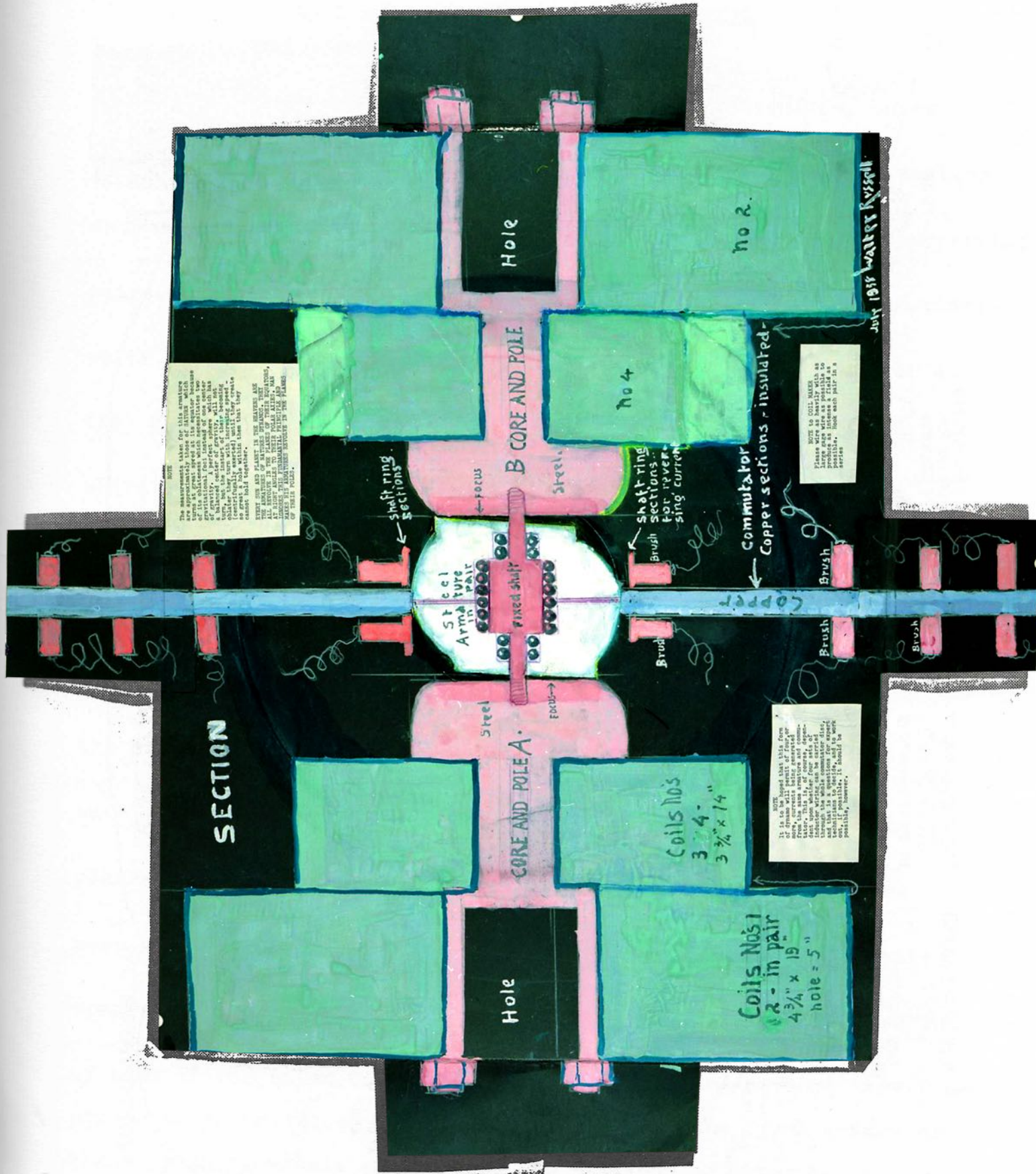
The science of light is optics, and the processes of growth and
decay which constitute the life-death principle of the dynamic physical
universe are photosynthetic. The Russells have, therefore, given a
name to their concept of the universe appropriate to its workings. ^{They} ~~They~~
call it AN OPTICAL PHOTOSYNTHETIC UNIVERSE OF GRAVITY CONTROLLED LIGHT.

SUMMARY

It is The Russells' hope that this slight opening of the door into
the secrets of space sufficiently wide for mankind to gain light heat and
power from its energy source instead of ^{from} ~~its~~ rebound back to its ^{source,} ~~source~~
may fully open the door to the rest of its secrets.

The next step is to demonstrate that light is not only the ~~source~~
source of universal POWER but also the source of universal INTELLIGENCE.
When that day dawns man will then know God as an existent fact, instead
of a multi-imagined assumption. Then, and then only, can there be one
unifying consistent, intelligence-based religion.

Before that day becomes possible, however, man must develop his
inner vision in the direction of Cosmic Consciousness sufficiently to
depend upon it for knowledge instead of relying upon sensed observation
as he now does. The Russells have established a Home Study World University
for just that purpose. Their University is giving the world a new living
Philosophy for tomorrow as well as a completed road map into space for
as the basis of a new science. With this new knowledge mankind can
advance more in the next generation than he otherwise could in centuries.



NOTE
 The requirements, taken for this armature
 turns at great speed as the rotor because
 of its rotational form, instead of one center
 of gravity, center of gravity, will not
 turn, but the mass with increasing speed
 (centrifugally) forced apart, and the parts
 cannot hold together.

EVERY COIL AND PLATE IN THE MIDDLE OF
 ALL ROTORS IN THE PLANE OF THEIR ROTATION,
 MUST BE KEPT IN CONTACT WITH THE
 SHUNT, THE PERMANENT MAGNETIC AND
 COILS IN PLACE.

NOTE
 It is to be hoped that this form
 of commutator, with its
 wire, currents being reversed
 later, this is, of course, depend-
 ent upon the design of the
 shaft, and the whole commutator disc,
 including the shunt, and its work
 conditions to decide, and to work
 possible, however.

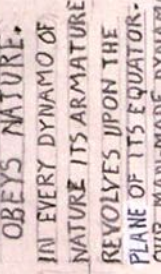
JULY 1918 WATER RUSSELL

MAN'S DYNAMO VIOLATES NATURE



MAN IGNORES THE VITAL IMPORT OF THE EQUATOR. HE CALLS IT "THE NORMAL NEUTRAL PLANE"

THE RUSSELL DYNAMO OBEYS NATURE.



IN EVERY DYNAMO OF NATURE ITS ARMATURE REVOLVES UPON THE PLANE OF ITS EQUATOR. OUR MAN-MADE DYNAMOS REVERSE THIS PRINCIPLE. THEY ARE MADE TO SPIN IN THE PLANES OF THEIR POLES. SEE PLASTER MODEL FOR LEVELS.

THE SUN IS THE GREAT ARMATURE OF NATURE'S SOLAR DYNAMO.

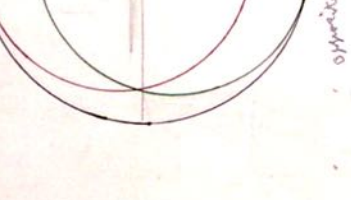
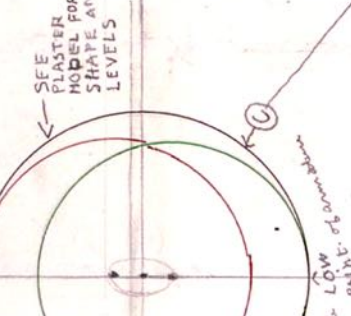
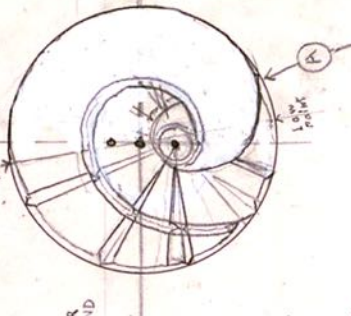
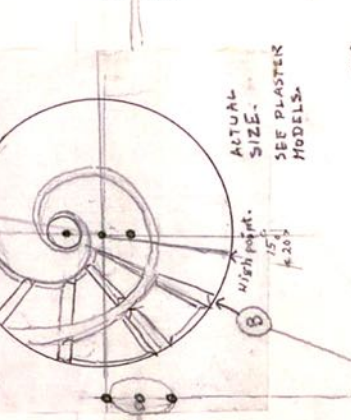
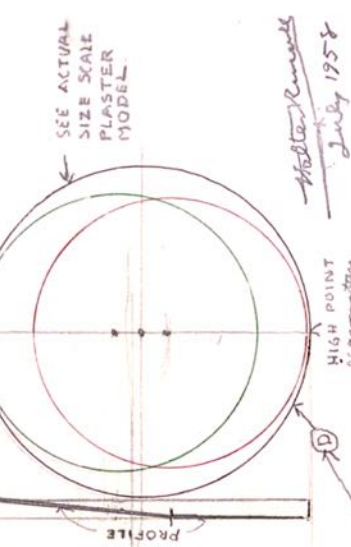


THE SUN REVOLVES SLOWLY BECAUSE IT IS ALMOST A TRUE SPHERE WITH AN UNDIVIDED PLANE OF ITS EQUATOR. THE SUN REVOLVES UPON THE PLANE OF ITS EQUATOR. ALL OBLATING PLANETS REVOLVE INCREASINGLY FASTER AS THEIR GRAVITY CONTROL DIVIDES AND SEPARATES.

SATURN



SATURN TURNS VERY FAST. ALL OBLATING PLANETS REVOLVE INCREASINGLY FASTER AS THEIR GRAVITY CONTROL DIVIDES AND SEPARATES.

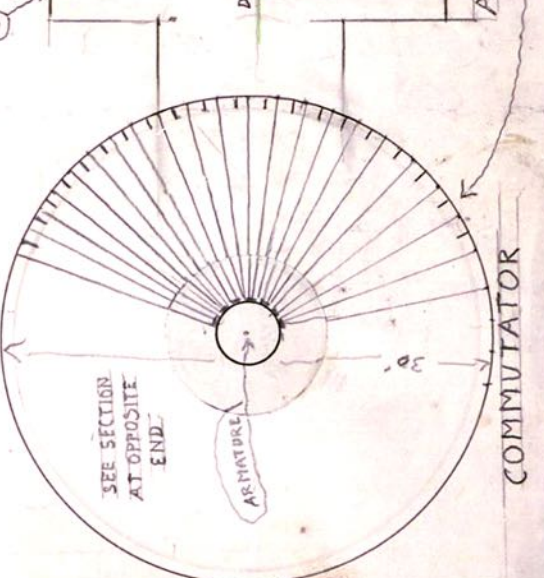
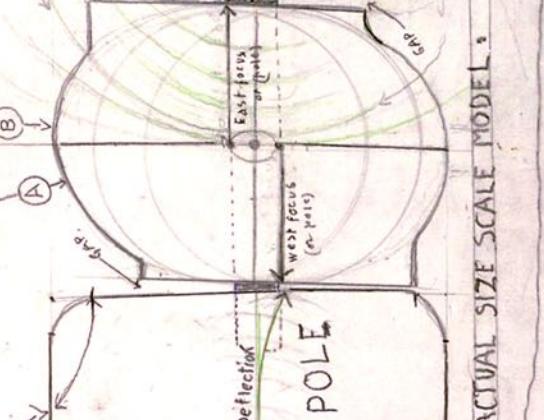
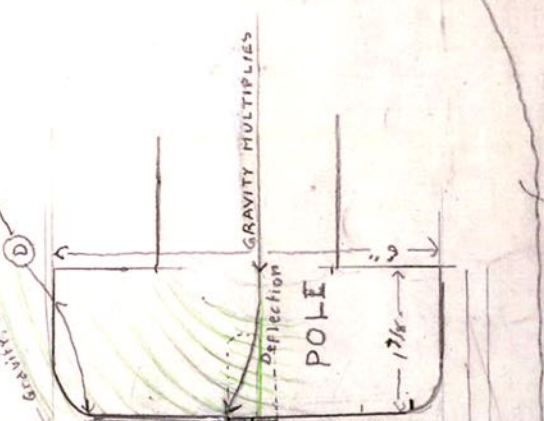
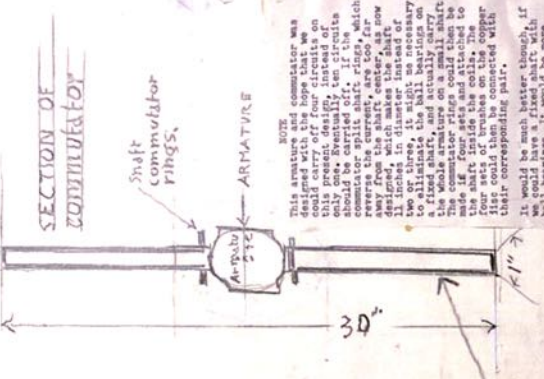


SEE ACTUAL SIZE SCALE PLASTER MODEL.

ACTUAL SIZE. SEE PLASTER MODELS.

SEE PLASTER MODEL FOR SHAPE AND LEVELS.

SEE SECTION AT OPPOSITE END.



NOTE: This armature and commutator was designed to carry four circuits on this present design. Instead of two should be carried off. If the commutator split shaft rings, which were made the same as the original design, which makes the shaft rings away from the shaft center, as now designed, which makes the shaft rings to align with the ball bearings on the whole armature on a small shaft. The commutator rings are attached to the shaft inside the coils. The shaft is attached to the commutator rings so that their corresponding pair.

It would be much better though, if we could have a fixed shaft with the commutator rings. It would be more simple.

NOTE FOR THE SCIENCE OF THE FUTURE.

Regarding matter.

All matter is composed of octave series of increasingly/^{fast} spinning
~~whirls~~ ^{pairs of} gravity centered/wheels - or rings - which grow ever smaller
toward each other and ^{of gravity} as they spin/toward a focal ~~center~~ point, which centers the approaching
pairs. At this centering point of high compression the four pairs
unite into spheres which then continue to spin but grow larger as
they spin until they have again become gravity centered wheels
which recede from their centering point of gravity, and from
each other, until they have disappeared into the zero of space from
which they sprang.

These opposing octave pairs begin their/^{cyclic} journeys from
the zero cathodes of expansion to the anodes of compression on
wave asies which forever curve away from their connective zero
planes, in ever increasing pressure of gravity, until the pairs
meet at wave crests - or troughs - at centering points of gravity
compression where they collapse and disintegrate in the same period
of time it has taken to integrate them. These time periods vary from
six or seven trillions of cycles per second in the first octave of
these spinning wheels and spheres, to billions of years in the
fourth cycle where the carbon octave is located.

THE RESPONSIBILITY OF SCIENCE

Science can be the saviour of man. Therefore, science must save man. Science can make man know God. Therefore, science must make man know God.

Science can destroy man, but he has already saved man through destroying him.

The great age of science is here. The burdens which science ^{have} ~~has~~ already lifted from the back of mankind are as nothing compared with those which are still to come.

A new civilization is in the making, and that new dawn of man will be more largely due to science than to any other department of human affairs.

Vast research programmes are being planned by our great laboratories of industry, and still more vast ones are being planned by our government.

Science and religion have long travelled separate roads. Those two roads are merging into one. Some day they will be one. When that day comes there will be but one religion.

Religion alone cannot save man, but science and religion, as one, can. Religion has always been too disunited in itself to unify man. Religion has too many gods, too many idols, too many creeds and doctrines. Religion has too many isolated intolerant groups, each wrapped up in rituals and non-essentials which ^{it} ~~many~~ believes to be all-important essentials.

Religion persecuted science in older days. Galileo knew its persecution. Scientists of the Inquisition knew it also.

Science is necessary to religion and religion is equally necessary to science. The ultimate unity of these two, as one, will mark the day of man's highest point in his journey from the jungle to his mountain top.

Dear Mr. President;

This letter concerns the tragic threat of the H-bomb to the whole human race. It is written because of rumors of an H-bomb test to be held soon in Nevada. It will shock you, Mr. President to know that the bombs exploded since Hiroshima have already destroyed fully five percent of this planets air, and a dangerous amount of its water vapor content as well. Life without water and air is impossible.

With this letter I hope to convince you that radioactive fission is signing the death warrant of this planet--also that no other man knows that dread secret of death to all life which lies hidden in the cathodes of H-atom bombs.

Its sentence of death has already begun. This planet is now drying up. High above the earth the fight of fission versus oxygen still continues. Hiroshima and Nagasaki from their narrow confines of the earth to spread the agonies of their death throught the high heavens of all this world. Because of it a three thousand year world drought is already far progressed. One H-bomb would so accelerate atmospheric destruction that all peoples would have to migrate ten degrees farther north, while an all out atom bomb war would not only destroy all life upon this planet but its forests and oceans would disappear - and the earth itself would burn to a cinder - into a dead planet seeking renewed life for millions of years to come.

Mother Earth has a fever - a slowly rising fever. When man's normal temperature rises but a few degrees he dies of his fever. When Earth's normal temperature rises but a few degrees Earth dies - and man dies with Earth. How far will man's gross ignorance cause it to rise? Will it rise beyond man's ability to survive as a part of it? That we will not know for a very long time - unless man starts an H-bomb war. We will then know very quickly for the world could not ten count its numberless dead.

Earth's temperature rises as water vapor content lowers. If water vapor lowers beyond its critical minimum the clear dryness of the air would then act as a lens to burn the earth - to kill the trees by millions to lie unburied on dry dust which was once moist mould-- and had earth worms in it.

Transuranium fission is a destroyer of oxygen. Oxygen means wetness.

This earth is drying up because its oxygen is being voided by the incalculably hot dryness of radioactive fission. Progressive science is destroying in a few short years that perfect water making machine we live upon which Nature worked fifty million years or more to produce for man.

FISSION, Mr. President, means for the atom what combustion means for wood. If you burn wood with a flame you void its wetness. You leave a dry residue of carbon. Likewise if you "burn" the atom with transuranium fission you likewise void its wetness and leave but a dry residue of protocarbon.

I speak to you with authority, Mr. President, for I discovered all six of the transuranium elements which constitute atom bombs. Until I announced their existence in 1926 by the issuance of my new periodic tables, which clearly located them in their accepted places, they had never been known, or even suspected.

Up to 1926 the Mendeleef periodic chart was the accepted standard table of the elements. That chart ended at No. 92. Beyond that there were no more, and presumably could be no more. My two periodic charts showed the existence of six beyond uranium X at 92. The fact of these discoveries of mine is undebatable, for they are recorded in the Library of Congress and in my copyrighted publications.

I could not have discovered these elements had I not fully known the structure of matter, for there is no other way to discover their existence.. I quote the Scientific American in saying that no other man knows the structure of matter for that is supposedly beyond human intelligence. It is most certain that no man of science has that knowledge else he would not permit the destruction of man by destroying ~~this planet~~ by radiation fission.

The fact that Nobel prizes have been awarded to laboratory workers who mechanically verified my discoveries does not alter the historical fact of my discovery of their existence. If the world chose to honor the digger of the well, rather than the one who located it, I have no protest. I regret only that distinguished scientists should so far forget its ethics as to change my copyrighted names of uridium and urium to neptunium and plutonium in order to receive the entire honor without even sharing it with the one who made it impossible.

and I would not have mentioned it here
Even the personal honor is of no import, save for the unfortunate fact that unless I qualify for the right to expect you to heed my warnings you would not listen to one word of them. Is it not a tragic pity though, that the human race ~~must be sacrificed~~ and this beautiful world of ours must be sacrificed upon the cross of ignorance while giving itself the name of wisdom and progress?

It is necessary to tell you briefly, in layman's words, just how fission fires burn oxygen and transfer nitrogen. But first let us inventory some of the damage which is being done to Earth.

The polar ice caps ^{are} fast melting and raising the level of the oceans. Earth's rising temperature is causing all the fishes of all the world to migrate ten degrees farther away from the equator lest they die. Instinct is

driving them to safety. If man kind were instinctively controlled he might also join that northward trek before it is too late but the intelligence and free will of man will make him do that thing the hard way.

Ships sail freely today where ice breakers plowed heavily through thick ice a very few years ago. Fission is working fast up there to make a last stand for man. It is thinning the protective blanket of oxygen's wetness to let the sun in. Tundra near the Arctic Circle, frozen for long ages is now yielding prime cabbages. Porcupine, on the Arctic Circle, registered 84 degrees in 1953, and Anchorage registered 86, while eskimos sought soda fountains and bathing beaches.

To thin our protecting atmospheric blanket to let the sun make a summerland of the Arctic is one side of a beautiful picture which loses its glamour when the other side of the picture means 120 degrees temperature in Washington and St. Louis. We must not forget that our kindly sun is kindly only when screened sufficiently by our atmosphere to make life comfortable where man lives. We wish to continue to live where we always have lived. To abandon our present cities and make new ones in North West Territories, Greenland and vast Siberian wilds - even though the sun makes of them a summerland -- means the end of the kind of a civilization we have known and the beginning of a pioneering new one -- while our arts and cultures are being buried by the dust of dying earth like those many forgotten civilizations long buried in the Andes, one on top of another, and those which lie deep in once fertile Gobi Desert.

Greenlands glaciers are melting - ancient farms appearing - tree belt rising higher on all Arctic mountains - ^{dead} ~~wastes~~ ^{coming alive} above the sixties in Siberia - in Quebec and Labrador - in the Mackenzie River Districts - in Keewatin on Hudson Bay- on Victoria Island - and Manitoba, Saskatchewan, Alberta and Yukon, Yukon, -- vast empty territories larger than the present habitation of man, being made ready for countless millions of men who may have to pay the price

of our generation(s greed and the folly of our wise men.

Avalanches of snow destroy chalets and men--
In Europe Alpine glaciers melt @- Swiss winter sports towns are empty of tourists-
snows have not come there- and are late in Finland - Sweeden - Norway and Denmark--
Holland dikes overflow - England's east line washes away for miles--

The Volga River is lowering and the Caspian Sea disappearing - Russian Steppes
can no longer feed her cattle - Russia kills thousands of cattle and buys butter
in Denmark with manganese money - while drought has seared the land there as it
has in other countries all over the world.

Water shortage everywhere - deserts forming - dust bowls in the making in Texas -
in New Mexico - in Arizona - Southern California, where brine is now being
mixed with irrigation water - and in Hawaii brine also is appearing in the
pine apple and sugar fields.

Over population in California - too many people for too little water - too many
wells for empty water arteries - Santa Barbara to San Diego may be doomed to
be the gateway for Death Valley and the Mojave . California drained dry- - too
many people cutting down trees for a century - ^{too little} snows in the mountains for
underground caverns.

Texas ranchers migrating to the Dakotas - abandoning ^u thousands of acres to
add to the deserts - Rio Grand dry to Laredo.- doomed to ^{death for} ~~life~~ long ages.
Nature is giving back to man that which man has given Nature. It is the LAW
AT WORK fulfilling the law.

It becomes necessary to look upon explosions in a new light. If science does
not know what it is doing to the planet because it does not know the construction
of matter and the nature of electricity it becomes necessary to instruct it in this

wise, before it is too late.

We all are familiar with the boastful attitude of those who make bigger and better atom bombs when they compare the Hiroshima bomb with the H. bomb of today. We all are accustomed to hearing how few thousands of tons of TNT power there may be in one and how vastly more there are in another. Likewise the first bomb could devastate for a mile - and the new one for twenty miles - as though that twenty miles was the end of devastation instead of only its beginning point which has no end anywhere.

Let us consider this. Everyone knows that he could not explode one ounce of TNT in his house, for it would blow the walls of his house out. That is just simple common sense. Every one believes however, that to explode that ounce of TNT out "in the open" will be quite different - it will do no harm they think if you yourself get far enough away.

The fallacy of this thinking is that there is no such thing as out in the open in Nature. All bodies are compressed solids surrounded by "houses" which science calls fields. There are boundaries to those fields and the walls of all houses which surround bodies of matter are many layers thick.

This planet, for example, which science thinks of as "out in the open" where TNT in any amount can be exploded with impunity, is surrounded, first, by a several miles thick wall of resistant atmosphere. Second, it is surrounded by many concentric spheroidal layers of pressures which are known as radio ceilings and Heaviside layers. Third, it is surrounded by its field of planes of zero curvature which divide it from its ^{neighboring} ~~opposite~~ fields. Beyond that it is ^r surrounded by boundary planes of fields which surround neighboring planets, such as Venus, Mars and Jupiter.

It seems a great oversight of those who explode thousands of tons of TNT power in its more dangerous form of transuranium fission to fail to realize that

planetary
they are blowing their/nouse to pieces with eight theusant TNT tons as
they would be blowing their cottage to pieces with eight ounces of it.

The first of the radio ceilings which surround this planet is not fifty
miles away, the others are arranged in concentric layers beyond that, but
an H-bomb explosion would reach out into space for millions of miles and tear
down wall after wall of protecting pressures as it extends

THE WALTER RUSSELL FOUNDATION

SWANNANOVA - WAYNESBORO - VIRGINIA

*Founded for the purpose of unifying
mankind through knowledge
of the science of Light*

FOR NEWS RELEASE FRIDAY, FEBRUARY 13, 1953

AN OPEN LETTER TO THE WORLD OF SCIENCE

Gentlemen:

This Open Letter to the World of Science, accompanied by a Treatise on The Russell Cosmogony, is being sent to approximately 350 members of our National Academy of Science, and Royal Society of London, 100 Universities and 300 leading newspapers.

This announcement with its new concept of Light, Matter, Energy, Electricity and Magnetism is a simple yet complete, consistent and workable cosmogony, which will enable future scientists to visualize the universe as ONE WHOLE, and will open the door to the New Age of Transmutation

Recalling the important contributions I have already made to science, such as my work in completing the hydrogen octave and my prior discovery of the existence of the two atom bomb elements given to the scientific world in my two Periodic Tables of the Elements, assures me that you will give serious thought and attention to these documents.

Present threatening world conditions make it imperative that science discloses the way whereby the weakest of nations can protect itself from the strongest of them and render attack by land, sea or air impotent.

This new knowledge will give science this power.

England could have been rendered immune from her devastating bombardment had the world been receptive to these new scientific discoveries, which I endeavored to give to it when World War II started. Science however did make use of the two atom bomb elements mentioned above, which I charted and copyrighted in 1926.

The world needs new metals. Many new rustless metals of greater density, malleability and conductivity await division in vast quantities from carbon and silicon These will be found when science discards its concept of matter as being substance, and becomes aware of the gyroscopic control of motion which will split the carbon tone into isotopes, as a musical tone is split into sharps and flats

In the chemical elements the sharps and flats are isotopes. These can be produced by man in greater numbers than Nature has produced them, for Nature does not begin to split her tones until she has passed two octaves beyond carbon. There is a tremendous opportunity for the metallurgist of tomorrow to create new metals in the carbon and silicon octaves

Cf even greater importance to the world in this crucial period is the production of unlimited quantities of free hydrogen. This ideal weightless fuel could be transmuted from the atmosphere while in transit without the necessity of storage capacity.

These are the important things which might now be known if Kepler's discovery had divulged the facts of geometric symmetry and dual curvature within the wave field.

His law of elliptical orbits evidences that he was on the verge of discovering that four -- not two -- magnetic poles control the dual opposed balance of this two-way universe. With but two magnetic poles a three dimensional radial universe of time intervals and sequences would be impossible. A balanced universe must have two poles to control centripetal, generoactive force, and two compensating poles to control centrifugal, radioactive force.

By means of such knowledge science could rid the earth of fear of attack by any nation, no matter how the attack might come, whether by land, sea or air.

This new knowledge will give to science the CAUSE of all the EFFECTS which have for centuries of research deceived the senses of scientific observers.

Man has a MIND as well as having senses, but he has given preference to the evidence of his senses in the building of his cosmogony. Man can REASON with his senses but he cannot KNOW with them. Reasoning is sense thinking -- not Mind knowing. He has also produced EFFECTS without knowing their CAUSE.

The senses have not revealed to man that this is a substanceless universe of motion only. Neither have they told him the principle of polarity which divides the universal equilibrium into pairs of oppositely conditioned mates to create a sex-divided electric two-way universe.

The time has come in the history of man when KNOWLEDGE alone can save the human race. Man has for too long left the Creator out of His Creation, thinking He cannot be proven in the laboratory.

God not only can be proven in the laboratory, but because of the facts of that proof man can solve many heretofore hidden mysteries of the universe -- such as that of the seed and growth -- life and death cycles -- the purpose of the inert gases as electric recorders of all repetitive effects -- and the true process of atomic structure.

You might reasonably ask why I have withheld this knowledge for so many years. I have not withheld it. I tried in vain to give it from 1926 when I first published charts of the complete periodic table herewith attached, up to the beginning of World War II when I tried to organize a laboratory group to save England from its unnecessary bombardment.

I also accepted and held the Presidency of The Society of Arts and Sciences in New York for seven years for the sole purpose of giving to the world this new cosmogony based upon a two-way continuous, balanced universe to replace the one-way discontinuous, unbalanced universe, which is presumably expanding to a heat death.

EDITORIAL ROOMS

THE SATURDAY
EVENING

POST

FOUNDED BY

Benjamin Franklin

BEN HIBBS
EDITOR

THE CURTIS
PUBLISHING COMPANY
PHILADELPHIA 5

March 18, 1954.

Dear Dr. Russell:

Thank you for your reasonable and interesting letter of March 16. We'll keep a watch on the temperature charts as you suggest. However, it is interesting to note that we published an article several years ago about the gradually rising temperatures in this country, but in this case the scientists interviewed ascribed this change to things other than atomic fission.

Thank you for telling me in more detail about your relationship with Edward Bok. It is nice to know that you are still "plugging" for the Journal.

Sincerely,

Ben Hibbs

Dr. Walter Russell
BH*EC

UNITED STATES PATENT OFFICE.

FELIX A. OSOWSKI, OF DETROIT, MICHIGAN.

PROCESS OF MAKING GAS.

1,259,598.

Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed September 25, 1917. Serial No. 193,644.

To all whom it may concern:

Be it known that I, FELIX A. OSOWSKI, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Processes of Making Gases, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a process for separating fluids into their constituent gases electrically, and its object is to provide a process which may be employed in connection with an internal combustion engine to supply the gaseous fuel thereto as it is consumed in the engine, and further, to provide a process which may be conveniently controlled or regulated to produce just the amount of gas required, and in which a maximum of gas is produced with the consumption of a minimum of electrical current.

With these and other ends in view, the invention consists in introducing small quantities of matter which may be separated into its constituent gases by means of an electric current, between spaced electrodes within an electric circuit in such a manner that said quantities will each bridge the gap and close the circuits, causing the current to pass through each quantity and separate or transform the same instantly into its constituent gases. The invention further consists in the regulation of the volume or frequency of introduction of the matter between the electrodes to control the amount of gas produced, and in providing certain other new and useful features, all as hereinafter more fully described and particularly set forth in the appended claims, reference being had to the accompanying drawing which is a diagrammatic view illustrating a method of and means for carrying out the invention.

45 While a specific arrangement and construction is shown in the drawing, it will be understood that the same is merely illustrative of one form and arrangement of apparatus for carrying out my process and that I do not limit myself to any particular apparatus or arrangement thereof for performing my invention.

In the drawing 1 indicates an internal combustion engine, 2 the usual cam shaft thereof and 3 the intake manifold. A gas chamber 4 of any suitable form or construction

is located adjacent the manifold and is connected thereto by a pipe 5, an air inlet valve 6 of any suitable form being interposed between this pipe and the inlet end of the manifold to admit air for admixture with the ingoing gases. At the top of the chamber 4 is a valve 7 for controlling the feeding of water or other liquid into the chamber from a suitable source of supply, such as the tank 8 through a pipe 9. The valve may be operated from the cam shaft or other moving part of the engine in timed relation to the engine in any suitable manner as by providing the rotary plug 10 of the valve with a shaft 11 which is driven by a sprocket and chain connection 12 with the cam shaft 2, to feed the fluid in measured quantities and at regular intervals into the chamber 4 through a discharge nozzle 13 extending downwardly in the chamber from the valve. Mounted in the sides of the chamber 4 and electrically insulated therefrom are electrodes 14 with their inner ends opposed and spaced apart to form a gap which is located directly below and adjacent to the discharge end of the nozzle 13. These electrodes are connected within an electrical circuit 15 connected to a suitable source of current indicated at 16.

55 The tank 8 is filled with acidulated water or other liquid having electrical conductivity and this fluid is fed into the chamber 4 in very small quantities so that it will issue from the nozzle 13, preferably drop by drop and as this nozzle is located adjacent to and directly above the gap between the electrodes 14, each drop as it enters the gap closes the same and the electrical current instantly passes through the drop and in doing so instantly decomposes the liquid, changing the same into its constituent gases which are confined in the chamber, and upon inspiration of the engine are drawn therefrom through the pipe 100 5 and manifold 3 and in passing there-through are mixed with the proper amount of air drawn in through the air inlet 6 to form combustible charges. By regulating the size and frequency of the water charges by means of the valve 7, the necessary volume of gas to supply the engine will be made just as it is used, each drop of liquid being converted into gas instantly so that none will remain in the chamber and the gas so made being immediately drawn from the chamber and consumed in the engine. 110

The electrodes are spaced just far enough apart to prevent the current from jumping across and so that each charge of liquid when it drops between them will complete the circuit by closing the gap. The circuit is therefore normally open and current is consumed only during those intervals in which the gap is closed by the drops or small quantities of liquid. A minimum of current is therefore required and as the volume of liquid is so very small and the current is concentrated therein, each charge or drop is instantly decomposed or converted into gas by a current of comparatively low voltage and amperage.

Obviously any desired number of pairs of electrodes and water feeds may be employed if it be found that a sufficient volume of gas to supply the particular engine is not produced by one pair of electrodes.

This process of separating liquids or other matter into constituent gases, comprises the introduction of small quantities of matter between spaced terminals of an electric circuit, to close the circuit and cause decomposition and liberation of the gases by the momentary passage of the current therethrough, and it is not limited to any particular means for carrying out the process or any particular construction or arrangement of apparatus.

What I claim is:—

1. The process of making gases which consists in introducing limited quantities of matter between the spaced terminals of an electric circuit to cause current to pass through and instantly liberate the gases of each quantity introduced.

2. The process of converting matter into its constituent gases which consists in causing a limited quantity of the matter to form the electrical connection between the terminals of a normally open electric circuit.

3. The process of converting liquids into their constituent gases which consists in causing the liquid in separate small amounts to intermittently pass into the gap between spaced terminals of an electric circuit and form the conductor for the current therebetween.

4. The process of making gas electrolytically which consists in intermittently feeding limited quantities of matter between spaced terminals of a normally open circuit

to cause each quantity of matter to be converted into its constituent gases by the momentary passage of the current.

5. The process of making gas by electrolytically changing liquids into their constituent gases which consists in providing an electric circuit with terminals spaced to provide a gap in the circuit and feeding small bodies of the liquid into the gap.

6. The process of making gas by electrolytically changing liquids into their constituent gases which consists in providing an electric circuit with spaced terminals and feeding liquid drop by drop into the space between the terminals, each drop forming a conductor for the current between the terminals.

7. The process of making gas by electrolytically changing liquids into their constituent gases which consists in feeding the liquid in small bodies intermittently, into a gap between terminals of an electric circuit to momentarily close the circuit by each body of liquid and cause the body to be instantly decomposed by the passage of current therethrough.

8. The process of making gas by electrolytically decomposing liquid, which consists in providing an electric circuit with terminals spaced to form a gap in the circuit and provide a normally open circuit, and intermittently feeding liquid into the gap in bodies of sufficient size to bridge the gap.

9. The process of electrolytically producing gas from water which consists in providing a normally open circuit having a gap between terminals thereof and feeding acidulated water intermittently, drop by drop into the gap within a chamber.

10. The process of electrically producing gas from water which consists in providing an electric circuit having spaced terminals forming a gap, acidulating water, and measuring and intermittently feeding the water, drop by drop, between the terminals to bridge the gap and cause the current to flow through and decompose each drop separately.

In testimony whereof I affix my signature in the presence of two witnesses.

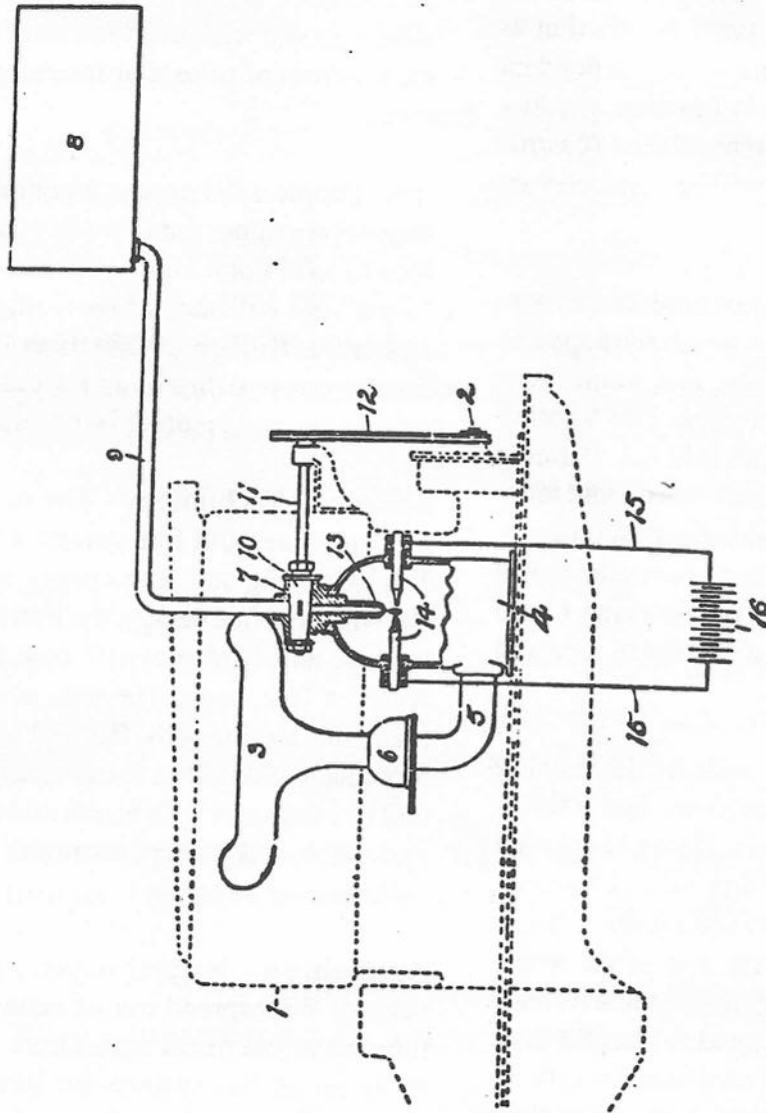
FELIX A. OSOWSKI

Witnesses:

ANNA M. DORR,
KARL H. BUTLER.

1,259,898.

Patented Mar. 19, 1918.



Witness
Charles K. Betz
Charles W. Stauffer

Inventor
Felix S. Osowski

Robert M. Smith

Attorney

Editors comments - This very simple apparatus has relevance to those who are researching Brown's gas and the very intriguing phenomena associated with that technology. The previous article in *Fulcrum* Vol.6 No. 1 titled *Magic with magnetism* also relates to this patent and Brown's gas. Toby and I are involved in researching all of these from the vantage point view of the Russell Cosmogony and their applications to free energy and transmutation. If this patent actually works, why was such a simple and clean fuel as acidulated water ignored? Ah, but billionaires must eat too. Some might think, 'let the masses eat cake, choke on fossil fuels and glow in the dark recesses of their bodily fluids and cell structures from the spewing of radioactive poisons of nuclear power plants and nuclear bombs as long as I get mine'. Not really. They simply don't know what they are doing. "Father forgive them for what they do".

Predictions by Dr. Tim for Some Of Our future State (+ & -) almost a half century after publication of The World Crisis, Atomic Suicide? Etc.

Health & Healing - Alternative healing will continue its meteoric rise in public awareness, acceptance and usage. Economic, political, and earth changes will all play a part in making alternative healing practices the dominant paradigm. For many it will be all that is available. Alternative healers are not totally dependent upon our high tech world to effectively function. Healthy balanced living will be realized as prerequisite to cosmic consciousness - the yogic traditions will become relevant and dominant, again.

Earth Changes - The climate will continue to be more erratic and variable over the next few years. Earthquakes in unlikely places as well as likely, and some very catastrophic in major population centers. The weather will bring more to their knees as Lao told me. Patterns will be shifting, where it was cold more warm, and vice-versa and simply unpredictable weather by most ordinary means. First nip and tuck from pillar to post, the storm and the darkening of the light; then the dawning of the new age of humanities dreams and a chastened race and a changed planet.

Government / Politics - There will be increasing disintegration of political structures as we know them. What we saw happen in the old Soviet Union happening in a unique but similar USA version and elsewhere. Already we have a silent civil war of sorts in the USA in that we have more attorneys than the rest of the world combined and that translates into more lawsuits. At least 60% of all marriages end in divorce and at least 80 % of them involve attorneys. That is a civil war of sorts. In time we will have statesmen and stateswomen and they will work complementary to each other. Politics will shift from polarization to unification/oneness as the world mentality shifts to more comprehensive thinking and we realize our interdependence and enjoy it. But first the old ways will self destruct.

Business/commerce - People will be forced out of necessity to deal with each other on the basis of equity and balance; a giving for equal regiving; if they are to survive. As our economy goes more and more out of balance, being presently based on the principle of debt or imbalance, the enmity this germinates will even more boldly surface and give humanity cause to reflect on the

better, the simpler and more lasting way of balanced interchange. Communities that form and take care of each other and care for each other will prosper. Those that do not will self destruct. Economies will do the same.

Religion - People everywhere will be questioning their religious backgrounds and tending to become more "spiritual" as a consequence. There will be a tending to an ending of "religions" and the birth of a new spirituality where people will seek God directly rather than through the medium of priests or intermediaries of any name or type.

Art - People will become more interested in art as artists themselves rather than simply voyeurs. People will more tend to look upon all they do from the perspective of an "artist". Art will become more important, more available, and impactful on civilization in assisting all other institutions to usher in a new culture and a new way of perceiving and creating our world.

Science & Technology - The opening up of the age of transmutation and free energy will occur. As Toby and Jean Manning say "the energy revolution is upon us". We will have free energy, the transmutation of radioactive wastes, and "antigravity" new transportation devices within a few years. The new science paradigm that so many like the Russells, Bucky Fuller, and so many, many more have pointed us towards will become dominant. It will be integrated with health and healing, art, spirituality, agriculture, education, economics, politics - everything will become integrated.

Agriculture - Natural organic farming practices will become widespread out of necessity. The idea that we must have chemical agriculture to feed the world will be mute as the system we have for production and distribution let alone payments breaks down. More widespread knowledge of the negative health effects of chemical agriculture and the part it plays in the sterility and impotence of the human race will hasten natural organic agriculture

Education - Locally controlled practical schooling to prepare children to live in a very different world will emerge. It will vary from locale to locale, colored by the societies that form around the other changes that I see happening. Consciously created communities will imprint their vision upon the schooling they feel is important and it will involve more input from the parents involved than it has up to now. It will be more

comprehensive, anticipatory design oriented, based on fundamental knowledge, spiritual and integrated with the new paradigm that unifies all institutions and thinking.

Miscellaneous - Life will be better than it has ever been once we squeeze through the know / now / knot hole of changes we presently experience.

Newsletters/Periodicals

KeelyNet Newsletter/Info Exchange

P.O. Box 870716, Mesquite, Texas 75187

Subscription price unknown - Published Quarterly - Info on new energy science and health information exchanges. The publisher is Jerry Decker a long time Russell student, Keely student and investigator into all kinds of unusual phenomena.

Journal Of New Energy published by the Fusion Information Center, P.O. Box 58639, Salt Lake City, Utah 84158-0638. A quarterly Journal subscription: \$150. Single Issues: \$45. This is a journal of the Institute of New Energy. It has published the papers presented at the first and second low energy nuclear reactions conferences held at College Station, Texas at Texas A&M University. This journal is top quality work presented by some of the leading thinkers and researchers in the field of new energy.

Ecolonomics In Action published by The Institute Of Ecolonomics Box 257, Ridgeway, CO 81432. A bi-monthly newsletter. A years subscription is \$35. It details the efforts of the Institute to transform our planet through business based on sound ecological principles. Articles on new energy, education, and any area of technology and commerce that can positively effect our lives may be published.

NEW SCIENCE/TECHNOLOGY/FREE ENERGY

Electric Spacecraft Journal. Published quarterly, annual subscription rate \$24, Canada/Mexico \$29, other countries \$39. ESJ publishes research articles on new science, inventions and network notes from the ESJ network of individuals sharing ideas about these topics. Devoted especially to discovering the means/mechanisms for "electric" spacecraft and all that such understanding would mean for our civilization. I have known the editor Charles A. Yost the last few years and he spoke at our 1995 symposium. I find Charles' ESJ to be interesting and informative, and although most articles are very technical there are aspects of the journal that the average reader should find comprehensible and of

interest. Charles A. Yost editor. ESJ, 73 Sunlight Drive, Leicester, North Carolina 28748. Phone 704-683-0313 Fax 683-3511.

The Space Energy Journal Published Quarterly. \$35 U.S., \$40 Canada & Mexico, \$50 elsewhere. Jim Kettner and Don Kelly editors. This journal publishes the positive and the negative results of testings of free energy machines and other new science experiments. The discussion of new science ideas is technical and yet also very down to earth so that the average reader should follow most of it. I have met Don Kelly through my association with the International. Assoc. for New Science/ International. Symposiums for New Energy and he is familiar with the Russell work too. Space Energy Association, P.O. Box 11422, Clearwater FL 34616. Phone/ Fax 813-461-7119.

New Energy News is the newsletter from the Institute for New Energy. It is a collection of reports on inventions, ideas and of publications relating to alternate and free energy. Monthly free to members with member fee of \$35 and \$60/yr. to corporations, libraries and universities. Hal Fox Editor, P.O. Box 58639, Salt Lake City, UT 84158-8639. Phone 801-583-6232 Fax 583-2963.

The *Planetary Association for Clean Energy* newsletter publishes articles to facilitate the development of a wide range of clean energy technologies including free energy technologies. Usually quarterly \$35/yr. Canada, \$40 USA, \$45 elsewhere. Andrew Michrowski, editor, Planetary Assoc. for Clean Energy, Inc. 100 Bronson Ave. Suite 1001, Ottawa, Ontario, Canada K1R 6G8. Phone 613-236-6265 Fax 235-5876.

INVESTMENT/INTL. POLITICS/ ETC.

The Reaper. 36 issues per publishing year. I year- \$195. 10 issue trial - \$60. *The Reaper* is a no holds barred newsletter examining our current global and national economic/political status with an eye towards assisting investors in commodities, currencies, real estate, etc., etc. Publisher R.E. McMaster Jr. is an acquaintance of mine who I introduced to the Russell's work and I have subscribed to his NL off and on over many years - not because I am an investor (I should be and if I would have followed much of his advice would have made some cash, but I'm too involved in other work), but because I have been fascinated with R.E.'s analysis of our world situation. Called the Indiana Jones of the Christian economists by some he has a 'Christian' point of view but it is not conventional in my estimation. He is aware of new energy and natural health/healing practices and reports on these areas at times. P.O. Box 84901, Phoenix, AZ 85071. Phone 800-528-0559.

EARTH CHANGES/ESOTERIC

The Earth Changes Report 12 issues/yr. \$36; Canada, Mexico,

Alaska & Hawaii \$46/yr.; \$56/yr. elsewhere. Published by futurist/psychic predictor Gordon Michael Scallion gives Gordon's psychic predictions and a review of his hits and misses as well as articles in the new age spiritual genre and a report of earthquake, climate changes, etc. worldwide. I have watched Gordon Michael's predictions for the last several years and while he is not 100% on target he has been close enough on enough times to be much more than just coincidence. Published in the spirit of better to be prepared for what does or does not happen than to be unprepared for what does happen, the ECR is a good monthly review of earth changes as they happen and of what might happen beyond most folks wildest dreams - both pro and con.
Matrix Institute, P.O. Box 336, Chesterfield, NH 03443. Phone 1-800-628-7493.

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