

How RuslanK's device work

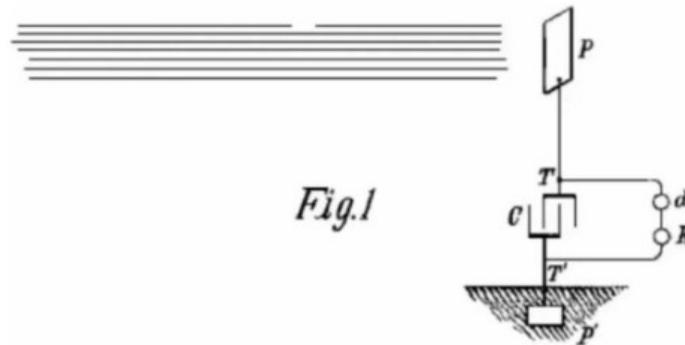
based on <https://www.youtube.com/watch?v=Sf6SnEE7guw>

Question: What is a principle of device operation ?

Shortest answer: electrostatics

That is too short, can you expand it more ?

Yes



This one of pictures from Tesla's patent about utilization radiant energy.

This is a simplest setup. If you remember your school physics...

If we take an ebonite stick and rub it, it will get some charge.

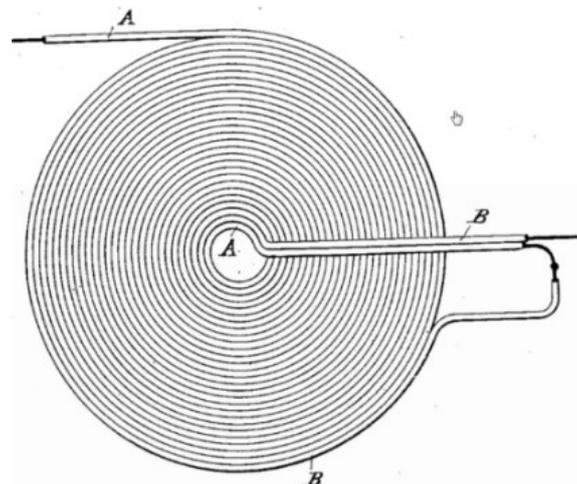
Now if we place stick close to the plate, some charge will be induced on the plate and upper capacitor plate.

Nature works in a way that it tries keep everything in balance, so there will be some current coming from the ground into capacitor. If we put some load in wire T' e.g. tiny lamp, we can see this current. And if we put diode there capacitor will keep charge and we can use it later on load R.

Same in the device, we have two capacitor plates, one plate is a gradient coil, and influence comes from antenna coil connected to Tesla coil.

If you remember school physics, it says that power grows with frequency. Now imagine that we influence plate not one time per second with a stick, but million times per second with a Tesla coil, power will be much higher.

Since we use coils as capacitor plates we need to tune them so that they "hear" each other.



Gradient coil can be considered as three dimensional variant of flat Tesla coil.

Tesla discovered that such coils have bigger capacitance and very effective for creating electromagnets.

How it works in practice:

- antenna coil creates + statics
- that cause “balancing” current in grounding wire
- these current “captured” and distributed along gradient coil with HF wave processes
- then picked up into load using magnetic field on LF

We have to convert static electricity first into magnetic field and then to “normal” current which we can use in our load. This is why we are using coils. Push pull function is a modulator, it does not power load. It can be any suitable configuration bridge, half bridge etc etc

Like in any radio transmission system we have transmitter and receiver. Our receiver is very similar to crystal radio. We have diode bridge for demodulation, load should not affect HF.

Recommended modulator frequency below 30KHz to avoid losses.