

## **Carl BAUGH Rejuvenation**

### http://www.keelynet.com/biology/baugh.htm 03/31/01

#### Dr. Baugh & the Pre-Flood Environment

Director of the Creation Evidence Museum in Glen Rose, Texas, Dr. Carl Baugh has invented and patented a 'Hyperbaric Biosphere' chamber to test Biblical claims regarding pre-flood atmosphere and magnetic conditions based on Genesis.

Genesis states that life on earth was created 'perfect' and designed to live forever. It also states that after the fall of man, all elements of which everything is made, were cursed. Genesis then records the gradual degeneration of the whole of creation until the flood of Noah followed by an increasing rate of degeneration as time progressed.

If the dates and years reported use the same standards we do in modern times, then there is an overlapping of pre-flood humans with that of post-flood survivors where the pre-flood humans lived many more years.

The average age of man prior to the flood was approximately 920 years, after the flood, mans lifespan declined by 250 years until the time of Christ when lifespans averaged 70 years. Tests indicate simulation of a pre-flood environment would produce conditions of increased longevity, cellular growth and a change in molecular structures.

Dr. Baugh's experiments with his special hyperbaric biosphere have produced fascinating results that indicate potential methods to heal and/or rejuvenate people today. NASA has even requested Dr. Baugh's research and discoveries to determine their applicability to the space program.





#### **Hyperbaric Biosphere**

Experiments carried out in this pre-flood atmospheric chamber have produced amazing evidence supporting the biblical record of the pre-flood world.

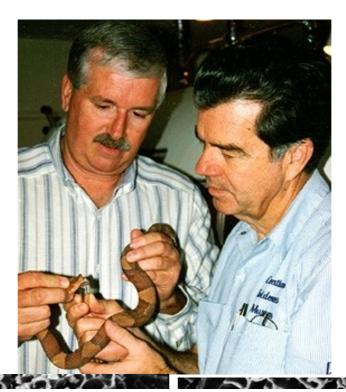
Some examples include;

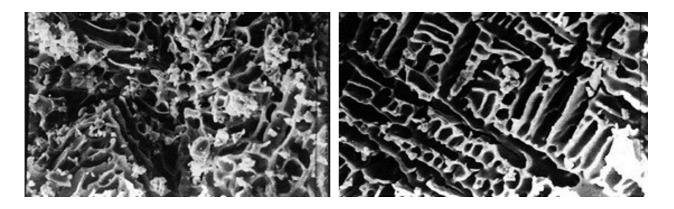
extended life span of drosophila fruit flies up to three generations, molecular change of venom in copperhead snakes to a non-toxic state, accelerated growth of piranha fish - from 2" to 16" over a 2.5 years period.

The Hyperbaric Biosphere patent allows for the ability to vary the mix of gases comprising the atmosphere in the chamber as well as to vary the electromagnetic field intensity, frequency and duration.

Dr. Baugh and an unidentified associate handle deadly copperhead snakes used in an experiment to test whether increased oxygen levels, as would be experienced in pre-flood conditions, might alter the physiology of the snakes.

He contends an artificial pre-flood environment could be duplicated with increased oxygen, higher pressure and the use of higher EM fields





Another investigation at the creation evidence museum, the gnarled 'spaghetti-like' formation of copperhead snake venom as seen under the scanning electron microscope before the copperhead snake was 'housed' in a small hyperbaric chamber.

After four weeks in the hyperbaric chamber, venom from the same copperhead snake shows a much less distorted structure (less gnarled) indicating a lowering of the toxicity level. Conditions in the hyperbaric chamber are seeking to provide the type of environment that existed in the time prior to the great flood.

Additional information that might be of use;

It has been estimated by researchers at the University of Illinois that the atmospheric pressures in the earliest beginnings of life on earth, could have been as much as 29.4 pounds per square inch, twice the current sea level pressure (14.7 psi at sea level).

- 1) oxygen content would have been about 30% instead of the 21% we experience today
- 2) an open wound could heal overnight under these conditions
- 3) this atmospheric condition would support human life lasting several hundred years

A related post sent to a discussion list recounts the following unconfirmed information about rejuvenation effects noted by aquanauts living underwater for periods of 30 days or greater.

CJT Enterprises wrote:

Hi everyone,

A friend of mine who worked for the NSA related an experiment that was conducted by NASA. Three scientists lived on the floor of the ocean for about 1-3 months in a biosphere.

When they left they were all middle aged with graying hair and low libidos.

When they returned their hair was clear of gray, their wrinkles had started to disappear, and their sex drive was so increased that their wives complaied to NASA about it.

It turns out that certain glands and organs were "reactivated." One in particular was the gland that lies over the top of the heart. Blood tests showed unusual hormones. Hormones that are normally associated with the growth of young children.

f you check the Creation Research Center and look up the url for the Creation Research Institute you can then find the geologist who recreated the atmosphere of the flood in a container. I havent checked for his name yet. Been behind on my page and other projects, but I am having a pastor friend look into it for me.

What if we take this knowledge and build a "room" that emulates the atmosphere of the Earth before the flood and sleep in it for 8 hours a day? What effects might it have? My friend from the NSA said that for every day spent in there one year was added onto your life until you maxed out at 1000.

Chris

#### **PATENTS**

## Closed ecological system and method for supporting life US5935516

An apparatus to contain a closed ecological system, wherein the apparatus includes a closed, air-tight chamber to contain an atmosphere. The chamber includes at least one access opening designed to allow plants, animals, raw materials, and other items to be placed within the chamber. The chamber includes a system for introducing oxygen and/or carbon dioxide into the chamber and for maintaining the oxygen and/or carbon dioxide at a predetermined concentration percentage of the atmosphere. Preferably, the closed ecological system of the present invention also includes a system for establishing a magnetic field within the chamber of a predetermined strength and orientation. The chamber may also include systems for elevating the atmospheric pressure within the chamber and for maintaining the atmosphere within the chamber at a predetermined temperature and humidity level. The chamber may also include a specialized lighting and sound system to establish light and sound of a predetermined intensity, frequency, and wavelength within the chamber. A satellite chamber may be provided in selective fluid communication with the closed ecological system for providing plants, animals, or chemical processes with short-term exposure to the conditions of the closed ecological system. The present invention is also directed to a method of establishing and maintaining a closed ecological system to support plant and animal life and to aid in the development, discovery, and/or production of new and improved chemical compounds that may be used as pharmaceuticals and other chemical compounds.

#### FIELD OF INVENTION

The present invention relates generally to closed ecological systems, and more particularly to a method and apparatus for establishing and maintaining a closed ecological system wherein the environment within the closed system is controlled such that plant and animal life can exist to its more optimal potential and thrive, the effects and causes of plant and animal disease can be reduced and/or eliminated, mental well being of animals can be fostered, and new and improved pharmaceuticals and other chemical compounds (organic and inorganic) can be discovered and/or synthesized.

#### **BACKGROUND OF THE INVENTION**

The environment in which we live with plants and other animals has changed since biological systems first appeared. The composition of the air we breathe has continued to change. For example, there is reason to believe that the concentration of oxygen found within the air has decreased over time. The climate, including temperature, humidity, rainfall, snowfall, and the like has also been changing. It is further theorized that other important changes in the environment of the earth over time have been the marked decrease in atmospheric pressure, a decrease in the concentration of carbon dioxide in the earth's atmosphere, changes in the strength and orientation of the earth's magnetic field, and the change in the intensity and characteristics of the light radiation to which we are exposed. Furthermore, sounds of nature such as singing birds have become increasingly difficult to encounter due to a general decrease in the population of songbirds.

Many of the above and other changes are a natural result of the maturing of the earth. Other changes to the earth's environment are caused by purely natural events--volcanic eruptions, earthquakes, tidal waves, glaciers, and the like alter the earth itself and the surrounding atmosphere. Other changes to the earth and its atmosphere are due entirely to man. Pollution, overpopulation, overdevelopment, overutilization of natural resources, fishing, hunting, and farming have all altered our world. As the human population continues to increase, the pace at which these changes occur will inevitably increase.

These changes in the earth and the surrounding environment have had a detrimental impact on plants and animals including man. Certain plants and animals have vanished from the earth, unable to adapt to the changed earth. Many of the remaining varieties of plants and animals have found it difficult to thrive. The fruits and vegetables of trees and plants have lost taste and nutritional value. Animals, including humans, are increasingly disease stricken, weak, and otherwise unhealthy. Humans seem to have lost their general sense of well being, leading to an increase in depression, suicides, crime, violence, sickness, and other social and physical ailments and have become increasingly lethargic with shortened attention spans.

The increasing physical and mental ailments of humans has led to a constant search for new and improved pharmaceuticals to combat these sicknesses. As one example, scientists are constantly searching the far reaches of the planet for naturally occurring antiviral and antibiotic substances. Once such naturally occurring substances are discovered, scientists may attempt to synthesize these drugs in a laboratory. While much progress has been made in the field of locating and synthesizing these compounds for use as pharmaceuticals, many ailments currently have no known effective treatment drugs or the causative agents have been able to adapt or modify their own structure to develop a resistance to such treatments. For example, many cancers and AIDS have been particularly resistant to pharmaceuticals located and/or synthesized using conventional methods in standard environmental conditions. It is believed that the changes in the earth's environment have prevented certain drugs from being created in nature, discovered, and/or synthesized, and has prevented the compounding of certain organic and inorganic elements.

#### **SUMMARY OF THE INVENTION**

It is therefore an object of the present invention to solve the above and other problems caused by changes in the earth and its surrounding environment.

It is also an object of the present invention to provide a closed ecological system including an atmosphere with an elevated oxygen content.

It is another object of the present invention to provide a closed ecological system including an atmosphere with an elevated atmospheric pressure.

It is another object of the present invention to provide a closed ecological system with an atmosphere having an elevated concentration of carbon dioxide.

It is a further object of the present invention to provide a closed ecological system including a low level magnetic field.

Yet another object of the present invention is to provide a closed ecological system including specialized lighting and sound.

Still a further object of the present invention is to provide a closed ecological system with a controlled temperature, humidity, and other climate variables.

Another object of the present invention is to provide a closed ecological system having an overall environment that is favorable to the natural formation and/or the manufacture of improved compounds used to manufacture pharmaceuticals for the treatment of sickness and disease.

The present invention accomplishes these and other objects by providing an apparatus to contain a closed ecological system, wherein the apparatus comprises a closed, air-tight chamber to contain an atmosphere, and wherein the chamber includes at least one access opening. The access opening is designed to allow plants, animals, raw materials, and other items to be placed within the chamber. The chamber includes means for introducing oxygen and/or carbon dioxide into the chamber and means for maintaining the oxygen and/or carbon dioxide at a predetermined concentration percentage of the atmosphere. Preferably, the closed ecological system of the present invention also includes means for establishing a magnetic field within the chamber of a predetermined strength and orientation. The chamber may also include means for elevating the atmospheric pressure within the chamber and means for maintaining the atmosphere within the chamber at a predetermined temperature and humidity level. The chamber may also include a specialized lighting and sound system to establish light and sound of a predetermined intensity, frequency, and wavelength within the chamber. A satellite chamber may be provided in selective fluid communication with the closed ecological system for providing plants, animals, or chemical processes with short-term exposure to the conditions of the closed ecological system.

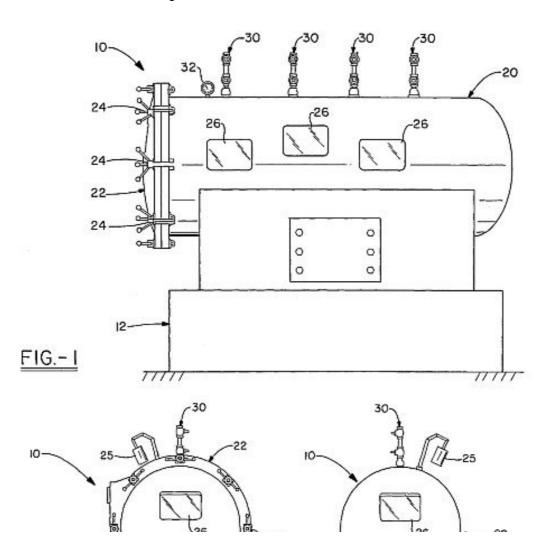
The present invention is also directed to a method of establishing and maintaining a closed ecological system to support plant and animal life and to aid in the development, discovery, and/or production of new and improved chemical compounds that may be used as pharmaceuticals.

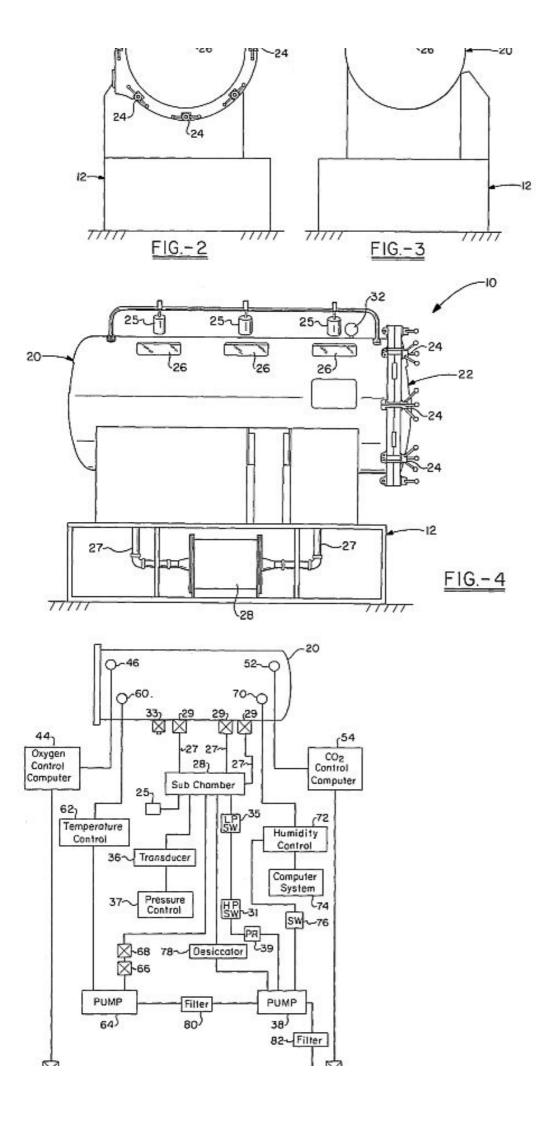
#### BRIEF DESCRIPTION OF THE DRAWINGS

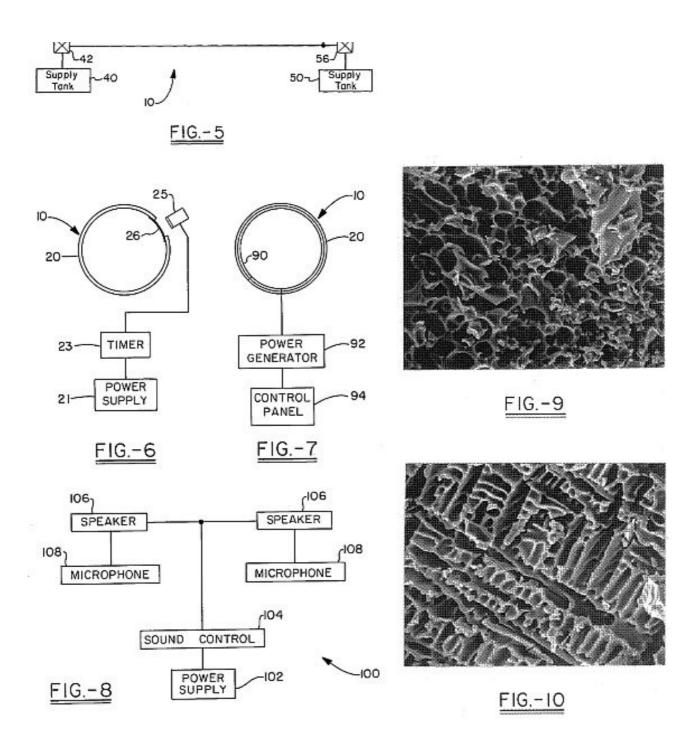
FIG. 1 is a front elevational view of a closed ecological system in accordance with the present invention;

FIG. 2 is a side elevational view of a closed ecological system in accordance with the present invention;

- FIG. 3 is a side elevational view of a closed ecological system in accordance with the present invention;
- FIG. 4 is a rear elevational view of a closed ecological system in accordance with the present invention;
- FIG. 5 is a schematic representation of a closed ecological system in accordance with the present invention;
- FIG. 6 is a schematic representation of a closed ecological system including a lighting system in accordance with the present invention;
- FIG. 7 is a schematic view of a closed ecological system including a magnetic field generation system in accordance with the present invention;
- FIG. 8 is a schematic view of an audio system for use with a closed ecological system in accordance with the present invention;
- FIG. 9 is a scanning electron microscope view of Copperhead snake venom taken from a Copperhead snake living under normal, ambient conditions on earth;
- FIG. 10 is a scanning electron microscope view of Copperhead snake venom taken from a Copperhead snake that lived for four weeks in a closed ecological system in accordance with the present invention.







#### DETAILED DESCRIPTION OF THE INVENTION

Reference will now be made in detail to the present preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings. Wherever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts.

An apparatus for establishing, containing, and maintaining a closed ecological system in accordance with the present invention is shown generally at 10 in FIGS. 1-7 and comprises an air-tight, substantially hollow chamber 20 made of plastic, metal, fiberglass, or any other suitable material. Chamber 20 includes a sealable access opening such as hinged door 22 provided with suitable air locks 24 and seals (not shown) to ensure that door 22 does not reduce the air-tight integrity of the chamber 20. Chamber 20 is designed to contain therein an atmosphere, plants, animals, objects and any other desired components of a closed ecological system such that plants and animals may live therein and such that chemical reactions such as

the production of pharmaceuticals can be carried out therein. Chamber 20 may be of any size desired such that the ecological system established and maintained therein may be of any suitable size. Chamber 20 may only be large enough to contain a few small plants and animals, or chamber 20 may be large enough to contain a community of numerous human beings. As shown, chamber 20 is sufficiently large to contain at least one human being and several plants and animals. Chamber 20 may include air-tight windows 26 formed therein or in door 22 thereof using suitable glass or plastic to allow those outside of the chamber 20 to observe the plants, animals, and any other animals, objects and/or conditions inside of chamber 20. Door 22 may be opened to remove, add, or reorient specimens as desired, after depressurization has returned internal pressure to ambient conditions. Windows 26 are designed to filter ultra-violet (UV) light to prevent unwanted UV light from affecting the ecological system contained within chamber 20. Specifically, UV light causes or encourages the formation of "free radicals" that are thought to be harmful to animals.

Chamber 20 is supported upon a base 12 to prevent the unwanted movement of the chamber 20 and other components of the apparatus 10. A sub-chamber or premixing chamber 28 (FIGS. 4 and 5) is preferably provided and is in selective fluid communication with chamber 20 through pipes or other conduits 27. Sub-chamber 28 provides a means for premixing the gases and liquids to be added to chamber 20 to ensure that such gases and liquids are uniformly distributed within chamber 20. It should be recognized that chamber 28 may also function as a satellite chamber in selective fluid communication with chamber 20 for establishing and maintaining a closed ecological system similar to that found within chamber 20, such that plants, animals, chemical reactions and the like can be placed within the closed ecological system found within the satellite chamber for time periods that differ (usually shorter) from the amount of time chamber 20 needs to remain closed. To function as a satellite chamber, sub-chamber 28 would need to include an access opening such as a door, and would need to include at least some of the features of chamber 20 as they are set forth below. Also, if sub-chamber 28 is to be used as a satellite chamber, chamber 20 and subchamber must be shielded from each other with a lead shield or the like to prevent the magnetic field (discussed fully below) of one chamber 20, 28 from interfering with the magnetic field of the other chamber 20, 28. For example, in addition to conducting experiments relating to the natural creation and/or synthesis of pharmaceuticals within chamber 20, sub-chamber 28, when properly adapted as a satellite chamber, may alternatively be utilized for the same types of experiments. Various chemicals could be mixed and placed within sub-chamber 28 for a period of time, and thereafter be removed from sub-chamber 28 and examined, without opening door 22 of chamber 20 and without altering the ecological system found within chamber 20.

Conduits 27 between sub-chamber 28 and chamber 20 are selectively blocked or closed using gate valves 29 (FIG. 5) or the like so that sub-chamber 28 may be selectively "disconnected" or prevented from being in fluid communication with chamber 20 to protect the integrity of the ecological system found within chamber 20 during premixing operations. After sub-chamber 28 is "disconnected" from chamber 20, various gases and other components of the closed ecological system as described herein may be introduced into chamber 28, without altering the ecological system within chamber 20. When the gases and liquids introduced into sub-chamber 28 are properly mixed, which may occur naturally or with the aid of mixing devices such as blowers, gate valves 29 may be opened to allow the properly mixed gases and liquids to enter chamber 20 as is described below. Sub-chamber 28 includes a pressure relief valve 25 so that excess pressure may be vented from sub-chamber 28 if necessary. Those skilled in the art will recognize that the apparatus need not include a sub-chamber 28 and

such is contemplated herein, although use of sub-chamber 28 is thought to be preferable. Also, those skilled in the art will recognize that any ecological system or conditions created and maintained in chamber 20 may also be created and maintained in sub-chamber 28, and for reasons of clarity, the following description will not necessarily refer to providing an ecological system within both chambers 20,28 but will instead refer primarily to chamber 20.

Apparatus 10 includes numerous components and features such that an ecological system can be created and maintained within chamber 20 and so that the characteristics of the ecological system so created and maintained, such as temperature, atmospheric pressure, humidity, magnetic field, oxygen level, carbon dioxide level, and the like may be accurately varied and monitored. One or more feeder valves such as dual ball valves 30 are provided in fluid communication with the interior of chamber 20 and are also connected to vacuum/pressure pump 38 (FIG. 5) to allow fluids such as air, oxygen, water, nutrients and others (organic and inorganic) to be communicated from the appropriate source into the ecological system found within chamber 20 through one or more valves 30. As is noted above, it is thought preferable to premix fluids in sub-chamber 28 prior to introducing the fluids into chamber 20. Feeder lines or conduits may be surrounded by a coolant or other thermal fluid to vary the temperature of the fluid in the feeder line. Because of the potentially elevated atmospheric pressure (hyperbaric pressure) within chamber 20, dual ball valves 30 are thought to provide a more effective seal to prevent the escape of gases from the chamber 20 and to otherwise protect the integrity of the closed ecological system created and maintained by the apparatus 10, although other suitable valves are known and are contemplated for use in conjunction with the present invention 10. A pressure gauge 32 is also provided to allow those outside of chamber 20 to monitor the atmospheric pressure within chamber 20.

The pressure of the atmosphere within chamber 20 may be varied as desired to provide an elevated atmospheric pressure. It is thought preferable for example to create a hyperbaric closed ecological system--i.e., a closed ecological system having an increased atmospheric pressure relative to the atmospheric pressure normally encountered on earth. It is thought most preferable to provide an environment inside of chamber 20 having an atmospheric pressure of 1 to 2 atmospheres of pressure. FIG. 5 shows a pressure sensor or transducer 36 coupled to a pressure control mechanism such as pressure control computer 37 to control and regulate the pressure inside of chamber 20 and/or 28. Transducer 36 converts air pressure into electrical signals to provide input data to pressure control computer 37 so that computer can continually monitor the air pressure within chamber 20 and adjust the same accordingly. A vacuum/pressure pump 38 is provided in fluid communication with chamber 20 so that the pressure in chamber 20 can be elevated using compressed air generated by pump 38 and transferred into chamber 20 through one or more of the valves 30. Pump 38 may also be used to create a vacuum suction to draw air from chamber 20 resulting in a low pressure environment within chamber 20. As a safety and control measure, a high pressure safety switch 35 is provided to prevent overpressurization of the chamber 20. Likewise, a low pressure safety switch 31 is provided to prevent an excessive vacuum condition from being established within chamber 20. A pressure relay 39 is provided to selectively energize vacuum/pressure pump 38 as needed to increase or decrease the atmospheric pressure in chamber 20 and a blow off valve 33 is provided in fluid communication with chamber 20 to allow excessive air pressure that may be contained therein to be rapidly vented automatically when the atmospheric pressure within chamber 20 exceeds some threshold value such as 2 atmospheres.

In addition to an elevated atmospheric pressure, the closed ecological system of the present

invention 10 preferably includes an atmosphere within chamber 20 having an elevated oxygen concentration relative to the concentration of oxygen normally found in the air surrounding the earth. Specifically, it is thought preferable to maintain a concentration of oxygen within chamber 20 such that the oxygen is equal to 22%-30% by volume of the atmosphere contained within chamber 20 when the atmospheric pressure is in the range of 1-2 atmospheres. For long term occupation within chamber 20 the oxygen level is most preferably maintained at 22%-24% by volume at 2 atmospheres of pressure, while for short term occupation, a month or less, the oxygen level within chamber 20 may be elevated to 26%-30% by volume at 2 atmospheres of pressure.

A source of oxygen such as a pressurized holding tank 40 or the like is provided to supply oxygen to the system 10. Alternatively, oxygen may be generated by an electrolysis process. Oxygen supply tank 40 is in fluid communication with vacuum/pressure pump 38 and chamber 20 using the appropriate conduits and connections. A valve assembly such as oxygen solenoid valve 42 is controlled by a control mechanism such as oxygen control computer 44 which is provided between supply tank 40 and pump 38 to regulate the flow of oxygen to pump 38 and into chamber 20 through one or more valves 30 (FIG. 1). An oxygen sensor 46 is provided in one or both chambers 20, 28 to sense the concentration of oxygen therein. Sensor 46 provides the concentration to oxygen control computer 44 as input so that computer 44 may determine if oxygen solenoid valve 42 should remain closed or should be opened to allow more oxygen to enter chambers 20, 28. A filter 82 is preferably provided between oxygen supply tank 40 and pump 38 to filter any contaminants from the oxygen.

By combining an increased level of oxygen concentration with a hyperbaric atmospheric pressure inside of chamber 20, the amount of oxygen absorbed by animals within the chamber 20 is maximized. This increased absorption of oxygen by the animals, including humans, leads to increased physical healing through the increased oxygen absorption of the cells of the animal, increased immunity, an increased level of mental awareness, and a general sense of well being for the animals that spend time within the closed ecological system created and maintained by apparatus 10. The increased absorption of oxygen by the animal cells raises the internal temperature of the cells, resulting in the damage to cancerous cells which have been found to have a lower resistance to heat than ordinary cells. As is discussed below in relation to FIGS. 9 and 10, the increased concentration of oxygen combined with an elevated atmospheric pressure, alone or in combination with other aspects of the closed ecological system found within chamber 20, has been found to result in the natural production of a superior snake venom having medicinal properties. Also, it is believed that the in increased oxygen level and atmospheric pressure contributes to improving the reactions among various chemicals which can lead to the production of superior chemical compounds such as very effective pharmaceuticals that may be used to treat illnesses for which there are currently few or no effective treatment drugs.

In conjunction with increasing the concentration of oxygen in chamber 20, it may also be desirable in certain circumstances to increase the concentration of carbon dioxide (CO2) in chamber 20. It has been theorized that an increased concentration of carbon dioxide lengthens the gestation period for mammals. This may be desirable to prevent premature births (births before the end of the normal gestation period for any particular mammal) or to lengthen the gestation period beyond normal to increase the development of the fetus. Carbon dioxide normally comprises approximately 0.026% by volume of the air normally encountered by mammals on earth. The apparatus 10 allows a closed ecological system to be created wherein the concentration of carbon dioxide therein may be elevated to approximately 0.1%-0.3% by

volume. This increased level of carbon dioxide, in conjunction with an elevated atmospheric pressure of approximately 2 atmospheres leads to the lengthened gestation period for mammals. It has also been found that raising the level of carbon dioxide assimilation in plants enhances plant production of stalks, leaves, and fruit.

As is shown in FIG. 5, a supply of carbon dioxide such as a pressurized carbon dioxide supply tank 50 or the like is provided in fluid communication with pump 38, through filter 82 designed to remove contaminants from the carbon dioxide. Pump 38 is in fluid communication with chamber 20 through one or more dual ball valves 30. A carbon dioxide sensor 52 is capable of sensing the concentration of carbon dioxide in the chambers 20, 28. A control mechanism such as carbon dioxide control computer 54 receives the concentration of carbon dioxide from sensor 52 as input and determines whether to increase the concentration thereof. If more carbon dioxide is needed within chamber 20, carbon dioxide control computer 54 causes a valve assembly such as carbon dioxide solenoid valve 56 to open, thereby allowing carbon dioxide to flow from supply tank 50 to pump 38 and thereafter into chamber 20 through one or more valves 30.

The apparatus 10 of the present invention also includes systems to control the temperature and humidity of the air within chamber 20 and also includes an air filtration system to remove contaminants from the air. A temperature sensor 60 is provided within chamber 20 to sense the temperature therein. Sensor 60 is coupled to a temperature control unit 62 which may be a computer or a simple thermostat, which is coupled to a heating and cooling pump 64. Heating and cooling pump 64 is capable of adding heat to or removing heat from chambers 20, 28 as desired to control the temperature therein. Heating and cooling pump 64 is coupled to chambers 20,28 through a check valve 68 to sub-chamber 28 and main chamber 20. Preferably, the temperature inside of chambers 20 and 28 is maintained in the range of 70 DEG -80 DEG Fahrenheit (F.) at all times. The temperature may be decreased to approximately 70 DEG F. at "night" and maintained at approximately 80 DEG F. during the "day." Of course, the terms "day" and "night" do not necessarily refer to the time of day outside of the chambers 20, 28 although "day" and "night" within the chambers 20, 28 may be controlled to correspond to conditions outside of the chambers 20, 28. Electric lights 25 (FIGS. 4 and 6) are provided to shine light into the chamber 20 through windows 26. Lights 25 receive power from a power supply 21 and are also connected to a control box/timer 23 that allows an operator of the apparatus 10 to vary the intensity, duration, and wavelength of each light 25. Lights 25 are preferably filtered to provide a wavelength primarily in the range of 6365 Angstroms which results in a magenta light. Therefore, "day" may occur anytime lights 25 are on while "night" may occur anytime no light is shining through windows 26 because of darkness surrounding chamber 20 or because of shades or the like being placed over windows 26.

The humidity within chambers 20, 28 is also closely monitored and is maintained in the range of 40%-60%. A humidity sensor 70 is provided within chamber 20 to sense the percentage of moisture found in the atmosphere within chamber 20 and is coupled to a humidity control unit 72 which may include a gravity collection/injection valve apparatus or any other suitable humidity control apparatus. Humidity control unit 72 is coupled to a computer system 74 that is capable of controlling the humidity control unit 72 to maintain the humidity within chambers 20, 28 at the desired 40%-60%. Humidity control unit 72 and computer system 74 are coupled through a switch 76 to vacuum/pressure pump 38 such that pump 38 may be selectively energized through switch 76. Pump 38 is coupled to a desiccator unit 78 which is in fluid communication with chambers 20, 28. Upon being energized through switch 76,

pump draws air from within chambers 20, 28, through desiccator unit 78 wherein moisture is removed from the air. The dehumidified air is then returned into chamber 20 through one or more valves 30. Because of the closed nature of closed ecological system created and maintained in apparatus 10, it will not normally be necessary to add humidity to chambers 20, 28, although such is contemplated and may be accomplished by the addition of a humidifier to the apparatus 10.

Apparatus 10 is also provided with an air filtration system comprising an air filter 80 provided in fluid communication with vacuum/pressure pump 38 and heating and cooling pump 64 such that any air introduced into chambers 20, 28 using vacuum/pressure pump 38 and/or heating and cooling pump 64 is first filtered of any airborne contaminants such as dust and bacteria. Both filter 80, and filter 82 discussed previously, may be a conventional filter media such as a foam or mesh, may be an electrostatic ionization filtration system that electrically charges the contaminants so that they are attracted to either a positively charged or negatively charged surface, or the air filters 80,82 may be a combination thereof or any other suitable air filtering system.

The apparatus 10 further comprises means for establishing and maintaining a magnetic field within the chamber 20 of a predetermined strength and orientation. As with other aspects of the apparatus and the closed ecological system created and maintained thereby, a magnetic field may also be established within chamber 28 although for reasons of clarity, reference will only be made to chamber 20. Referring to FIG. 7 wherein the apparatus 10 is shown schematically, a magnetic field coil 90 comprising shielded copper wire or the like surrounds and/or lines chamber 20 and is coupled by wires or the like to a D/D power generator 92 which generates controlled electromagnetic pulses (Hz) at optimal energy levels (Gauss). D/D power generator 92 is connected to a control mechanism such as control panel 94 which may be an analog device or a digital computer allowing a machine operator to vary the strength and orientation of the magnetic field created by the magnetic field coil 90 by varying the magnitude and direction of the electric current flowing through magnetic field coil 90.

It is thought preferable to establish and maintain a magnetic field within chamber 20 of 0.5 Hz to 30 Hz at 1-5 Gauss and is thought most preferable to average a magnetic field of 8 Hz within chamber 20. A variable magnetic field of 8 Hz (average, with intensity nearing 5 Gauss) is thought to simulate the magnetic field found on earth thousands of years ago. The magnetic field may be cyclical--i.e., turned on and off, or raised and lowered depending upon other aspects of the closed ecological system. For example, the magnetic field may be elevated only in the "day" or "night" as such terms are defined above. Alternatively or in conjunction with the "day and "night" variables, the magnetic field may be dependent upon the song activity of live birds present within the chamber 20 or dependent upon the sounds of birds that are broadcast within the chamber 20 through a sound system as is discussed in greater detail below.

FIG. 8 schematically illustrates a sound system 100 to be used in conjunction with the apparatus 10 of the present invention to establish predetermined sounds within the chamber 20. Sound system 100 comprises a power supply 102 which may be the same as power supply 21 discussed previously, or power supply 102 may be separate therefrom. Power supply 102 is connected to and provides electrical power to a sound control panel 104 from where one may control the selection and characteristics of the sounds broadcast by the sound system 100 into chamber 20. Control panel 104 is connected to one or more speakers 106 for broadcasting sound and is also connected to one or more microphones 108 for receiving

sound from within chamber 20 and transmitting the same onto a recording medium or for broadcasting such sounds outside of chamber 20. Control panel 104 may be located either inside or outside of chamber 20 such that sound system 100 may be controlled by a person outside of chamber 20 or inside chamber 20, depending upon the location of control panel 104. It has been found beneficial for animals and plants to be within chamber 20 while sound from sound system 100 is broadcast into chamber 20. For example, harmonic music corresponding to songs of birds within chamber 20 at controlled times and under controlled conditions has been found to be particularly beneficial to plants and animals within chamber 20. By broadcasting the songs of birds where the songs are tuned to a frequency of 256 Hz ranging from 2-60 decibels in intensity, the sounds of the harmonic music will be tuned to the antenna of the DNA and cellular structure of the cells of animals which thereby causes a resonance of such cells and alters the vibratory cycle of the cells, leading to the improved health thereof, and leading to the deterioration of abnormal cells. As an alternative to broadcasting songs of birds into chamber 20, symphonic music, broadcast into chamber 20 in accordance with the above-noted broadcast parameters, may alternatively be utilized with the same or similar therapeutic effects.

As mentioned previously, the apparatus 10 allows for the creation of a closed ecological system in accordance with the above, thereby creating an environment conducive to the manufacture of exceptional pharmaceuticals for treating diseases and ailments for which safe and effective pharmaceuticals have not yet been discovered. Such exceptional pharmaceuticals may be obtained through natural organic production of living systems themselves or may be obtained by mixing various chemicals. For example, referring now to FIGS. 9 and 10, there can be seen a scanning electron microscope view of snake venom obtained from a Copperhead snake living under ordinary conditions found on earth (FIG. 9) and a scanning electron microscope view of snake venom obtained from the same snake, after the snake lived in an apparatus 10 housing a closed ecological system as is set forth above. Those skilled in the art will recognize the markedly improved characteristics of the venom shown in FIG. 10 obtained from the Copperhead snake that inhabited the closed ecological system of the present apparatus 10 for four weeks. Snake venom shown in FIG. 10 has been experimented with and found to have medicinal properties such as decreasing the size and occurrence of cancerous tumors, and providing relief from emotional illnesses. It is theorized that the toxicity of snake venom in the present invention would be lowered, if not eliminated, and the coherent structured chemical formation as shown would lead to immediate assimilation into patient receptors.

Those skilled in the art will recognize that the apparatus 10 may further comprise conveniences and necessaries to sustain life such as water nutrients, waste facilities and the like. Also, while the foregoing description has set forth the preferred embodiment of the invention in particular detail, it must be understood that numerous modifications, substitutions, and changes may be undertaken without departing from the true spirit and scope of the present invention as defined by the ensuing claims.

A system and method for stimulating the immune systems of biological entities in an environment. Pulsed electrical currents are generated using an electric current generator. The pulsed electrical currents are fed through an arrangement of electrically conductive material such that magnetic energy is emitted from the arrangement into the environment. The arrangement of electrically conductive material is designed such that an intensity of the emitted magnetic energy varies across at least one spatial dimension of the environment. Certain embodiments of the arrangement, which have width-to-length ratios of approximately 0.6, tend to provide variations in the intensity of the magnetic energy field which are very good for stimulating the immune systems of the biological entities.

#### **TECHNICAL FIELD**

Certain embodiments of the present invention relate to stimulating the immune system of biological entities. More particularly, certain embodiments of the present invention relate to a system and method to stimulate the immune system of biological entities moving in an environment through application of pulsed magnetic energy.

#### BACKGROUND OF THE INVENTION

Use of magnetic energy to increase physiological performance of organisms has long been attempted. However, many of these techniques have been limited to belts, pads or mats which apply magnetic or electromagnetic energy to the person or other organism. Problems inherent in these techniques include the necessity for the organism to wear the belt or pad, and the necessity for a portable power source in order to generate magnetic energy. Furthermore, these techniques do not effect the environment surrounding the organism. Accordingly, there is a demand for an apparatus and method of applying pulsed magnetic energy to an organism (i.e., a biological entity) and its surrounding environment that is without the aforementioned disadvantages.

Further limitations and disadvantages of conventional, traditional, and proposed approaches will become apparent to one of skill in the art, through comparison of such systems and methods with the present invention as set forth in the remainder of the present application with reference to the drawings.

#### **BRIEF SUMMARY OF THE INVENTION**

An embodiment of the present invention comprises a system for stimulating immune systems of living biological entities in an environment. The system comprises at least one electric current generator providing a source of pulsed electrical current. The system further comprises at least one continuous coil of electrically conductive material having a first end and a second end, both of the ends being connected to the at least one generator to form a closed circuit such that the at least one coil emits a spatially non-uniform pulsed magnetic field into the environment in response to the pulsed electrical current to stimulate the immune systems as the biological entities move within the environment. Also, a configuration of the at least one coil comprises a plurality of turns of the conductive material in substantially a single spatial plane, and wherein the coil has an overall width-to-length ratio of between 0.4 and 0.8.

Another embodiment of the present invention comprises a system for stimulating immune

systems of biological entities in an environment. The system comprises at least one electric current generator providing a source of pulsed electrical current. The system further comprises at least one arrangement of electrically conductive material having a first end and a second end, both of the ends being connected to the at least one generator to form a closed circuit such that the at least one arrangement emits a spatially non-uniform pulsed magnetic field into the environment in response to the pulsed electrical current to stimulate the immune systems as the biological entities move within the environment. Also, a configuration of the at least one arrangement comprises a plurality of substantially parallel segments of the conductive material forming a flat, substantially rectangular grid having an overall width-to-length ratio of between 0.4 and 0.8.

A further embodiment of the present invention comprises a method for stimulating immune systems of living biological entities in an environment. The method comprises positioning at least one arrangement of electrically conductive material below a surface of the environment and connecting the at least one arrangement of electrically conductive material to at least one electric current generator to form a closed circuit through the arrangement. The method further comprises generating a pulsed electrical current with the generator such that the pulsed electrical current propagates through the arrangement from a first end of the arrangement to a second end of the arrangement. The arrangement emits pulsed magnetic energy into the environment in response to the pulsed electrical current such that an intensity of the pulsed magnetic energy is non-uniform across at least one spatial dimension of the arrangement to stimulate the immune systems as the biological entities move within the environment.

Another embodiment of the present invention includes a system for stimulating the immune systems of biological entities in an environment. The system comprises at least one electric current generator providing a source of pulsed electrical current. The system further comprises at least one continuous coil of electrically conductive material having a first end and a second end where both ends are connected to the generator to form a closed circuit such that the coil emits a spatially non-uniform pulsed magnetic field into the environment in response to the pulsed electrical current to stimulate the immune systems as the biological entities move within the environment. A configuration of the coil includes a plurality of parallel straight segments of the conductive material, being substantially of the same length, and a plurality of curved segments of the conductive material. The continuous coil spirals outward from a central position of the coil in substantially a single spatial plane.

A further embodiment of the present invention includes a system for stimulating the immune systems of biological entities in an environment. The system comprises at least one electric current generator providing a source of pulsed electrical current. The system further comprises at least one continuous coil of electrically conductive material having a first end and a second end where both ends are connected to the generator to form a closed circuit such that the coil emits a spatially non-uniform pulsed magnetic field into the environment in response to the pulsed electrical current to stimulate the immune systems as the biological entities move within the environment. A configuration of the coil comprises a first plurality of parallel straight segments of the conductive material and a second plurality of parallel straight segments of the conductive material being substantially perpendicular to the first plurality of segments. The continuous coil winds outward from a central position of the coil in substantially a single spatial plane.

These and other advantages and novel features of the present invention, as well as details of

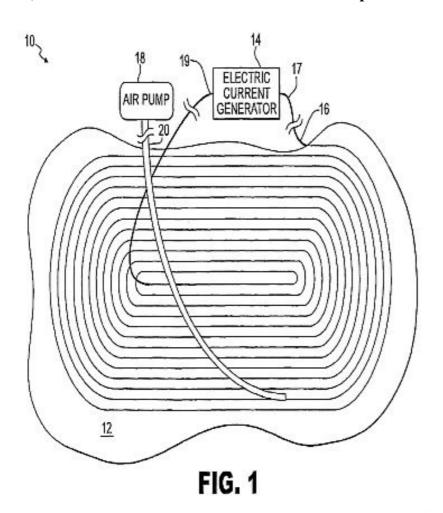
illustrated embodiments thereof, will be more fully understood from the following description and drawings.

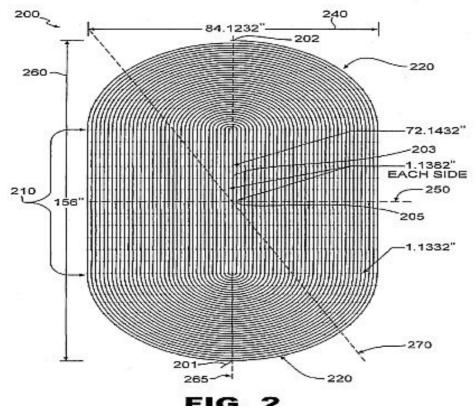
#### BRIEF DESCRIPTION OF THE DRAWINGS

- FIG. 1 illustrates a first exemplary embodiment of a system for applying pulsed magnetic energy to an aquatic environment, in accordance with various aspects of the present invention.
- FIG. 2 illustrates a first exemplary embodiment of a flat coil used to generate magnetic energy, in accordance with various aspects of the present invention.
- FIGS. 3A-3C illustrate various views of an embodiment of the flat coil of FIG. 2, clearly showing the spacing between the coil turns, in accordance with various aspects of the present invention.
- FIG. 4 illustrates an exemplary simulated graph of how a magnetic field intensity generated by the coil of FIG. 2 may be expected to vary non-linearly across a spatial dimension of the coil of FIG. 2, in accordance with various aspects of the present invention.
- FIG. 5 illustrates an exemplary graph of measured data of how a magnetic field intensity generated by the coil of FIGS. 3A-3C varies across three spatial dimensions of the coil of FIGS. 3A-3C, in accordance with various aspects of the present invention.
- FIG. 6 is a flowchart of an embodiment of a method to stimulate immune systems of biological entities in an environment, in accordance with various aspects of the present invention.
- FIG. 7 illustrates a second exemplary embodiment of a flat coil used to generate magnetic energy, in accordance with various aspects of the present invention.
- FIG. 8 illustrates a second exemplary embodiment of a system for applying pulsed magnetic energy to a stock pen environment, in accordance with various aspects of the present invention.
- FIG. 9 illustrates a third exemplary embodiment of a system for applying pulsed magnetic energy to a garden environment, in accordance with various aspects of the present invention.
- FIG. 10 illustrates a fourth exemplary embodiment of a system for applying pulsed magnetic energy to a sports environment, in accordance with various aspects of the present invention.
- FIG. 11 illustrates a fifth exemplary embodiment of a system for applying pulsed magnetic energy to a golf course environment, in accordance with various aspects of the present invention.
- FIG. 12 illustrates exemplary resultant current pulses that may be produced in the coil of FIG. 2 when applying an exemplary DC pulsed voltage waveform to the coil of FIG.

2, in accordance with an embodiment of the present invention.

FIG. 13 illustrates exemplary resultant current pulses produced in the coil of FIGS. 3A-3C when applying an exemplary DC pulsed voltage waveform to the coil of FIGS. 3A-3C, in accordance with an embodiment of the present invention.





. . . . .

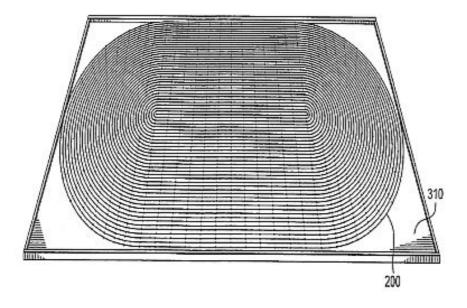


FIG. 3A

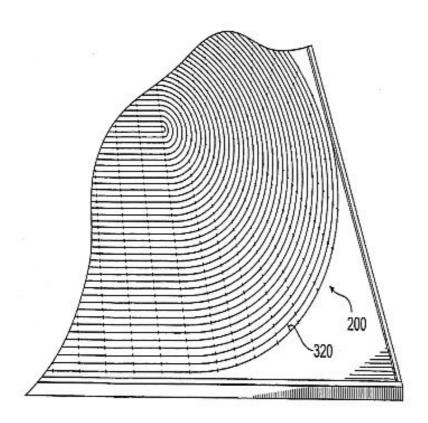
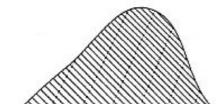


FIG. 3B



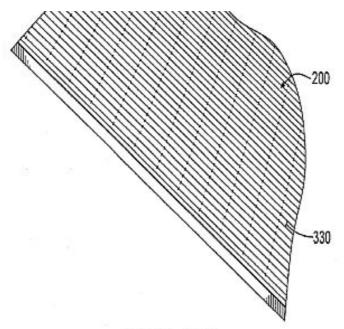


FIG. 3C

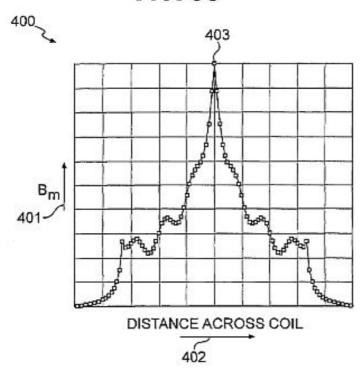
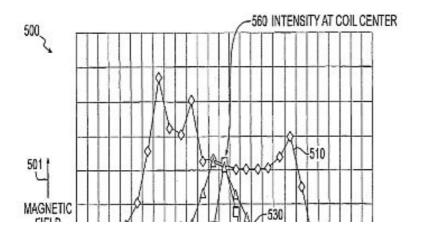


FIG. 4



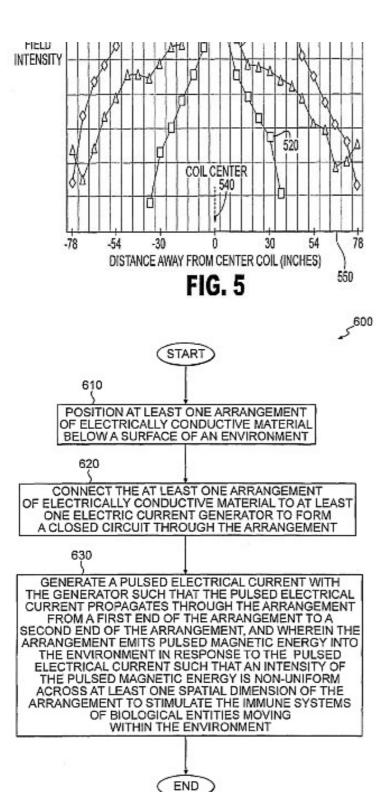
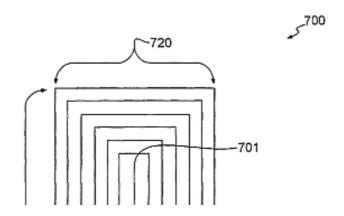


FIG. 6



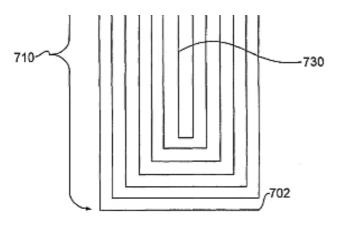


FIG. 7

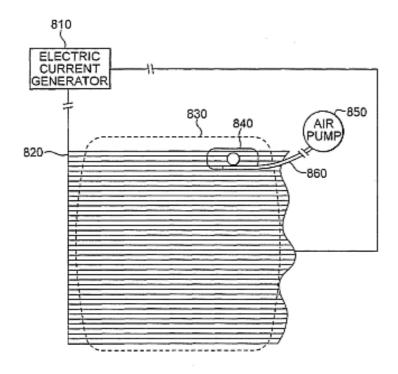


FIG. 8

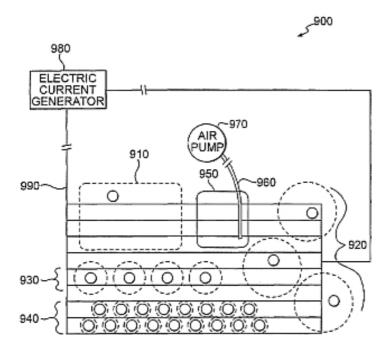


FIG. 9

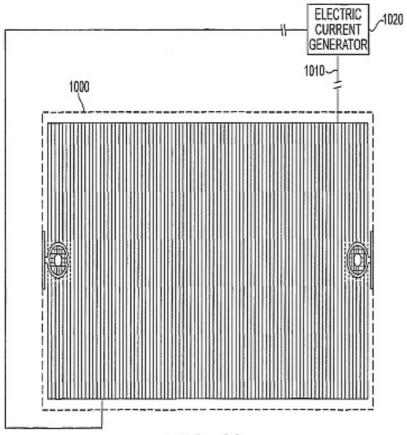


FIG. 10

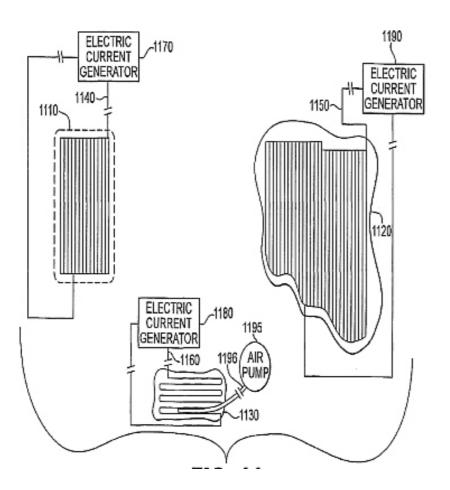
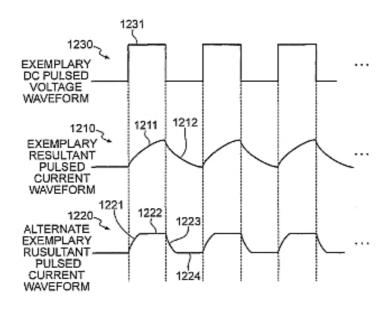
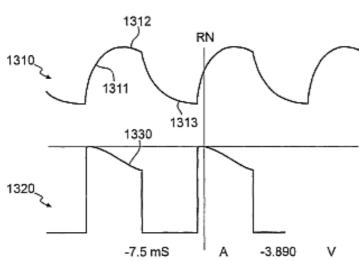


FIG. 11







**FIG. 13** 

#### DETAILED DESCRIPTION OF THE INVENTION

Reference will now be made in detail to the various embodiments of the present invention, examples of which are illustrated in the accompanying drawings. Whenever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts.

FIG. 1 illustrates a first exemplary embodiment of a system for applying pulsed magnetic energy to an aquatic environment, in accordance with various aspects of the present invention. Shown generally at 10, the embodiment of FIG. 1 includes a water reservoir 12, such as an aquarium, a pool, a pond or some other body of water. Below water reservoir 12 is placed electric wiring 16. In FIG. 1 electric wiring 16 is shown as a continuous coil of wiring, originating from the electric current generator 14 at a first end 17 and connecting back to the

electric current generator 14 at a second end 19 to form a closed circuit. The electrical wiring 16 is placed over a substantial area of the water reservoir 12, at 1 to 30 inches below the bottom surface of the water reservoir 12, and is insulated from the surrounding elements and cross currents from other cables that may be present. If the water reservoir 12 has sides, such as in a pool, electric wiring 16 can also be placed behind the surface of the sides of reservoir 12. Electric wiring 16 is insulated by neutral materials, such as plastics, that will insulate the electric wiring 16, yet not produce a significant charge in the surrounding soil or substance. The electric wiring may be coated with an insulating material or may be placed in a nonconductive conduit, for example. Further, highly shielded electrical wire (e.g., using a conductive shield) is not desired as it decreases the capacity of diffusion of the pulsed magnetic energy into the aquatic environment. A pulsed DC voltage waveform is supplied to the electric wiring 16, and is controlled by the electric current generator 14. Pulsed current supplied by the generator 14 propagates from a first end 17 of the coil 16 to a second end 19 of the coil 16 in a closed loop in response to the pulsed DC voltage waveform. That is, both ends 17 and 19 of the coil 16 are connected to output terminals of the generator 14. Alternatively, pulsed current supplied by the generator 14 may propagate from the second end 19 to the first end 17.

Optionally, an air pump 18 and perforated air hose 20 may be included in the system embodied in FIG. 1. Air pump 18 and air hose 20 provide an oxygen source to the water within reservoir 12, thus, aerating the water and increasing the oxygen concentration of the water.

In use, pulsed electrical current is applied to the electric wiring 16 by an electric current generator 14. Various electronic components may be utilized to generate electric current for use in this system and may include a computer controlled subsystem, for example, to control the intensity and pulsed frequency of the emitted magnetic energy. An electric current generator typically includes a power transformer, a rectifier and filter circuit, and an electronic switching circuit. For example, an electric current generator may be plugged into a 240 VAC single phase power source and output a pulsed DC voltage waveform having a maximum peak amplitude of, for example, 80 VDC.

In accordance with an embodiment of the present invention, the magnetic energy emitted from the wiring 16 has magnetic field components in the range of about 0.5 to 30 Gauss, and the frequency range of the pulses is between 0.5 and 30 Hertz. Concurrently, air pump 18 pumps air through hose 20 to increase the oxygen concentration of the water. The water in free motion around the air bubbles is energized to a higher state because of the application of the pulsed magnetic energy, and thus may become even more saturated with oxygen.

Application of the magnetic energy to the reservoir 12 provides for application of magnetic energy to both plants and animals (i.e., biological entities) situated within the aquatic system. The affected plants and animals exhibit enhanced physiologic effects such as increased growth and overall health, for example, due to stimulation of the immune systems of the plants and animals. Furthermore, the highly oxygenated and energized water can then be utilized for watering plants which may not be directly exposed to the magnetic energy.

Electric current flows in a wire when a potential difference (i.e., a voltage) is applied across both ends of the wire. When electric current flows through a wire, a magnetic field is set up or emanates from the wire. If the wire is arranged in a coiled or grid-like configuration, for example, the magnetic fields from the various turns of the coil may combine constructively

and destructively to form a spatially non-uniform magnetic field profile.

FIG. 2 illustrates an exemplary embodiment of a flat coil 200 used to generate magnetic energy, in accordance with various aspects of the present invention. The coil is a continuous coil of electrically conductive material (e.g., copper wire) having a first end 201 and a second end 202. Both ends 201 and 202 are connected to at least one generator (e.g. generator 14 in FIG. 1) to form a closed circuit. The generator creates a pulsed voltage waveform (e.g., a DC pulsed waveform) that results in pulsed electrical currents that propagate through the coil 200 from the first end 201 to the second end 202 (or vice versa).

When the current pulses propagate through the coil 200, magnetic energy is emitted from the coil in the form of a pulsed magnetic field. When the coil is placed in an environment such as, for example, a swimming pool, a livestock yard, a garden, orchards, an athletic ground, a play ground, a pond, a lake, a whirl pool, a hot tub, or an aquarium, the magnetic energy is dispersed into the environment. The magnetic energy tends to stimulate the immune systems of biological entities (e.g., plants, animals, and humans) that are moving within the environment.

In accordance with an embodiment of the present invention, a configuration of the coil 200 comprises a plurality of spiraling turns of a conductive material such as, for example, copper wire. The spiraling turns do not necessarily follow a strictly mathematical spiral, but rather, the turns spiral at least in the sense that the turns wrap around on each other from the inside (i.e., from a central position 203 of the coil 200) to the outside of the coil 200. The configuration forms a flat, substantially oval surface having a width-to-length ratio of between 0.4 and 0.8. Ideally, the width-to-length ratio is 0.618 which is the "golden mean" ratio found in many instances of nature. For example, the width-to-length ratio of the coil 200 shown in FIG. 2 is 84.1232 inches divided by 156 inches which is a ratio of 0.539. The coil 200 of FIG. 2 has approximately 37 turns spaced at approximately 1 inch separation. In accordance with an embodiment of the present invention, the coil 200 comprises 8 Gage solid copper wire having a resistance of about 0.6 ohms per 1000 feet.

The configuration of the coil 200 includes a plurality of parallel straight segments 210 of insulated copper wire being of substantially the same length, and a plurality of curved segment of insulated copper wire 220. The segments 210 and 220 are not discrete in the sense that they must be connected to form the coil 200. Instead, the coil 200 is a continuous piece of copper wire. However, in an alternative embodiment the coil 200 could be made from discrete segments that are connected together by, for example, welding or soldering. The configuration of the coil 200 is such that the plurality of turns of the coil are substantially in a single spatial plane, which gives the coil 200 its flat shape.

In accordance with the embodiment of FIG. 2, the coil emits a magnetic field at least perpendicular to the surface of the coil (i.e., out of the page of FIG. 2). The intensity of the magnetic field varies (i.e., is non-uniform) across the coil 200, in a spatial dimension which is parallel to the surface of the coil 200. The variation may be non-linear, in accordance with certain embodiments of the present invention. Therefore, as a biological entity moves within the environment in which the coil 200 is placed, the biological entity experiences the variations of the magnetic field. The variations stimulate the immune system of the biological entity. Typically, the coil 200 is insulated using a non-conducting material such as a plastic, to prevent direct conduction of the electrical currents into the surrounding environment.

FIGS. 3A-3C illustrate various views of an embodiment of the flat coil 200 of FIG. 2, clearly

showing the spacing between the coil turns, in accordance with various aspects of the present invention. The coil 200 shown in FIG. 3A is mounted on a surface 310 (e.g., a plywood board) using plastic clips to secure the wiring of the coil 200.

FIG. 3B shows a curved section of the coil 200 with the spacing 320 between the curved segments being about one inch. FIG. 3C shows a straight section of the coil 200 with the spacing 330 between the straight and parallel segments being about one inch.

FIG. 4 illustrates an exemplary simulated graph 400 of how a magnetic field intensity Bm 401 generated by the coil 200 of FIG. 2 may be expected to vary non-linearly across a spatial dimension 402 of the coil of FIG. 2 (distance across coil), in accordance with various aspects of the present invention. The peak magnetic intensity 403 occurs at the center of the coil 200. It is the configuration of the coil (e.g., shape, dimensions, spacing) that largely determines the shape of the spatially non-uniform magnetic field intensity. For example, the graph 400 of FIG. 4 may represent the variation in magnetic field intensity Bm across the width dimension 240 of the coil 200 and through a first center axis 250 of the coil 200 (see FIG. 2).

FIG. 5 illustrates an exemplary graph 500 of measured data of how a magnetic field intensity 501 generated by the coil 200 of FIGS. 3A-3C varies across three spatial dimensions of the coil 200 of FIGS. 3A-3C, in accordance with various aspects of the present invention. The data set 510 shows the variation in measured magnetic field intensity above (e.g., 18 inches) the coil 200 and across the length dimension 260 of the coil 200 along the axis 265 which includes the physical center point 205 of the coil 200 (see FIG. 2). The coil center 540 is shown on the distance axis 550 in FIG. 5.

The data set 520 shows the variation in measured magnetic field intensity above (e.g., 18 inches) above the coil 200 and across the width dimension 240 of the coil 200 along the axis 250 which includes the physical center point 205 of the coil 200. The data set 530 shows the variation in measured magnetic field intensity above (e.g., 18 inches) the coil 200 and across a diagonal dimension of the coil 200 along the axis 270 which includes the physical center 205 of the coil 200.

The direction of the magnetic field intensities 510, 520, and 530 shown in the graph 500 is perpendicular to the flat surface of the coil 200. The absolute magnitude of the magnetic field intensities is a function of distance away from the surface or plane of the coil. In general, the magnetic field intensity decreases at points further away from the surface or plane of the coil. Notice that the magnetic field intensity 560 at the physical center of the coil is the same for all three data sets 510, 520, and 530 since the center corresponds to the same physical point in all three cases.

For example, if the coil 200 is placed flat and just beneath the bottom surface of a swimming pool (e.g., 1 to 30 inches), the magnetic field intensity 501 of the data sets 510, 520, and 530 will emanate above the coil into the water of the pool. As a swimmer swims through the pool across the coil (e.g., parallel to the surface of the coil), the swimmer will experience the magnetic variations of the magnetic field generated by the coil which stimulate the swimmer's immune system. In accordance with an embodiment of the present invention, the magnetic field is a pulsed magnetic field having a pulsed frequency of between 0.5 and 30 Hertz, and the intensity of the magnetic fields 510, 520, and 530 at a predetermined distance from the surface of the coil (e.g., 18 inches) vary through a range of about 0.5 to 30 Gauss across at least one spatial dimension of the coil 200. The electric current generator may comprise a programmable subsystem (e.g., a programmable logic controller or a computer-

based subsystem such as a personal computer) which may control the frequency and intensity of the current pulses and, therefore, of the magnetic energy pulses.

FIG. 6 is a flowchart of an embodiment of a method 600 to stimulate immune systems of biological entities in an environment, in accordance with various aspects of the present invention. In step 610, at least one arrangement of electrically conductive material is positioned below a surface of an environment (for example, referring to FIG. 1, the coil 16 is positioned below the surface of the aquatic environment 12). In step 620, the at least one arrangement of electrically conductive material is connected to at least one electric current generator to form a closed circuit through the arrangement (for example, referring to FIG. 1, the ends 17 and 19 of the coil 16 are connected to electric terminals of the generator 14). In step 630, a pulsed electrical current is generated with the generator such that the pulsed electrical current propagates through the arrangement from a first end (e.g., end 19 in FIG. 1) of the arrangement to a second end (e.g., end 17 in FIG. 1) of the arrangement, and wherein the arrangement emits pulsed magnetic energy into the environment in response to the pulsed electrical current such that an intensity of the pulsed magnetic energy is non-uniform across at least one spatial dimension of the arrangement (e.g., see the non-uniform magnetic fields of FIGS. 4 and 5) to stimulate the immune systems as the biological entities move within the environment.

FIG. 7 illustrates a second exemplary embodiment of a flat coil 700 used to generate magnetic energy, in accordance with various aspects of the present invention. The coil 700 has a first end 701 and a second end 702 and comprises a first plurality of vertically oriented, parallel straight segments 710 of conductive wire and a second plurality 720 of horizontally oriented, parallel straight segments 720 of conductive wire which are substantially perpendicular to the first plurality of segments. The coil 700 is a continuous wire, winding outward from a central position 730 of the coil 700 in substantially a single spatial plane forming a flat, rectangular coil (i.e., a coil forming a flat, rectangular surface). The coil 700 of FIG. 7 is similar to the coil 200 of FIG. 2 except the curved segments of FIG. 2 are replaced with the straight segments 720 of FIG. 7 and the straight segments 710 are not all of the same length.

Referring now to FIG. 8, there is shown a second exemplary embodiment a system of the present invention, illustrating the application of pulsed magnetic energy to livestock animal pens. In this second embodiment, there is a stock pen 830 which can be used to retain any type of livestock animal or poultry. Further, it should be understood that such a stock pen can be enclosed in buildings or open fields. Electrical wiring 820 extends below the surface and laterally across first stock pen 830 to cover at least a substantial area of stock pen 830. The configuration of the electrical wiring 820 includes a plurality of substantially parallel segments of conductive material (e.g., segments of wiring) forming a flat, substantially rectangular grid. As in the first embodiment 10 of FIG. 1, electrical wiring 820 is comprised of electrical wiring having neutral insulating materials, and is placed under the surface of the selected area at a preferred depth of 1 to 30 inches. Electric current generator 810 generates and transmits pulsed electric currents through electric wiring 820. In accordance with an embodiment of the present invention, the width-to-length ratio of the substantially rectangular grid is between 0.4 and 0.8.

Optionally, this system may also include a water tank 840 for the watering of the animals. An air pump 850 may be used to pump air into the water tank 840 through hose 860. Aeration of water tank 840 by pump 850 increases the oxygen concentration of the water held within

water tank 840.

In the embodiment of FIG. 8, the electrical wiring 820 forms a type of horizontal grid configuration across the stock pen 830. Pulsed current flows from the generator 810 through the various branches of the grid of wiring 820 and back to the generator 810, emitting pulsed magnetic energy (i.e., magnetic fields) into the environment of the stock pen 830. If the stockyard is enclosed, the electric wiring is buried at a depth between 1 and 30 inches within the dirt or other flooring material, such as concrete, for example. Again, a spatially non-uniform magnetic field is generated across the grid. However, the non-uniformity may be substantially different from that shown in FIGS. 4 and 5 due largely to the different configuration of the wiring 820 from that of the coil 200 of FIG. 2. However, a coil of the configuration of that of FIG. 1 or FIG. 2, or other configurations, could be used in the stockyard environment instead.

Now referring to FIG. 9, there is shown a third exemplary embodiment of a system of the present invention illustrating the application of pulsed magnetic energy to a plant bio-system 900, such as a garden. The plant based bio-system may include, for example, a grain plot 910, fruit or other trees 920, plants 930 and/or flowers 940. The plants may either be grown within the ground itself or within planting containers such as pots and the like. The environment 900 may optionally also include a water reservoir 950, which is aerated by hose 960 and air pump 970 to increase the oxygen concentration of the water held within reservoir 950. Pulsed magnetic energy is generated by an electric current generator 980 applying pulsed currents to electric wiring grid 990. Electric wiring grid 990 is positioned to cover at least a substantial portion of environment 900, and is placed below the surface of environment 900, at a depth of 1 to 30 inches. The plants affected by the application of the pulsed magnetic energy exhibit improved physiological effects such as improved and more rapid growth, and better overall health for example.

Shown in FIG. 10 is yet another exemplary embodiment of the present invention, illustrating applying magnetic energy to an athletic playing surface 1000, such as, for example a basketball court, a football field, a soccer field, a swimming pool, playgrounds or other playing surfaces. Electrical wiring 1010 is placed below playing surface 1000 at a preferred depth of between 1 and 30 inches. Electrical current generator 1020 generates and conducts electrical currents through electric wiring 1010 to create and diffuse the resultant magnetic energy throughout playing surface 1000. The magnetic energy is applied to those persons playing or competing on playing surface 1000. Upon application of the magnetic energy, humans may experience higher energy levels for longer periods of time, reduced fatigue, less muscle strain and soreness, in addition to increased concentration and precision in playing the particular sport.

Referring now to FIG. 11, there is shown yet another exemplary embodiment of the present invention, illustrating application of magnetic energy to a golf course hole. This embodiment includes a tee box 1110, a green 1120 and/or optionally a water reservoir 1130. Below tee box 1110 is placed electrical wiring 1140, which is placed at a depth of 1 to 30 inches. Electrical wiring 1150 is also placed below golf green 1120 at a preferred depth of 1 to 30 inches. If water reservoir 1130 is used, electrical wiring 1160 is positioned below the bottom of reservoir 1130 at a depth of 1 to 30 inches for emission of magnetic energy. Air pump 1195 and air hose 1196may optionally be used to pump air into the water reservoir 1130 to increase the oxygen content. Treated water from reservoir 1130 may be used to water the golf course fairways, greens, or other plants associated with the course as to achieve the benefits as

described above in relation to the plant based bio-system embodiment. Electric current generators 1170, 1180 and 1190 produce pulsed electric currents such that magnetic energy is emitted from electrical wiring 1140, 1160, and 1150 respectively. Optionally, a single generator can control the emission of magnetic energy from electrical wiring 1140, 1160, and 1150. As with the above described embodiments, electric current generators 1170, 1180 and 1190 cause magnetic energy to be emitted having magnetic field components about in the range of 0.5 to 30 Gauss, and the frequency range of the pulses is between 0.5 and 30 Hertz.

Effects seen through application of the pulsed magnetic energy to a grass surfaces such as soccer fields, play grounds, football fields, golf greens and tee boxes include more rapid and healthier growth of grass, faster regeneration or repair of divots and ball marks, fewer attacks to these grasses by pests as the grasses are healthier. The human players experience gentle invigoration, increased energy, greater concentration, and less muscle soreness or strain. Increased mental activity and faster healing of wounds has also been noted. Sporting equipment such as golf clubs are not affected by the application of magnetic energy because no sustained electrical current is conducted to the metal portions of the clubs.

In use with any of the above embodiments, the characteristics of the magnetic energy remain the same, that is the magnetic energy having magnetic field components about in the range of 0.5 to 30 Gauss, and the frequency range of the pulses between 0.5 and 30 Hertz. In application of pulsed magnetic energy to humans, the magnetic field strength may be adjusted to vary between 4 to 8 Gauss. The placement of the electrical wiring below the surface of the selected area is adjusted to accommodate these parameters. Further, it is important to note that the spacing and arrangement of the electric wiring in the above described embodiments may be altered to achieve certain desired effects.

FIG. 12 illustrates exemplary resultant current pulses 1210 and 1220 that may be produced in the coil 200 of FIG. 2 when applying an exemplary DC pulsed voltage waveform 1230 to the coil 200 of FIG. 2, in accordance with an embodiment of the present invention. The pulsed voltage waveform 1230 shown in FIG. 12 is a square voltage waveform having a 50% duty cycle. Other duty cycles are possible as well, in accordance with various embodiments of the present invention. The pulsed voltage waveform 1230 is applied to the coil 200 by a generator (e.g., generator 14 of FIG. 1).

The frequency of the pulsed voltage waveform 1230 may be, for example, anywhere between 0.1 Hz and 30 Hz. Depending on the various parameters (e.g., the voltage level, the time constant, the pulsed frequency, etc.) of the system, the resultant pulsed current waveform in the coil may look like that of waveform 1210. Referring to the pulsed current waveform 1210, as the voltage level of the pulsed voltage waveform 1230 increases, the current level in the coil will begin to increase as seen in the segment 1211 of the pulsed current waveform 1210. The curved nature of the rising current level of the segment 1211 is due, at least in part, to the time constant of the system (including the coil) which is determined by inductive, capacitive, and resistive factors of the system. In the pulsed current waveform 1210, the current level rises continuously until the voltage level of the driving pulsed voltage waveform drops off.

When the voltage level of the pulsed voltage waveform 1230 decreases, the current level in the coil will begin to decrease as seen in the segment 1212 of the pulsed current waveform 1210. Again, the curved nature of the falling current level of the segment 1212 is due, at least in part, to the time constant of the system. In the pulsed current waveform 1210, the current

level decreases continuously until the voltage level of the driving pulsed voltage waveform again rises. For example, the peak voltage level of the DC pulsed voltage waveform 1230 may be 80 VDC and the resultant peak current level of the pulsed current waveform 1210 may be 100 amps.

Referring to the pulsed current waveform 1220, as the voltage level of the pulsed voltage waveform 1230 increases, the current level in the coil will begin to increase as seen in the segment 1221 of the pulsed current waveform 1220. Again, the curved nature of the rising current level of the segment 1221 is due, at least in part, to the time constant of the system. In the pulsed current waveform 1220, the current level rises and then flattens off to a peak current level 1222 well before the voltage level of the pulsed voltage waveform drops off. This flattening off tends to occur when the peak voltage level 1231 is relatively low. The lower peak voltage level 1231 means that the current will not build to as high a level as it would with a higher peak voltage level driving the coil. Therefore, the pulsed current waveform 1220 reaches its peak level sooner and stays there.

When the voltage level of the pulsed voltage waveform 1230 decreases, the current level in the coil will begin to decrease as seen in the segment 1223 of the pulsed current waveform 1220. Again, the curved nature of the falling current level of the segment 1223 is due, at least in part, to the time constant of the system. In the pulsed current waveform 1220, the current level decreases to a zero current level 1224 well before the voltage level of the pulsed voltage waveform increases again. Again, this flattening off tends to occur when the peak voltage level 1231 is relatively low. That is, the current level does not have as far to fall since the peak current level was relatively low. Therefore, the current level reaches zero sooner and flattens off. For example, the peak voltage level of the DC pulsed voltage waveform 1230 may be 20 VDC and the resultant peak current level of the pulsed current waveform 1210 may be 10 amps.

FIG. 13 illustrates exemplary resultant current pulses 1310 produced in the coil 200 of FIGS. 3A-3C when applying an exemplary DC pulsed voltage waveform 1320 to the coil 200 of FIGS. 3A-3C, in accordance with an embodiment of the present invention. The pulsed voltage waveform 1320 shown in FIG. 13 is a pseudo-square voltage waveform having a 50% duty cycle. Other duty cycles are possible as well, in accordance with various embodiments of the present invention. The pulsed voltage waveform 1320 tends to droop over the segment 1330 due to the load the coil provides to the generator. Therefore, the pulsed voltage waveform 1320 is not perfectly square.

The frequency of the pulsed voltage waveform 1320 may be, for example, anywhere between 0.1 Hz and 30 Hz. Depending on the various parameters (e.g., the voltage level, the time constant, the pulsed frequency, etc.) of the system, the resultant pulsed current waveform in the coil may look like that of waveform 1310. Referring to the pulsed current waveform 1310, as the voltage level of the pulsed voltage waveform 1320 increases, the current level in the coil will begin to increase as seen in the segment 1311 of the pulsed current waveform 1310. The curved nature of the rising current level of the segment 1311 is due, at least in part, to the time constant of the system (including the coil) which is determined by inductive, capacitive, and resistive factors of the system. In the pulsed current waveform 1310, the current level rises continuously until the voltage level of the driving pulsed voltage waveform begins to droop. There is a time delay, however, between when the voltage level begins to droop and when the current level begins to decrease slightly over the segment 1312.

When the voltage level of the pulsed voltage waveform 1320 drops off, the current level in

the coil will begin to decrease as seen in the segment 1313 of the pulsed current waveform 1310. Again, the curved nature of the falling current level of the segment 1313 is due, at least in part, to the time constant of the system. In the pulsed current waveform 1310, the current level decreases continuously until the voltage level of the driving pulsed voltage waveform again rises.

In accordance with various embodiments of the present invention, the systems described herein may be used by incrementing and/or decrementing the pulsed frequency over time. For example, in accordance with an embodiment of the present invention, the pulsed frequency may start at 0.5 Hz and be incremented every one minute by 0.5 Hz until reaching 28 Hz. Then the pulsed frequency may be decremented from 28 Hz back down to 0.5 Hz at a frequency step of 0.5 Hz every minute. Other methods of varying the pulsed frequency over time are possible as well and may be tailored to certain physiological conditions to be treated by stimulating the immune system.

In summary, a method and systems are disclosed for stimulating the immune systems of biological entities in an environment. A magnetic energy field is generated such that the magnetic energy field varies non-uniformly in intensity across at least one spatial dimension of the environment. The magnetic energy field is generated using an electric current generator which is connected to a coil or other alternate arrangement of conductive material such as wire. The coil or arrangement is typically placed beneath a surface of the environment. The magnetic energy field is pulsed at a predetermined frequency.

While the invention has been described with reference to certain embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings of the invention without departing from its scope. Therefore, it is intended that the invention not be limited to the particular embodiment disclosed, but that the invention will include all embodiments falling within the scope of the appended claims.

# ELECTROMAGNETIC ENERGY ENHANCING GROWTH AND BIOLOGICAL FUNCTION WO2005084746

A system (14,16,18,20) and method of enhancing growth and biological functions of living systems through application of pulsed electromagnetic energy. An Electromagnetic generator (14) connected to electrical wiring (16) wich is placed below the surface of a selected area such as, a garden, stock pen or athletic playing field (24) for emission of electromagnetic energy to plants and animals, including humans.

#### FIELD OF THE INVENTION

The present invention is generally a means to enhance growth and performance of biological systems. More specifically, the present invention is a system and method to enhance physiological performance of organisms through application of pulsed electromagnetic energy.

#### BACKGROUND OF THE INVENTION

Use of electromagnetic energy to increase physiological performance of organisms has long been attempted. However, many of these techniques have been limited to belts, pads or mats which apply magnetic or electromagnetic energy to the person or other organism. Problems inherent in these techniques include the necessity for the organism to wear the belt or pad, and the necessity for a portable power source in order to generate electromagnetic energy.

Furthermore, these techniques do not effect the environment surrounding the organism, nor do they bring the environment and organism into gentle resonance. Accordingly, there is a demand for an apparatus and method of applying pulsed electromagnetic energy to an organism and its surrounding environment that is without the aforementioned disadvantages.

#### SUMMARY OF THE INVENTION

The present invention is an apparatus and method of applying pulsed electromagnetic energy to organisms such as humans or other animals, and to the organism's surrounding environment such as grass and other organisms within this environment. Specifically, electrical wiring which emits pulsed electromagnetic energy, is placed under the surface of the area in which the humans or other organisms are situated. This includes putting wiring in proximity to or under the surface of a variety of environments, such as livestock pens, poultry pens, ponds, garden plots, athletic courts, and golf courses. The system and method of the present invention is used in association with various different organisms or living systems such as humans and other animals, as well as plants, for example.

Electromagnetic energy is then pulsed through the electric wiring and diffused throughout the area surrounding the wiring, including the atmosphere above the surface of the selected area.

As the electromagnetic energy diffuses, it is applied to both the plants and animals within the selected area. The application of the pulsed electromagnetic energy brings these organisms into gentle resonance and enhances biological function and genetic expression of these organisms.

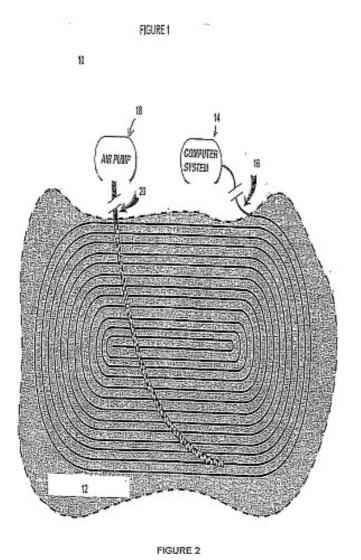
Generally, better health, increased appetite and higher consumption of water, are among the positive effects that have been experienced by participating humans.

#### BRIEF DESCRIPTION OF THE DRAWINGS

- Fig. 1 is a schematic diagram of a first preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to an aquatic bio-system.
- Fig. 2. is a schematic diagram of a second preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to livestock pens.
- Fig. 3 is a schematic diagram of a third preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to a plant bio-system.
- Fig. 4. is a schematic diagram of a fourth preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to a basketball court.

Fig. 5 is a schematic diagram of a fifth preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to a golf course.

Fig 6. is a schematic view of an audio system for use with any embodiment of the present invention.



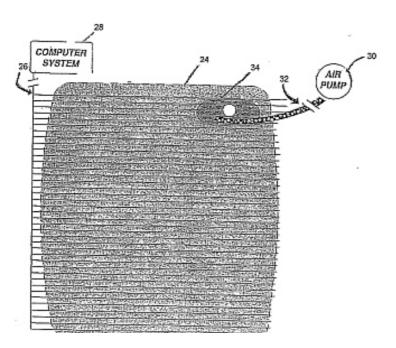


FIGURE 3

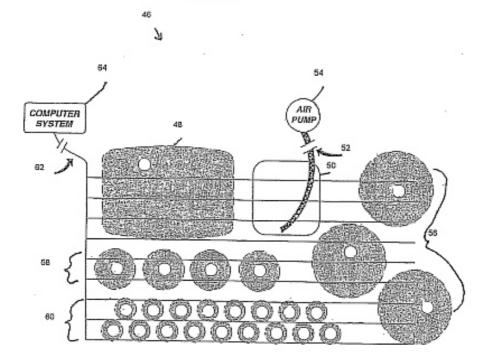


FIGURE 4

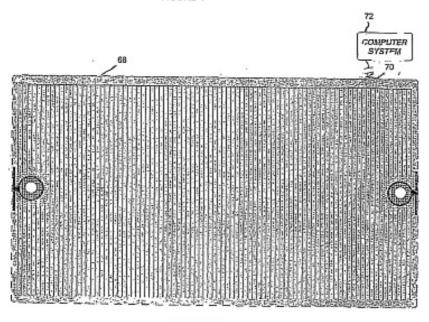
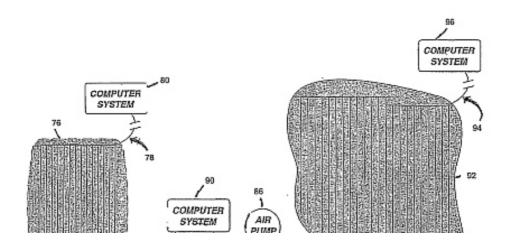


FIGURE 5



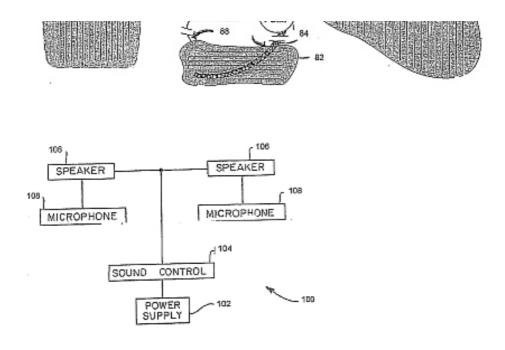


FIGURE 6

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Reference will now be made in detail to the present preferred embodiments of the present invention, examples of which are illustrated in the accompanying drawings.

Whenever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts.

Shown in Fig. 1 is a first preferred embodiment of the present invention. It illustrates the application of pulsed electromagnetic energy to any aquatic setting. Shown generally at 10, this embodiment includes a water reservoir 12, such as an aquarium, pool, pond or other body of water. Below water reservoir 12 is placed electric wiring 16. Although in Fig. 1 electric wiring 16 is shown in a continuous open ended coil of wiring, electric wiring 16 can be positioned in a discontinuous fashion having a main line and a plurality of other lines extending from the main line. The electrical wiring 16 is placed over a substantial area of water reservoir 12, from 1 to 30 inches below the bottom surface of the water reservoir 12 and is insulated from the surrounding elements and cross currents from other cables. If water reservoir 12 has sides, such as in a pool, electric wiring 16 can also be placed behind the surface of the sides of reservoir 12. Electric wiring 16 is insulated by neutral materials, such as plastics, that will insulate electric wiring 16, yet not produce a charge in the surrounding soil or substance. Further, highly shielded electrical wire is not desired as it decreases the capacity of diffusion of the pulsed electromagnetic energy. The pulsed electromagnetic energy is supplied to electric wiring 16, and is controlled by an electromagnetic energy generator 14.

Optionally, an air pump 18 and perforated air hose 20 may be included in the system embodied in Figure 1. Air pump 18 and air hose 20 provide an oxygen source to the water with in reservoir 12, thus, aerating the water and increasing the oxygen concentration of the

water.

In use, pulsed electromagnetic energy is applied to the electric wiring 16 by an electromagnetic energy generator 14. Various electronic components maybe utilized to generate electromagnetic energy for use in this system, such as a computer system or a electromagnetic wave generator for example. Preferably, the electromagnetic energy has a magnetic field component in the range of 0.5 to 30 Gauss, and the frequency range of the pulses between 0.5 and 30 Hertz. Concurrently, air pump 18 pumps air through hose 20 to increase the oxygen concentration of the water. The water in free motion around the air bubbles is energized to a higher state because of the application of the pulsed electromagnetic energy, and thus becomes even more saturated with oxygen.

Application of the electromagnetic energy to reservoir 12 provides for application of electromagnetic energy to both plants and animals situated within the aquatic system. The affected plants and animals exhibit enhanced physiologic effects such as increased growth and overall health for example. Furthermore, the highly oxygenated and energized water can then be utilized for watering plants which are not directly exposed to electromagnetic energy.

Optionally the system and method of the present invention contemplates the sustained or intermittent introduction of acoustic energy into the aquatic setting or the environment of other embodiments of the present invention. Many forms of soothing sounds may provide enhanced benefit but most preferred is the use of symphonic music or sounds, preferably with minimal or no dischord. The introduction of such can be accomplished through a sound system 100 as is schematically illustrated in Fig. 6. Sound system 100 comprises a power supply 102, which may be independent or shared with other systems utilized in the environment, that is operably connected to a sound control panel 104 from which one may control the selection and characteristics of the sounds broadcast by sound system 100 into the surrounding environment of the present invention. Control panel 104 is connected to one or more speakers 106 for broadcasting the generated sound. In aquatic settings underwater speakers are contemplated.

Although not required, one or more microphones 108 for receiving sound from the aquatic setting or other environment is contemplated. Such sounds may be recorded as is known in the art.

Additionally the sustained or intermittent introduction of orgone or radionic energy into the aquatic setting of the environment or other embodiments of the present invention, especially but not necessarily in pulsed form, is contemplated. Such radionic energy is supplied through one or more radionic generators or collectors as are lenown and available in the art. Exposure time and intensity may be varied.

Referring now to Fig. 2, there is shown a second embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to livestock animal pens. In this embodiment, there is a stock pen 24 which can be used to retain any type of livestock animal or poultry. Further, it should be understood that such a stock pen can be enclosed in buildings or open fields. Electrical wiring 26 extends below the surface and laterally across first stock pen 24 to cover at least a substantial area of stock pen 24. As in the first embodiment, electrical wiring 26 is comprised of electrical wiring having neutral insulating materials, and is placed under the surface of the selected area at a preferred depth of 1 to 30 inches. Electromagnetic energy generator 28 generates and transmits electromagnetic energy to

electric wiring 26. Optionally, this system may also include a water tank 34 for watering of the animals. An air pump 30 may be utilized to pump air into the water tank 34 through hose 32. Aeration of water tank 34 by pump 30 increases the oxygen concentration of the water held within water tank 34.

If the stocleyard is enclosed, the electric wiring is buried at a depth between 1 and 30 inches within the dirt or other flooring material, such as concrete, for example.

Now referring to Fig. 3, there is shown a third embodiment of the present invention illustrating the application of electromagnetic energy to a plant bio-system 46, such as a garden.

The plant based bio-system may include, for example, a grain plot 48, fruit or other trees 56, plants 58 and/or flowers 60. The plants may either be grown within the ground itself or within planting containers such as pots and the like. The system 46 may optionally also include a water reservoir 50, which is aerated by hose 52 and air pump 54 to increase the oxygen concentration of the water held within reservoir 50. Electromagnetic energy is generated by an electromagnetic energy generator 64 and applied to system 46 via electric wiring 62. Electric wiring 62 is position to cover at least a substantial portion of system 46, and is placed below the surface of system 46, at a depth of 1 to 30 inches. The plants affected by the application of the electromagnetic energy exhibit improved physiological effects such as improved and more rapid growth, and better overall health for example.

Shown in Fig. 4 is yet another embodiment of the present invention, illustrating applying electromagnetic energy to an athletic playing surface 68, such as, for example a basketball court, a football field, a soccer field, a swimming pool, playgrounds or other playing surfaces.

Electrical wiring 70 is placed below playing surface 68 at a preferred depth of between 1 and 30 inches. Electromagnetic energy generator 72 generates and conducts electromagnetic energy through electric wiring 70 to diffuse the electromagnetic energy throughout playing surface 68.

The electromagnetic energy is applied to those persons playing or competing on playing surface 68. Upon application of the electromagnetic energy, humans experience higher energy levels for longer periods of time, reduced fatigue, less muscle strain and soreness, in addition to increased concentration and precision in playing the particular sport.

Referring now to Fig. 5, there is shown yet another embodiment of the present invention, illustrating application of electromagnetic energy to a golf course hole. This embodiment includes a tee box 76, a green 92 and/or optionally a water reservoir 82. Below tee box 76 is placed electrical wiring 78, which is placed at a depth of 1 to 30 inches. Electrical wiring 94 is also placed below golf green 92 at a preferred depth of 1 to 30 inches. If water reservoir 82 is utilized, electrical wiring 88 is positioned below the bottom of reservoir 82 at a depth of 1 to 30 inches for emission of electromagnetic energy. Treated water from reservoir 82 may be used to water the golf course fairways, greens, or other plants associated with the course as to achieve the benefits as described above in relation to the plant based bio-system embodiment.

Electromagnetic energy generators 80,90 and 96 produce and emit electromagnetic energy through electrical wiring 78,88 and 94 respectively. Optionally, a single electromagnetic generator can control the emission of electromagnetic energy through electrical wiring 78,88

and

94. As with the above described embodiments, electromagnetic energy generators 80,90 and 96 emit electromagnetic energy having a magnetic field component in the range of 0.5 to 30 Gauss, and the frequency range of the pulses between 0.5 and 30 Hertz.

Effects seen through application of the electromagnetic energy to a grass surfaces such as soccer fields, play grounds, football fields, golf greens and tee boxes include more rapid and healthier growth of grass, faster regeneration or repair of divots and ball marks, fewer attacks to these grasses by pests as the grasses are healthier. The human players experience gentle invigoration, increased energy, greater concentration, and less muscle soreness or strain.

Increased mental activity and faster healing of wounds has also been noted.

Sporting equipment such as golf clubs are not affected by the application of electromagnetic energybecause no sustained electrical current is conducted to the metal portions of the clubs.

In use with any of the above embodiments, the characteristics of the electromagnetic energy remain the same, that is electromagnetic energy having a magnetic field component in the range of 0.5 to 30 Gauss, and the frequency range of the pulses between 0.5 and 30 Hertz. The cycling/hertz of the electromagnetic energy is varied slowly during a 24 hour period. In application of pulsed electromagnetic energy to humans, the magnetic field strength is adjusted to be within 4 to 8 Gauss. The placement of the electrical wiring below the surface of the selected area is adjusted to accommodate these parameters. Further, it is important to note that the spacing of the electric wiring in the above described embodiments may be altered to achieve desired effects.

Although the principles, preferred embodiments and preferred operation of the present invention have been described in detail herein, this is not to be construed as being limited to the particular illustrative forms disclosed. They will thus become apparent to those skilled in the art that various modifications of the preferred embodiments herein can be made without departing from the spirit or scope of the invention as defined by the appended claims.

# US6902521 SYSTEM AND METHOD TO ENHANCE GROWTH AND BIOLOGICAL FUNCTION OF LIVING SYSTEMS WITH PULSED ELECTROMAGNETIC ENERGY

#### FIELD OF THE INVENTION

The present invention is generally a means to enhance growth and performance of biological systems. More specifically, the present invention is a system and method to enhance physiological performance of organisms through application of pulsed electromagnetic energy.

#### **BACKGROUND OF THE INVENTION**

Use of electromagnetic energy to increase physiological performance of organisms has long

been attempted. However, many of these techniques have been limited to belts, pads or mats which apply magnetic or electromagnetic energy to the person or other organism. Problems inherent in these techniques include the necessity for the organism to wear the belt or pad, and the necessity for a portable power source in order to generate electromagnetic energy.

Furthermore, these techniques do not effect the environment surrounding the organism, nor do they bring the environment and organism into gentle resonance. Accordingly, there is a demand for an apparatus and method of applying pulsed electromagnetic energy to an organism and its surrounding environment that is without the aforementioned disadvantages.

#### SUMMARY OF THE INVENTION

The present invention is an apparatus and method of applying pulsed electromagnetic energy to organisms such as humans or other animals, and to the organism's surrounding environment such as grass and other organisms within this environment. Specifically, electrical wiring which emits pulsed electromagnetic energy, is placed under the surface of the area in which the humans or other organisms are situated. This includes putting wiring in proximity to or under the surface of a variety of environments, such as livestock pens, poultry pens, ponds, garden plots, athletic courts, and golf courses. The system and method of the present invention is

used in association with various different organisms or living systems such as humans and other animals, as well as plants, for example.

Electromagnetic energy is then pulsed through the electric wiring and diffused throughout the area surrounding the wiring, including the atmosphere above the surface of the selected area.

As the electromagnetic energy diffuses, it is applied to both the plants and animals within the selected area. The application of the pulsed electromagnetic energy brings these organisms into gentle resonance and enhances biological function and genetic expression of these organisms.

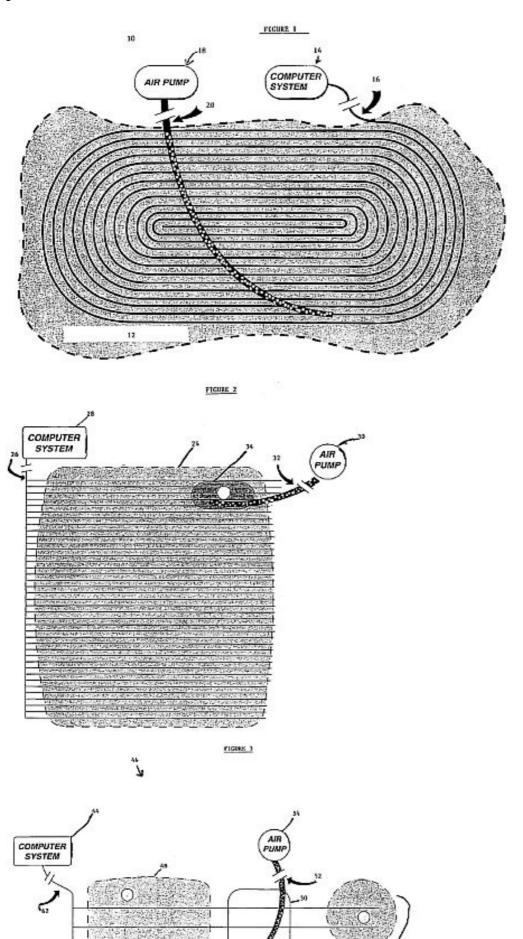
Generally, better health, increased appetite and higher consumption of water, are among the positive effects that have been experienced by participating humans.

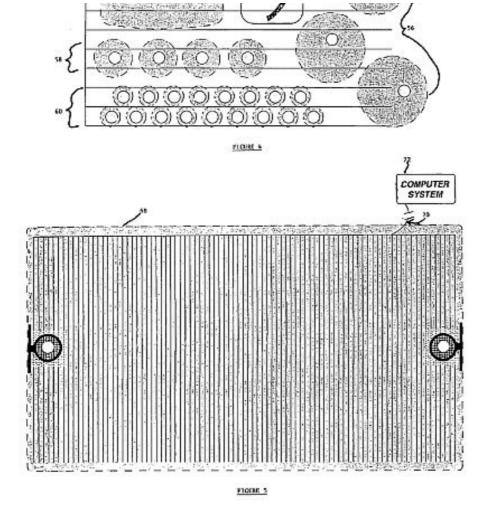
#### BRIEF DESCRIPTION OF THE DRAWINGS

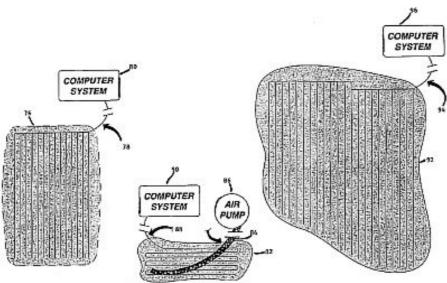
- Fig. 1 is a schematic diagram of a first preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to an aquatic bio-system.
- Fig. 2. is a schematic diagram of a second preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to livestock pens.
- Fig. 3 is a schematic diagram of a third preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to a plant bio-system.
- Fig. 4. is a schematic diagram of a fourth preferred embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to a basketball court.
- Fig. 5 is a schematic diagram of a fifth preferred embodiment of the present invention,

illustrating the application of pulsed electromagnetic energy to a golf course.

Fig 6. is a schematic view of an audio system for use with any embodiment of the present invention.







## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Reference will now be made in detail to the present preferred embodiments of the present invention, examples of which are illustrated in the accompanying drawings.

Whenever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts.

Shown in Fig. 1 is a first preferred embodiment of the present invention. It illustrates the application of pulsed electromagnetic energy to any aquatic setting. Shown generally at 10, this embodiment includes a water reservoir 12, such as an aquarium, pool, pond or other body of water. Below water reservoir 12 is placed electric wiring 16. Although in Fig. 1 electric wiring 16 is shown in a continuous open ended coil of wiring, electric wiring 16 can be positioned in a discontinuous fashion having a main line and a plurality of other lines extending from the main line. The electrical wiring 16 is placed over a substantial area of water reservoir 12, from 1 to 30 inches below the bottom surface of the water reservoir 12 and is insulated from the surrounding elements and cross currents from other cables. If water reservoir 12 has sides, such as in a pool, electric wiring 16 can also be placed behind the surface of the sides of reservoir 12. Electric wiring 16 is insulated by neutral materials, such as plastics, that will insulate electric wiring 16, yet not produce a charge in the surrounding soil or substance. Further, highly shielded electrical wire is not desired as it decreases the capacity of diffusion of the pulsed electromagnetic energy. The pulsed electromagnetic energy is supplied to electric wiring 16, and is controlled by an electromagnetic energy generator 14.

Optionally, an air pump 18 and perforated air hose 20 may be included in the system embodied in Figure 1. Air pump 18 and air hose 20 provide an oxygen source to the water with in reservoir 12, thus, aerating the water and increasing the oxygen concentration of the water.

In use, pulsed electromagnetic energy is applied to the electric wiring 16 by an electromagnetic energy generator 14. Various electronic components maybe utilized to generate electromagnetic energy for use in this system, such as a computer system or a electromagnetic wave generator for example. Preferably, the electromagnetic energy has a magnetic field component in the range of 0.5 to 30 Gauss, and the frequency range of the pulses between 0.5 and 30 Hertz. Concurrently, air pump 18 pumps air through hose 20 to increase the oxygen concentration of the water. The water in free motion around the air bubbles is energized to a higher state because of the application of the pulsed electromagnetic energy, and thus becomes even more saturated with oxygen.

Application of the electromagnetic energy to reservoir 12 provides for application of electromagnetic energy to both plants and animals situated within the aquatic system. The affected plants and animals exhibit enhanced physiologic effects such as increased growth and overall health for example. Furthermore, the highly oxygenated and energized water can then be utilized for watering plants which are not directly exposed to electromagnetic energy.

Optionally the system and method of the present invention contemplates the sustained or intermittent introduction of acoustic energy into the aquatic setting or the environment of other embodiments of the present invention. Many forms of soothing sounds may provide enhanced benefit but most preferred is the use of symphonic music or sounds, preferably with minimal or no dischord. The introduction of such can be accomplished through a sound system 100 as is schematically illustrated in Fig. 6. Sound system 100 comprises a power supply 102, which may be independent or shared with other systems utilized in the environment, that is operably connected to a sound control panel 104 from which one may control the selection and characteristics of the sounds broadcast by sound system 100 into the surrounding environment of the present invention. Control panel 104 is connected to one or more speakers 106 for broadcasting the generated sound. In aquatic settings underwater speakers are contemplated.

Although not required, one or more microphones 108 for receiving sound from the aquatic setting or other environment is contemplated. Such sounds may be recorded as is known in the art.

Additionally the sustained or intermittent introduction of orgone or radionic energy into the aquatic setting of the environment or other embodiments of the present invention, especially but not necessarily in pulsed form, is contemplated. Such radionic energy is supplied through one or more radionic generators or collectors as are lenown and available in the art. Exposure time and intensity may be varied.

Referring now to Fig. 2, there is shown a second embodiment of the present invention, illustrating the application of pulsed electromagnetic energy to livestock animal pens. In this embodiment, there is a stock pen 24 which can be used to retain any type of livestock animal or poultry. Further, it should be understood that such a stock pen can be enclosed in buildings or open fields. Electrical wiring 26 extends below the surface and laterally across first stock pen 24 to cover at least a substantial area of stock pen 24. As in the first embodiment, electrical wiring 26 is comprised of electrical wiring having neutral insulating materials, and is placed under the surface of the selected area at a preferred depth of 1 to 30 inches. Electromagnetic energy generator 28 generates and transmits electromagnetic energy to electric wiring 26. Optionally, this system may also include a water tank 34 for watering of the animals. An air pump 30 may be utilized to pump air into the water tank 34 through hose 32. Aeration of water tank 34 by pump 30 increases the oxygen concentration of the water held within water tank 34.

If the stockyard is enclosed, the electric wiring is buried at a depth between 1 and 30 inches within the dirt or other flooring material, such as concrete, for example.

Now referring to Fig. 3, there is shown a third embodiment of the present invention illustrating the application of electromagnetic energy to a plant bio-system 46, such as a garden.

The plant based bio-system may include, for example, a grain plot 48, fruit or other trees 56, plants 58 and/or flowers 60. The plants may either be grown within the ground itself or within planting containers such as pots and the like. The system 46 may optionally also include a water reservoir 50, which is aerated by hose 52 and air pump 54 to increase the oxygen concentration of the water held within reservoir 50. Electromagnetic energy is generated by an electromagnetic energy generator 64 and applied to system 46 via electric wiring 62. Electric wiring 62 is position to cover at least a substantial portion of system 46, and is placed below the surface of system 46, at a depth of 1 to 30 inches. The plants affected by the application of the electromagnetic energy exhibit improved physiological effects such as improved and more rapid growth, and better overall health for example.

Shown in Fig. 4 is yet another embodiment of the present invention, illustrating applying electromagnetic energy to an athletic playing surface 68, such as, for example a basketball court, a football field, a soccer field, a swimming pool, playgrounds or other playing surfaces.

Electrical wiring 70 is placed below playing surface 68 at a preferred depth of between 1 and 30 inches. Electromagnetic energy generator 72 generates and conducts electromagnetic energy through electric wiring 70 to diffuse the electromagnetic energy throughout playing surface 68.

The electromagnetic energy is applied to those persons playing or competing on playing surface 68. Upon application of the electromagnetic energy, humans experience higher energy levels for longer periods of time, reduced fatigue, less muscle strain and soreness, in addition to increased concentration and precision in playing the particular sport.

Referring now to Fig. 5, there is shown yet another embodiment of the present invention, illustrating application of electromagnetic energy to a golf course hole. This embodiment includes a tee box 76, a green 92 and/or optionally a water reservoir 82. Below tee box 76 is placed electrical wiring 78, which is placed at a depth of 1 to 30 inches. Electrical wiring 94 is also placed below golf green 92 at a preferred depth of 1 to 30 inches. If water reservoir 82 is utilized, electrical wiring 88 is positioned below the bottom of reservoir 82 at a depth of 1 to 30 inches for emission of electromagnetic energy. Treated water from reservoir 82 may be used to water the golf course fairways, greens, or other plants associated with the course as to achieve the benefits as described above in relation to the plant based bio-system embodiment.

Electromagnetic energy generators 80,90 and 96 produce and emit electromagnetic energy through electrical wiring 78,88 and 94 respectively. Optionally, a single electromagnetic generator can control the emission of electromagnetic energy through electrical wiring 78,88 and 94. As with the above described embodiments, electromagnetic energy generators 80,90 and 96 emit electromagnetic energy having a magnetic field component in the range of 0.5 to 30 Gauss, and the frequency range of the pulses between 0.5 and 30 Hertz.

Effects seen through application of the electromagnetic energy to a grass surfaces such as soccer fields, play grounds, football fields, golf greens and tee boxes include more rapid and healthier growth of grass, faster regeneration or repair of divots and ball marks, fewer attacks to these grasses by pests as the grasses are healthier. The human players experience gentle invigoration, increased energy, greater concentration, and less muscle soreness or strain.

Increased mental activity and faster healing of wounds has also been noted.

Sporting equipment such as golf clubs are not affected by the application of electromagnetic energy because no sustained electrical current is conducted to the metal portions of the clubs.

In use with any of the above embodiments, the characteristics of the electromagnetic energy remain the same, that is electromagnetic energy having a magnetic field component in the range of 0.5 to 30 Gauss, and the frequency range of the pulses between 0.5 and 30 Hertz. The cycling/hertz of the electromagnetic energy is varied slowly during a 24 hour period. In application of pulsed electromagnetic energy to humans, the magnetic field strength is adjusted to be within 4 to 8 Gauss. The placement of the electrical wiring below the surface of the selected area is adjusted to accommodate these parameters. Further, it is important to note that the spacing of the electric wiring in the above described embodiments may be altered to achieve desired effects.

Although the principles, preferred embodiments and preferred operation of the present invention have been described in detail herein, this is not to be construed as being limited to the particular illustrative forms disclosed. They will thus become apparent to those skilled in the art that various modifications of the preferred embodiments herein can be made without departing from the spirit or scope of the invention as defined by the appended claims.

#### YouTube Videos

www.youtube.com/watch?v=AzvytVTHOmA?

www.creationevidence.org ... Hard Questions fo

www.youtube.com/watch?v=AjheQjMwHJA?

www.youtube.com/watch?v=mAUR-jyIVm8?

www.youtube.com/watch?v=h5c9yKhGewk?

www.youtube.com/playlist?list=PLD1E0A4EFA11EB0EC?

www.youtube.com/watch?v=ghh2sM6IjUQ?

www.youtube.com/watch?v=8xL6sibLb6o?

www.youtube.com/watch?v=9M7W0TuTFzI?

www.youtube.com/playlist?list=PLD1E0A4EFA11EB0EC.

www.youtube.com/watch?v=Rk5fd5Cy z4?

http://en.wikipedia.org/wiki/Carl\_Baugh

# Carl Baugh

Born Carl Edward Baugh October 21, 1936 (age 77) Kenedy, Texas, USA

Carl Edward Baugh (born October 21, 1936) is an American young earth creationist. Along with others, Baugh claims to have discovered human footprints alongside dinosaur footprints near the Paluxy River in Texas, but never provided evidence for his alleged findings.[1][2][3] Baugh is a national television host, purporting to present science supporting creationism on the program Creation in the 21st Century on the Trinity Broadcasting Network. His claims have been debunked by the scientific community and other creationists as pseudoscience.[4] His educational credentials have also been called into question.[5] He was also the president and a graduate of Pacific International University, an unaccredited university located in Springfield, Missouri.

### **Biography**

Born in Kenedy, Texas, Baugh graduated in 1955 from Abilene High School in Abilene, Texas[citation needed]. He currently appears on Trinity Broadcasting Network program Creation in the 21st Century.[6] Baugh was also the president and a graduate of the Pacific

International University, which was a non-accredited organisation.[7][8]

In 1984, Baugh started the Creation Evidence Museum in a double-wide trailer in Glen Rose, Texas, near Dinosaur Valley State Park, to promote creationism.[4] All of the museum exhibits have been strongly criticized as incorrectly identified dinosaur prints, other fossils, or outright forgeries.[9][10] In 2008, a descendant of a family that found many original Paluxy River dinosaur tracks in the 1930s claimed that her grandfather had faked many of them.[11] Others, such as purported dinosaur claws, were identified by University of Texas at Austin paleontologist Wann Langston as crocodile teeth.[12]

In 1996, Baugh presented his "man-tracks" in the controversial program The Mysterious Origins of Man.[13] Creationist Ken Ham, of Answers in Genesis, criticized the claims in a review titled "Hollywood's 'Moses' Undermines Genesis," regarding Baugh: "According to leading creationist researchers, this evidence is open to much debate and needs much more intensive research. One wonders how much of the information in the program can really be trusted!"[14] He also has been given television exposure by the tele-evangelist Kenneth Copeland. He has authored several self-published books[4] on such topics as the age of the universe, dinosaurs coexisting with humans and critiques of evolution.[15]

In 2001 Baugh and Creation Evidence Museum were featured on The Daily Show where Baugh likened human history to The Flintstones and the show poked fun at his claims about the hyperbaric biosphere, pterodactyl expeditions, and dinosaurs.[16]

He is a promoter of intelligent design. In 2002 he appeared with William A. Dembski at a conference in Texas and has built his more recent web material around ID and Dembski.[17]

The Accelerated Christian Education schools teach his theories as fact in some of their High School science workbooks.

#### Claims and criticism

Both scientists and creationists have criticized Baugh's claims. In 1982–1984, several scientists, including J.R. Cole, L.R. Godfrey, R.J. Hastings, and S.D. Schafersman, examined Baugh's purported "mantracks" as well as others provided by creationists in the Glen Rose Formation.[12] In the course of the examination "Baugh contradicted his own earlier reports of the locations of key discoveries" and many of the supposed prints "lacked human characteristics."[12] After a three-year investigation of the tracks and Baugh's specimens, the scientists concluded there was no evidence of any of Baugh's claims or any "dinosaur-man tracks".[12]

On September 27, 1984, Al West, a Baugh co-worker for two years, who followed the mantrack claims since 1974, and friend of Glen Kuban, publicly announced that Baugh "never had evidence for manprints as claimed.[12] Gayle Golden, writer for The Dallas Morning News, reported that Baugh "paid \$10,000 for his Moab skeleton and confirmed that Baugh knew at their purchase that the bones had already been dated at 200-300 years. However Baugh later claimed that the bones were found in Cretaceous deposits."[12]

One of Baugh's more famous claims, aside from the dinosaur tracks, is an alleged out of place artifact of an "18th century miner's hammer" found in million-year-old Ordovician rock (he has also claimed it is in Cretaceous rock) found in 1934 from London, Texas.[18][19] Baugh

asserted this as evidence against scientifically known ways that rocks form.[18] However, laboratory tests discounted his claim about the hammer's being formed in the rock.[18][19] J.R. Cole wrote, "The stone concretion is real, and it looks impressive to someone unfamiliar with geological processes. How could a modern artifact be stuck in Ordovician rock? The answer is that the concretion itself is not Ordovician. Minerals in solution can harden around an intrusive object dropped in a crack or simply left on the ground if the source rock (in this case, reportedly Ordovician) is chemically soluble."[20]

In July 2008, Baugh was in contact with Alvis Delk and James Bishop, who claimed to have found a dinosaur-human print fossil.[21] Baugh bought the "fossil" from Delk who used the money to pay his medical bills.[22] On the authenticity of the claims, reporter Bud Kennedy noted, "since no scientists were involved, about all we really know so far is that the museum has a new rock."[23] This was deemed "not a convincing human footprint in ancient rock" by biologist Glen J. Kuban and called a "blatant fake" by biologist PZ Myers.[24]

Creationist organizations such as Answers in Genesis have criticized Baugh's claims saying he "muddied the water for many Christians. . . . People are being misled."[4] Don Batten, of Creation Ministries International wrote: "Some Christians will try to use Baugh's 'evidences' in witnessing and get 'shot down' by someone who is scientifically literate. The ones witnessed to will thereafter be wary of all creation evidences and even more inclined to dismiss Christians as nut cases not worth listening to."[25] Answers in Genesis (AiG) lists the "Paluxy tracks" as arguments "we think creationists should NOT use" [emphasis in original]. [26] Also Answers In Creation reviewed Baugh's museum and concluded "the main artifacts they claim show a young earth reveal that they are deceptions, and in many cases, not even clever ones."[27]

In his 1992 book Panorama of Creation, Baugh claims that a layer of metallic hydrogen surrounded the early earth. Furthermore, he professes that hexagonal water, or, "Creation water" as he calls it, is capable of healing. Such claims have been addressed by scientists as pseudoscience,[8] and his hypotheses and credentials are not accepted in academia.

Baugh has claimed several college degrees, at one point professing to earning three doctorates, when no evidence exists that he even graduated from high school.[28] All three "doctorates" are from unaccredited "schools." One is an honorary "Doctor of Philosophy in Theology" from the non-accredited California Graduate School of Theology. His claimed 1989 "doctorate" and masters degrees in Archaeology come from the non-accredited Pacific International University, of which Baugh was also the president.[28] His dissertation titled "Academic Justification for Voluntary Inclusion of Scientific Creation in Public Classroom Curricula, Supported by Evidence that Man and Dinosaurs Were Contemporary" was reviewed by Brett Vickers who criticized its "descriptions of his field-work on the Paluxy river 'man-tracks', speculation about Charles Darwin's religious beliefs and phobias, and biblical evidence of Adam's mental excellence."[29] In 2005, Baugh claimed to have completed yet another doctorate in theology from the unaccredited diploma mill known as Louisiana Baptist University.[30]

# **Bibliography**

Dinosaur Promise Publishing (paperback) — 1987, 152 pages, ISBN 0-939497-01-8

Panorama of Creation Hearthstone Publishing, Ltd. (paperback) — 1992, 91 pages, ISBN 1-

Jurassic Park: Fact Vs. Fiction (with Bill Uselton) Hearthstone Publishing, Ltd. (paperback) — 1993, 30 pages, ISBN 1-879366-35-5

Footprints and the Stones of Time (with Clifford Wilson) Hearthstone Publishing, Ltd. (paperback) — 1994, 162 pages, ISBN 1-879366-17-7

Why Do Men Believe Evolution Against All Odds? Hearthstone Publishing, Ltd. (hardcover) — 1999, 160 pages, ISBN 1-57558-049-7

#### **Footnotes**

May, David (2008-07-28). "Rock-solid proof?". Mineral Wells Index. Retrieved 2008-09-21.

Stromberg, Pierre; Paul V Heinrich (2008). "The Coso Artifact: Mystery From the Depths of Time?". National Center for Science Education. Retrieved 2008-09-21.

"Indiana Legislation Contemplating ID?". National Center for Science Education. November 5, 2005.

"Footprints of Fantasy", by Kaylois Henry, Dallas Observer, December 12, 1996. Retrieved August 15, 2008.

"Creationism Alive and Kicking in Glen Rose", by Greg Beets, August 5, 2005, Austin Chronicle.

"Carl Baugh: Creation in the 21st Century". Trinity Broadcasting Network. 2008. Retrieved 2007-02-19.

George Brown. Protecting Australia's Higher Education System from Australian Universities Quality Agency

A Matter of Degree-Carl Baugh's Alleged Credentials from talk.origins (Originally published in NCSE Reports Vol 9, No. 6, Nov–December 1989.)

"Seeking Ancient Paths", John R. Armstrong, PSCF 41 (March 1989): 33-35, American Scientific Affiliation. Retrieved August 15, 2008.

"The Rise and Fall of the Paluxy Mantracks", by Ronnie J. Hastings, PSCF 40 (September 1988): 144-154. American Scientific Affiliation. Retrieved August 15, 2008.

"Human footprints along with dinosaur tracks?", by Bud Kennedy, August 10, 2008, Fort Worth Star-Telegram.

"Creation/Evolution". National Center for Science Education. Issue 15 (Volume 5, Number 1 — Winter 1985). Retrieved 2007-02-19.

"A Review of NBC's 'The Mysterious Origins of Man'", 1996, Glen J. Kuban. Retrieved August 15, 2008.

Thomas, Dave (March 1996). "NBC's Origins Show". Committee for Skeptical Inquiry. Retrieved 2007-02-19.

Greg Neyman. Creation Science Exposed: Creation Evidence Museum Lacks Evidence!. Answers in Creation.

"Tyrannosaurus Redux". The Daily Show. November 14, 2001. Retrieved 2007-02-19.

Barbara Forrest and Paul R. Gross. Creationism's Trojan Horse: The Wedge of Intelligent Design. 2004, page 293

"If I Had a Hammer". National Center for Science Education. Issue 15 (Volume 5, Number 1 — Winter 1985). Retrieved 2007-02-19.

"The London Hammer: An Alleged Out-of-Place Artifact". The Paluxy Dinosaur/"Man Track" Controversy. 14 July 2006.

Cole, J. R. 1985. "If I had a Hammer" Creation/Evolution, Issue XV, pp.46–47

Baugh, Carl (2008). "Alvis Delk Cretaceous Footprint". Creation Evidence Museum.

"One step at a time". Mineral Wells Index. August 11, 2008.

"Human footprints along with dinosaur tracks?". Star-Telegram. August 10, 2008.

"Transparent fakery". Pharyngula (blog). July 28, 2008.

"What About Carl Baugh?". Creation Ministries International. 1998.

"Arguments we think creationists should NOT use". Answers In Genesis. 2008.

Neyman, Greg (2008). "Review of Carl Baugh's Museum". Answers In Creation.

Matter of Degree: Carl Baugh's Alleged Credentials by Glen J. Kuban, NCSE Reports Vol 9, No. 6, Nov-December 1989. (Updated August 2006)

Vickers, Brett (May 31, 2002). "Some Questionable Creationist Credentials". talk.origins.

Tobia, P.J. "Reading, Writing and Jesus: What nearby schools don't know about the Bible class they soon may be teaching", Nashville Scene, October 19, 2006.

#### **External links**

Creation Evidence Museum Baugh's official website http://www.creationevidence.org/

Baugh's "doctoral dissertation" from Archive.org http://web.archive.org/web/\*/http://www.drcarlbaugh.org/

Analysis of Baugh's Dinosaur Tracks, National Center for Science Education Issue 15

(Volume 5, Number 1 — Winter 1985). http://ncse.com/cej/5/1

A Matter of Degree: Carl Baugh's Alleged Credentials by Glen J. Kuban, NCSE Reports Vol 9, No. 6, Nov–December 1989. (Updated August 2006) http://paleo.cc/paluxy/degrees.htm

What About Carl Baugh? by Dr Don Batten, of Creation Ministries International http://paleo.cc/paluxy/whatbau.htm

Cretinism or Evilution? No. 3 from talk.origins http://talkorigins.org/faqs/ce/3/part2.html

What about Carl Baugh? talk.origins http://www.talkorigins.org/faqs/paluxy/whatbau.html