

**Thomas Henry MORAY**  
**Radiant Energy Receiver**  
***The Sea of Energy* [ Excerpts ]**

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Excerpts of technical factoids from:

***The Sea of Energy***

[ From the original *The Sea of Energy in Which the Earth Floats* -- 1978  
Edition: Cosray Research Institute, Salt Lake City, UT ]

by

**Thomas Henry Moray**



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### Introduction

[ 4th Edition ]

**RADIANT ENERGY** --- The term Moray has used to describe that source of energy coming from the cosmos to earth and radiating from the earth back from whence it came. This is the energy the Moray device captures and could be described as those particles of energy pervading all space. In the evolution of energy and the evolution of matter these particles of matter and energy (one and the same) manifest under certain conditions as pure energy and under others as pure matter. Radiant Energy from the cosmos, like radiant particles of matter, being composed of an infinitesimal quantity whose behaviors are described by mathematical equations similar to those used for describing electrical waves, keeping in mind to differentiate between wavelength and frequency. Radiant Energy is particles of energy, just as light is wavelengths and particles are comparable to the electron and magneton: a ring of negative electricity traveling in a vortex with the speed of light, streams of energy quanta, each quantum having energy and momentum where the electron revolves around the proton at a distance equal to the electron radius.

To summarize: Radiant Energy as herein used is that energy existing in the luminiferous medium of the universe, kinetic and exercised in wave transmission

and rendered sensible by conversion of its energy into a detectable frequency. In the final analysis, Radiant Energy is a means of using the energy released by the fissionable reactions taking place in the stellar crucibles of the universe.

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## **Chapter 1**

### **The Early Years**

[p. 20] "I started my experiments with the taking of electricity from the ground, as I termed it, during the summer of 1909. By fall of 1910 I had sufficient power to operate a small electrical device, and I made a demonstration of my idea to two friends... This demonstration in the early stages consisted of operating a miniature arc light... It soon became evident that the energy was not static and that the static of the universe would be of no assistance to me in obtaining the power I was seeking...

During the Christmas Holidays of 1911, I began to fully realize that the energy I was working with was not of a static nature, but of an oscillating nature. Further I realized that the energy was not coming out of the earth, but instead was coming to the earth from some outside source. These electrical oscillations in the form of waves were not simple oscillations, but were surgings --- like the waves of the sea --- coming to the earth continually, more in the daytime than at night, but always coming in vibrations from the reservoir of colossal energy out there in space. By this time I was able to obtain enough power to light the old 16-candlepower carbon lamp for about one half capacity, and I did not seem to make any further improvement until the spring of 1925."

[p. 21] In 1912 he was called to go on a mission for the Church of Jesus Christ of Latter-Day Saints, and under a visitor's visa was allowed to enter Sweden during the Exhibition of 1912 in Stockholm...

In his notebook, dated November 1, 1913, Henry included a memo that he had obtained material from a railroad car at Abisco, Sweden the previous summer, and material from the side of a hill. He made electric tests of these materials, taking them home to try each as a detector for his energy machine. Tests indicated that this soft, white stone-like substance might make a good "valve-like detector"\*.

[ \* This "valve-like detector" is what led Henry to do research in semi-conductive materials, and from this soft white stone he developed his first Moray valve and the Moray valve that was used in some of the early Radiant Energy devices]

[p. 22] "Silver wire used on stone makes a rectifier."

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## **Chapter 2**

### **Radiant Energy In Earnest**

[p. 31] Henry Moray demonstrated that energy was available by its actions on a resistive load, such as a flat-iron or a space heater, and by lighting lights. A resistive load is directly proportional to the amount of energy delivered to it. In heating a heater or lighting a light, the number of watts produced can be calculated as equal to the number of watts consumed. This energy is fed into a load to give either heat/light, or power. A motor can be operated but must be designed for high frequency. The Radiant Energy device operation is shown in Figure 54, in which he used an antenna and a ground connected to his solid state RE device...

He was able to show that none of the energy came from within his device. Internally the device was electrically dead when it had not been connected and tuned to the antenna. When his device was set up, he could connect it to an antenna and ground, and by priming it first and then tuning it as he primed it, the device would draw electrical energy. This high frequency electrical energy produced up to 250,000 volts and it lighted a brighter light than witnesses had ever before seen. Heavy loads could be connected to the device without dimming the lights that were already connected to it. This device worked many miles from any known source of electrical energy. Such as transmission lines or radio. The device produced up to 50,000 watts of power and worked for long periods of time....

He assumed at first that this energy was electromagnetic in origin; however, he never claimed that it was electromagnetic in nature. He assumed at first that this energy came from the earth. But later he believed it was from the universe. Finally he began to believe that it was present throughout all space, intermolecular space as well as terrestrial and celestial space. He did not necessarily understand how his detectors operated, only that if he very carefully built the device according to his calculations, it worked. He was able to demonstrate the existence of an energy that today, though it has not been identified or proven, has been theorized by many researchers...

[p. 32] As early as 1904, Nicola Tesla, experimenting with AC currents of high potential and high frequency, said: "Ere many generations pass, our machinery will be driven by a power obtainable at any point in the universe... Throughout space there is energy. Is this energy static or kinetic? If static, our hopes are in vain; if kinetic --- and this we know it is for certain --- then it is a mere question of time when men will succeed in attaching their machinery to the very wheelwork of nature."

[ p. 35] The following is [excerpted from] a booklet printed about 1932, entitled "Brief History of Moray Radiant Device":

The largest instrument being about 6 inches high and circular in shape and about 8 inches in diameter... We went out on the roof of the chicken coop carrying the device on a small drafting board, erected an antenna upon the roof of the coop, the antenna being about 100 feet from the house. We pulled the main line switches in the house before going out upon the roof. Mr Judd had me move the drafting board from place to place and I also had him examine the inside of the

coop for hidden equipment. I then put the machine together in his presence and the device was then started. Mr Judd timed me to see how long it would take to bring in the light. I was able to light-watt type CGE lamp to full capacity and also to heat to the sizzling point an old style Hotpoint electric flat iron which consumed 655 watts. Mr Judd asked me to take off the antenna. The light went out. It was connected again and the light reappeared. We drove a new ground at a spot selected by Mr Judd, made a connection over to a new ground and the light burned dim but came brighter and brighter as the new ground was driven deeper and deeper.....

[p. 36] Whenever the ground or antenna is left disconnected too long the device becomes electrically dead and must be retuned in order to obtain the energy.....

[ p. 37] Dr Eyring found no fault with the demonstration and the worst that he could say about it was that it might be induction, but that if I would take the device out in the mountains away from all power lines, a distance of 3 or 4 miles, and it would then operate he would then acknowledge that it could not be induction and that his theory was wrong and mine right...

At last they decided to go up Emigration Canyon, as there are no power lines in that canyon... All three gentlemen were very well satisfied and pleased with what they saw...

[p. 40] "The antenna wire was put up without any aid or instructions whatever from Mr Moray, except that he suggested that the wire be stretched tighter to prevent so much sag at the center. This was done and the wire then appeared to clear the ground by about 7 or 8 feet at its lowest point.

The ground pipe was of 1/2-inch water pipe consisting of two sections. The lower section was pointed at the end to make its driving into the creek bed easy. It was about 6 feet long and after being driven down about 5 feet the second section, which was about 4 feet long, was screwed on with a wrench and the pipe further driven down until it struck a hard object... I judge about 7 feet of pipe was in the ground.

The antenna wire was insulated from the poles with two glass insulators about 6 inches long and having holes in both ends. A piece of wire about 2 feet long connected each insulator with the pole. The lead-in wire was fastened to the antenna wire at a point about 10 or 15 feet from the east pole. I helped Mr Moray solder the connection[s]... I stepped the distance between the two antenna poles and estimated it to be 87 feet...

Mr Moray's equipment, aside from the antenna and ground wires, consisted of a brown box about the size of a butter box, another unpainted box slightly smaller, a fiber board box about 6" x 4" x 4", which Mr Moray referred to as containing the tubes. And a metal baseboard about 14" x 4" x 1" containing what appeared to be a magnet at one end, a switch near the middle and a receptacle for an electric light globe at the other end. There were also several posts for connecting wires on the baseboard...

When all of the wires connections were made and everything was in readiness Mr Moray began tuning in... Before tuning in he placed the key on the post: he said it would be in contact with while the light burns but no light appeared. The tuning in consisted of stroking the end of a magnet across two metal projections protruding from what I referred to above as being a magnet. After tuning in for slightly more than 10 minutes the key was put on the operating post and the light appeared immediately... Mr Moray put the key on the operating post two or three times before during the tuning in operation but no light appeared... We allowed the light to burn for 15 minutes..... The brilliancy of the light, a 100-watt globe... was about 75% as bright as a 100-watt globe connected to an ordinary house socket in my opinion. It was an even light, without fluctuations of any kind.

While the light was burning Mr Moray disconnected the antenna lead-in wire from the apparatus and the light went out. He connected it again and the light appeared. He also disconnected the ground wire and the light went out. He then connected it and the light appeared again."

[p. 42] [In another demonstration], I [T. Moray] opened the device and let them see everything except one small part that I was able to place my hand over and hide in my fist. This part I cut off and put in my vest pocket. Everything else I let them examine to their hearts' content. "If that part is able to make such power itself it's some device and worth selling. Such a battery would be worthwhile", were some of the remarks passed...

[p. 48] On several occasions Dr Moray would disconnect the antenna wire momentarily, but not long enough to lose the light. In disconnecting and connecting the antenna wire a flash of electricity could always be seen at the connecting point...

[p. 49] Salt Lake City, Utah, October 10, 1928 ~ To Whom It May Concern:  
Below is a report of my observation of the Moray cosmic energy device.

The aerial used is about 200 feet long and is about 80 feet above the ground: the wire is a copper cable approximately a fourth inch in diameter, and well insulated. The ground is the water pipe in the basement of Dr Moray's home.

The device was assembled in a trunk through the sides of which were holes for the connections to ground and to the antenna and for observation; the said holes were about one-half inch in diameter. There were two boxes about 10 by 20 by 4 inches, one on top of the other; both were closed and the covers fastened with screws. On the upper box was lying an insulating panel about an inch thick by 15 inches long and 3 inches wide; it is of slate or hard rubber or some material of similar appearance. On this were two binding posts that were connectible by means of a small switch; also mounted on this panel is a body about 2-1/2-inches square, wrapped in friction tape, from which protrude two poles about 1/4-inch in diameter, apparently of sift iron. A double receptacle for light globes was connected in the circuit. In one of which was a 20-watt globe, and in the other a 100 watt globe...

Dr Moray then took a magnet, which was a very broad, short limbed U, and began to stroke one pole of it on the poles in the taped body: Mr Jensen placed his fingers on the binding posts several times, and at last received a rather vigorous shock; Mr Moray then threw the switch and the globes lighted...

As a further proof that the conversion of the energy was due to the mechanism in the box, Dr Moray hit the table on which the trunk was standing, a moderate blow with a hammer whereupon the light flickered and went off, due to the detector being shaken out of adjustment.

The boxes in which the mechanism had been housed during the test were opened and the contents examined; there were condensers, the detector, a transformer, and two tubes in them but nothing else. Nothing that in the least resembled a battery.

It is to be noted that after a total run of 158 hours the device supplied 635 watts; inasmuch as a horsepower is but 746 watts this equals 0.878 of a horsepower or slightly more than 7/8 horsepower. This alone is sufficient to dispose of any suggestion of a battery...

[p. 54] To All Whom It May Concern (June 25, 1929): It is now more than 2 years since I first became acquainted with Dr T. H. Moray and the work he is carrying on, and in that time he has demonstrated inventive ability of an exceptional order.

Perhaps the most wonderful of his inventions is a device whereby he is able to draw electric power from an antenna. This energy is not derived by induction from power lines, as has been suggested by some, nor is it derived from radio stations, as has been demonstrated by taking the apparatus more than 26 miles from the nearest power line and over a hundred miles from the nearest radio station and showing that it operates just as well as anywhere else. This device was subjected to an endurance test in which it was operated continuously for a week, and at the end of that time a 100-watt lamp was lighted simultaneously with the heating of a 575 watt standard Hotpoint flat iron, making a total of 675 watts; it is very evident that no batteries could sustain such a drain as this.

He has also invented a very sensitive sound detector whereby it is possible to hear conversations carried on in an ordinary tone of voice at a distance of several blocks.

He has also worked out numerous radio hookups which eliminate many of the parts now considered necessary for good reception, yet there is no diminution in quality or volume; in fact, there is a notable elimination of interference from static when some of these are used.

He has devised a means by which he is able to measure with some degree of accuracy the energy evolved during mental activity; that is, he gets definite, variable deflections of the needle of a sensitive galvanometer which appeared to be related to the vigor of mental activity.

There are a great many other equally remarkable things that he has done, such as reducing old rubber from truck tires to the state of a viscous fluid which is readily vulcanizable without the addition of smoke sheet as is necessary with other processes; also a high frequency therapeutic device, and numerous other devices which show great ingenuity.

Signed, Murray O. Hayes, PhD.

[p.55] You asked some questions at that time that I could not answer on account of my lack of knowledge, both of science and the detail construction of the machine of Dr Moray's that we were talking about. There was one thing in particular that you asked about and that I know I did not make clear in my answer, and that was in regard to the setup of the six 100-watt lamps. You asked if they were set up in multiple or series, and this question was especially brought up as we were referring to the very small wire, which a N. 50, which I stated was used in connection with the operation of said lamps. Since my return to Salt Lake, I have gone over this matter and find that the 6 lamps are set up in parallel and the small wire is used as the current enters the tube prior to and connecting with the step-down transformer, this taking the terrific high voltage to the transformer. In other words, I am trying to say to you that this is a terrific high voltage, and we are using the word "terrific" because it has been demonstrated that this is an exceedingly high voltage because it will [jump] through an arc flash at least 6 inches and in excess.

Another thing that you asked me about was the measuring of the voltage or amperage, and I know I did not answer to your satisfaction. However, I must now state that "the frequency is so high that I have no instrument in my laboratory that is able to measure the amperage or the voltage at this frequency"

Dr Murray Hayes has examined most carefully and knows the construction of Dr Moray's machine, knows the theory in detail, has practically prepared the papers for patent applications...

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## Chapter 3

### Frienemies

[p. 65] Dr Milton Marshall was attempting to identify the material that he called his "Swedish Stone". When he described the action of his germanium mixture to the two physicists [Carl Eyring and Harvey Fletcher], they knew that the entire composition of the Swedish Stone had no been properly identified...

[p. 66] Dr Moray... described the radio detector he had developed... He compared it to what was commonly known as the crystal of a crystal set. However, his detector was superior since it could drive a loudspeaker without the use of a battery...



He used the most easily demonstrated device, the germanium diode, that worked on the same principle as the radium to illustrate how he thought the Radiant Energy Detector worked... Henry originally built the radio simply for that purpose -- to show how he was able to pick up signals with a solid-state device sufficiently strong that they would drive a loudspeaker, which was something unheard of in that day... His circuit did not have batteries, as it was very similar to the old crystal-set circuitry. Figure 17, sub-figure 3, shows how the original germanium valve was used and how it worked in the radio circuit.

The earliest drawings and descriptions of the Moray Valve are found in a sworn certificate dated November 14, 1927, where he describes a germanium compound using the words "pure germanium" (Figure 14). [Re-purified 5 times]

In 1937, in order to protect his interest in the germanium valve, he wrote an affidavit and had this affidavit witnessed (Figure 15). This affidavit refers to certain drawings and descriptions found in patent application 550611... I have made copies of the patent application that applied to the description found (Figure 8 & 9, patent application 550611, enclosed) (Figure 16).

The Radiant Energy Detector, even today with the advanced state of the art of semi-conductors, is considered by our research organization to be proprietary and still of great value. Parts of the certificate (Figure 15) have been removed to protect these interests. It must be noted that the detector described in Figure 15 is also superior to most germanium semi-conductors known today because of some of the doping material used. That this bipolar device is truly a transistor was verified by examination of the complete notes by Warren Simmonds, PhD, of Salt Lake City.

[p. 106] The reader must realize that I use the word "tubes" loosely. Basically my father's "tubes" were solid-state devices.

[p. 111 ] The device was housed in a wooden box something like 12" by 18", with an antenna and a ground going into it. Wires leading out of the box led to a bank of some forty 100-watt light globes and to an electric iron. My uncle touched a switch at the top of the box with a hand electrostatic plate and the globes all lighted brilliantly. We all noted that the bulbs burned cold except each had a hot spot about the size of a dime on the top slightly off center. I also recall that I could turn the lights on and off by approaching and retreating to and from the device, either with my whole body or my hand. If my memory is clear, the machine had to be tuned with a dial to be placed in this condition. [Chester M. Todd, March 19, 1971]

[p. 114] David Gardner Affidavit: The gentleman who had invited me to the demonstration mentioned a contrivance that Dr Moray had also invented with which he could pick up sounds without them being broadcast from a radio sending station. He said that he had heard a demonstration of this device. I asked if I might hear it also; he called Dr Moray over and asked if I might see a demonstration of the "sound pickup device", and I was granted the privilege.

There was an old radio box of conventional design with two headphones plugged into the box. Dr Moray tuned the device by turning the knob in front. He handed me one set of headphones and one set to my nephew Mr Clark Gardner; he then arranged for three people to walk out of the house into the street and carry on a conversation to which we were tuned... I was sure I was listening to these three men. I remember distinctly it was raining at the time and I could hear the patter of the rain on the pavement as they walked. I remember them saying they had better hurry back into the house lest they get wet.

In the course of their return, I wondered if I might hear other people talking, and despite the advice of Dr Moray not to fool around with the tuning device, I moved the knob slowly and heard very distinctly the sounds of a railroad station: the whistle of a train, and a porter or the station master at his station saying, "All aboard". The nearest station to the receiving set would have been a minimum of 5 miles...

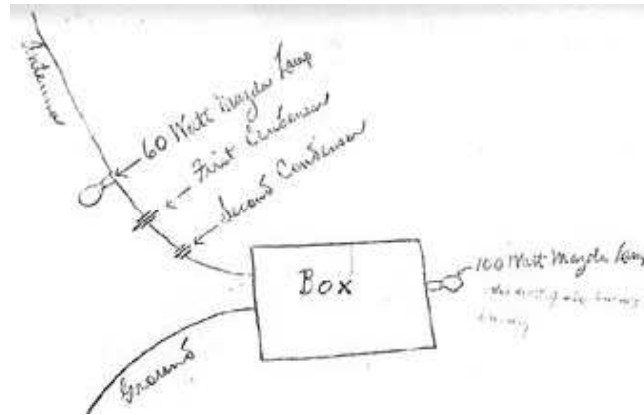
I know that the people on the street had no transmitting device or any other instrument with them. They would not believe me when I told them what I had heard, but they said I was repeating their conversation.

[p. 122 ] Later, after he had examined the transformer of the device, he stated that with the amount of amperage he had seen taken from the device was positive proof that the current developed by or in the machine was different than in any in use today. Because the transformer would have burned up with normal current, yet the transformer showed no signs of even ever having been warm. He was informed by Dr Hayes that the transformer had been in use under the same type of strain for many tests in the past...

It was Dr Knudsen's fault that the detector burned out because of the excessive inductive kickback he subjected the device to by throwing the main switch in and out so fast and often that this continual breaking of the circuit built up an inductive kickback, which would "blow" any electrical circuit...

[p. 126] Letter from E. G. Jensen (March 21, 1938) ~

Number 1 condenser (Figure 52) consisted of two small sheets of about 30 gauge aluminum separated by but making contact with a piece of one-quarter inch thick plate glass. The plate glass was larger than the aluminum sheets and overlapped them. Number 2 condenser... had the capacity of 0.025 mfd. It was a commercial condenser... manufactured by Igred Condenser & Mfg. Co.



With the 60 watt Mazda Lamp and the two condensers attached to the antenna and the antenna and ground attached to the box containing your Radiant Energy equipment in the manner shown in the sketch, the 100-watt Mazda Lamp on the secondary or output side was lighted. Unscrewing the 60-watt Mazda lamp from its socket caused the 100-watt amp to go out, but it immediately lighted when the 60-watt lamp was screwed in its socket. The 60-watt lamp did not light under any condition or hookup. Shorting the antenna and ground by placing a wire across them, caused the 100-watt lamp to go out. Similar shorting with the hands also caused the 100-watt lamp to go out. No electricity could be felt when shorting with the hands. If either the ground or the antenna wires were disconnected from the box, the 100-watt lamp would go out. Neither of the condensers or the 60-watt lamp on the primary side of the box were necessary but were simply put on to show that the high frequency power will jump or pass through the condensers...

## Chapter 5

### Patents

[p. 161] The original patent application was first filed in 1931. This application was rejected on a number of bases. First (Figure 17), "Because no means was provided for causing the cathode to emit an appreciable number of electrons, the current produced in the cathode by the antenna will not heat the cathode to a temperature at which an appreciable number of electrons per second are emitted" (In other words, according to Thomas E. Robinson, Commissioner of Patents, a solid state device, a transistor, cannot possible work). Second, because "No natural source of electric wave energy is known to the Examiner and proof of the existence of such a source is required". In other words, it was not enough for Moray to demonstrate the effect of the energy source; he also had to identify it, which he could not do...

[p. 186] In 1942, shortly after World War II began for the United States, Henry moray attempted to rebuild a Radiant Energy Device, using the remaining bit of what was known as the "Swedish Stone". This material, which was the heart of his original RE detector, he had never been able to duplicate, and the shortage of this material limited the amount of power he could draw. Consequently, in the large unit, he developed a second detector that forced him into extensive

research involving nuclear materials and radioactive reactions. He became deeply involved in the study of synthetic radioactivity as described by Gustave LeBon in his book, *The Evolution of Matter*

[p. 188] The years slipped by and from time to time Henry and I would discuss his notes and go over the drawings. He spent most of his time [ca. 1950] working on what he called the "counter-balance" to eliminate the need for an antenna...

[p. 190] In fact, we have recently been informed that none of the original patent applications that Henry made are any longer available at the US Patent Office. Although their file jackets are there, the contents and applications themselves are gone...

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## Chapter 7

### The Sea of Energy in Which the Earth Floats\*

[\* *Nature of World & of Man*, Chicago Inst. of Technology]

by

**Dr T. Henry Moray. S. Sc.**

[This was the original Chapter 1 in a book called *Beyond the Light Rays*, which is out-of-print and no longer available. The last known copy was stolen from Dr moray's laboratory...]

#### **A New Era In Energy: Power from the Cosmos and the Earth.**

Dr Nikola Tesla said over 60 years ago: "Ere many generations pass, our machinery will be driven by a power obtainable at any point if the univers..... throughout space there is energy. Is this energy static or kinetic? If static our hopes are in vain; if kinetic --- and this we know it is, for certain --- then it is a mere question of time when men will succeed in attaching their machinery to the very wheelwork of nature."\*\*

[\*\* Nikola Tesla: *Experiments with Alternating Currents of High Potential & High Frequency*, 1904]

Nikola Tesla was not referring to atomic or nuclear energy, but to the energy which is continually bombarding the earth from outer space.

Enough energy is coming to the earth to light over 1.5 million (1,693,600) 100-watt lamps for every human being on the earth today. No fuel of any kind need be taken as a dead load as this energy can be "picked-up" directly by ocean liners, railroads, airplanes, automobiles, or any form of transportation. Heat, light and power can be made available for use in all kinds of buildings and for all kinds of machinery. An example would be to pump water onto the desert lands, the power source being only a fraction of the weight of any steam plant or any kind of engine in use today and all this at a fraction of the current cost.

A wild dream? No! It's a proven practical reality, as hundreds of people know who have witnessed the Moray Radiant Energy invention --- powered from the cosmos. This is cosmic energy. \*\*\*

[\*\*\* Dr Moray was not referring to Cosmic Rays. One must read further and contemplate his hypothesis regarding energy from within the atom.]

The total energy involved in "cosmic" radiations is very large. The mechanism of its generation involves a basic relationship with the total structure and action of the universe. Today it is believed that cosmic radiation consists primarily of protons and some heavier nuclei. At times this cosmic energy packs a wallop of around 100 quadrillion volts. Coming continuously with slight variations in time, the radiations have a uniformly directional isotropy.

The earth is, therefore, surrounded in an atmosphere of radiation with cosmic rays coming continually to the earth from all directions, although there may be a slight deflection of the weaker rays by the earth's magnetic field. There is every indication that our sun is not the source of any appreciable amount of this radiation. The origin, therefore, is from the universe as a whole. The total energy of cosmic radiation is more than the entire luminous output of all the stars and nebulae of the universe combined. Unlimited power is being delivered to everyone's doorstep.

The Moray Radiant Energy discovery, using radiations from the cosmos as its power source, gives the greatest amount of energy per pound of equipment of any system known to man. Electrical power through an electric motor or an electric jet far exceeds any form of energy in any engine in the delivery of power. There is no dead center of lost motion in an electric motor nor loss of push in an electric jet. Also, the starting torque is much higher in the electrically powered engine than in the combustion engine.

Harnessing cosmic energy is the most practical method yet discovered by man. Furthermore, it is possible to utilize this vast source of energy from the universe without a prime mover at any point on the earth --- on the ground, in the air, on the water, under the water, or even underground. If one considers that an electrical generator is not in the true sense a generator --- as electricity is not made by the generator --- but is merely an electrical pump, the Moray Radiant Energy device may then be referred to as a cosmic ray pump: that is, a high speed electron oscillator serving as a detector of cosmic radiations which causes a pumping action or surging within its circuitry.

To account for the propagation of heat and light --- two of the forms of Radiant Energy --- man has postulated the existence of a medium filling all space. But, the transference of the energy of radiant heat and light is not the only evidence in favor of the existence of such a medium. Electric, magnetic, and electromagnetic phenomena and gravitation itself point in the same direction.

Attractions and repulsion take place between electrified bodies, magnets, and circuits conveying electric currents. Large masses may be set in motion in this

manner, acquiring kinetic energy. If an electric current is started in any circuit, corresponding induced currents spring up in all very closely neighboring conductors. To originate a current in any conductor requires the expenditure of energy. How, then, is the energy propagated from the circuit to the conductors? If we believe in the continuity of the propagation of energy --- that is, if we believe that when it disappears at one place and reappears at another it must have passed through the intervening space and, therefore, have existed there somehow in the meantime --- we are forced to postulate a vehicle for its conveyance from place to place.

When a particle is electrified, what one must first observe is that a certain amount of energy has been spent; work has been done. The result is an electrified state of the particle. The process of electrifying a conductor is, therefore, the storing of energy in some way in or around the conductor in some medium. The work is spent in altering the state of the medium, and when the particle is discharged, the medium returns to its original state, and the store of energy is disengaged. Similarly, a supply of energy is required to maintain an electric current, and the phenomenon arising from the current are manifestations of the presence of this energy in the medium around the circuit. It used to be that an electrified particle or body was supposed to have something called "electricity" residing upon it which caused electrical phenomena. An electric current was regarded as a flow of electricity traveling along a wire (for example), and the energy which appeared at any part of a circuit (if considered at all) was supposed to have been conveyed along the wire by the current. But, the existence of induction and electromagnetic interactions between bodies situated at a distance from each other leads one to look upon the medium around the conductors as playing a very important part in the development of these electrical phenomena. In fact, it is the storehouse of the energy.

It is upon this basis that Maxwell founded his theory of electricity and magnetism, and determined the distribution of the energy in the various parts of an electric field in terms of electric and magnetic forces\*. The medium around an electrified body is charged with energy and not of an imaginary electric fluid distributed over the electrified body or conductor. When we speak of the charge of an electrified conductor we are referring to the charge of energy in the medium around it, and when we talk of the electric flow or current in the circuit we are referring to the only flow we know of, namely, the flow of energy through the electric field within the wire.

[\* *Atomic Physics*, Physics Staff University of Pittsburgh, 2nd Edition, Ch. VIII, John Wiley & Sons]

The work in producing the electrification of a conductor is spent on the medium and stored there, probably as energy of motion. To denote this we shall say that the medium around the conductor is polarized, this word being employed to denote that its state or some of its properties have been altered in some manner and to a certain extent depending on the intensity of the charge. If the charge is negative the polarization is in the opposite sense, the two being related, perhaps, like right-handed and left-handed twists or rotations.

Now consider the case of a body charged alternately, positively and negatively in rapid succession. The positive charge means a positive polarization of the medium, which begins at the conductor and travels out through space. When the body is discharged the medium is once more set free and resumes its former condition. The negative charge now induces a modification of the medium or polarization in the opposite sense. The result of alternate charges of opposite sign is that the medium at any point becomes polarized alternately in opposite directions, while waves of opposite polarizations are propagated through space, each carrying energy derived from the source or agent supplying the electrification. Here, then, we have a periodic disturbance of some kind occurring at each point, accompanied by waves of energy traveling outwards from the conductor.

The phenomenon of interference leads to the conclusion that light is the result of periodic disturbances or vibrations of the medium, but as to the nature of these vibrations, as to the exact nature of the periodic changes or what it is that changes them, we possess no knowledge. We know that alternating electric charges are accompanied by corresponding changes of state or vibrations of the medium, and if the charge is varied periodically and with sufficient rapidity, we have a vibration at each point analogous to, perhaps identical with, that which occurs in the propagation of light --- a combination of wave and particle properties. This then is the electromagnetic theory of the luminous vibration.

In the older elastic-solid theory, the light vibrations were supposed to be actual oscillations of the elements or molecules of the medium about their positions of rest, such as takes place when waves of transverse disturbance are propagated through an elastic solid. Such limitation is unwarranted to some extent, but one cannot afford to entirely disregard the particle theory of light either. A combination of the theories has merit. We know that the change, disturbance, vibration, polarization, or whatever we wish to term it, is periodic and transverse to the direction of propagation. The electromagnetic theory teaches us nothing further as to its nature, but rather asserts that whatever the charge may be, it is the same in kind as that which occurs in the medium when the charge of an electrified body is altered or reversed. It reduces light and heat waves to the same category as waves of electrical polarization. The only quality of the latter required to constitute the former is sufficient rapidity of alteration. These speculations were given the strongest confirmation by experiments of Prof. Hertz many years ago.

When a resilient substance is subjected to strain and then set free, one of two things may happen. The substance may slowly recover from the strain and gradually attain its natural state, or the elastic recoil may carry it past its position of equilibrium and cause it to execute a series of oscillations. Something of the same sort may also occur when an electrified capacitor is discharged. In ordinary language, there may be a continuous flow of electricity in one direction until the discharge is completed, or an oscillating discharge may occur. That is, the first flow may be succeeded by a backrush, as if the first discharge had overrun itself and something like recoil had set in. The capacitor thus becomes more or less charged again in the opposite sense, and a second discharge occurs,

accompanied by a second backrush, the oscillation going on until all the energy is either completely radiated or used up in heating the conductors or performing other work.

When capacitors are filled with energy captured by the Moray Radiant Energy device and then discharged through a circuit of proper impedance, reactance and inductance, thereby synchronizing the oscillation of the device with those of the universe\*, electrical inertia is set up. In the reversal of the current, the capacitors are charged, discharged and recharged slowly until the energy stored in them is radiated in kinetic energy through the device, and this energy can be kept alive indefinitely by establishing resonance with the oscillations of the universe.

[ \* Very often Dr Moray interchanged the word universe with matter. ]

Considering oscillations from a mechanical, electrical and mathematical point of view, we find that electrical resistance is the same as mechanical friction and current is comparable to mechanical velocity. Inertia and inductance may then be considered analogous terms. In mechanics the greater the inertia of a body, the longer it will stay in motion. In the Radiant Energy device's resistance-inductance-capacity (REC or RLC) circuit, the greater the electrical inductance, the longer the current continues to flow once it is established by synchronization with cosmic surges.

Expressed mathematically, the equations are the same for electrical or mechanical phenomena. That is,  $R < \sqrt{4L / C}$ , where R is the resistance in ohms, L is the inductance in henries, and C is the capacitance in farads. When this is true, an oscillatory discharge will occur and a very powerful inductance inertia will assert itself. For low values of R, the frequency of the oscillations can be shown by  $f = 1/2 \pi \sqrt{CL}$ . The rapidity of the oscillations' frequencies are governed by the capacitance and inductance.

In the vibrational forces of the universe, we find the key to the source of all energy. How we can utilize this energy for modern industry without being limited to mechanical prime movers is the question. And, the answer may in an energy generator, balanced so as to oscillate in synchronization with the oscillations of the universe.

Dr Ross Gunn, a civilian scientist for the US Navy, stated years ago that the earth is a huge generator, generating over 200 million amperes of electric current continuously. For example, the aurora borealis is considered to be a very large definite electrical phenomenon produced by the passage of electric charges through the rarified gases of the higher atmosphere. The earth has since been shown, by Dr Gunn and others, to have a negative charge amounting to 400,00 coulombs. Yet, six feet above the ground the air is charged with more than 200 volts --- positive with respect to the ground.

It is known that air conducts electricity away from charged objects. This being true, how does the earth, a charged object and exposed as it is to the surrounding atmosphere, maintain its charge? If the air conducts electricity, the earth's charge must be constantly passing into the atmosphere. And it has been



calculated that the earth has a continuous discharge into the atmosphere of 1800 amperes. At this rate, the earth would lose 90% of its charge into the air in one hour, yet the earth's charge does not diminish. Where does the earth's source of energy come from?

The conversion of matter to energy in the stars is accepted, and, reasoning from what occurs in radioactive disintegration during which energy wave are radiated, one may conclude that energy waves of very high frequency are sent out from the stars (one of which is our sun). Now, of course, the conversion of energy into matter must equally be accepted.

It has been found that ionization, which could be the medium for the flow of energy, increases with altitudes instead of decreasing. Since the source of energy is the universe, the generation of energy by rotary action and by all prime movers is an effect and not a cause. Oscillatory energy action, be it in a Leyden jar or another man-made capacitor, or in what we may call natural capacitors, behaves the same. The oscillations will continue until they have reach their cycle of height and then there will be a backrush returning to where the oscillations originated. Every oscillation, whether large or small, is completed during the same interval of time. These oscillations all prove the same great fact, that they are governed by the same cycle of time, completed during the same interval of time. Waves of energy have a regular beat note, coming and going as the waves of the sea, but in a very definite mathematical order --- coming to the earth from every direction with a definite rhythm.

Energy has a definite elastic or resilient rigidity and density, which is subject to displacement and strain. When strain is removed, the medium will spring back to its old position and beyond, surging back and forth, and will continue to oscillate until the original pressure is used up. If the internal impedance is too great, there will be no oscillations, but it will merely slide back in a dead beat to its unrestrained state.

By cutting down resistance to a minimum and synchronizing the resilient ionic actions of the Moray device with the wave actions of the universe, periods of oscillation can be made to come quicker and quicker until inertia asserts itself, thus lengthening out the time of final recovery. This is done by carrying the recoil beyond the natural oscillations and prolonging the vibrations by capturing the in oscillatory action. When the recovery becomes distinctly oscillatory, a harmonic pattern is initiated and the oscillations continue, resonance thereby being established with the universe.

In the universe we see the same laws being obeyed as in our laboratories. As one traces down to the almost infinitesimal constituents of the atom, one finds that matter does not exist at all as the realistic substance which we have supposed it to be. There at the very foundation, it consists of nothing more than energy charges emitted at various wavelengths or frequencies. It is becoming more and more certain that the apparent complexity of nature is due to our lack of knowledge. And, as the picture unfolds, it promises a marvelous simplicity.

One of the most marvelous relationships that has ever been revealed in the entire science of physics is that between light and electricity and the existence of electronics in atoms of matter. Knowing what we do at the present time with regard to the structure of atoms, this relationship is not quite so surprising. However, considering the total absence of this knowledge about a half century ago, the discovery that light, and radiation in general, are vibratory phenomena was revolutionary.

Speaking of radiation, Radiant here means proceeding from a center in straight lines in every direction. Energy is internal and inherent. "Energy is defined as a condition of matter in virtue of which any definite portion may affect changes in any other definite portion". This was written in 1892, and discoveries since confirm it. Energy then is a state of matter, or rather, the result of a particular state or condition in which matter may be when any observed phase of energy appears.

In addition to possessing kinetic energy, the atom is capable of absorbing energy internally. This internal energy is associated with the configuration of the particles of which the atom is composed. Under ordinary conditions an atom is in what is known as a state of equilibrium in which there is neither a giving off nor absorbing of energy. But, the internal energy of the atom can be altered. When the internal energy of the atom exceeds that of its normal state it is said to be excited. Excitations may be caused in several ways, e.g., the collision of an atom with rapidly moving positive or negative particles or the breaking of lines of force in an electromagnetic generator. Kinetic energy is released when excitation causes a particle to give up some or all of its kinetic energy to the atom during collisions. This is taking place in the universe all the time.

The electric motor and generator would never have been discovered if a dielectric (insulation) had not been discovered. If one discovers a dielectric valve for the energy of the universe, one has the answer to harnessing the energy of the universe! A limiting case of excitation is ionization, wherein energy is absorbed by the atom sufficiently to allow a loosely bound electron to leave the atom, against the electrostatic forces which tend to hold it within the atom. An atom which has given up one or more electrons is said to be ionized. It is possible that ionization, i.e., excitation, may take place in successive steps through absorption of quanta energy. The return of an ionized atom to a state of lower energy is associated with electromagnetic radiation. Also, from the process of ionization, electrical energy may become associated with the vibrational forces of the universe coming into the earth as cosmic radiation. The higher the frequency, the greater the ionization or excitation, a form of energy which is kinetic in nature. There are tremendous energies coming to the earth from outer space. These energies are only different manifestations of the energies we see in operation all around us. In most cases we are not even aware of their existence. "They penetrate everything including our own bodies. Every one of us is alive by virtue of these energies. Every part and particle of the universe is alive with them. The generators that now furnish our electric power do not create or originate any power or electricity; they merely direct, pump, the existing energy or electricity."\*

[\* *Advances of Science*, Watson Davis, 1934]

As in musical notes of high and low "C", the vibrational rates (frequencies) are different, but all "C" notes are essentially the same (harmonically related). This is the foundation upon which much of my investigation of vibratory phenomena is based.

It has been agreed that all forms of matter are vibrating at a particular rate of frequency. And, so it is with the various forms of energy ---heat and light, magnetism and electricity. These are but forms of vibratory motion connected with and being generated from the same source, the universe. Matter vibrates at a particular rate, according to its character, and may be transmitted into other substance by lowering or raising its rate of frequency. If the frequency is raised high enough, the molecules will separate and the atoms become free. Raising the frequency still higher, the atoms resolve themselves into their original components. Matter then becomes a form of energy. Frequencies may be developed which will balance the force of gravity to a point of neutralization. One can then go beyond the force of gravitation. Understanding the principles of vibration is truly understanding energy.

In gamma rays, we find potentials which are equivalent to as much as 1,000,000 volts, yet their wave lengths are not the shortest known. In octaves still higher lie rays which are known as cosmic rays. Who can draw a definite line and say how much higher other octaves exist than those known as the cosmic rays? Our starting point from the discovery of these different waves was electrical conductivity of the air, and it has been found that this conductivity is just as strong by night as by day. Radiations emitted by the sun can scarcely be the sole cause of this energy. All space is saturated with vibration, energies, which are no doubt electrical in character. The relation of matter to energy and energy to matter then becomes the potential of the universe --- one continuous series of oscillations.

Atoms maintain an equilibrium by oscillations, rotations, attractions and repulsions, but this does not interfere with a transformation of equilibrium, which, when the transformations of equilibrium are rapid enough, become energy, i.e., matter is turning into energy and energy into matter.

There can be no generation of electrical current and no kinetic energy if there is no disturbance of equilibrium, i.e., change of potential or change of energy levels. When one thinks of the oxygen and nitrogen molecules of the air all about us moving with the speed of bullets and striking us and everything else at this speed, one can form some idea of the agitation taking place here and in the universe.

The oscillations from outer space are emitting electromagnetic waves of many wavelengths and frequencies. The Moray device is so constructed that the frequency is very much lower on the secondary side than on the primary side, and almost complete resonance is established. I am convinced that the energies from the universe are active radiations produced by the evolution of matter into energy and energy into matter.\*

[\* At this point Dr Moray observed the discoveries of the early agents to be paralleling some of his own ideas. Then he went on to quote several past releases of the day (1960)]

Dr Anderson's cloud chamber at California Institute of Technology in which the positron was discovered has furnished much information about cosmic ray energies. He found that some positrons are born of cosmic rays smashing into matter. The cosmic ray energies deduced from the tracks left in the Anderson cloud chamber range from 100 volts to 3 billion volts. The Lemaitre-Vallarts theory together with Dr Johnson's asymmetry measurements, give definite values for the energy of half of the cosmic radiation, and shows it continuously distributed between 5 billion and 50 billion volts.

The figure of 100 billion volts is a result of Dr W. Kolhorster's measurement of penetrating radiation in the depths of the Strassfurt salt mines. He found that the minimum energy of these rays had a penetration which was greater than ever before demonstrated. Dr Axel Corlin of Sweden's Lund Observatory found radiation that still had energy after passing through somewhat greater depths and, therefore, the voltage figures can be made even higher. Energies of 100 billion volts or more are indicated by the great bursts set off by cosmic ray collisions, called the stosse, which have been observed particularly in Germany. The Moray RE devices have worked equally well in deep mines, under water or high in the mountains and in an airplane.

It is about 100 years since science began to consider light, heat, magnetism, galvanism, and electricity as natural forces. In the early part of the 19th century school books termed these things "imponderable substances". The corpuscle theory of light was taught, the sun was supposed to provide an endless supply of those corpuscles. After the corpuscle theory faded, scientists turned to the wave theory, but even that was based on a crude concept of movement of the ultimate principles or atoms, of matter. The electron theory has superceded the earlier ones now, and while the electron theory explains the observed and theoretical "facts" better than the previous concepts did, could it be that, as the greater light of knowledge leads us on, the electron theory in turn will fall short of providing "absolute" knowledge? The Einstein Theory may stand in need of revision or amendment; or, in time, it may join the theories of corpuscles and waves on the back shelf.

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## Chapter 8

### Reactions By Means Of Electron Excitation

[p. 209] A specific case in which the electric field performs the double function of molecular excitation and the creation of intermolecular and atomic ions is being given by the system used by the inventor.

It is a system utilizing the principles of the wire corona with a concentric cylinder at different pressures. The system is modified in conformity to the concept that

chemical reactions must take place when the oppositely charged molecular ions from an appropriate activated catalyst are accelerated against one another in the wire corona. It consists of a cylinder made of a suitable catalyst from which positive ions are emitted. The reactants (gases) streaming through the chamber parallel to the length of the wire attain the polarity of the negative molecular ions by the high electric field close to the wire. As these negative molecular ions are accelerated at the right angles to the wire in the direction of the electric field toward the positively charged catalyst cylinder, they are met by an avalanche of onrushing atomic ions from the catalyst. A certain amount of reaction takes place in that instant,  $10^{-8}$  seconds. However, some of the negative molecular ions outside the mean free path of the positive atomic ions are free to rush headlong toward the positive cylindrical field where they are neutralized, and instantly given a positive charge by the avalanche of outrushing positive ions. These positive molecular ions are accelerated back into the field and collide against the negative molecular ions coming from the direction of the negative electrode corona. This melee continues until the reaction has come to a point where the individual participants are either all gone or the mixture is outside of the electric field: backrush oscillations.

The Moray apparatus combined with other equipment, consists of a combination of specially constructed tubes which we will refer to as valves, "pressure transmitters", interceptors and oscillators. The valves are not rectifiers in the sense that they operate as radio valves in changing AC or HF to DC. They have an actual valve action in stopping the "flow" of energy which may be thought of as oscillatory action similar to the waves of the sea, without rectification, from returning to the outer circuit, much as a retaining wall could stop the waves of the sea from returning. The other modalities and "tubes" of the device are equally unique in their performance. Although no new laws of energy are being advanced or claimed as having been discovered, the application in the method of utilization of the energy throughout space is unique in that "generation" is accomplished by oscillatory utilization rather than by the conventional prime mover. These detector tubes have a synchronized pull with the specially developed oscillators of high faradic capacity and provide a means through which oscillating energy may pass to specially constructed valve oscillators whose relation to the first stage valve is such as to permit oscillations to come in from but not return to the outer circuit with an automatic variable relation to the oscillations from the universe, and capable of setting up within their circuits initial oscillations which coincide with the oscillations of the universe.

Special provision is provided to stop RE tubes from becoming blocked in their dissipation of the charges created by the oscillations that continually accumulate based on the oscillatory capacity backrush effect common to capacitors as herein applied in vacuum tubes. This action of these devices has the effect of enlarging and prolonging the time of charge and discharge of the capacitors and the capacity energy in the circuit to an appreciable interval in perfect harmony with the natural energy wave through the interceptor's valves and oscillators in the circuit which set up in the circuit electrical pulsations corresponding to the energy waves captured by the interceptor and again kept from returning to the second outer circuit by "multi-walled" valves. The final tubes act as energy pressure transmitters

with a means to prevent "shunting" condensation by a special form of "getter". This stops condensation accumulating at the base of the tubes which would block their ionic action.

One must "split" the energy discharge band into lines of variation (call this what you will), lines of energy or lines of light beyond the "light rays". The oscillations, therefore, do not become simple oscillations but through the action of the universe set up an energy flow which might be referred to as the assertion of inertia. When inertia sets in, the action will continue because of the oscillations of the cosmos, otherwise one would have a complete dissipation of energy and no oscillations. The oscillation will vibrate during the same period of time regardless of the potential, but the rate of vibration of the device depends on the "capacity" of its modalities, i.e., condensers, etc...

[p. 212] Put together in pure energy resonance certain energy responding apparatus which synchronize with the resonance of certain vibrations in the universe, and what do you have? Useable energy from the universe. This energy may come to the planets as oscillations similar to the oscillations and tides of the sea. The RE tubes received this energy in surges which may last only a few microseconds by the pressure and current in those surges are so strong that sufficient energy is delivered to the equipment in resonance to be useable in multiples of flashes and in a magnitude which competes with the light of day. Remember resonance and pressure can do a lot to amplify energy. Also remember that the vibrations going out from the sources in the universe must also return to their sources. Nothing is lost. There is only a lowering of potential like water over the wheel.

The RE tubes present no new laws of physics. They simply expand the application of known laws thereby obtaining results not at first deemed possible. This is the history of science. RE tubes possess greater ability to obtain "saturation" and thus charge the accompanying capacitors or condensers at a more steady rate. When a certain voltage is reached, ionization occurs in the gases of the discharged tube and causes the condensers of the valve circuit to discharge into other condensers of the valve circuit to discharge into other condensers of the oscillators and the other modalities of the circuit.

When ionization in the preceding tubes is no longer possible because of the reduced voltage, the process starts all over again. The first valve passes vibrations of energy into an oscillatory circuit; ionization sets in, a discharge occurs, and energy passes through another valve into other oscillators. The process is repeated from the first stage on to the second stage, on to the third and so on, much like a bucket brigade. That is why I asked years ago, "Cannot a steady flow of water be obtained from the waves of the sea or energy from the vibrations of the cosmos?"...

When a vibration of any kind strikes a boundary between two media of different vibratory impedances at an angle of less than 90 degrees, a transformation of the vibratory rate may be changed into another vibratory rate. The RE device therefore will continue to capture energy by resonance, or call it what you will, as long as the "keep alive" vibration of the cosmos continues to oscillate the various

stages of the valves and oscillators in the circuit. Simple, is it not? Just a case of the trapping of energy which is everywhere present in the primary circuit and causing it to oscillate through the secondary circuits through a blocked circuit of no return.

Our experiments have proved that there is an energy which exists in the universe which, by proper development of equipment, can be made available for commercial use...

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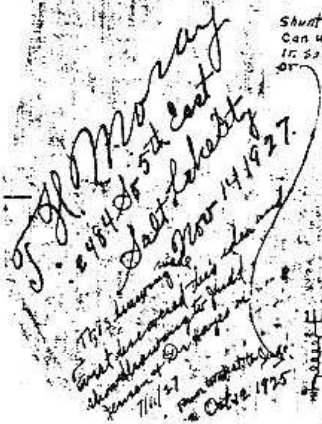
## **Chapter 10**

### **Capture of Energy by Resonance**

[p. 241] Such an energy transformer or converter has been built. It has been operated, at full load continuously with no expenditure of fuels of any type, without a mechanical prime mover, kept alive by the oscillations of the energies from the cosmos; an energy converter, or transformer, which would be capable of converting the high frequency, high level energy of the cosmic radiation into current of usable frequency and voltage.

Basically the theory of operation is as follows: Oscillations are started in the first stage or circuit of the device by exciting it with an external energy source. The circuit is "tuned" until the oscillations are sustained by harmonic coupling to the cosmic wave frequencies. The reinforcing action of the harmonic coupling increases the amplitude of the oscillations until the peak pulses "spill" over into the next stage through a special detector or valve which prevents the return or feedback of energy from succeeding circuits. These "pulses" drive this stage, which oscillates at a lower frequency and is again reinforced by harmonic coupling with the ever present cosmic waves. The second stage drives a third stage, and additional stages are coupled until a suitable power level at a useable frequency and voltage is obtained by means of special transformers (See schematic drawing of RE device).

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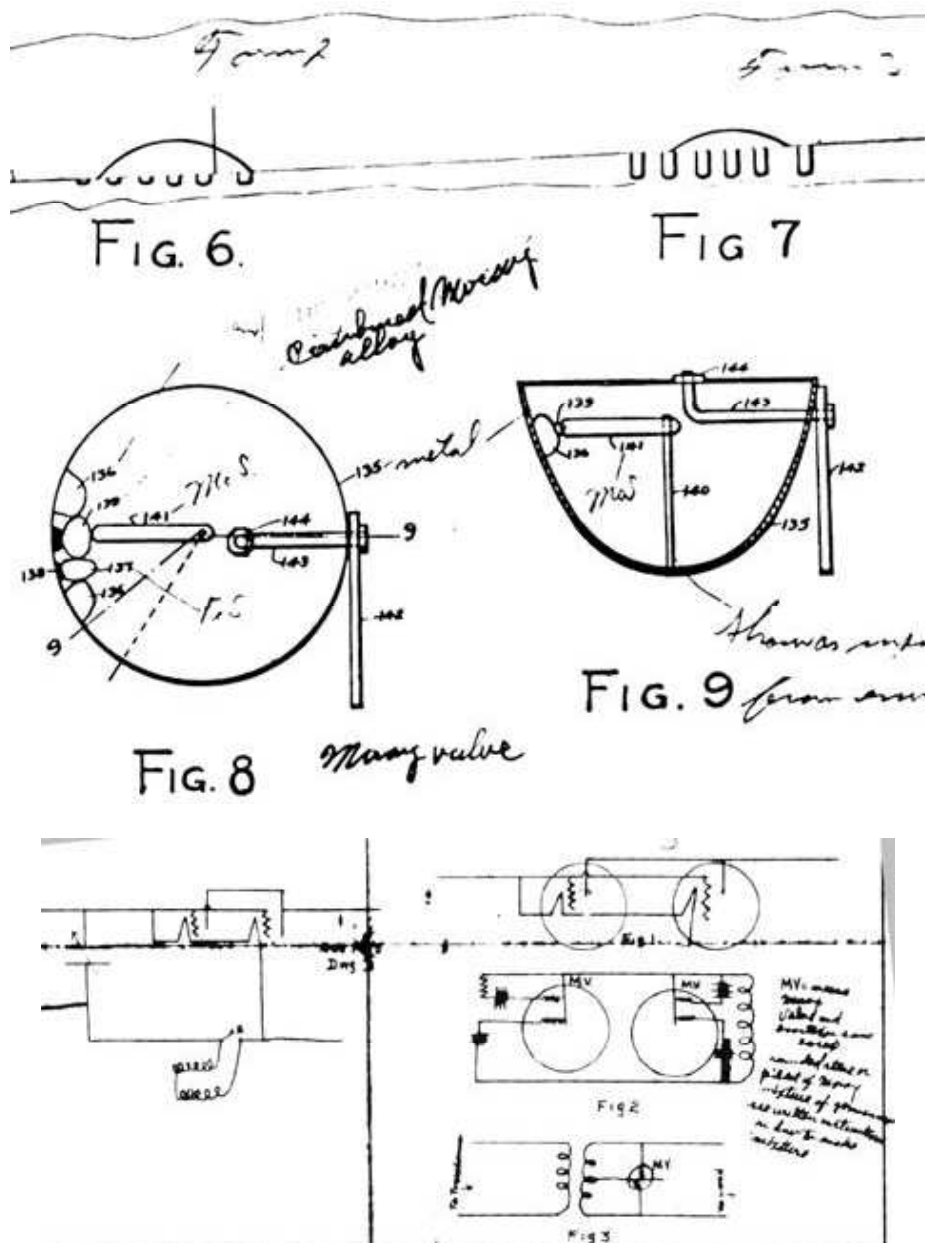




These elements and compounds are discernable in the otherwise nearly illegible handwriting: Germanium, Iron Sulfide (FeS), Molybdenum Sulfide (MoS), Bismuth, and Uranium.

The reference to "Moray lead" is connected with Moray's [US Patent # 2,460,707](#) ("Electrotherapeutic Apparatus"), which states:

"The invention has been described in the foregoing with sole reference to its use for therapeutic purposes. It should be noted, however, that inorganic matter may also be treated to advantage pursuant to the method and with the apparatus of the invention. It has been found that metals, for example lead, have changed physical properties after treatment in accordance with the above..." ]



[ The text that accompanies this drawing states: "The Moray germanium mixture gives certain unique results in functioning as a valve and as a booster (amplifier)."

Made in form of rounded stones or pellets compressed under high pressure and fused. Combination contains bismuth, iron sulfide, pure germanium metal, [...], triboluminescent [...] fastened to envelope with pure tin in place of solder (Bismuth pellet fused to side). Germanium mostly [...] float between other pellets but making firm but needlepoint-like contact. have used silver too, which has some of the properties of germanium. Germanium works best when impurities are introduced..." ]

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Once the machine is in operation and delivering power, it does not require any continuance of the excitation forces necessary to start it. The oscillations are sustained as long as it remains properly tuned and the external circuit is completed through a suitable load.

The special tubes which appear to be the key to the success of this device are ionic cold cathode tubes which require no external power sources..

[p. 244] The following guidelines delineate what one must do to duplicate Dr Moray's Radiant Energy Device:

- (1) When the primary side of the device is disconnected, a spark equivalent to 225,000 volts must be drawn between the two disconnected terminals.
- (2) By disconnecting the antenna and re-connecting immediately, the lights must stay on. If the lights are allowed to die, however, re-connecting the antenna will not reestablish the connection and the unit becomes completely electrically dead.
- (3) The energy produced must be high frequency.
- (4) The device must be operable at a distance of more than 50 miles from power lines or radio stations.
- (5) The light of a 100 watt lamp must be whiter and brighter than the ordinary 100 watt lamp without burning out after 157 hours of operation.
- (6) When a heavy load is connected to the device while in operation, after already draining as much as 4 kilowatts, the present load must not decrease nor the lights flicker.
- (7) A duplicate shunt test, like that made by Lovesy, with number 50 wire must be successful.
- (8) Small number 30 wire should be used for all circuits.
- (9) At least 10,000 watts and up to 50,000 watts of power must be produced in a box not weighing more than 60 pounds.
- (10) As the ground wire is driven deeper, the amount of power must increase.
- (11) None of the components of the device must heat.

(12) No moving parts may be included.

(13) The device must be absolutely silent.

(14) By tuning the circuit by the use of variable capacitors, the lights must come on.

(15) A resistive load of 600 watts must be brought to full heat in less than 2-1/2 minutes.

(16) After 158 hours of operation, the unit must still be running and no parts of the device be heated.

(17) The test performed by Dr Knudson must be duplicated.

(18) Smell of ozone should be present during the operation.

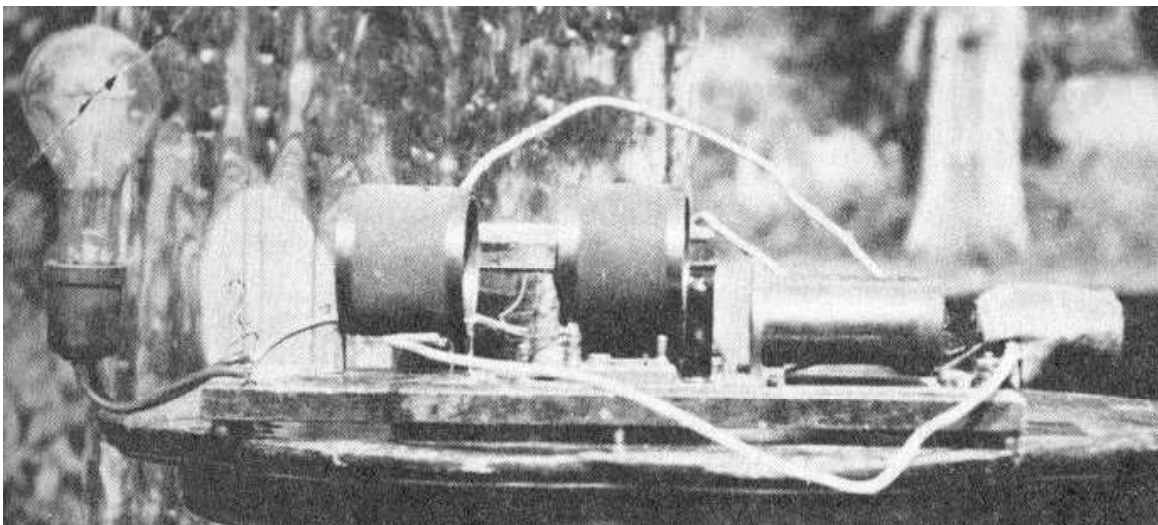
(19) No heated cathodes or bias power supply must appear.

(20) All of the above must be present at the same time.

The fact remains that Henry Moray demonstrated under the above conditions on numerous occasions, up to 50,000 watts of power. The device always sat on a table where it was easily examined by anyone coming into the room, so that it could be seen that the only wires entering the device were the antenna and the ground...

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### **Early Model RER:**



**Moray's Semiconductor:**  
**(Photo Credit: Bruce Perrault/Nuenergy.com)**



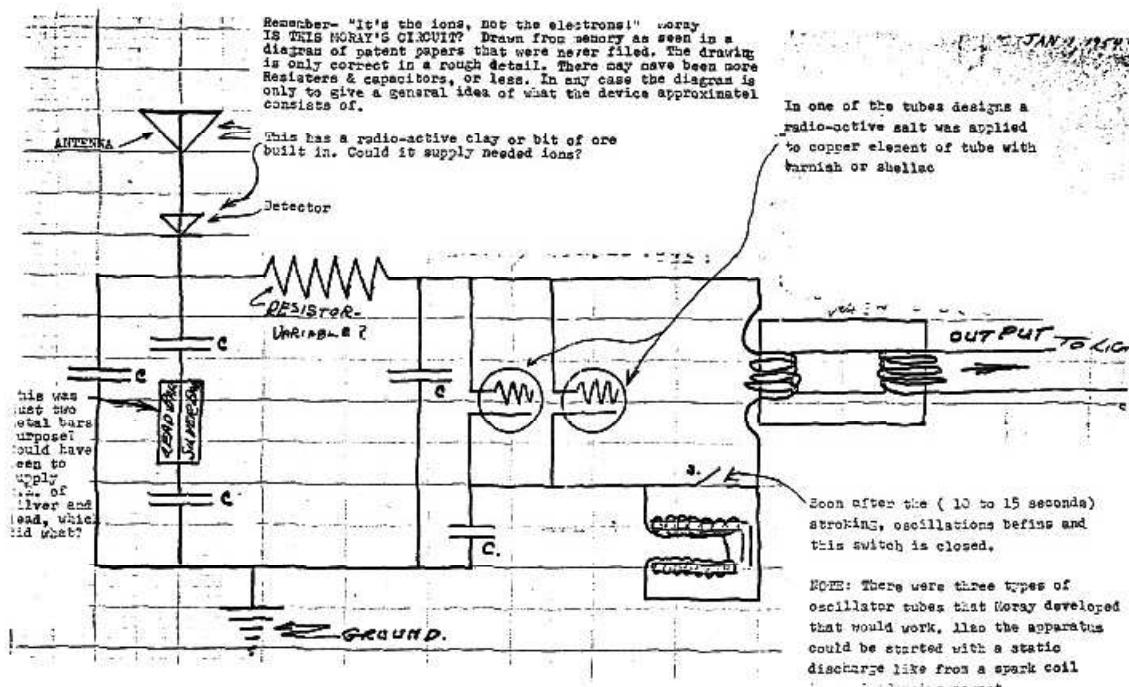
**One of Moray's High Power Capacitor Discharge Tubes:  
(Photo Credit: Bruce Perrault: Nuenergy.com)**

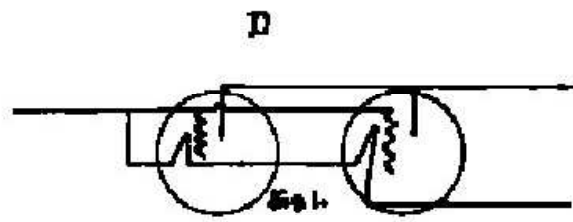
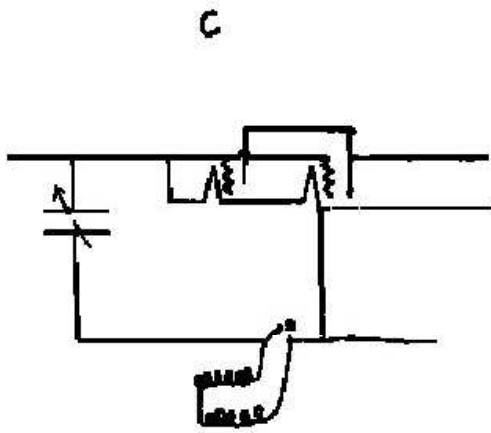


**One of Moray's many demonstrations:**



## Excerpts from Moray's Patent Application Drawings (from Bruce Perreault)






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