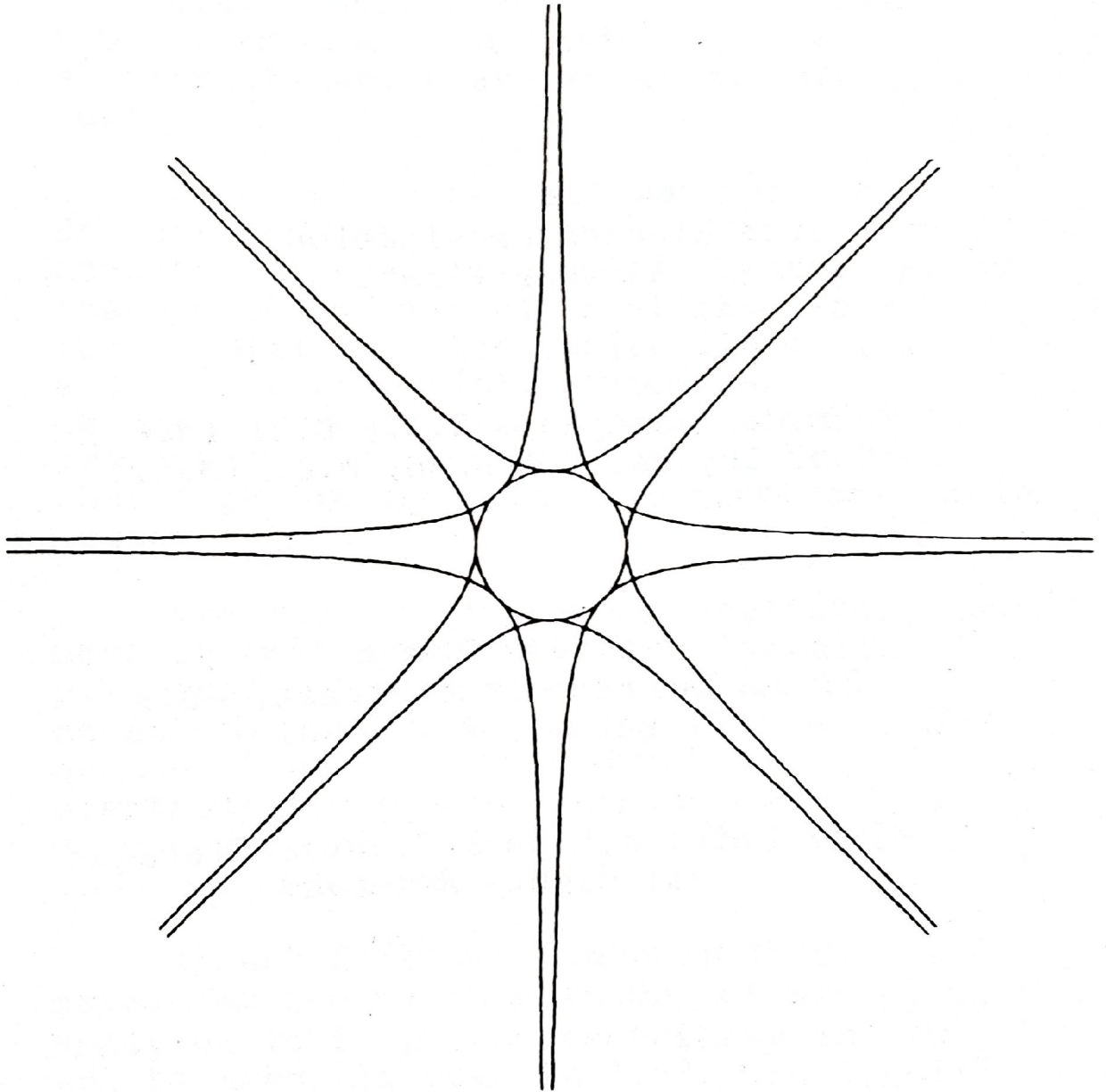


Electro-gravitational

Air Purification



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Electro-Gravitational
Air Purification

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BACKGROUND

BRIEF HISTORY OF ELECTROMAGNETIC GRAVITATION

Michael Faraday was born in Britain in 1791. In 1831 he made what was in principle the first electric generator. Faraday discovered the first basic laws of electricity which are known as Faraday's laws.

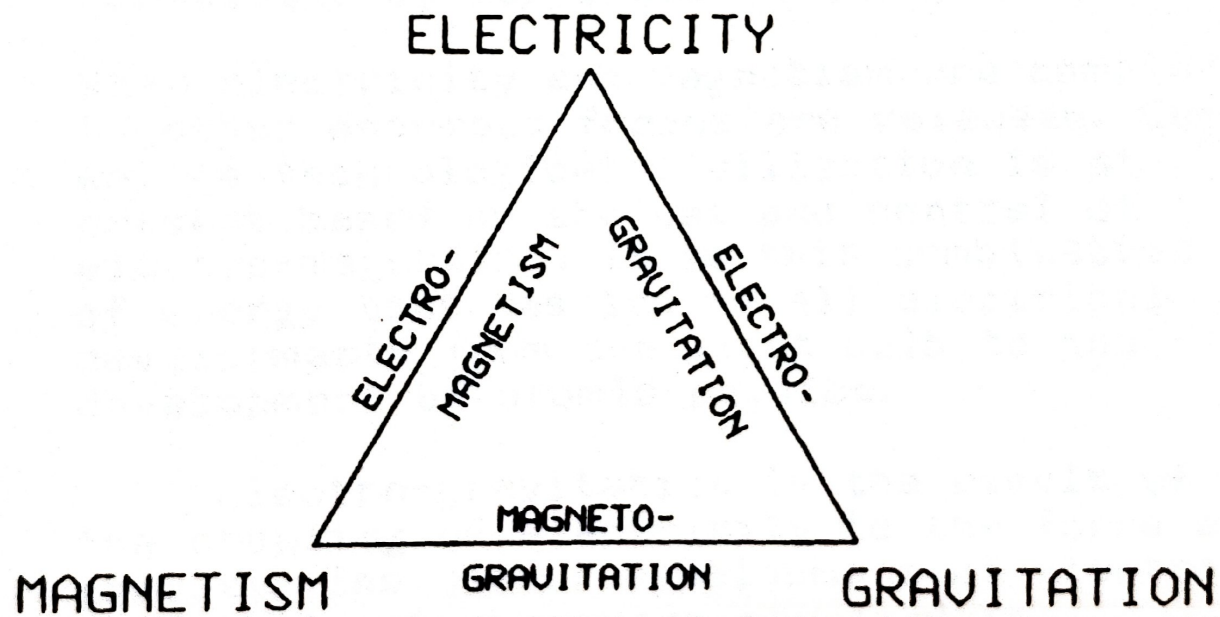
James Clerk Maxwell was born in Britain the same year that Faraday developed his first electric generator. By the age of 33, Maxwell published four fundamental equations which linked light with electro-magnetic phenomena. Maxwell demonstrated electric and magnetic field vectors obey wave equations and deduced that light is propagated by electromagnetic waves.

Max Planck, the German physicist, was born in 1858 around the time Maxwell published his electromagnetic wave equations. Planck is the creator of the quantum theory which states that electromagnetic waves are propagated as discrete bundles of energy. These bundles were named quanta.

Albert Einstein, born in 1879, developed the quantum theory of energy by applying it to photo-electricity in 1905 and to specific heat in 1907. His special theory of relativity in 1905 had a profound effect on the entire structure of science and philosophy. It was his special theory that led to the famous Einstein energy

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equation: $E = MC^2$ which was the basis for the development of the atomic bomb. Although his equation led to the development of the bomb, he was an active worker for world peace. Einstein's greatest desire was to establish a relationship between the force of gravity and electromagnetism--a unified field theory. These three major forces--electricity, magnetism and gravitation--can be viewed as an energy triangle:



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The entire Universe operates on these three forces. If we take any of these forces individually, they have very little usefulness in the real world.

Magnetism is by itself of little use. Electricity by itself is known as static electricity. It will make your hair stand on end, and can be used to precipitate dust particles out of the air--by electric attraction. The force of gravity is also rather static being the universal attraction between all bodies in the Universe. The force of this attraction was formulated by Sir Isaac Newton.

When electricity and magnetism are combined together enormous forces are released. Our entire technological civilization is at present based on the use and control of electro-magnetism. It is this combination of energy that has led to all electrical developments from the light bulb to the development of atomic physics.

Electro-gravitation is the result of the coupling of electricity to the force of gravity. The useful development of electro-gravitational phenomena may lead to discoveries that will affect the course of history as much or more than the development of electro-magnetism.

Physical anomalies associated with electricity and gravity have popped up occasionally in the works of the 'fathers' of modern science

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Josiah Willard Gibbs, American physicist born in 1839 played a great role as the father of analytical thermodynamics. Gibbs was responsible for his famous free energy equations, and for the development of energy analysis of scalar and vector waves. Gibbs discovered an anomaly in Maxwell's equations which we will term the Gibbs Coaxial Vector Wave. This force could also be termed a scalar wave.

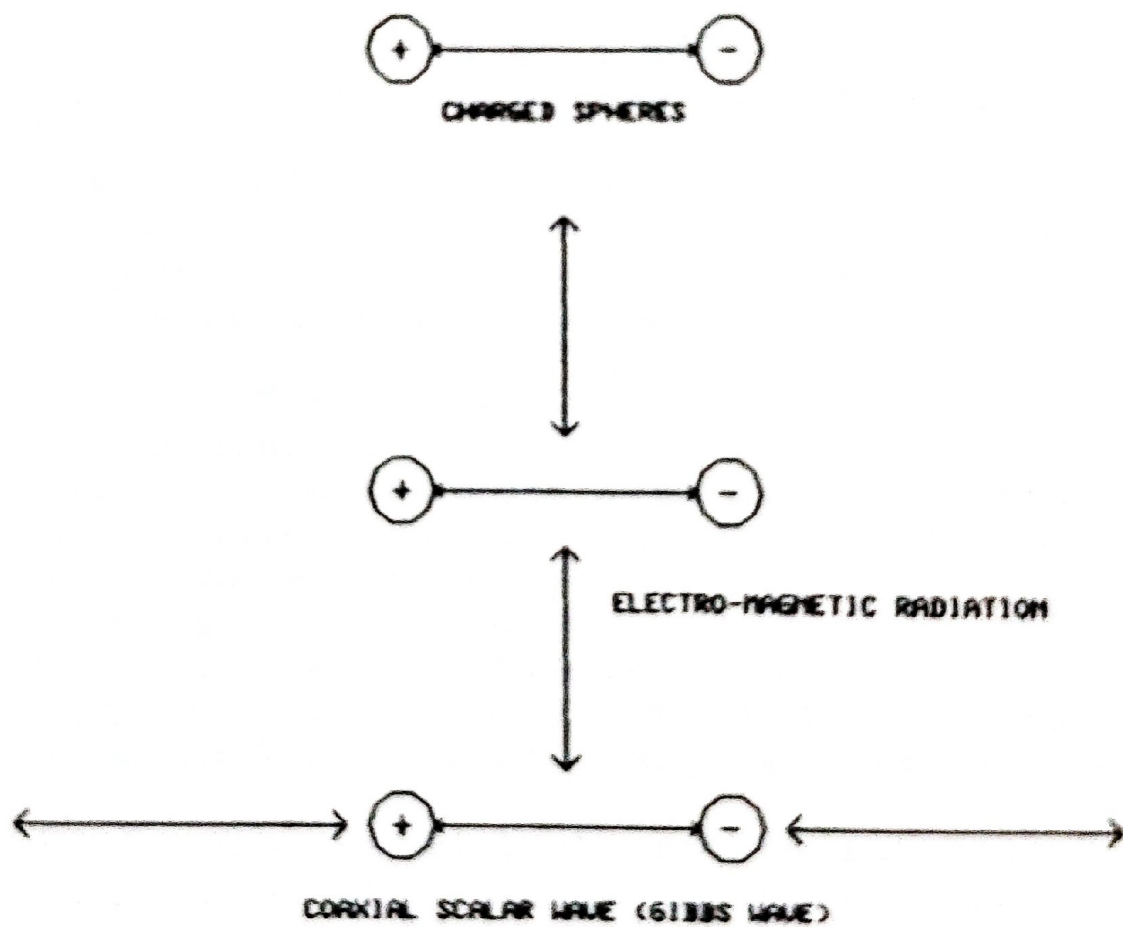
He postulated that two oppositely charged spheres separated by a distance in space would generate two distinct energy vectors when the spheres are discharged simultaneously.

One vector which is perpendicular to the line connecting the spheres is the standard electromagnetic wave. The other vector is an energy which will propagate coaxially to the line connecting spheres, and would be non-electromagnetic in nature. It is this energy vector discovered by Gibbs that forms the basis of the 'electro-gravitational' wave.

In physics, it is well known that the two charged spheres described above constitute the ends of a 'dipole' antenna. According to standard physics, when the spheres are discharged simultaneously to zero potential, an electro-magnetic wave is generated which has a maximum propagation of energy in a plane which is perpendicular to the line connecting the spheres. This is a directional wave. This wave is used in radio, television and micro-wave

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communications. This configuration is known as a dipole antenna. The illustration below shows the two force vectors which will radiate from the 'dipole'.



BACKGROUND

The Gibbs Coaxial Vector or Scalar Wave

Standard physics predicts that the electro-magnetic wave emitted by the two spheres described above will have a maximum intensity in the direction described, and that no energy will be emitted in the plane connecting the spheres--i.e. in the coaxial direction.

Gibbs' prediction of a coaxial wave has been confirmed by simple experimentation. Wallace L. Minto, a Florida inventor discovered simple ways to test and verify the Gibbs coaxial wave. Minto developed a number of simple experiments that proved the existence of this wave.

Most of Minto's research work was done in the ocean. He had discovered that these waves would transmit over long distances under water without attenuation. He called these waves: hydronic and plasmonic energy. Minto's work is an invaluable contribution to this area of science. Unfortunately, he was far ahead of his time. His work was done in 1966 and was largely ignored.

Minto discovered that certain species of fish communicate by means of hydronic waves. He was able to record and identify hundreds of species of fish by means of these signals. He was also able to build direction finders which were able to track fish in the ocean over a distance of several miles.

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Through a series of complex experiments, Minto was able to prove that the Gibbs Coaxial Wave was a new phenomenon, and was not associated with other phenomena such as the Quasi Electrostatic Field (QES), Potential Gradient Field, Electro-magnetic Radiation of the Far Field, and the Magnetic Induction Field.

Minto's work was published privately except for one paper "Hydronic Signals from Fish" which was presented at the Thirty First Annual Meeting of the Florida Academy of Sciences, Biological Sciences Section at the University of South Florida, on the 10th of March, 1967.

The abstract of his paper is presented below:

"Each of 130 species of fish examined to date demonstrated an ability to emit underwater electro-acoustic signals of a previously un-recognized type. The signals are neither sonic nor electrical, but are receivable on a submerged dipole antenna. No signals are received in the absence of fish and each species emits signals characteristically different from other species in carrier frequency, pulse duration and intensity. Incidence of signals per unit of time varies with species of fish, tidal conditions and lighting conditions."

Wallace Minto's work with "hydronic" radiation was based on the work of Gibbs.

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The fact that these signals exist in nature confirms the potential usefulness of these energies by mankind. Our greatest discoveries are merely poor imitations of phenomena already found in nature.

Ordinary electromagnetic signals are suppressed by the high conductivity of ocean water. If we try to transmit ordinary electro-magnetic signals under water, the world's most powerful radio transmitter will not emit a signal for more than a few feet.

Fish are able to communicate over vast distances underwater using a few thousandths of a watt (milliwatts) of energy. The U.S. government is in the process of constructing a gigantic extremely low frequency radio transmitter that will pump 25,000,000 watts of energy into the Earth's mantle in an effort to communicate with nuclear submarines. This brute force effort could upset delicate energy balances in the earth and cause vast earthquakes. Why not use the Gibbs Coaxial Wave instead? Communications with submarines could be accomplished with very low comparative power levels.

Dr. Alexander P. Dubrov of the Soviet Union is a Russian biophysicist at the Institute of Earth Physics of the USSR's Academy of Sciences where his studies involve heliobiology and the influence of geomagnetic fields on living organisms. He is the author of The Geomagnetic Field and

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Dr. Dubrov, in an article for Unesco entitled "Biogravitation and Psychotronics" postulates the existence of a magneto- or electro-gravitational field which he calls the bio-gravitational field. He shows evidence for the basis of this field at many different cellular levels including mitosis or cellular division.

Dr. Dubrov uses the migration of chromosomes toward the poles of the cells as an example. All research on this phenomenon has failed to explain this process by means of electrostatic, magnetic, hydrodynamic, reaction or other physical forces. The case for biogravitation is revealed by the fact that all chromosomes travel at the same rate of speed no matter what their size. The movement is always in a straight line.

Simultaneous with the migration of chromosomes, a strictly ordered crystalline structure is formed with the simultaneous release of photons in the ultraviolet, infra-red and visible spectrum. Dr. Fritz Albert Popp of the University of Marburg has observed these emissions and has established that these photon emissions are coherent, i.e. laser light.

During cellular division it was also observed that ultrasonic oscillations in the frequency range of 10^6 to 10^7 hertz were emitted by the dividing cells. It has been shown that when laser light is directed on a semi-conducting crystal, that the production of ultrasonic waves results with the generation of gravitational waves having an intensity of 10^{23} times that

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produced by Weber's resonator, and 10^{40} times greater than the waves predicted by Einstein as being generated by a rotating rod.

The above effects can account for a type of gravitational radiation which is constantly being emitted by the living cell. Dubrov predicts that these waves are used as a communications mechanism by the cells.

Dubrov's postulate of bio-gravitational cellular communication is not surprising considering the discovery by Minto that fish use these signals as a communications tool.

The living system is full of crystalline structures which could generate these waves. The constant formation and destruction of crystalline lattices by polypeptide bonds in proteins and by hydrogen bonds in cellular water lead to the postulate that these fields are caused by the constant change in conformation of bio-molecules which are subjected to forces of compression, tension and deformation.

Dr. Robert O. Becker, director of surgery at the Upstate New York veteran's hospital has found that the living nervous system is composed of semi-conductor colloidal gels that form the basis of a direct current analog computer system.

These cells are called the Glial cells in the brain and the Schwann cells outside of

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the brain. These cells generate energy fields that are responsible for healing the body in case of injury. They may also be the very network of the human system that transmits and receives electro-gravitation waves as a sensory mechanism of the bio-computer.

With the various forms of evidence regarding the possible production and reception of electro-gravitational fields at my disposal, we have conducted our own continuing research into this field over the last 25 years.

The Gibbs Coaxial Wave vector generates a wave or force which is exactly the opposite to that force predicted by ordinary electro-magnetic equations.

If we replace the two spheres of Gibbs's example with flat metal plates, and replace the air gap of the dipole with an electrical insulator we form a simple Brown type 'Gravitor' which is a simple capacitor which also has the ability to store electrical charges.

The Gibbs force mentioned above will not be evident when the charge on the plates of spheres is static. The force is generated only when the plates (spheres) are discharged. The faster the rate of change or energy, the greater will be the power of the Gibbs Coaxial Vector. We succeeded in producing these scalar wave signals in a variety of electro-mechanical configurations. For lack of a name for

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these signals, we named the coaxial vector the 'Tensor Wave Field'. We succeeded in producing signals that would transmit through the Earth, through water, and through metal shields. At about this time we came across the work of another scientist, T. Townsend Brown.

Those of you who are interested in the "Philadelphia Experiment" will recall that Townsend Brown was one of scientists who designed the experiment.

Quite separately from Gibbs, in 1923 Professor Biefield of Denison University in Granville, Ohio suggested certain experiments to his young student, Thomas Townsend Brown, an ardent electrical experimenter. These subsequent experiments led to the discovery of the Biefield-Brown Effect which resulted in over eight patents which prove the existence of electro-gravitational field phenomena.

Brown purchased a Coolidge X-ray tube in order to experiment with the new discovery of "X-Rays". It was during his experimentation with the tube that Brown discovered a motive gravitational force associated with electricity.

Brown suspended his Coolidge Tube by means of wires. When the tube was energized it produced movement in the coaxial plane between the cathode and anode of the tube.

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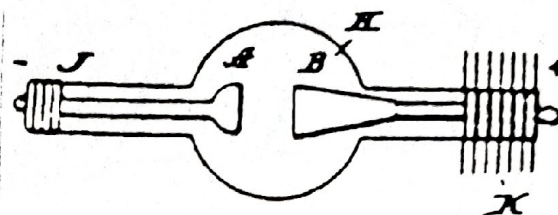
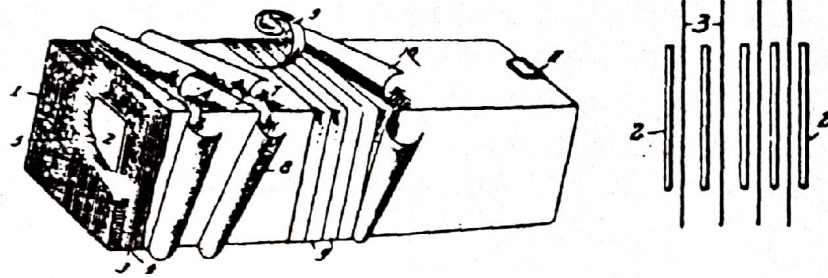


Diagram of Coolidge Tube

At first, Brown thought that the motive force was produced by X-Rays, he later found that the force was produced by the high voltage needed to excite the tube, and that the force acted like a mass gravitational force.

Brown soon discovered that he could get motive force out of a capacitor which was made up of lead sheets separated by electrical insulators such as glass. He called this combination of elements a 'gravitor'.

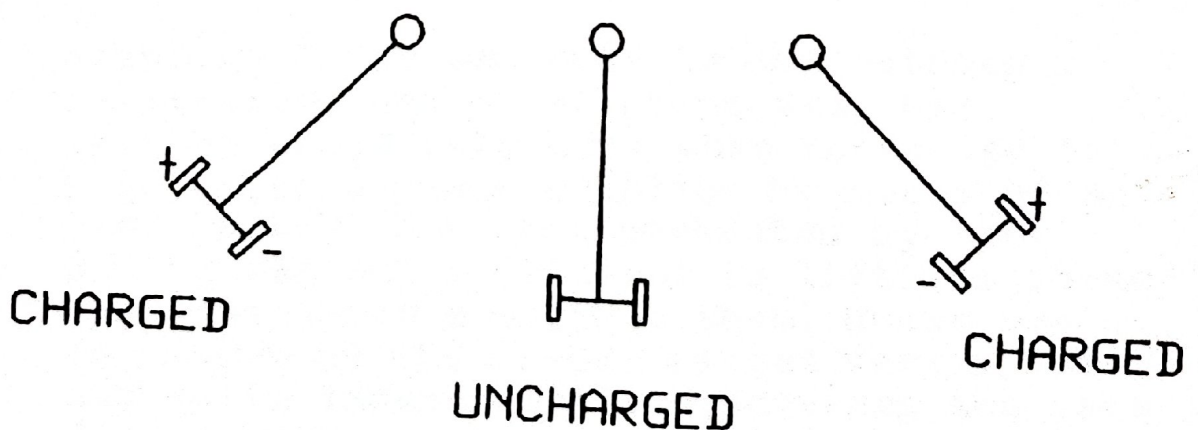
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Townsend Brown's Gravitor

If the Brown Gravitor was suspended on wires like a pendulum, he discovered that the device would move in the direction of the positive electrode when 50,000 volts of electricity was applied to the device.

When the gravitor was suspended vertically and counterbalanced, he found that it would get lighter or heavier depending on the direction of the applied voltage.



BACKGROUND

On August 15, 1927 Brown applied for a British patent on a device which was described as "A Method of and an Apparatus or Machine for Producing Force or Motion". On November 15th, 1928 British Patent number 300,311 was issued on Brown's gravitor.

Over the years, Thomas Townsend Brown obtained numerous American patents beginning in 1934 with a patent for an electrostatic motor. Brown's major U.S. patent numbers are presented here:

1,974,483	Electrostatic Motor
2,949,550	Electrokinetic Apparatus
3,018,394	Electrokinetic Transducer
3,022,430	Electrokinetic Generator
3,187,206	Electrokinetic Apparatus
3,267,860	Electrohydrodynamic Pump

In spite of all these patents on electro-gravitational phenomena, none of the devices patented by Brown were of practical value from a commercial point of view.

Although Brown was able to demonstrate levitation, and other phenomena, his devices would only work when connected to high voltage power supplies by means of an 'umbilical'. The lift generated by his device was not sufficient to lift the power supplies which energized them. Brown was not aware of the Gibbs Coaxial Vector but had quite independently discovered the same force which was predicted by Gibbs at the turn of the century.

BACKGROUND

Aug. 16, 1960

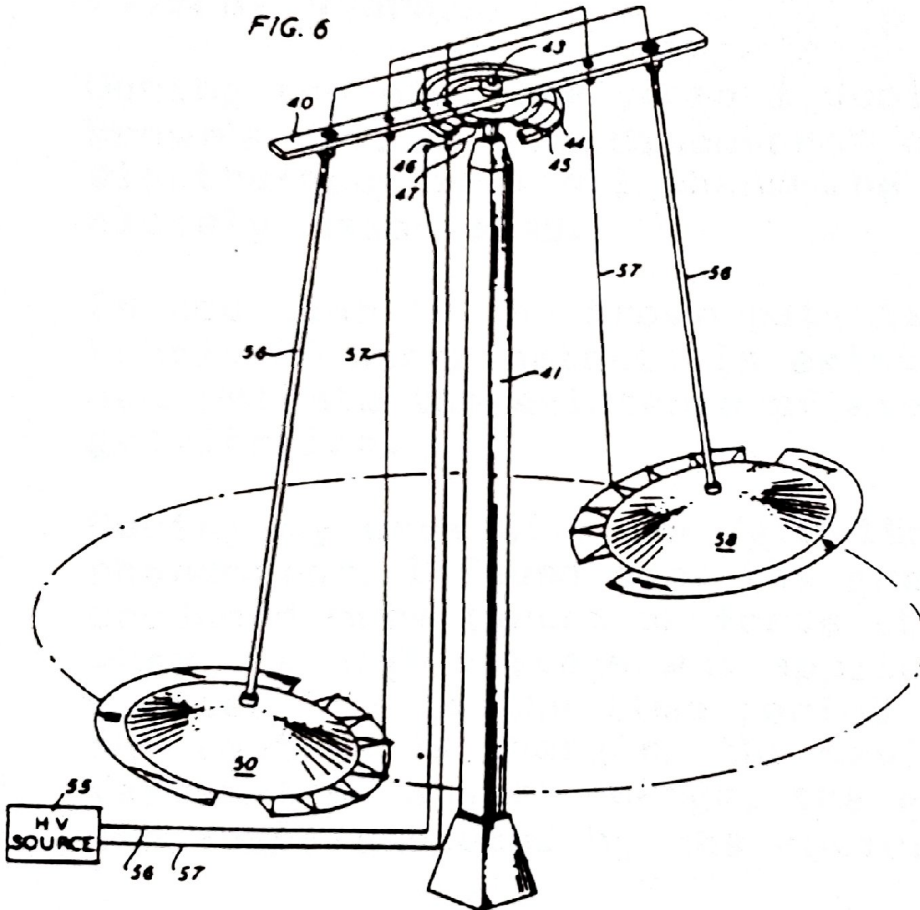
T. T. BROWN

2,949,550

ELECTROKINETIC APPARATUS

Filed July 3, 1957

2 Sheets—Sheet 2



The Electron Field Generator

THE DEVELOPMENT OF THE ELECTRON FIELD GENERATOR ELECTRO-GRAVITATIONAL AIR PURIFIER

I discovered the work of Thomas Townsend Brown in 1974. In 1975 I met Brown and formed a friendship which lasted for several years.

During the next ten years I duplicated Brown's devices and discovered other electro-gravitational phenomena which are closely associated.

In addition to the Brown patents, there are nearly 50 other patents in existence which demonstrate the existence of electro-gravitation.

During my work with the 'gravitor' phenomenon, I found that the gravitor produced more thrust or force at the moment when the high voltage was applied to the device. This is the time period in which the voltage is charging the device. The faster the rate of change, the greater was the force produced by the device.

When the high voltage reached equilibrium, the thrust curve decreased to almost zero.

This observation reminded me of the discovery in which J. Willard Gibbs mathematically predicted the coaxial energy force which would be generated by the discharge of plates or spheres which are arranged in a dipole configuration.

The Electron Field Generator

THE ELECTRON FIELD GENERATOR

In 1978, while working with electro-gravitational propulsion, I caused an electrical arc to occur between my 50,000 volt D.C. power supply and the 'gravitor' device which I had constructed.

I noticed a movement in my peripheral vision. The movement was that of the needle on a Kiethly Electrometer. This device is used to measure electrical fields and can with the appropriate attachments also be used for measuring negative ions.

The meter had accidentally been left on as I had previously been using it to measure negative ions in the atmosphere.

The reading on the electrometer indicated that a powerful negative ion type field was being generated by my experiment. The negative field was more powerful than any I had ever measured.

We began to experiment in earnest to discover where this dynamic negative field was coming from. We soon discovered that the field was due to the rapid charging and discharging of the 'gravitor' by the oscillating electric arc.

Further research indicated that the field was coaxial to the electrode arrangement of the gravitor.

This was the field described and postulated by J. Willard Gibbs. When the D.C. power

The Electron Field Generator

supply was replaced with a high frequency high voltage Tesla coil the negative charge radiated by the device was even stronger.

The negative dynamic field was not a negative ion field. It would penetrate any object, whereas negative ions will not penetrate solid barriers.

As this field was a dynamic force which had a negative polarity, I named it the Electron Field™. The device became known as the Electron Field Generator™.

Tests of this field indicated that it was indeed dynamic in nature and was not electrostatic. An electric current can be drawn continuously from the field.

It has some things in common with negative ion fields, i.e. it suppresses bacterial and mold growth, neutralizes environmental odors, and accelerates the growth of plants.

As mentioned previously, this dynamic negatively polarized field resembles negative ions in every way with one significant difference--it propagates through solid barriers such as walls made of glass, concrete, lead and wood. Practically any substance.

This field effect is really a polarized Gibbs Coaxial Vector--a standing-wave scalar field. Although Gibbs predicted the existence of this field, he did not predict that it would polarize matter in

The Electron Field Generator

the environment.

We are able to make electrets by exposing melted wax to this field. As the wax hardens, its polarized molecules 'set' in the polarized configuration.

The Electron Field™ penetrates through water and polarizes or aligns the hydrogen bonds creating greater structure in the molecule.

Perhaps its most important use lies in the field of air purification.

THE IMPORTANCE OF CLEAN AIR

Pure electrified air is our most important nutrient. Most people do not realize how important pure air is to health.

We can do without food for several weeks, without water for a few days, but we can live without air for only a few moments.

Air contains the virility of all life. It is the elements of the gaseous atmosphere that build the body of man. Air is the essence of the Universe. Air which was once considered to be empty is filled with everything that materializes into the dense material we call matter. Air is matter and motion combined.

Thomas Edison has a fertilizer plant which condensed nitrogen from the air into solid nitrates which he sold to farmers as

The Electron Field Generator

fertilizer.

The same nitrogen is fixed through the breathing channels of plants and animals into protein which constitutes flesh.

At any given time on our planet, a thousand thunderstorms are cleansing the air of impurities while lightning flashes condense thousands of tons of nitrogen into solid form. At the same time, hydrogen and oxygen are combined to produce precious water.

While eating and drinking are voluntary and consciously controlled functions, breathing is an automatic involuntary function which is far beyond our conscious control. When we are asleep or unconscious from injury, we breathe deeper and more rhythmically than when we are awake.

Our lungs are perfectly designed for their job and are the largest organs in the body. They fill the chest cavity from collar bone to abdomen, and from spine to sternum.

Blood is made up of entirely of condensed gasses. Water as we mentioned previously is made up of hydrogen and oxygen. Protein is made up of nitrogen and carbon and oxygen. If we heat any solid substance it will turn back into a gas.

The process of breathing brings vital gaseous elements into the body and releases deadly poisons of metabolism back

The Electron Field Generator

into the air.

The average adult releases enough poison into the atmosphere in a 24 hour period to kill twelve adult elephants. The most powerful poison released by metabolism is carbon dioxide.

Carbon dioxide is odorless and tasteless. It saturates the air of homes and offices in the winter where adequate ventilation is not practical. Mild carbonic acid poisoning leads to symptoms of colds, coughing, sneezing and dullness.

The reason people 'dope off' in class rooms, theatres and lectures is because the oxygen in the room has been used up and the air is saturated with deadly poisons of human exhalation.

Add allergens, chemical solvents, tobacco smoke and soot to the natural poisons released by people and our air becomes even more deadly.

The stress adaptation syndrome discovered by Dr. Hans Selye shows that we can slowly adapt our bodies to poisoned air so that we may have little or no consciousness of its deadly effect on our bodies.

Claude Bernard, a medical researcher devised an experiment that illustrates our ability to adapt to poison.

Bernard found that a bird would live for

The Electron Field Generator

three hours if placed under a glass bell jar. If the bird was removed at the end of two hours when it could have survived another hour, and a healthy fresh bird was put in its place, the new bird died instantly.

This power of adaptation poison is why normal men and women can live miserable lives of 60 or 70 years in a polluted environment that would instantly kill a wild indian from the Amazon. They may live, but life in such an environment severely impairs the finer senses and eventually leads to death, inch by inch. Inspiration or breathing in becomes instead of the breath of life,--the breath of death.

The blood which should be the "river of life" becomes so poisoned by air pollution that it becomes the "river of death". This river flows from the heart to the lungs 60 to 80 times a minute.

The lungs consist of millions of tiny cells which form a vast network of meeting places where blood meets air. These tiny blood capillaries are so fragile that the walls of these cells are thinner than the walls of soap bubbles.

Normal city air is a deadly mixture of soot, smoke--all kinds of fumes including carbon monoxide gas, sulfuric acid, benzene, methane, and other allergens such as pollen, polyester, rubber particles, skin cells, plaster, sawdust, solvents, paint particles etc. The average city air

The Electron Field Generator

contains 2,500,000 particles of matter per cubic inch of air! The average person who lives in the city, in a year precipitates more than 1.2 pounds of dust particles in his lungs.

Carbon monoxide is so deadly that as little as 120th of 1% causes a headache while 150th of 1% will cause total collapse. The average air in a city of 50,000 or more has an average concentration of 160th of 1%!

The City of Chicago reported that in some sections of the city deadly sulfuric acid gas was so concentrated that it rots clothing which is hung out on the line to dry. It also eats away the human body--cell by cell.

Even if we eat a pure diet and abstain from dietary poisons such as coffee and alcohol, if we continually breathe polluted air we eventually saturate our cells with deadly environmental poisons.

Under such conditions our immune systems becomes overwhelmed and eventually break down which opens the body to the manifestation of various disease conditions.

THE DANGERS OF TOBACCO SMOKE

A partial analysis of tobacco smoke shows the following poison content:

The Electron Field Generator

Nicotine, nicotinuine, carbon monoxide, carbon dioxide, ammonia, methane, methylamine, hydrogen-sulfide, furfural, nicotelline, pyrrole, pyridine, picoline, lutidine, collidine, formaldehyde, carbolic acid, prussic acid and arsenic.

In addition to the above poisons, the tars in smoke average 2.25 %. These 'glues' stick to the lung surface and reduce the lung's ability to adsorb precious oxygen from the air. This blockage also reduces the body's ability to expel toxins through the lungs.

The above toxins are what the smoker and those who breath his air must tolerate in order to survive. The only choice is endurance--or death.

As the result of the accumulation of these poisons, the body's vitality is reduced to save it from sudden death--instead, the smoker dies by degree--slowly.

The above are but a few of the reasons why fresh clean air is of paramount importance to continuing health. Our planet is becoming so polluted that excellent means of air purification is a must.

In addition to air purification, it is essential that air be circulated and not allowed to become stagnant. This is especially important in our bedrooms while we sleep.

In addition to our EFG™ air purifier, we sleep with an open window and have a fan in

The Electron Field Generator

our bedroom to ensure that we do not re-breathe our own exhaled poisons while we sleep. The average person inhales 260,000 cubic inches of air during an average night's sleep!

Every adult requires 3,000 cubic feet of fresh air per hour in order to live and remain healthy.

Most of the above information on the importance of air was taken from the work of Professor Hilton Hotema and is found in his monumental book: Man's Higher Consciousness published by Health Research in Mokelumne Hill, California.

Uses for the Electron Field™ Generator

USES FOR THE ELECTRON FIELD™

A survey of scientific literature failed to identify the nature of this unusual field--other than the work of Gibbs who predicted the field mathematically.

No one else had ever mentioned the generation of this field by means of an 'emitter'(gravitor or capacitor) and high frequency high voltage electricity.

The strong polarizing effect of the field resembled that which would be found in strong negative ion or free electron generation. This effect led to the testing of the field in the area of air purification.

After several months of research, I applied for a patent on the use of the device as an air purifier.

Uses for the Electron Field™ Generator

While the patent was being processed, the EFG™ (Electron Field™ generator) was engineered for marketing as an air purifier.

Past experience as an inventor has shown that others try to steal ideas so in the production models of the device I added extra parts to throw off would be copiers.

The field emitter was potted in epoxy resin, and an 'antenna' was added so that air flow from a fan would blow across the antenna and the emitter. The antenna was a decoy--a wire grid that the air would flow through. It had nothing to do with the generation or operation of the Electron Field™.

The patent is so basic that it is impossible for anyone to create the electron field emission device without infringing.

As I did not mention the antenna in the patent, we have already seen unscrupulous companies attempting to duplicate the device by building a Tesla Coil with an antenna but without an 'emitter'.

Although the Tesla coil in these devices lights up a fluorescent light bulb as would be expected, it does not generate a scalar field (Electron Field™). Such a device will not purify air.

Uses for the Electron Field™ Generator

Our first patent using the Gibbs Scalar Field was issued as number 4,391,773 on July 5th, 1983--"Method of Purifying Air and Negative Field Generator".

Since that time, world patents and additional U.S. improvement patents have been applied for and are pending. The additional patents are the result of continuing research into the phenomenon.

Now that the first patent has issued, future production models of the device will no longer need to have the 'antenna'.

Subsequent research has resulted in a number of improvements on the device which must remain secret until new patents issue.

The Electron Field™ discovery has many potential uses in industry and commerce. It may lead to the development of a new communications device that does not depend on electro-magnetic waves.

Other uses may include preconditioning of fuels before burning, treatment of waste water and sewage, and catalysis or stimulation of certain chemical reactions.

The field may also be used to separate ions from liquid solutions. It may be possible to use the field to mine precious minerals from sea water.

For the present, we will confine our attention to the use of the Electron Field™ to the subject of air purification.

Uses for the Electron Field™ Generator

We have indications that this scalar field supplies enough energy to alter the pollutant environment in such a way as to cause precipitation of particulates, catalytic transmutation of deadly gasses and solvents into harmless substances, and the removal and neutralization of allergens such as pollen, dust, cat dander and soot.

The Electron Field™ has a peculiar property in that it can neutralize excess electrostatic charges in the environment. This is especially critical in many industries where static charges are a nuisance or danger. These areas include computer environments, clothing industries, chemical plants and electronic production facilities.

The Electron Field™ utilization is less expensive than many other alternatives. In one test a bank was having problems in a 10,000 square foot open office.

Many employees smoke cigarettes with the resulting pollution of the environment. When the bank approached one major electrostatic precipitator company for help, they were told that a purification system would cost in excess of \$70,000.

Two EFG™ devices were installed instead at a cost of only \$2,000. The air was as pure and fresh as that found on a mountain top in a few hours. The bank saved over

Uses for the Electron Field™ Generator

Our tests indicate that the Electron Field™ may slow down the decomposition of organic materials. Tests were run with ordinary hamburger meat. A pound of ground beef was placed in the hot sun for several hours. The heat caused an accelerated decomposition which was accompanied with the odor of rotting flesh.

When the meat was brought in doors and placed near the Electron Field™ 'emitter', the odor was gone within a few hours time. All signs of decomposition disappeared and the meat was fully mummified or preserved in three days. The dried meat had no odor at all.

Subsequent tests indicated control of many other odors such as those from solvents, smoke, chemicals etc.

EFG™ purifiers have been used in a number of commercial environments such as hospitals, dry cleaning establishments, bars, casinos, theatres, dentist offices and chemical laboratories. It has been found to be extremely effective in the control of odors.

It was found that this special energy field could also aid in the removal of particulate matter from the air. It caused dust, soot, smoke, pollen and other airborne colloids to aggregate into larger particles which could be removed with inexpensive filters. Many of these particles simply drop to the floor where they can be vacuumed in a normal manner.

Uses for the Electron Field™ Generator

All airborne pollutants consist of tiny particles of matter which are colloidal in nature. These colloidal aerosols usually have a positive electrical charge. It is the positive electrical charge that enables these particles to remain airborne. As they all have the same electrical charge, they repel each other and remain small enough that they never settle to the ground as a result of tiny air currents in the environment.

The Electron Field™ acts as a dynamic force which alters the balance colloidal electrically charged pollutants neutralizing the charges.

The Electron Field™ has can be used as an aid in the control of all types of airborne particles.

SUMMARY

The Electron Field™ generator is an electro-gravitational energy source which may have a major impact on the air purification industry. This device is unique in that it is the only device of its kind.

It may offer an inexpensive alternative to other air purification modalities.

Electron Field™ generator Patent

United States Patent [19]
Flanagan

[11] **4,391,773**
 [45] **Jul. 5, 1983**

[54] **METHOD OF PURIFYING AIR AND
 NEGATIVE FIELD GENERATOR**
 [76] Inventor: **G. Patrick Flanagan**, 9989 E. Morrill
 Way, Tucson, Ariz. 85715

3,654,534 4/1972 Fischer 361/231
 3,898,468 8/1975 Guerin 55/139
 4,037,268 7/1977 Oallagher 55/150
 4,096,544 6/1978 Ignatjev 361/231

[21] Appl. No.: 271,132
 [22] Filed: **Jun. 8, 1981**

Primary Examiner—Bernard Nozick
Attorney, Agent, or Firm—Edmond T. Patnaude

[51] Int. Cl.¹ A61L 2/00
 [52] U.S. Cl. 422/22; 55/2;
 55/123; 55/155; 55/279; 361/235; 422/121
 [58] **Field of Search** 55/2, 123, 155, 146,
 55/150, 279; 422/22, 23, 121; 361/231, 232, 235

[57] **ABSTRACT**

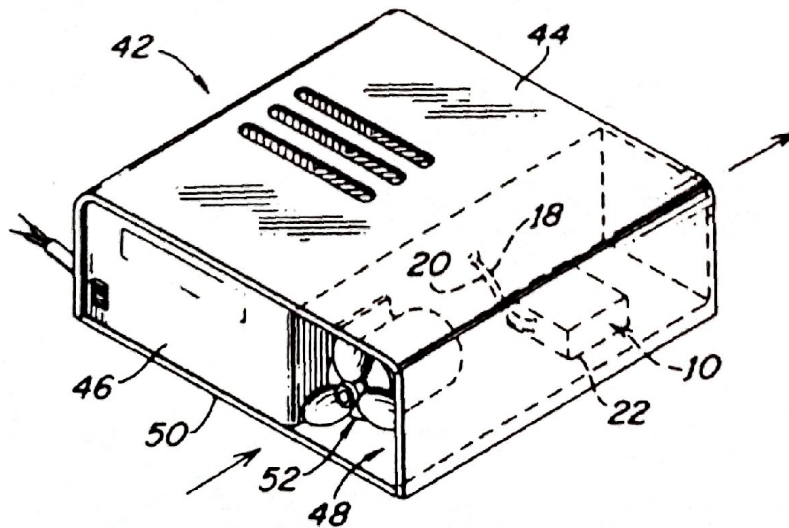
A housing encloses a high voltage, high frequency power supply having output terminals connected to a pair of electrodes mounted on opposite sides of a solid dielectric, the electrodes and solid dielectric being encapsulated in an insulator and mounted in a tunnel in the housing, the air to be purified being circulated through the tunnel.

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,085,735 7/1937 Bron 55/150

8 Claims, 3 Drawing Figures



Electron Field™ generator Patent

U.S. Patent

Jul. 5, 1983

4,391,773

FIG. 1

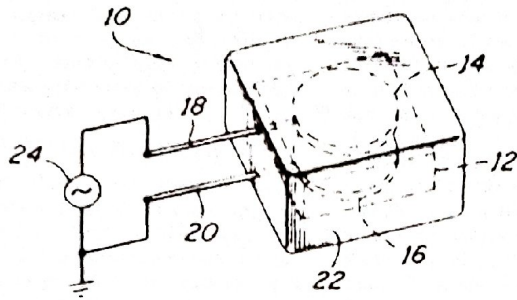


FIG. 2

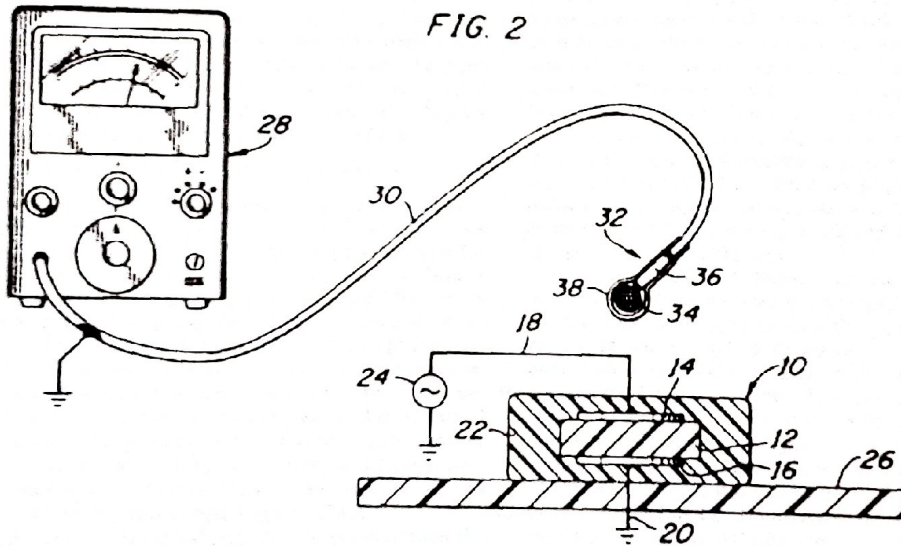
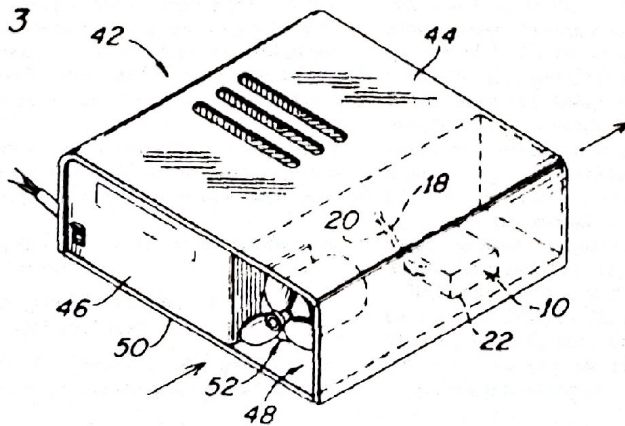


FIG. 3



PURIFYING AIR AND NEGATIVE FIELD GENERATOR

The present invention relates to a new and improved method and apparatus for generating a negative electric field of sufficient intensity to purify air, and it also relates to the discovery of a strong negative field surrounding a dielectric capacitor connected across a high frequency, high voltage source of energy.

BACKGROUND OF THE INVENTION

It is well known that odors, dust particles, bacteria and the like can be removed from air by subjecting the air and entrained material to a negative field. For example, U.S. Pat. No. 4,037,268 describes a system for developing a negative charge effect by generating a plasma between sets of anode and cathode electrodes and using this effect to purify air. Also, ozone generators have been used to develop a negatively charged field for neutralizing the normal positive charge on airborne dust particles and the like. Some ozone generators have employed a gas discharge while others have used ultraviolet light for ozonating air. It would be desirable however, to provide a generator which would develop a negative field in air without the use of a gaseous discharge or ultraviolet light and which would not produce ozone or other harmful contaminants, whereby the generator could be safely used to purify air.

SUMMARY OF THE INVENTION

Briefly, in accordance with the present invention there is developed a negative field of sufficient intensity to purify air by neutralizing airborne particles and for killing airborne bacteria. This strong negative field is generated by applying a high voltage, high frequency source of alternating electric energy across a solid dielectric. I have found that a high intensity negative field thus developed in the air surrounding the dielectric. This negative field has been observed to precipitate airborne solids from the surrounding air, and to retard, if not prevent, the growth of bacterial on organic matter disposed within about fifty centimeters of the generator. Also, moisture is removed from the air in the vicinity of the generator by this strong negative field.

In an air purifier embodying the present invention the negative field generator is mounted in a tunnel through which the air to be purified is circulated.

GENERAL DESCRIPTION OF THE DRAWING

The present invention will be better understood by a reading of the following detailed description taken in connection with the accompanying drawing wherein:
FIG. 1 is a perspective view of a negative field generator device operatively connected to a high frequency, high voltage source of power, the latter being shown in schematic form;

FIG. 2 is a schematic view showing the manner, in which the negative electric field surrounding a generator embodying the present invention has been measured; and

FIG. 3 is a perspective view of an air purifier embodying the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIG. 1, a negative field generator 10 embodying the present invention comprises a rectangular

plastic, such as acrylic, to the opposite faces of which are directly mounted a pair of thin circular metallic electrodes 14 and 16. It may be seen from inspection of the drawing that the peripheral edges of electrodes 14 and 16 are spaced a substantial distance from the adjacent edges of the sheet 12. As more fully explained hereinafter, this spacing is made sufficient to prevent arcing between the electrodes wherefor the spacing depends on the voltage to be applied between the electrodes 14 and 16.

A pair of conductive leads 18 and 20 are respectively connected to the electrodes 14 and 16 and extend outwardly from a block 22 of an insulating material in which the assembly of the electrodes 14 and 16 and the sheet 14 is encapsulated to provide a completely solid unit. The leads 18 and 20 are respectively connected to the output terminals of an electric power source 24 of high voltage, high frequency energy. The power source 24 may be a conventional oscillator having, for example, an output of 24 kilovolts at a frequency of 38 kilohertz. When using such a source of power, arcing must be prevented. Arcing can be prevented by using a sheet 12 of acrylic having a thickness of 0.4 inch with three inch diameter electrodes 14 and 16 spaced a minimum of one-half inch from the closest edges of the sheet 12. It is important that the applied voltage be less than the breakdown voltage of the dielectric sheet and of the air or other gas surrounding the unit. A strong negative field of toroidal configuration is generated by the system shown in FIG. 1 and has been found to produce a sufficiently strong field at a distance of fifty centimeters from the unit for removing entrained impurities from the air surrounding the unit.

Referring to FIG. 2, there is shown the test set-up which was used to measure the strength of the negative electric field developed around the generator 10. The device 10 was placed on an insulating surface 26 and energized from a high voltage, high frequency power source 24. The input terminals of an electrometer 28 were connected by a shielded cable 30 to an ion current probe 32 of the type designed by J. C. Beckett and shown on page 362 of the issue of THE JOURNAL OF GENERAL PHYSIOLOGY, published on Nov. 20, 1957. The probe 32 comprises a conductive disc 34 which is connected to the central conductor in the cable 30. The connection from the disc 34 extends through cylindrical insulator 36 and a conductive wire 38 which is electrically connected to the grounded shield of the cable 30 lies in the plane of the disc 34 and surrounds it. The electrometer 28 thus measures the negative ion or electron field at the location of the disc 34. When a power source having a voltage of 24 kilovolts at a frequency of 38 kilohertz was used, readings as high as 6.38×10^{13} ions per CM^2 were measured at a distance of 50 cm. from the device 10. This negative field is sufficiently strong to purify air by discharging particulates entrained therein and to destroy bacteria in the air. An input voltage of 5 kilovolts at a frequency of about 20 kilohertz produced a negative field which appears to have about the minimum strength for purifying air. The measured field strength at 50 cm., from the device was 500,000 ions per CM^2 per second.

Referring to FIG. 3, there is shown an air purifying device 42 embodying the present invention. The device 42 comprises a housing 44 in which is mounted an electronic control unit 46 including a high voltage, high frequency power supply. A passageway or tunnel 48 is

provided at one side of the power supply and except for its open ends is entirely surrounded by grounded metallic members. In this case, the outer housing including the base portion 50 which is metal and is grounded during operation of the unit. A low velocity electric fan of the whisper type is mounted to the vertical wall of the control unit 46 adjacent one end of the tunnel 48 and causes the ambient air to flow from left to right through the unit as shown in FIG. 3. Mounted to the floor 50 on the downstream side of the fan 52 is a negative field generating unit 10 as described hereinabove in connection with FIG. 1. The negative field is confined within the tunnel 48 and purifies or otherwise treats the air or gas flowing through the negative electric field produced therein.

The electric field which is developed around the unit 10 is negative and because of the fact that the unit is energized from an alternating source of energy the field may be expanding and contracting at twice the frequency of the power supply 24. However, the inertia of the electrometer, and particularly the needle thereof, would be unable to respond to such high frequency variations and does in fact indicate a constant negative field surrounding the device 10.

While the present invention has been described in connection with particular embodiments thereof, it will be understood by those skilled in the art that many changes and modifications may be made without departing from the true spirit and scope of the present invention. Therefore, it is intended by the appended claims to cover all such changes and modifications which come within the true spirit and scope of this invention.

What is claimed:

1. A method of purifying air, comprising the steps of placing in proximity to said air a capacitor including a pair of electrodes spaced apart by a solid dielectric material, and

applying between said electrodes a voltage of at least about 5000 volts having a frequency of at least twenty kiloHertz, said voltage being less than the breakdown voltage across said electrodes.

2. A method according to claim 1, comprising the further step of

circulating the air to be purified through a space within fifty centimeters of said capacitor.

3. A method according to claim 1, wherein said dielectric is a sheet of dielectric material, and said electrodes are generally planar conductive members.

4. A method according to claim 3, wherein said sheet of dielectric material is acrylic resin.

5. Apparatus for generating a negative field in a gas, comprising

a solid, dielectric sheet,

first and second metallic electrodes respectively mounted in mutually parallel relationship to opposite sides of said dielectric sheet,

a body of insulating material completely enclosing said electrodes and said dielectric sheet to prevent any arcing between said electrodes, and means for connecting a high voltage, high frequency source between said electrodes.

6. Apparatus according to claim 5, wherein said source has a voltage of 5000 volts or more and a frequency of twenty kiloHertz or more.

7. Apparatus according to claim 5 comprising passageway means defining a passageway, said electrodes, said dielectric sheet and said body of insulating material being mounted within said passageway, and

blower means for causing said air to flow through said passageway.

8. Apparatus according to claim 7 comprising housing means in which said source is mounted and which includes said passageway means.

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