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(54) Title: ENERGETICALLY INDEPENDENT SYSTEM FOR IMPLEMENTATION OF THE NEW NON-CONTACT METHOD TO COLLECT THE ELECTROMAGNETIC ENERGY (BASED ON NATURAL OR ARTIFICIAL WAVES) BY MEANS OF FORCE FIELD INTERACTION IN A CONTINUOUS MEDIUM

(57) Abstract:



Description

Title of Invention: ENERGETICALLY INDEPENDENT SYSTEM FOR IMPLEMENTATION OF THE NEW NON-CONTACT METHOD TO COLLECT THE ELECTROMAGNETIC ENERGY (BASED ON NATURAL OR ARTIFICIAL WAVES) BY MEANS OF FORCE FIELD INTERACTION IN A CONTINUOUS MEDIUM

Technical Field

- [1] This invention is related to energy generators that are adapted for generation of electromagnetic energy in a continuous medium by means of interaction of force fields that are present in the said environment (medium). This invention is also related to generators that are independent from external energy supply and consume a part of the generated surplus energy to maintain (ensure) continuous operation of the generator itself.

Background Art

- [2] Power industry is one of the key fields of human enterprise that sustains the present humankind and its development. Numerous inventions have been patented worldwide for extraction (generation) of energy. Essentially, humankind generates energy only by a handful of ways: by burning non-renewable planet resources (coal, gas, oil, nuclear fuel, etc.) or by tapping into renewable power resources (solar, wind, hydro, lunar gravitational, etc.) by means of advanced technologies. All these energy generation technologies have their own advantages and disadvantages, yet these methods of energy generation are expensive, depend on non-renewable resources or are detrimental to environment.
- [3] Modern theoretical physics predicts that continuous environment (or non-homogeneous medium) is an endless source of cheap natural energy, yet the current level of technology does not allow utilizing such sources due to lack of adequate knowledge and understanding of the surrounding space. The first man to have demonstrated possibility to generate energy of this kind was Nicola Tesla. He registered a number of patents, some of which were devoted for generation of clean and cheap energy. Some of his ideas and accomplishments are reflected in individual patents (such as CA33317, CA30172, US685012) and proceedings, yet many works are lost or destroyed. And now 100 years later the humankind continues on the old path of wasting non-renewable planet resources and polluting of environment. Energy is always lacking, its price increases and slows down the progress of humanity. Nicola

Tesla himself has said that human progress will greatly accelerate without destruction of environment only after discovery of clean and effective energy sources. Although much of Nicola Tesla's works have been lost over the years, his ideas are alive and many people have explored phenomena described by Nicola Tesla during the past 100 years.

- [4] The following inventors work to achieve clean and cheap generation of energy: Andrei Anatolievich Melnichenko (e.g.: WO2010117306, WO2010117305, WO2007069936, WO2007035127, WO03061110), Stanislav Viktorovic Avramenko (e.g.: RU2191113, RU2108649), Taniel Kapanadze (e.g.: WO2008103130, WO2008103129), Patrick Stephen, Beaden Thomas, Hayes James, Moore Kenneth, Kenny James (e.g.: US2004057255), John Bedini (e.g.: US2008129250, US2003127928, US2002097013) and others.
- [5] The closest patent is the International Patent Application No. WO 2008/103129, published on August 28, 2008.
- [6] This application describes an energy-independent system that generates energy surplus, part of which is used to sustain operation of system itself and the remaining part is sent to the power grid. The system consists of a primary signal generator unit, a secondary signal generator unit and a load unit. However, the system suffers from certain limitations: It contains grounding (i.e., it should be connected to the ground and is not mobile), it has an antenna (very strong electromagnetic fields and electric discharges severely ionize air around the antenna and produce life-threatening O₃ (ozone) gas). In the system, electric charge collected in the secondary signal generator unit is accumulated on the conductor that is connected to a solenoid and the ground, i.e., energy is collected via a contact. It can be seen that the inductivity coil used in the primary signal generator unit has too many windings and operated suboptimally (for the role of the inductivity coil see further). The inductivity coil performs an additional function, therefore can be correspondingly modified and optimized. The detailed analysis is presented in the preferred embodiment part of this description.

Disclosure of Invention

Technical Problem

[7]

Solution to Problem

Technical Solution

- [8] This invention seeks to create an environmentally friendly, mobile and energy-independent system (device) that would implement a new non-contact method of energy generation (accumulation).
- [9] The exclusive feature of this invention is that, contrary to the said closest invention,

electric charge is accumulated not on an antenna (connected to a solenoid, i.e. via a contact) but in a spatially separated circuit or circuit system at some distance (i.e., in a non-contact manner) from the source of electromagnetic radiation, where one end of the said circuit or circuit system is suspended in air or connected to an insulator (rather than connected to a conducting medium) and the other end is connected to a load network unit.

[10] Another exclusive feature of the invention is that, contrary to the said closest invention, the invented system has no antenna, i.e., operates without antenna and is free from the problem of O₃ (ozone) generation due to strong electromagnetic fields and electric discharges in antenna that is directly connected to a source of electromagnetic field radiation.

[11] Yet another exclusive feature of the invention is that, contrary to the said closest invention, the system is designed to operate without grounding at any point above the ground surface in a continuous medium (e.g., in the Earth's atmosphere), i.e., the system is mobile.

[12] The last exclusive feature of the invention is that, contrary to the said closest invention, the inductivity coil in the primary signal generator unit performs as an electromagnetic inductive key, i.e., a single winding circuit or a coil with a very small number of windings (e.g., 4-5) can be used instead of the inductivity coil.

[13] Thus, the invented system, which implements a new method of electromagnetic energy generation (accumulation), accumulates the said electromagnetic energy in a non-contact way. The system is mobile (has no contact with the ground, i.e., is not grounded), is safe (has no antenna and is free from O₃ (ozone) generation problem).

[14] This method of electromagnetic energy generation preserves nature and its resources (preserves non-renewable planet resources), i.e., presents a new direction for human development towards completely clean and cheap energy.

Advantageous Effects of Invention

Advantageous Effects

[15]

Brief Description of Drawings

Description of Drawings

[16] Fig. 1 shows the system that implements the newly invented method of electromagnetic energy generation (accumulation) based on force field interaction in a continuous medium.

Best Mode for Carrying out the Invention

Best Mode

[17] Initially, we will define the main terms used for explanation and description of the

invention.

- [18] In this invention, the term 'continuous medium' should be understood as an approximation of the objective reality, since from a theoretical point of view a continuous medium is a part of space that has the same physical properties. The real situation is a little different since different areas of space can have slightly (or sometimes even drastically) different physical properties, such as temperature, pressure, etc. Therefore, it should be noted that the invented system can function not only in a theoretical continuous medium (this term is used only for theoretical convenience), but in any real non-homogeneous medium as well. A non-homogeneous medium may have a quantitative, not a qualitative effect to the end result.
- [19] Another important term that requires a definition is a 'force field' or 'force fields'. From the theoretical point of view a force field is a form of matter characterized by a property to exert a force on a body. Types of force fields depend on the 4 (four) types of fundamental interaction: gravitational, electromagnetic, strong, and weak. The invention requires expanding the concept beyond these 4 fundamental interactions to include, for example, interaction of 'information field' or any known or unknown field(s), to that matter. Concerning this invention, the term 'force field' should be understood as a form of matter (or/and information) that has ability to act (more precisely: to have an impact of any kind) on any object (body, particle, virtual particle or a unit of information batch) with a certain intensity (ranging from 'zero' to 'infinity').
- [20] It should be noted that the invention does not contradict the general law of energy conservation, i.e., it is not based on generation of energy out of nothing. According to the invention, the surplus energy is drawn from a specially prepared (continuous) medium, where the said force field exists, and initiating of electromagnetic resonance of the medium. This surplus energy is the energy based on natural or artificial (technogenical) waves.
- [21] Further there are described the electrical energy collection method based on the features of the space (corridor) between Earth and ionosphere, where the mentioned corridor plays the role of the spherical waveguide for the electromagnetic waves. The origins of the mentioned electromagnetical waves are: lightnings, interaction between the atmosphere and outer space (for example: sprites), and similar. Also the method is based on the geometry of the solenoid which can receive, accumulate and emit the electromagnetic waves of the appropriate range, i.e. the mentioned solenoid performs the suction function.
- [22] Fig. 1 shows the invented system that implements a new non-contact method of electromagnetic energy generation (accumulation) based on interaction (or existence) of force fields in a continuous (or other, such as inhomogeneous) medium. The system consists of 3 (three) key components or units: a primary signal generator unit (1), a

secondary signal generator unit (2) and a load unit (3).

- [23] The primary generation unit (1) consists of a power source (1a); a primary electromagnetic signal generator (1b) of adjustable power, frequency and configuration; an inductivity coil (1c) that radiates the primary electromagnetic signal into a (continuous or inhomogeneous) medium. Thus, the said primary electromagnetic signal is broadcasted (distributed) in the said medium around the inductivity coil as an electromagnetic impulse.
- [24] A DC voltage battery may serve as the said power source (1a) for excitation and maintenance of system operation.
- [25] The generator (1b) of the primary electromagnetic signal is not an object of this invention, since a generator of this type is already used in the said closest invention, yet it should be noted that it plays a critical function in the system. Especially important is the waveform (slope) of electromagnetic signal that creates resonance of the surrounding space.
- [26] Inductivity coil (1c) serves to radiate the primary electromagnetic signal to the medium as an electromagnetic impulse. The inductivity coil (1c) is yet another critical component of the system. The primary electromagnetic signal of suitable power, form and frequency is generated by the said primary electromagnetic signal generator and is emitted by the inductivity coil. However, the function of the inductivity coil (1c) in this system is more complicated than that. In the system, it also serves as an electromagnetic inductivity key, since the inductivity coil (1c) can be replaced with an electromagnetic circuit (further, also 1c), i.e., the electromagnetic coil (1c) can consist of only 1 (one) winding. Thus, one of the main features of the system is the fact that waveform and frequency of the said pulse are much more important to ensure functionality of the system than capacity of the generator (1b); the said key (1c) only 'opens the gate' and initializes transfer of high amounts of energy in the said 'continuous medium'. As a matter of fact, intensity of generator (1b) energy output is important, but in a different aspect, since it determines the size of the 'gate'. Even a small increase of generator (1b) output considerably increases intensity of the said high energies.
- [27] The secondary signal generator unit (2) consists of a solenoid system (2a) and an (electromagnetic) energy collector unit (3a). Since the said closest invention contains grounding (2b) and an antenna (2c), these are also included in the diagram of the invented system for the sake of clarity, yet the system is designed to function without them (i.e., without grounding and an antenna), since the energy collection unit (3a) is implemented completely differently. Formally speaking, the energy collection unit (3a) belongs to the load network unit (3); however, it is also an intrinsic part of the secondary signal generator unit (2). Therefore, the energy collection unit (3a) is assigned to the load network unit (3) according to the marking and, at the same time, it

is an exceptional part of the secondary signal generator unit (2).

[28] The solenoid system (2a) serves a dual purpose. It receives the said electromagnetic pulse on one hand. On the other hand, it generates induced secondary electromagnetic radiation. This induced secondary electromagnetic radiation is the said 'high energies'. Configuration and parameters of the solenoid system (2a) is not a subject of this invention, since such solenoid system (though probably with different parameters) has already been implemented in the said closest invention. It should be noted that the parameters of the primary electromagnetic generator (1b), the inductivity coil (1c) and the solenoid system (2a) should be very precisely tuned. Tuning of these parameters is only achievable empirically at the present, theoretical models being only under development. The cause of the said induced secondary electromagnetic radiation is also not known. It has been established that transfer electromagnetic energy takes place when using the system and that this transfer process can be used to convert part of the energy to another kind (form) of energy (e.g., electric charge), to collect it and channel it to the load network unit (3). We are not talking about energy generation out of nothing.

[29] As mentioned above, the design of the secondary signal generator unit (2) allows the whole system to function without grounding (2b) and an antenna (2c), since the special collection module (3a) is able to collect part of the said induced secondary electromagnetic radiation by utilizing the newly invented method. Elimination of antenna (2c) solves the problem of ozone formation, while elimination of grounding increases intensity of the induced secondary electromagnetic radiation.

[30] The load network unit (3) consists of the energy collection module (3a), electric current module (3b) and a load module (3c).

[31] The purpose of the energy collection module (3a) is to collect a part of the said secondary electromagnetic radiation and to convert it electric charge. The exclusive feature of this invention is that electric charge is accumulated not on an antenna (via a contact), but in a spatially separated circuit or a circuit system (also 3a) at some distance from the source of electromagnetic radiation (which is the solenoid system (2a)), where one end of the said circuit or a circuit system is suspended in air or connected to an insulator (rather than connected to an electrically conducting medium) and the other end of the said circuit system (3a) is connected to the load network unit (3), more precisely, to the electric current module (3b).

[32] The electric current module (3b) receives the said accumulated electric charge and converts it to electric current.

[33] The load module (3c) receives electric current from the electric current module (3b) and converts it to heat, light or channels it to charging devices. Direct transmission of electric energy to consumers is not possible, since that disrupts the operation mode

(resonance) of the secondary signal generator unit (2) and the whole system breaks down.

[34] The invention describes only one possible way of collection and conversion of the said induced secondary electromagnetic radiation, i.e., conversion thereof to electric charge. If the space around the solenoid system was filled with an appropriate gas, a part of the said induced secondary electromagnetic radiation could be converted to light (photons) by producing an intensive gas glow and the energy of photons could later be collected by solar panels or other known devices. Also, it is possible to directly convert a part of the said induced secondary electromagnetic radiation to mechanical movement, which later can be converted to other sorts of energy.

[35] The above descriptions of preferred embodiment scenarios are provided to illustrate and describe this invention.

[36] This is not an exhaustive or limited invention that seeks to establish an exact form or embodiment scenario. The above description is an illustration, not a limitation, and should be treated as such. Obviously, many modifications and variations can be evident for professionals of corresponding fields. The embodiment scenarios are selected and described to explain in the best possible manner to professionals of corresponding fields the principles of this invention and their best practical applications in various embodiment scenarios and variations adjusted for specific applications or implementation. All terms used in the scope of invention as defined by its definition and its equivalents are to be understood in the broadest meaning possible unless indicated otherwise. Modifications of embodiment variations described by professionals of corresponding fields should be acknowledged as remaining in the scope of this invention according to the following claims.

Mode for the Invention

Mode for Invention

[37]

Industrial Applicability

[38]

Sequence Listing Free Text

Sequence List Text

[39]

Claims

[Claim 1]

1. Energy-independent system, that consists of:
a primary signal generation unit (1), consisting of a power source (1a); a primary electromagnetic signal generator (1b) of adjustable power, frequency and configuration; an inductivity coil (1c) that radiates the primary electromagnetic signal into a surrounding medium, where the said primary electromagnetic signal is radiated by the inductivity coil (1c) and is broadcasted (distributed) in the said medium around the inductivity coil as an electromagnetic impulse;
a secondary signal generation unit (2), consisting of a solenoid system (2a) that receives the said electromagnetic pulse and generates induced secondary electromagnetic radiation; and
a load network unit (3), consisting of:
an energy collection module (3a) that collects a part of the said secondary induced electromagnetic radiation and converts it electric charge;
an electric current module (3b) that receives the said electric charge and converts it to electric current;
a load module (3c) that converts the said electric current to heat, light or channels it to charging devices;
characterized in that
the secondary signal generation unit (2), consisting of the solenoid system (2a) and the electromagnetic energy collector unit (3a), accumulates electric charge in a spatially separated circuit or a circuit system (also 3a) at some distance from the source of the secondary induced electromagnetic radiation, where one end of the said circuit or a circuit system is suspended in air or connected to an insulator (rather than connected to an electrically conducting medium) and the other end of the said circuit system (3a) is connected to the load network unit (3), more precisely, to the electric current module (3b);
grounding (2b) is eliminated from the secondary signal generator unit (2) (from the whole system) to increase intensity of the induced

secondary electromagnetic radiation;

an antenna (2c) is eliminated from the secondary signal generator unit (2) (from the whole system) to solve the problem of ozone formation.

[Claim 2] 2. Energy-independent system according to claim 1, characterized in that the secondary signal generator unit may contain an antenna (2c) and/or grounding (2b).

[Claim 3] 3. Energy-independent system according to claims 1 or 2, characterized in that the inductivity coil (1c) of the primary signal generator unit (1) consists of 1 (single) winding or a small number of windings and performs the function of electromagnetic inductivity key.

[Claim 4] 4. The method of the electromagnetic energy accumulation (gathering), comprising of the following stages:

- generation of the primary electromagnetic signal of selected power, frequency and waveform;
- broadcasting of the electromagnetic pulse;
- reception of the electromagnetic pulse;
- generation of the secondary induced electromagnetic radiation;
- collection of electric charge;
- generation of electric current; and
- consumption of electric current,

characterized in that

the electric charge is collected by a system according to any of the claims 1-3.

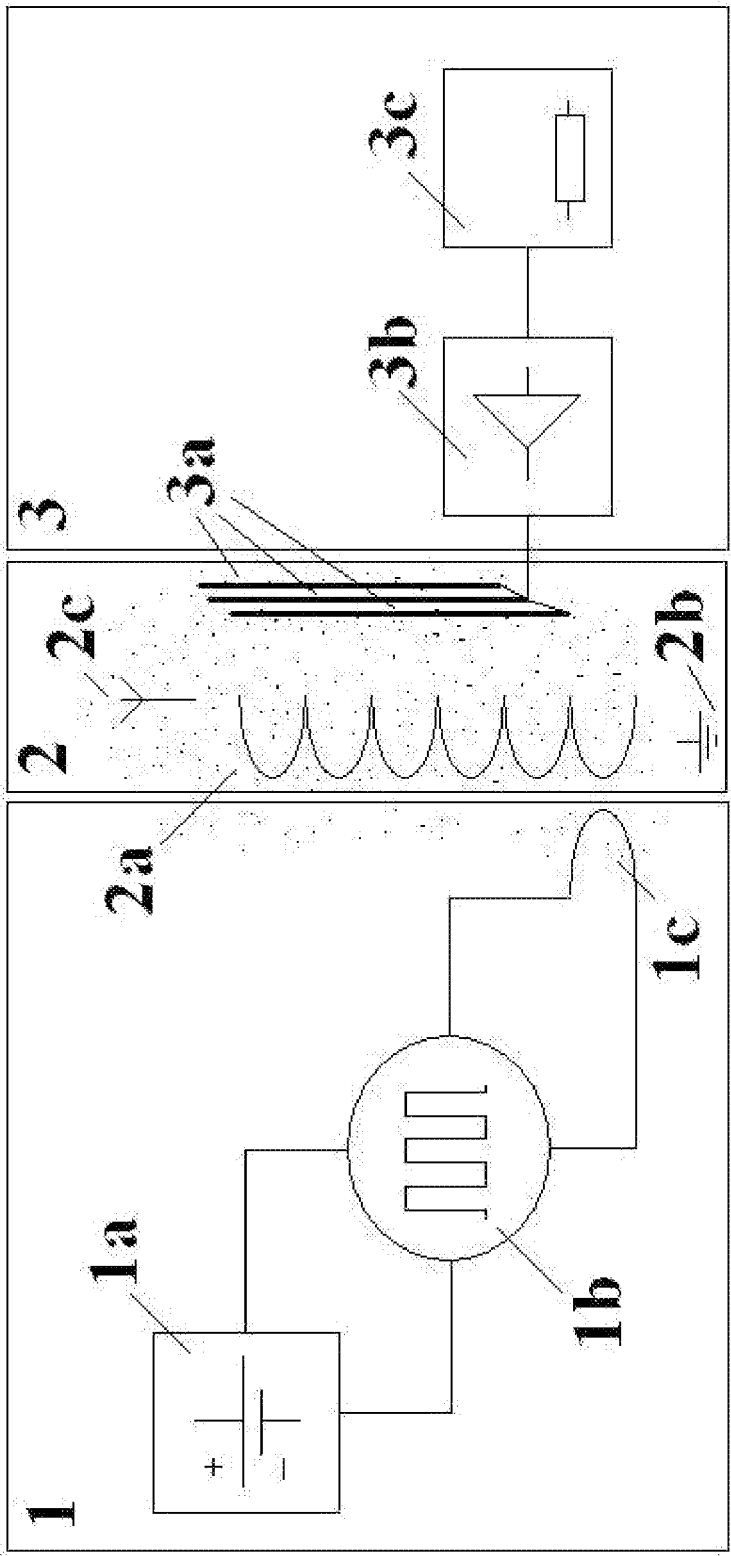


Fig. 1

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13~~ter~~.1(c) and Rule 39)

Applicant's or agent's file reference TPP2013-03	IMPORTANT DECLARATION	Date of mailing(<i>day/month/year</i>) 15 May 2013 (15-05-2013)
International application No. PCT/IB2013/050771	International filing date(<i>day/month/year</i>) 30 January 2013 (30-01-2013)	(Earliest) Priority date(<i>day/month/year</i>) 31 January 2012 (31-01-2012)
International Patent Classification (IPC) or both national classification and IPC H02N11/008		
Applicant UAB "ECPG"		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. ☐ The subject matter of the international application relates to:
 - a. ☐ scientific theories
 - b. ☐ mathematical theories
 - c. ☐ plant varieties
 - d. ☐ animal varieties
 - e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes
 - f. ☐ schemes, rules or methods of doing business
 - g. ☐ schemes, rules or methods of performing purely mental acts
 - h. ☐ schemes, rules or methods of playing games
 - i. ☐ methods for treatment of the human body by surgery or therapy
 - j. ☐ methods for treatment of the animal body by surgery or therapy
 - k. ☐ diagnostic methods practised on the human or animal body
 - l. ☐ mere presentations of information
 - m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art
2. ☒ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☐ the description
 ☒ the claims
 ☐ the drawings
3. ☐ A meaningful search could not be carried out without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rule 13~~ter~~.1(a) or (b).
4. Further comments:

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040 Fax: (+31-70) 340-3016	Authorized officer MEIEREWERT, Klaus Tel: +49 (0)30 25901-722
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

All claims are directed to an alleged perpetual motion machine (perpetuum mobile):

Paragraph [1] and [6] of the description state that the "invention is related also to generators that are independent from external energy supply and consume a part of the generated energy to maintain continuous operation of the generator" and that "the energy-independent system generates energy surplus, part of which is used to sustain operation of the system itself and the remaining part is sent to the power grid"

It appears clearly from the description that the claimed device generates more energy than it receives. This is contrary to the law of conservation of energy and to the first law of thermodynamics. Therefore, a meaningful search as well as a meaningful opinion as to novelty and inventive step is not possible.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guidelines C-IV, 7.2), should the problems which led to the Article 17(2) declaration be overcome.