

## KUNEL PATENT: (DE3024814)

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Inventor(s):

Applicant(s):: KUNEL HEINRICH (DE)

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DESCRIPTION: (translated from German)

### PROCEDURES AND DEVICES FOR ENERGY PRODUCTION

The invention concerns procedures and devices for energy production, which convert the magnetic flux without rotary sections or such moved items from permanent magnets into temporally variable induced flux and produce by temporally large modification of the induced flux electric current without thermal circuit, without torque and without chemical process in such a manner, that the electric current is strengthened with the nth number, a multiplier.

The energy problems of our time are sufficiently well-known in the professional world. The transformation of conventional primary energy forms into technically usable energy is relatively cost-intensive. Additionally thereby precious, ever more scarcely becoming raw materials are destroyed and dangers are accumulated, which are able to cause the end of mankind.

In order to reduce or exclude these and other disadvantages during the power production, it is suggested according to invention, proceeding thus, that for the production of electric current by induction no torque is used, but that only the magnetic flux from permanent magnets is converted into an induced flux with large temporal modification, e.g. into a fast pulsating or fast changing induction flux, whereby the induction flux induces an electric current.

In accordance with the invention one proceeds with the fact preferably in such a way that e.g. a permanent magnet block is connected with an iron core to one or both of its poles, which consists e.g. of dynamo iron, pure iron or amorphous iron or of similar suitable material with small or no core losses.

Following the procedure according to the invention if e.g. one pole of a bar magnet with such an iron core, likewise in staff form, is joined, then both sections form together a magnet.

During this magnetization process of the soft-magnetic core a magnetic flux flows in this, which induces an current as induction flux in a conducting circuit leading around the core.

If now e.g. beside the permanent magnet around the core a coil is wound, which is so dimensioned, that it interrupts the magnetic flux in the core with an electric current flowing in it totally or partly or removes the magnetic status in the core, then, in a coil enclosing the core, by the temporal modification of the induced flux a current is induced again.

If this interruption of the induced flux takes place in temporally large modification, e.g. with the phase change of a alternating current, then in the induction coil of the core a pulsating direct current is induced.

With each phase change the circuit breaker coil wound beside the magnet on the core is flowed through twice by the current, whereby the induced flux coming from the magnet is once interrupted and once released.

In the induction coil a pulsating induction current is caused by the in this way produced pulsating internal induction flux in the core.

This effect can be obtained also with direct current in the circuit breaker coil, as the electric current in desired sequence is interrupted and released again.

The current pulses interrupt thereby the induction flux in the core in the same sequence and let the induced flux pulsate, whereby again a pulsating direct current in the induction coil is caused.

It was found that the induced flux from a permanent magnet achieves its full initial value of the magnetic flux density in the core also at the free end of the soft-magnetic core, even if several induction windings with ever the same number of turns and the conductor cross section are appropriate as in the circuit breaker coil on the core, without changes of the value of the magnetic flux density or the remanence of the permanent magnet.

The permanent magnet is not demagnetised by the use of its magnetic field for the production of the induction flux in the core, no energy is extracted from it; contrary to an electromagnetic core, whose induction windings take up over the energizing winding more current, than the circuit breaker coil needs current alone.

With electromagnetic core thus as much current is used, as is induced, which corresponds to the relation of the well-known transformer.

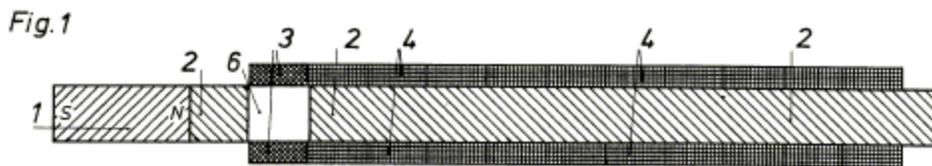
Therefore it is essential to produce the induction flux in a way according to invention with the permanent magnet.

After the found primary system one can build e.g. energy linear generators or energy circle generators or other arising or suitable types and forms of energy generators, without the necessity of a rotor or an anchor or such mobile sections or a torque in the generator.

The invention designates thus to make only frequency or impulse control electrically so that the internal induction flux in the generator core is essentially produced or caused by the permanent magnetic field.

In the drawings constructional examples are schematically represented according to the invention.

Fig. 1 shows an energy linear generator in longitudinal section, Fig. 2 an energy linear generator in the instantaneous state of the transmission of the induction flux of the permanent magnet to the generator core and Fig. 3 represents an energy linear generator at the moment to the interruption of the induced flux; Fig. 4 explains a static energy pulsation generator with a closed magnetic circuit at the moment the transmission of the induction flux of the permanent magnet to the generator core block, Fig. 5 is a chart of the functional way of the circular process of a system according to invention, Fig. 6 explains an energy double linear generator with some of its subelements and Fig. 7 an energy generator according to invention with cyclic pulsating operation and with some of its subelements in and at the energy circuit.



The energy linear generator in the profile after Fig. 1 consists of a permanent magnet block 1 with the soft-magnetic generator core 2, which can be in the whole, or, like here, divided.

The circuit breaker coil is attached not directly to the magnet block 1, so that the magnet block 1 from permanent magnetic material is not exposed to the alternating fields of the circuit breaker coil 3.

On the generator core 2, appropriate following the circuit breaker coil 3, are e.g. several induction coils 4.

The air gap 6 serves alternating as gate or circuit breaker for the magnetic flux from the magnet block 1, the induction flux for the induction windings 4.

In these style e.g. an alternating current for the circuit breaker coil 3 is preferably used for the production of an alternating field in the air-gap 6, so that, as from Fig. 2 evident, with each phase of the alternating current the induced flux 5 is directed once to the core 2 and once against the magnet block 1, as in Fig. 3, whereby the induced flux 5 to the core 2 is interrupted totally or partly and thus experiences a temporal modification .

If an alternating current is supplied to the circuit breaker coil 3 e.g. with a frequency by 50 cycles per second, then the induced flux 5 experiences in the core 2 per second one hundred

times a temporal modification, whereby in the induction windings 4 a pulsating direct current 14 with 50 positive maximum values per second is induced.

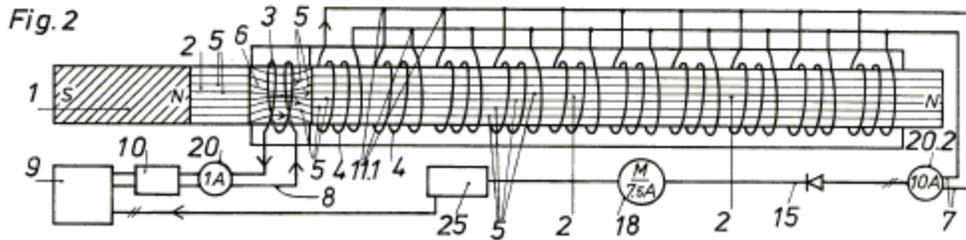


Fig. 2 shows optically that on the generator core 2 several induction windings 4 are appropriate, which correspond ever at least to the number of turns with same conductor cross section as in the circuit breaker coil 3.

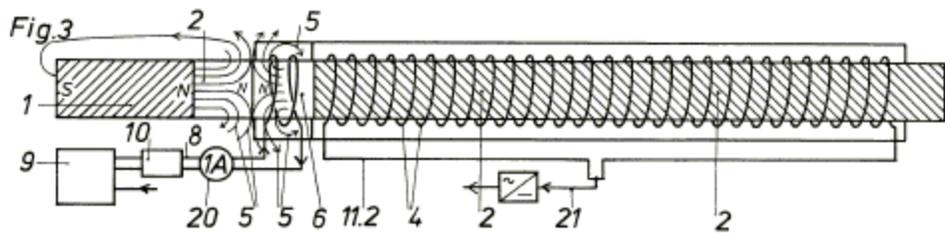
Since the magnet block 1 requires for its magnetic flux no induction by electric current and experiences nevertheless at the free end N of the core 2 the same magnetic saturation, as at the start following the magnet block 1, in the multiple number of turns of the induction coil 4 in Fig. 2 or in a continuous coil 4 according to Fig. 3, also the multiple current is induced as is needed for the excitation of the circuit breaker coil 3.

From the power source 9 the energizing current flows to the pulse generator 10, the ammeter 20 displays requirements of electric current with 1 ampere.

The induced current 7 or the pulsating direct current 14 is added over connections 11,1 and measured in the ammeter 20,2 with 10 ampere.

In an electric rectifier 15 the pulsating direct current is smoothed and supplied to the DC consumer 18.

With the current over the line 21, leading to the battery charger 25, the power source 9 is fed.



The interruption of the same by the direction change of the alternating current, necessary for the temporal modification of the induction flux 5, is represented in Fig.3; the induction flux 5 is interrupted, the conductor set 11,2 is negative in this instant and 21 is the power connection to consumer and source 9.

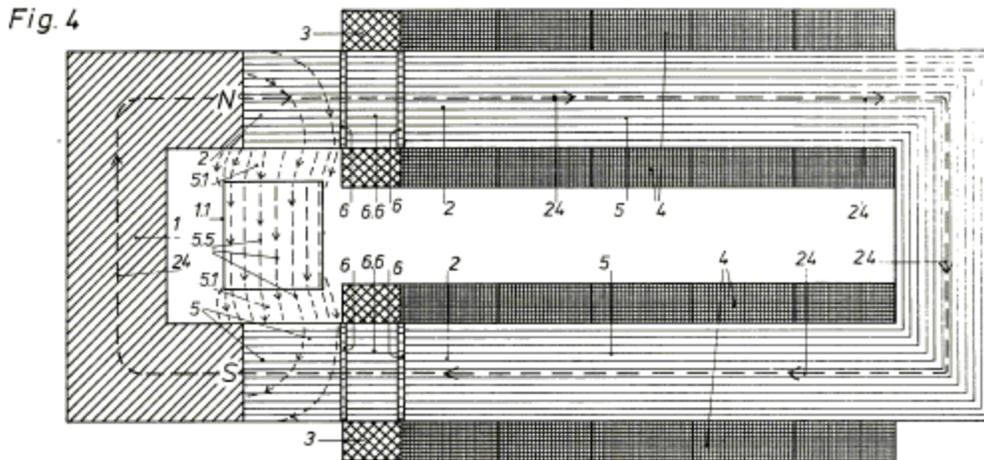


Fig.4 shows an realization according to invention with an u-shaped magnet block 1 and an u-shaped generator core 2 with its two ends to the poles of the magnet block 1.

In the air gap 6 is for example a circuit breaker coil 6.6.

This figure shows the instantaneous state, while the induction flux 5 will be transferred from the circuit breaker coil 3 into the generator core 2 and forms a closed magnetic circuit 24.

The circuit breaker coil 3 here has a core 6,6, which makes and interrupts alternating the connection of the magnetic flux 5 between two narrow air gaps 6 from the magnet block 1 to the generator core 2 with the induction windings 4, so that each pulse of the induction flux 5 induces in the induction windings 4 a current.

Thus a pulsating direct current results, which is several times larger as the brought in energizing current.

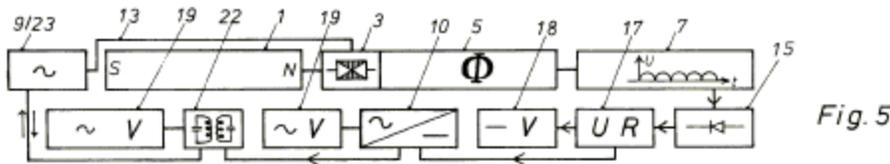
By the change of the direction of current the soft-magnetic core 6,6 of the circuit breaker coil 3 is commutated, then the induction flux 5 is interrupted.

In the time of the interruption of the induction flux 5 the magnetic flux 5 of the magnet block 1 flows over into the iron guidance block 1,1 and forms on the way 5,5 to the s-pole of the magnet block 1 or to the equilibrium in the air gaps between n-pole of iron guidance block 1,1 and s-pole of the magnet block 1 magnetic fields 5.1.

The broken lines 5,5 of n-pole to S pole by the iron guidance block 1,1 depict the magnetic flow during its interruption to the generator core 2.

This supported steering of the magnetic flux 5 prevents in this moment the leakage flux to the generator core 2 so that the maximal rms of the induced current is achieved, as the generator core is 2 without magnetic excitation.

The chart after Fig. 5 describes the methodology in the cyclic process e.g. in an energy generator according to Fig. 4.



The pulsating current from the power source 9 or alternating current 12 from the power-grid 23 flows into the exciter-circuit 13 to the circuit breaker coil 3 and produces a pulsating induction current 7 or pulsating direct current 14, which is led by the electric rectifier 15 as smooth direct current 16 to the voltage regulator 17.

The direct current 16 of desired voltage is led to the consumer 18 and to the current transformer 10, by which the received alternating current 12 is led to the consumer 19 and coupled bycoupling 22 with the power-grid 23, whereby the consumer 19 can be supplied e.g. with alternating current 23 from the power-grid or from the electric circuit of the energy generator.

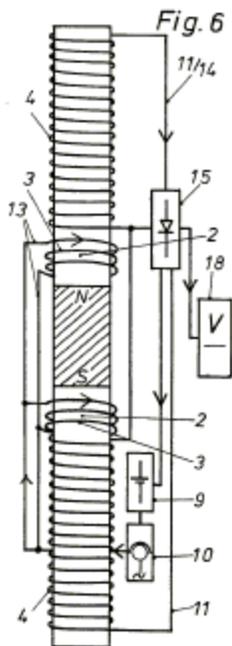


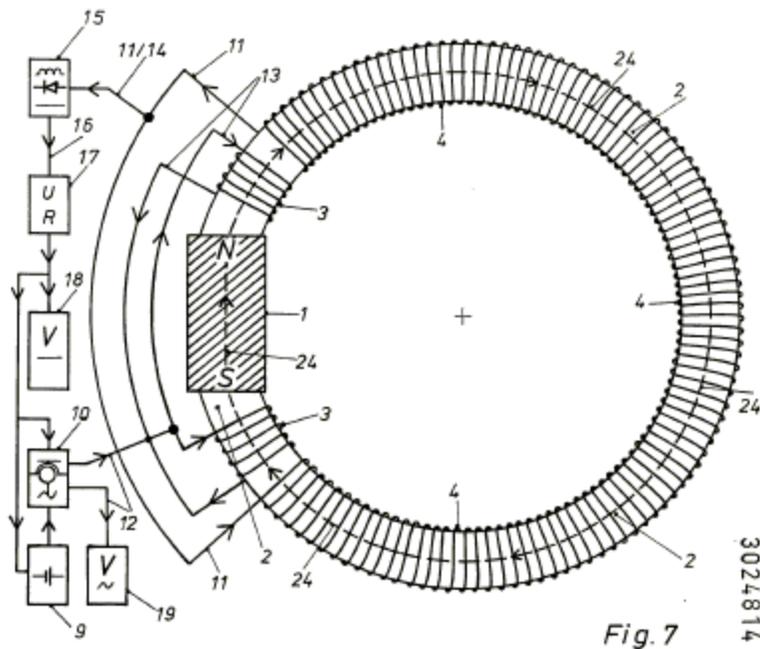
Fig. 6 describes a double linear generator in accordance with the invention.

On a preferably straight-line magnet block are fitted generator cores 2 from dynamo iron to its two poles.

The circuit breaker coil 3 gets their working current from the power source 9 through a current transformer or pulse generators 10 by the excitation circuit 13.

Through appropriate windings 4 can be won e.g. direct current or also alternating current 12.

Pulsating direct current 14 from the induction current circuit 11 is smoothed and transmitted to the consumer 18 and also the power source 9.



A further version of the system in accordance with the invention shows Fig.7.

In principle is that likewise a static energy producer, with cyclic arrangement and function, as there are in this generator also no mobile sections, as rotor and such things exist and induction flux 5 like the induction current 7 develops from an cyclically pulsating induction flux .

The magnet block 1 is inserted in a circular generator core 2.

The circuit breaker coils 3 can be operated with pulsating direct current 14 or as here with alternating current 12.

From the power source 9 the direct current 16 for example is led into a current transformer 10 converted into alternating current and fed into the exciter circuit 13.

The circuit breaker coils are so created that the positive maximum value of the alternating current 12 opens and supports the natural way of the induced flux 5 of the n-pole to the s-pole of the magnet-block 1 by the circular generator core 2 to a closed magnetic circuit 24.

If the circuit breaker coils 3 on both sides of the magnet block 1 are flowed through by the negative maximum value of the alternating current 12, then the natural magnetic flux in the generator core 2 is constricted by induction flux moving in opposite directions 5 in the circuit breaker coils 3 and interrupted totally or partly.

The complete interruption of the induction flux 5 is obtained, if the magnetic excitation of the

generator core 2 is equal to zero.

In the case of temporally large modification of this sequence in the coil 4 a pulsating direct current 14 is caused, which is led by the induction circuit 11 to the electric rectifier 15, in which the pulsating direct current 14 is formed to a smooth technical current.

By the voltage regulator 17 the direct current 16 can be transmitted to the consumer 18 and the power source 9 and the current transformer 10, which supplies the alternating current consumer 19 and the circuit breaker coils 3 with alternating current.

If the induction flux 5 is turned around in the core 2 according to dimensioned circuit breaker coils 3, then an alternating current with smaller negative maximum value is caused and the arithmetic average value during one period shifts on zero.

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According to this invention in a cyclic process an energy circle is created, with considerable energy surplus for the supply of the attached consumers as well as for the maintenance of the operation of this system.

According to invention on saving of the torque the same induction effect is obtained by the circuit breaker coils and the use of permanent magnets in the energy producers, as with the conventional generators for the transformation of a torque into electricity, whereby however the energy value of the torque is larger than the energy value of the won electricity.

It was found that from each pole of the magnet block to the two ends of a e.g. u-shaped generator core one of the circuit breaker or guidance coils with or without core for transmission of the magnetic induction flux has to be designated in such a manner that by alternating induction flux, which is caused by the permanent magnet e.g. in the rhythm of the phase change of an alternating current frequency of the energizing current the generator core is constantly commutated, as the n-pole will be transferred alternating to one and the other open end of the core and the coils likewise leading to the core to s-pole of the magnet block close the reversible magnetic circuit in the core with each current pulse, which is caused by a permanent magnet.

In this way the induction flux in the core experiences its desired flux direction change and produces in the induction windings of the generator an alternating current of the same frequency as those of the energizing current, however with repeated rms as that of the used up or brought in energizing current.

Since the found pulsating or reversible induction flux is caused by a permanent magnet, no electric current is necessary for its production also for the whole way by the generator core and its induction windings, because the reversible magnetic excitation of the core takes place indirectly in each case or directly via a permanent magnet, whose remanence is changed by the magnetic excitation of the generator core in accordance with the invention also in long-term operation in no way.

The system according to invention for energy production and energy producer can be extremely efficient e.g. in high frequency operation with electronically controlled direct current

pulse operation and it can the multiple of the necessary working current at electricity be produced in particular in this way, without material is used and without thermal circuit or a torque is necessary.

if several are arranged such energy producer switched in graduated size e.g. in a series that second receives the full performance first and third the full performance of the second energy producer to etc., then with a multiplier of 10 in the sixth member of the series already 1000 megW performance are obtained, if one proceeds from 1000 W power input in the first and smallest energy producer at the start of the series.

Thus it is possible to replace all well-known primary energies and procedures of the energy conversion with the systems and energy generators according to invention, for all future on economical into electricity because of their high costs, since these cannot operate in no way also approximately so economically, as it is possible with the devices according to the invention .