

*Sympathetic Vibratory Physics*

*Russell Optic  
Dynamo-Generator*

Walter Russell



# Russell Optic Dynamo-Generator

by Walter Russell

## I. Explanation

This new power and light generator employs a multiplication principle of nature which has not yet entered within the realm of human consciousness, just as the principle of electronics or atomic energy had not entered human consciousness fifty years ago. It is more important than electronics is, however, for it opens the door to a new era in higher electronics, higher mathematics and transmutation.

It is the principle of growth in nature which multiplies one kernel of corn into thousands, or which multiplies gases of minus zero melting points into solids of over 3000°; or multiplies the cold of space into hot stars and novae of incredibly high temperature.

The reason it has never been known is because of the false concept of gravity which assumes it to be a force of attraction which pulls inward from within instead of a cyclic force which controls the compression of cold into heat, and the expansion of heat into cold. Another reason it has never been known is because of our wrong concept of thermodynamics which places heat as the basis of energy instead of cold, of which heat is its sole product, and the consequent law of entropy which provides no uphill flow of energy to balance its downward flow, as fully evidenced in every wave and in every growing body of nature.

Power multiplication is the most conspicuous characteristic of nature. It is amazing to me that it has never yet been discovered, nor has the nature of light, the ONE THING of the universe, been discovered. For this reason the optic nature of matter has not been discovered. If it had been, our research laboratories would not make such primitive coils as those in current use everywhere. Attached to this letter is a drawing showing how coils should be wound to divide light into pairs, but a coil of one section is like one wheel of a pulley which has but a fraction of the power it could have by adding another, and still another wheel, or that a large wheel would be able to impart by gearing a smaller, slower moving wheel to it.

## II. Purpose of Optic Generator

The Russell Optic Generator is for the purpose of replacing the present very primitive power generator now in use, which violates every principle which nature makes use of for power generation. The resultant infinitesimal power which it thus generates by friction and induction is not only very costly but it is the hard

complex way instead of the easy simple way.

Theoretically, the Russell generator should give 4,096 times the power that the present generator gives, but that is mechanically impossible for the reasons which will be given with the drawings. Extended coils of wire weaken with every superimposed layer while lenses contain all of their power within their boundaries.

I believe, however, that even this first try-out model will deliver from 50 to 300 times the power now obtained by the friction and induction process given to the world by Faraday.

It will help to comprehend nature's optical method of power multiplication by pointing out the violations of nature which the present dynamo makes use of.

Nature's first principle of power production and the construction of matter is to produce heat from the cold of space. The heat thus generated radiates back into cold to complete the wave cycle which automatically repeats itself in this ageless universe of an infinite continuity.

Every wave is a perfect dynamo, but the very purpose of waves is to generate heat in its armatures at wave amplitude points. That is the only way waves create matter. Carbon, for example, is the amplitude element of its octave. Its melting point is 3600° centigrade. Every sun in the heavens is flaming carbon, and every sun is the armature of its dynamo-wave.

The present dynamo ignores this basic fact completely. It cools its armature by laminating it. It then rotates its armature the wrong way, because of a belief in non-existent "lines of force" in magnetic fields which they are cutting by thus turning. Nature's armatures rotate upon their axis in planes of their equators, without exception in the universe. All spherical bodies of matter in all this universe are wheels which roll around their orbits on their equatorial rims. They do not spin on their rims around a false equatorial axis, as armatures in modern dynamos are forced to do.

To emulate nature's process a dynamo should generate much heat and become a Reactor, connected with a steam turbine, as Nuclear Reactors operate. The greater the heat thus generated the more power lines can be taken off from the large equatorial wheel which the turbine will motivate.

Every armature in nature gives off many thousands of

times more than its cathodes gave to it. Every star is a step-up transformer with four step-ups between the cathode zero and its anode maximum. Each step-up is an octave above its predecessor. Its ratio is as follows: 0 - 8 - 64 - 512 - 4,096. It is this octave step-up multiplication which creates density and raises melting points.

### III. The New Thermodynamics

**First Law:** Cold generates energy. Heat radiates energy. Cold multiplies. It cannot be divided. Heat divides. It cannot be multiplied.

**Second Law:** Every reaction must be preceded by its equal action. Heat is the reaction of cold. Heat could not come into existence save for the compressive action of cold. (The law of entropy, therefore, has no place in nature.)

**Third Law:** Cold and heat express their opposition at angles of 90° from each other. Cold extends along axis and the axis of all bodies of creating matter where rotation is minimum, while heat expansion is maximum at equatorial planes where speed of motion is maximum.

**Fourth Law:** Cold compresses. Compression multiplies cold into heat. Heat expands. Expansion divides heat into cold. Cold and heat, like life and death, constitute a wave cycle. In all nature there is no effect which is not wave created, and all waves are cyclic.

(Again, I repeat, that the law of entropy, and the belief that energy does not run "up-hill", have no place in nature.)

**Fifth Law:** When motion begins heat begins. This entire universe is a varied measure of the heat of motion. This entire wave universe is a varied measure of heat and motion. Long low waves of low heat potential constitute the invisible light spectrum, while short high waves of high heat potential and low frequencies constitute the visible spectrum.

**Sixth Law:** The emergence of heating matter in motion from the static cold of space begins at the indigo-blue and blue-violet ends of the spectrum and builds up to the white centered yellow, through red and green, until the maximum heat equatorial plane is reactive at an angle of 90° from the static axis of cold.

**Note:** The import of the spectrum has been very much neglected in man's cosmogony of a universe which consists of only one thing - LIGHT.

### IV. Conclusion

The most tragic lacks which retard scientific progress are:

1. The complete lack of knowledge of the nature of light - the ONE THING of the universe, and the almost complete lack of knowledge of the light-wave which is the worker of nature's miracles.
2. The misconception of the universe as an electromagnetic one instead of an optical, photo-sensitive, gravity controlled universe of divided light pressures.
3. The complete blank gap in science regarding the sex-principle, and its relation to the spectrum, which causes every element of matter to be created in pairs.
4. The failure to observe that there are four pairs of focal light poles in the bar magnet instead of two. This has caused science to believe that matter is either positively or negatively "charged" instead of being variously conditioned by the octave series of spectrum light pressures of gravity which control the construction of matter. The only approach to this recognition of power-multiplication by science is the orderly octave principle, as shown in the Mendeleef table of the elements and its recognition of valence as a power step-up in chemistry.
5. The misconception of gravity as a force of attraction which pulls inward from within. The only force which motivates the heart beat of this universe is the cyclic wave force of gravity which expands and compresses, heats and cools, integrates and disintegrates, centripetally and centrifugally.
6. The total lack of knowledge of the purpose and workings of the inert gases and their relation to growth control from the seed, and their power multiplication principle which causes all effects of motion to step-up from their zero cold static condition to white hot heat and power conditions.

These are the most important of the many lacks in the scientific structure which complex its cosmogony, and renders laboratory techniques difficult and wasteful.

Any commercial laboratory which had this knowledge would have such a great command over matter that it would be the most powerful corporation on the earth.

Walter Russell  
Lao Russell

# 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 forces  
es  
which decomposes  
matter radiatively  
tively  
Degenerating  
Disintegrating  
De-composing  
Dissipating  
Distributing  
Emanating  
Expanding  
Cooling  
Centrifugal  
Melting  
Tenuity  
Ionization - Evaporation  
Dissolution  
Increasing volume  
ume  
Exhalation  
Exothermic  
BNeblousness  
Conduction  
Discharging  
Repulsion  
Lowering melting point  
point  
Lowering potential  
Low pressure  
Negative  
Minus  
Softness  
Wetness (hydrous)  
drous)  
Vaporizing  
Devolution  
Death

Gravitation  
The presumably  
attractive forces  
which composes  
matter generatively  
Generating  
Integrating  
Composing  
Accumulating  
Assembling  
Absorbing  
Contracting  
Heating  
Centripetal  
Freezing  
Solidity  
Condensation  
Solution  
Decreasing volume  
Inhalation  
Endothermic  
Distinctness  
Induction  
Charging  
Attraction  
Rising melting point  
Rising potential  
High pressure  
Positive  
Plus  
Hardness  
Dryness (anhydrous)  
Liquefying  
Evolution  
Life

Are not these two series Nature's expressions of mo-

tion in opposing, balancing and sequential oscillations?

All motions in any direction are 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 motions of condensing bodies headed toward the high pressure at the gravitative 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 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 a 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 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 gradients 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, centripetally 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 resistances 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 a 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 its gravitative center outwards to its surface.

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 the cooler 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?

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 forever and forever throughout endless ages.

Through these repetitive 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 nucleal 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 repellant 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 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 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 mass 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 of Both.**

by Walter Russell

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 towards 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 striations.

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 equatorial zones radiation is preponderant and generation is minus.

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

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

The excessive radiation of the earth's 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 satellites.

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 pressure 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 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 planet 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 lower pressures from which it was generated?

Is not this cycle followed by every object in nature whether it be rain, apple, granite rock or bar of steel?

What other differences 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 of 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 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.

The spiral nebulae such as that in Perseus, or our own Milky Way, give energy 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 anti-clock-wise 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 sun's

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

Let us consider this.

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.

## What happens?

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

If we pass a current through a coiled wire, surrounding a bar of steel, the bar will suspend itself 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.

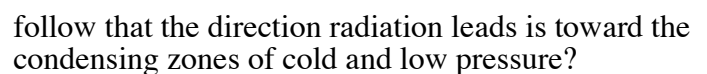
Is this not exactly akin to the high pressures generated in the same manner in our sun and in our planets?

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

Is not the coiled wire with a central elongated bar following the line of high pressure exactly analagous 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 radially 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



If this is true then the direction that generates condensation must be away from cold towards 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?

## SUN LIGHT

Let us consider the sun's radiation, that which we call sunlight.

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

We even compute the weight in tons of the sunlight 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.

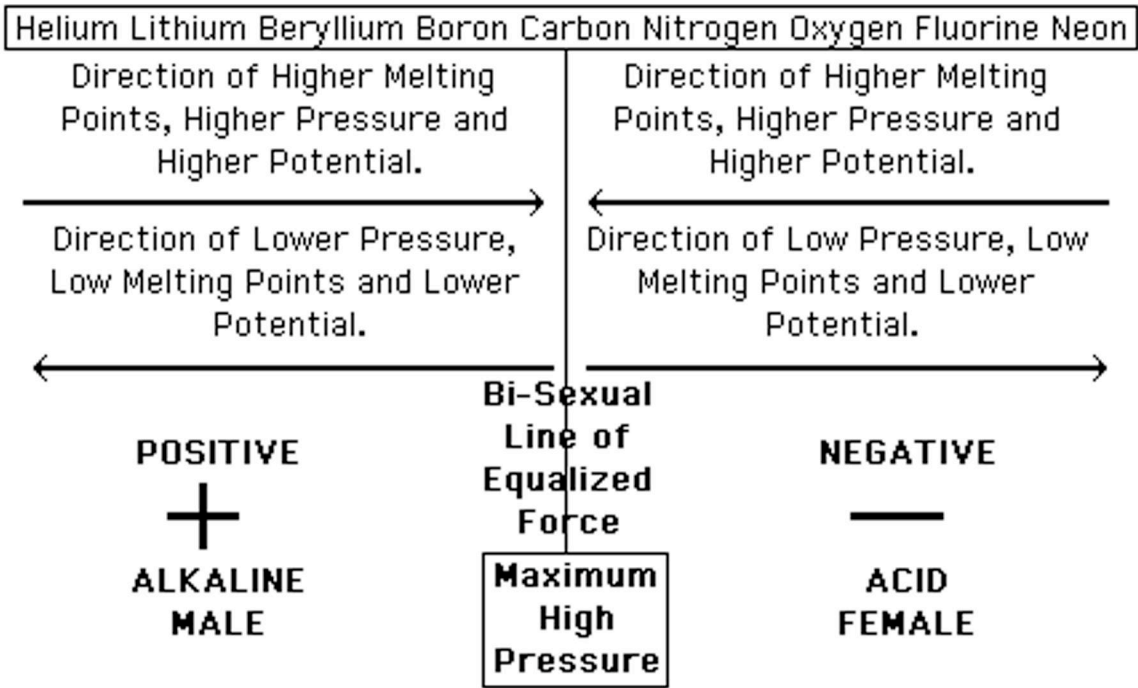


Diagram No. 3