2029192

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

May 15, 2018

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: ***62/661,878***
FILING DATE: ***April 24, 2018***

THE COUNTRY CODE AND NUMBER OF YOUR PRIORITY APPLICATION, TO BE USED FOR FILING ABROAD UNDER THE PARIS CONVENTION, IS ***US62/661,878***

UNITED STATES PATENT AND TRADEMARK OFFICE
DEPARTMENT OF COMMERCE

Certified by

Andrei Iancu

Under Secretary of Commerce
for Intellectual Property
and Director of the United States
Patent and Trademark Office

SELF-POWERED MOTOR AND GENERATOR

INVENTOR JONATHAN BANNON MAHER

TECHNICAL FIELD

[0001] Embodiments of the invention relate to the fields of motors, generators, physics, engineering, and programming.

ABSTRACT

[0002] Systems, methods, apparatuses, and in some embodiments computer programs encoded on a computer storage medium, provide for clean continuous portable self-powered energy generation and propulsion, consistent with the laws of physics, by in some embodiments, including one complete embodiment, utilizing buoyancy which causes an object in a fluid to rise if the weight of the object is less than to the weight of the volume of the fluid it displaces, where after a buoyant weight ascends to the top of a fluid container, it is pushed into an open air compartment attached to a rotatable chain, and then descends under the force of gravity, providing rotational force through the chain to power an electricity generator, and or rotate an axle to provide the propulsion of a traditional motor, with the buoyant weight reentering the fluid container through a compartment at the bottom, where to not have to displace the weight of all the fluid in the container, the bottom compartment is first sealed off from the top compartment of the liquid container, and the buoyant weight, with the assistance of a support weight, uses gravity when entering the bottom compartment, through a sealable entry door designed to prevent or minimize leakage, by entering at an angle to push fluid in the bottom compartment through a pipe back to the top of the fluid container, then the bottom compartment is unsealed to allow the buoyant weight to ascend to repeat the cycle, where energy is captured in excess of that consumed as a result of the differential between the lack of force required for the buoyant weight to ascend and the energy captured from the force provided by gravity as the buoyant weight descend. The invention permanently solves global warming, provides reduced cost of living to alleviate poverty, provides unlimited clean energy for evaporated water purification and atmospheric carbon dioxide splitting, and eliminates the need for every other method of energy production, including nuclear technology – thus reducing nuclear weapons technology proliferation.

REFERENCE TO RELATED DOCUMENTS

[0003] This application is provided the benefit and priority date of United States Patent and Trademark Office provisional patent application 62/661,034, filed April 22nd 2018 by inventor Jonathan Bannon Maher, which is incorporated herein in its entirety.

BACKGROUND

[0004] The majority of the proceeds from the licensing of this patent will be going to causes that support the well being of humanity, and your support in ensuring the patent is forever in every way as strong as possible, will be providing a service to all the world.

[0005] This section is intended to introduce the reader to various aspects of the art that may be related to various aspects of the present techniques, which are described and or claimed. This discussion is believed to be helpful in providing the reader with background information to facilitate a better understanding of the various aspects of the present disclosure. Accordingly, it is understood that these statements are to be read in this light, and not a citation of any prior art.

[0006] Patent filings on structurally differentiated and fundamentally deficient disclosures may exist that may attempt to claim any invention that is self-powered, based on previously publicly known failed attempts to build such devices, however any such disclosures do not enable the purported inventions, with overly broad claims not supported by the disclosure that also fail to distinctly claim the invention, and any such patent filings are inherently invalidated by prior public disclosure, the enablement requirement, and the claims support requirement.

[0007] Known and proposed energy production, transmission, and storage systems have some or all of the following deficiencies:

[0008] 1. External fuel source required: an external fuel source is utilized such as oil, gas, coal, wind, sun, water currents, geothermal heat, hydrogen, or uranium, where the cost of providing fuel in the form of electricity or gasoline to a vehicle over its useful life potentially exceeds the cost of the vehicle, and about a quarter of airline costs are from fuel.

[0009] 2. Environmentally unfriendly: nuclear energy production, including fission, fusion, and cold (LENR), results in toxic waste and or materials, geothermal often circulates contaminants from the ground, fracking creates toxic water, hydroelectric dams decompose organic matter producing the potent global warming gas methane, solar panel manufacturing often releases toxic byproducts including greenhouse gases far more potent and long lived than those from fossil fuels, hydrogen takes substantially more energy to produce and transport than it provides, while clean energy sources may utilize slowly degrading flammable toxic batteries to store energy for when the sun is not shining, wind is not blowing, or water is not adequately flowing.

[0010] 3. Intermittent: wind, solar, and traditional water energy systems provide variable output, with average output often found to be around 20% of rated output, as a result of environmental conditions, meaning a 5 kilowatt system typically produces average output of only 1 kilowatt.

[0011] 4. Not portable: solar panels can only function in the sun, wind turbines in wind, water turbines in water currents, nuclear in a stable highly controlled environment, and carbon with the aid of an emissions pipe.

[0012] 5. Extremely expensive transmission costs: power lines are required for all forms of nuclear energy, including fission, fusion and cold, for farms of solar, wind, and water, and for fossil fuels plants, while pipelines are generally required for oil and gas, including natural gas, which is principally methane, a greenhouse gas more than twenty times more potent than carbon dioxide that may be leaked during extraction, transport, and consumption. Power line and fossil fuel pipe line cost of installation per 1 mile (1.6 kilometers) has been found to be up to around 20 times the average annual income in the United States, and lines must be replaced every 30 to 50 years, so in the United States alone, with 300 thousand miles (480 thousand kilometers) of power lines, and 200 thousand miles (320 thousand kilometers) of pipelines, replacement would require an expenditure around 25 times the national debt, passed on to consumers, and dragging down the economy, with every other developed nation in a similar situation. Power lines require environmental destruction during installation, leave visible blight, are forever vulnerable to cyber attacks, transmit power from central sites that are inherently more prone to failure and blackout than a decentralized system, dissipate power during transmission, with high voltage power lines having health consequences for those living nearby.

[0013] 6. High initial costs: in addition to previously cited expense of power lines, fossil fuel pipes, and ongoing fuel costs, clean energy farms require an allocation of land, and degrading batteries requiring periodic replacement, which is why tax credits are often required for clean energy systems to be affordable. In addition to those factors, comparing a 1 kilowatt rated clean energy system to a 1 kilowatt rated traditional system, may require multiplying the cost of the clean energy system by approximately 10 times, 5 times to account for enough electricity generation to be stored for the equivalent continuous output, and 5 times for the battery storage.

[0014] 7. Vulnerable to weather: wind turbines, hydroelectric dams, and solar panels, can be made ineffective by environmental conditions such as freezing temperatures, snow, and rain, and similar to power lines, may be taken down by extreme weather and lightning strikes.

[0015] 8. Vulnerable to black outs: power transmitted over power lines creates vulnerability for critical facilities such as hospitals and data centers.

[0016] 9. Vulnerable to cyber attack: utility scale energy systems often require a hackable computer to operate, and are therefore forever vulnerable to computer viruses able to take down and or destroy nuclear power plants and the electrical grid, even if such systems aren't connected to the Internet, as demonstrated by the Stuxnet virus.

[0017] 10. Causes deaths: plants, rigs, and pipes, for current and proposed forms of nuclear, hydrogen, gas, and oil energy can explode, and coal mines can collapse, while wildlife is killed by wind, ocean, wave, and river turbines, hydroelectric dams, solar condensers, solar panel and battery manufacturing byproducts, and nuclear waste.

[0018] 11. Encourage nuclear weapon proliferation: fission, fusion, and cold (LENR) nuclear energy are or can be one step from weaponizable, while hydrogen can be obtained by a terrorist at a hydrogen fuel station to create a powerful compressed hydrogen explosion, as verified by reviewing a video of a balloon filled with hydrogen being lit on fire. Fusion is particularly disturbing, as a fusion weapon could be created with the power of an exploding star, able to take out the planet, and resulting in an extinction level event for humans, a scenario even more likely when considering increasingly autonomous – and therefore inevitably hackable by individuals – weapons control.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] Illustrations are presented by way of example, and not by way of limitation, where some embodiments may not contain all components, may contain additional components, and may contain functionally similar components.

[0020] FIG. 1 is an illustration of an example of embodiment of the invention, which utilizes the buoyancy of a fluid to lift a buoyant weight, which upon reaching the top is pushed into to an open air compartment where it descends to rotate a chain connected to provide rotational force to an electricity generator axle to generate electricity and or to rotate or function as a motor axle, and with the buoyant weight then entering the bottom of the liquid container to repeat the cycle.

[0021] FIG. 1A is an illustration of an example of an embodiment of a segment of the compartmented chain utilized in FIG. 1.

[0022] FIG. 2 is an illustration of an example of embodiment of the threaded circular disc partition system which may be used to seal the bottom compartment.

DETAILED DESCRIPTION

[0023] The disclosure is related to the field of clean continuous portable self-powered energy and propulsion. It is understood that any reference to a person skilled in the art, recognizes that at the time of filing, there is no one else skilled in the art of this particular field, or a closely related field. Given the extraordinary nature of the disclosure, regardless of how full, clear, concise and exact the disclosure in enabling the production and use of embodiments of the disclosure, what could be construed to be undue experimentation during production and use, is simply the ordinary effort required in the assembly and use of an embodiment of such a disclosure.

[0024] It is understood that, as in any engineering or design project, the development of any actual implementation will include numerous implementation specific decisions made to achieve the developers' specific goals, such as compliance with business related and system related constraints, which may vary from one implementation to another. It is understood that such a development effort might be complex and time consuming, but is nevertheless a routine undertaking of design, fabrication, and manufacture for those skilled in the art having the benefit of this disclosure. The disclosed steps may be read as prefaced by "In some embodiments, including one complete embodiment, ", may be executed or performed in other orders or sequences, and are not limited to the order and sequence shown and described, which are provided to enable ease in constructing an embodiment, and along with each components of each step, may be removed, modified, combined, or rearranged, and other steps and or step components may be added, without departing from the scope of this disclosure and or invention. Although embodiments of the invention have been described and illustrated in the disclosed implementations, it is understood that the present disclosed subject matter, including apparatuses, methods, specification, and illustrations, has been made only by way of example, not by way of limitation, and the methods and apparatuses may be used in other systems, and that numerous changes and optimizations in the details of implementation of the invention and or embodiment are made without such modifications departing from the spirit and scope of this disclosure and or embodiments of the invention. Although the disclosure has been shown and described with respect to one or more embodiments, features of the disclosed embodiments can be combined and rearranged in various ways, and changes including equivalent alterations, substitutions, modifications, and additional efficiencies will of course occur to someone of ordinary skill in the art without departing from the spirit and scope of this disclosure and or invention. In particular regard to the various functions performed by the described components, the terms used to describe such components are intended to correspond, unless otherwise indicated, to any component which performs the specified function of the described component, or is functionally equivalent to the described component, even though not structurally equivalent to the disclosed structure which performs the function in the implementations described in this disclosure. In addition, while a particular feature of the disclosure may have been provided with respect to only one of several embodiments, such feature may be combined with one or more other features of other embodiments as may be desired and advantageous for any given or particular application. In some instances, well-known circuits, structures and techniques have not been shown in detail in order not to obscure the understanding of this disclosure. Articles in this disclosure such as "a" "an" and "the" may allow for both singular and plural forms. Verbs in this disclosure such as "is" may be read as "may be". Conjunctions in this disclosure such as "or" as used herein may be interpreted as inclusive or meaning any one or any combination, where "A, B or C" means "any of the following: A; B; C; A and B; A and C; B and C; A, B and C". Relational terms in this disclosure, for example first and second, top and bottom, left and right, are to distinguish one entity or action from another, and may not necessarily require or imply a relationship, or order between, such entities or actions. The disclosure includes the best mode contemplated by the inventor, a completely described specific embodiment, along with optional components and alternative embodiments to best suit the implementer, measurements in imperial and metric units to support universal understanding, and dramatically exceeds claims support requirements and enablement requirements by allowing for selection and or construction of the required components to be carried out easily, quickly, and routinely by persons of ordinary skill in the art, who are provided the additional benefit of utilizing readily available commodity components whenever possible. The present disclosure includes material protected by copyrights, and the owner of the copyrights hereby reserves all rights, but with authorization for publication as required by government patent offices. Various embodiments of the present invention may provide all, some or none of the disclosed technical advantages.

[0025] The computer code descriptions disclosed, in order to provide comprehensive enabling disclosure, rather than utilizing flow charts, which according to Patent Cooperation Treaty 11.11a are prohibited from containing "text matter, except a single word or words, when absolutely indispensable, such as… a few short catchwords indispensable for understanding", are provided in a text only format where the number of arrows preceding a line indicate logical block level, semicolons indicate a new segment of a logical block, and periods indicate the closure of one or more logical blocks. It is understood that any computer code representations in this disclosure are merely illustrative, rather than restrictive. While code may be written in nearly any computer language, including Java and C++, the illustrative computer code descriptions were derived from code written the Python language, which may be run through the Python interpreter, with appropriate supportive libraries, which at the time of disclosure, may run on nearly any computer, for example one with an Intel or AMD processor, running a current version of Linux, Windows, or Mac OS. All code components may read as if prefaced by "In some embodiments, including one complete embodiment, ". In some embodiments, functionality may be modified, rearranged, excluded, and added. To provide more fundamental computer system details, in some embodiments, the functionality associated with the disclosed computer code descriptions may be referred to as a script, module, software, software application, or code, and can be written in any form of language, including compiled, interpreted, declarative, or procedural, able to be deployed in any form suitable for use in a computing environment, including as an independent or integrated program, module, component, or subroutine, for execution by the computer system, implemented on one or more independent or integrated computers, utilizing a central processing unit in the form of one or more general or special purpose microprocessors, in conjunction with digital electronic circuitry, which may include special purpose logic circuitry such as a field programmable gate array or application specific integrated circuit, with the computer controlled by and operatively coupled to tangibly embodied software and or firmware, which may include code that creates an environment for code execution, including individual or combined use of processor firmware, a protocol stack, a database management system, and an operating system, where such software and or firmware may exist in one or more parts in memory on one or more computers, and is encoded on one or more tangible non transitory software carriers, such as individual or combined use of a random or serial access device or substrate, a semiconductor memory device, transient or persistent random access memory, a magnetic, magnetic optical, or optical disk, or encoded on an artificially generated transmitted signal, for example, optical, electrical, or electromagnetic, transmitted using a sending and a receiving apparatus, where the interaction between the user and the software may be implemented by operatively coupling, to the local implementing computer, or a local computer connected to one or more remote computers through a local or wide area network, a display device which may implement fluid crystals or light emitting diodes, a keyboard, and a pointing device.

[0026] The inventor retains absolutely no liability for any implementation of this invention, and the invention is implemented exclusively at the risk and liability of the implementer.

[0027] In some embodiments, for quality control purposes, all components may be manufactured from scratch.

[0028] Calculations, formulas, and specific units are not in any way restrictive, are not be relied upon, are not required as presented to produce an embodiment of the invention, are provided exclusively as a courtesy to enhance enablement for those resizing components and or constructing alternative embodiments, and may contain inaccurate assumptions easily modified during practice, with all calculations utilized to select and estimate components and unit output being rough estimates that may vary greatly based on factors that include the type and quality of purchased and or manufactured components and embodiment construction, where embodiments may be constructed utilizing an effectively endless range of output and component configurations and selection processes.

[0029] Embodiments of the invention provide some or all of the following benefits over previously discussed predecessors:

[0030] 1. Self-powered for free output: embodiments provide the first energy and motor system in the history of the known universe to not require an external fuel source. Embodiments can produce endless energy, and provide endless transportation range, until there is a system failure, and therefore may potentially produce energy and propulsion until gravity driven orbital drift causes the Earth to be consumed by the Sun in a few billion years – assuming the units and humans are still on Earth. Embodiments reduce transportation costs by allowing implementing vehicles to operate without fuel, allowing for effectively free endless transportation range after purchase, and additionally allow for travel by supersonic jets and flying cars, which have been impractical principally as a result of fuel costs.

[0031] 2. Clean: the manufacture and use of embodiments produces no notable harmful environmental byproducts, nor the potential for deaths associated with predecessors.

[0032] 3. Continuous: embodiments produce electricity and propulsion that is continuous and stable.

[0033] 4. Portable: embodiments are able to function as well in a basement closet as in a car.

[0034] 5. Cyber attack proof: embodiments are self-contained thus require no hackable computer to operate and are therefore immune to computer viruses.

[0035] 6. Blackout proof: embodiments are designed to be kept indoors and on-site, and are thus ideal for critical facilities such as hospitals and data centers that can't afford a blackout from failed power lines or plants.

[0036] 7. Inexpensive: embodiments can be manufactured and operated at the lowest cost total cost possible, because they don't require fuel, installation and maintenance of power lines, an allocation of land, or degrading batteries.

[0037] 8. Weatherproof: embodiments are self-contained for indoor use and therefore aren't vulnerable to environmental factors such as freezing temperatures, snow, rain, lightning strikes, or extreme weather events.

[0038] 9. Eliminates energy output storage: because additional embodiments of this system can be utilized at peak times with limited cost, storage of energy is no longer relevant, for either utilities or homes, even for peak output needs.

[0039] 10. Eliminates expensive power lines and fossil fuel pipe lines: because embodiments are designed to be kept on site, and any number of units can be utilized to meet peak power needs, power and fossil fuel transmission lines and their associated costs are now rendered irrelevant, thus substantially unburdening all economies globally of associated costs. Land currently holding power lines, as well as arrays of solar panels, wind turbines, and hydroelectric turbines, can be reclaimed to reduce visual pollution and make space for a growing population. Roofs of solar panels can be removed to allow for roof tiles that reflect heat to maintain a cool house in summer. No thinking person will ever want, nor could a functional government allow, any type of nuclear reactor – fission, fusion, cold (LENR) – in a car or home, leaving only now irrelevant power lines for transmission, thereby making those sources wholly irrelevant.

[0040] 11. Potentially profitable: in a standard home use scenario, embodiments may be the only way for a unit owner to make a profit from selling energy back to the utility at wholesale rates.

[0041] 12. Alleviates poverty: because energy is effectively free after embodiment purchase, and the purchase price is less per unit of output than other energy systems, embodiments reduce the cost of living and the cost of goods for every person on Earth, thus reducing poverty.

[0042] 13. Powers water purification and pumping: 1 in 10 people live without access to clean water, while climate change driven droughts fuel conflicts. Because embodiments make energy nearly free over their useful lives, the energy intensive nature of evaporated water purification — which removes nearly every contaminant with a higher boiling point than water, and potentially all others can be removed with a standard carbon filter and ultraviolet light – is no longer a barrier, nor is pumping, thus embodiments provide for the global resolution of clean water needs for individual consumption and agriculture.

[0043] 14. Powers reduced water consumption: effectively eliminates the energy cost of operating electricity powered showers that require only a cold water pipe, and recirculate, filter to potentially cleaner than direct from pipe, and heat water, to provide exact continuous temperature and pressure control, as well as powering low voltage electric showerheads that mix air with water to provide the effect of the same output using dramatically less water.

[0044] 15. Powers atmosphere cleaning: because an existing specialized laser can disassociate atmospheric carbon dioxide molecules into carbon molecules and oxygen molecules, and because embodiments can provide effectively unlimited and continuous clean energy, a power source is now available to reduce carbon dioxide in the air, and potentially other greenhouse gasses, if corresponding devices are developed.

[0045] 16. Reduces nuclear and hydrogen weapon proliferation: because embodiments eliminate any need for any type of nuclear energy, including fission, fusion, and cold (LENR), each of which is or may be weaponizable and one step from nuclear weapons technology, and also eliminate the need for hydrogen, which a terrorist can obtain at a hydrogen fuel station to create a powerful compressed hydrogen explosion verifiable by watching a video of a balloon filled with hydrogen being lit on fire, I have provided us all a fundamentally safer world.

[0046] 17. Therefore, a few applications of embodiments include powering: all transportation vehicles including automobiles, trains, jets, cargo ships, cruise ships, tugboats, boats, submarines, hover boards, jet packs, including in vertical take off and landing configurations; powering electrical grids as well as homes, offices, factories, hospitals, and data centers that would like to disconnect from external power sources to end their recurring bill, be permanently immune from blackouts, use clean energy, and save money; televisions, washing machines, dishwashers, showers, and water pumps; portable consumer electronics, such as phones and laptops, through an internally installed miniaturized embodiment eliminating the need to recharge; personal rapid transport; home hydroponic production systems, including light, temperature control, and nutrient water circulation; high intensity laser powered solar sails, with the laser powered by a large number of these energy units on the surface of any space based body with a limited atmosphere; video streaming planetary sampling probes journeying an unlimited number of years into the universe, recharging by utilizing an embodiment when resting on a mass producing gravity or in conjunction with a device creating artificial gravity; space colonies.

[0047] **In some embodiments, including one complete embodiment, obtain the desired generator.** In some embodiments, including one complete embodiment, a generator is added. In some embodiments, including one complete embodiment, first the generator is selected, and or the rotational force and speed to function as a motor is determined, because those specifications determine the specifications of other components in the system, including the weight and size of the buoyant weight or weights that will be used to provide force to operate the generator and or function as a motor, where the buoyant weight in turn determines the size of the fluid tank required to elevate the buoyant weight. In some embodiments, which may include one complete embodiment, the generator selected outputs the volts, amperes, and hertz of the desired final output, with a converter utilized of the appropriate specifications to power internal embodiment components. In some embodiments, when used as a motor, a generator may be left out, with the power for the unit components provided by an external source.

[0048] In some embodiments, to provide a specific horsepower at a specific number of revolutions per minute, to provide rotational force as required by a generator axle and or to function as a motor, in order to determine the pounds of force required, horsepower is equal to pounds of force multiplied by revolutions per minute with the result divided by the horsepower constant of 5252. In some embodiments, which may include one complete embodiment, to convert pounds of force from the previous calculation to pound feet of force, as used in the standard calculation of horsepower, a gear may be placed on the generator and or motor axle, which is coupled to the force providing gear immediately before it, where each of those gears have a radius of 1 foot (0.3 meters), while maintaining all gear ratios in the system. In some embodiments, to accurately measure the rotational force and speed provided by the embodiment, a torque gauge may be used to measure pound feet of force, and a tachometer may be used to determine revolutions per minute, or alternatively a dynamometer may be used which measures pound feet of force as well as revolutions per minute, and then horsepower may be calculated as pound feet of force multiplied by revolutions per minute with the result divided by the horsepower constant 5252.

[0049] In some embodiments, including one complete embodiment, in reference to FIG. 1, generator 1500 has a rated output of 10,000 watts when provided 1,800 revolutions per minute and 13.3 horsepower, where the horsepower specified requires force of 38.8 pounds (17.6 kilograms) (13.3 = ((n pounds of force * 1800 revolutions per minute)/5252 horsepower constant)). In some embodiments, where a motor is principally desired, a generator may be used with a rated output providing only that required to provide power to the unit components, while allowing the rest of the rotational force to be provided to rotate the axle to function as a motor.

[0050] **In some embodiments, including one complete embodiment, create the buoyant weight.** It is a principle of physics that buoyancy causes an object in a fluid to rise if the weight of the object is less than the weight of the volume of the fluid it displaces. In some embodiments, including one complete embodiment, a buoyant weight is made of a weight and size appropriate to provide the force and speed required by the generator and or to act as a motor while being adequately buoyant to float to the top of the fluid container. In some embodiments, including one complete embodiment, the buoyant weight is constructed of a durable rust resistant material, and is hollow with walls of a thickness that when spread across the determined dimensions it has the identified weight while sustaining buoyancy in the fluid.

[0051] In some embodiments, including one complete embodiment, the speed provided by the buoyant weight during free fall and the desired cycle period of the buoyant weight, is used as a starting point for calculations of the desired weight of the buoyant weight, where revolutions per minute provided by the free fall of the buoyant weight, without resistance from the generator and compartmented chain, may be approximately calculated using the rate of drop provided by the gravity of the celestial body on which it operates, for example Earth which causes a mass to fall at 32 feet per second per second (9.8 meters per second per second), however given the fall force will be linear rather than compounding when rotating the compartmented chain with the resistance of the generator, "per second" rather than "per second per second" may be used, where the weight of the buoyant weight may then adjusted based on the differential between the speed during linear free fall and the speed required by the generator, where to obtain linear free fall revolutions per minute, the distance traveled is divided against the circumference of a gear connected to the compartmented chain that provides rotational force to the generator and or to function as a motor, which provides revolutions per second, which is then multiplied by 60 seconds to obtain revolutions per minute, with the revolutions per minute required by the generator divided by the resulting number, to obtain the differential, where the required generator axle input force is divided by the differential to obtain the weight of the buoyant weight, with additional weight added to offset resistance from factors including the weight of the compartmented chain, mechanical friction, and air, with the weight and corresponding adjustments best identified by and made after testing and determining the rate at which the buoyant weight descends on the compartmented chain after it has been constructed, to obtain the desired force and speed. In some embodiments, including one complete embodiment, the weight and corresponding size to maintain buoyancy of the buoyant weight and supporting components are modified to obtain the desired force and speed when the embodiment is running. In some embodiments, which may include one complete embodiment, the buoyant weight has inset segments on one or more sides that help capture any fluid that might otherwise leak out past the buoyant weight as it enters the fluid container bottom compartment. In some embodiments, multiple buoyant weights may be circulated at the same time, either in sequence or in parallel, to provide continuous or improved continuity of rotational force to the compartmented chain, where the top and bottom gears around which the compartmented chain operatively wraps have a circumference that supports the determined revolutions per minute required by the generator.

[0052] In some embodiments, including one complete embodiment, the force required by the generator – and thus the resistance it provides – is 38.8 pounds (17.6 kilograms) at a speed of 1800 revolutions per minute, therefore targeting a 5 second cycle time over a 5 foot (1.5 meter) drop, the buoyant weight should fall at 1 foot (0.3 meters) per second, and where the buoyant weight without resistance will free fall rate provided by gravity of approximately 32 feet per second (9.8 meters per second), the teeth ratio of the connected gears should provide a decrease in speed of 32 times (32 feet per second / 1 feet per second desired) resulting in a corresponding 32 times increase in force, providing for a required input weight of at least 1.2 pounds (38.8 pounds of required force / 32 times speed reduction) (0.54 kilograms), with additional weight added to offset resistance from factors including the weight of the compartmented chain, mechanical friction, and air, for say a doubling of weight to 2.4 pounds (1.08 kilograms), which is to be adjusted along with corresponding size to maintain buoyancy after observing performance to obtain the force and speed desired, where the circumference of the top and bottom gears, around which the compartmented chain operatively wraps, are to provide for approximately 56 revolutions per minute (1800 revolutions per minute required by generator / 32 times speed increase by generator attached gear), thus each gear should have a circumference of approximately 1 inch (56 revolutions per minute / 60 seconds per minute) and thus a 0.32 inch diameter (1 inch circumference / 3.14 Pi) to provide 1800 revolutions per minute at force of 38.8 pounds (17.6 kilograms).

[0053] Fluids are substances that can't resist shear applied force, and are a subset of the phases of matter that include liquids, gases, plasmas, and to an extent, plastic solids. In some embodiments, to calculate the approximate volume of fluid that must be displaced for the buoyant weight to become buoyant, and thus calculate the dimensions of the buoyant weight, the pounds (kilograms) of the fluid per gallon (liter) are used, along with the cubic feet (cubic meters) per gallon (liter), where the buoyant weight has a weight that provides the pounds of force required by the generator, and has that weight spread over a volume that displaces more than the gallons (liters) of the fluid of the same weight, where such a calculation may be determined by the pounds (kilograms) required of buoyant weight divided by the pounds (kilograms) per gallon (liter) of the fluid, and therefore the buoyant weight may be of any size greater than the gallons (liters) displaced divided by the gallons (liters) of fluid per cubic foot (cubic meter).

[0054] In some embodiments, including one complete embodiment, the fluid to be used is water, which allows the fluid containers to be easily filled on site, thus reducing shipping costs, while allowing for the fluid containers to be emptied at any time without causing environmental harm. In some embodiments, the fluid to be used is a liquid metal – for example zinc, which is over six times as heavy as water – to allow for faster unit cycles while utilizing smaller containers, with corresponding adjustments made to the buoyant weight to compensate for any change in fluid density. In some embodiments, any other fluid may be used, though when accounting for safety and durability, a non-corrosive non-toxic fluid may be best. In some embodiments, if the unit is to be run outside, in temperatures below freezing, a fluid with a lower freezing point than water may be used, or an anti-freeze agent may be added, with any necessary adjustment made to the buoyant weight to compensate for any change in fluid density. In some embodiments, any fluid or medium that allows for a buoyant weight to rise may be used.

[0055] In some embodiments, including one complete embodiment, to calculate the approximate buoyant weight dimensions, water may be used, where water has a weight of 8.34 pounds per gallon (1 kilogram per liter), 1 cubic foot of water is 7.48 gallons (1 cubic meter of water is 1000 liters), a buoyant weight having the previously calculated weight of 2.4 pounds (1.08 kilograms), has to be of a material and thickness providing that weight spread over a volume that displaces more than approximately 0.3 gallons (2.4 pounds of required of buoyant weight / 8.34 pounds per gallon) (1.14 liters), and therefore the buoyant weight must be of a size greater than approximately 70 cubic inches (0.3 gallons / 7.48 gallons per cubic foot) (1,142 cubic centimeters), where for increased ascent rate the buoyant weight displacement volume may be increased 50% beyond the minimum required size for a total of 105 cubic inches (1,713 cubic centimeters), which may be spread across any combination of dimensions. In some embodiments, including one complete embodiment, the material from which the buoyant weight is constructed is any that allows the buoyant weight to achieve the desired weight and volume supporting dimensions. In some embodiments, which may include one complete embodiment, the material to be used is stainless steel, where to account for the density of stainless steel, the buoyant weight has an air tight hollow interior, with walls of a thickness that when constructed in the desired dimensions, the desired weight is achieved. In some embodiments, which may include one complete embodiment, the material to be used is polyethylene. In some embodiments, the buoyant weight may be comprised of countless other dimensions, volumes, and materials. In some embodiments, in place of the buoyant weight, any buoyant medium may be used that can be circulated in the embodiment, not limited to but including a fluid of a lesser density than the primary fluid in the fluid container, with appropriate adjustments made to supporting components.

[0056] In some embodiments, which may include one complete embodiment, in order to maintain continuous or near continuous output, multiple buoyant weights are used in the system, in sequence or in parallel, with appropriate supporting adjustments made to the repeat cycle timers or functional equivalents, to provide continuous or near continuous weight to the compartmented chain and thus continuous or near continuous rotational force to the generator or to function as a motor.

[0057] **In some embodiments, including one complete embodiment, create the buoyant weight entry support weight.** In some embodiments, including one complete embodiment, to reduce the force required for the buoyant weight to enter the bottom of the fluid container, a bottom compartment with a sealable bottom compartment partition is created in the fluid container, which removes the weight of the fluid in the top compartment from the fluid in the bottom compartment, without requiring significant force because at the time the partition is sealed the pressure is equalized on both sides of the partition, and then because in order for the buoyant weight to be buoyant, it weighs less than the fluid it's displacing in the bottom compartment, in order for the fluid to be pushed back to the top of the fluid container through a pipe connecting the bottom compartment to the top of the fluid container, a weight is released on a timed cycle behind the buoyant weight after it has dropped in place in front of the bottom compartment entry door, with both weights at an angle so gravity pushes on the weights, where total weight provided opens the bottom compartment entry door and forces fluid back to the top, and then the support weight is retracted to its original position, where the support weight's total weight exceeds that of the combined difference between the weight of the buoyant weight and that of the weight of the fluid displaced, and the column of fluid in the pipe as it flows back to the top of the fluid container, with a modest addition accounting for the weight being applied at an angle rather than vertically, where any fluid that leaks out of the bottom fluid compartment into the fluid container support structure reservoir as the buoyant weight enters, is pumped to the top of the fluid container, and or pushed back into the bottom fluid compartment during the next entry of the buoyant weight when the buoyant weight is coupled with the support weight, by means which may include an rod and receiver or an overhang on the support weight to hold the buoyant weight down, to prevent buoyancy on the leaked water. In some embodiments, including one complete embodiment, providing for the entry of the buoyant weight into the fluid container utilizing gravity and a weight, which can be pushed and pulled into place in seconds, may provide greater efficiency than providing force through other means which would have to be maintained the entire time the weighted structure is displacing fluid. In some embodiments, a force producing device, not limited to but including hydraulic, pneumatic, mechanical leverage, or motorized mechanical leverage, instead of or in addition to the support weight, provides force that allows the buoyant weight to enter the fluid container. In some embodiments, the sealable bottom compartment partition may be omitted.

[0058] In some embodiments, including one complete embodiment, to calculate the total weight of the fluid that the buoyant weight has to displace as it enters the bottom compartment of the fluid container, the weight of the fluid in the bottom compartment is added together with the weight of the fluid in the pipe when full, where the weight of the fluid in the compartment is equal to the pounds per gallon (kilograms per liter) of fluid displaced multiplied by the gallons (liters) of fluid displaced, and the weight of the fluid in the tube when full is calculated as the radius of the pipe squared, multiplied by Pi of 3.14, multiplied by the height of the pipe, with the combined weight of the determined volume is the weight per gallon (liter) of fluid per cubic foot (cubic meter) divided by the determined volume in cubic feet (cubic meters), where the weight of the buoyant weight combined with the weighted structure must weigh more than the weight of all fluid being displaced.

[0059] In some embodiments, including one complete embodiment, the weight of the fluid to displace is calculated utilizing the previously calculated size of the buoyant weight of 105 cubic inches (1,713 cubic centimeters) which displaces 0.46 gallons of water (0.07 cubic feet * 7.48 gallons per cubic foot) (1.74 liters), where the weight of the displaced water in the bottom compartment is 3.8 pounds (0.46 gallons of water * 8.34 pounds per gallon) (1.7 kilograms), which is added to the weight of the water in the pipe when full, where the 0.5 inch (1.27 centimeters) radius of the pipe, multiplied by Pi of 3.14, multiplied by a height of 5 feet (1.5 meters), provides for fluid of 47 cubic inches (3.14 pi * (0.5 inch radius) ^ 2)) * 5 feet high), or 0.03 cubic feet (765 cubic centimeters) which is 0.23 gallons of water (0.03 cubic feet * 7.48 gallons per cubic foot) (0.87 liters), weighing 1.9 pounds (0.23 gallons of water * 8.34 pounds per gallon) (7.3 kilograms), plus the weight of the bottom compartment entry door 1206, plus any pressure from water leaked from above the bottom compartment if it is imperfectly sealed, and the reduced force resulting from angled rather than vertical force, resulting in the weight of the weighted support that will provide force to the buoyant weight at the bottom being more than

7.6 pounds ((3.8 pound weight of fluid displaced + 1.9 pounds required to displace full fluid column + 5 pounds bottom compartment entry door) – 2.4 pound weight of buoyant weight) (1.2 kilograms), for example, quadrupled to a total of 15.2 pounds (6.9 kilograms).

[0060] The set of factors required to validate the embodiment as providing a self-powered generator, are the output of the generator when continuously powered by multiple buoyant weights, and the power drawn to push then retract the support weight at the bottom, and the power drawn to push the buoyant weight off the top of the fluid container into the compartmented chain, and the power drawn to pump any leaked fluid back to the top of the fluid container. In some embodiments, to approximately calculate total output of the system, the generator output may be assumed to provide continuous output as the result of using multiple buoyant weights and thus provides a continuous or near continuous 10,000 watts, and subtracted from the output are the watts consumed by the three motors and or linear actuators used in the system, which may consume at peak load 120 watts (12 volts at 10 amperes), while providing force of 225 pounds (102 kilograms), and to provide a conservative estimate, assuming each draws continuous maximum load, results in a continuous average net output of around 9,600 watts ((10,000 watts provided by generator) – 120 watts consumed to push the support weight at the bottom) - (120 watts consumed to retract the support weight at the bottom) - (40 watts consumed to send leaked fluid back to the top of the fluid container with an electric pump) - (120 watts consumed to push the buoyant weight off at the top)), for input output efficiency of approximately 96%. In some embodiments, which may include one complete embodiment, to increase efficiency, the height of the fluid tank in conjunction with supporting components including the compartmented chain, is increased in height, for example a height 100 times greater, thus raising a buoyant weight 100 times as high, while still using no energy to lift the buoyant weight but allowing the buoyant weight to provide force for 100 times as long as it descends. In some embodiments, energy consumption may be further reduced by utilizing hydraulics, pneumatics, mechanical leverage, and or motorized mechanical leverage to provide force in the system, including in place of the motors and or linear actuators and or support weight. In some embodiments, energy may be captured in excess of that consumed, as a result of no energy being expended to elevate the buoyant weight, while capturing the energy provided by gravity as the buoyant weight falls.

[0061] **In some embodiments, including one complete embodiment, construct the fluid container and support structure.** In some embodiments, including one complete embodiment, a fluid container is constructed, providing fluid enclosure on all sides except the top of one side where the buoyant weight is pushed out, where the fluid container rests on a support structure, while the bottom of one side of the fluid container has a door that allows a buoyant weight to enter while minimizing or effectively eliminating leakage including by having the compartment sides, wall, and entry door snugly fit the buoyant weight during entry and the entry door slanted inward along with its corresponding support structure and of a weight and utilizing sealant material that ensures a seal when the entry door is at rest which may be further reinforced by the door utilizing a unidirectional spring lock or a repeat cycle timer and motor in a manner as provided for in this disclosure to operate a seal compressing latch, where a reservoir that captures any leaked fluid with the walls of the reservoir fitted to the buoyant weight to minimize leakage as the buoyant weight enters, and the entry door having extended sides on the entry side that help form a seal with the buoyant weight as it enters to minimize leakage with a corresponding inset in the liquid container reservoir to prevent catching of the buoyant weight, where limiting or preventing leakage is important as the percent of fluid leaked may be roughly tied to the percentage of loss of efficiency in the embodiment as a result of having to pump the leaked fluid to the top of the fluid container, with a sealable bottom compartment partition that is able to seal off the bottom compartment from the weight of the fluid above it to limit the force required for fluid displacement, and where a motor may in conjunction with a latch that when rotated further is able to compress the seal, so that the buoyant weight only has to displace the weight of the fluid in the bottom compartment and the fluid is returned to the top of the fluid container through the return pipe, while also minimizing the volume of fluid that can leak out, while the bottom compartment on the side opposing the buoyant weight entry door has connected to it piping that sends fluid back to the top of the container as it is displaced by the buoyant weight, where the moveable partition has a valve that is opened when a motor pulls on it, and is weighted on the bottom to be held closed by gravity and with the weight helping to maintain the seal of the sealable bottom compartment partition in conjunction with a sealant material, where when the valve is opened it allows fluid from the top of the fluid container to flow into the bottom compartment to equalize pressure and release the buoyant weight. In some embodiments, which may include one complete embodiment, to obtain a potentially perfect seal for the sealable bottom compartment partition, the sealable bottom compartment partition is a circular partition with threaded sides, with the threading pattern forming a perfect or near perfect seal when engaged but when disengaged leaves an adequate gap to allow fluid to flow into the liquid container bottom compartment, connected to the fluid container through a jointed arm connected from the center of the circular partition to the fluid container, where the arm is connected in a manner that allows rotation and vertical movement, where the center of the circular partition may have a weighted plug of limited diameter closed by gravity but that can be lifted up to release fluid into the bottom compartment with the plug having an extended bottom perimeter to prevent it from being fully removed, with the top of the fluid container bottom compartment having a complimentary threaded receptacle, to allow the threaded circular sealable bottom compartment partition to screw and unscrew to form a seal, where the threaded circular sealable bottom compartment partition has gear teeth around the top of the perimeter that are engaged for rotation by a corresponding gear powered by a motor operated by a repeat cycle timer to allow for the seal to be closed and opened on a timed cycle, with the threaded circular sealable bottom compartment partition constructed to be of a weight adequate to fall into place for rotation to form a seal, but not significantly heavier to limit the force required to raise it, and where a threaded circular sealable bottom compartment partition may also be implemented in a similar manner as a replacement for the buoyant weight entry door with appropriate supporting adjustments made to other components. In some embodiments, hydraulics and or pneumatics and or mechanical leverage devices and or motors and or functional equivalents are used to displace the fluid and its corresponding weight to allow the buoyant weight to enter. In some embodiments, the sealable bottom compartment partition may be a sliding door that seals off the bottom compartment by extending from and retracting into an additional fitted compartment in the fluid container using motors and repeat cycle timers in a manner similar to that disclosed for the other sealable bottom compartment partitions. In some embodiments, the sealable bottom compartment partition may consist of an air locked door as used in a submarine, operated using motors and repeat cycle timers in a manner similar to that disclosed for the other sealable bottom compartment partitions. In some embodiments, any means may be used that opens as well as adequately seals the sealable bottom compartment partition to remove pressure to allow the buoyant weight to enter the fluid container and then be released to ascend. In some embodiments, the fluid container bottom compartment isn't sealed off, and the fluid is displaced simply by pushing in the buoyant weight.

[0062] In some embodiments, including one complete embodiment, in reference to FIG. 1, fluid container 1200 accounts for the previously determined dimensions including a width and length exceeding that of the buoyant weight to allow for the buoyant weight to ascend, with a height based on the previously determined desired cycle time, and is constructed as part of fluid container platform 1201 which provides a consistent slant for the entry of the buoyant weight, while providing a reservoir formed by walls 1202 1203 to capture any leaked fluid for pumping back to the top of the fluid container, with the walls of the reservoir snugly fitting the buoyant weight to minimize leakage as the buoyant weight enters, and enclosing walls 1204 1205 that prevent the buoyant weight from falling off either side of the compartmented chain, where the fluid container has a bottom compartment entry door 1206, with extended sides on the entry side to help form a seal with the buoyant weight as it enters with corresponding indents for the sides in the liquid container reservoir to prevent the buoyant weight from catching, with bottom compartment entry door 1206 held in place by joint 1208, with bottom compartment entry door 1206 slanted inward toward the liquid container along with its corresponding bottom compartment support structure with the door of a weight that when at rest it maintains a seal that prevents or at least minimizes fluid leakage, where the bottom compartment entry door 1206 may utilize a unidirectional spring lock or a repeat cycle timer and motor in a manner as provided for in this disclosure to operate a seal compressing latch to further reinforce closure when not being opened by the buoyant weight, with bottom compartment entry door slanted overhang 1207 to ease the buoyant weight downward into place for entry if there is any fluid in the fluid reservoir that is causing misalignment, with entry door slanted overhang 1207 enclosed and slanted downward at its top to not prevent from descending buoyant weight 1300, and a bottom compartment sealed off by sealable bottom compartment partition 1209 connected by joint 1210, with sealable bottom compartment partition 1209 having a weighted valve 1211 on top of sealable bottom compartment partition 1209 and opposite joint 1210 that ensures closure of sealable bottom compartment partition 1209 but should not be heavier than required to maintain a seal, with the weights size and position also preventing the door from ever locking at or near a 90 degree angle, where the bottom compartment walls are inset from the main compartment so that the seal is structurally reinforced when sealable bottom compartment partition 1209 closes on top of the walls of the sealable bottom compartment, and the slant of the bottom compartment and sealable bottom compartment partition 1209 match the slant of the support platform, where to maintain a seal an additional sealant material and or structure may be used for both the sealable bottom compartment partition 1209 and its corresponding area on the top of the bottom compartment of the fluid container, as well as the buoyant weight entry door 1206, for example, a rubber or silicon gasket with any corresponding structural insets, adjustments, or supports, where sealable bottom compartment partition 1209 allows fluid to enter to the bottom compartment when valve 1211 is opened by wire 1803 connected to motor 1804, thereby flooding the compartment and equalizing pressure causing buoyant weight 1300 to ascend while assisting with opening the sealable bottom compartment partition, while the bottom compartment is designed to limit any possibility of fluid leakage so buoyant weight 1300 slides as snugly as possible against the sides, bottom, and door, with the fluid pushed out of the compartment into fluid container coupled backside pipe joint 1212, which passes the fluid thorough pipe 1213, to pipe joint 1214, which expels the fluid back to the top of the fluid container, with the top of the fluid container having the top portion of its buoyant weight exit side wall slightly angled outward so as to allow the buoyant weight to easily push up and over the edge of the container when force is applied to it from the opposing side, which is especially relevant if any of the fluid in the container evaporates thus lowering fluid levels, where the top of fluid container 1200 is partially enclosed, or wholly enclosed with an exit door for the buoyant weight, to condense and return evaporated fluid, and may be further enclosed by an exit door. In some embodiments, which may include one complete embodiment, the buoyant weight is prevented from moving backwards out of the bottom compartment after its fully entered by using a unidirectional spring lock. In some embodiments, the partition valve may be pushed on and opened by the buoyant weight as it enters.

[0063] In some embodiments, which may include one complete embodiment, in reference to FIG. 2, utilizing some components from FIG. 1, to obtain a potentially perfect seal, the sealable bottom compartment partition is a threaded circular sealable partition 2000 which has around the bottom perimeter threading 2001 and extending around the top perimeter gear teeth 2002, where threading 2001 screws into complimentary threaded receptacle 2003, with the threading pattern forming a perfect or near perfect seal when engaged but when disengaged leaving an adequate gap to allow fluid to flow into the bottom compartment, where threaded sealable circular partition 2000 is connected to fluid container 1200 through joint 2100 through arm 2101 which has coupled to it through a hole ball joint socket 2102 in a manner which allows the ball joint socket to move vertically to support the threaded sealable circular partition 2000 as it rotates downward to form a seal and rotates upward to open, where the ball and socket joint may have a plug passing through it of limited diameter with an weighted extended bottom perimeter to be self closing and to prevent from being fully removed from that can be opened by wire 1214 to allow fluid to enter the bottom compartment, which is connected with ball joint ball 2103 which is welded to rod 2104 which is welded to threaded sealable circular partition 2000, where the sizing and positioning of components allows for the cover to freely rotate and move vertically as needed to seal and unseal, where threaded sealable circular partition 2000 has perimeter gear teeth 2002 rotated by a gear 2004, with teeth on each designed to support interlocking, with gear 2004 rotated by rod 2005 rotated by motor 1805 operated by additional repeat cycle timers 1706 1707 or functional equivalents that are set and wired to operate motor 1805 back and forth on a timed cycle to seal and unseal the bottom compartment, where motor 1804 is operated by repeat cycle timer 1703 to retract the threaded sealable circular partition 2000 using wire 1214 connected to ring 1216 after each time it has been unsealed, where threaded sealable circular partition 2000 at its center may be a weighted valve that closes under the weight of gravity but that is opened when pulled on by wire 1215 to more easily allow fluid to enter the bottom compartment, where the fluid container and the buoyant weight have their dimensions adjusted to be compatible with the dimensions of the round sealable bottom compartment partition.

[0064] In some embodiments, including one complete embodiment, the fluid container along with its components and support structure are constructed from scratch, where sheets of a strong durable material, for example a metal such as stainless steel, are welded together, with each wall and component of adequate thickness so as not to deform or leak over time, and of a width and length that support the ascendancy of the buoyant weight over the desired height.

[0065] **In some embodiments, including one complete embodiment, construct the compartmented chain.** In some embodiments, including one complete embodiment, in reference to FIG. 1, a high strength compartmented chain is constructed to hold the buoyant weight as it descends under the force of gravity, where chain 1400 connects around gears 1401 1402, and the chain is constructed to form a loop from a sequence of links, where the chain is constructed from, in reference to an example of a chain segment in FIG. 1A, chain links 1403 1404 1405, coupled to each other by threaded bolts 1406 1407 1408 1409, each passing through one of threaded bolt supports 1410 1411 1412 1413, with chain links 1403 1405 each having an opening to operatively be able to connect with gears 1401 1402, with chain link 1404 having an extended compartment 1414 connected through joint 1415 whose range of motion is limited to support holding the buoyant weight, to extended compartment 1416, where compartment 1416 is of dimensions adequate to capture and hold the buoyant weight each time it falls, where if the buoyant weight is trying to enter the compartment but the compartment is not aligned with the buoyant weight for entry, compartment 1416 using joint 1415 in conjunction with an upward curve at the point where the compartment first comes into contact with the buoyant weight allows for the compartment is to fold up to allow the buoyant weight to move into the a compartment below it, where the number of chain links connected together is based on the desired length of the chain, and spacing between compartments based on buoyant weight height. In some embodiments, compartments are omitted, and the buoyant weight is able to couple directly with the chain, by means not limited to but including a hook and receiver.

[0066] **In some embodiments, including one complete embodiment, construct a support structure and attach the fluid container and support structure, fluid pump, compartmented chain, and generator.** In some embodiments, including one complete embodiment, a support structure for unit components is made of a material able to support the weight of the filled fluid container and forces enacted by the buoyant weight as it drops, for example, high grade stainless steel. To optimize component fit, the exact sizes of the support structure may be determined at the time of construction, after components have been purchased and constructed. In some embodiments, some embodiment components may be 3D printed, which may include the support structure, fluid containers, buoyant weight, and enclosure.

[0067] In some embodiments, including one complete embodiment, in reference to FIG. 1, the support structure consists of metal beams, connected together by means which may include welding, or bolting together through bolt holes drilled in appropriate locations, where 4 base beams 1000 1001 1002 1003 are assembled in a rectangle, with beam 1004 extending across the center of the width of the base, with fluid container 1200 resting on and welded to fluid support structure 1201 which rests on base beams 1000 1001 1002, with the generator 1500 mounted to support beam 1006 which is perpendicularly mounted to support beam 1002, for generator 1500 to receive force from compartmented chain 1400, which has its support gears 1401 1402 operatively coupled for desired rotation to support beam 1005, which is mounted perpendicularly to support beam 1004, where as the buoyant weight enters, any additional fluid that leaks out of the bottom fluid container compartment into the fluid container support structure compartment is pushed back in by the buoyant weight during the next cycle and or is pumped to the top of the fluid container by fluid pump 1600, pulling in fluid from the fluid container support structure reservoir through fluid pump tube 1601, which is connected from the outside to the bottom of the support structure reservoir, and sending the fluid to the top of the fluid container through fluid pump tube 1602, where once the buoyant weight has entered the fluid container bottom compartment, weighted valve 1210 is opened by connected wire 1215 using motor 1804 which wraps the wire around its axle or axle attached spool, and the sealable bottom compartment partition 1208 is retracted, thereby releasing buoyant weight 1300 for it to rise and complete a cycle.

[0068] In some embodiments, including one complete embodiment, in reference to FIG. 1, compartmented chain 1400 is wrapped around top support gear 1401 bottom support gear 1402, with gears 1401 1402 bolted or on axles to be rotational to support beam 1005 through corresponding drilled holes which include bearings, with top support gear 1401 coupled to gear 1501 through coupling by means which may include welding to the bolt or axle on which they are both mounted, which interconnects with generator gear 1502, with gear 1501 positioned at a distance so that gear 1501 when coupled with generator gear 1502 on generator 1500 doesn't interfere with the compartmented chain, where the tooth ratio between the gears provides for the rotational speed required by the generator, and compartmented chain 1400 provides compartments that fit buoyant weight 1300 which then pulls the chain as it falls to ultimately rotate the axle of generator 1500 – and or another axle to function as a motor – which is mounted on the top of support beam 1006 extending from base support beam 1002. In some embodiments, compartmented chain 1400 is mounted inside fluid container 1200, in addition to or instead of being on the outside of the fluid container, to capture the force provided by buoyant weight 1300 as it ascends, with supportive adjustments made to the joints in compartments of compartmented chain 1400, which transfers force to rotate the axle of generator 1500 and or function as a motor, with any additional gears or structures added as required to transfer force. In some embodiments, multiple buoyant weights pass through the system, in sequence or in parallel, to maintain continuous rotation of the compartmented chain(s).

[0069] In some embodiments, including one complete embodiment, where the speed of the gear rotated by the compartmented chain is not adequate to rotate the generator at or near optimal speed, or rotate the motor axle to achieve the desired speed, gears may be attached to connect the force from the compartmented chain axle to the generator axle selected utilizing gear ratios, which increase the speed of rotation while proportionately reducing the force based on the ratio of teeth on interconnected gears. In some embodiments, a gear box may be purchased that provides the desired increase in speed. In some embodiments, other means of controlling speed and force may be used. In some embodiments, in order to ensure continuous motion even if the buoyant weight isn't currently rotating the chain, a weighted ratchet gear may be added as an intermediary to transfer force to the generator gear, where the ratchet gear pawl allows to the ratchet gear to rotate in only one direction, and the weight of the gear will allow it to maintain momentum for a period when not provided rotational force, or an additional weighted structure may be added.

[0070] In some embodiments, including one complete embodiment, to achieve the previously determined 32 times decrease in speed and corresponding 32 times increase in force, gear 1501 with 160 teeth is coupled to compartmented chain support gear 1402, and gear 1502 with 5 teeth mounted on the axle of generator 1500.

[0071] **In some embodiments, including one complete embodiment, connect a battery and power switch.** In some embodiments, including one complete embodiment, a battery which may be in the form of uninterruptable power supply, allows the unit to start and provide output and power components continuously, where the battery receives power from the generator. In some embodiments, including one complete embodiment, in reference to FIG. 1, battery 1602 allows the unit to turn on when buoyant weight 1300 isn't providing force to power the system, where the battery provides the current type, voltage, amperes, and hertz required to provide power to repeat cycle timers 1700 1701 1702 1703 1704 1705, which power motors 1801 1804 and linear actuators 1800 1802, and fluid pump 1100, where the output wires of generator 1500 are connected to the battery to recharge it, and may be connected through an overcharge controller, and or an electrical converter, and or a resistor, if there is a mismatch of current type, voltage, amperes, or hertz, or the strength of the electrical output from the generator would damage the embodiment components, where the battery is attached to support structure by means which provide for replaceability, such as metal brackets coupled through mounting holes with corresponding holes drilled in the support structure, where power switch 1600 turns the unit on or off, by opening and closing the circuit between the battery 1602, the repeat cycle timers 1700 1701 1702 1703 1704 1705 which power their connected components, and provide power the fluid pump 1100 which returns leaked fluid to the surface, where the power switch is externally accessible to the operator, and may be attached to the unit, by means including bolts or screws.

[0072] **In some embodiments, including one complete embodiment, implement a timer based control system.** A repeat cycle timer is a commodity component that's used to operate electronics, such as a sprinkler system, by turning the system on at a fixed interval, running it for a fixed interval, turning the system off for a fixed interval, and looping the cycle. The instructions for configuring the timers, when purchased from a quality supplier, will be in the manual accompanying the timers. For example, some timers may have positive and negative terminals for each the power source and the device to be powered, along with a knob to set the seconds on per cycle, and a knob to set the seconds off per cycle. In some embodiments, the functional equivalent of a repeat cycle timer may be used, including a computer controlled relay board operated by computer commands to open and close the circuits to produce the same effect, and or to turn the units on and off to meet peak demand at specific times or based on current consumption. In some embodiments, including one complete embodiment, motors including those driving linear actuators may be utilized that have two wires and are operable in both directions, driven by for example a reversible brushed direct current motor, though other types of motors may be utilized which may have additional wires to be wired in the manner corresponding to their accompanying instructions.

[0073] In some embodiments, including one complete embodiment, timers are set to ensure that when a buoyant weight floats to the top of the liquid container, a linear actuator piston extends to push it out into a compartment in the compartmented chain, and then the linear actuator piston retracts, and then after the buoyant weight falls to the bottom of the embodiment after rotating the chain, repeat cycle timers ensure that it enters the fluid container by having a linear actuator piston extend to push the buoyant weight support weight off liquid container support platform to cause the buoyant weight to enter the bottom fluid container compartment, and then a motor retracts the support weight, and then a repeat cycle timer operating a motor ensures the sealed bottom compartment partition is opened to allow the buoyant weight to escape.

[0074] In some embodiments, including one complete embodiment, in reference to FIG. 1, repeat cycle timers 1700 1701 1702 1703 1704 1705 are selected to support powered components, where repeat cycle timers 1700 1701 operate back and forth the piston of buoyant support weight pushing linear actuator 1800, repeat cycle timer 1702 operates buoyant support weight retraction motor 1801, repeat cycle timer 1703 operates sealable bottom compartment partition using motor 1804 and continues to raise the partition after the fluid flows between compartments, and repeat cycle timers 1704 1705 operate back and forth the piston of buoyant weight pushing linear actuator 1802, with each set to run in a timed cycle to allow the buoyant weight 1300 to enter the fluid container bottom compartment, with support weight 1301 retracted by motor 1801 once entry is complete, and when buoyant weight 1300 rises to the top of the container, it is pushed off by the piston of linear actuator 1802 in the compartmented chain, to repeat the cycle, thereby ensuring continuous motion is provided in the system, where repeat cycle timers 1700 1701 open and close circuits that cause, on the previously determined interval, and for the previously determined interval, the support weight pushing linear actuator piston to extend and retract, with positive wire of linear actuator 1800 attached to both repeat cycle timer 1700 positive terminal, and repeat cycle timer 1701 negative terminal, and negative wire of linear actuator 1800 attached to repeat cycle timer 1700 negative terminal and repeat cycle timer 1701 positive terminal, with repeat cycle timers 1700 and 1701 each appropriately wired to the corresponding positive and negative terminals of power switch 1600, where repeat cycle timer 1702 opens and closes circuits that cause, on the previously determined interval, and for the previously determined interval, retraction of the support weight, with positive wire of motor 1801 attached to repeat cycle timer 1702 positive terminal, and negative wire of motor 1801 attached to repeat cycle timer 1702 negative terminal, with repeat cycle timer 1702 appropriately wired to the corresponding positive and negative terminals of power switch 1600, where repeat cycle timer 1703 opens and close circuits that cause, on the previously determined interval, and for the previously determined interval, the motor to operate the wire that opens sealable bottom compartment partition latch 1210 to normalize fluid pressure between compartments and continue to raise the sealable bottom compartment partition 1209 to release buoyant weight 1300, with positive wire of motor 1804 attached to both repeat cycle timer 1703 positive terminal and repeat cycle timer 1703 negative terminal, with repeat cycle timer 1703 appropriately wired to the corresponding positive and negative terminals of power switch 1600, where repeat cycle timers 1704 1705 open and close circuits that cause, on the previously determined interval, and for the previously determined interval, extension and retraction the piston of the linear actuator to push the buoyant weight(s) 1300 off the top of the fluid container, with positive wire of linear actuator 1802 attached to both repeat cycle timer 1704 positive terminal, and repeat cycle timer 1705 negative terminal, and negative wire of linear actuator 1802 attached to repeat cycle timer 1704 negative terminal and repeat cycle timer 1705 positive terminal, with repeat cycle timers 1704 and 1705 each appropriately wired to the corresponding positive and negative terminals of power switch 1600. In some embodiments, where an electronic hydraulic pump is used with a corresponding cylinder, the pump switch is either operated bac and forth by a linear actuator, or the switch is removed and its operating wires are directly connected to repeat cycle timers in a manner that achieves the desired effect. The repeat cycle timers may be attached to a support structure beam 1000 using bolts or straps, which makes them replaceable, or any other method as long as it doesn't damage the timers. In some embodiments, wiring to repeat cycle timers or functional equivalents may be done in any manner that achieves the desired effect.

[0075] In some embodiments, the equivalent of a repeat cycle timer may be used, where a computer controlled relay board is wired in a similar manner as the commodity repeat cycle timers, and a computer is embedded in the unit which uses software to operate a computer controlled relay board, with a connected motor, to perform the functions of a repeat cycle timer, with the code to operate the computer controlled relay board later disclosed to write operating software.

[0076] In some embodiments, the force providing devices may be manually operated, and repeat cycle timer(s) or equivalent may be excluded.

[0077] **In some embodiments, including one complete embodiment, connect an electrical power output connector and converter if required.** In some embodiments, including one complete embodiment, in reference to FIG. 1, a commodity power connector 1601 may be added between the generator and be externally accessible to the user, which may be in the form of an outlet or positive and negative terminals. In some embodiments, where the generator does not provide output as desired including current type, amperes, voltage, and hertz, a commodity power converter providing appropriate adjustments may be wired between the generator and the power output connector 1601.

[0078] **In some embodiments, which may include one complete embodiment, create software for unit operation and or to control an array of units.** In embodiments where a computer is embedded in the unit, a computer may be used that runs custom software on startup, and may be connected to a relay board, with the relay board used in place of the repeat cycle timers. The software code to operate the computer connected relay board, may resemble that described below. In some embodiments, the computer may be a Raspberry Pi, connected to an Ethernet controlled relay board through and Ethernet crossover cable, with the computer set on startup to run software developed in the Python language from the disclosed description, where the software is installed by connecting to the computer through telnet or secure shell, then at the command prompt typing "nano run.py" and adding and saving the software code, then at the command prompt typing "nano /etc/rc.local" and adding and saving the line "python /$location/run.py", where $location is the path to the directory containing the previously created software file.

[0079] The software code to operate the computer connected relay board, in some embodiments, which may include one complete embodiment, provides functionality comprising:

> import the library for connecting to the relay;
> import the library for accessing system resources;
> create variables holding values for relay on off values;
> create variables to hold the state of each relay including those controlling motors and linear actuators for the support weight extension and retraction, opening – and depending on the configuration closing – the sealable bottom compartment partition, and the buoyant weight pushing linear actuator;
> create variables holding the cycle seconds for each component;
> create variables to hold the relay board connection, IP address, username, and password.
> create a function to update the relay board;
>> establish a connection to the relay, if it has not been initialized, or has been dropped
>> creating a string sequence of relay states;
>> send the states to the relay board.
> define a function to run on script execution;
>> retrieve the current system time;
>> perform a continuous loop;
>>> create a variable holding seconds elapsed as the time initialized minus the current system time;
>>> if the remainder is zero, when seconds elapsed are divided by any of the force providing device cycle seconds, transition the corresponding force providing device(s) by changing corresponding relay state(s);
>>> call the function to update the relay with current changes.

[0080] In some embodiments, where a large number of generator units are being operated concurrently, to turn the units on and off at specific times and or based on current power consumption, network accessible relay boards may be installed in the units, and wired in place of or in addition to the power switch to be able turn the units on and off, and may be controlled by a computer running software provide functionality comprising:

> import a library for accessing the relays;

> import a library for system resource access;

> initialize and set variables holding relay on and off values;

> create an array of IP addresses of unit on off relay boards;

> initialize an array of unit relay board connections;

> create an array of unit output watts;

> create an array of unit on off states;

> create variables holding the unit relay boards username(s) and password(s);

> create variables to hold the total watts available across all units, the current watts being consumed, and whether or not time based watts are to be used;

> create an array of pairs of times and time desired watts;

> create a variable indicating whether or not unit power consumption meters are to be used;

> create and array of power consumption meter IP addresses;

> create variables holding the power consumption meters username(s) and password(s);

> create variables holding the minimum and maximum power consumption to be allowed before switching units on or off.

> create a function to send a command to a unit at a specified index in the unit IP address array;

>> create a connection to the unit on off relay board, at the IP address at the provided index in the unit IP address array, if the connection has not been initialized, or had been dropped;

>> create a variable holding the command string to be sent to the unit based on whether the unit is to be turned on or off;

>> send the command the unit relay;

>> wait for the command to go through, then disengage all on off relays.

> define a function to run on script execution;

>> iterate through each unit IP address and call the function to switch the unit on;

>> run a continuous loop;

>>> create variables to hold a unit index iterator, an output display message, and the current action;

>>> proceed if power consumption meters are being used;

>>>> create variables to hold average and total consumption of unit power, and add up total possible power output;

>>>> loop through each power consumption meter IP address;

>>>>> retrieve the current power consumption number;
>>>>> calculate the average consumption;
>>>>> add the current consumption to the total;
>>>>> add the unit maximum capacity to the total consumption capacity;
>>>>> increment the index.
>>>> calculate the consumption percentage as the consumption total divided by the total unit capacities;
>>>> create a message to display the states the currently consumed watts and the current watt capacity;
>>>> if the average consumption is greater than the maximum consumption level before more unit should be turned on, then set the unit action equal to on;
>>>> if the average consumption is less than the minimum consumption level before more unit should be turned off, then set the unit action equal to off;
>>>> iterate through unit states until one is found that is either off, if looking to turn a unit on, or on if looking to turn a unit off, then send the command to switch the unit state.
>>> proceed if power consumption meters are not used, and instead the total watts to be provided by the units are determined by the current time;
>>>> iterate through each time watts pair, and if the current time is equal to the specified time, send commands to turn units on or off, until the desired level of output is produced, and display each action on the command line.
>>> sleep for a moment before looping again.

[0081] **In some embodiments, including one complete embodiment, construct and attach a protective enclosure.** In some embodiments, including one complete embodiment, in reference to FIG. 1, a protective enclosure 1900 houses all of the components, to protect the electronic components from external elements, to protect the operator from the force providing devices, the buoyant weight(s), the fluid container weight, the compartmented chain rotation, and may be shaped to fit around the support structure, and may be made of a durable lightweight material such as sheets of aluminum, steel, plastic, or carbon fiber, formed by means which may include fabrication or welding in the dimensions of the unit and may allow power connector 1601 and the power switch 1600 to be externally accessible to the operator.

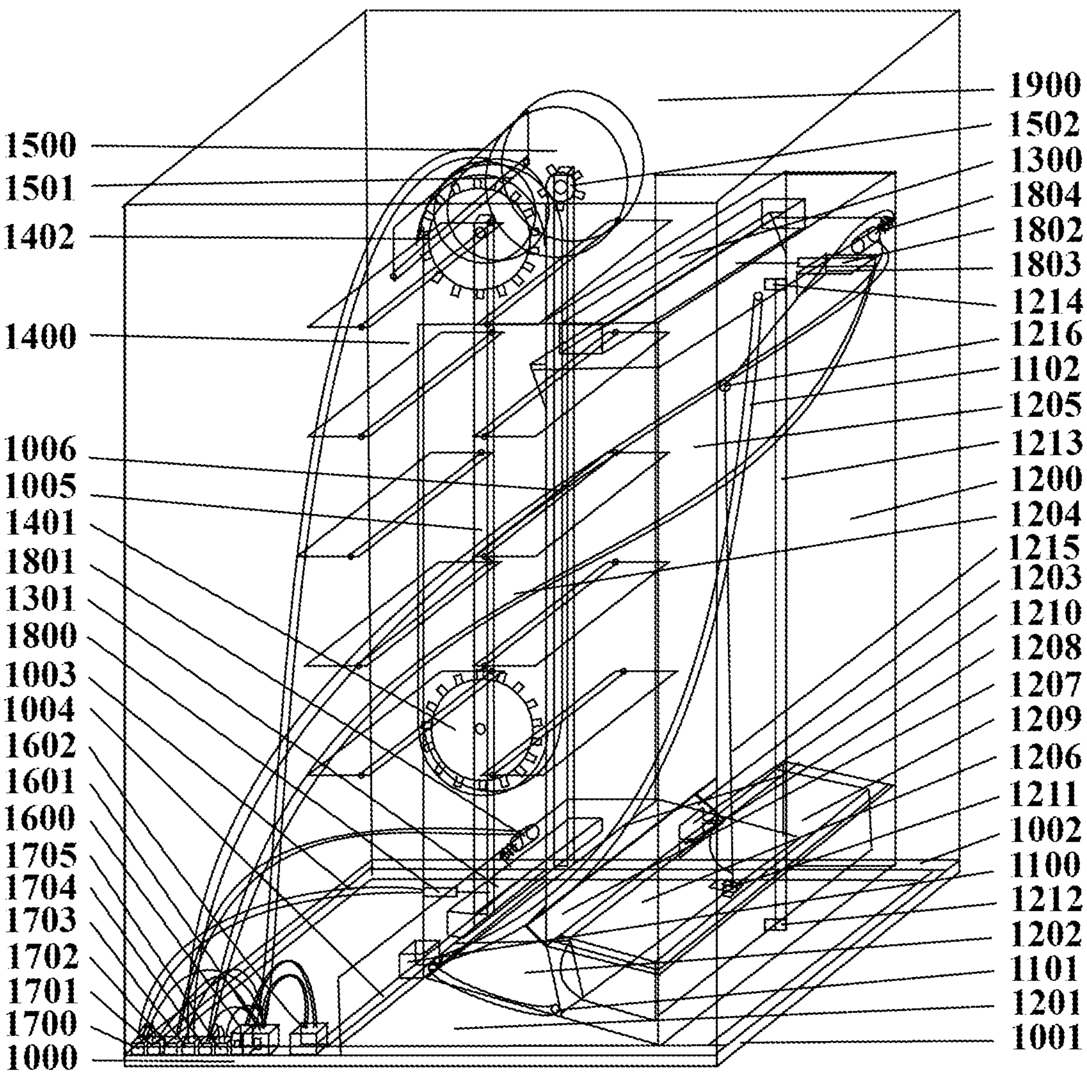
[0082] **In some embodiments, including one complete embodiment, enjoy clean continuous self-powered energy and or propulsion.** In some embodiments, set the embodiment's power switch 1600 to on, to allow the unit to run briefly to validate construction, then turn it off, and add a fluid and the buoyant weight. In some embodiments, including one complete embodiment, if implemented as a generator, the embodiment is then ready to have an experienced licensed electrician connect it to a power grid, and turn on the unit's power switch to on, or if implemented as a motor, be appropriately connected in an engine compartment.

CLAIMS

What is claimed is:

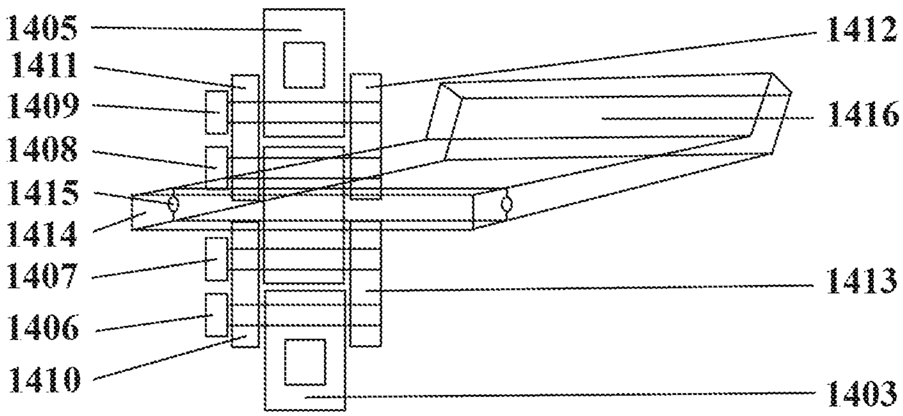
1. An apparatus able to function as a motor and or power an electricity generator, with the invention comprising:
   buoyant medium(s);
   a fluid container;
   a means that as said buoyant medium is dropped by gravity, and or raised by buoyancy, provides rotational force to rotate an electricity generator axle and or an axle to function as a motor.
2. A method performed by an apparatus comprising:
   buoyant medium dropped using gravity and or raised using buoyancy;
   allowing said buoyant medium force to be transferred to provide rotational force to rotate an electricity generator axle and or an axle to function as a motor.
3. A method for constructing an apparatus comprising:
   obtaining or constructing a fluid container, buoyant medium, and a means for providing force from the buoyant medium to be able to rotate an axle;
   ensuring the attachment to a support structure of said fluid container, and said means for providing force from the buoyant medium to be able to rotate an axle;

FIG. 1



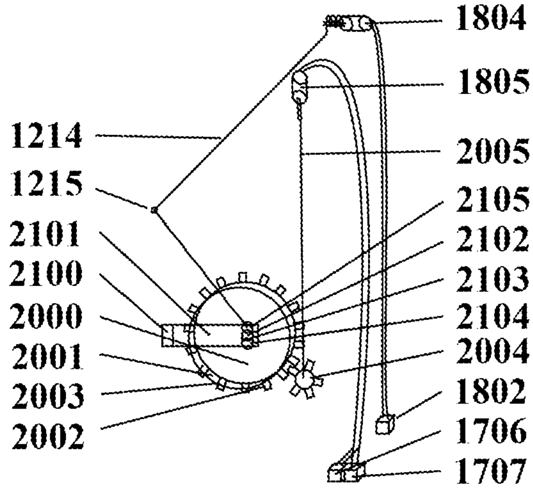
Jonathan Bannon Maher

FIG. 1A



Jonathan Bannon Maher

FIG. 2



Jonathan Bannon Maher

PTO/SB/16 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PROVISIONAL APPLICATION FOR PATENT COVER SHEET – Page 1 of 2

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No. ______________

INVENTOR(S)

Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Jonathan Bannon	Maher	Ridgewood, N.J.

Additional inventors are being named on the ______ separately numbered sheets attached hereto.

TITLE OF THE INVENTION (500 characters max):

Self-Powered Motor and Generator

Direct all correspondence to: **CORRESPONDENCE ADDRESS**

☑ The address corresponding to Customer Number: 151849

OR

☐ Firm or Individual Name: Jonathan Bannon Maher Corporation

Address: 143 East Ridgewood Avenue, #262

City	State	Zip
Ridgewood	NJ	07450
Country: US	Telephone: 212-399-9146	Email: bannonmaher@bannonmaher.com

ENCLOSED APPLICATION PARTS (*check all that apply*)

☐ Application Data Sheet. See 37 CFR 1.76.

☐ CD(s), Number of CDs ______

☑ Drawing(s) *Number of Sheets* ______

☐ Other (specify) ______

☑ Specification (e.g., description of the invention) *Number of Pages* ______

Fees Due: Filing Fee of $260 ($130 for small entity) ($65 for micro entity). If the specification and drawings exceed 100 sheets of paper, an application size fee is also due, which is $400 ($200 for small entity) ($100 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

METHOD OF PAYMENT OF THE FILING FEE AND APPLICATION SIZE FEE FOR THIS PROVISIONAL APPLICATION FOR PATENT

☐ Applicant asserts small entity status. See 37 CFR 1.27.

☑ Applicant certifies micro entity status. See 37 CFR 1.29.
Applicant must attach form PTO/SB/15A or B or equivalent.

☐ A check or money order made payable to the *Director of the United States Patent and Trademark Office* is enclosed to cover the filing fee and application size fee (if applicable).

TOTAL FEE AMOUNT ($) ______

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the filing fee and application size fee (if applicable) or credit any overpayment to Deposit Account Number: ______

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

PROVISIONAL APPLICATION FOR PATENT COVER SHEET – Page 2 of 2

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

- [x] No.
- [ ] Yes, the invention was made by an agency of the U.S. Government. The U.S. Government agency name is: ________
- [ ] Yes, the invention was made under a contract with an agency of the U.S. Government. The name of the U.S. Government agency and Government contract number are: ________

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

SIGNATURE Jonathan Bannon Maher DATE 4/24/2018

TYPED OR PRINTED NAME Jonathan Bannon Maher REGISTRATION NO. ________
(*if appropriate*)

TELEPHONE 212-399-9146 DOCKET NUMBER ________

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	32429468
Application Number:	62661878
International Application Number:	
Confirmation Number:	1070
Title of Invention:	Self-Powered Motor and Generator
First Named Inventor/Applicant Name:	Jonathan Bannon Maher
Customer Number:	151849
Filer:	Jonathan Bannon Maher
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	24-APR-2018
Filing Date:	
Time Stamp:	15:16:43
Application Type:	Provisional

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$70
RAM confirmation Number	042518INTEFSW15181900
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Certification of Micro Entity (Gross Income Basis)	USPTO-Micro_Entity_2018-04-24.pdf	3720424 149eb875dd68a30586f75644fec77a4e7353367a	no	2
Warnings:					
Information:					
2	Specification	Energy_Buoyancy_Non-Provisional_Patent-Filed_2018-04-24.pdf	1159390 bb8c1d1486c129c08118557422abeade01b1ea73	no	42
Warnings:					
Information:					
3	Provisional Cover Sheet (SB16)	USPTO_Cover_Sheet_2018-04-24.pdf	5364502 f1d861cfe0904693ae5060c5479b384c3652c212	no	3
Warnings:					
This is not a USPTO supplied Provisional Cover Sheet SB16 form.					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	29032 4c5f6f9c9c9c98e678ebdd0f7eaf2c6de3aae7b2	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	10273348	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.