

## Last Minute Addition to the Text

If we intersperse a pair of capacitances in and among a large enough pair of inductances, then the back EMF of these two or more inductors will pull upon (resist) the absorption of these capacitors and convert them into reflectors rather than their conventional behavior acting as absorbers of energy.

Absorption of energy takes time. Reflection is immediate.

Thus, reflection results in an inversion of voltage and a standing wave of zero wattage since voltage folds back upon itself resulting in no net current when voltage polarization, thus, cancels itself. Any current we care to imagine is just that...imaginary current, also known as the square root of negative one times current. The voltage is, likewise, imaginary times the square root of negative one.

Under these circumstances, the girth of a piece of wire effectively collapses into an infinitely small diameter making the piece of wire unidimensional lacking any diameter, yet, retaining a length.

Thus, it may truly be said of this condition that it lacks current possessing merely resistance divided by the square of imaginary voltage...

$$\text{Conductance} = \text{Siemens} = \text{Mho} = \frac{\text{Resistance}}{(\sqrt{-1} \times \text{Voltage})^2} = \frac{\text{Resistance}}{-\text{Voltage}^2} = \text{Mho}'s \text{ Law}$$

This inversion, or self-cancellation, of voltage offers its own resistance to current in the format of an additional impedance added to whatever resistance already exists since it is predicated upon the reactance of capacitance reflecting back upon itself within the nurturing environment of inductive reactance which fosters and supports this phenomenon.

Thus, resistance increases with the negation of the square of voltage and, thus, conductance also increases (with this increase of resistance in the form of impedance) – under Mho's Law – despite the effective diameter of any piece of wire subjected to this circumstance will possess a zero diameter of girth. This will, effectively, increase the negation of power in the format of negative volts/amperes.

This is not a permanent condition. It must be continuously maintained or else it will revert back into Ohm's Law which specifies a completely different set of circumstances...

$$\text{Power} = \text{Watts} = \frac{\text{Voltage}^2}{\text{Resistance}} = \text{Ohm}'s \text{ Law}$$

The production of power by a battery is non-reactive. It is not a byproduct of electrical reactance. Nor is the production of power by a rotary generator a purely reactive component since both

a battery and a rotary generator require an external prime mover to authorize their potentiality as producers of power.

Yet, the reflectivity of a pair of capacitors acting within the context of a pair of inductors requires no prime mover of any significant motive force greater than whatever is already resident within the environment's ambient energy. In fact, Mho's Law encourages a low-voltage condition of high resistance in order to foster the increase of conductivity.

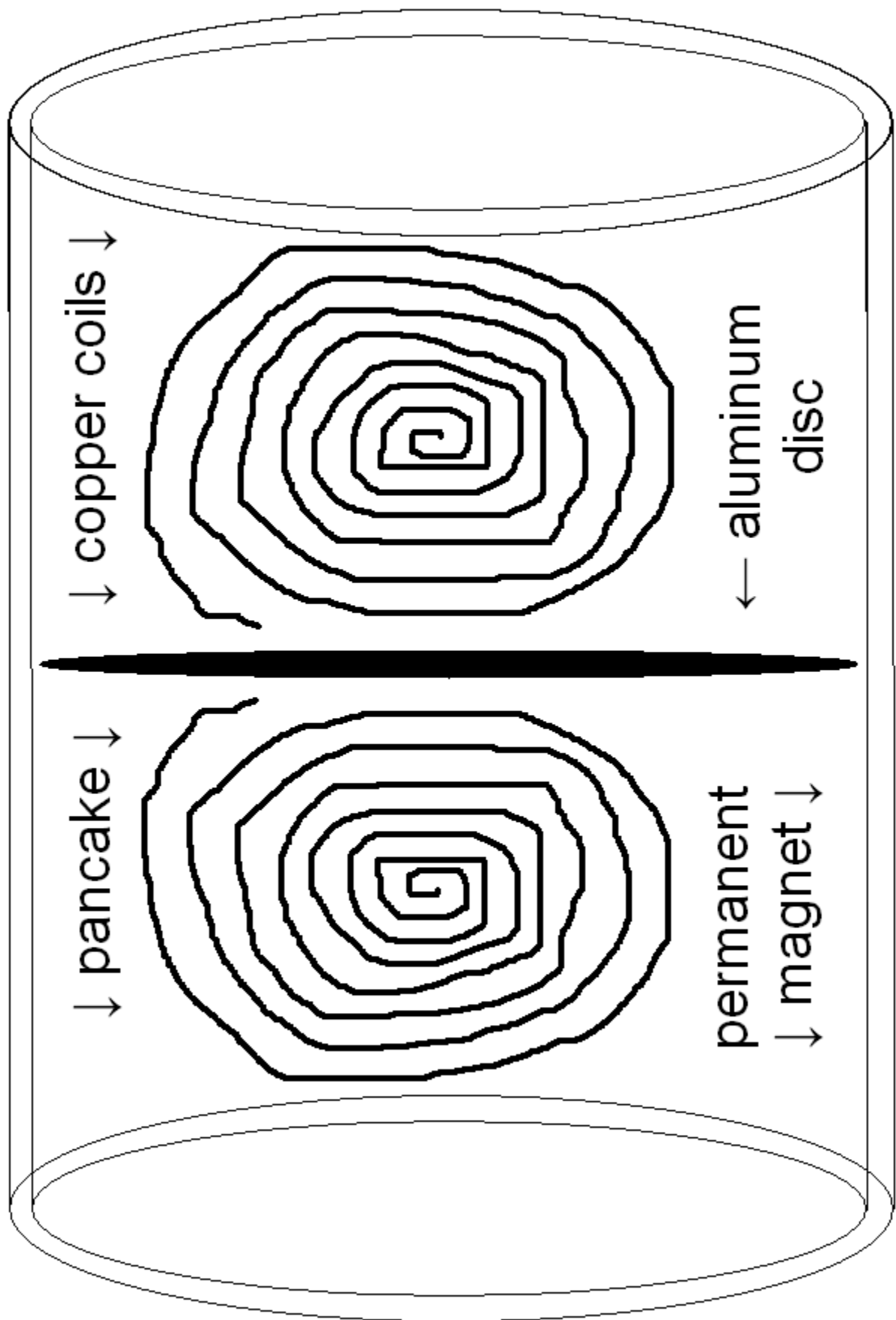
These pair of inductors provide their support analogous to a woman's womb in which the back EMF appearing within these inductors becomes inverted voltage with the help of a reflective pair of capacitors situated nearby and, thus, replaces back EMF with the simultaneous occurrence of inverted voltage inside of these inductors.

All of this occurs within the realm of complex numbers simultaneous to the occurrence of the real number calculations of Ohm's Law. Thus, it could be said of Mho's Law that it does not exist since it does not exist among the field of real numbers. It exists among the field of complex numbers. It is a concurrent existence to Ohm's Law effectively adding magic to what would otherwise be considered a straightforward scientific act visible to the untrained eye of the common perspective.

The electronic simulator figures all of this out by including these imaginary calculations involving the complex field of numbers among the real numbered calculations of Ohm's Law, but only if we construct circuits which encourages this phenomenon...

- a) By keeping the input voltage low, and...
- b) By fostering the buildup of impedance predicated upon reflective capacitance acting in conjunction with a large back EMF and discourage absorptive capacitance.

There is a trick to inducing a large inductance without having to use a large, massive copper coil of wire is to exclusively use an iron winding of an enlarged diameter analogous to a ring-shaped permanent magnet. In fact, a ring-shaped permanent magnet may substitute for an air-core iron winding of an enlarged diameter surrounding two copper pancake coils of flipped polarity (inverted direction of windings: one is wound clockwise, CW, and the other pancake coil is wound counter-clockwise, CCW) both of which sandwich an insulated aluminum (or tantalum?) disc which separates these two pancake coils (FIG. 97). And it may be possible to insulate the central aluminum disc with a thin coating of aluminum oxide rather than using a plastic coating? ... Perhaps.



Remember how I mentioned in the main text how current is a mathematical fiction born of our desire to simplify Ohm's Law by replacing voltage divided by resistance with a single variable called capital "I" which represents current? This subconsciously discourages us from pursuing the multiplicative reciprocal of Ohm's Law – Mho's Law – which contains a lower case "i" which represents the square root of negative one.

Current does not exist. It is a fabrication of the mind of man intended to represent a fictional movement of a mysterious prime mover along with its subsidiary smaller movers to affect a change in voltage across the vast emptiness of space. Yet, this fictional entity is not needed due to voltage already uses the dielectric medium of empty space to influence action at a distance without the need for anything else to make this action possible.

We know that no current travels through the dielectric of a capacitor. So, why do we need current in a wire to jump across the microscopic emptiness in between each atom of copper in a wire?

But the existential fiction of current helps us to visualize the movement of fictional abstractions. These fictionalized abstractions are the creations of the human mind which is always hungry for patterns. So, we create a fictional pattern of movement and call this fiction: "current."

Just as a wave of current does not exist as it travels around a football stadium created by individual members of the audience standing up and sitting down at precise intervals, likewise is the ripple of transverse current a fiction as the voltages of each copper atom changes over time creating this fictional pattern to arise inside of our mind.

So, a fictional current represents a change in voltage over time governed by resistance, or...

$$\frac{V}{R} = \frac{dV}{t} = \Delta \text{voltage per second} = (I) \text{Current}$$

And the presence of resistance implies change (represented by the Greek letter, "Δ" – delta) over time.

Despite current's fictional existence, this fictional action at a distance known as: current, helps us conceptualize the changes in voltage occurring per unit of time.

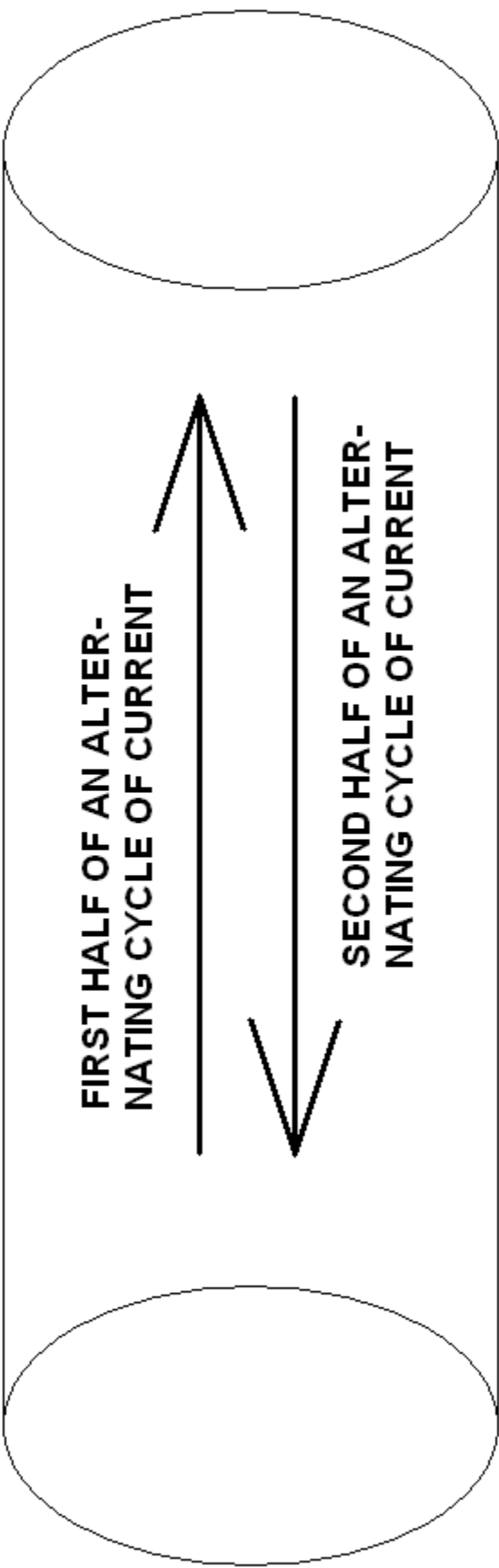
Hence, the following figures may be useful if we don't take them too seriously! These figures are conveyed in the context of that other fictional creation of the human mind called, "alternating current" in which the reflection of voltage is a simultaneous affair occurring at right angles to the path taken by normal current.

So, if the path of fictionalized current travels down the length of a piece of wire, and the alternations of current occur, likewise, across this same length, then the path taken by the simultaneous occurrence of the capacitive reflection of voltage occurs across the diameter of a piece of wire resulting in a zero condition of current, no magnetism and, thus, a zero condition of watts.

Current occurs within the imaginary plane of complex numbers. Hence, we cannot measure it. Yet, we may infer it using the square root of negative one.

In the following figure, FIG. **98**, the simultaneous alternation of imaginary current occurs under Mho's Law and does not alternate its direction. Instead, it travels in opposing directions at the same time effectively canceling itself creating a standing wave of voltage caught in between two states of:

1. Increased voltage and diminished resistance and diminished conductivity along with a simultaneous decrease in voltage and an increase of resistance and an increase of conductivity during each half of an alternating cycle



TWO PIECES OF WIRE:  $\uparrow$  OHM'S LAW AND  $\downarrow$  MHO'S LAW

