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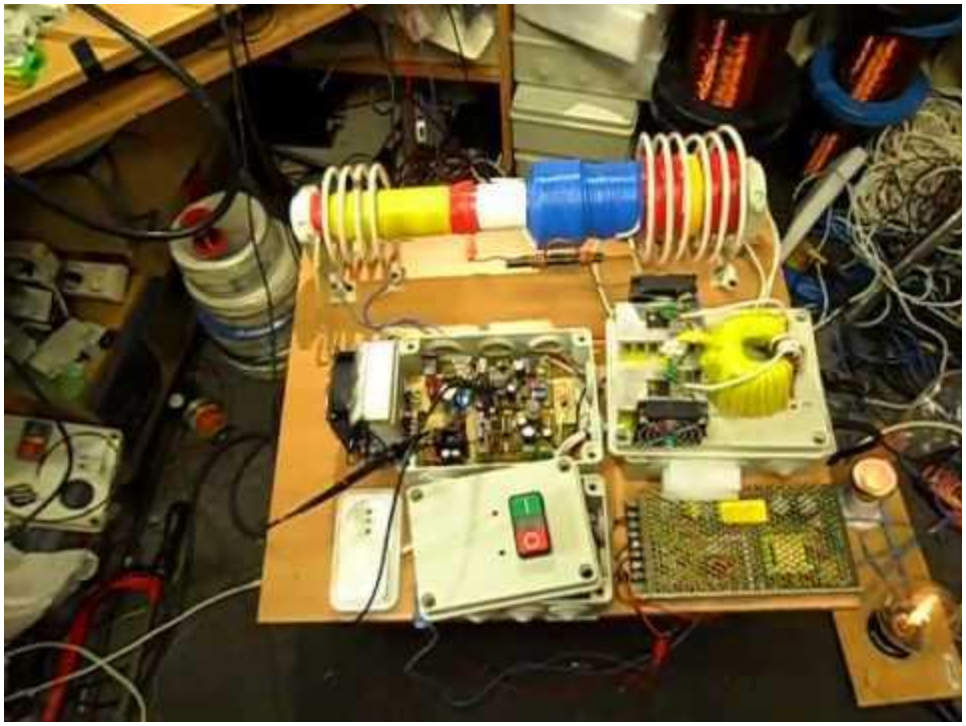
The principle of operation of the Karnaukhov generator Kalabukhov and his setting

The secret of the generator Karnaukhova-Kalabukhova and its disclosure.

Part 1.

General principles of asymmetric transformers



The Kalabukhova-Karnaukhova generator is a dual-circuit power amplifier built on two transformers with an asymmetrical interaction of the windings. Because of this, in the windings of these windings there is an increase in the power of the current and voltage many times over the power of the power supply. Everything else is just a current control and conversion system. There is nothing difficult in it for those who understand in electronics. At the same time, the behavior of asymmetric transformers is nontrivial, and requires its own comprehension and extensive explanation.

The principle of additional energy

First we will outline the principle of obtaining additional energy on asymmetric transformers. That is, on transformers, with asymmetry of e / m interaction between their primary and secondary circuits, sometimes having a complex device.

This behavior of the power amplifier is a consequence of the fact that energy is not a substance, but only a measure of movement. There is no energy in nature, but only the movement of charges. Whereas the movement is changed by the field, and does not have conservation laws. At the same time, a measure of energy is one of the integrals of field accelerations. Therefore, if a given integral is preserved in a field or interaction, then the energy of an isolated system is also preserved (as a measure of motion). If the energy integral in the field or interaction changes (let's not forget that all interactions are field-based), then the energy of the isolated system also changes. It may increase or decrease. What is the increase or decrease of the movement of charges. Including the potential form of this movement.

Thus, although the law of conservation of energy exists, it is not obligatory, but depends on the behavior of the energy integral of the fields of the system. This integral is preserved in potential fields and interactions, and changes in non-

potential fields and interactions. Therefore, using non-potential fields and interactions, we can safely change the energy integral of an isolated system, and thereby get as much motion and potential (potential energy) as possible by changing this integral. Since, in nature, the laws of motion and potential do not establish conservation laws, these characteristics depend on the action of the field and on its integral of energy.
Note that the cyclic potential energy of a nonpotential field is infinite. The potential of the field in the cycle is conserved, but it changes the kinetic energy, without changing the potential energy. Hence, in an infinite number of cycles of passage of a nonpotential field, potentially, infinite energy is contained. That is an infinite measure of potential change in motion.

The same is true of a potential field, if its potential is measured in absolute value. But, taking into account the fact that the potential field has areas of inhibition and acceleration, which generally have zero effect in the cycle, then, therefore, the potential and kinetic energy of the body in such a field is finite and is conserved. While in a non-potential field, acceleration and deceleration in the whole are not symmetrical in a cycle. In view of this, acceleration prevails in one direction, and braking in the other. In view of this, the change in the energy integral of a non-potential field in the cycle is not equal to zero, and forms a certain quantity that can be used to obtain energy as a form of additional motion created by a non-potential field.

All the difficulties with understanding this process of motion synthesis and its measure of energy arise solely because people think energy not by the measure of movement, but by substance. Therefore, it is not clear to them where the additional energy comes from. It appears as a measure of the movement that the field creates. Therefore, energy can be generated by a field, or destroyed by it, as a form of movement. And this is the main law of nature, unknown to modern physics.

We give an example.
Since the movement is not saved, it changes. That is, a change in movement is similar to a change in the area of a triangle with moving, extending, or contracting sides. But, if the sides of the triangle do not change, or change in such a way that the area of the triangle is preserved, then in this case the law of conservation of the area of the triangle applies. But, this law is not universal, but depending on the law of changing the sides of the triangle.

Movement behaves in a similar way, and its measure is energy, which can both be conserved and change, depending on the law of action of the field on a given integral of motion. That is why, in systems, both the law of conservation and the law of variation of the energy integral of an isolated system can act.

This is the original law of nature, which was distorted by physics, declaring the law of conservation of energy a universal law.

While this is only a private law, which is complemented by the law of change in the energy of an isolated system. Together, the law of conservation of energy, and the law of change of energy of an isolated physical system, make up a single law of nature, acting depending on the configurations (symmetries) of the action of the field in space and time. The law of energy conservation acts in potential fields, and the law of energy change acts in non-potential fields.

Not a potential field (how to get it)
So, additional energy can be obtained by using a non-potential field. But how to get is not a potential field itself. In the future, you will understand that the Ampere-Lorentz force fields are forms of a non-potential field, and can create forms of non-potential interaction between charges, changing their momentum and energy, like the energy of an isolated system. The reason that the Ampere-Lorentz fields are not potential, that is, not closed fields, is because their formation operator includes the charge velocity vector, or the relative motion of the magnetic field lines. In view of this, the influence of the velocity operator on the operator of the Ampere-Lorentz forces creates a non-potential field of the Ampere-Lorentz forces.

$$F = qE = q(BxV)$$

Where, ***F***-the operator of the Ampère-Lorentz forces, ***E***-the operator of the electric field strength of the Ampère-Lorentz forces, ***V***-the operator of speed, ***B***-the operator of the magnetic field strength, ***q***-the charge operator;

The magnetic field line has a closed character, but interacting with the speed operator, it creates a field E that does not have a closed character, that is, a non-potential field. In view of this, the interaction by the Ampere-Lorentz forces only looks potential, in the presence of interaction symmetry. Whereas the violation of the symmetry of the interaction takes the form of a non-potential field, and changes the energy of an isolated system.

Also, non-potential fields can form when the potential fields change. Next, we show how this happens.

If the potential field varies in time in magnitude, then it, acting in resonance with the motion of the body through the field, becomes not a potential field.

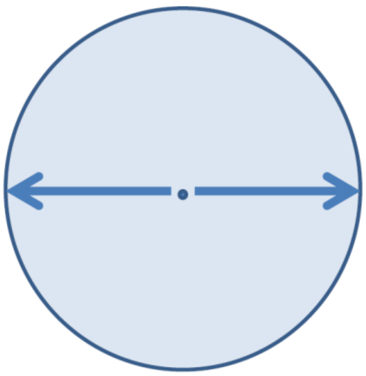


Fig.1. The potential field and its change in resonance with the motion of the body, transforming the potential field into a non-potential field.

In Fig. 1. potential field shown. When it is crossed by a charge, the work of this field is zero. Therefore, the charge will be decelerated in one place, accelerated in another, but in the sum it is symmetrical. Whereas if this field is variable, then we can reduce it during deceleration, and increase it at the moment of charge acceleration by the field.

In view of what, we obtain a change in the velocity, momentum, and charge energy, as integrals of field acceleration, as the charge passes through this field. If we act on the contrary, we get a decrease in these characteristics.

Thus, a change in the potential field in resonance with the motion of a charge or a body turns this action of the field into a non-potential form of interaction with the field, as a result of which the movement of the charge and its integrals of motion (speed, momentum, energy) change. Acting in a similar way in a cycle, it is possible to get a 1 charge pass through an alternating field for a certain fraction of the speed increase of one or several charges. And accordingly, an increase in their energy and momentum. Whereas with repeated passage of charges, an arbitrarily large increase in the speed, energy, and momentum of many charges can be obtained.

If the interaction of two charges is symmetric, then their energy and momentum will be conserved. If the interaction is asymmetrical, then the momentum and the energy of the charges will change.

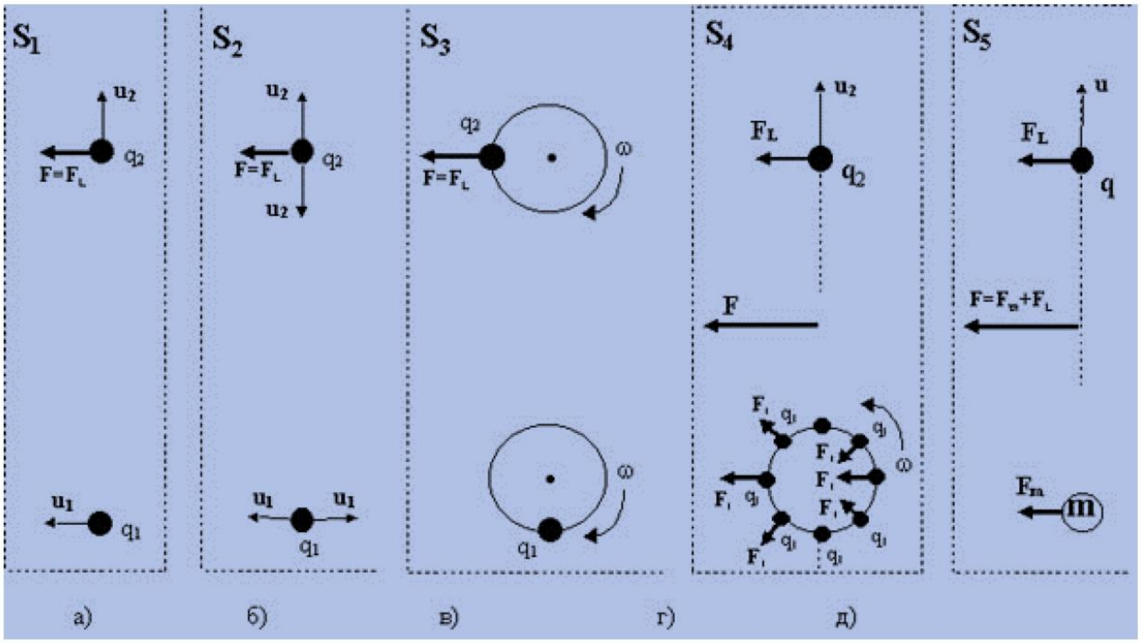


Fig. 2. The interaction of charges according to the Ampere-Lorentz forces.
The interaction between two charges in terms of the Ampere-Lorentz force can be either symmetric or asymmetric, which depends on the configuration of the trajectories and the magnitude of the velocities of the charges. What is shown in the figure (Fig.2)

In view of this, the Ampere-Lorentz forces in an asymmetric interaction of charges create forces acting on charges that are unequal in magnitude and direction, creating a total force of interaction non-zero that can change the total momentum and energy of the charges.

This property of the Ampere-Lorentz forces can be used to change the energy of the charges in the secondary winding of an asymmetric transformer.

In asymmetric transformers, the change in the energy of the charges of the secondary winding is greater than the change in the energy of the charges of the primary winding. In view of this, in the secondary winding of an asymmetrically operating transformer, additional energy is obtained, as an integral of the motion of the charges, resulting from the asymmetry of the interaction according to the Ampere-Lorentz forces.

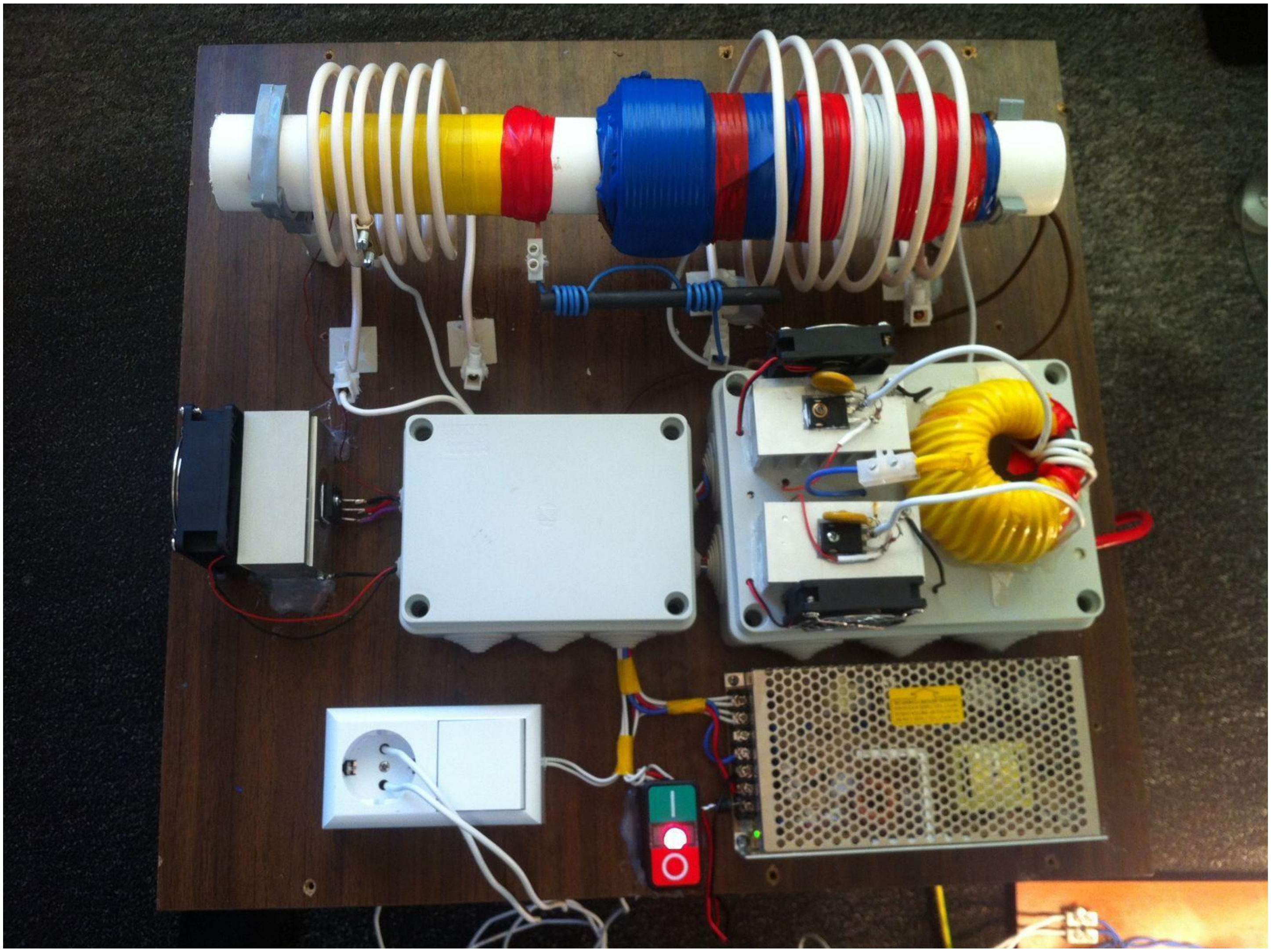
Lenz rule and asymmetry of e / m interaction
It is believed that e / m interactions are always symmetrical. What is expressed in the Lenz rule. In fact, e / m interactions, according to the Ampere-Lorentz forces, can be both symmetrical and asymmetric, depending on the configuration of interaction fields.

This subtle nuance must be taken into account, since it is the key to the whole problem. Therefore, to obtain additional energy on electric machines or transformers, it is necessary to achieve an asymmetry of interaction by changing their configuration. That is, so that the primary circuit of the machine or transformer influences the secondary circuit, and the secondary circuit does not affect the primary circuit, or that this effect is at least weakened by 20-30%. Then more energy will begin to be released on the secondary circuit than it is consumed on the primary circuit.

When the secondary circuit does not affect the primary circuit at all, then the energy generated on the secondary circuit of such a device can be many times greater than the energy expended on the primary circuit. What we will show in the second part of the article, using the example of the Karnaukhov-Kalabukhov generator.

These are the basics of understanding the forms of e / m interaction in asymmetric transformers. Or in the primary and secondary circuits of electrical machines without counter-emf. What makes these machines irreversible. Since electric cars without anti-emf. they are also based on the asymmetry of the electric power interaction, as are transformers generating additional energy.

The end of part 1 ... (to be continued)



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Part 2.
Generator Karnaukhova-Kalabukhova

The Karnaukhov-Kalabukhov generator represents a combination of 2 asymmetric transformers, and a number of conventional electrical circuits used as service devices. The release of additional energy occurs only on transformers, while all other parts of the circuit operate in normal mode. This release of additional energy is explained by the asymmetry of the transformers.

In view of what the energy on their secondary windings, significantly exceeds the energy consumed in the primary windings. That is, the field of these transformers accelerates the charges in the secondary windings more strongly than it inhibits them in the primary windings.

s a result, more power is released on the secondary winding than is absorbed on the primary winding by the decelerating field of the secondary winding. This field is known as the counter-emf field. If it can be reduced, the interaction of the windings becomes asymmetrical. And then additional energy is generated in the device.

Considering the above, the Kalabukhov Generator is a power amplifier consisting of two circuits of asymmetric transformers and a circuit serving them. Initially, the energy increases at the first transformer, then it is transferred to the second transformer, and there it also increases due to the asymmetry of the interaction. In view of what, at the output of the 2nd transformer, the energy increases many times over the power supply supplying the primary circuit of the first transformer in a pulsed mode.

Thus, we figured out the general theory. It remains now to find out the particulars, and then adjust the circuit so that it works in accordance with this theory. What will we do next.

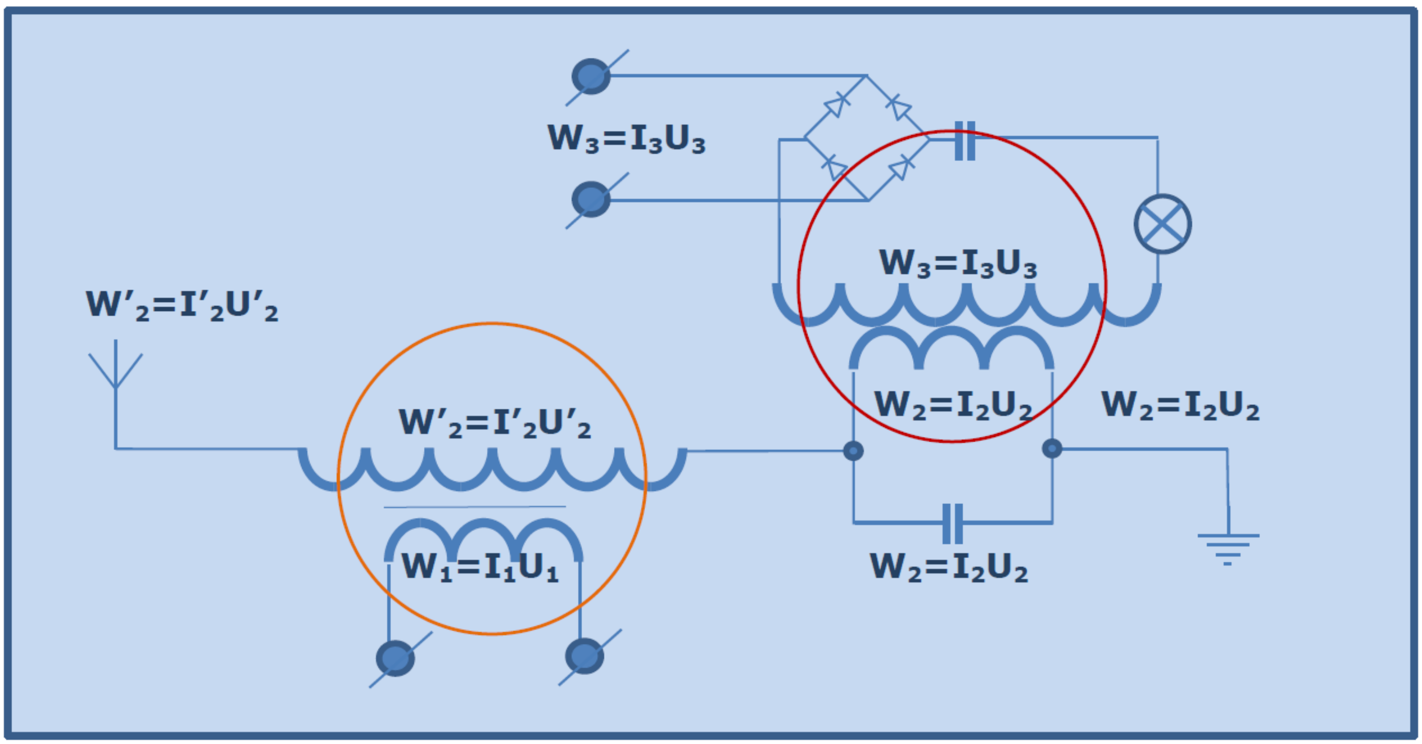

Fig. 3. The structure of a dual-circuit amplifier built on asymmetric transformers that increase the voltage and current. Transformers are highlighted in orange (first transformer) and red (second transformer). The first transformer is conventionally "push-pull", the second one is "grenade".

Asymmetry of the first transformer

The scheme works as follows.

Initially, energy from a power source is supplied to a pulse generator. This generator, called the "push pull", is closed to the primary circuit of a toroidal transformer operating in the voltage increase mode. In view of what, on its secondary winding there are more turns of the winding than on the primary winding. A similar picture is observed in the second transformer, called the "grenade".

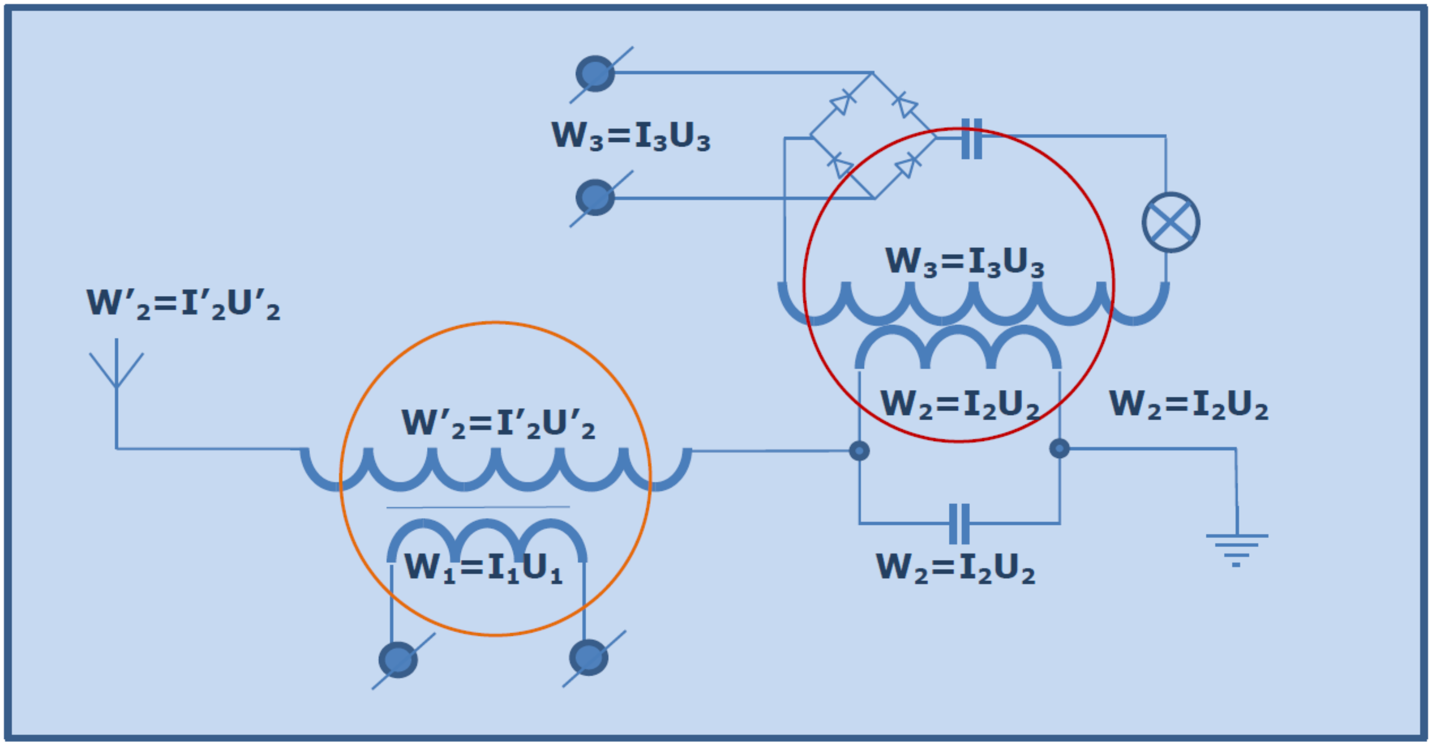

Fig. 4. The structure of a dual-circuit amplifier built on asymmetric transformers that increase the voltage and current. Transformers are highlighted in orange (first transformer) and red (second transformer). The first transformer is conventionally "push-pull", the second one is "grenade".

Further, we will focus on the secret of increasing the energy in the first transformer, in its secondary winding and the oscillating circuit associated with it and with grounding. As can be seen from the figure (Fig. 4), the secondary winding consists of two parts. The first part is wound on a "push pool". Whereas the second part forms, together with the capacitor, an oscillatory circuit, and is connected to earth or mass. Whereas the opposite part of the output of the winding forms an open loop, so-called "antenna". The current in the "antenna" is close to zero, in the presence of an increased voltage on the secondary winding of the transformer. The same voltage is created both on the capacitor and on the winding of the oscillatory circuit. The same voltage interacts with the earth at the time of charging the capacitor of the oscillatory circuit - the charge coming from the earth or mass.
W1 = I1U1
W'2 = I'2U'2
W2 = I2U2
W2 = I2U2
W3 = I3U3
W2 = I2U2
W'2 = I'2U'2
W3 = I3U3

Since the current in the secondary winding of the "push-pull" forming the uncoupled part of the circuit is approximately zero, its induction to the primary winding of the push-pull transformer is missing. Therefore, the push-pool pulses are generated without any influence from the secondary side of the toroidal transformer. What forms the asymmetry of the e / m interaction between the "push-pool", the "antenna" line, the oscillatory circuit and grounding. Only the voltage is transmitted along the "antenna" line, while the current in it is approximately zero. In this case, the transformer operates as in the idle mode, creating on the "antenna" only the output voltage, in accordance with the pulses of the current of the primary winding. This voltage consists of two parts. The first part acts when the condenser is still charging, and increases its charging energy. Whereas the second part acts when the capacitor starts to discharge, and increases the current, adding to the emf. condenser. Thus, both parts of the current pulse create a voltage that positively folds together with the operation of the capacitor and therefore maintains the energy of the oscillating circuit.

The location of the push-pool transformer in the diagram (Fig. 4) is circled in an orange circle. In the Kalabukhov-Karnaukhov scheme itself, this transformer is wound on a toroidal core.

The figure below (Fig. 5) shows the relationship between the shape of the current and voltage pulses. If we choose rectangular voltage pulses, then the current pulse will resemble rather a triangle. While the derivative with respect to current forms the voltage in the secondary circuit. Since the magnetic flux is proportional to that, and the change in magnetic flux creates voltage. This voltage of the beginning has one sign, and then changes, and has a different sign. Which corresponds to a change in the derivative of the current. Therefore, placing this current pulse at the time of the progress of the maximum charging of the capacitor and the beginning of its discharge, we get a useful use of emf. of this impulse, both in the first and in its second part.

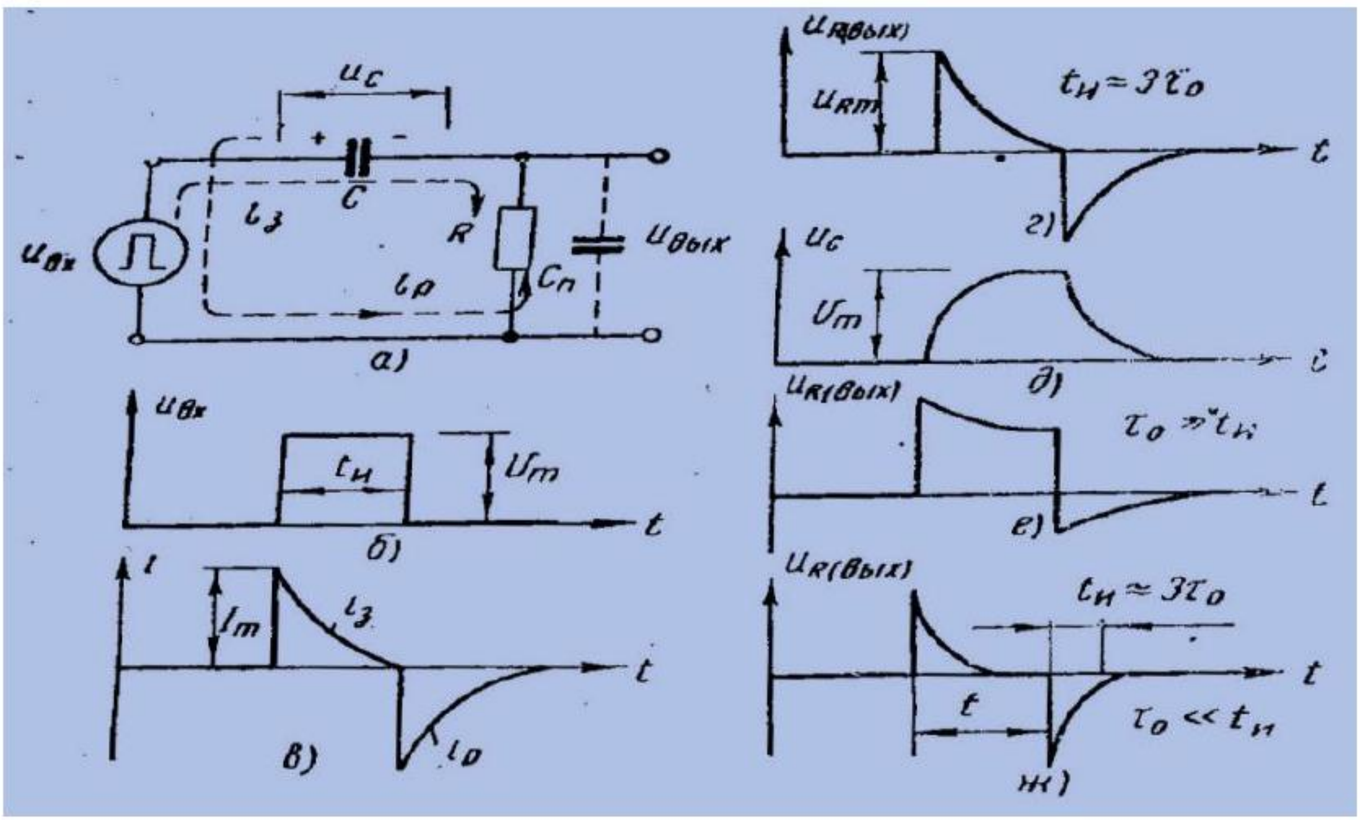

Fig. *5. The relationship between the shape of the voltage pulse and the shape of the current pulse.*

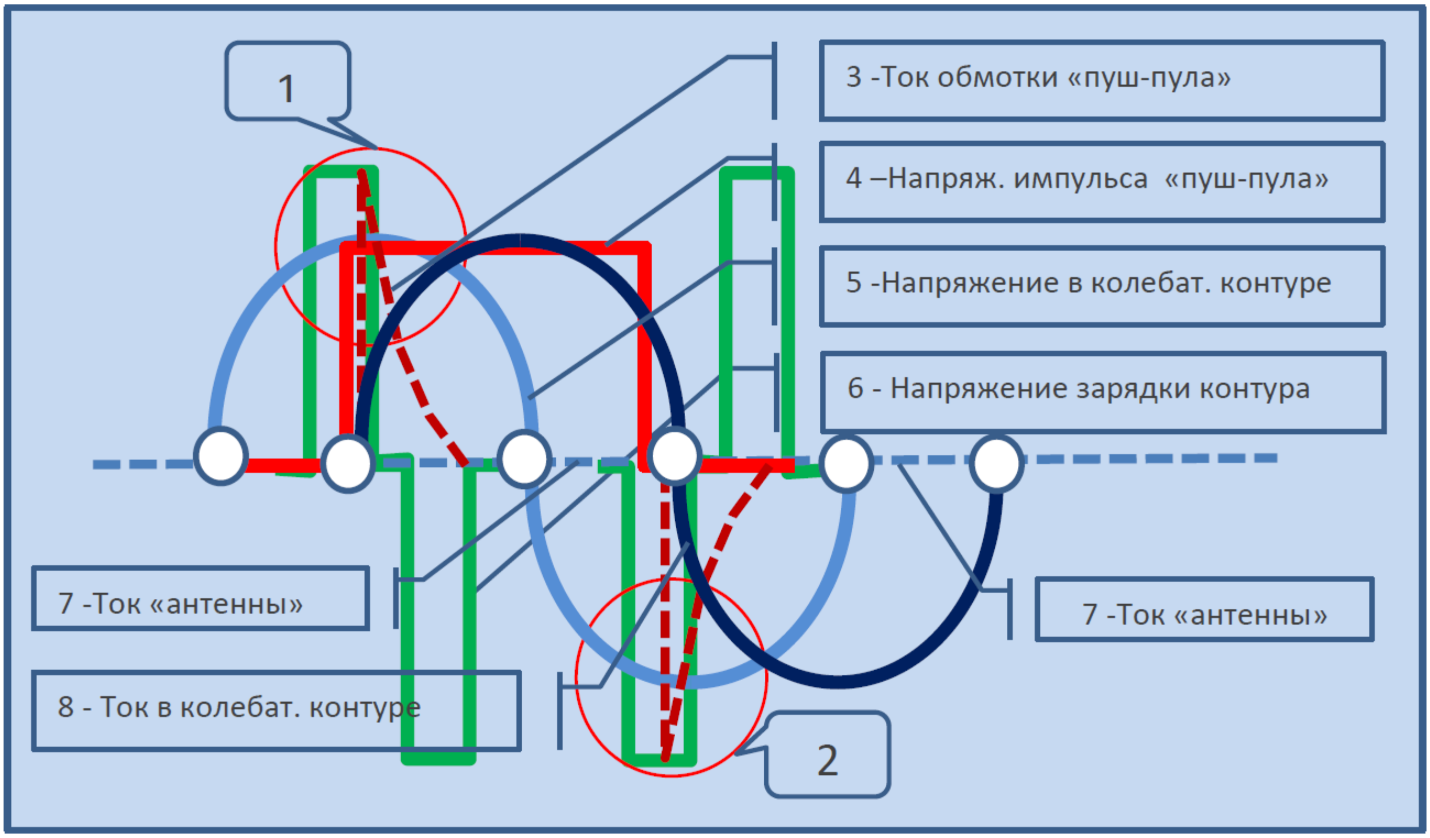

Fig. 6. Asymmetry of the first transformer and its circuit. 1 and 2 - locations of current pulses of the "push-pool" providing charging of the oscillating circuit;

Next, we turn to this scheme.

Red circles 1 and 2 highlight the places where the voltage of the transformer is energized at the moment the current of the oscillatory circuit is equal to zero.

3 - The dark red dotted line shows the primary current generated by this pulse.

4 - Red color, shows the primary voltage pulse "push-pool".

5 - Blue shows voltage on the oscillating circuit capacitor.

6 - Green shows the charging voltage of the circuit created by the winding "push-pool".

7 - The blue dotted dashed line shows the current of the unclosed "antenna" line equal to zero.

8 - The dark blue color shows the oscillating circuit current.

The diagram (Fig. 6) shows the interaction of "triangular" current pulses created in the primary winding of the "push-pool" by rectangular voltage pulses. Impact emf of these pulses to the voltage of the capacitor leads to an increase in its operation, as mentioned above, and replenishes the energy of the oscillatory circuit. This process is similar to the interaction of an antenna with an oscillatory contour in a "heterodyne" radio receiver, which works solely by amplifying the signal on the oscillating circuit, which occurs due to resonance with the voltage occurring at the antenna. The signal of the oscillatory circuit is amplified due to resonance with the voltage arising on the antenna of the radio receiver. Whereas the antenna current is close to zero, since the antenna is an open loop. What forms the form of asymmetry of interaction of the transformer with an oscillatory circuit.

Whereas the voltage generated in the network of the make-up line is conventionally shown in green (6). We speak conditionally, since the real characteristic of these impulses will be somewhat different, but have a similar effect. Therefore, we have shown this voltage in the conventional form of rectangular pulses.

In the oscillatory circuit (in the secondary circuit of the 1st transformer), the pulses of the push pool generator create sinusoidal voltage and current oscillations (5.8). At the same time, the “push-pool” itself must create single oscillations (4.3), with a certain porosity, which are in resonance with sinusoidal oscillations (5.8) that occur in an oscillatory circuit belonging to the secondary winding circuit of the first transformer. Namely, single “push pool” oscillations with a very steep front of raising voltage and current create support for sinusoidal oscillations in the secondary winding, and provide asymmetry of the first transformer.

Due to the fact that the current in the “antenna” line is open (7), it is close to zero. Only voltage is created in this line. Therefore, voltage is transmitted through this line, with almost zero power.

$$W'_2 = I'_2 U'_2 \qquad I'_2 \approx 0 \quad W'_2 \approx 0 \quad U'_2 = U_2$$

But, this voltage charges the capacitor and maintains the current in the oscillatory circuit. That is, it is a positive emf The current flowing in the oscillatory circuit (8) arises from a grounding charge or mass when a secondary voltage of the push pool is applied to it (6). The magnitude of this current is determined by the mass capacity, and increases in proportion to it. Therefore, this current can be quite large, and exceed the initial current of the power source and the current of the primary winding of the “push pool” (3). In particular, the current coming from the mass during the charging of the capacitor significantly exceeds both the antenna current (7) and the current flowing in the primary circuit of the push-pull transformer (3).

$$I'_2 \ll I_2 \qquad I_1 < I_2$$

Where, ***I1***-the average current of the primary winding "push-pool", ***I2***-the current of the oscillating circuit, ***I’2***- the current in the "antenna" in an open circuit).

In view of this, both the voltage and the current of the oscillating circuit are greater than the voltage and current of the primary “push-pool” circuit.

$$U_2 > U_1 \quad I_2 > I_1 \qquad U_2 I_2 > U_1 I_1$$

Where, ***U1***-push-pool voltage, oscillating circuit charging voltage, ***U2***- push-pull transformer secondary voltage equal to the capacitor charging voltage, ***U’2***-capacitor charging current and oscillating circuit current, ***I2***-the current in the push-pull primary winding or equal to it in terms of energy and power consumption, ***I1***-the average current of the power supply source.

Proceeding from this, the power released on the oscillating circuit is greater than the power that is released by the power source when powering the primary push-pool generator.

$$W_2 > W_1$$

Setting up a push pool transformer and an oscillating circuit

In order for the first transformer and its secondary circuit, including the oscillating circuit, to function in the required mode, they must be configured. That is, to provide a certain shape and duty cycle of voltage and current pulses of the “push pool” generator. And the conformity of its frequency, the frequency of the oscillatory circuit. The output part of the first transformer includes both an output push-coil winding and an oscillating circuit with ground to ground. The circuit of the first transformer consists of 2 parts. The first part is connected with the first transformer, and the second with the second. When this frequency is tuned to resonance, then stable oscillations occur in the oscillating circuit. As soon as you provided stable oscillations with a high degree of Q (about 500 oscillations), then we can say that you tuned the first transformer, as the first part of the amplification of the power of the original signal coming from the current source. That is, if the oscillating circuit operates in resonance with the “push-pool” operation, it outputs a sinusoid on the oscillating circuit with a sufficiently high voltage and current exceeding the power of the current source.

Thus, you set up the circuit system of the first transformer, regardless of the second transformer, the so-called "grenade". Such a separate setting allows you to successfully configure the generator as a whole. Without performing these actions it is impossible to go to the second part of the power amplifier. To set-up the second transformer.

Asymmetry of the second transformer

The scheme works as follows.

The second transformer is called a “grenade”. Its asymmetry of interaction is arranged differently than that of the first transformer. This asymmetry is based on the secondary winding of the transformer, which has a partially or fully bifilar nature of the winding. The winding "grenade" consists of 3 parts.

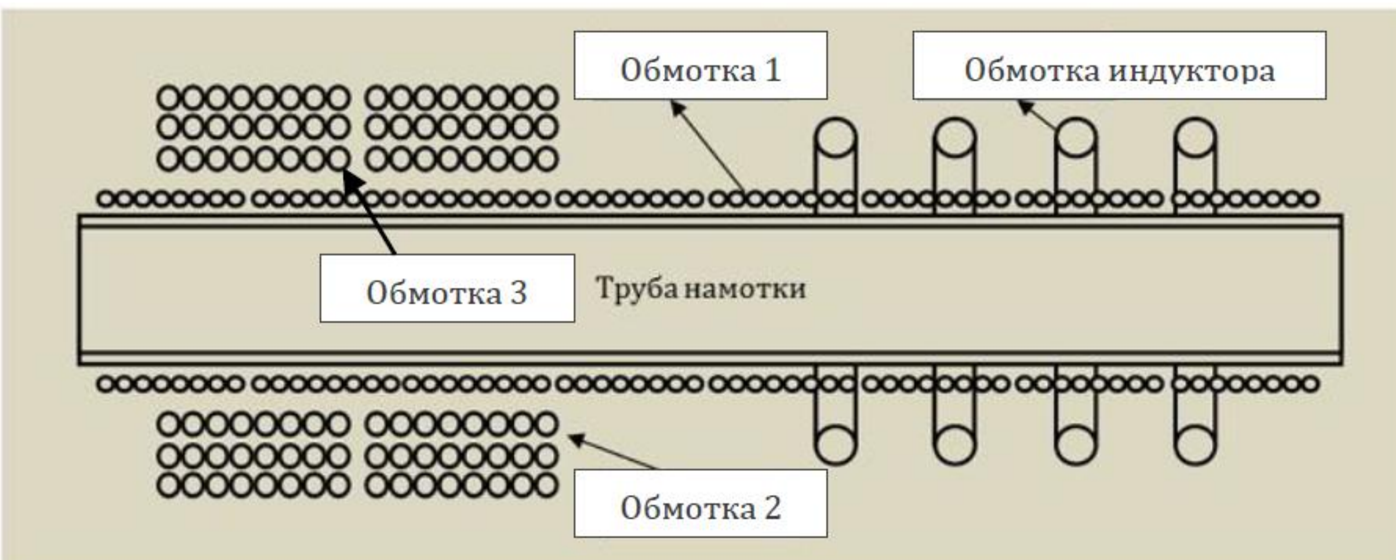

Fig. *7. One of the possible variants of the device of an asymmetric transformer of the “grenade” type.*

One piece is a handle, and is wound in one direction (Winding 1). The second part is shifted to the end of the "grenade", and wound to the other side (Winding 2). Whereas the third part is obviously wound in the same direction as the first part, and is even closer to the end of the “grenade” (Winding 3). However, winding 3 can also be wound on winding 2, covering part of it closer to the end of the “grenade”

Such winding ensures that the total induction of the “grenade” in the area of its “handle”, where the primary winding of the transformer is located (the winding of the inductor), is zero. Because of this, the secondary winding of the "grenade" does not affect its primary winding. Whereas the primary winding acts on the secondary winding. Because the inductor of the primary winding does not act in the same way on the part of the secondary winding of the "grenade". Most of all, it acts on the “pen” located directly under the inductor. And to a much lesser extent on windings remote from the inductor. In view of what, a paradoxical situation arises.

The total field "grenades" in the area of the primary winding is zero. While the total field effect of the inductor on the grenade is not zero. Because of this, a current arises in the grenade, but it does not interact with the primary circuit. This allows the primary circuit to work out all its 500 Q-factor fluctuations, in the form of induction to the secondary circuit.

Whereas the primary circuit itself is not affected. Since it is located in the "dead zone", where all the fields of the windings of the "grenade" are fully compensated.

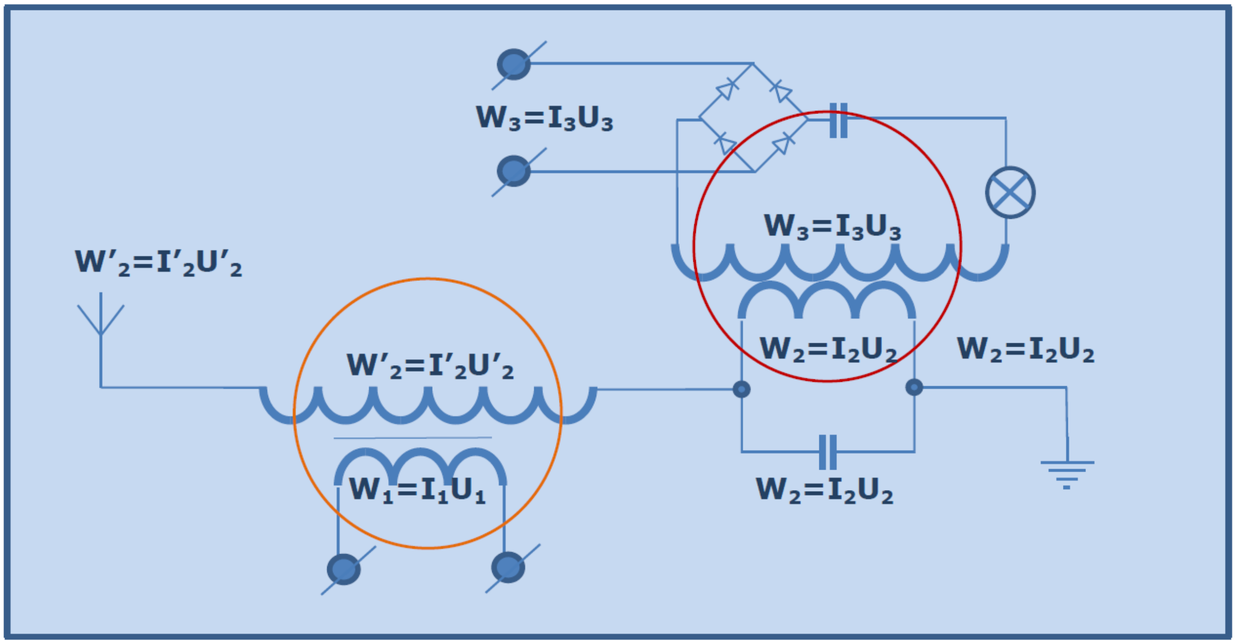

Fig.8. The structure of a dual-circuit amplifier built on asymmetric transformers that increase the voltage and current. Transformers are highlighted in orange (first transformer) and red (second transformer). The first transformer is conventionally "push-pull", the second one is "grenade".

As can be seen in the figure (Fig. 8), an oscillatory circuit is connected to the secondary winding of the second transformer. If we discard the rectifier and the light bulb, then the secondary winding of the second transformer is also an oscillating circuit. This circuit must be tuned in resonance with the primary circuit. What is achieved by the selection of capacitor capacitance, after measuring the inductance of the "grenade". When the frequency of the secondary circuit of the second transformer is in resonance with the frequency of the primary winding and its oscillating circuit, more energy is released on the secondary circuit than on the primary circuit of the second transformer.

Because, the reactive impedance of the secondary circuit is zeroed out by resonance. While the active resistance is small, it is represented, for example, by a light bulb or a rectifier that directs energy to ionistors (super capacitors) and accumulates in them. With a sufficiently small resistance, relative to the voltage on the second circuit, its current can be made more than the current of the primary circuit of the second transformer.

Whereas, and the voltage due to the greater number of turns on the handle "grenades" than on the inductor, the secondary winding is greater than the voltage of the primary winding. In view of this, the power released on the secondary winding of the "grenade" substantially exceeds the power circulating in its primary circuit.

In view of this, both the voltage and the current of the secondary circuit are greater than the voltage and current of the primary circuit.

$$U_3 > U_2 > U_1 \quad I_3 > I_2 > I_1 \qquad U_3 I_3 > U_2 I_2 > U_1 I_1$$

U3-voltage in the secondary winding "grenades", ***I3***-the current in the secondary winding "grenades";
U2-voltage in the primary winding "grenades", ***I2***-the current in the primary winding "grenades";
U1-voltage of a current source; ***I1***-current of a current source;
U3I3-the power released in the secondary winding "grenades",
U2I2-the power released in the primary winding "grenades" on the oscillating circuit,
U1I1- the power generated by the current and voltage source, and consumed by the "push-pool";

Based on this, the power released on the secondary winding of the second transformer is significantly greater than the power that is allocated on its primary winding. And much more than the power generated by the power source when powering the primary push-pool generator.

$$W_3 > W_2 > W_1$$

This allows not only to feed the load from the secondary circuit of the "grenade", but also to ak-cumulate a part of its power as a power source, in order to renew the power generation process.

In view of this, this dual-circuit power amplifier, acting on the basis of the asymmetry of the interaction of the primary and secondary windings of 2 transformers, allows you to repeatedly amplify the power of the power source, and direct it to the payload. When forming a high voltage on the handle “gra-naty”, and at a high Q of the secondary circuit, even a high resistance of the secondary circuit will provide a sufficiently high current. Because of this, this generator is capable of delivering a fairly high power compared to the power consumption of the power source.

In particular, the Kalabukhov-Karnaukhov generator, with a power source of several watts or tens of watts, is capable, due to the amplification of power in two circuits, to produce 4 kW power supplying the load. Thus, the total power gain of this generator is quite large. But, it consists of the power gains of two series circuits operating in the form of asymmetric transformers.

$$\eta = \eta_1 \eta_2 \approx 1000$$

Accordingly, the output power of the amplifier exceeds the power of the power source by about 1000 times.

$$W = W_0 \cdot \eta = W_0 \cdot \eta_1 \eta_2$$

W-generator output power, ***Wo***-power source power, ***n***-power gain, ***n1***-first loop gain, ***n2***-second loop gain.

In particular, the first circuit can produce amplification, for example, 20 times, whereas the second circuit can produce amplification 50 times.

Setting up the second transformer and the generator as a whole

After you set up the first transformer, and it produces a good sine wave at high frequency, you can start tuning 2 transformers.

First of all, it is necessary to wind the “grenade” in such a way that its total inductance when current is passed through it in the “handle” area, where the primary winding driver is located, is zero. When you achieve this, then the "grenade" will cease to act on the primary winding. That is, the main part, creating the asymmetry of this transformer, with respect to the primary winding, will be ready.

Fig.9. Inductor "grenades", consisting of 2 parts.

But, the configuration of the fields depends on the current strength. When the current in the garnet changes, there will be changes in the fields in the vicinity of the inductor, and it will no longer be in the field compensation position. Therefore, the "grenade" needs to be tuned to a certain amperage, which you will have by calculation in the secondary winding. To simplify the settings, the inductor is divided into 2 parts. That simplifies its configuration due to the possibility of moving parts of the inductor along the "grana-you."

On some diagrams you see the “grenade” inductor consisting of two parts (Fig. 9) located on its different sides. However, if these parts are connected and form one whole, then moving them, you can find a situation where the total induction of the grenade to the entire primary circuit is zero. This simplifies the generator setup due to the free movement of the inductor parts. Then how to immediately create a grenade that meets this task is difficult enough.

Next, you should check the “grenade” at idle, as the transformer idling, without connecting its ends with anything. And this must be done along with the work of the primary winding. As a result, it will be possible to determine what voltage is created by the primary winding at the ends of the "grenade" conductors. When you know this voltage, you can calculate the active resistance of the circuit and its current so that the power of the secondary winding is higher than the power of the primary winding by an order of magnitude or several orders of magnitude.

After calculating the active resistance of the circuit (taking into account the indicator lamp, rectifier and a group of ionistors after rectification), you can choose a capacitor so that the secondary winding has a high degree of quality factor. That is, I could make about 500 oscillations without a load. High quality factor will allow you to reset the reactance of the circuit, after which only your calculated active resistance will act.

When you, therefore, tune the secondary winding into resonance with the primary winding, you will actually finish tuning your power amplifier. And you can experience it.

If you have parasitic currents and various parasitic oscillations in the generator, then the operation of the generator and its resonance will be unstable. Then you need to install filters so as to eliminate these fluctuations. Therefore, the generator-tor requires extremely fine tuning and the absence of fields and oscillations, which create its instability in working under load. Therefore, it is best to try it first without a rectifier, with one light bulb. Then, by measuring the current and voltage in the secondary circuit, you can determine the power of your amplifier.

Note

Since you acted blindly, not knowing how or what to tune, then setting up the generator and all its parts presented significant difficulties. Now that you know what and how to configure. What, how, and why it works, then you can configure this power amplifier consciously. Therefore, setting it up will not be more difficult than setting up any electrical circuit or radio receiver.

The main thing is to achieve o that the “grenade” induction in the area of the primary winding of the second transformer is equal to zero. That will create an asymmetry of the interaction between the primary and secondary windings. Whereas no wave processes inside the “grenade” have any relation to its setting. They are simply not there. Since the general structure of the “grenade”, in the form of a bifilar, is connected exclusively with the need to extinguish its fields at the location of the inductor.

Even if the first transformer will work for you without increasing the energy in the secondary circuit, the asymmetry of the second transformer in the form of a “grenade” will allow you to get additional energy in the second circuit. That is, in the contour of "grenades". Since, in fact, these two transformers operate in an independent manner.

Sincerely, Alexander Abramovich