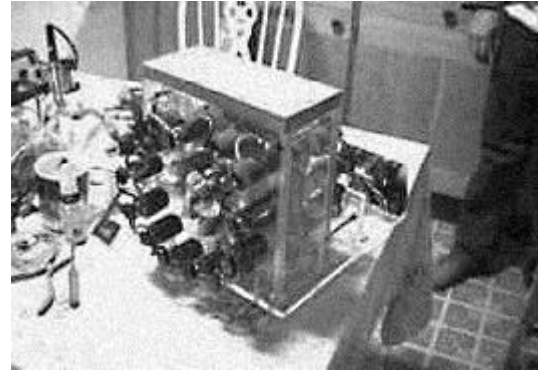


The Muller Unit



Alte Olsen Generator

## Vladimir Matveev's Electrical Generator

### Entirely New Kind Of Generator Invented!

( 1-26-2003 ) TASHKENT, Uzbekistan (UPI) – An Uzbek inventor said he has created a type of electrical generator that does not rely on the principle of electromagnetic induction – on which all existing generators are based.

The new generator employs a concept called **magnetic conductivity modulation** and it has potential applications in industry, communications, households and even the military, explained Vladimir Matveev, the inventor, a specialist in electronics.

Matveev said he is convinced he has created a fundamentally different machine.

"All electrical machines I know are based on the principle of interaction between the magnetic fluxes (lines of force) of their rotor (rotating member) and stator (portion that remains fixed)," he explained.

Such machines, Matveev said, are based on electromagnetic induction, a property of energy discovered by Michael Faraday, an English physicist and chemist, in the 19th century. The machines produce electrical current either by moving a conductor across a magnetic field or by regulating the flux of that field.

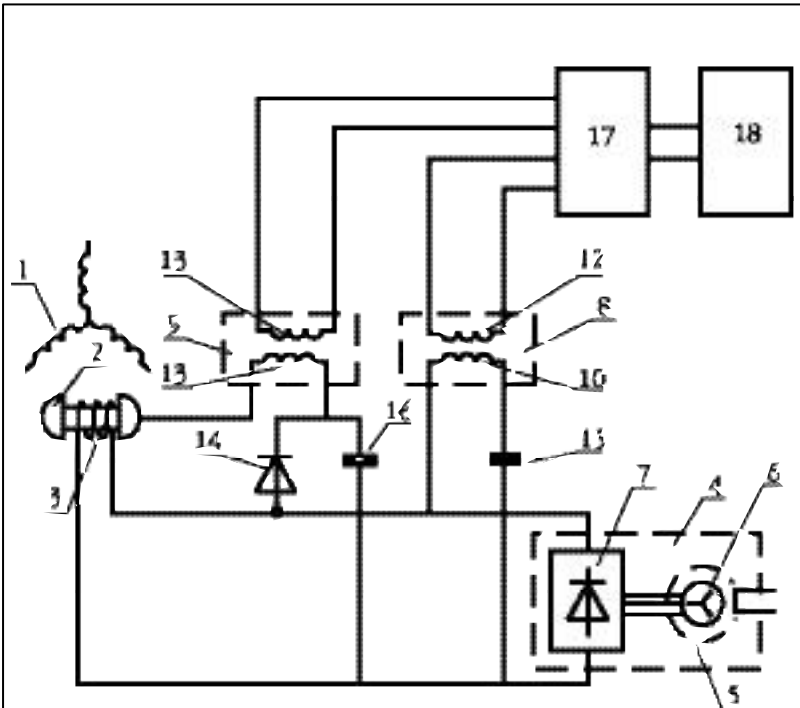
"My machine has a principal difference," Matveev told United Press International. "The magnetic field of its stator does not interact with the magnetic field of the rotor (because) its rotor is not a magnet – the rotor only changes the magnetic resistance of the stator," he said.

The stator in Matveev's generator contains a magnetic core with a permanent magnet and a detachable winding. A rotor with changeable magnetic resistance is placed at a cutoff point in the core's magnetic field. It is composed of alternating magnetic and air parts and can operate in either linear or rotary form.

When the rotor is set in motion, its alternating components pass through the magnetic core's cutoff point. When the magnetic part passes through the cutoff point its magnetic resistance decreases. When the air part passes through, its resistance increases.

This pulsing of resistance results in changing the magnetic conductivity of the magnetic core, which in turn produces an alternating electrical current in the core's winding. The frequency of the winding's current can be controlled by regulating the rotor's speed or by changing certain qualities of its magnetic or air parts. Also, the generator's electrical

output – its voltage – can be controlled by changing the configuration of the rotor's components, Matveev explained.



**Electrical machine assembly -  
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Addnl.Data: VOROB EI V K MATVEEV V A

NOVELTY - Device has electrical machine, non-brush field exciter with diode rectifier, two dynamics double-winding transformers, which primary windings are located on rotor and secondary windings on stator. One end of primary winding of second transformer is connected to rotor housing; another end is connected to common point of conductor which is connected between capacitor and cathode of semiconductor diode, which other terminals are connected to direct current terminals of diode rectifier. Semiconductor diode is connected to cathode group of rectifier; capacitor is connected to anode group. Secondary windings of transformers are connected to actuating member through generator of signal, which is proportional to resistance of insulation in excitation winding circuit.

USE - Electric power production

Matveev said his generator is different from an invention by Howard Johnson of the United States. Johnson discovered how to build motors that can run without input of electricity or any other kind of external energy. He obtained a patent in 1973 for describing electrical generation using only the energy contained in the atoms of permanent magnets.

Matveev also said some Russian inventors have experimented with a generator similar to his. Their generator changes its magnetic conductivity by changing temperature. However, the machine requires a lot of time to be heated and cooled alternately and results in a current frequency much lower than what generally is used in industry. Moreover, the Russian generator requires high steel density and greater mass.

Matveev's machine generates electric energy of industrial frequency. Furthermore, he said his machine is simple, reliable and requires less steel and mass than conventional generators. It also can be adapted to flows of low speeds, such as weak water or wind streams. Matveev tested the generator in his former household in Kazakhstan before he patented it in Uzbekistan.

"I want to pass the invention on to all mankind," he said.

Boris Abdurakhmanov, director of the Uzbek Koinot (Cosmos) design office and head of the laboratory of semiconductors and photoelectricity of the Institute of Electronics of the Uzbek Academy of Sciences, told UPI: "Matveev has offered a fundamentally new approach to a problem of the creation of electric power generators."

