# *Lakhovsky's Multiple Wave Oscillator:*

# THE FINAL APPROACH

by Peter A. Lindemann

SINCE MY LAST ARTICLE on the Multiple Wave Oxcillator, which appeared in the 1st Quarter 1993 issue of **Borderlands**, a great deal has happened. My associates and I are confident that we have finally cracked the secret of Lakhovsky's miraculous MWO. For much of this breakthrough, I am deeply indebted to Hessel Hoornveld of the Netherlands. First of all, Hessel has run quite a few experiments and tested many different variations. Besides that, he visited Serge Lakhovsky in Paris, France in the early summer. His eyewitness account of a true Lakhovsky MWO in operation has solved most of the remaining puzzles. So much is now known that I, at least, consider the mysteries either solved or within reach. This article will lay out clearly what we now know and what we believe will fill in the gaps.

Hessel reported to me the following details of his eyewitness account. First, as Tom Brown and I have claimed for years, there is NO arcing between the rings of the antenna. Second, the unit DOES operate in the high voltage mode, with a two inch corona coming off the outer ring during operation. Third, the dark tubes holding the antennas to the stands each contain a high voltage step-up coil, so that both antennas are powered with high voltage independently. The wires that connect the antennas to the power supply are low voltage wiring. Four, Hessel was not allowed to see how many spark-gaps there are. However, both Hessel and I have run experiments with spark-gaps and we both believe that a number of small gaps in series work better than a single large gap. Five, there is a ground connection to the antennas. Six, the final detail that Hessel reported to me is very interesting and to my knowledge has never been mentioned by anyone before. It is that the various rings of the antenna are made from different metals. They are not all copper. I'll have more to say about this later in the article.

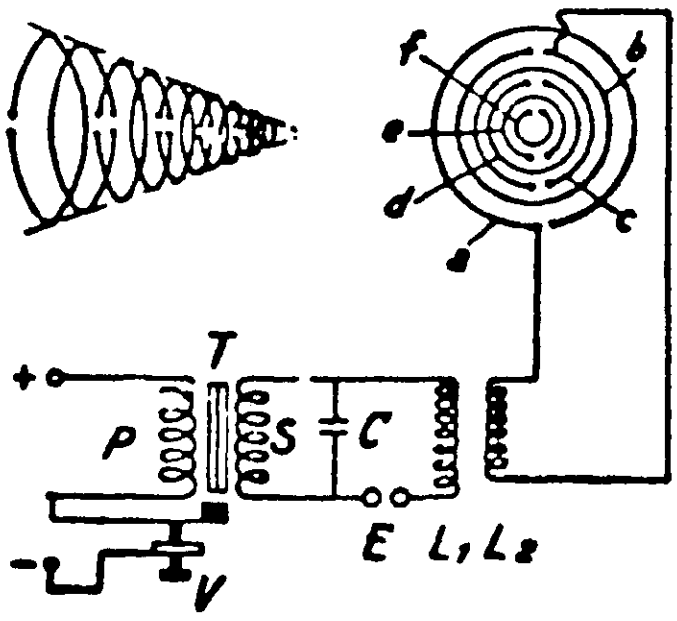


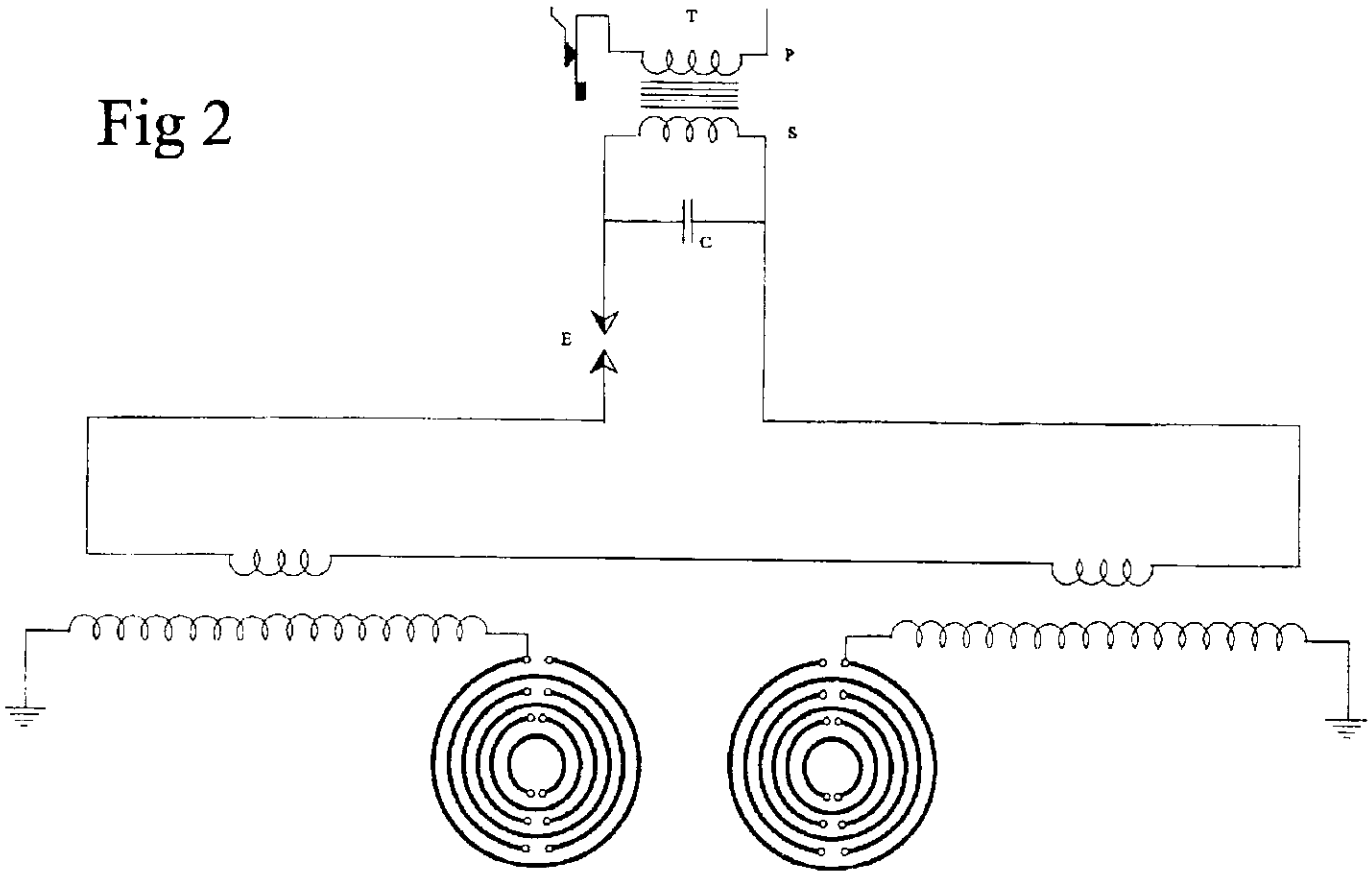

**Figure 1**

Fig. 1 is the very simple schematic from Lakhovsky's 1934 patent. During his visit to Paris, Hessel was not allowed to see inside the unit, so we still do not have an absolutely authoritative schematic diagram of an original MWO. But based on everything that we do know, Fig. 2 is the most probable schematic. This is what I now believe to be the basic wiring diagram for Georges Lakhovsky's clinical MWO. It is close enough to what he was doing to be considered the real thing. I base this on what Hessel has told me and on the photo of Lakhovsky's clinical unit reproduced here as Fig. 3. Please notice that there are three wires on the ground going from the case on the right to the antenna on the left. I now believe that two of these wires carried the low voltage supply to the primary coil of the output and the third wire was the ground connection as illustrated in Fig. 2.

Lakhovsky's extensive work with the RCO and the MWO was motivated by his interest in overcoming the debilitating effects of living in and near noxious earth energies. Consistent with this, Jorge Resines tells me Lakhovsky wrote that the MWO would give the best results when operated over sandy soils. These are the so-called "negative polarity" soils that can cleanly absorb the incoming cosmic radiations without reflecting back any disruptive interference. Now I can understand why these devices were never mass produced. All the rumors we have heard, that each unit was "fine tuned" to the specific location in which it was to operate, now make perfect sense. As Fig. 2 suggests, the multiple oscillations appearing at the antennas were not merely electric in nature, but were in fact earth energy drawn up from the ground connection. The effectiveness of the whole unit depended upon the local earth energy being in a benign state. If the ground upon which the unit was operating was disturbed, then these disturbances would also be drawn up into the system and projected by the antennas along with all the other oscillations.

The question is, can a generic design unit be as effective as the extremely refined units hand built by Georges Lakhovsky? From a purist's point of view, the answer is no. But in many situations the generic Beck-style units have been acclaimed as effective. The anecdotal claims associated with the various units that have been on the market over the last few years suggest this possibility. We feel that the closer one gets to Lakhovsky's actual work, the better the

Fig 2




units will perform. Because of this, we are publishing this schematic diagram (Fig. 4) and parts list so that home builders can now make their own superior Lakhovsky-style units. We are also making these units available in limited quantities for serious amateur experimenters.

The current unit consists of four sections: (1) the power supply, (2) the capacitor charging system, (3) the spark-gap discharge section, and (4) the high voltage output and antenna hook-up. Each of these will be discussed separately and compared to Lakhovsky's patent diagram in order to promote clear understanding.

### (1) The Power Supply

Lakhovsky's patent diagram does not specify a power supply, but does show the unit needing to connect to a source of Direct Current, as noted by the (–) and (+) connections at the left of Fig. 1. Experiments by Hessel Hoomveld and myself suggest that the best source of DC in this case is a battery. The units definitely work better on batteries. A little market research, however, told me that most people would prefer a unit that could run for long periods, if necessary, and simply plug into the wall socket. Most people did not want to be bothered by battery charging protocols. Therefore, the power supply given here consists of a transformer, rectifier, and filter capacitor as shown in the schematic in Fig. 4.

### (2) The Capacitor Charging System

Lakhovsky's patent diagram shows a primary coil, a magnetizable member, a secondary coil, the capacitor, and a device called the *trembler*. The purpose of the trembler is to mechanically make and break the DC current connected to the primary coil. This arrangement produces pulses coming out of the secondary coil that can be used to charge the capacitor. The circuit we use here is a variation of the one developed by Klark Kent. It consists of a 555 timer chip, protected by some RF chokes, controlling a power transistor that makes and breaks the DC current to the primary of an automobile ignition coil. The pulsed output of the auto coil is then used to charge the capacitor. The high voltage diode between the coil and the capacitor is a necessary addition to this circuit because the capacitor does not charge properly without the diode in place. For you purists, the solid-state section can be replaced by a self-actuating mechanical relay that operates like the trembler. I don't use it because it makes a lot of noise and the solid-state circuit runs quietly and reliably. The solid-state circuit also gives us an adjustable feature to control the capacitor charging rate, like the adjustable trembler would. I have also added a third RF choke between the auto coil and the capacitor on the low voltage side to block the high frequency rebound of the capacitor discharge from feeding back to the power supply.

### (3) The Spark-Gap Discharge Section

Lakhovsky's patent diagram shows the capacitor discharging through the primary of the output coil and the spark-gap. Our circuit is essentially the same here. This seems to be the heart of the system and I wanted to leave it alone. Still, a great deal of work went into researching the optimum design for the spark-gap. Straight, open air spark-gaps produce a subjectively harsh feeling in the field between the antennas and a nasty, irritating noise. By contrast, high vacuum, quenched spark-gaps (5 microns) don't work well in the circuit. The unit we are selling uses four enclosed spark plugs wired

in series. This arrangement produces the best trade-off between cost effectiveness, availability of parts, good circuit behavior, and gentle subjective feel in the output field. Many other systems were tried.

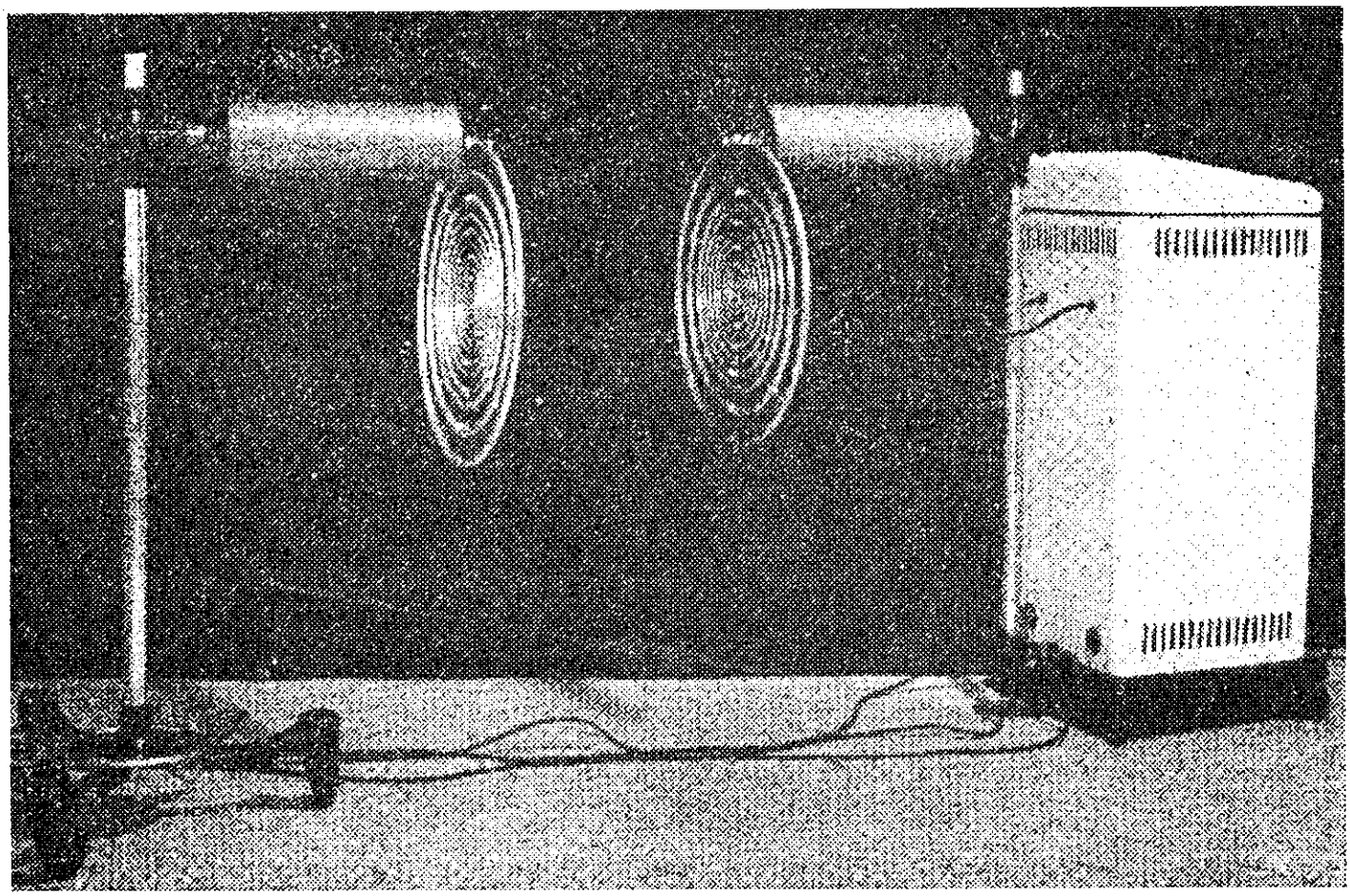
### (4) The High Voltage Output

Lakhovsky's patent diagram shows a single output coil connected to the first and second ring of a single antenna (Fig. 1). We now know, however, that Lakhovsky's clinical units ran separate high voltage coils for each antenna (Fig. 2). Our system compromises between these two positions by driving a single high voltage output coil in a balanced manner to power two antennas equally. The output produces the required oscillating electrostatic field between the two antennas as well as the two inch corona discharge on each of them. I also center-tap the high voltage output coil and connect it to an earth ground. This arrangement allows the output to be driven in a manner that is consistent with Lakhovsky's clinical units by using only one high voltage output coil. Adding the earth ground connection to the output makes a big difference, in fact it makes all the difference in the world.

Well, that pretty much explains what we are doing and why. If anyone has any questions, give me a call at (505) 281-7554 and I'll be glad to help. I'd like to add just a few words about the unit that BSRF is making available to researchers. The unit comes complete and ready to use and is housed in a white plastic case about 15" x 15" x 5". It comes with two 15" diameter, silver plated antennas and two antenna stands made of clear acrylic. It also comes with an instruction booklet and a money-back guarantee. This MWO produces a very penetrating but gentle effect. It builds and energizes the aura and promotes a deep, systemic relaxation. It causes a normalization of the pH of fluids, even neutralizing the acidity of a cup of coffee put in the field. If you are interested in owning one of these beautiful hand made units, please contact BSRF headquarters.

The only thing left to discuss is the real design of Lakhovsky's multi-ring antenna. There were a few more details that Serge told Hessel on his visit to Paris. The unit did not work inside a Faraday cage. Also, the unit did not work during full moon. He also said that the rings of the antenna were related to the planets. These statements reinforce the understanding of how intimately connected to nature the MWO must be in order to operate in the optimal mode. We can assume that a Faraday cage would block or distort the incoming cosmic radiation. And during full moon, we know that there is a collapse of the north-south seasonal flow of the chemical ether. Lakhovsky must have observed problems when the units were operated under these circumstances.

During one of our many trans-Atlantic telephone calls, Hessel had convinced me that the rings of the antenna were related to notes on a musical scale. But Serge's statement that the rings were related to the planets and Hessel's observation that the rings were clearly made of different metals seemed to confront us with another mystery. Interestingly enough, in a conversation with BSRF's Michael Theroux on this subject, he remembered seeing a document that related the relationship between the planets, the metals,



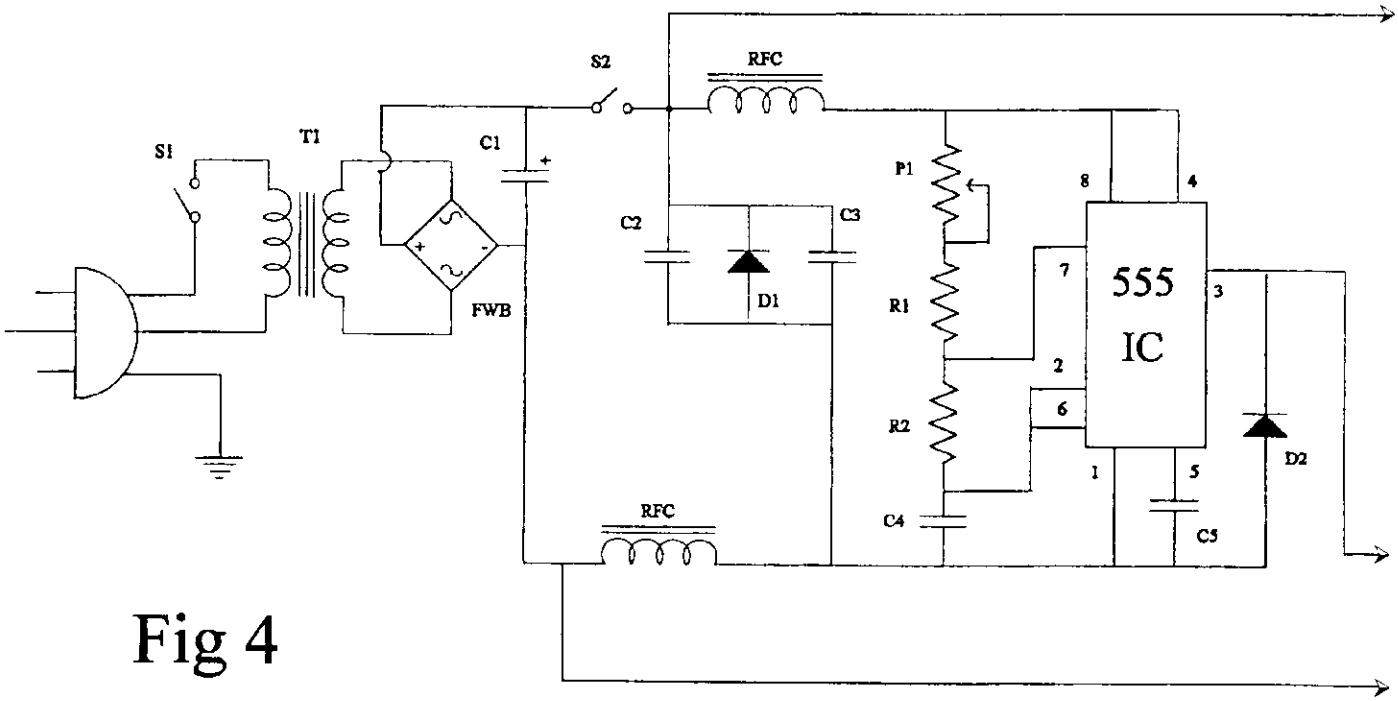



Fig 4

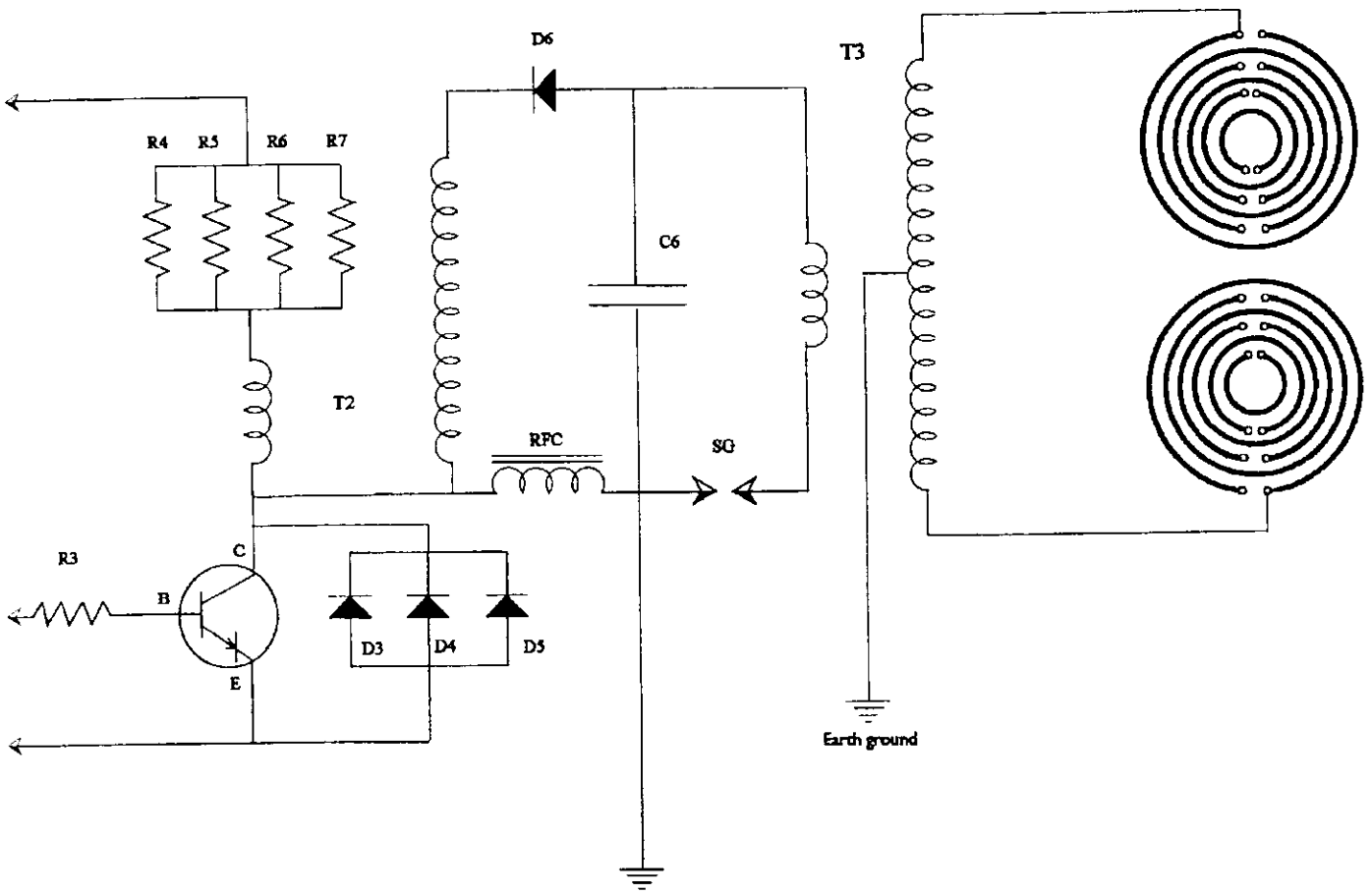
and the musical tones from some research done by an H. Kayser, published in Berlin in 1932. Since we know that Lakhovsky was working with some German doctors with his RCO and early earth energy research, we strongly suspect this information could be the basis for the development of the multi-ring, multimetal, tubular antenna during that same time period. This research document is included as a footnote to an article entitled *The Gravitational Wave* in the BSRF reprint of the **1950 Proceedings of the Scientific and Technical Congress of Radionics and Radiesthesia.** The following article, *The Song of Longevity,* contains Michael's insights into these relationships. In the future we are hoping to prototype some antennas and try them out to see if they broaden the action of the MWO to near universal effectiveness as Lakhovsky claims. Until then, the units we are making available function extremely well as a refined MWO power supply.

I know that some of you have enjoyed this flurry of articles on the MWO. I also know that some have felt that too many pages were given to this topic over the last few years. I can only say that being on the trail of this discovery has been exciting, especially this year. Now that it is nearing completion, I would like to acknowledge how much Tom Brown has contributed to this project. First, he kept the whole project alive by constantly up-dating the **MWO Handbook**. He took the initiative to translate and condense the two Lakhovsky titles, **Science and Good Health** and **The Earth and Ourselves**. These little books told us a great deal about Lakhovsky's work with earth energies and the Radio Cellular Oscillators, the forerunner of the MWO. He first sparked my interest and helped me overcome my reluctance to get involved. Even though he has not written any of the articles in this current series, our telephone conversations have been an integral part of my growing understanding of the MWO. During countless phone calls, we continued to refine our collective understanding about what Lakhovsky was really doing.

This has really been a global BSRF project and the following people have all contributed in significant ways. A special thanks go to the following: Ralph Bergstresser, who apparently designed the "Magnetic Wave Oscillator" which has been the basis of MWO research for the last 30+ years; Bob Beck, for igniting interest in the MWO in 1963 by reproducing this basic "MWO" design; Riley Crabb, for printing that diagram in the BSRF Journal; Klark Kent, for actually building units that gave people something to work with and gave us something strong enough to whack on for years; Eric Dollard, for an irreplaceable education concerning the properties of high voltage dielectric fields, and for showing us the major divergences from Lakhvosky's actual work by the previous researchers; Ron Crossley, who reported on his first hand observations of Lakhovsky's MWO and helped track down numerous important details; Louis Schad, for bold and original thinking, and experimentation when things were looking pretty stuck; Larry Binger, for work with RCO circuits and sharing generously; Michael Theroux, for timely and insightful input; Jorge Resines, for multi-language translations, tireless research, and remarkable analysis of hard-to-find documents; Hessel Hoornveld, for the eye-witness account of a real MWO in operation, and for extensive clinical testing and in-depth experimentation with MWOs of various types in the Netherlands. Also, many thanks to all the other experimenters out there who have written letters to the Editor and kept the interest high. Thank you all again.

I have had the privilege of having all of this input to sort through and synthesize because these others were willing to share their knowledge freely. I am deeply indebted to all of them.

At this point, I consider the Lakhovsky MWO mystery essen-




tially solved. The following is the parts list that goes with the schematic in Fig. 4. for people interested in building a unit themselves.

**Parts List**

T1 1 20VAC to 1 2.6VAC, 4.4amp transformer
FWB Full Wave Bridge 250 volts, 6 amps
RFC Radio Frequency Hash Chokes, 250uh
C1 10,000uf 25v Electrolytic Capacitor
C2 100uf 25v Electrolytic Capacitor
C3 .047uf 50v Ceramic Capacitor
C4, C5 .1 uf 100v Polyester and Foil Capacitor
C6 .01 uf 15,000v Electrolytic Capacitor JAQ-15KMY0103
IC 555 Timer
R1 10K 1/2 watt Resistor
R2,3 1.2K 1/2 watt Resistor
R4-7 10 ohm,10 watt Resistors
D1-2 1N4148 fast switching silicon Diode
D3-5 1N4004 200 volt,1 amp Diodes
D6 ECG 527A 15,000 volt Diode
P1 50K Variable Potentiometer plus a knob
Q1 ECG 247 100 volt,12 amp Power Darlington
S1-2 SPST Switches rated for 120VAC (plastic handle to reduce shock hazard)
SG Spark-gap, four automotive spark plugs, enclosed, wired in series, gaps set at .017"
T2 Automobile Ignition Coil for a 12 volt system
T3 Hand-made High Voltage Output Coil:

**Primary**: 5½ turns of #18 wire (insulated to 30,000 volts) wound on 2" ID PVC

**Secondary**: 5½ inches of tightly spaced #33 magnet wire (720 turns) wound on 1" ID PVC. Primary wound around middle of secondary. Secondary is center-tapped.

Notes on the parts list

T2 should not be a hot rod coil because they put out too much voltage and will destroy C6. An average coil for a V-8 will do just fine. C6 and D6 are hard to find, but they can be special ordered from an electronic parts store (not Radio Shack). Q1 must be protected by a heat sink. T1 and R4-7 get hot during operation. Our production units include a fan-blown cooling system, and separate indicator lights to show when the power supply is on and when radio frequency currents are present at the output. These features are not shown in either the schematic or the parts list. Also needed are a variety of wire, a grounded plug, and other miscellaneous hardware. Once production is in full swing, kits and/or hard to find parts will be available to home builders. Call (505) 281-7554 for more information on parts and on availability of completed units for research.

Happy building and good luck!