

A Practical Guide to 'Free Energy' Devices

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This patent shows the details of a lightweight device which can produce electricity using a self-powered electromagnet and chemical salts. The working life of the device before needing a recharge is estimated at some seventy years. The operation is controlled by a transmitter which bombards the chemical sample with 300 MHz radio waves. This produces radioactive emissions from the chemical mixture for a period of one hour maximum, so the transmitter needs to be run for fifteen to thirty seconds once every hour. The chemical mixture is shielded by a lead screen to prevent harmful radiation reaching the user. The output from the tiny device described is estimated to be some 10 amps at 100 to 110 volts DC.

GB Patent GB 673,062

5th December 1956

Inventors: Harold Colman and Ronald Seddon-Gillespie

APPARATUS FOR PRODUCING AN ELECTRIC CURRENT

DESCRIPTION

This invention relates to a new apparatus for producing electric current the apparatus being in the form of a completely novel secondary battery. The object of this invention is to provide apparatus of the above kind which is considerably lighter in weight than, and has an infinitely greater life than a known battery or similar characteristics and which can be re-activated as and when required in a minimum of time.

According to the present invention we provide apparatus comprising a generator unit which includes a magnet, a means for suspending a chemical mixture in the magnetic field, the mixture being composed of elements whose nuclei becomes unstable as a result of bombardment by short waves so that the elements become radio-active and release electrical energy, the mixture being mounted between, and in contact with, a pair of different metals such as copper and zinc, a capacitor mounted between those metals, a terminal electrically connected to each of the metals, means for conveying the waves to the mixture and a lead shield surrounding the mixture to prevent harmful radiation from the mixture.

The mixture is preferably composed of the elements Cadmium, Phosphorus and Cobalt having Atomic Weights of 112, 31 and 59 respectively. The mixture, which may be of powdered form, is mounted in a tube of non-conducting, high heat resistivity material and is compressed between granulated zinc at one end of the tube and granulated copper at the other end, the ends of the tube being closed by brass caps and the tube being carried in a suitable cradle so that it is located between the poles of the magnet. The magnet is preferably an electro-magnet and is energised by the current produced by the unit.

The means for conveying the waves to the mixture may be a pair of antennae which are exactly similar to the antennae of the transmitter unit for producing the waves, each antenna projecting from and being secured to the brass cap at each end of the tube.

The transmitter unit which is used for activating the generator unit may be of any conventional type operating on ultra-shortwave and is preferably crystal controlled at the desired frequency.

DESCRIPTION OF THE DRAWINGS

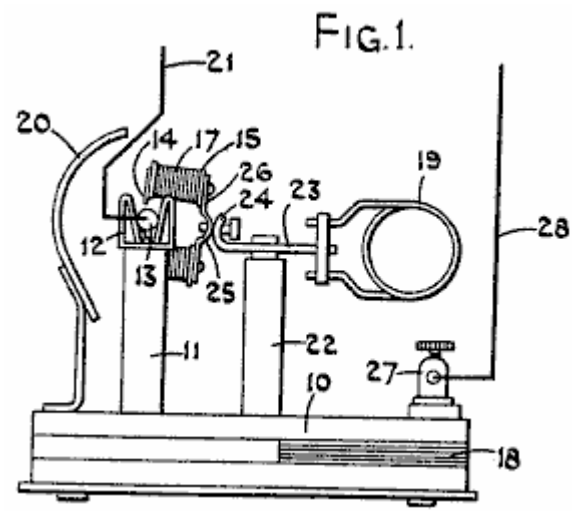


Fig.1 is a side elevation of one form of the apparatus.

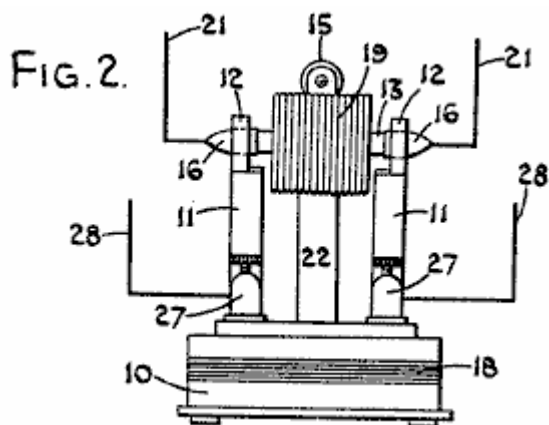


Fig.2 is a view is an end elevation

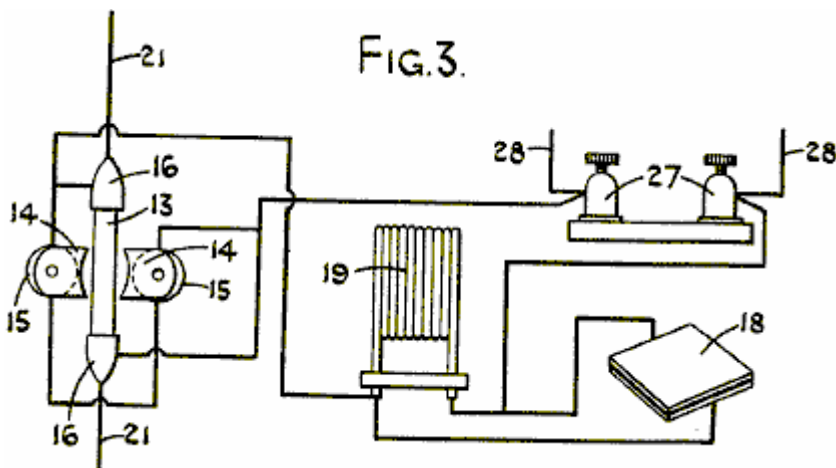


Fig.3 is a schematic circuit diagram.

In the form of our invention illustrated, the generator unit comprises a base **10** upon which the various components are mounted. This base **10**, having projecting upwards from it a pair of arms **11**, which form a cradle housing **12** for a quartz tube **13**, the cradle **12** preferably being made of spring material so that the tube **13** is firmly, yet removably held in position. The arms **11** are positioned relative to the poles **14** of an electromagnet **15** so that the tube **13** is located immediately between the poles of the magnet so as to be in

the strongest magnetic field created by the electromagnet. The magnet serves to control the alpha and beta rays emitted by the cartridge when it is in operation.

The ends of the quartz tube **13** are each provided with a brass cap **16**, and these caps **16** are adapted to engage within the spring cradles **12** and the coils **17** associated with the magnet being so arranged that if the base **10** of the unit is in a horizontal plane, the poles **14** of the magnet are in a substantially vertical plane.

Also connected across the cradles is a lead capacitor **18** which may conveniently be housed in the base **10** of the unit and connected in parallel with this capacitor **18** is a suitable high frequency inductance coil **19**. The unit is provided with a lead shield **20** so as to prevent harmful radiation from the quartz tube as will be described later.

The quartz tube **13** has mounted in it, at one end, a quantity of granulated copper which is in electrical contact with the brass cap **16** at that end of the tube. Also mounted within the tube and in contact with the granulated copper is a chemical mixture which is in powdered form and which is capable of releasing electrical energy and which becomes radioactive when subjected to bombardment by ultra-short radio waves.

Mounted in the other end of the tube, and in contact with the other end of the powdered chemical mixture is a quantity of granulated zinc which is itself in contact with the brass cap on this end of the tube, the arrangement being that the chemical mixture is compressed between the granulated copper and the granulated zinc.

Projecting outwards from each brass cap **16**, and electrically connected to them, is an antenna **21**. Each antenna **21** corresponding exactly in dimension, shape and electrical characteristics to the antenna associated with a transmitter unit which is to produce the ultra shortwaves mentioned earlier.

The electromagnet **15** is conveniently carried by a centrally positioned pillar **22** which is secured to the base **10**. At the upper end of pillar **22** there is a cross-bar **23**, which has the high frequency coil **19** attached to one end of it. The other end of the cross-bar **23** is bent around into the curved shape as shown at **24** and is adapted to bear against a curved portion **25** of the base **26** of the electromagnet **15**. A suitable locking device is provided for holding the curved portions **24** and **25** in the desired angular position, so that the position of the poles **14** of the electromagnet can be adjusted about the axis of the quartz tube **13**.

The transmitter unit is of any suitable conventional type for producing ultra shortwaves and may be crystal controlled to ensure that it operates at the desired frequency with the necessity of tuning. If the transmitter is only required to operate over a short range, it may conveniently be battery powered but if it is to operate over a greater range, then it may be operated from a suitable electrical supply such as the mains. If the transmitter is to be tuned, then the tuning may be operated by a dial provided with a micrometer vernier scale so that the necessary tuning accuracy may be achieved.

The mixture which is contained within the quartz tube is composed of the elements Cadmium, Phosphorus and Cobalt, having atomic weights 112, 31 and 59 respectively. Conveniently, these elements may be present in the following compounds, and where the tube is to contain thirty milligrams of the mixture, the compounds and their proportions by weight are:

1 Part of $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$
2 Parts of CdCl_2
3 Parts of $3\text{Ca}(\text{PO}_3)_2 + 10\text{C}$.

The cartridge which consists of the tube **13** with the chemical mixture in it is preferably composed of a number of small cells built up in series. In other words, considering the cartridge from one end to the other, at one end and in contact with the brass cap, there would be a layer of powdered copper, then a layer of the chemical mixture, then a layer of powdered zinc, a layer of powdered copper, etc. with a layer of powdered zinc in contact with the brass cap at the other end of the cartridge. With a cartridge some forty five millimetres long and five millimetres diameter, some fourteen cells may be included.

The cradles **12** in which the brass caps **16** engage, may themselves form terminals from which the output of the unit may be taken. Alternatively, a pair of terminals **27** may be connected across the cradles **12**, these terminals **27** being themselves provided with suitable antennae **28**, which correspond exactly in dimensions,

shape and electrical characteristics to the antennae associated with the transmitter, these antennae **28**, replacing the antennae **21**.

In operation with the quartz tube containing the above mixture located between the granulated copper and the granulated zinc and with the tube itself in position between the poles of the magnet, the transmitter is switched on and the ultra shortwaves coming from it are received by the antennae mounted at each end of the tube and in contact with the copper and zinc respectively, the waves being thus passed through the copper and zinc and through the mixture so that the mixture is bombarded by the short waves and the Cadmium, Phosphorus and Cobalt associated with the mixture become radioactive and release electrical energy which is transmitted to the granulated copper and granulated zinc, causing a current to flow between them in a similar manner to the current flow produced by a thermo couple. It has been established that with a mixture having the above composition, the optimum release of energy is obtained when the transmitter is operating at a frequency of 300 MHz.

The provision of a quartz tube is necessary for the mixture evolves a considerable amount of heat while it is reacting to the bombardment of the short waves. It is found that the tube will only last for one hour and that the tube will become discharged after an hours operation, that is to say, the radioactiveness of the tube will only last for one hour and it is therefore necessary, if the unit is to be run continuously, for the transmitter to be operated for a period of some fifteen to thirty seconds duration once every hour.

With a quartz tube having an overall length of some forty five millimetres and an inside diameter of five millimetres and containing thirty milligrams of the chemical mixture, the estimated energy which will be given off from the tube for a discharge of one hour, is 10 amps at between 100 and 110 volts. To enable the tube to give off this discharge, it is only necessary to operate the transmitter at the desired frequency for a period of some fifteen to thirty seconds duration.

The current which is given off by the tube during its discharge is in the form of direct current. During the discharge from the tube, harmful radiations are emitted in the form of gamma rays, alpha rays and beta rays and it is therefore necessary to mount the unit within a lead shield to prevent the harmful radiations from affecting personnel and objects in the vicinity of the unit. The alpha and beta rays which are emitted from the cartridge when it is in operation are controlled by the magnet.

When the unit is connected up to some apparatus which is to be powered by it, it is necessary to provide suitable fuses to guard against the cartridge being short-circuited which could cause the cartridge to explode.

The estimated weight of such a unit including the necessary shielding, per kilowatt hour output, is approximately 25% of any known standard type of accumulator which is in use today and it is estimated that the life of the chemical mixture is probably in the region of seventy to eighty years when under constant use.

It will thus be seen that we have provided a novel form of apparatus for producing an electric current, which is considerably lighter than the standard type of accumulator at present known, and which has an infinitely greater life than the standard type of accumulator, and which can be recharged or reactivated as and when desired and from a remote position depending on the power output of the transmitter. Such form of battery has many applications.