

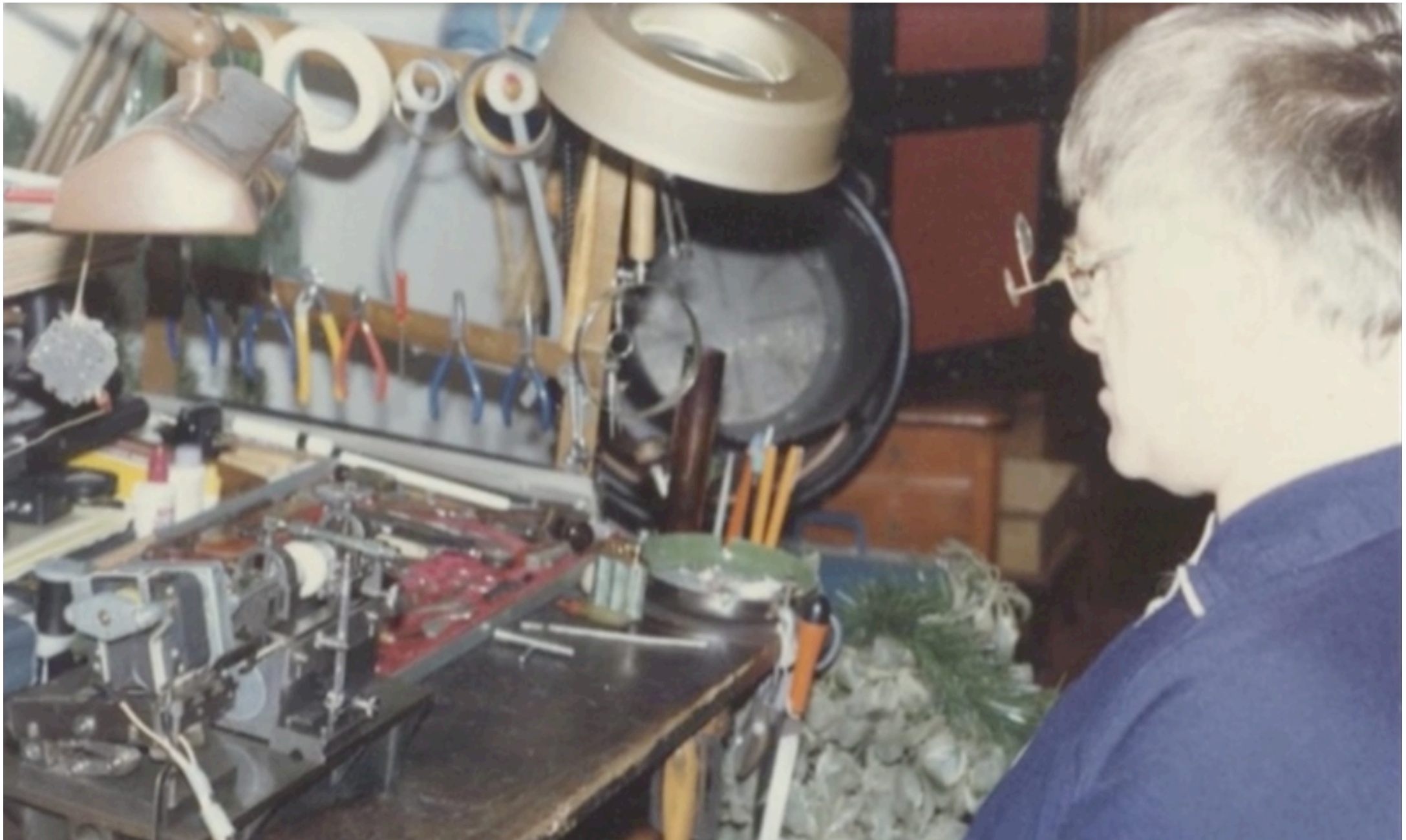
Erl Koenig's
Mirror Image Symmetry (MIS)
&
Experiments with a St. Louis Motor

October 21, 2021

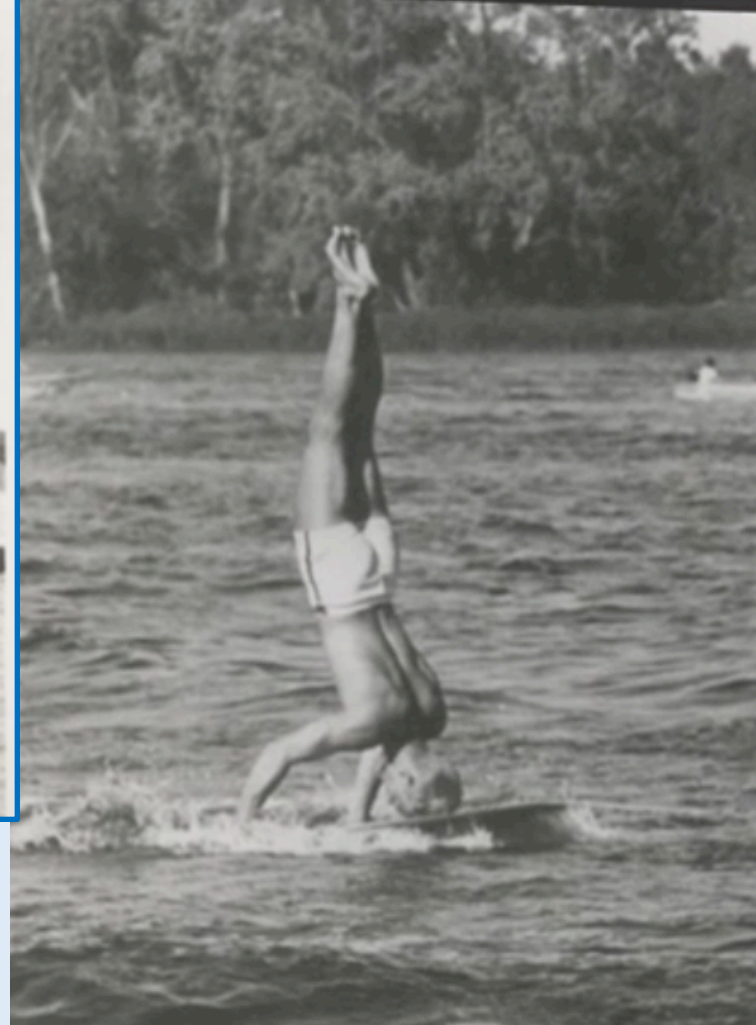


Erl Koenig 1936 – 2016





Erl Koenig – Machinist, Inventor



Member of the Ski Team of Half Moon Beach and one of three friends who marathon skied the Hudson River from New York City to Albany on one ski.



Patented and manufactured break away safety ski bindings sold as the Americana Ski Binding.

Patents

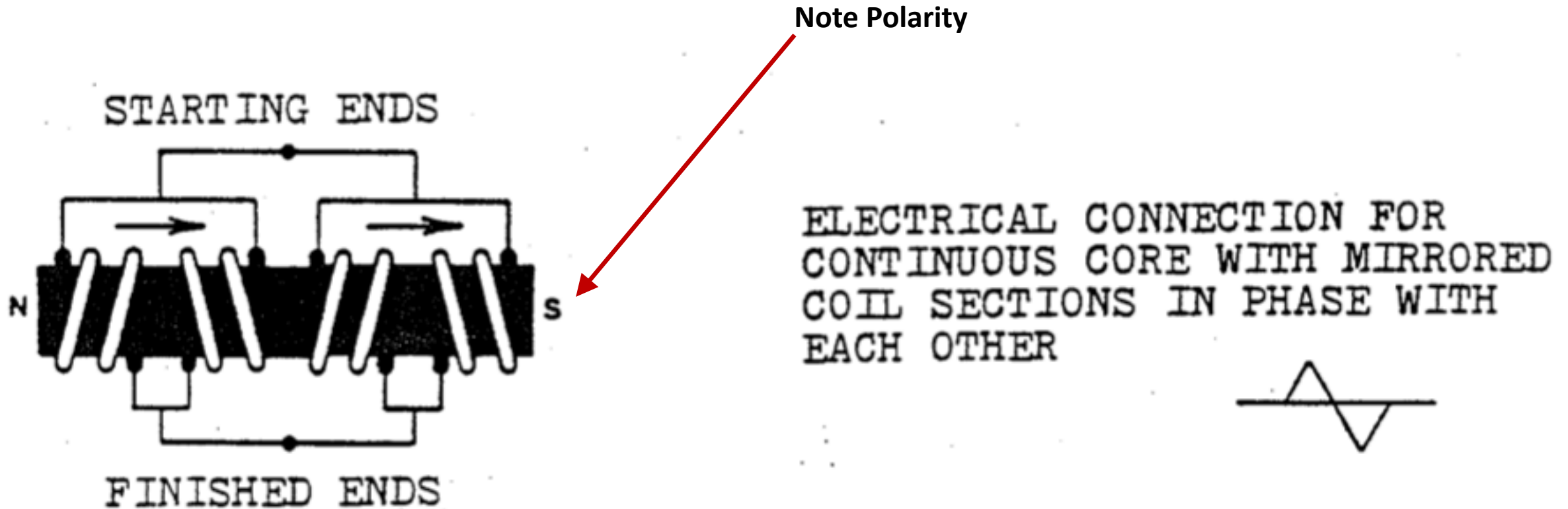
- 4,584,438 - PERCUSSIVE AIR MOTOR
- 4,806,834 - ELECTRICAL CIRCUIT FOR INDUCTANCE CONDUCTORS, TRANSFORMERS AND MOTORS
- 5,977,707 LAMP FILAMENT AND LAMP FILAMENT ASSEMBLY
- 5,975,448 OPEN CROSS SECTIONAL WIRING
- 4,036,510 SAFETY SKI BINDING
- 3,936,064 SAFETY SKI BINDING

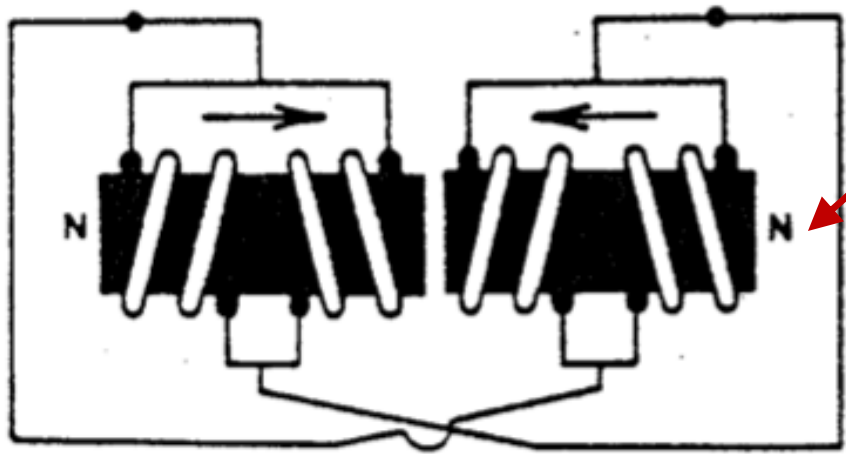
Patents

- 4,806,834 - An electrical circuit for inductance conductors, transformers and motors is provided wherein two coils of electrically conductive wire are coiled about a bar of magnetizable material such that they are disposed in mirror image symmetrical relation with each other.

Standard winding consists of a winding in only one direction.

MIS winding consists of two coils connected in parallel on a shaft or coil form—one wound CW, one wound CCW. The winding start and end leads are connected together. The MIS winding uses half the diameter but twice the length of the standard winding. This results in the same mass of copper in the same volume, with the same resistance and inductance.





MIRRORED SECTION 1

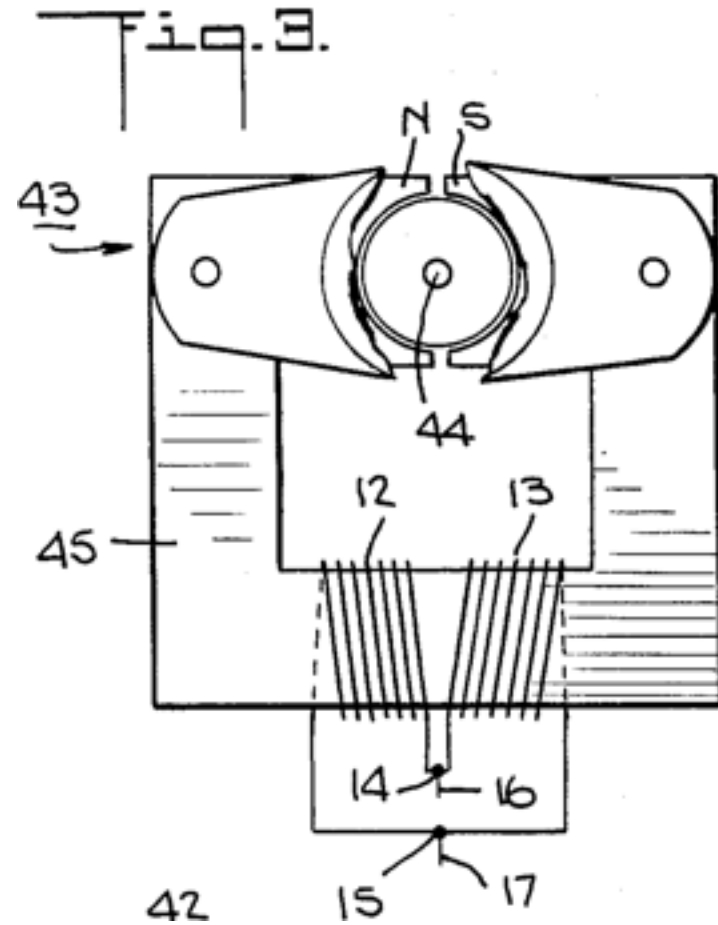
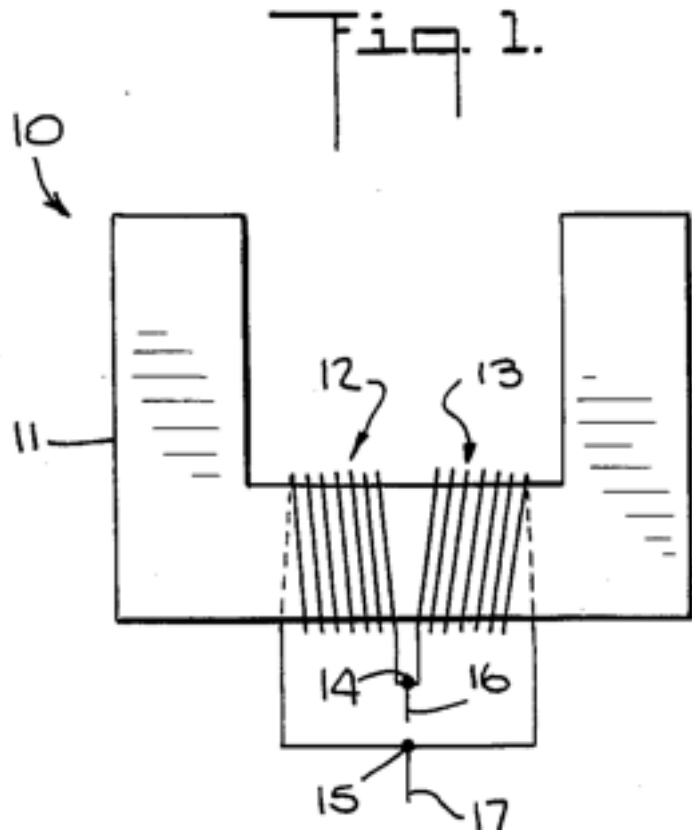
MIRRORED SECTION 2

Note Polarity

ELECTRICAL CONNECTION FOR SEPARATE CORES WITH MIRRORED COIL SECTIONS NOT IN PHASE WITH EACH OTHER



Transformer and Motor Application



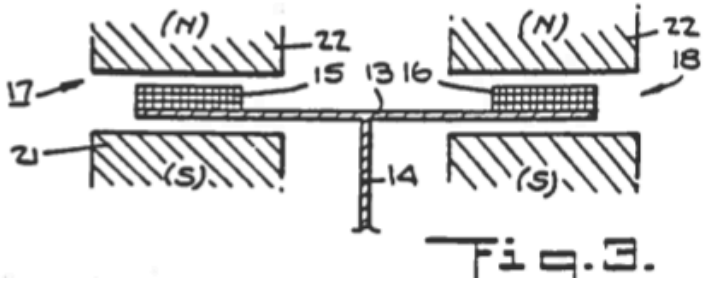
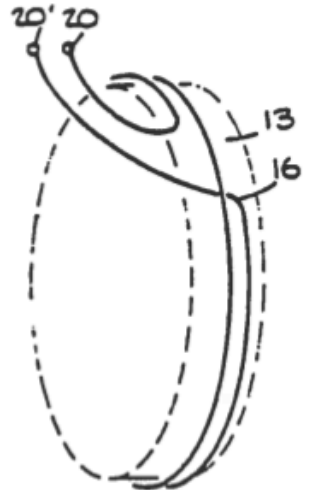
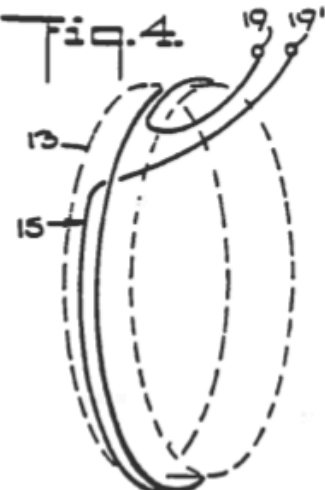
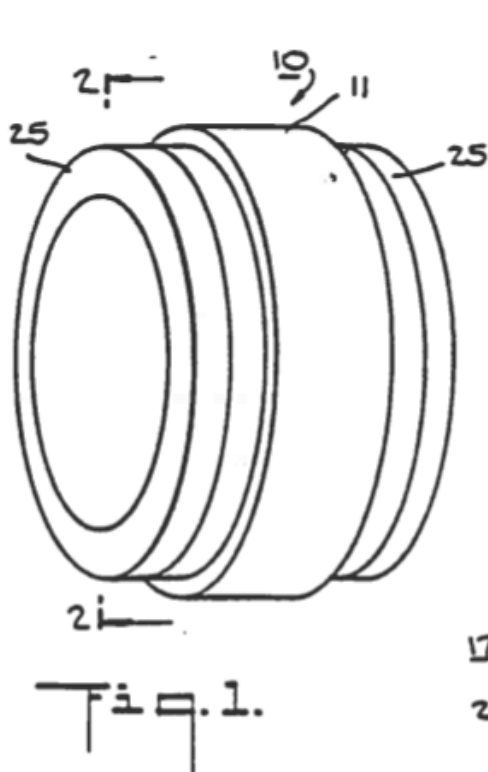
Patents

- 4,584,438 - A Transducer Used as a Loudspeaker to produce soundwaves without distortion with the added benefit of using less power for a given sound intensity.

U.S. Patent

Apr. 22, 1986

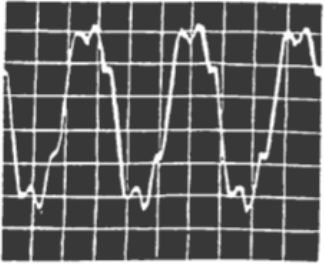
4,584,438



Loudspeaker Test

acceleration graphs and setup

MIRRORED COILS



60 Hz. IN , 60 Hz. OUT
(100% AMPLITUDE)

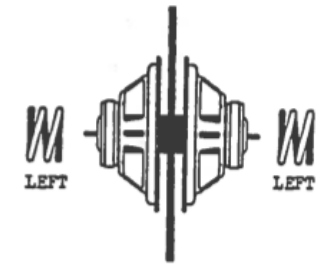
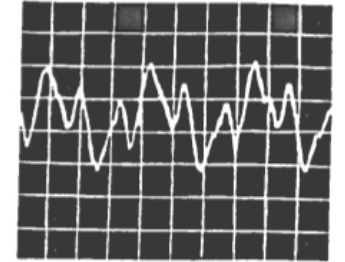
THIS MUTUAL INDUCTION ACCELEROMETER TEST WAS DESIGNED TO MEASURE THE ACCELERATION AND DECELERATION VALUES FOR AN ASSEMBLY APPARATUS THAT MUTUALLY CONNECTED TWO DYNAMIC MOVING PARALLEL ELECTRIC COILS WHEN ELECTRIFIED BY AN ALTERNATING CURRENT.

THESE GRAPHS SHOW VOICE COILS ACCELERATION VALUE FOR A SPEAKER ASSEMBLY WITH MIRRORED COILS AND A SPEAKER ASSEMBLY WITH NON MIRRORED COILS.

MIRRORED VOICE COIL SPEAKER ASSEMBLY = A LEFT PITCH DIRECTED VOICE COIL PARALLEL TO A RIGHT PITCH DIRECTED VOICE COIL.

NON MIRRORED VOICE COIL ASSEMBLY = A LEFT PITCH DIRECTED VOICE COIL PARALLEL TO A LEFT PITCH DIRECTED VOICE COIL.

NON MIRRORED COILS



60 Hz. IN , 120 Hz. OUT
(50% AMPLITUDE)



Toby Grotz Erl Koenig, Ark Maciak
February 16, 2012



Erl Koenig Mirror Image Symmetry Demonstration

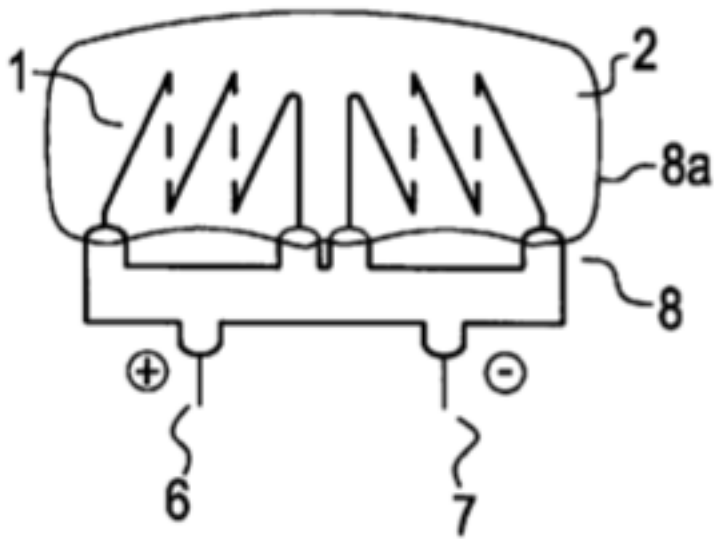
October 19, 2012

<https://vimeo.com/624702623>



Erl Koenig seated and Ark Maciak

5,977,707 LAMP FILAMENT AND LAMP FILAMENT ASSEMBLY



- Back EMF reduced
- Brighter light
- Lamp filament cost less, last longer does not consume as much energy as prior art.

MIS Left Hand/ Right Hand Application in Light Bulbs

Filaments Last Longer, Brighter

US PATENT 5,977,707 LAMP FILAMENT AND LAMP FILAMENT ASSEMBLY



50 Watt, T4 bulb, GY6.35 bi pin base



5,975,448 OPEN CROSS SECTIONAL WIRING

FIG. 1
PRIOR ART

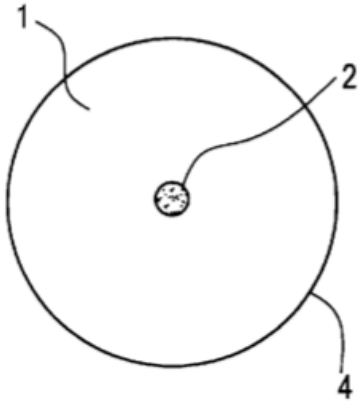


FIG. 2

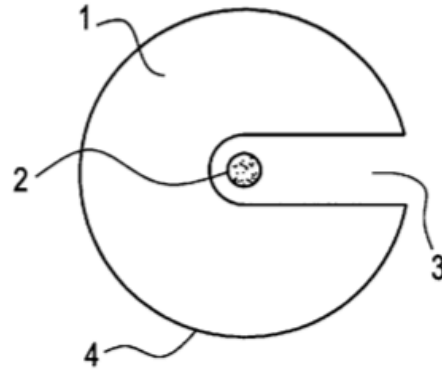


FIG. 3

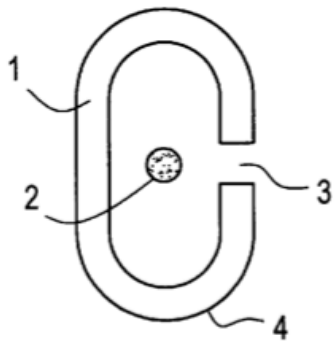
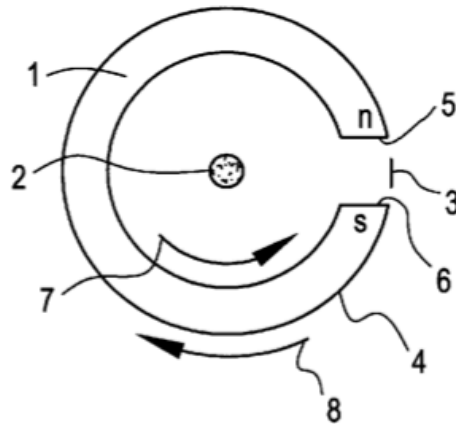


FIG. 4

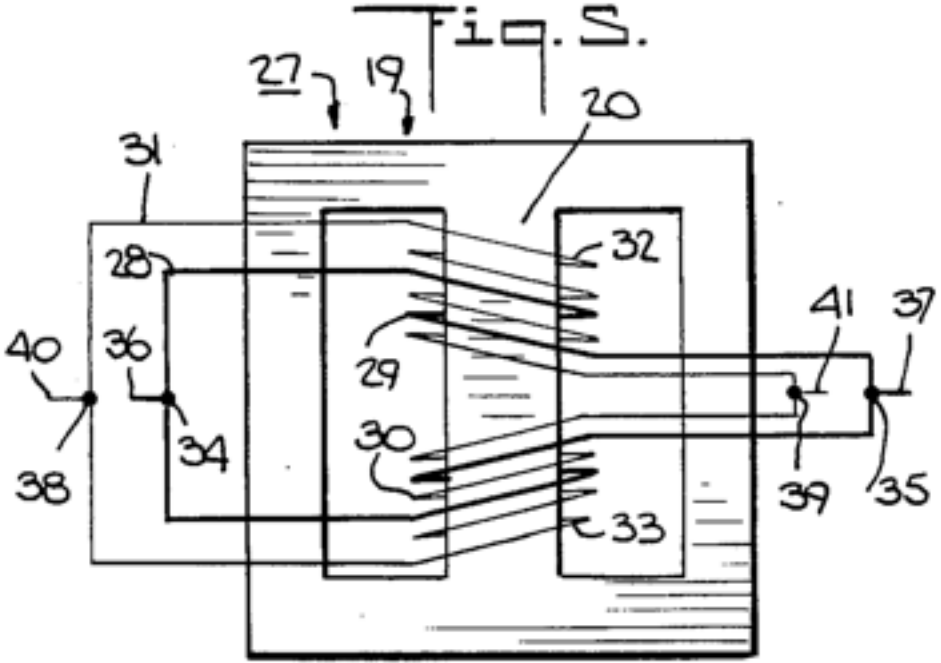


- reduce and improve the characteristic impedance
- reduce and improve the temperature heat rise
- improve magnetic eddy current decay time
- electric transmission line characteristic impedance is constructively improved

Mirror Image Symmetry Winding of Transformers - Test Data

- 1/6 amount of energy to energize the core
- Noise and vibration reduced by 45%
- Input current reduced by 80%
- But, voltage output increased 24%
- Negligible temperature rise - eliminates the need for complex cooling of large transformers
 - Cooling fans, oil pumps, conservator tanks and heat fins not required
- Output Power Increase of 54%
 - Using 26 ohm load

Transformer Application



Transformer: Rating Class 2 Transformer (Door bells, etc, 100 VA/75 V max)

Input: 120 VAC

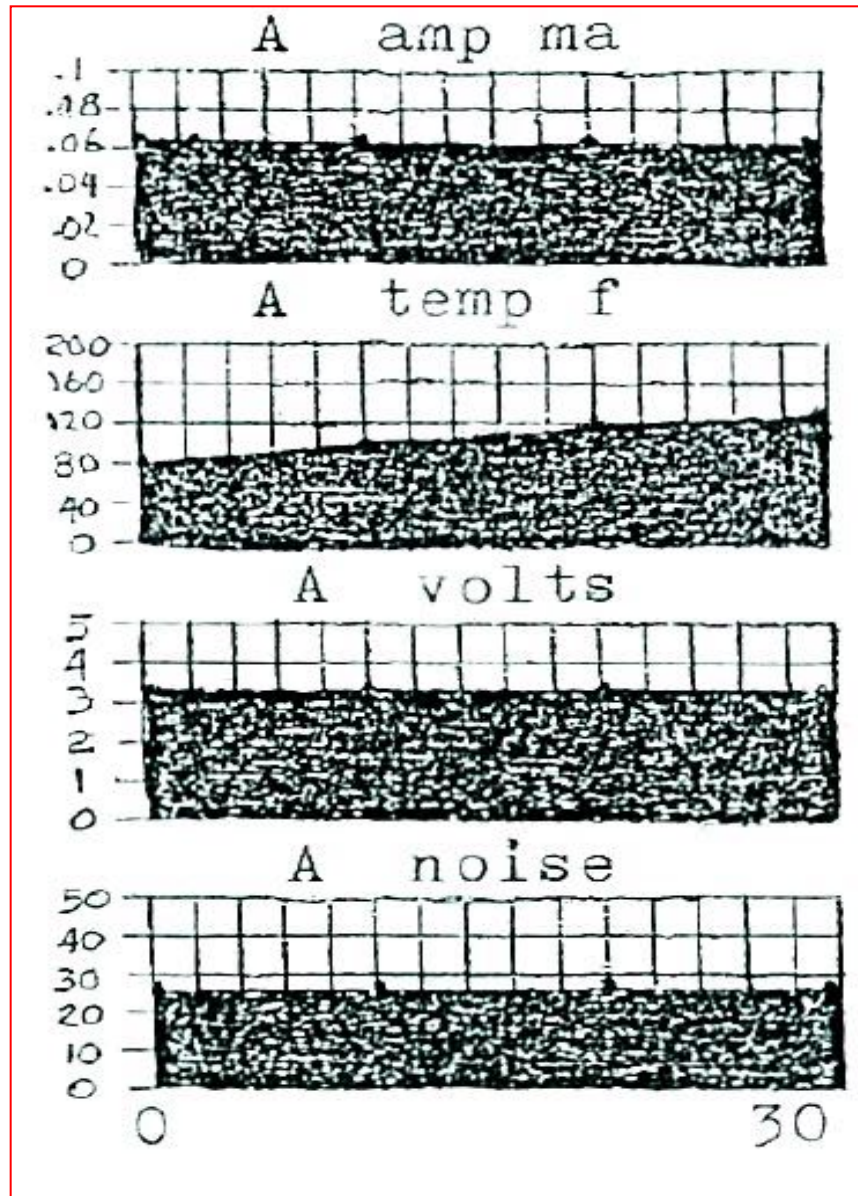
Output: 2.5 VAC 7.5 VA

Load: Lamp 6.5 VAC 0.25 A

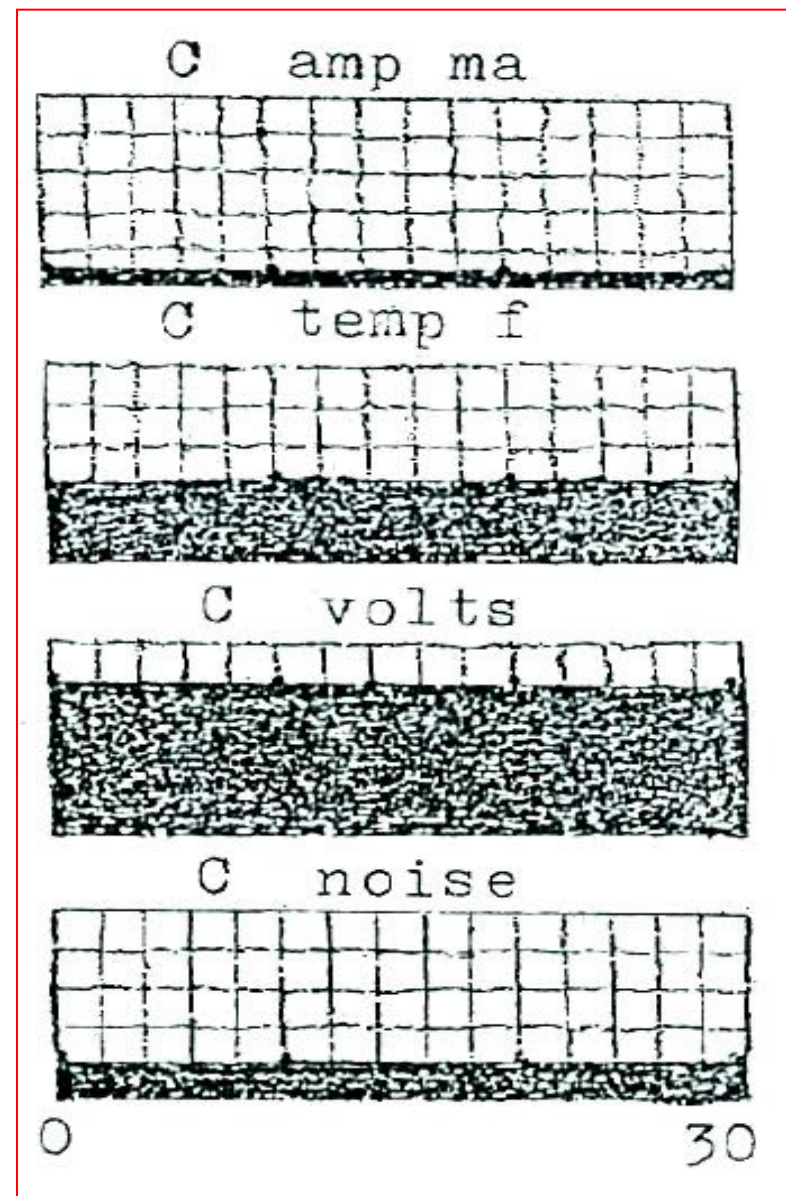
A - STANDARD WINDING						C - MIRROR IMAGE SYMMETRY WINDING					
TIME	AMP	TEMP	VOLTS	NOISE	POWER	TIME	AMP	TEMP	VOLTS	NOISE	POWER
0	0.062	78.6	3.3	25.5	0.4149	0	0.012	78.6	4.1	14	0.6404
10	0.063	101	3.3	-	0.4149	10	0.012	83.2	4.1	-	0.6404
20	0.063	114	3.3	-	0.4149	20	0.012	85.4	4.1	-	0.6404
30	0.063	128	3.3	25.5	0.4149	30	0.012	85.9	4.1	13.8	0.6404

TIME	INPUT CURRENT REDUCTION (%)	NOISE REDUCTION (%)	POWER INCREASE (%)	VOLTAGE OUT INCREASE (%)
0	79.6	45.1	54.4	24.2
10	80.0	-	54.4	24.2
20	80.0	-	54.4	24.2
30	80.0	45.9	54.4	24.2

Standard



MIS



ST. LOUIS MOTOR TESTS
OF STANDARD WINDINGS
VS
KOENIG MIRROR IMAGE
SYMMETRY WINDINGS



sciencefirst.com

MIS wire calculations.xls

bare wire sizes – use for resistance calculations

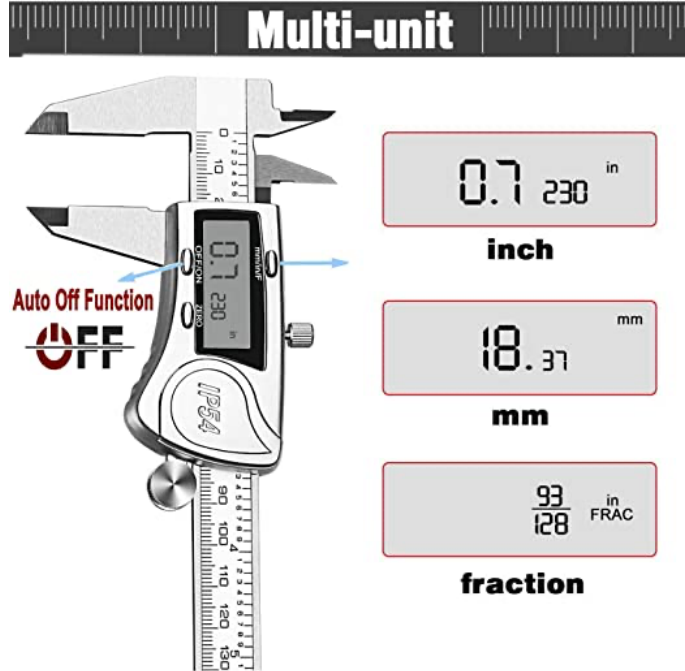
rule of thumb – ½ the area, twice the wire length – does not hold for much smaller AWG sizes

	Gauge	Diameter	Area	Resistance	Weight	area	length	ohms	ohms
2xArea	(AWG)	(inches)	(inches ²)	(Ohms/1000 ft.)	(lbs./1000 ft.)				
0.0103	12	0.0808	0.00513	1.5882	19.7658	0.0051			
0.0081	13	0.0720	0.00407	2.0027	15.675	0.0041			
0.0065	14	0.0641	0.00323	2.5254	12.4308	0.0032			
0.0051	15	0.0571	0.00256	3.1844	9.8581	0.0026			
0.0041	16	0.0508	0.00203	4.0155	7.8178	0.0020			
0.0032	17	0.0453	0.00161	5.0634	6.1998	0.0016			
0.0026	18	0.0403	0.00128	6.3849	4.9167	0.0013			
0.0020	19	0.0359	0.00101	8.0512	3.8991	0.0010			
0.0016	20	0.0320	0.00080	10.1524	3.0921	0.0008	8.700	0.0555	
0.0013	21	0.0285	0.00064	12.8019	2.4522	0.0006	6.875	0.0554	
0.0010	22	0.0253	0.00050	16.1429	1.9447	0.0005		0.0000	
<u>0.0008</u>	23	0.0226	0.00040	<u>20.3558</u>	1.5422	0.0004	8.700	0.1114	0.0557
0.0006	24	0.0201	0.00032	25.6682	1.223	0.0003		0.0000	
0.0005	25	0.0179	0.00025	32.367	0.9699	0.0003		0.0000	
<u>0.0004</u>	26	0.0159	0.00020	<u>40.814</u>	0.7692	0.0002		0.0000	
0.0003	27	0.0142	0.00016	51.4655	0.61	0.0002			
0.0002	28	0.0126	0.0001255	64.8968	0.4837	0.0001			
	Toy Motor Kit #615-4685 wire length 82.25 Inches								

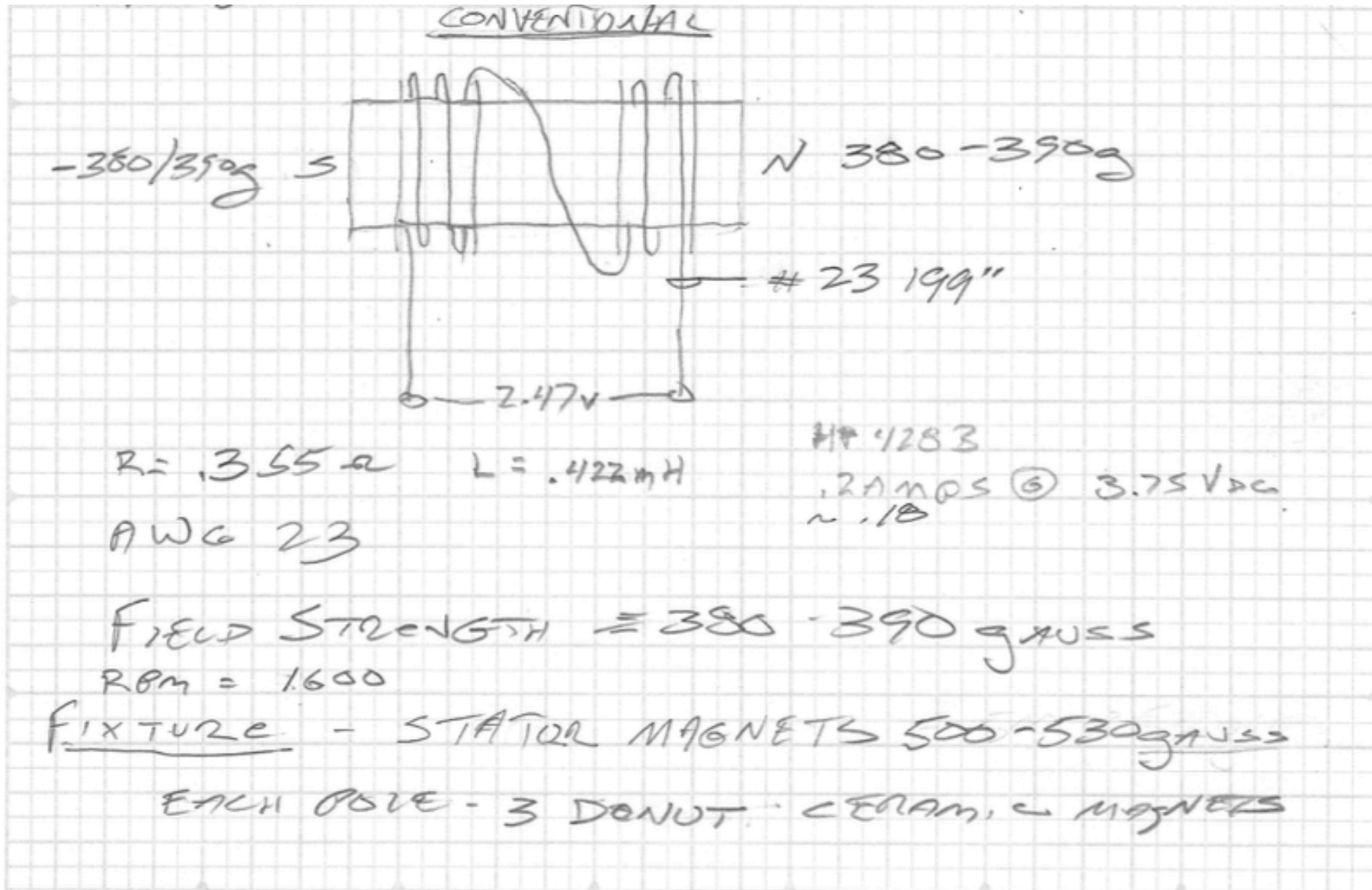
Wire Size and Measurements

SIZE (AWG)	DIAMETER * (INCHES)			RESISTANCE** (OHMS PER 1000 FT. AT 20°C)			FEET PER POUND	POUNDS PER 1000 FT.	CIRCULAR MILS NOMINAL	SIZE (AWG)
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.				
23	.0224	.0226	.0228	19.95	20.31	20.67	647	1.55	510.8	23
24	.0199	.0201	.0203	25.17	25.67	26.19	818	1.22	404.0	24
25	.0177	.0179	.0181	31.66	32.37	33.10	1030	.970	320.4	25
26	.0157	.0159	.0161	40.01	41.02	42.07	1310	.765	252.8	26

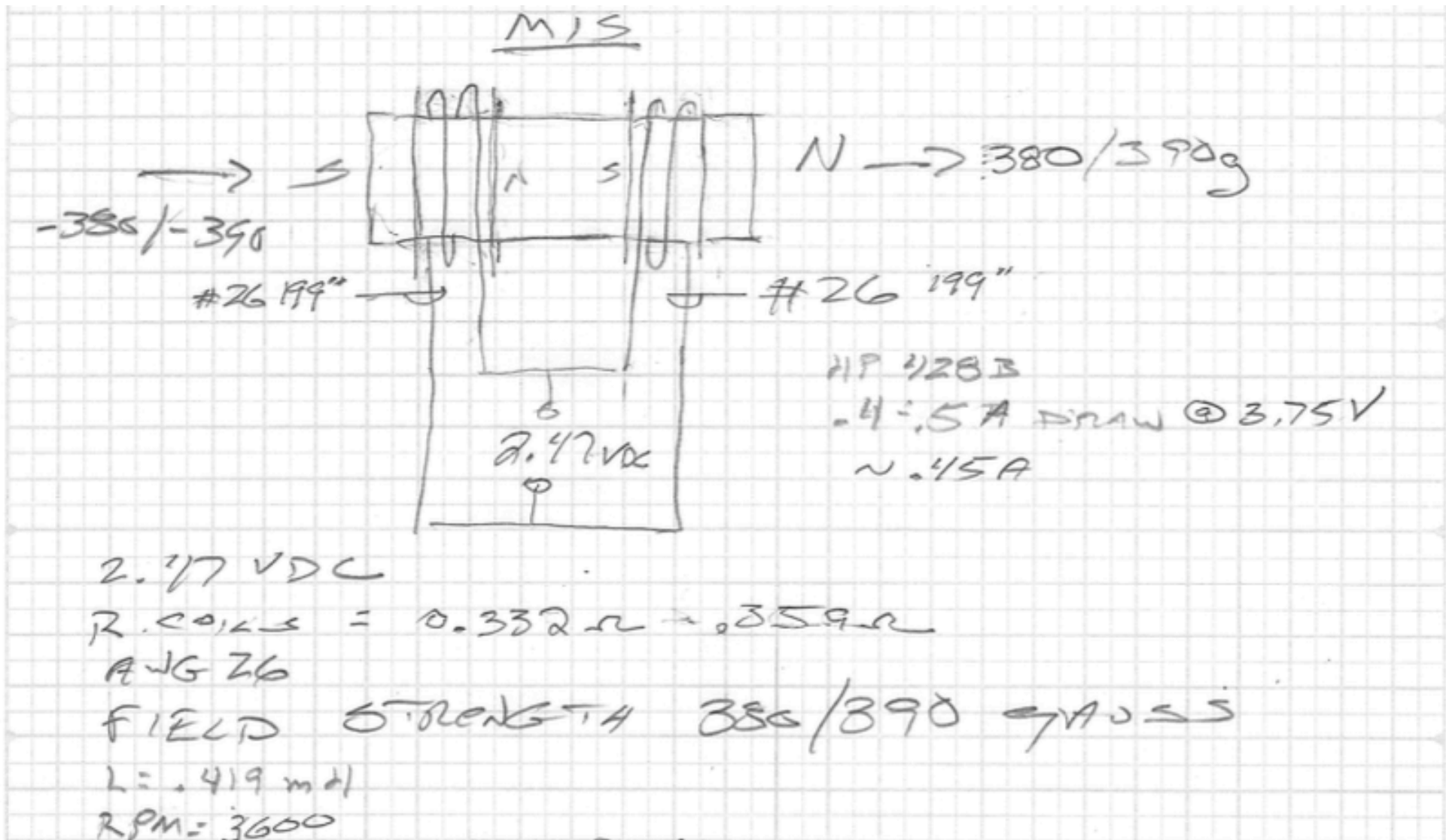
MWS Wire Industries, 31200 Cedar Valley Drive, Westlake Village, CA 91362 • Phone: 818-991-8553 • Fax: 818-706-0911 • www.mwswire.com



St. Louis Motor as Shipped



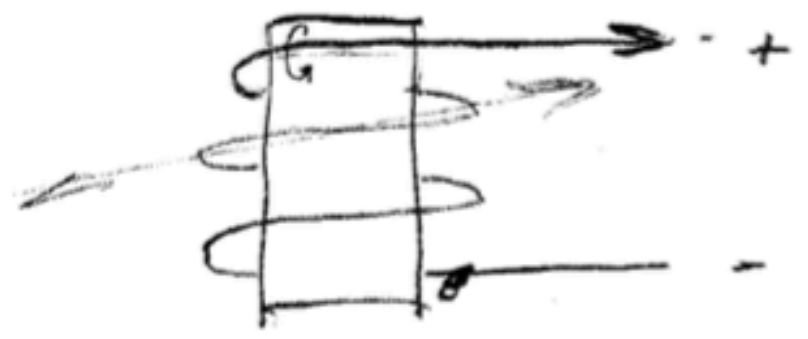
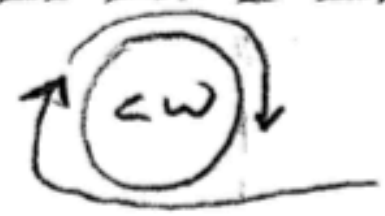
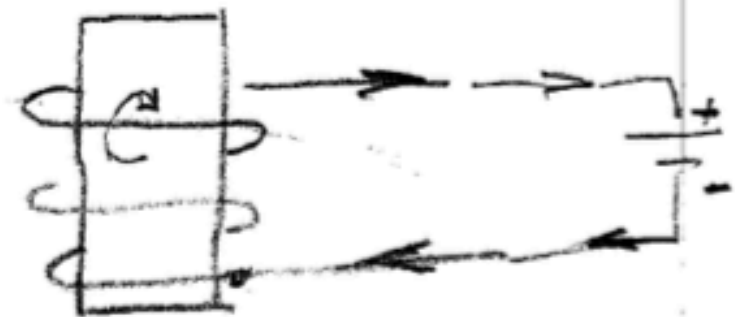
St. Louis Motor as Modified



TOP VIEW

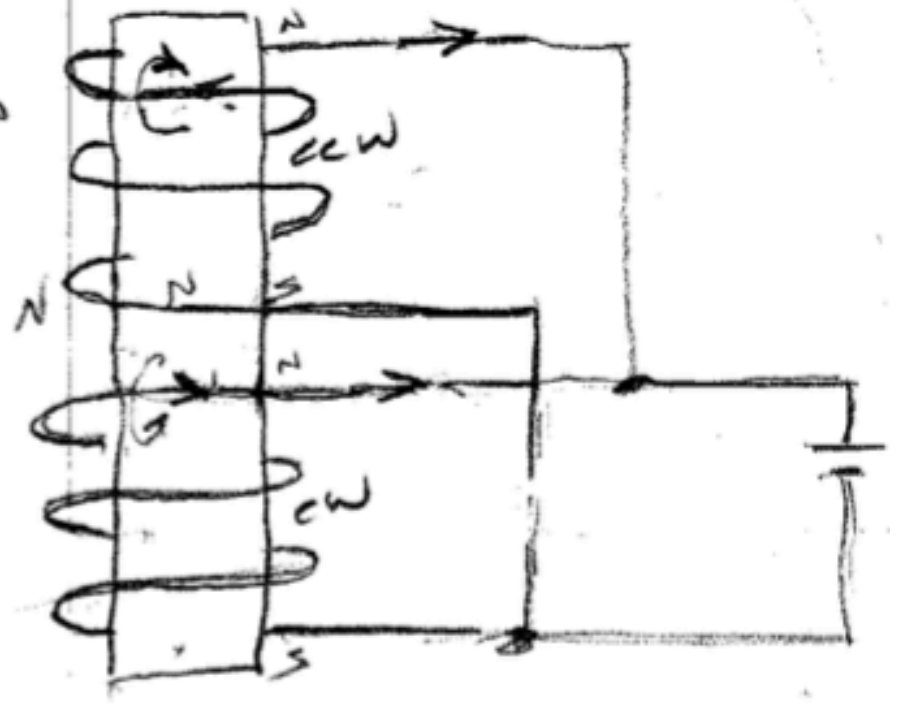


SIDE VIEW



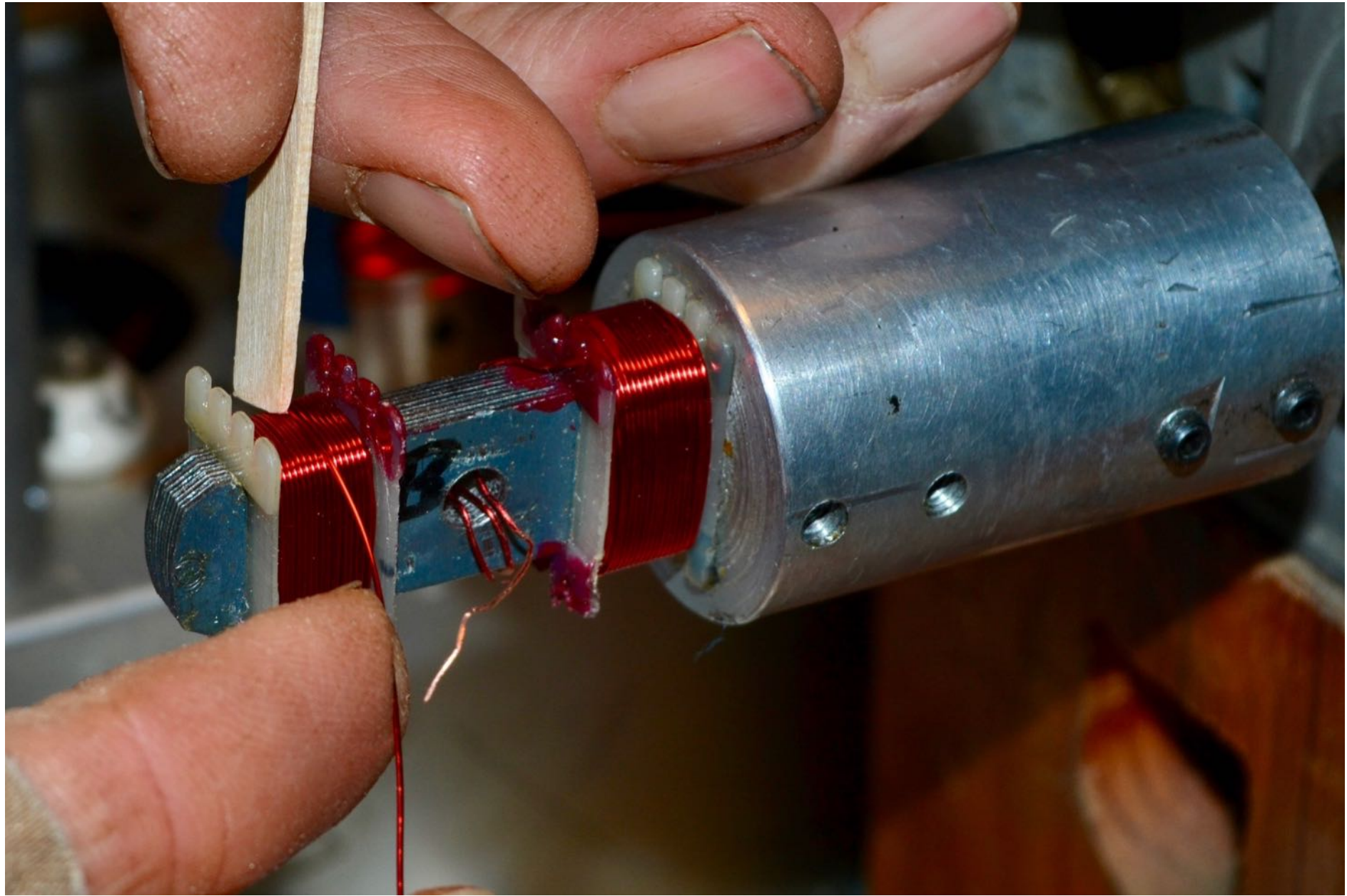
CW

G CW



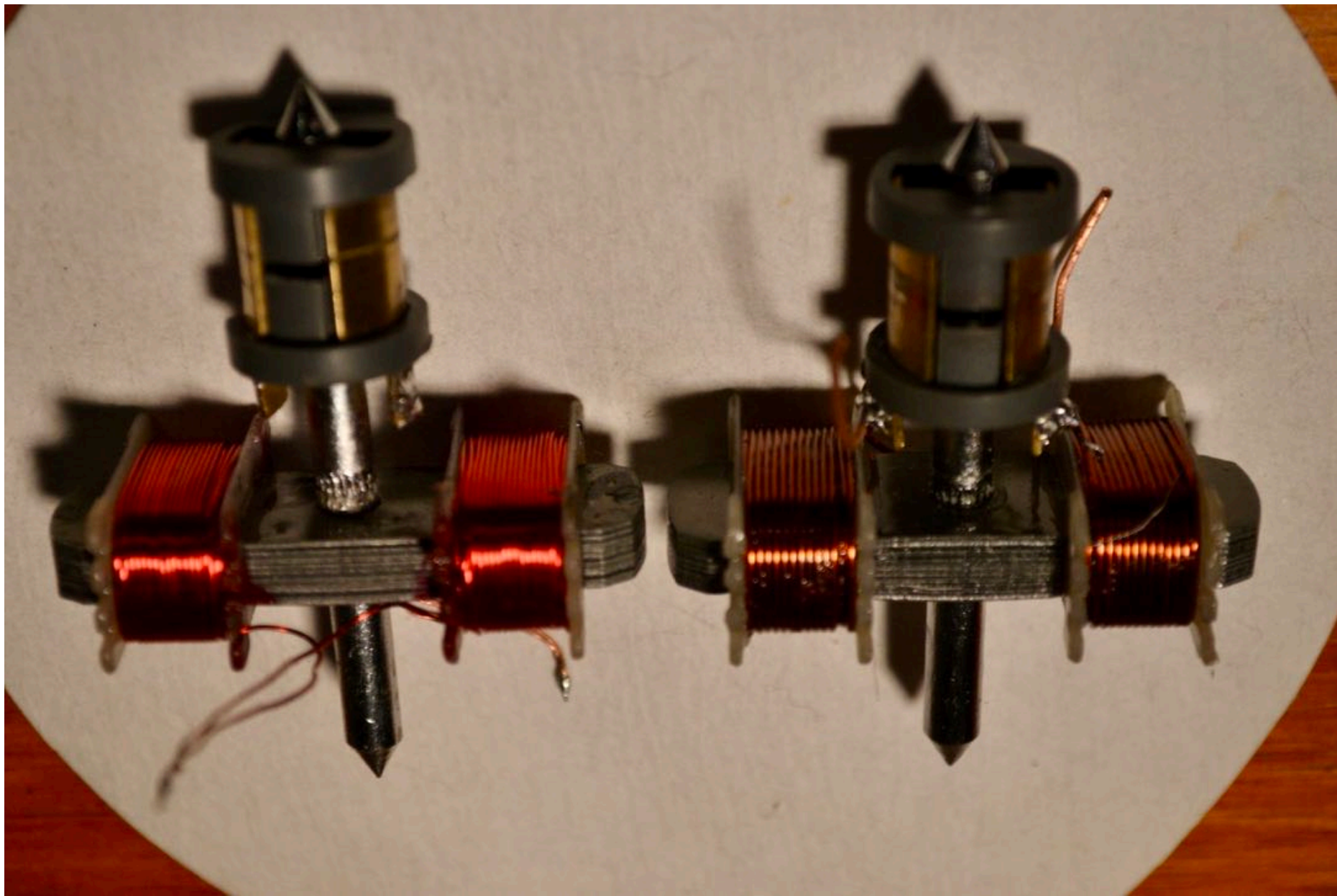
MIRROR IMAGE SYMMETRY WINDING OF ST. LOUIS MOTOR ROTOR





Mirror Image Symmetry (MIS) vs Standard (STD) Wound

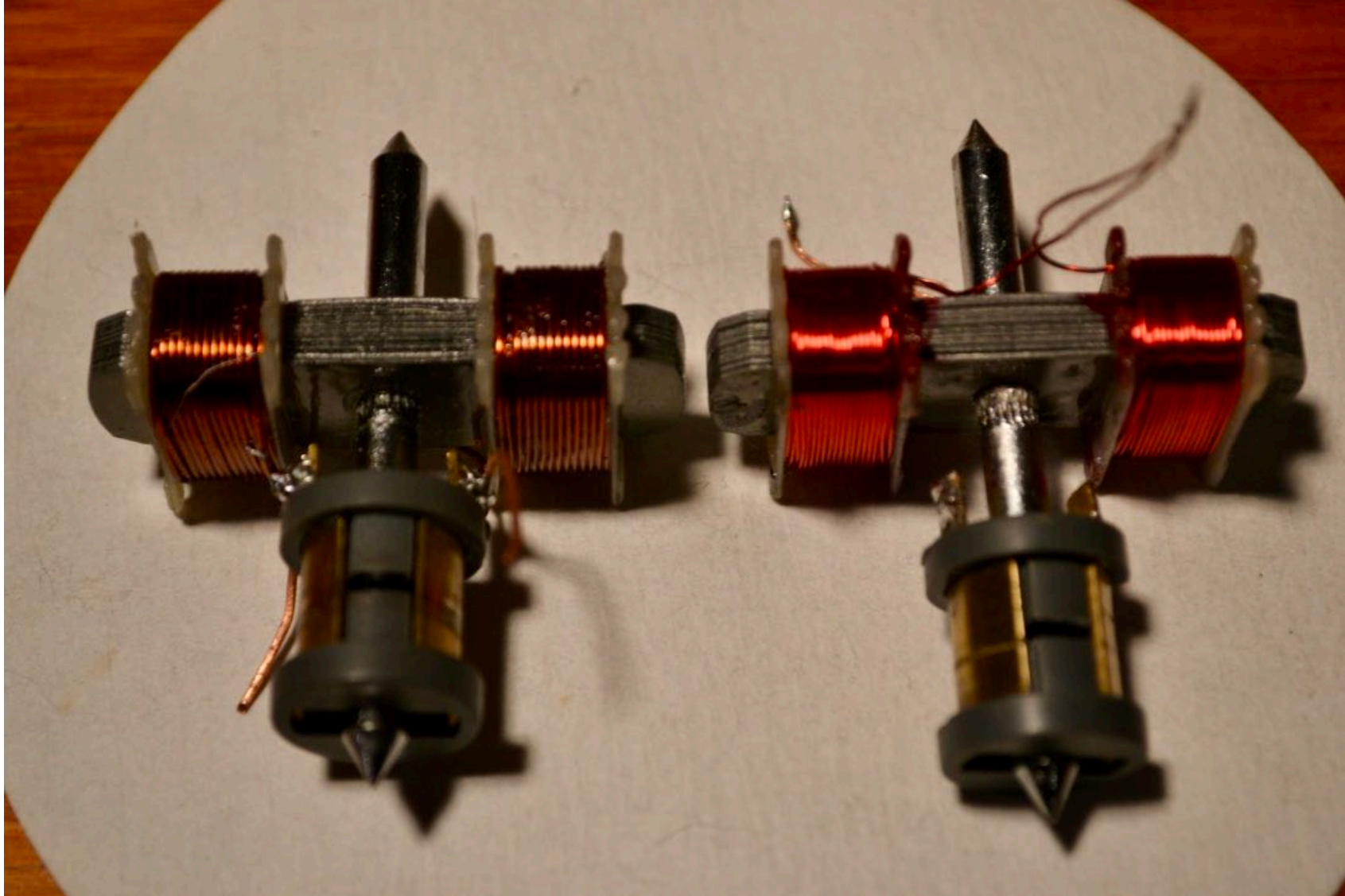
MIS



STD

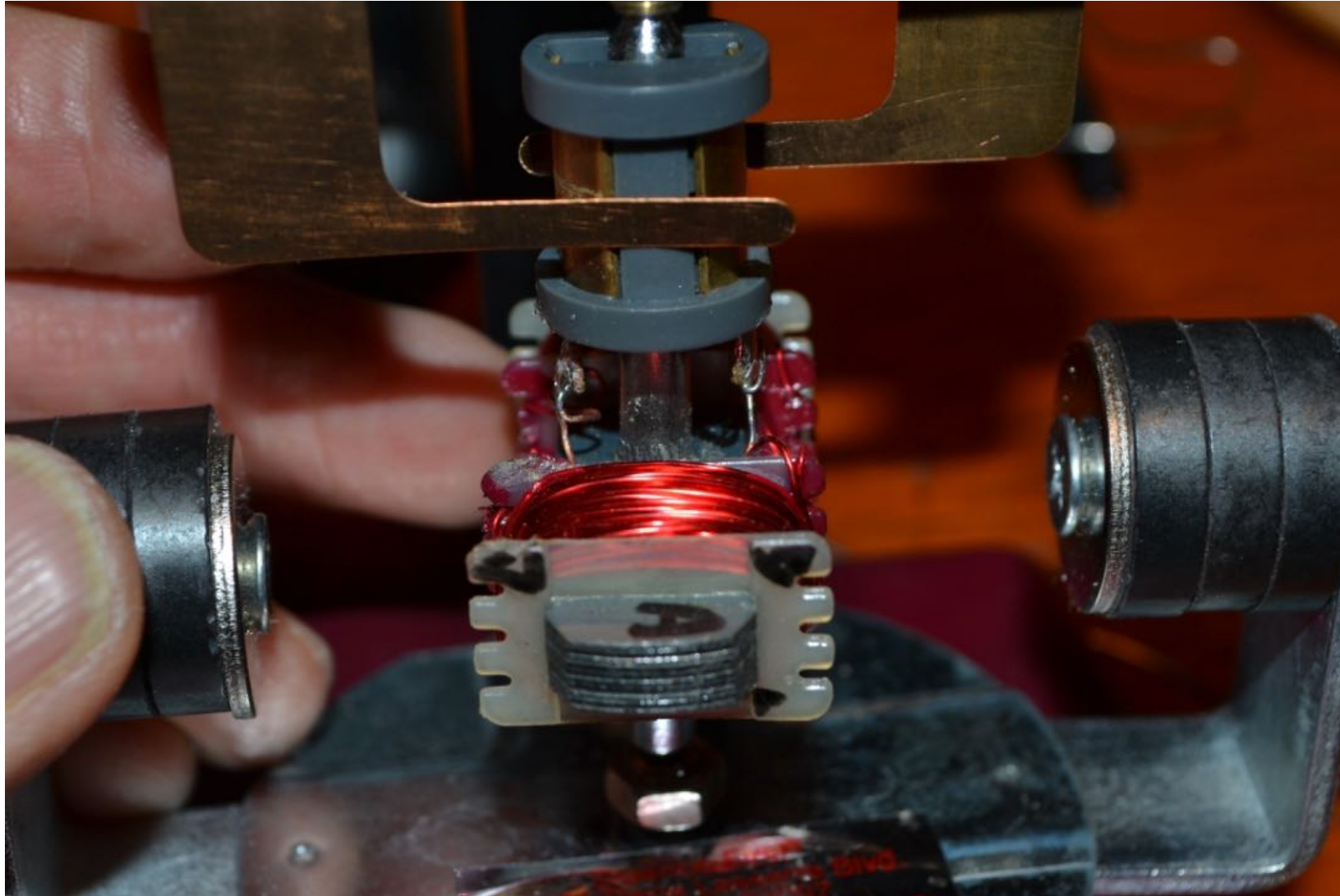
Modified MIS rotor on right

Both windings have same resistance, inductance, and copper mass by weight.



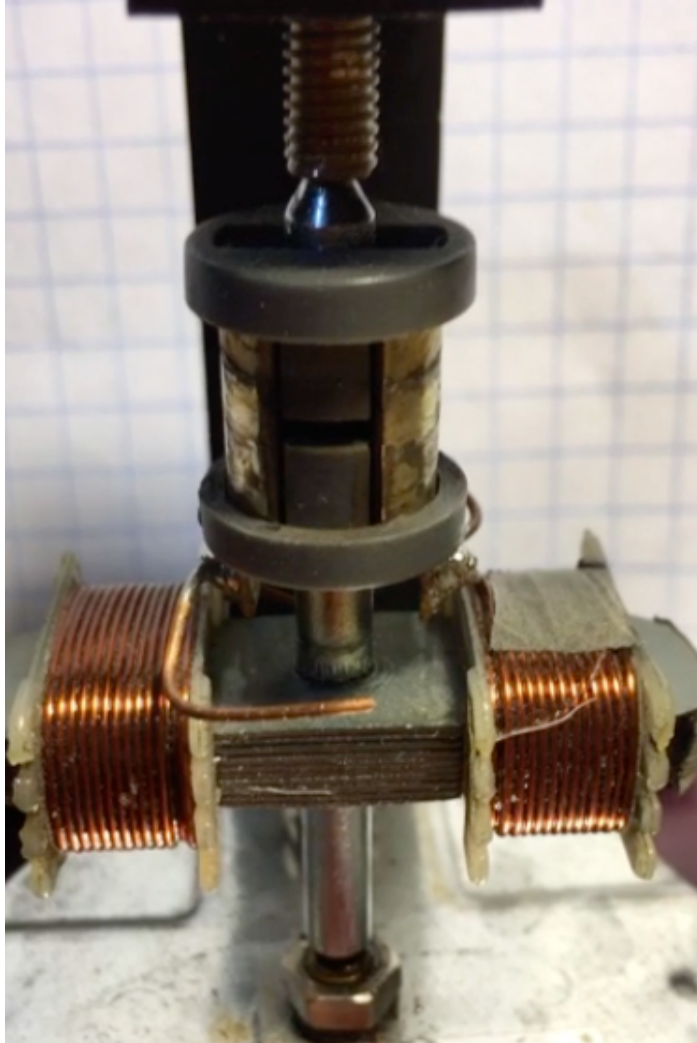
LAMINATED STEEL ROTOR

WITH MIRROR IMAGE SYMMETRY WINDINGS, STATOR CERAMIC MAGNETS on left and right

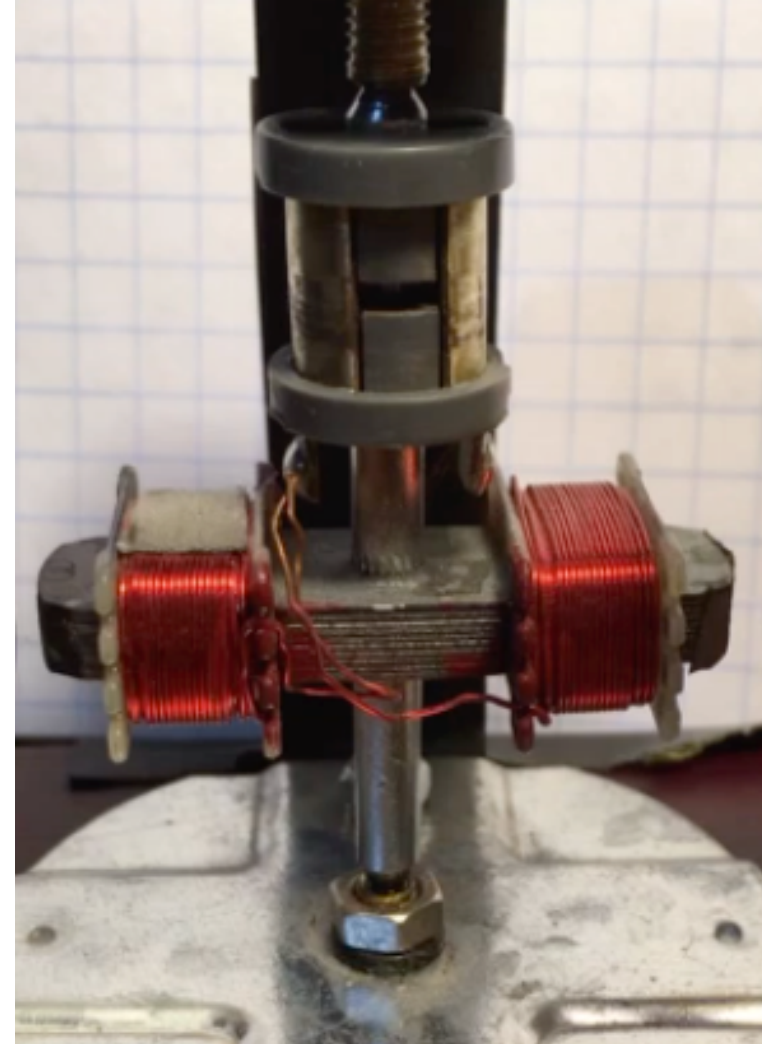


Unloaded Rotor Response times

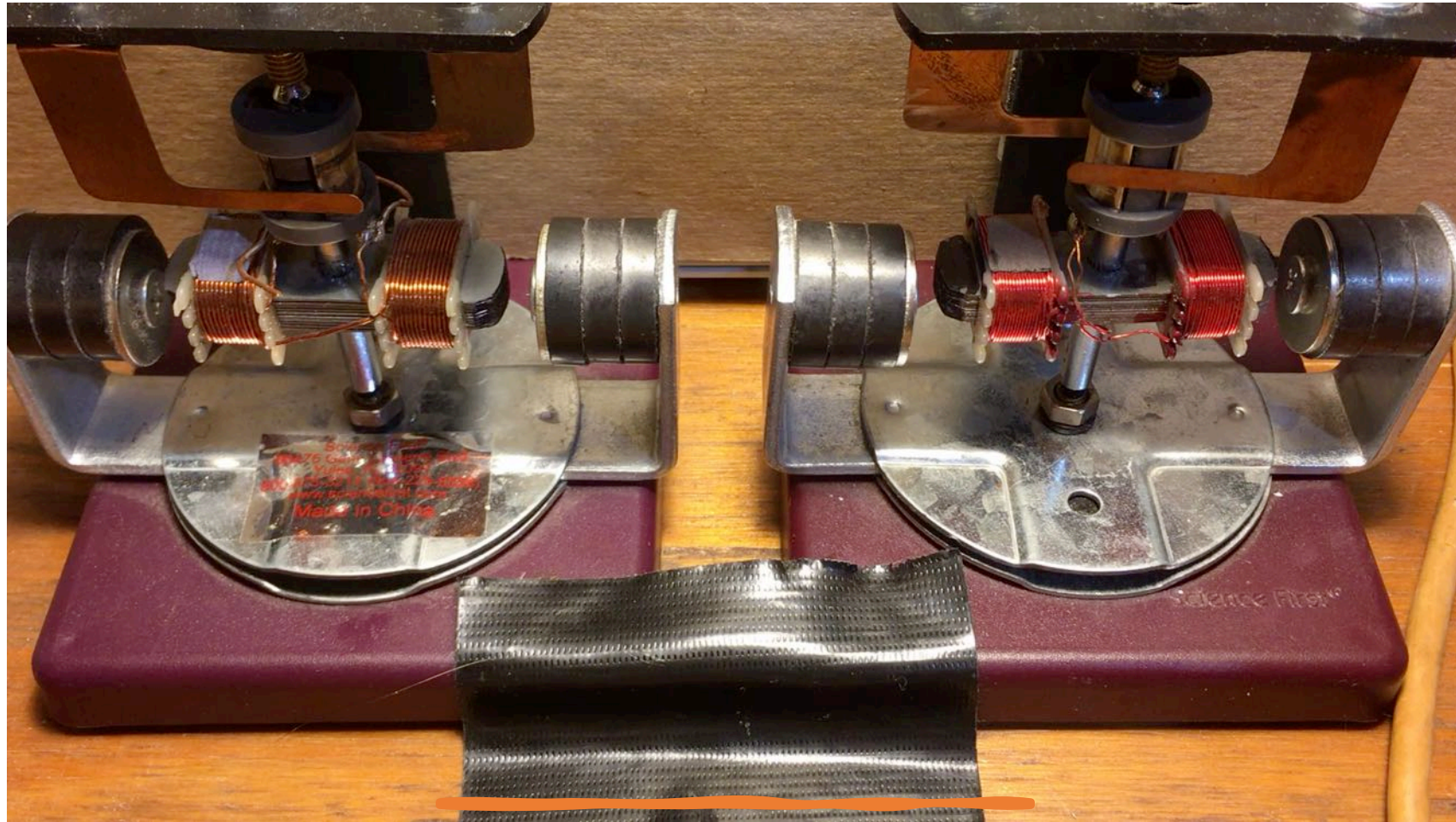
Standard (STD)



Mirror Image Symmetry (MIS)



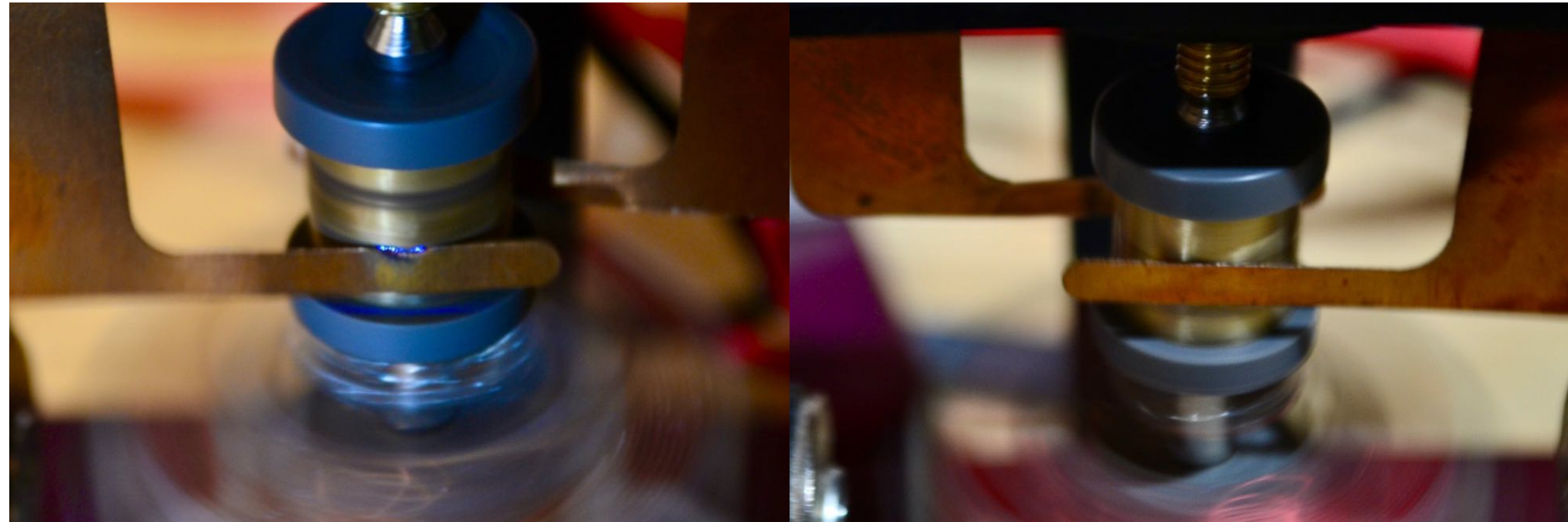
Rotor Response times with brushes



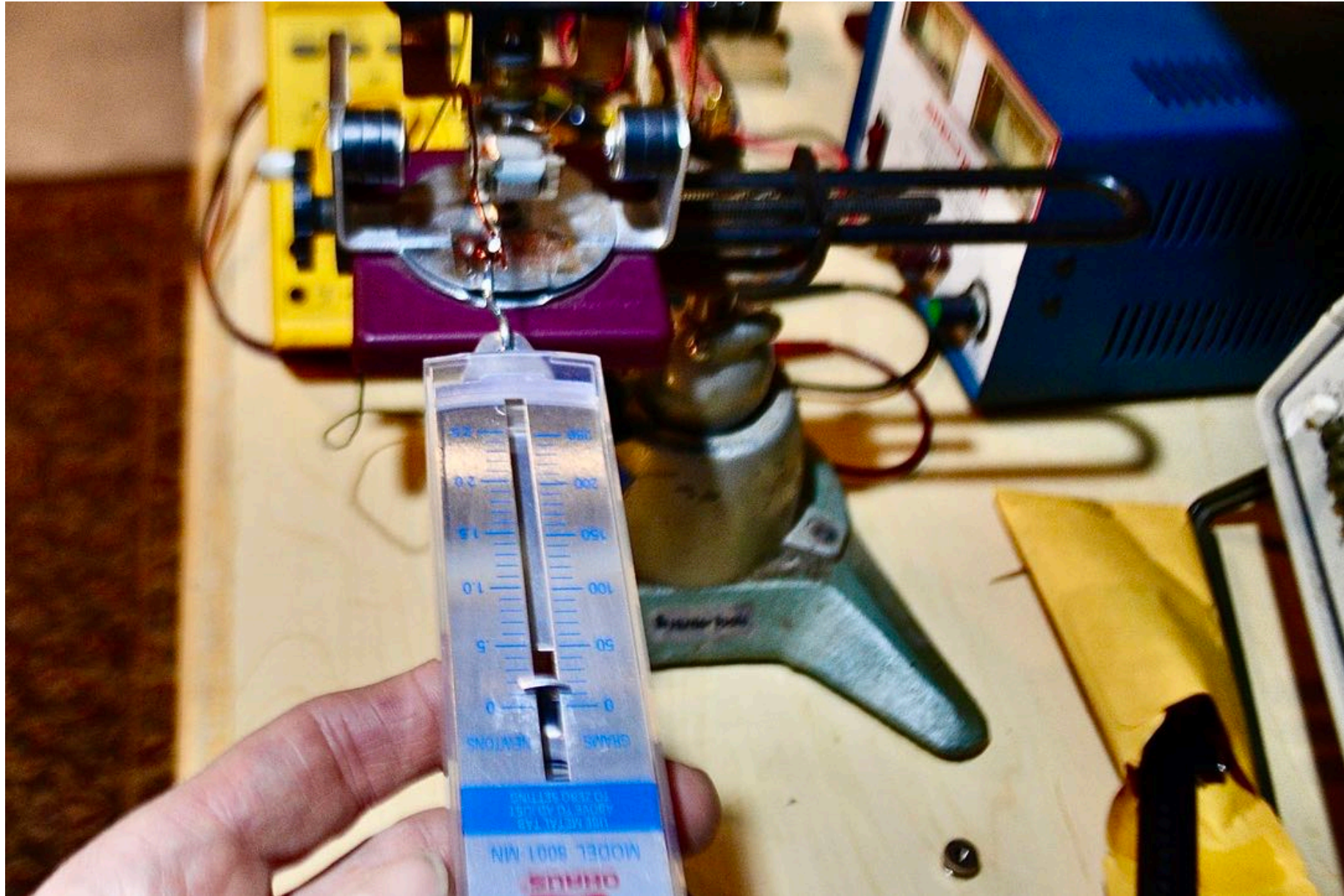
MIS Effect on Contact Arcing

STD – Arcs and pitting

MIS – Less Arcing and pitting



Brush Tension Adjustment



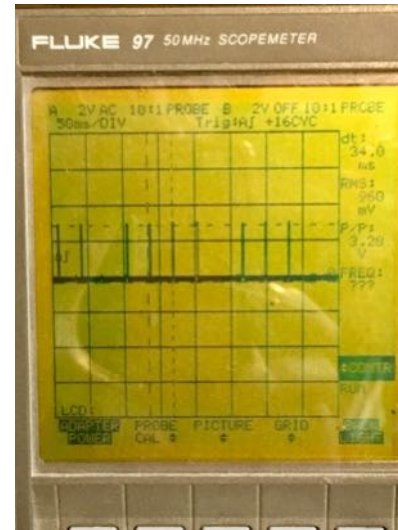
RPM Measurements



Hall effect sensor



Laser Tachometer



Oscilloscope
Hall Effect Output



Stoboscope – Best way

Test of St. Louis Motor with standard vs MIS windings can be seen on Vimeo:

NOTE: Since this was made it was discovered that the RPM measurements were in error. The only method for effective RPM measurement is with a stroboscope. This is due to the noise and chatter on the brush contacts that changes the speed enough between revolutions to produce errors in other methods, such as with a hall effect sensor, laser reflective tachometer, and oscilloscope.

Link: <https://vimeo.com/171947662>

Password: MIS1

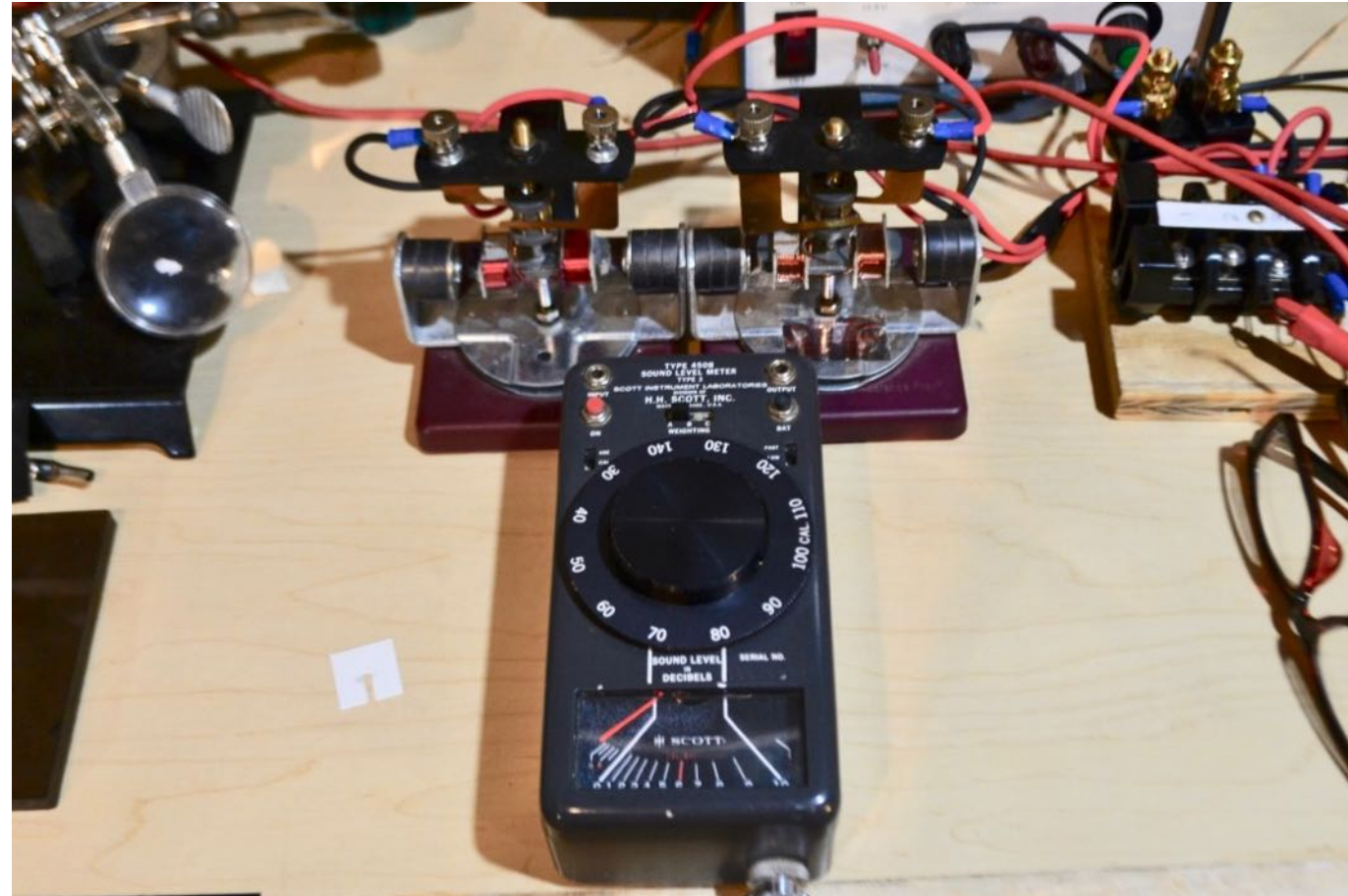


Sound Measurements

H.H. SCOTT SOUND LEVEL METER MODEL 450B

1700 RPM

MIS
83db
2.3 V

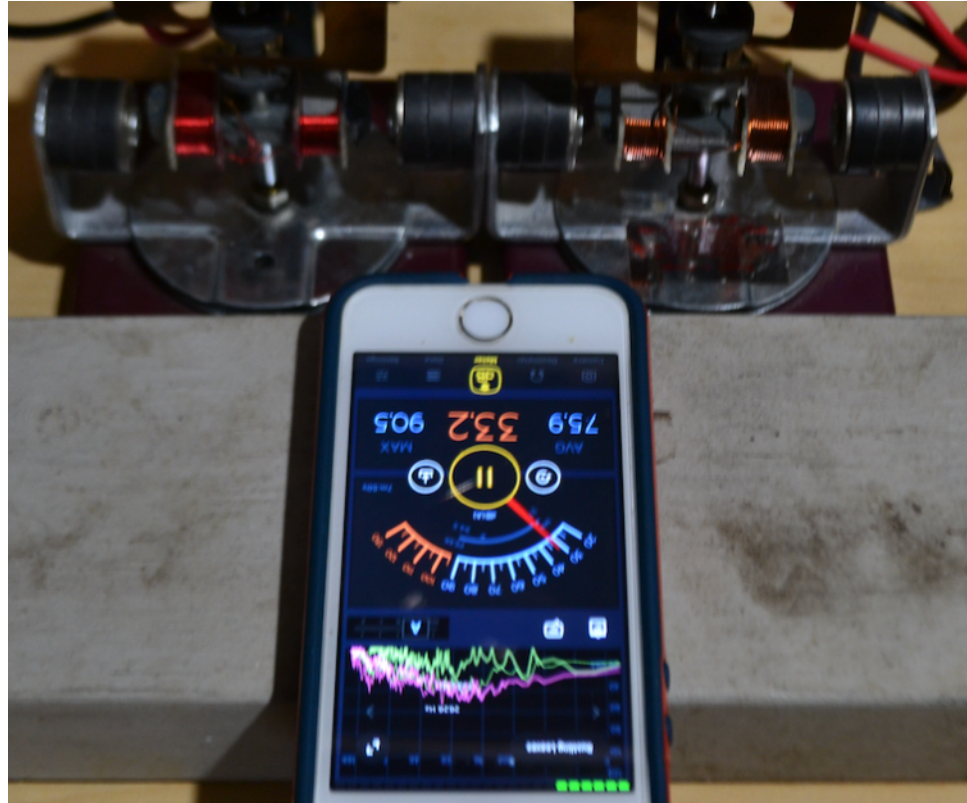


STD
100db
3.5 V

Factor of 7 difference - <https://rechneronline.de/log-scale/decibel.php>

Sound Measurements - iPhone App

MIS
80 dB



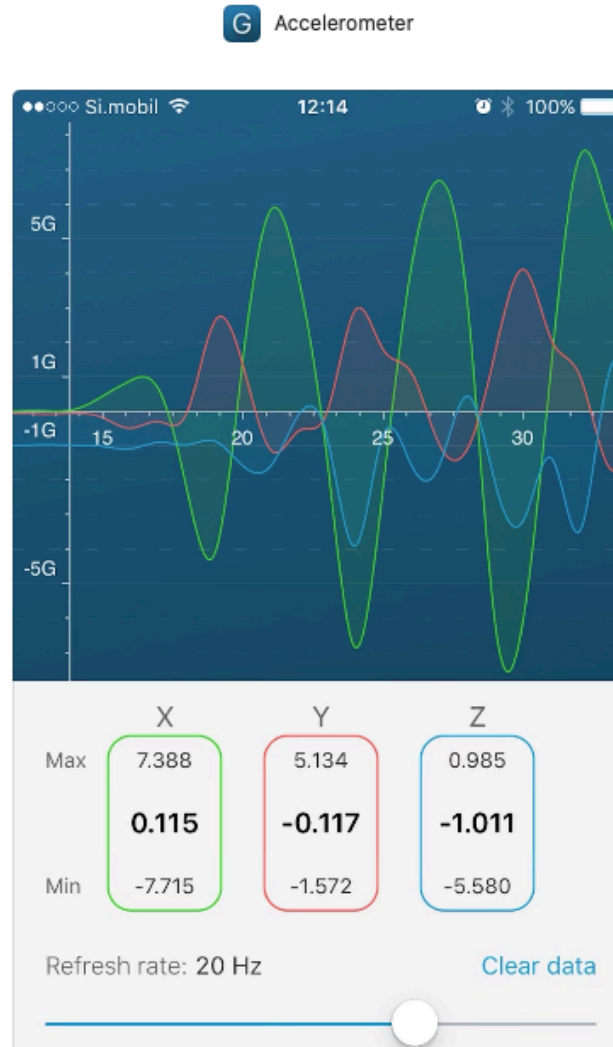
STD
84 dB

Motors run at same Voltage
MIS RPM is up to 20% faster at a given voltage

Vibration Measurements

G by [DreamArc](#) – iPhone App
On top of motor

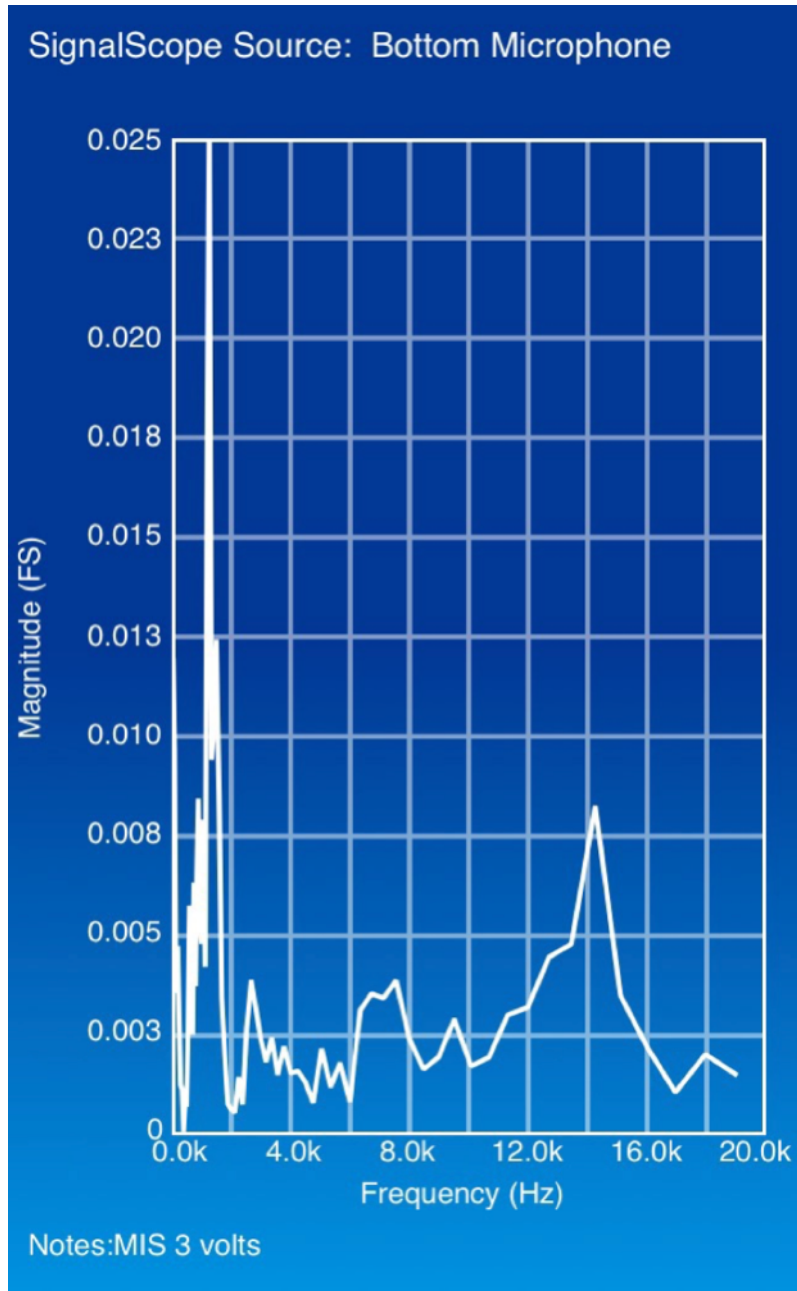
MIS
X .018
Y .963
Z .243



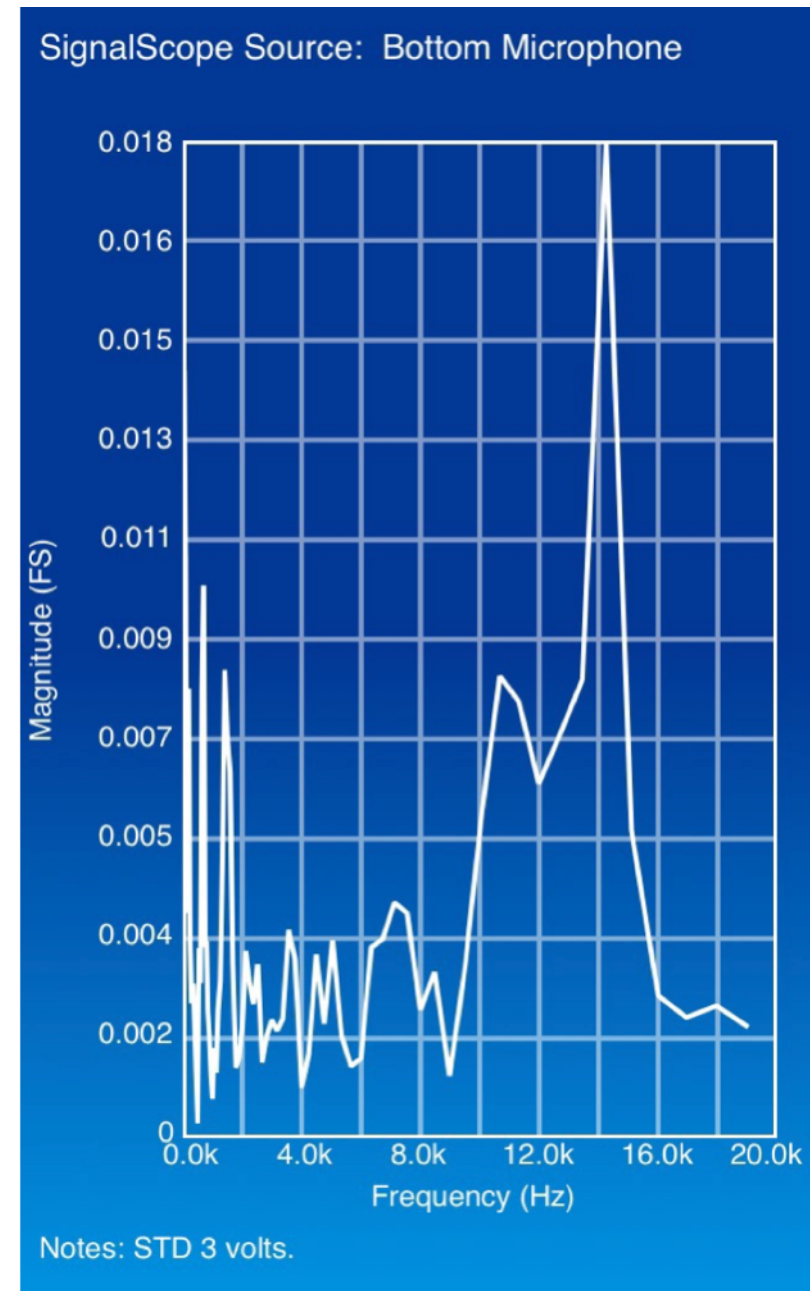
STD
X .028
Y .944
Z .267

Signal Scope Sound Measurements @ 3 volts (typ) both motors - MIS 20% higher RPM

MIS



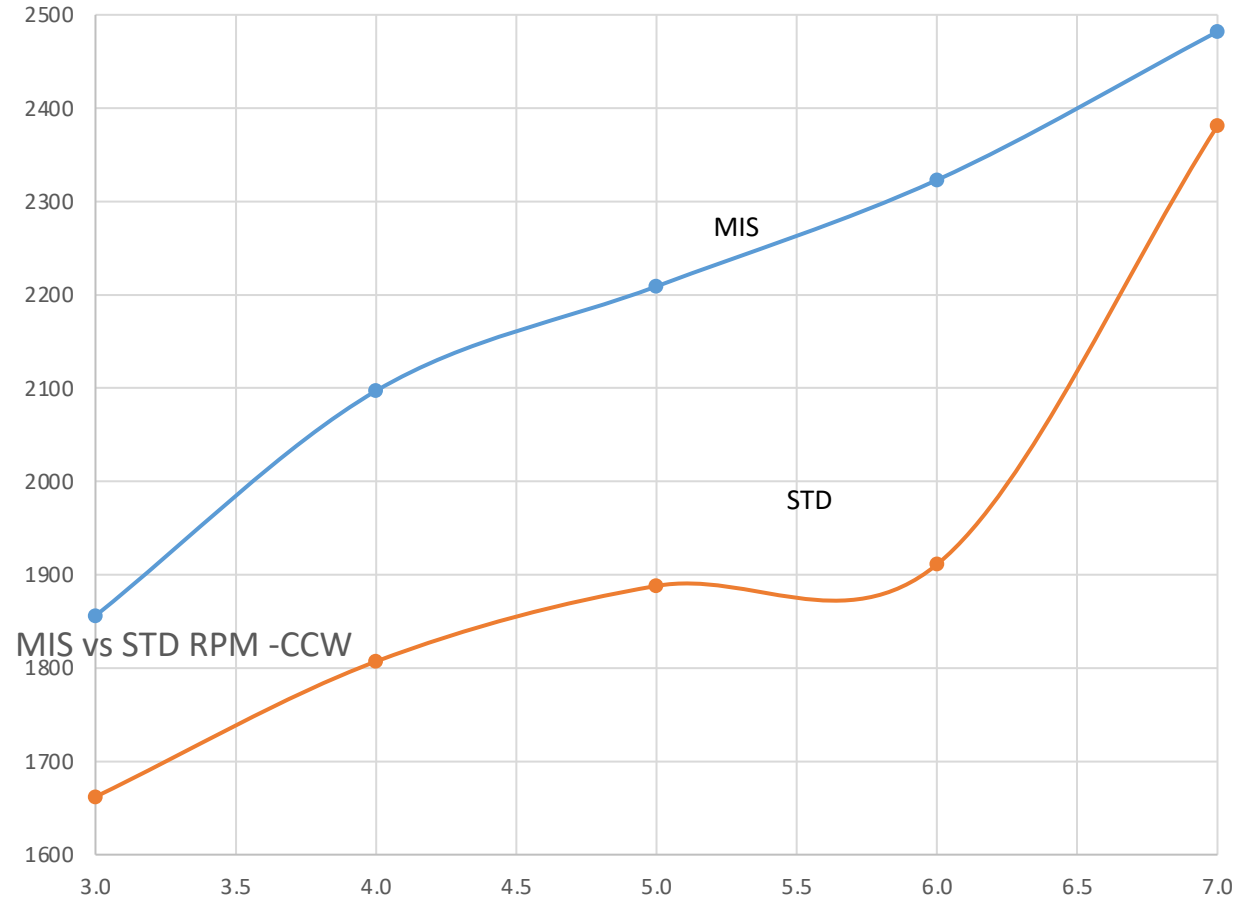
STD



RPM vs Voltage

Mirror Image Symmetry vs Standard Coil Wind

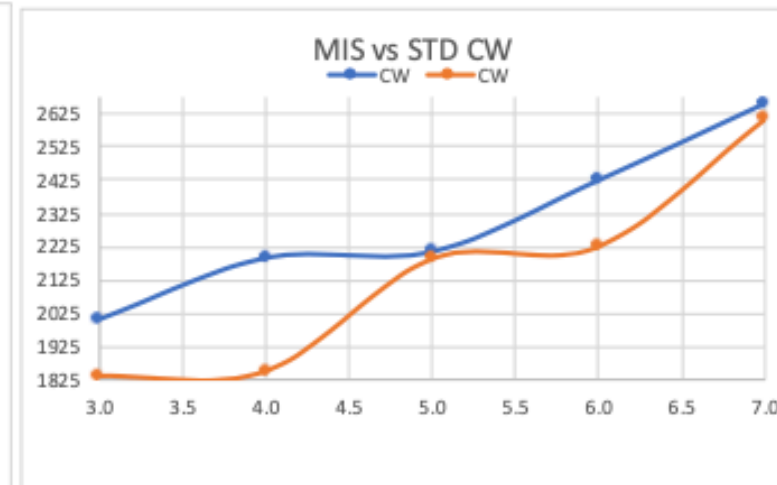
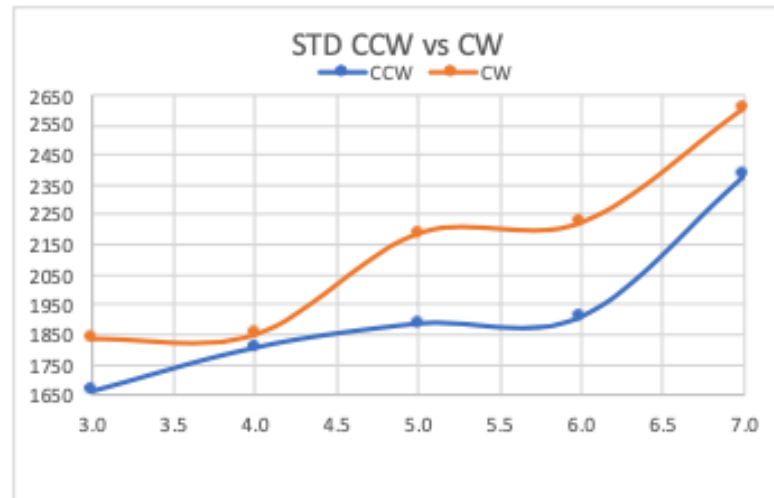
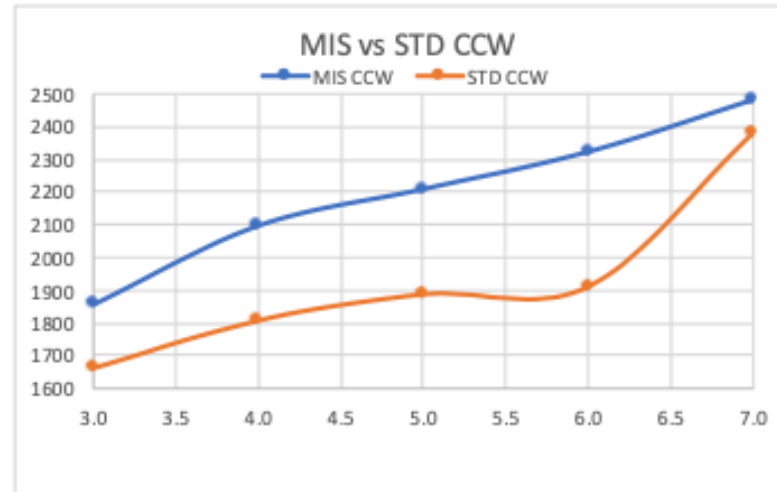
Volts	MIS RPM		Standard RPM	
	CCW	CW	CCW	CW
3.0	1856	2007	1662	1836
4.0	2097	2191	1807	1851
5.0	2209	2210	1888	2188
6.0	2323	2425	1911	2225
7.0	2482	2656	2381	2608



Volts vs RPM

Volts	MIS RPM		Standard RPM	
	CCW	CW	CCW	CW
3.0	1856	2007	1662	1836
4.0	2097	2191	1807	1851
5.0	2209	2210	1888	2188
6.0	2323	2425	1911	2225
7.0	2482	2656	2381	2608

MIS yields a higher RPM at a given Voltage
 Clockwise rotation yields a higher RPM than
 counterclockwise operation



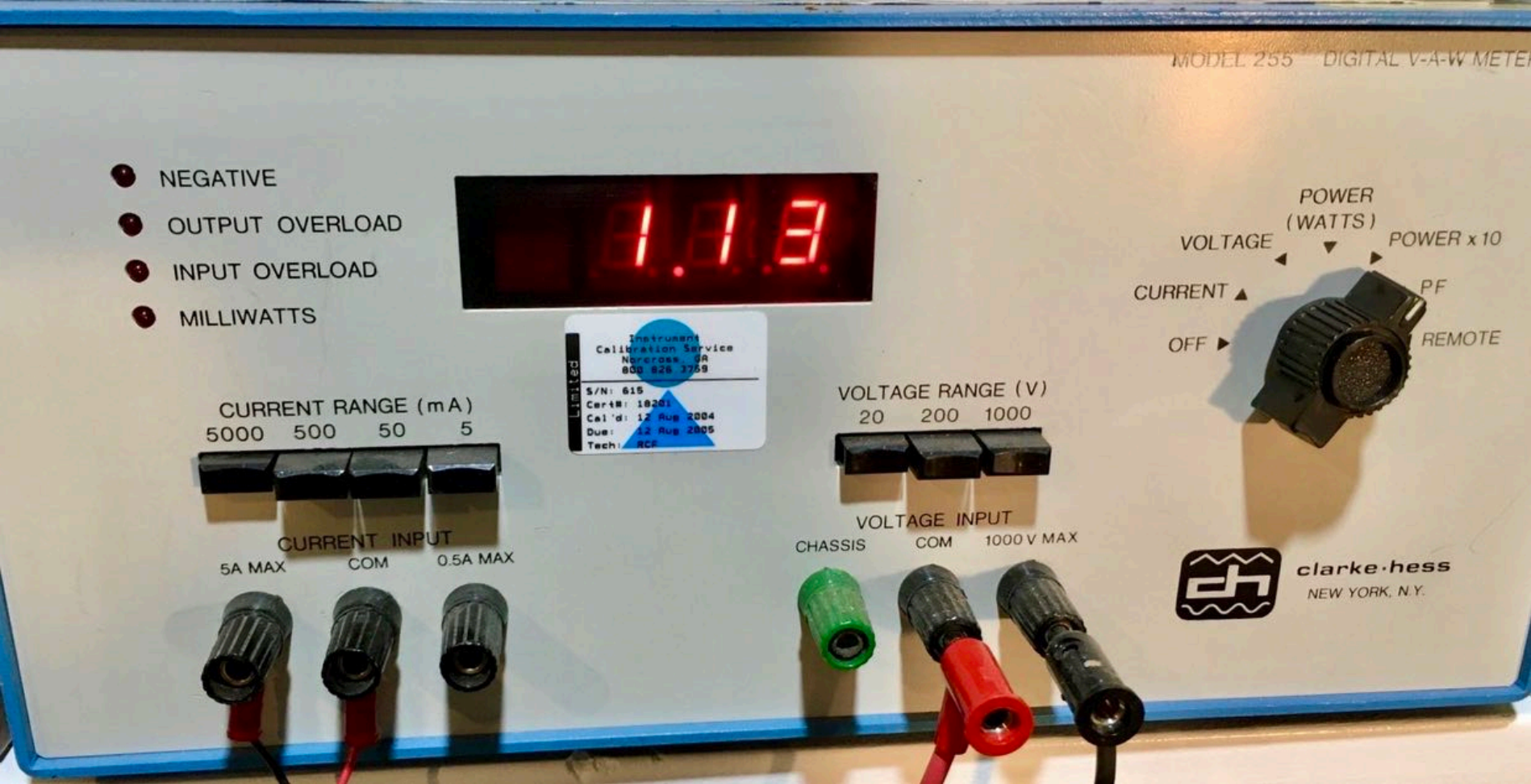
Power Measurement

Clark Hess Model 255 V-A-W Power Meter

With MIS and STD at same voltage, MIS 20-23% more power

At same RPM, MIS 20 – 23% more power

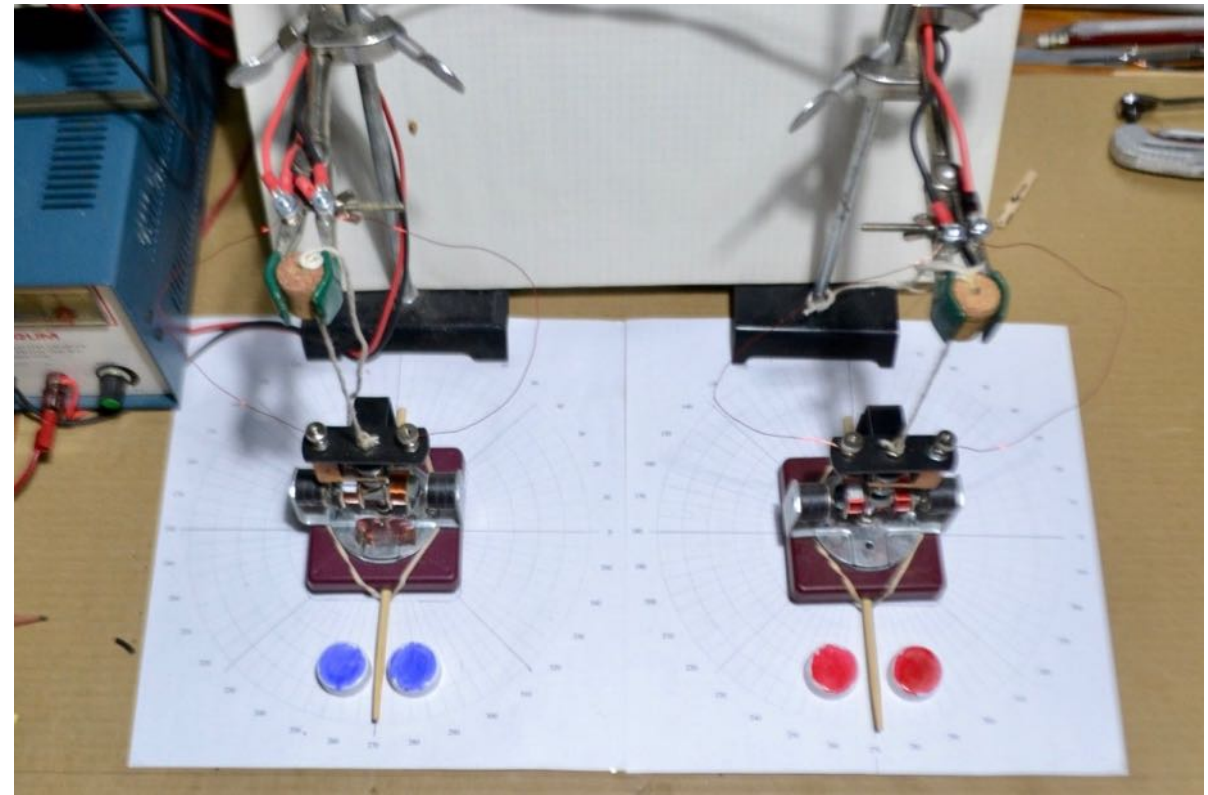
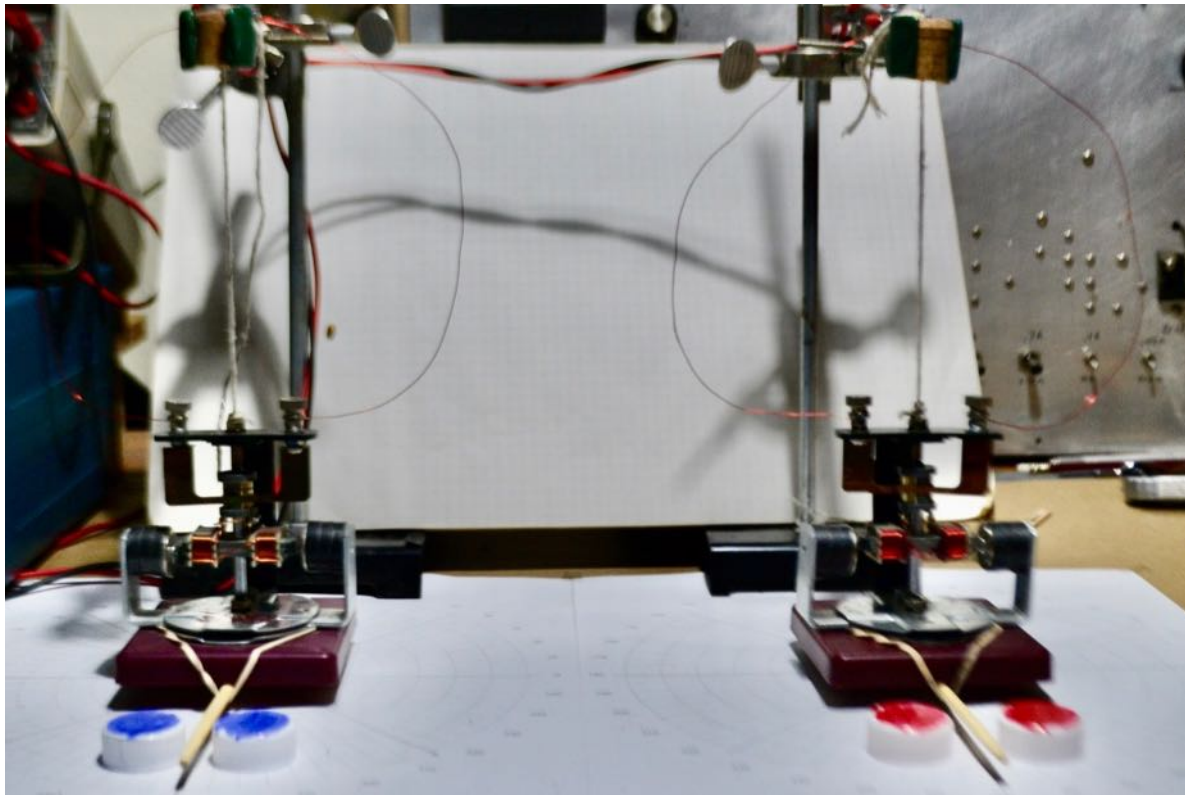
More power implies more torque



Moment of Inertia Measurements

CW vs CCW

ON/OFF vs ON/PAUSE/OFF



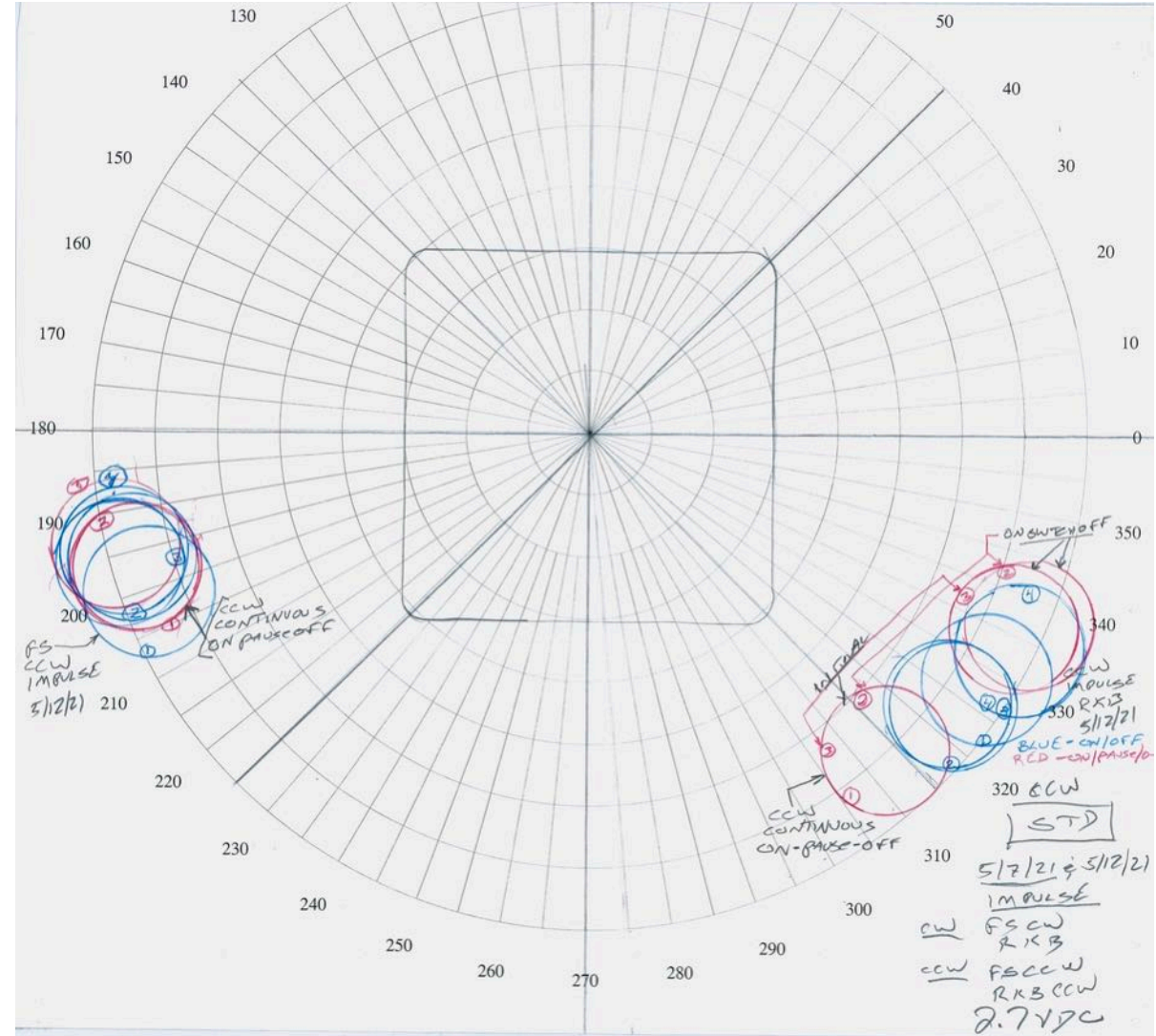
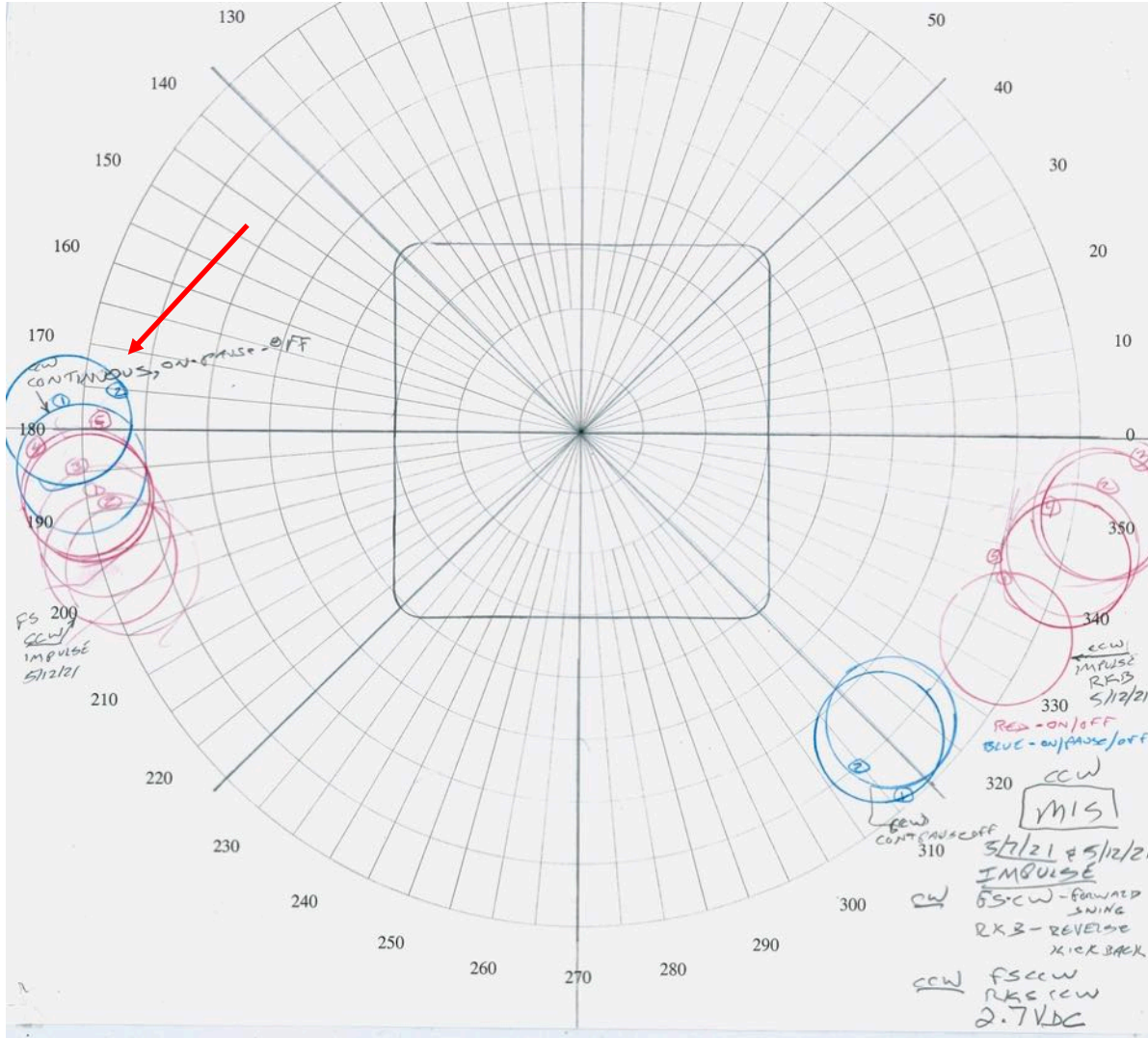
INERTIA TESTS - CCW

FS = Forward swing

Blue – on/off

Red - on, run, off

RKB = Reverse Kickback



INERTIA TESTS - CW

FS = Forward swing

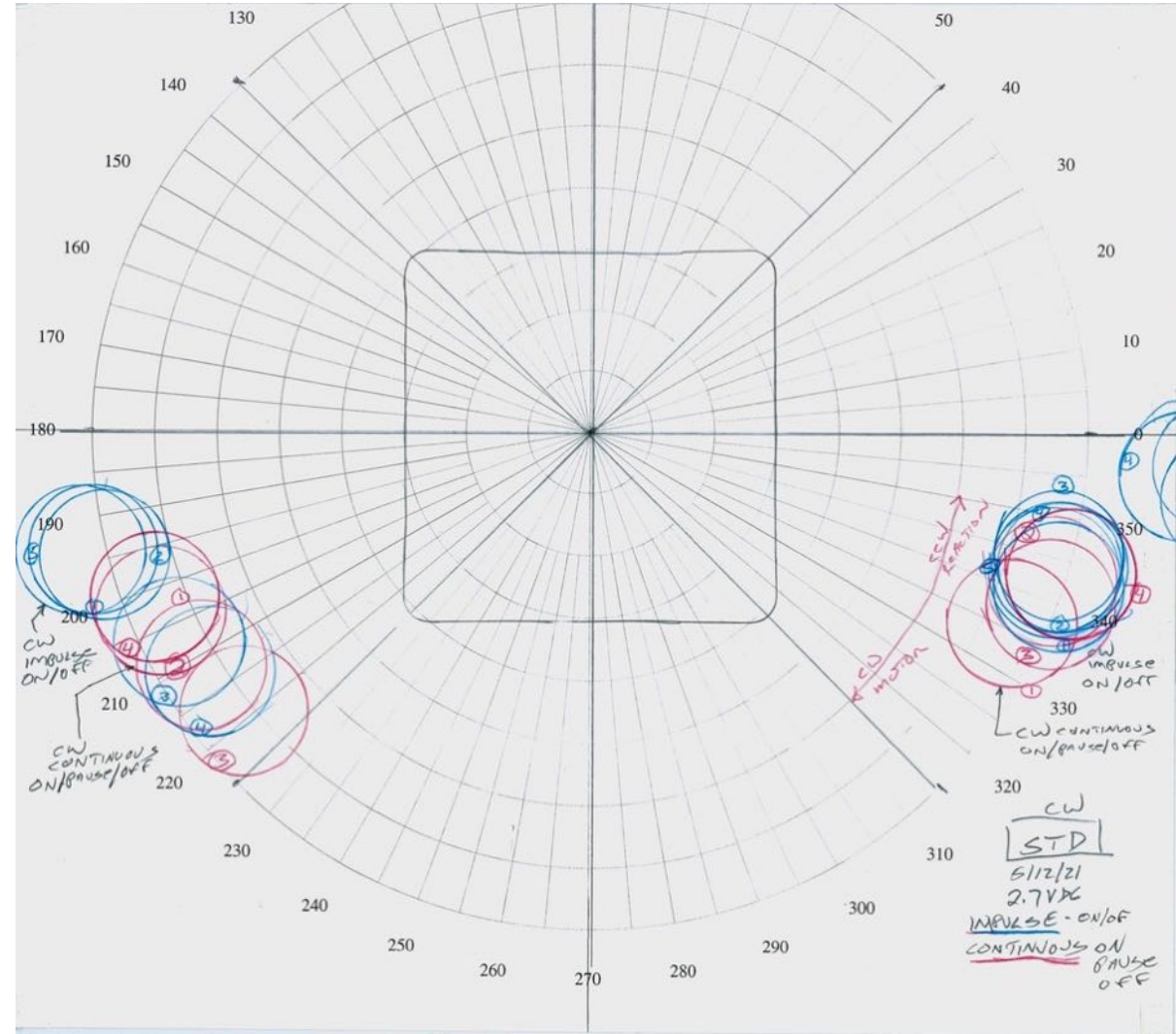
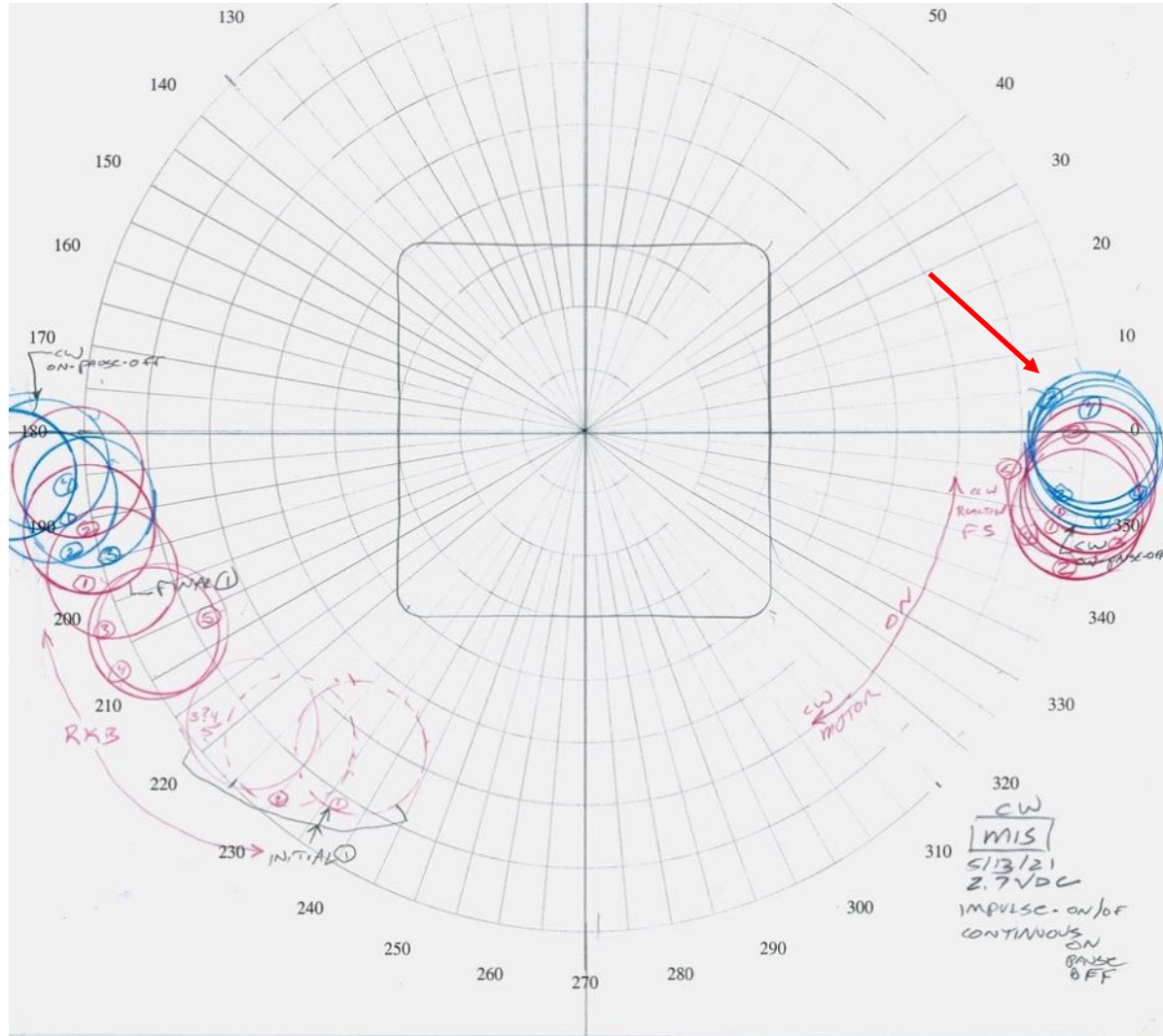
Blue – on/off

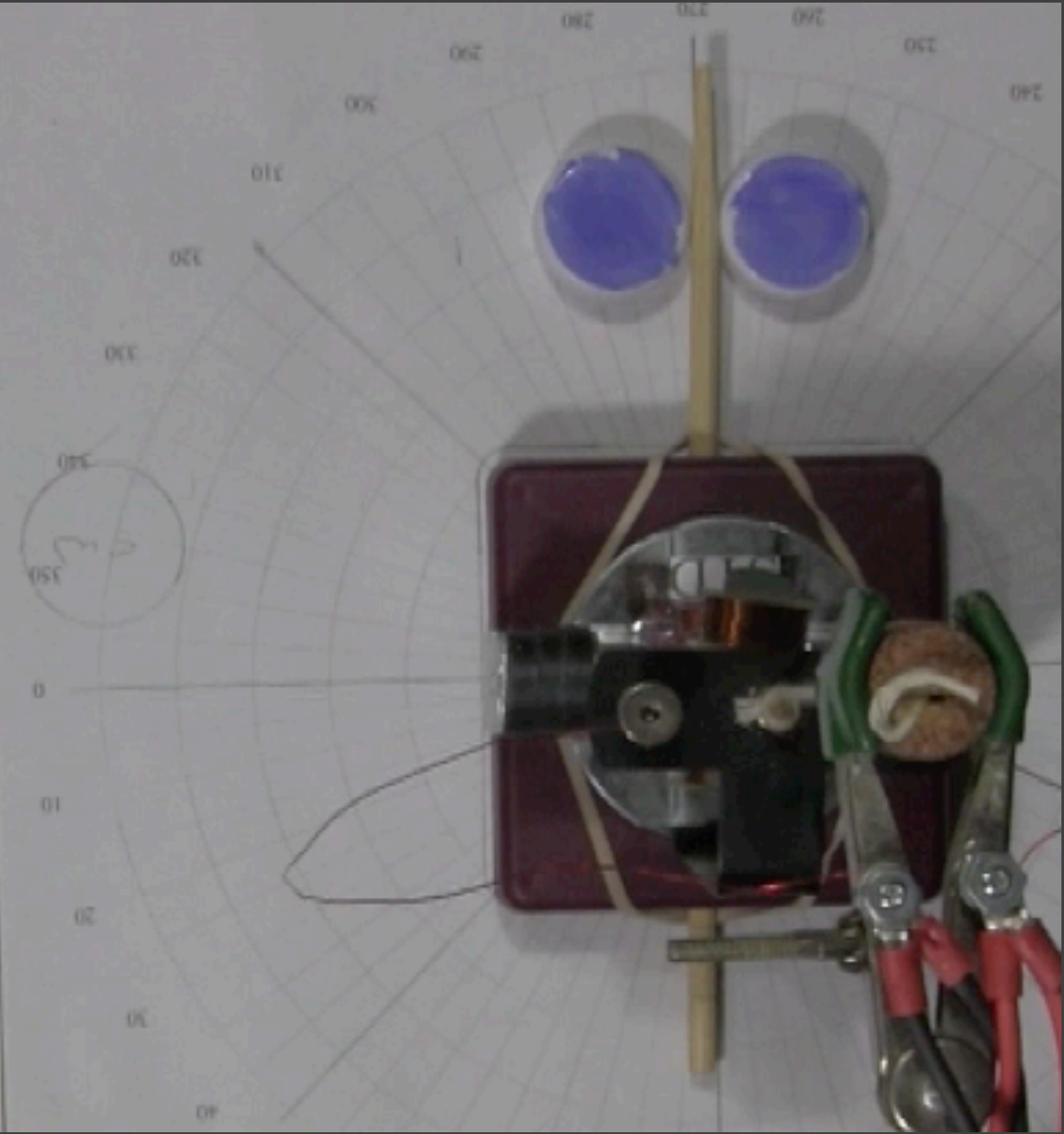
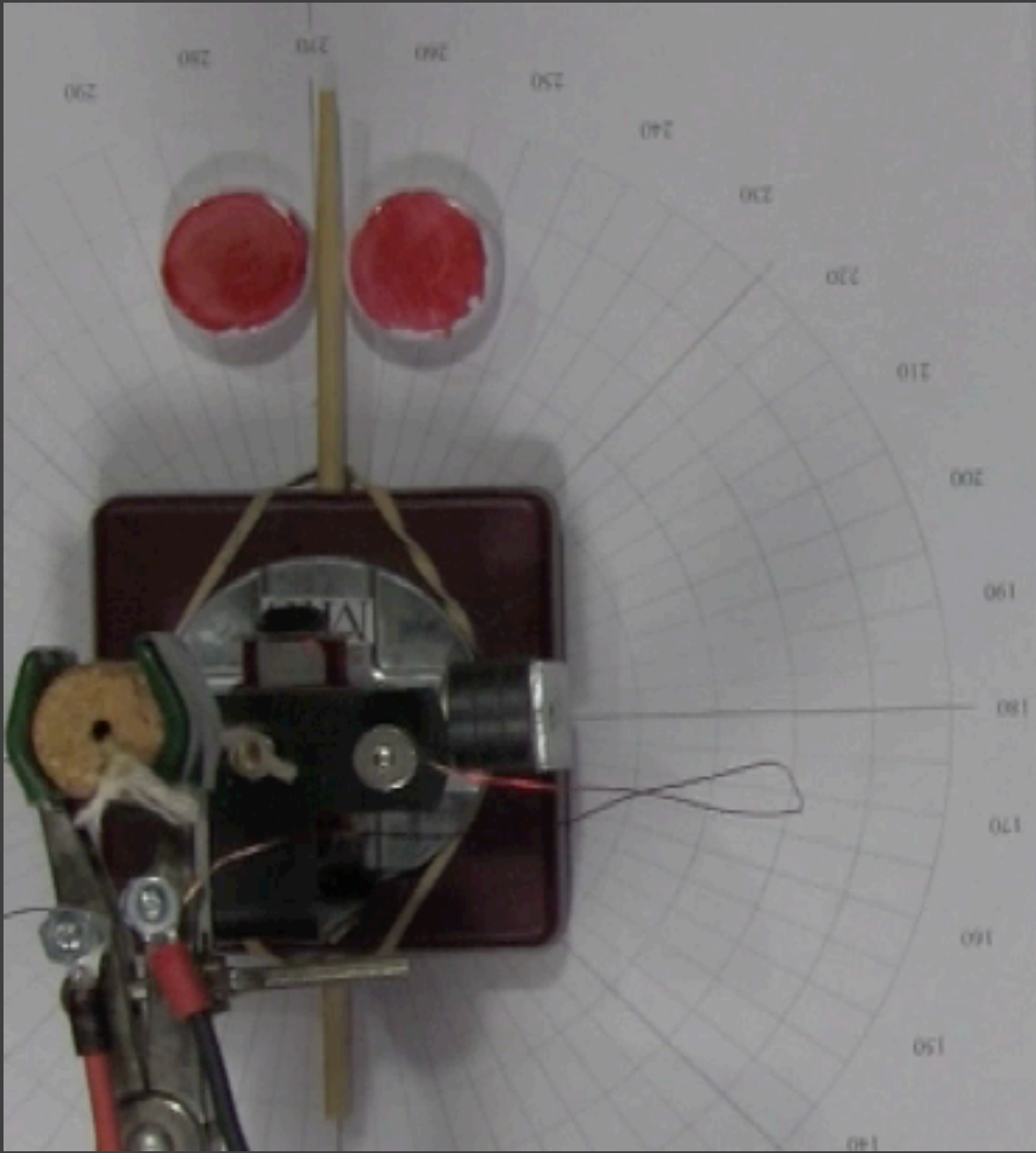
RKB = Reverse Kickback

Red - on, run, off

MIS

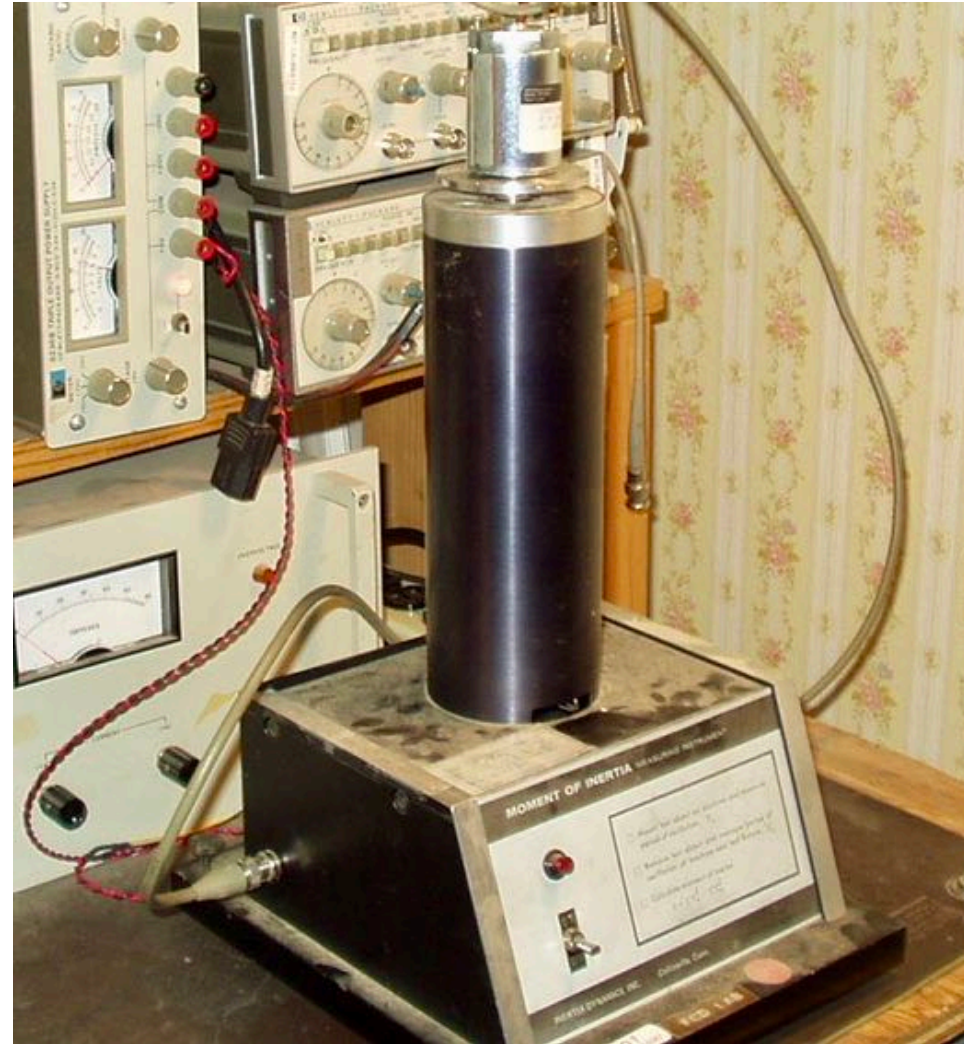
STD





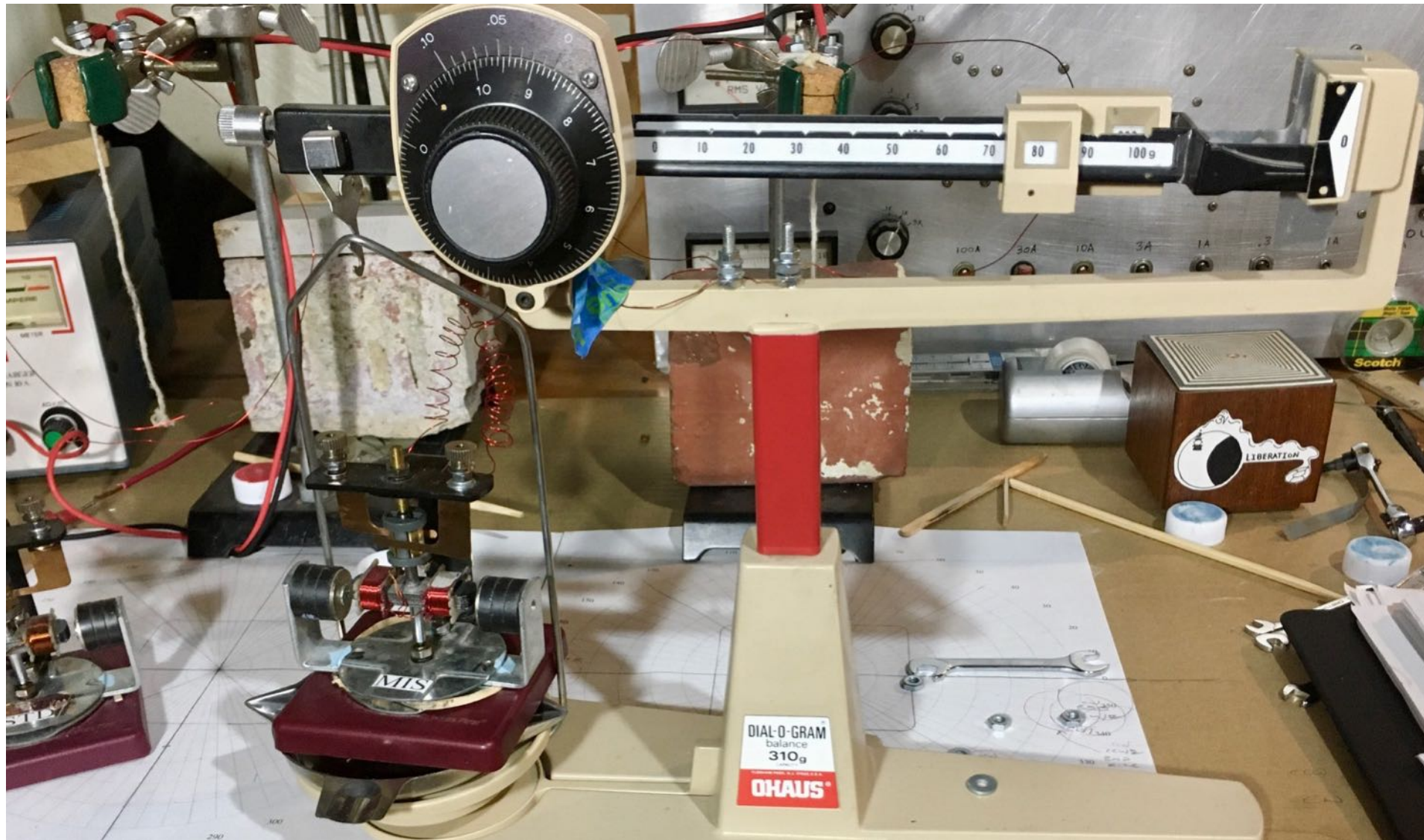
Moment of Inertia Measurements

Inertia Dynamics Inc Model 5200



Weight Measurements

CW vs CCW



GRAMS						
	STD		Static	Running	delta	
		CCW	288.59	288.50	-0.09	-
			288.52	288.53	0.01	+
		CW	288.54	288.60	0.06	+
			288.64	288.64	0.00	0
	Average Mass		288.57			
	MIS		Static	Running	delta	
		CCW	290.46	290.01	-0.45	-
			290.12	289.63	-0.49	-
		CW	289.65	289.70	0.05	+
			289.70	289.64	-0.06	-
	Average Mass		289.98			
					Need more accurate Balance	
	Delta STD v MIS		1.41			
		%	0.49			



Harold Aspden – MODERN AETHER SCIENCE, 1972

Magnetism provides the means for tapping into the vast sea of energy that fills all space.

Induction is a property by which energy transactions occur in space.

*..the Adams machines are delivering power which **fluctuates with time of day.***

Power from Magnetism, Energy Science Report NO. 1 pg. 3, 5, 7.

*When [a] motor...running five minutes or more is switched off...**you can restart it in the same and opposite direction** and find it has a memory in the sense that it will not ... ask for 300 joules of ...input ... 30 joules will suffice providing the time lapse between starting and stopping is no more than a minute or so.*

Discovery of “Virtual Inertia” Letter to Hal Fox, Cc: Toby Grotz, circa 1995

See also US Patent 5,376,184 electrogravitational induction and series connected capacitor stacks and
Physics without Einstein, 1969

Use of Cast Iron Bisected for MIS

As demonstrated by Erl Koenig to Toby Grotz, Kate Bradley and Ark Maciek, bisecting motor core laminations increases efficiency and reduces vibration.

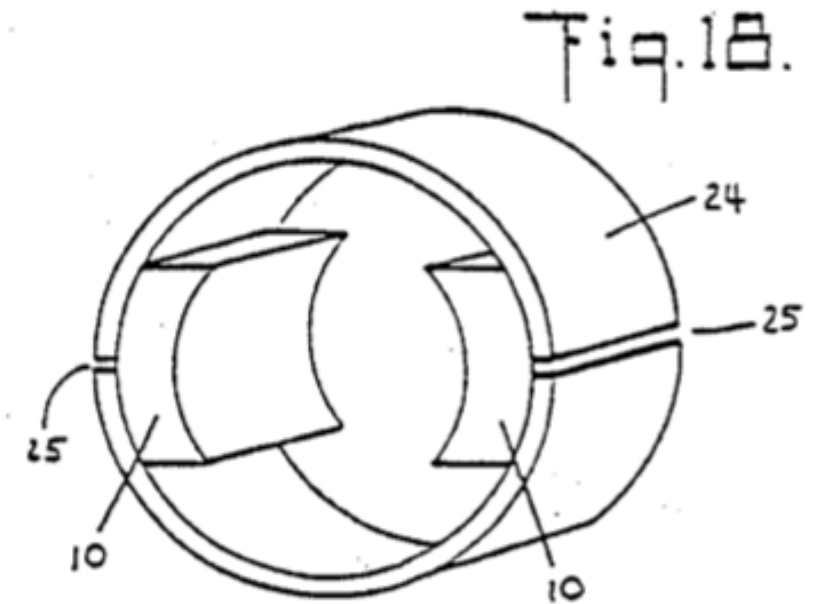
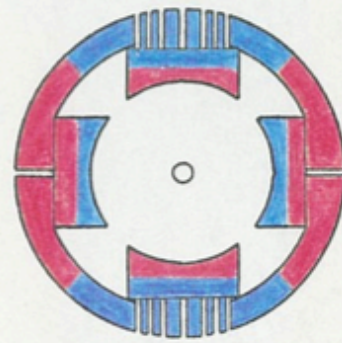
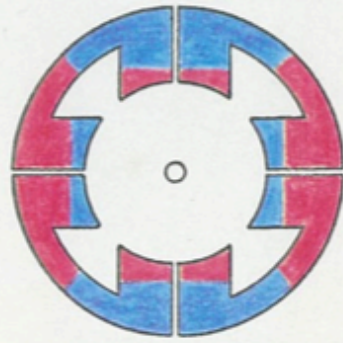
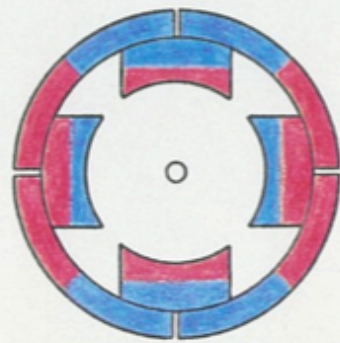
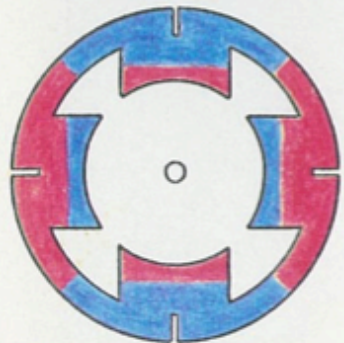
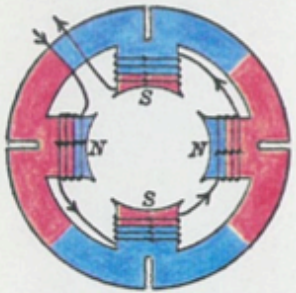
Erl's instructions for further development of MIS included the use of a bisected cast iron core on the St. Louis Motor tests

Use of Cast Iron bisected for MIS effect increases efficiency as discovered by Erl Koenig (refer to video)



Electric Motor Magnetism for Casements and Armatures

MAGNETIC POLE FACES SPLIT INTO PARTS
BY MEANS OF SLOT OPENINGS



Improved Magnetic Induction Structures

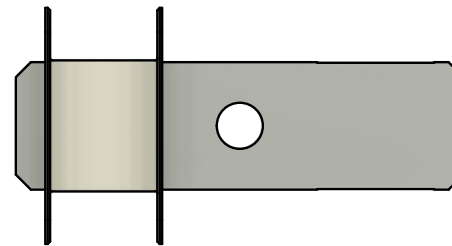
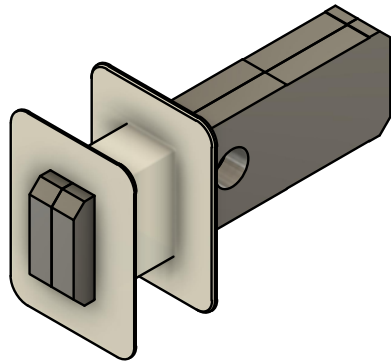
Cast Iron Rotor Test for St. Louis Motor

CAST IRON

ASTM A536 grade 65-45-12

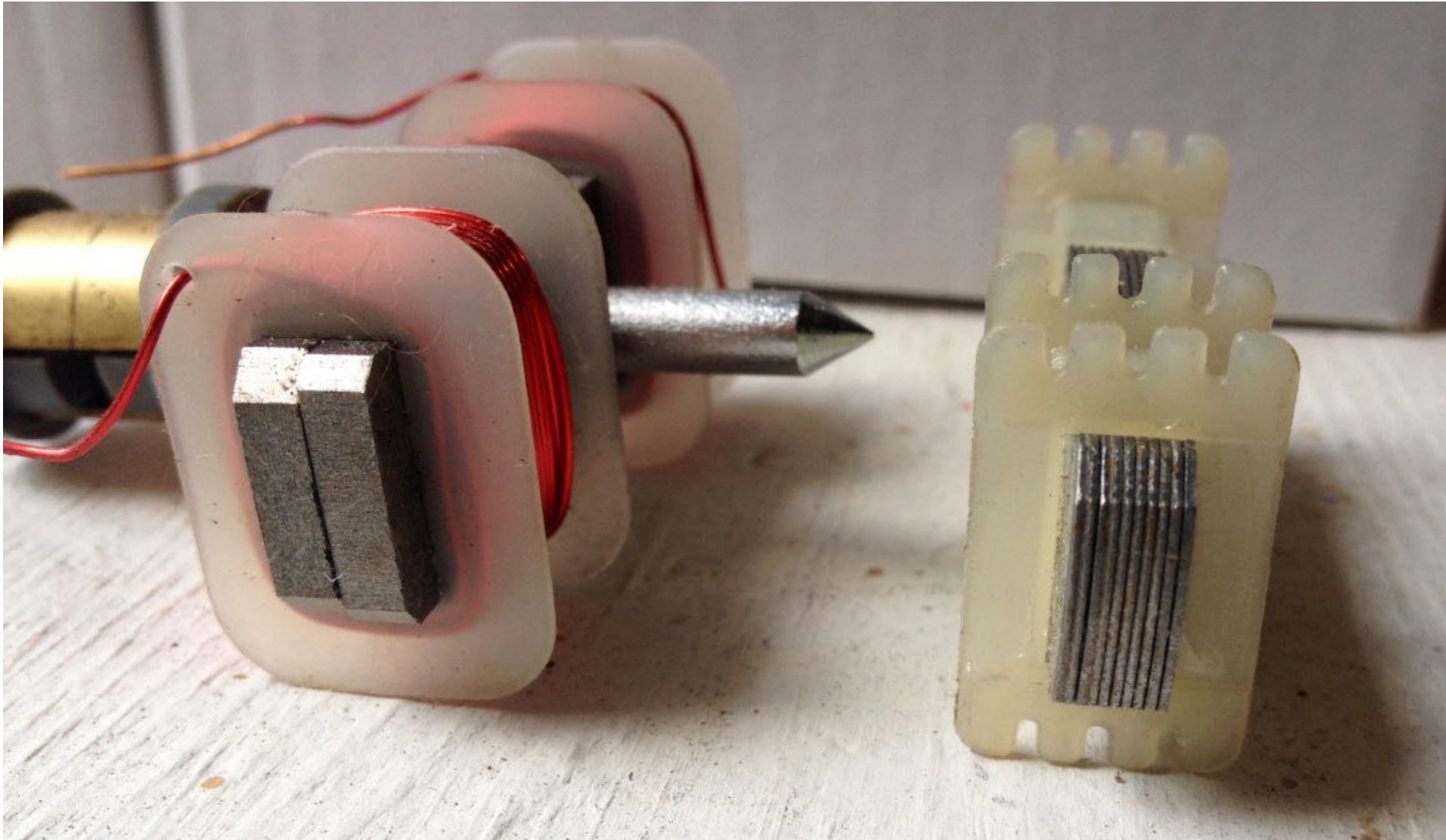
high magnetic permeability

<https://www.mcmaster.com/#gray-cast-iron/=17r8jolAO>



		PROJECT			
		TITLE			
APPROVED	SIZE	CODE	DWG NO	REV	
CHECKED					
DRAWN	SCALE	WEIGHT	SHEET		

**Koenig MIS cast iron rotor on left, standard laminated rotor on right.
Tests to be conducted**





OUT OF THE VOID

A Film by Angela Summereder

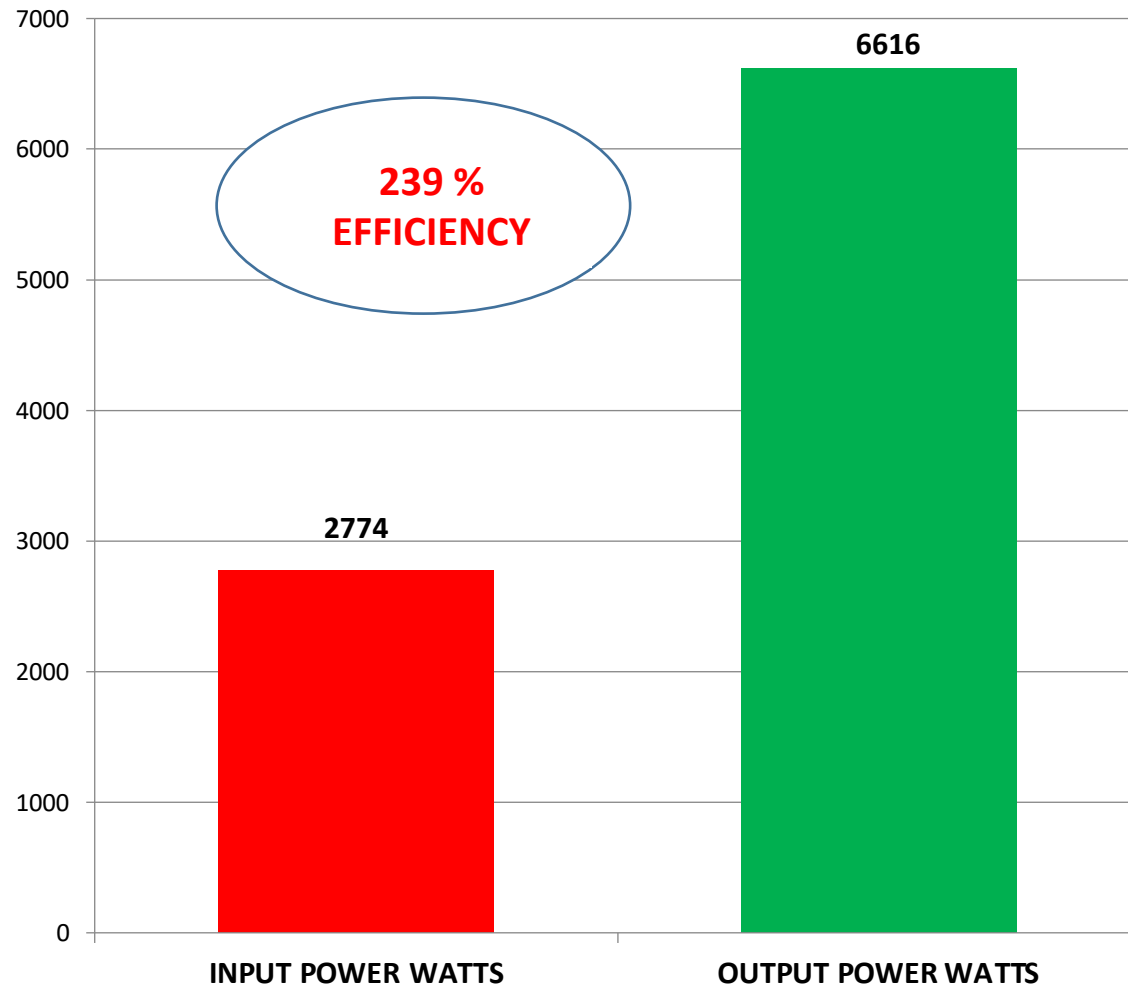
<http://ausdemnichts.at>

FILMED NOV 2014 RELEASED OCT 2016

[SYNOPSIS](#) [FILM DIRECTOR](#) [TRAILER](#) [GALLERY](#) [CREDITS](#) [EVENTS / VOD DOWNLOAD](#) [CONTACT / PRESS](#)

120/240 VAC, 3-PHASE, 50/60 HZ Synchronous Generator 3,842 watts over unity

November 23rd, 2014



The test results of input power to the drive motor and the output from the RLG are shown on the accompanying graph.

- Red = Input to the RLG
- Green = the output from the RLG.
- Output, 248 volts 3-phase power.
- 50 Hertz at 1500 RPM

Google Patents

<https://patents.google.com/>

US20150084467



US20150084467



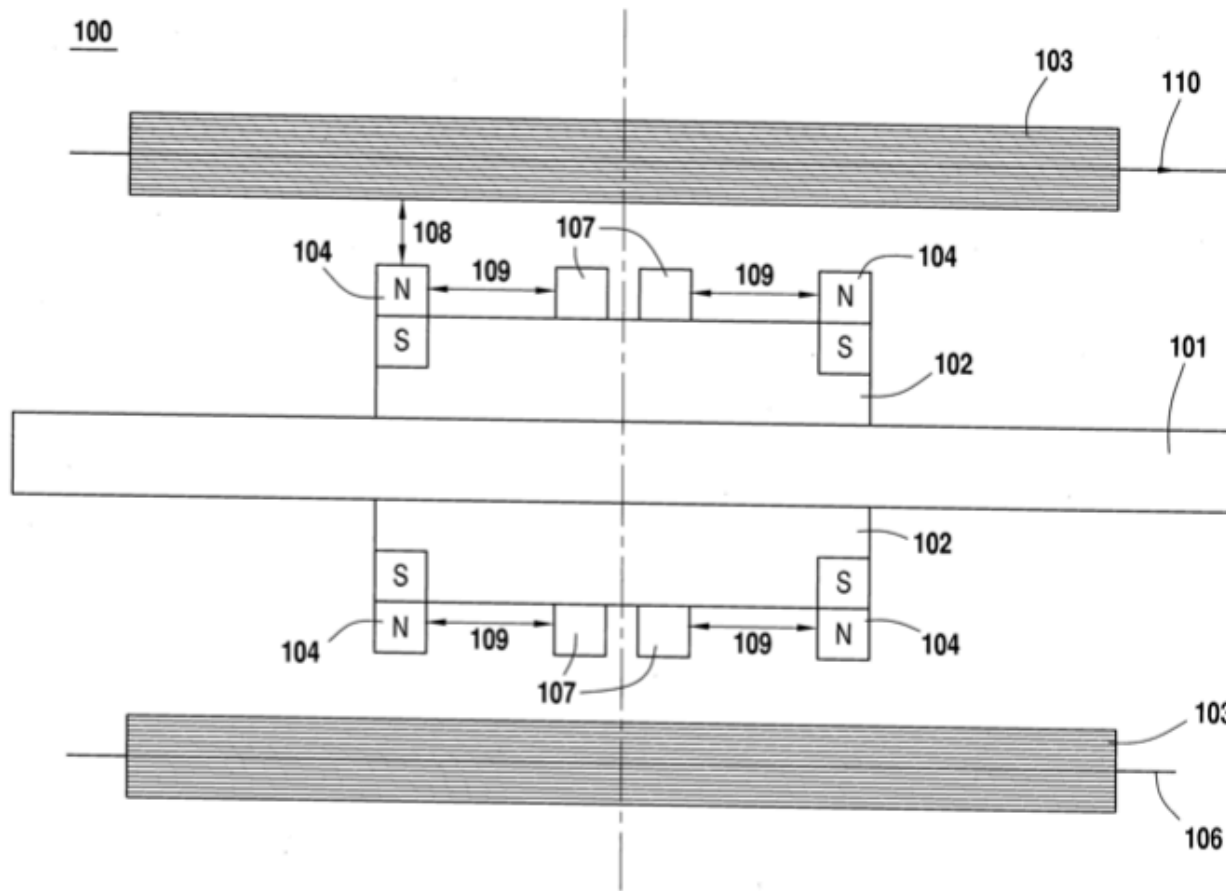
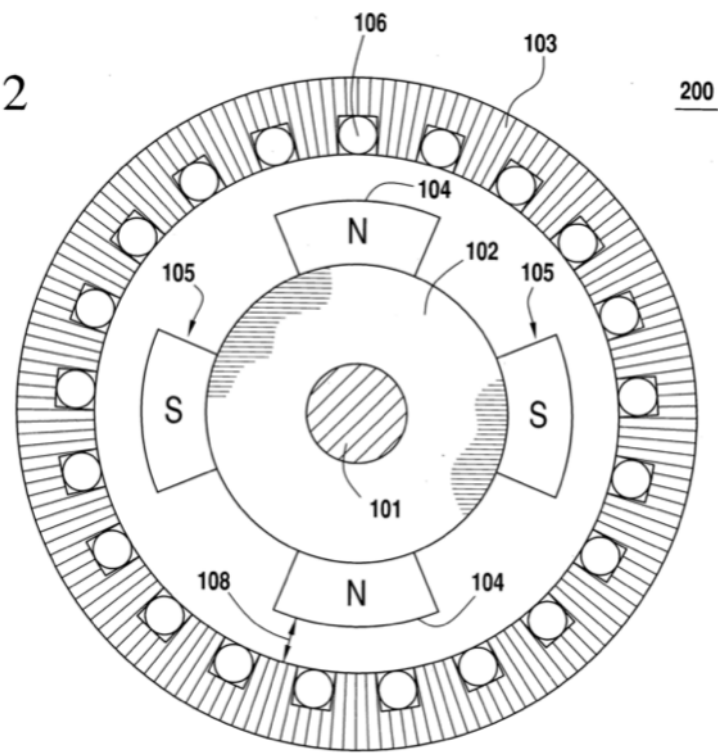


FIG. 2



Independently Built and tested by Kirloskar Hubli, Karnataka, India



Kiloskar Design Team



Erl Koenig demonstrated that MIS could double the efficiency of a transformer. Tests on motor windings indicate that the same efficiency increase applies to motor winding.

When applied to generator winding it is expected that the increase in efficiency using MIS windings would also result in increased efficiency for a generator.

A generator with an efficiency = 2.38 would with MIS windings, have an efficiency = 4.76

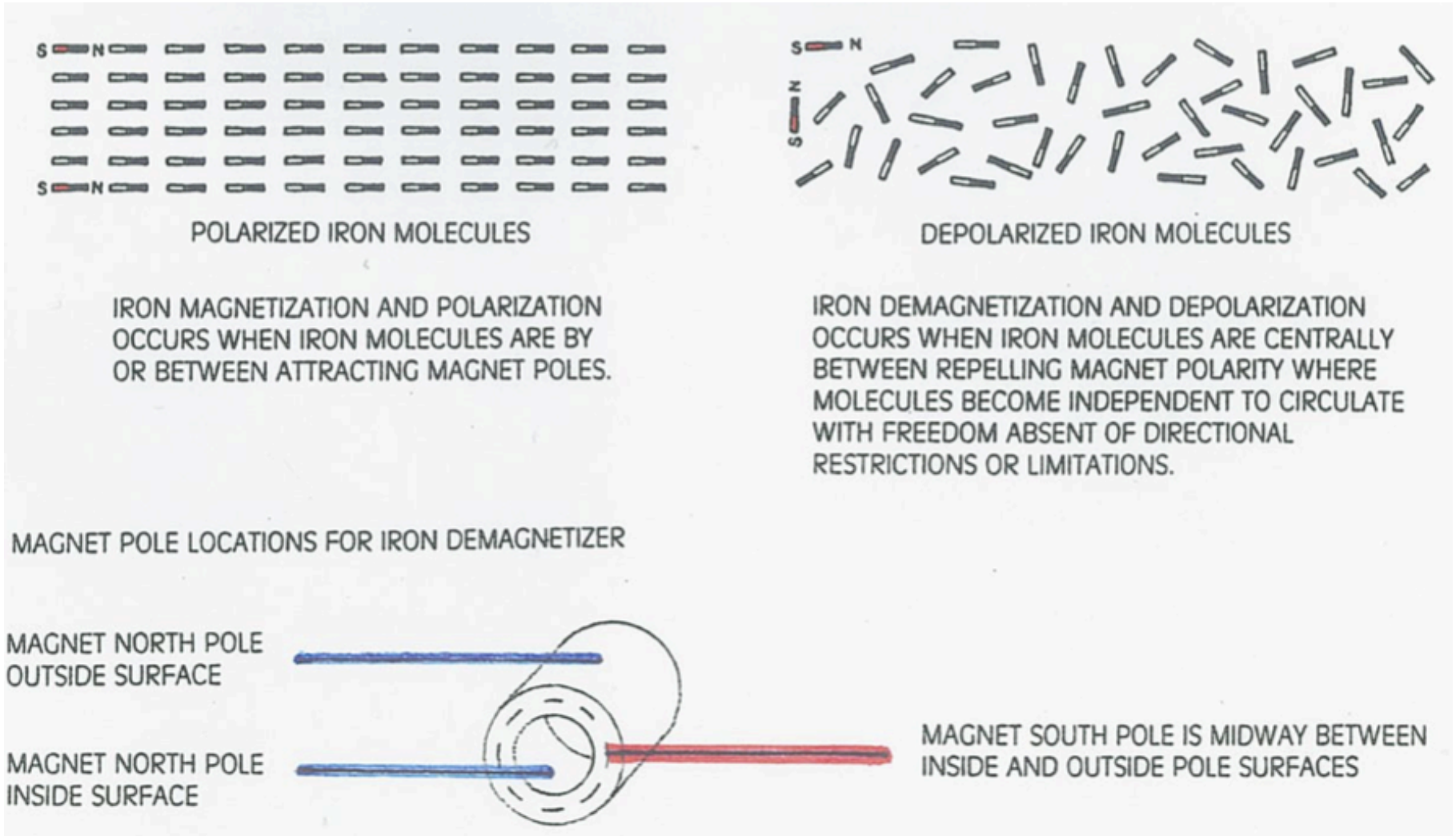
Next Steps

Verify MIS efficiency increase in generator using model as shown below from ScienceFirst.com



Possible Implications in Biology

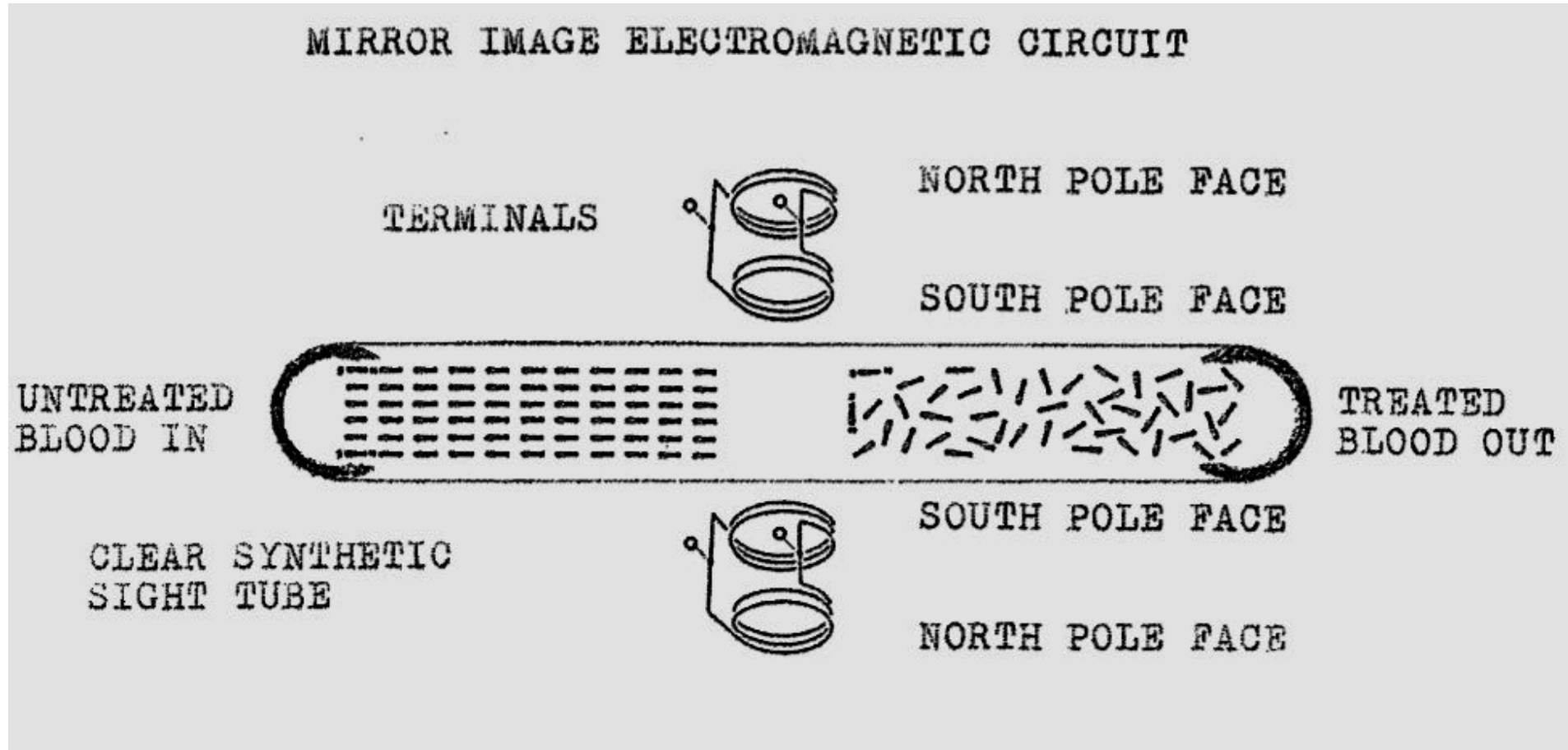
Health Properties Influenced by Magnetic Force Properties in Blood

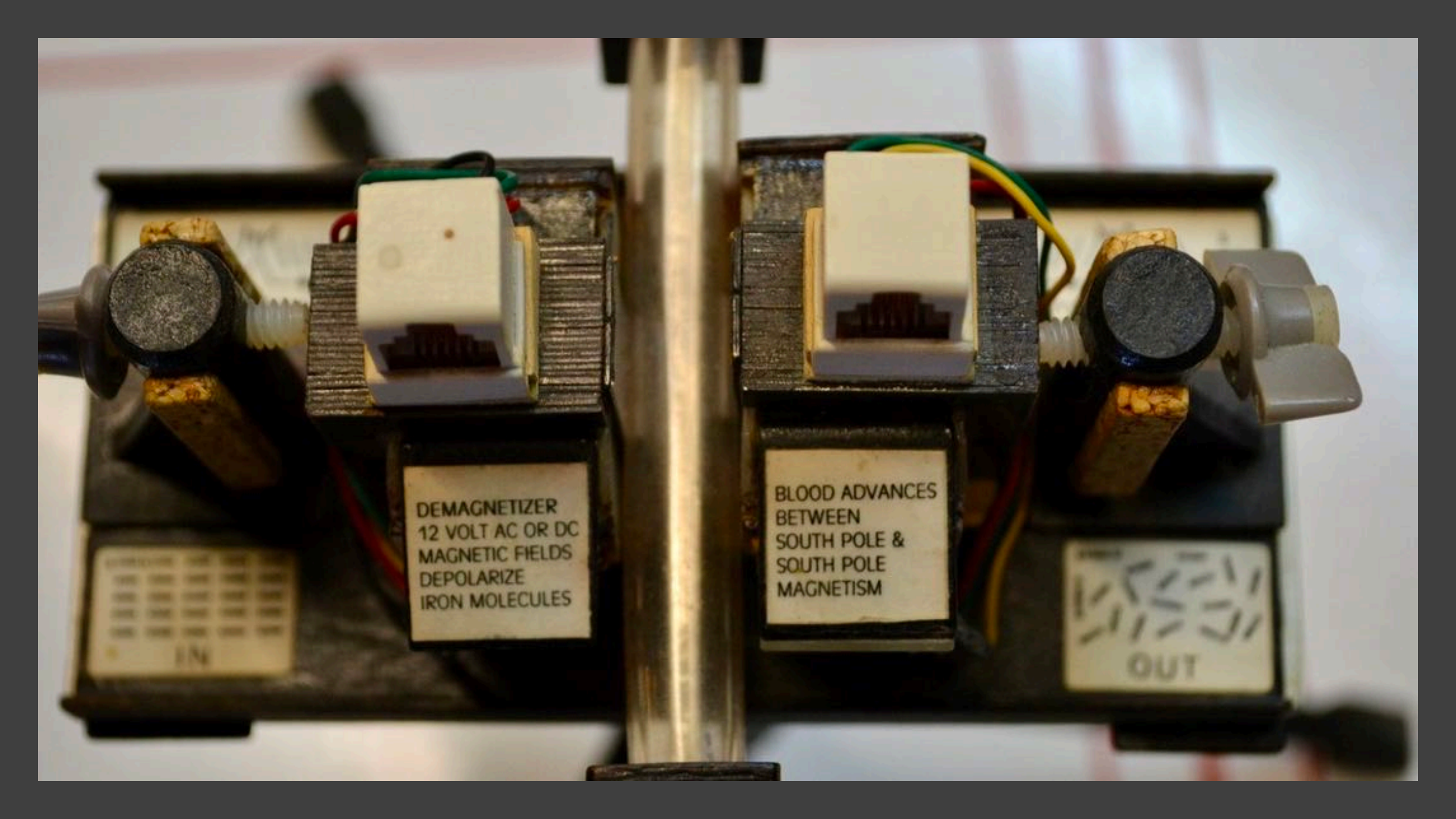


Health Properties Influenced by Magnetic Force Properties in Blood

- EXPOSURE TO MAGNETIC FIELD RADIATION WILL MAGNETIZE IRON MOLECULES IN BLOOD. IRON MOLECULES BECOME MAGNETS WITH A NORTH AND SOUTH POLE FACE.
- WHEN IRON MOLECULES BECOME MAGNETIZED, THEY ARE MAGNETICALLY ATTRACTED TO OTHER IRON MOLECULES. ATTRACTED, CONNECTED AND ATTACHED IRON MOLECULES HAVE LESS SURFACE AREA COMPARED TO DEMAGNETIZED UNATTACHED IRON MOLECULES.
- BLOOD WITH MAGNETIZED IRON MOLECULES IS IMPEDED TO FREELY CIRCULATE THROUGHOUT BODY TISSUE AND THE CARDIOVASCULAR NETWORK. NON MAGNETIZED OR DEMAGNETIZED IRON MOLECULES RANDOM ARRANGEMENT ALLOWS BLOOD TO FREELY CIRCULATE IN ALL DIRECTIONS. MAGNETIZED IRON MOLECULES IN BLOOD SICKENS BLOOD.
- PASSING BLOOD BETWEEN PARALLEL MAGNET POLE FACES OF SAME POLARITY, WILL DEMAGNETIZE IRON MOLECULES IN BLOOD.

Proposed Implementation Demagnetizing Blood





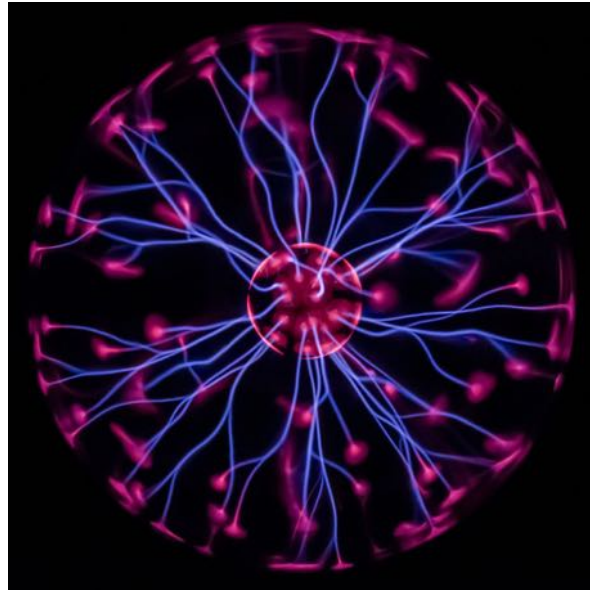
DEMAGNETIZER
12 VOLT AC OR DC
MAGNETIC FIELDS
DEPOLARIZE
IRON MOLECULES

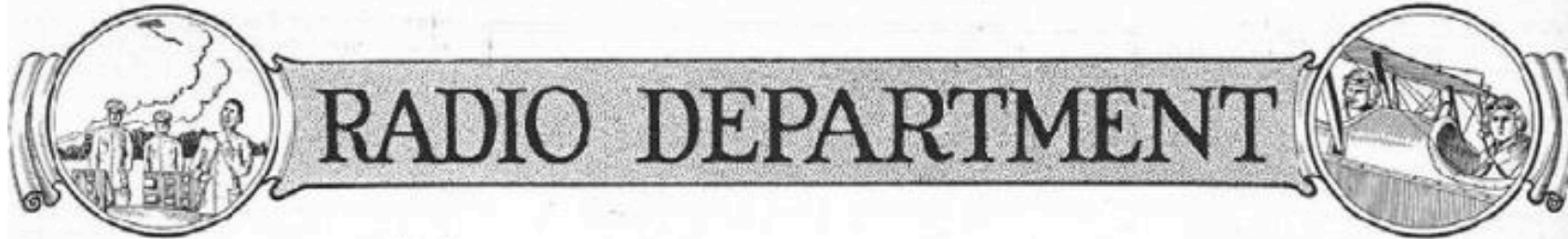
BLOOD ADVANCES
BETWEEN
SOUTH POLE &
SOUTH POLE
MAGNETISM

OUT

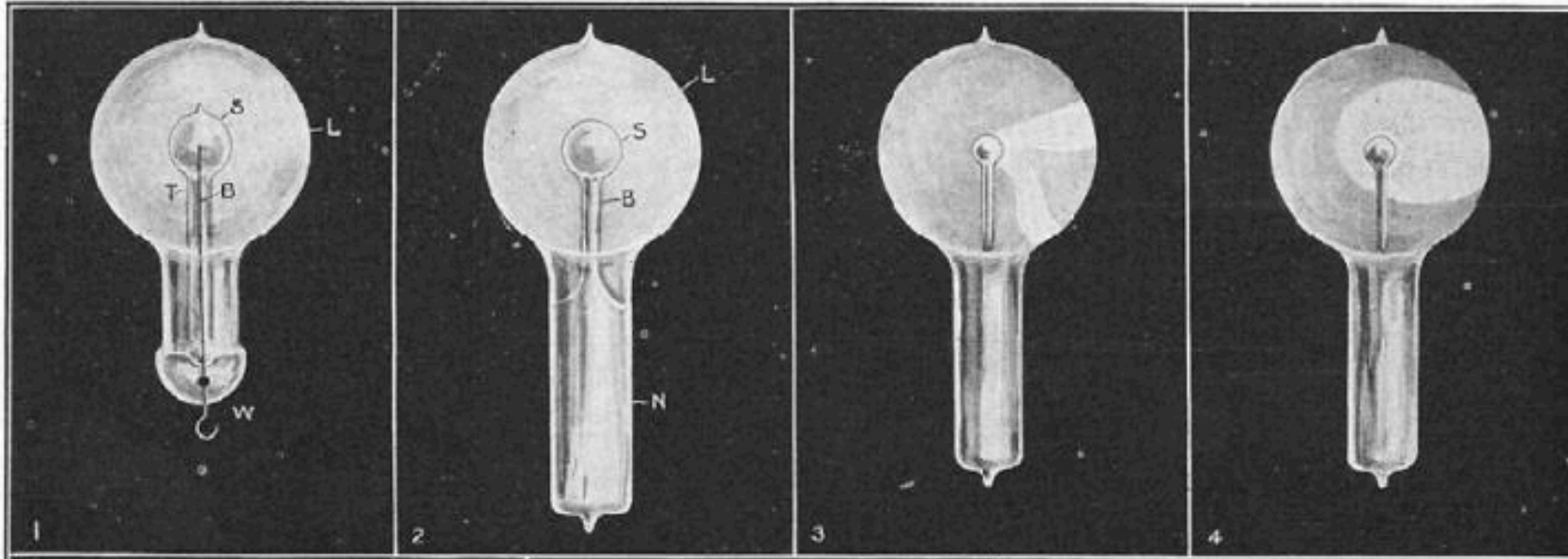
Chirality

In *Inventions, Researches, and Writings of Nikola Tesla*, Thomas Martin, *pages 130-131, and 228-229*, Tesla describes an experiment that showed the slow rotation of a plasma stream in a globe in a **clockwise** direction. Tesla states it would be counterclockwise in the southern hemisphere.





Tesla Bulbs



Thanks to Gary Peterson – 21st Century Books and Marc Seifer

Proposed Experiment

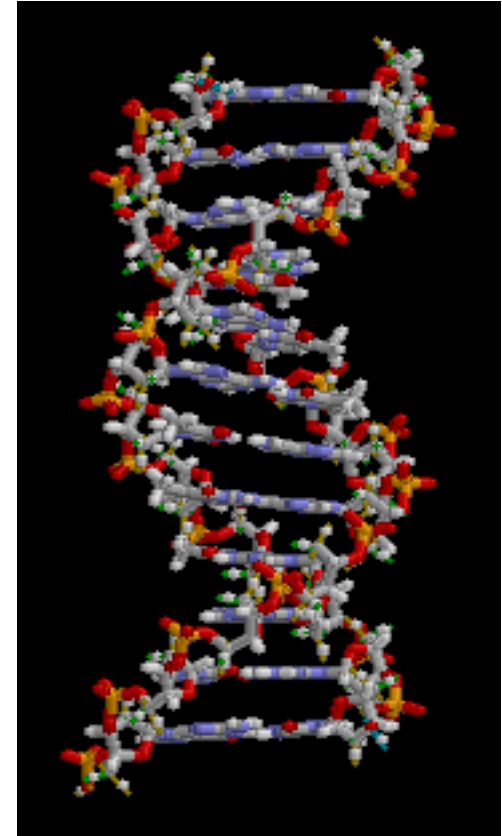
- Perform Tesla's experiment with rotating plasma stream in the northern hemisphere and repeat in the southern hemisphere.
- What can we discover without an \$8 Billion Large Hadron Collider?

Aether, fields & energy dynamics in living bodies, Thorp KE, Thorp JA, Walker PR
Med Sci. 2021; 2(5): 014-025.

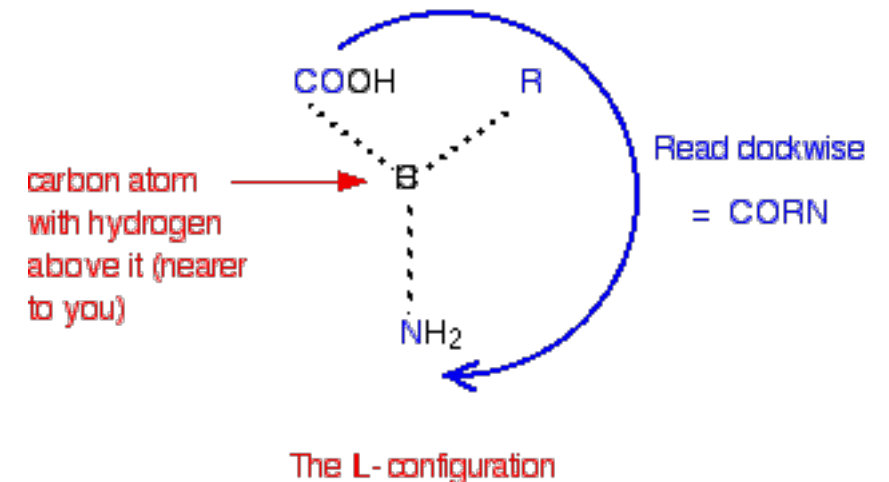
The Gazette of Medical Sciences

<https://www.thegms.co/med-phy/medphys-rw-21100603.pdf>, 12 October 2021

- The chirality of amino acids that make up protein required for life are described as left handed such as L-Tyrosine.
- Climbing vines mostly come out of the ground the same way on both sides of the equator.



<https://www.nature.com/articles/srep03102>

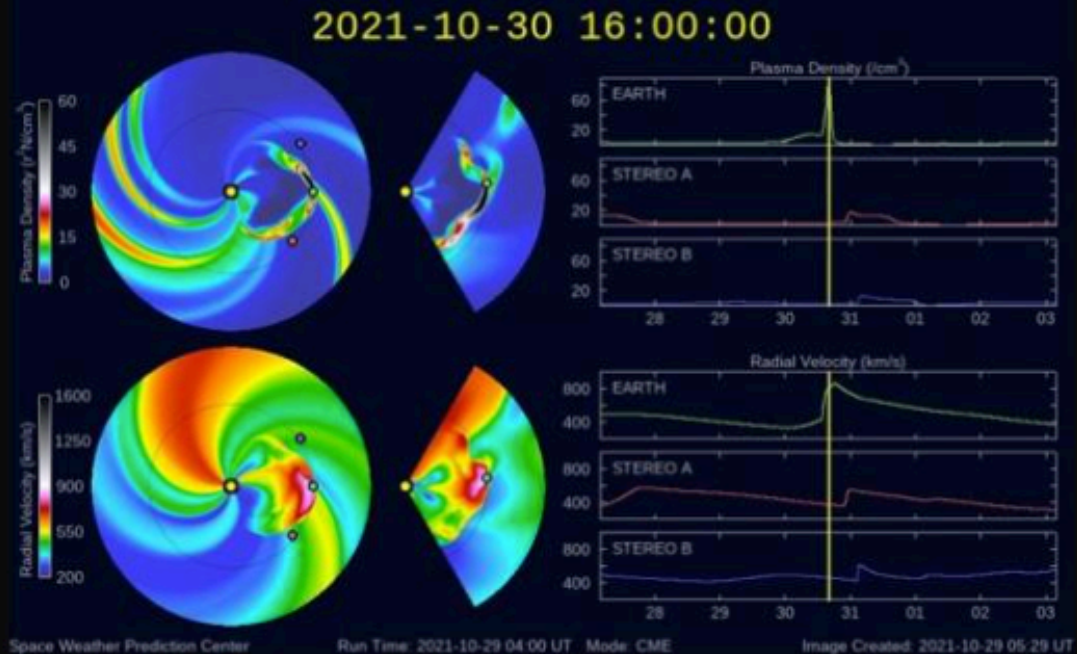
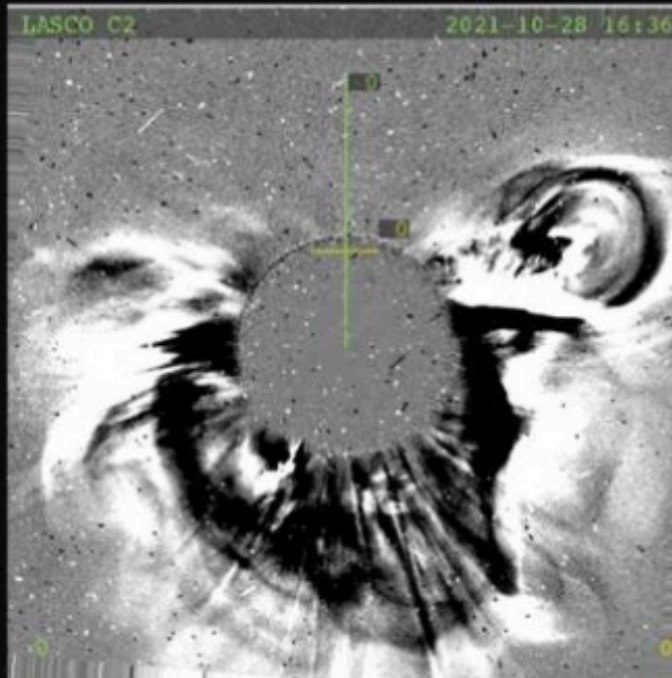




GEOMAGNETIC STORM WATCH IS IN EFFECT FOR 30-31 OCT.

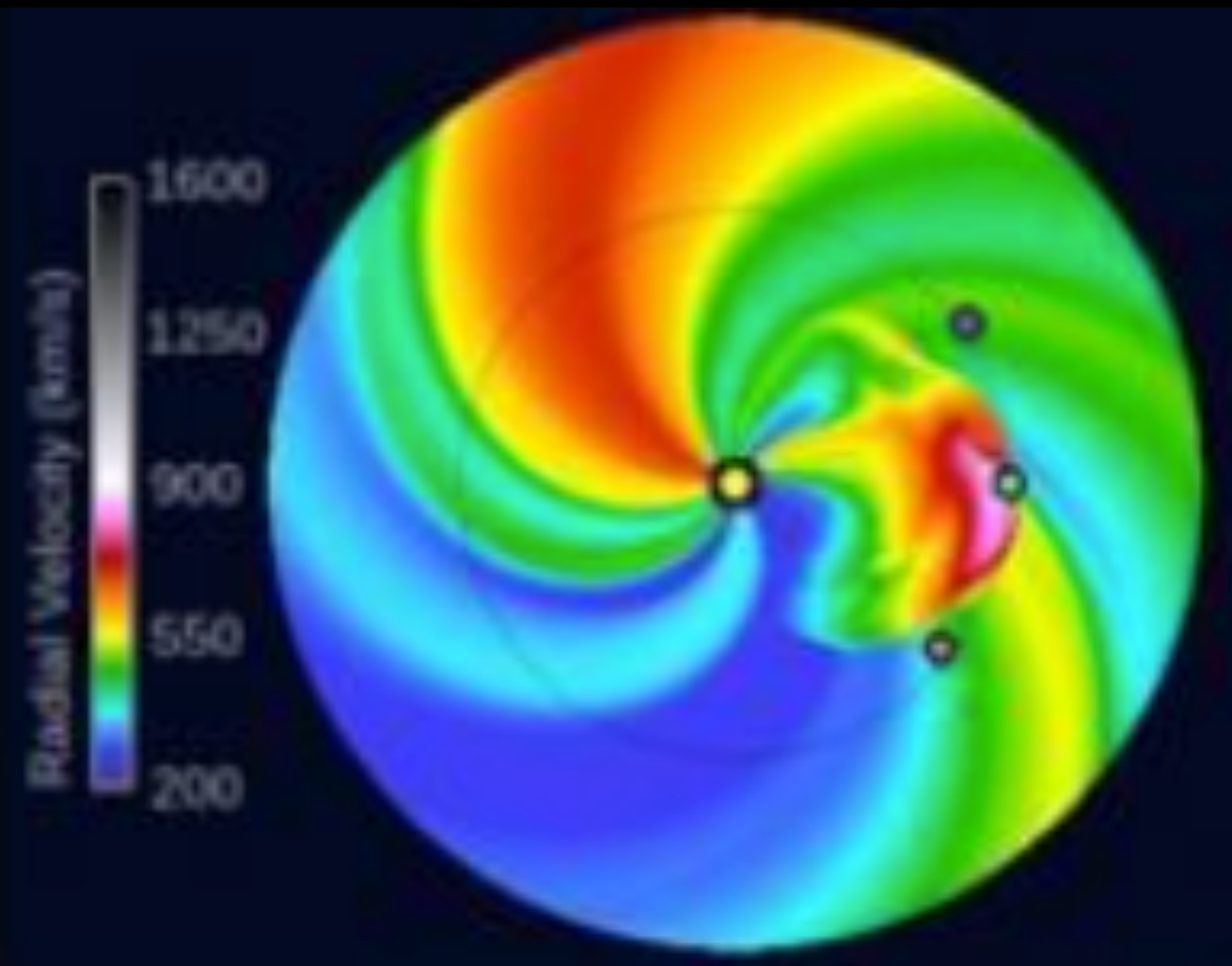
STRONG Geomagnetic Storm WATCH 30-31 October, 2021 UTC-days

G3

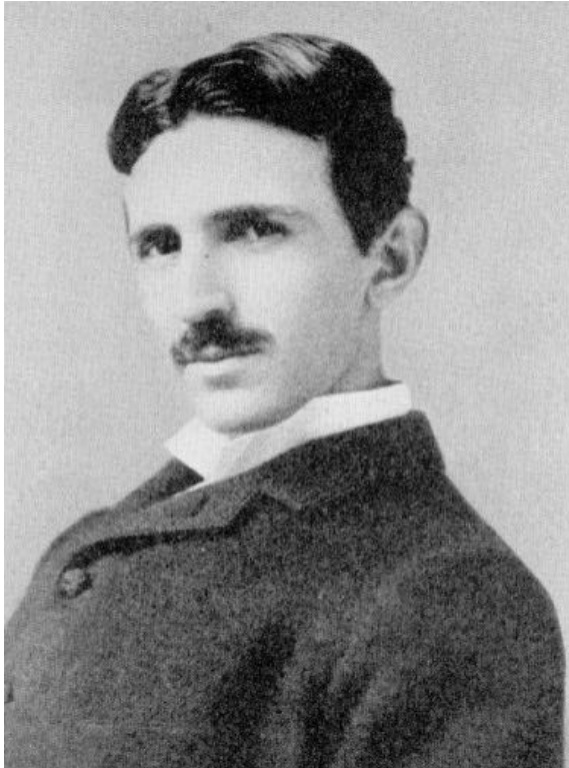


Visit <https://swpc.noaa.gov> for continuing updates and forecasts.





What is Electricity?



“Day after day I asked myself what is electricity and found no answer. Eighty years have gone by since and I still ask the same question.”

Tesla Said, Compiled by John T. Ratzlaff, Tesla Book Company, 1984,
page 284, ISBN 0-91411-00-1

Suggested Reading

because

We are building

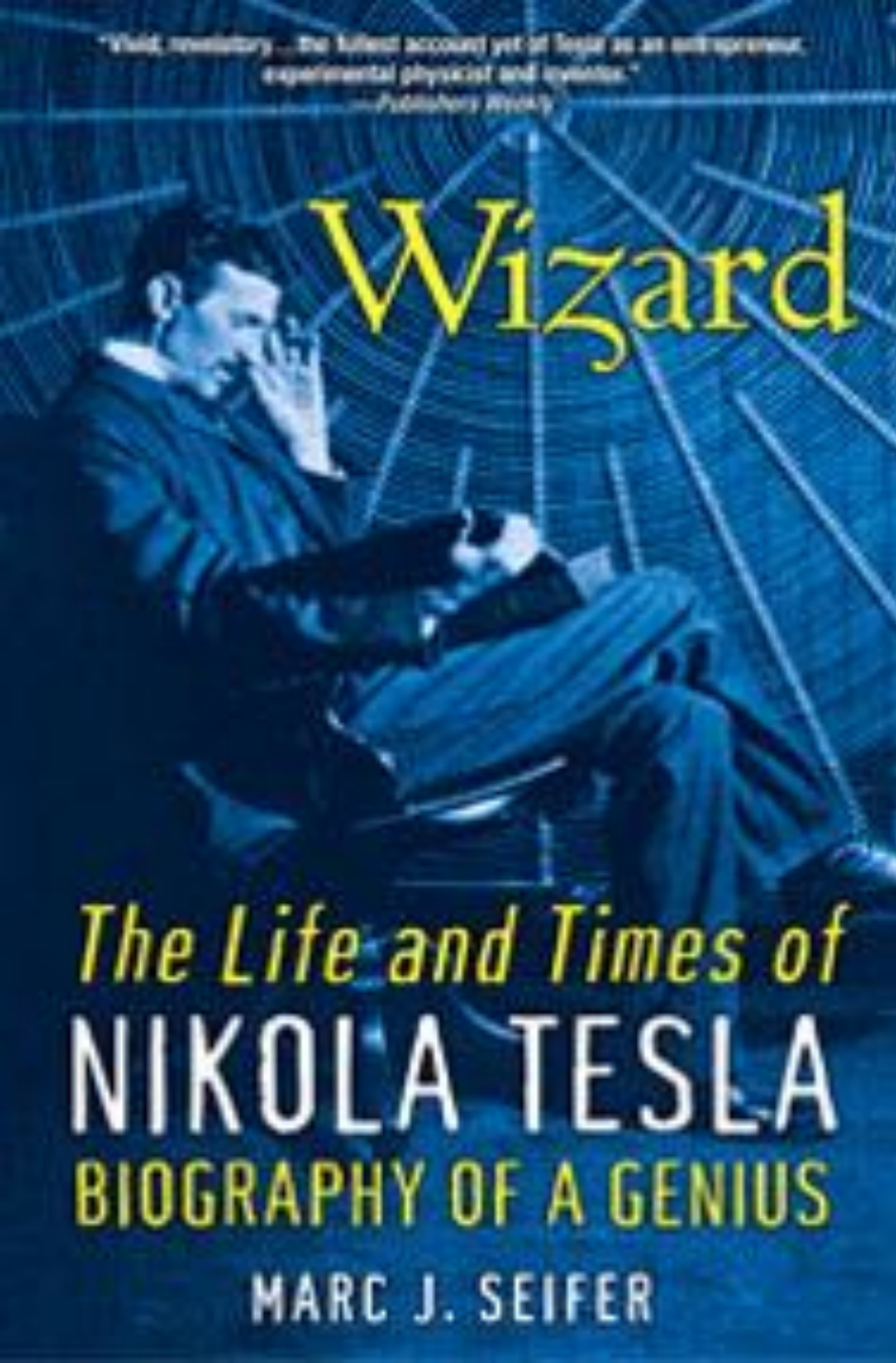
Aether Taps



HIDDEN ENERGY

**Tesla-inspired Inventors
and a Mindful Path to
Energy Abundance**

JEANE MANNING & SUSAN MANEWICH



There is such a thing as
“inertia of human opinion”
resisting revolutionary ideas.

Nikola Tesla May 16th 1907

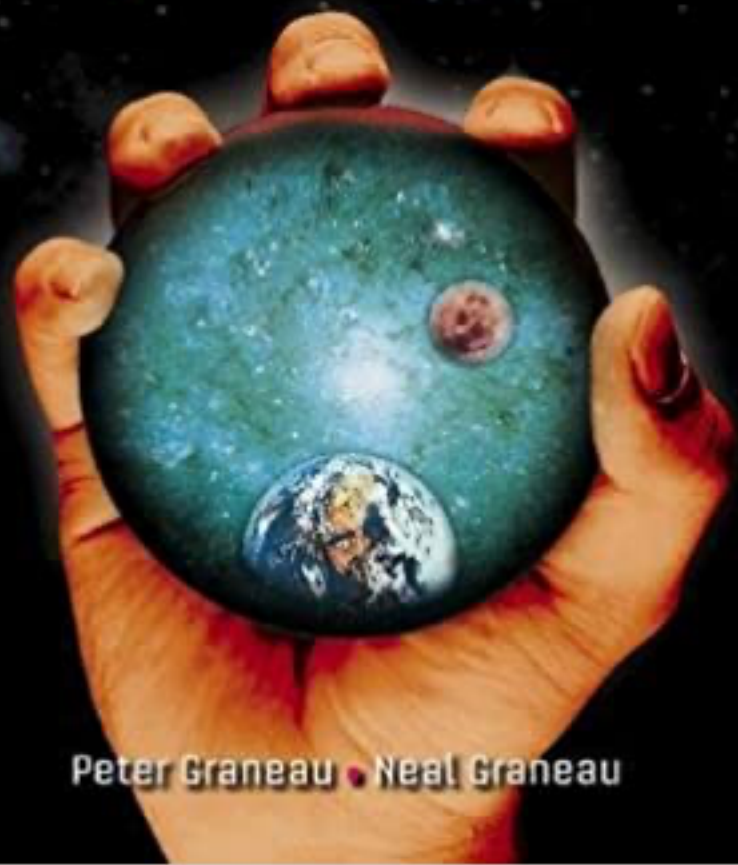
The World Forum

From *Wizard, The Life and Times of Nikola Tesla*

By Marc Seifer, 1998, p. 324

In the Grip of the Distant Universe

The Science of Inertia



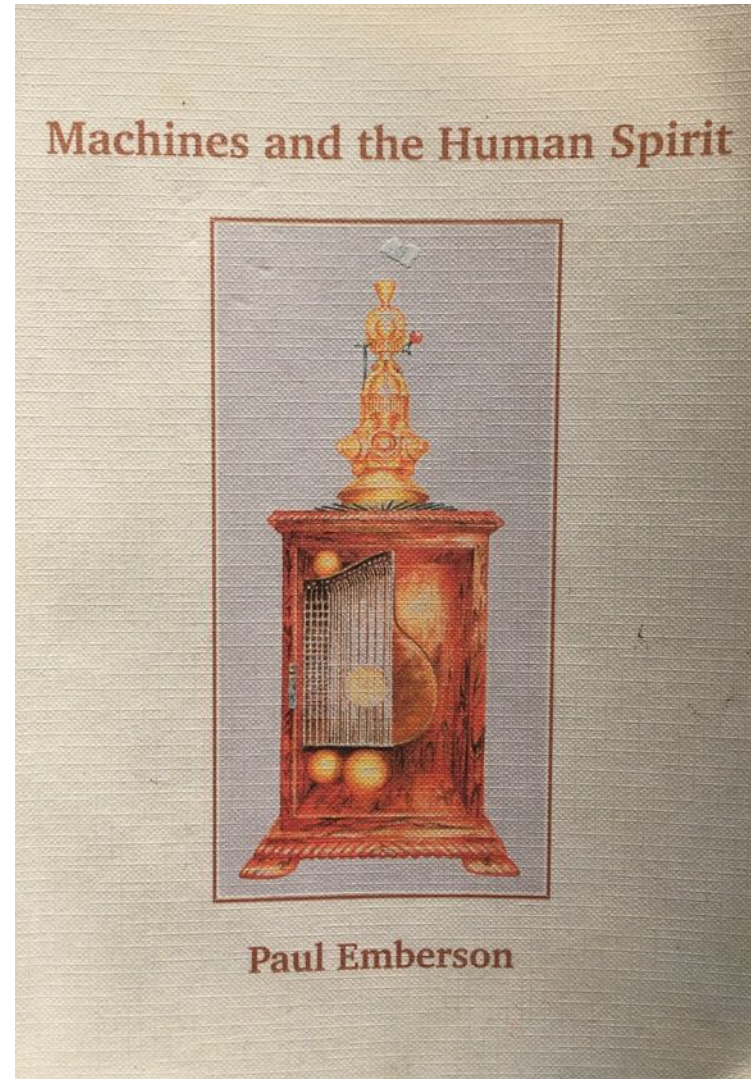
Peter Graneau • Neal Graneau

Analysis of Rudolf Steiner's view on technology, the Keely machine and Steiner's proposed Strader free energy device.

Atomic Technology

Resonance Technology

Moral Technology



The Breakthrough Energy Movement

Energy developments on the edge of science



Breakthrough Energy Generators

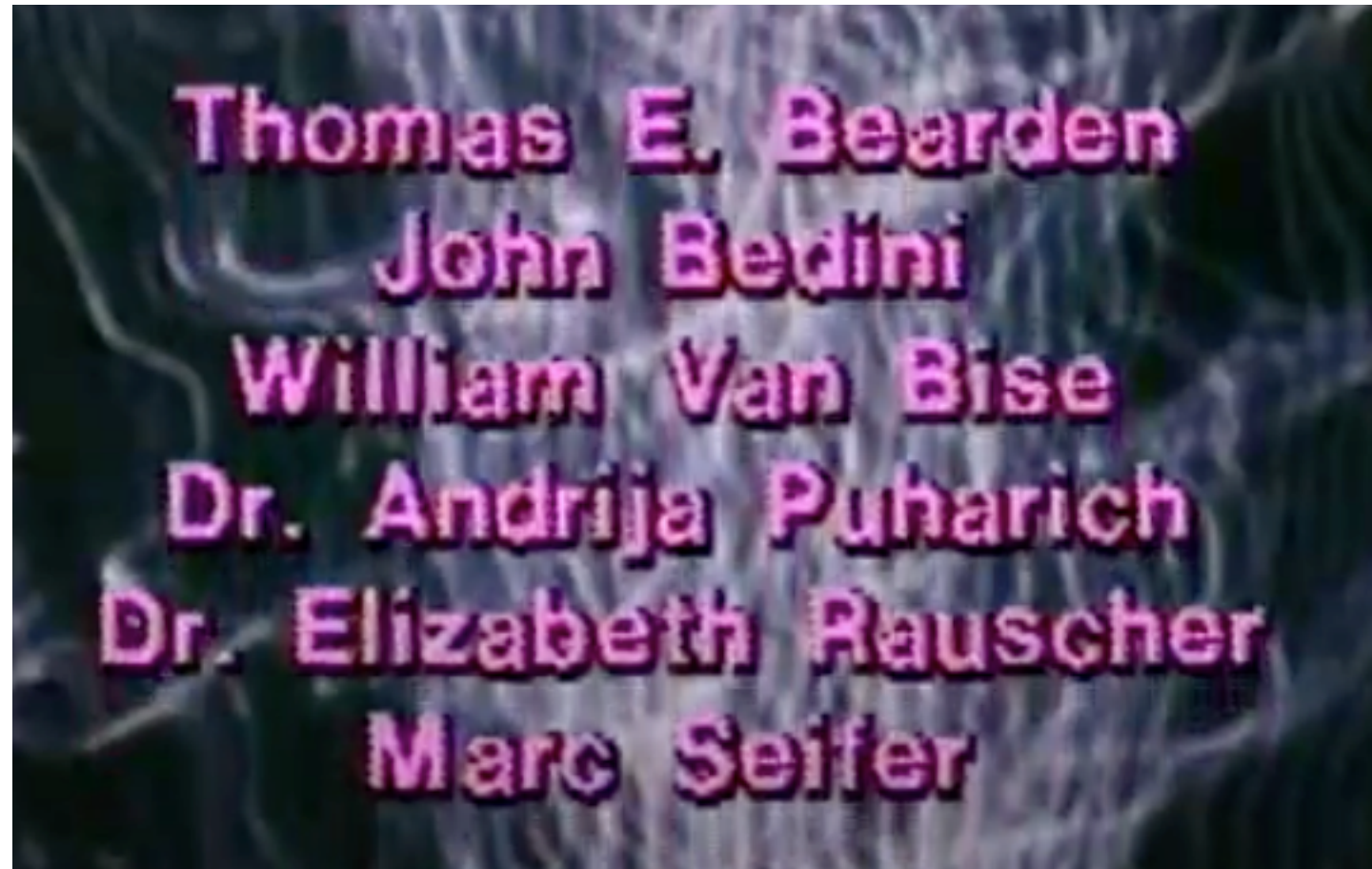
How Bruce dePalma's Discovery led to the Design and Implementation of Over Unity Systems

https://youtu.be/uQnLp86E_hE

<https://globalbem.com/category/conference-2019/>

ZENITH FACTOR – 1984

<https://documentaryaddict.com/films/tesla-the-zenith-factor>



Reference Papers at USPA website

<https://www.psychotronics.org>

- Improved Magnetic Induction Structures
- Electric Induction Energy Waste Solution
- Electric Motor Magnetism for Casements and Armatures
- Health Properties Influenced by Magnetic Force Properties in Blood
- Solenoid Laminated Iron Material Comparison Experiment
- Introduction to Mirror Image Symmetry Magnetism 101
- Percussion Air Motor
- Journal Articles - Aether Theory and Hardware
- Erl Koenig Demonstrates his MIS.mp4



Erl Koenig 1936 – 2016