



# New Energy News

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## HIGHLIGHTS OF THE FIFTH INTERNATIONAL CONFERENCE ON COLD FUSION

by Jed Rothwell

### AUTHOR'S ABSTRACT

Highlights of the Fifth International Conference on Cold Fusion (ICCF5) (April 9-13, 1995, Monaco) are reviewed. A live demonstration system from Clean Energy Technologies Inc. showed 300% to 1000% excess energy. Wide-ranging positive results in both excess heat and nuclear products were reported from E-Quest, U. Milan, Osaka National U., Mitsubishi Heavy Industries, NTT, the Japanese National Laboratory for High Energy Physics (KEK), Los Alamos, BARC, Amoco Production Company, Shell Oil, Harwell and others. An electrical engineer from Bechtel Corporation gave a superb talk on the economic and technical aspects of the commercial development of cold fusion energy.

The first lecture was the Critical Overview by Storms [1]. It was one of the best. Storms is essential reading for anyone who wants to understand this field. He distributed preprints of his upcoming *Fusion Technology* paper "A Critical Review of the 'Cold Fusion' Effect" which I highly recommend.

Patterson's company, Clean Energy Technology (CETI), got together with Dennis Cravens and brought to the conference a demonstration cell in a flow calorimeter. It worked spectacularly well. Cravens [2] discussed it on the first day. The device output 3 to 5 times input energy, ignoring energy lost to electrolysis gases, and as much as 10 times input if you include various factors like electrolysis gases and the heat lost from the cell container. Briefly, input was usually held at about 0.4 watts I\*V, although on the last day it was raised to 0.8 watts for a while. The flow rate was 10 ml per minute.

Patterson's device is described in U.S. Patents 5,036,031 and 4,943,355. It is a thin-film light water system. It incorporates co-polymer beads with a flash coat of copper and electrolytically deposited thin-film coatings of nickel, palladium, and another outside layer of nickel.

I asked a number of the leading CF people what they thought of the demo and the Cravens talk. Some of them were enthusiastic, some expressed open hostility. Peter Hagelstein spent a long time with Cravens going over the instrumentation and results step by step, in his ultra-careful, thoughtful fashion.

Sapogin [6] described Moldavian cavitation machines that are related to the Griggs device, only more efficient. These are designed by a materials scientist, Yu S. Potapov, in Kishinev, Moldavia. The device inputs 4 kilowatts of electric power into its turbopump, and it outputs up to 12 kilowatts thermal. So far, Potapov has produced four models, with increasingly better performance. The earliest, least effective model gave excess heat with performance ranging from 130 to 150%. Reportedly, Potapov has set up a corporation with four factories, and they have already sold thousands of these units.

Sapogin reports that the device was run for many months in a closed circuit yet it did not generate any significant level of helium, tritium or other nuclear ash. Sapogin thinks he can explain this with his unitary quantum theory [7].

Griggs [8] gave a well received talk about his ultrasound device. He described instrumentation, results, and his efforts to have the machine verified by scientists. He said that more than 40 scientists have visited him over the last few years and no one has found any error in the overall conclusions. Recently, after he modified the rotor, Griggs began experiencing problems with cavitation damage. He has been working with experts from Georgia Tech and NASA to resolve these difficulties.

Stringham and George of E-Quest [9] talked about their spectacular results in greater detail than they have been willing to share previously. They are getting massive

helium, isotope shifts, heat and so on. Last summer they ran experiments at Los Alamos. At ICCF4, J. Huizenga insisted that he would only accept helium analysis results from Rockwell International, which is widely viewed as the best laboratory on earth for this type of work. So, E-Quest shipped samples of gas from the Los Alamos experiment in stainless steel collection bottles to Rockwell's facility in Canoga Park, CA, where they were analyzed by B. Oliver. The Rockwell tests revealed definitive proof that the excess heat comes from a nuclear reaction. Experiments that did not generate excess heat showed 0.4 ppm helium. Experiments that did generate excess heat yielded helium far above that background level, at levels as high as 552 ppm, 100 times atmospheric concentration. Rockwell also looked at the ratio of  $^3\text{He}$  to  $^4\text{He}$  as well as  $^{22}\text{Ne}$  to  $^4\text{He}$  in the samples and found the isotopic ratios prove the helium could not possibly have come from contamination from normal terrestrial helium.

Other leading experiments are also being kept too secret for my taste, especially Arata, and Pons and Fleischmann. Detailed technical information about cold fusion devices must be shared if the field is ever to be commercialized, and the best mechanism for sharing it is the patent. E-Quest and many other CF workers in the U.S. have applied for patents, but most have all been blocked, except Patterson's. The Japanese and the Italian governments have granted many patents for cold fusion, the continued intransigence of the U.S. government may hurt U.S. competitiveness in the future.

Piantelli did not attend the conference, but his friend Bill Collis was there, and he gave us an informal update on the work. Piantelli has been granted a patent which is expected in July. He is publishing a new paper in *Nuovo Cimento*. Up until now Piantelli has kept secret many key aspects of the experiment, but now that he has been granted a patent he discusses all details. Collis described three aspects of the experiment that have been kept confidential:

- 1) The nickel should be prepared with special surface treatments that will be described in detail.
- 2) The metal sample is placed in a magnetic field of several kilogauss.
3. To trigger the reaction, Piantelli discharges a capacitor into the heating coil, giving it a brief jolt of energy.

Arata [10] described his double-structured cathode palladium black experiments in more detail. He reported "the chemical reaction energy of 0.1 mole Pd-black used is only 4 kJ, but more than 200 MJ of excess energy was continuously produced for over 3,000 hours at an average rate of 50-100 kJ/hr [14 to 28 watts]."

A number of Japanese corporations showed up with mainstream CF results that I would have described as

"spectacular" a few years ago, including large heat bursts, boil-offs, and the like. Iwamura [11], from Mitsubishi Heavy Industries, reported X-rays, neutron emissions and possible transmutations, and concluded, "Although we cannot identify where these Pb atoms came from (contamination or generation), we can say that anomalous nuclear reactions must occur in the electrochemical cells at room temperature." Itoh [12], also from Mitsubishi, reported on vacuum chamber gas release experiments somewhat similar to the NTT thin-film work reported at ICCF3 and elsewhere. Shikano [13] of NTT reported continuing progress with those experiments.

Isagawa [14], with the Japanese National Laboratory for High Energy Physics (KEK), got a number of spectacular results, including three boiling events and an "enormous" heat burst. "Under constant current conditions, the cell voltage and the cell temperature were increased gradually and all of a sudden sharply increased to boiling. . . . It was just during the calm period about 6 hours after the first boiling that the enormous heat release was observed. The temperature of the cell of about 100 ml in volume increase by 7.5 K (from 83.4 deg C to 90.9 deg C) in 13 minutes. The cell voltage showed a dip correspondingly. The excess heat can be estimated to be 6.8 W, about 110% with respect to the input electrical power. . . ."

Claytor's abstract [15] reports continued progress at Los Alamos. "Over the past year we have been able to demonstrate that a plasma loading method produces an exciting and unexpected amount of tritium. In contrast to electrochemical [methods], this method yields a reproducible tritium generation rate . . . We will show tritium generation rates for deuterium-palladium foreground runs that are up to 25 times larger than hydrogen-palladium control experiments using materials from the same batch."

On the last day, Klein [3], of Bechtel Corporation, gave a superb talk on the economics and ABCs of developing cold fusion into a practical form of energy. He pointed out, for example, that solar photovoltaic cells use zero cost energy, but they still cannot compete with conventional sources because the fuel cost is not the only economic factor.

Commercial development schemes are proceeding. Patterson has already shown a proof-of-principle demonstration device. Ultrasound excess heat devices are already being sold in large numbers at a profit. Cold fusion (or some form of energy similar to it) has already been successfully commercialized. The history of modern technology includes many examples of commercial products that were developed and sold before a comprehensive theory explained them, including such

things as Marconi's long distance radio, airplanes, antibiotics, high temperature superconductors and aspirin.

Many of the papers were disappointing, because many workers are stuck in the rut of trying to replicate the 1989 palladium - heavy water electrolysis method. Over the years many excellent alternatives to pure palladium have emerged: thin film [3], palladium black [10], light water [3, 16, 17], ultrasound [7, 8, 9], proton conductors [18]. Other methods, like sparking [19] and glow discharge [20, 26], have not been as widely replicated, but show promise. Yet the majority of scientists in the field ignore these promising approaches and continue using only palladium. Kunimatsu [21] and others continue to search for ways to improve loading in palladium. Okamoto [22] reported that the NEDO Icarus program saw only two excess heat reactions during the entire year, peaking at 16% excess. Six years of low level results have failed to convince mainstream scientists that CF is real.

Pons and Fleischmann [23] did not reveal any details about their recent work. They have not revealed much since 1992, even though they have achieved some spectacular successes since then, including long boiling events. In my opinion, the major important point Fleischmann made is that heat promotes the CF reaction. This is very important and it has been overlooked by many people in the field even though Fleischmann, Ikegami [24] and other mainstream leaders have pointed it out many times over the years.

Srinivasan reported a number of other extraordinary experiments from various labs at BARC. He acts as a representative from India, because not many Indian scientists are able to attend these international conferences. He gave two lectures to cover the work of many other groups. [4, 5]

There was an interesting contrast between Kennel, Hagelstein and Smullin [25] on one hand and Karabut [26]. In 1992, Karabut et al. first reported excess heat and gamma rays from a glow discharge experiment. Hagelstein has been working hard for the past few years to replicate this experiment, but he has achieved little success. Yet at the same time, Karabut has improved the heat measurements with a single flow calorimeter, instead of three static calorimeters for each of the three main components. This puts the excess heat on much firmer ground.

DuFour, at Shell Research, [19] made the same improvement as Karabut, with equally good results. He combined several separate calorimeters for different components into one unified flow calorimeter, which accounts for all inputs and output. He continues to detect up to 7 watts of excess heat.

Amoco reported some old but extremely important early results. Eisner [27], of the University of Houston, described the 1989 experiments that he and Lautzenhiser and Phelps of the Amoco Production Company performed. According to Amoco's 1989 report [28], the first experiment "yielded a 30% energy gain over the life of the experiment (two months). In June 1989, the experiment was modified and a second run also yielded "about 30% excess energy until the catalyst become waterlogged." Other successful runs were performed. Their conclusion: "The calorimetry conclusively shows excess energy was produced within the electrolytic cell over the period of the experiment. This amount, 50 kilojoules, is such that any chemical reaction would have been in near molar amounts to have produced the energy. The tritium results show that some form of nuclear reactions occurred during the experiment."

Hansen [29] described more about his detailed analysis of the 1989 Harwell data, which he previously discussed at ICCF3 and ICCF4. The Harwell experiments were performed in the summer of 1989 by inexperienced junior scientists, who mistakenly concluded that there was no excess heat. Hansen has more experience with electrochemistry and calorimetry than the Harwell researchers, and he was given full access to their data. In 1989 Harwell, Cal Tech, and MIT were held to be the "Big Three" that proved cold fusion does not exist. All three were later shown to be positive results. The best discussion of this is the 1994 Journal of Physical Chemistry paper by M. Miles. [30]

Fleischmann [31] talked about Harwell in his second lecture, titled, "The Experimenter's Regress." As he put it, "the judgement of whether or not a given result is 'negative' or 'positive' is frequently dependent upon the methods of data analysis used. . . . We present here a comparison of a number of 'historically interesting' data sets and show that the conclusions reached have frequently not been justified."

There was a lot of good news at this conference. There were many fascinating breakthroughs. I was happy to see increased attendance this year by serious corporations and investors. Many Japanese corporate scientists were there, looking and learning, and not saying much. I would not expect them to say anything, but they came from companies that have already been granted patents, so I was glad to see that their quiet involvement in the field is continuing.

Yet, for all the good "vibes," I felt an undercurrent of pessimism. There is too much emphasis on theory and basic science, and not enough on technology. The scientists say that the mechanism of CF must be discovered and the theory must be completed before CF

can be scaled up. History shows that technology evolves the other way around. Scientific theory follows in the footsteps of successful innovation and serendipitous discovery. Bell Labs developed a transistor in 1948 based on a faulty, incomplete theory. Four years later they developed a much better theory, and years after that people began making computers with transistors. Innovation comes first, theory and refinements follow. The devices from Patterson, E-Quest, Griggs, and Potapov prove this.

#### Footnotes

(The ICCF5 paper numbers listed here are from the Book of Abstracts.)

1. E. Storms, "A Critical Overview of Cold Fusion," ICCF5 paper #101
2. D. Cravens, "Flow Calorimetry and the Patterson Power Cell (TM) Design," ICCF5 paper #208
3. B. Klein, "Cold Fusion Economics," ICCF5 paper #613
4. T. K. Sankaranarayanan et al., "Evidence For Tritium Generation in Self-Heated Nickel Wires Subjected to Hydrogen Gas," ICCF5 paper #307
5. M. Srinivasan, "Experiments with Plasma Focus Devices: the Past, Present and Future," ICCF5 paper #605
6. L. G. Sapogin, "On One of Energy Generation Mechanism in Unitary Quantum Theory," unnumbered ICCF5 paper
7. L. G. Sapogin, "On Unitary Quantum Mechanics," // *Nuovo Cimento*, vol. 53A No. 2, p. 251 (1979)
8. J. Griggs, "Sonoluminescence, Excess Energy and the Hydrosonic Pump," ICCF5 paper #607
9. R. George, "Cavitation Induced Micro-Fusion as Evidenced by the Production of Heat, 3He, and 4He," ICCF5 paper #324
10. Y. Arata, "Utilization of 'Spillover-Deuterium' in Double Structure (DS) Palladium Cathodes," ICCF5 paper #601
11. Y. Iwamura et al., "Characteristic X-Ray and Neutron Emissions from Electrochemically Deuterated Palladium," ICCF5 paper #312
12. T. Itoh, "Observations of Nuclear Products Under Vacuum Condition from Deuterated Palladium with High Loading Ratio," ICCF5 paper #311
13. K. Shikano, "D2 Release Process From Deuterated Palladium in a Vacuum," ICCF5 paper #332
14. S. Isagawa, "Heat Production and Trial to Detect Nuclear Products from Palladium-Deuterium Electrolysis Cells," ICCF5 paper #220
15. T. Claytor, "Tritium Production From a Low Voltage Deuterium Discharge on Palladium and Other Metals," ICCF5 paper #306
16. R. Notoya, "Nuclear Products of Cold Fusion Caused by Electrolysis in Alkali Metallic Ions Solutions," ICCF5 paper #609
17. R. Bush, "A Demonstrator For The Light Water Excess Heat Effect," ICCF5 paper #617
18. J. P. Biberian, "Excess Heat Measurement in AlLaO3 Doped With Deuterium," ICCF5 paper #205. See also Mizuno, Proc. ICCF4
19. J. DuFour, "Interaction Palladium/Hydrogen Isotopes Cold Fusion By Sparking In Hydrogen Isotopes," ICCF5 paper #604
20. I. B. Savvatimova, "Nuclear Reaction Product Registration on the Cathode after Glow Discharge," ICCF5 paper #318
21. K. Kunimatsu, "Materials/Surface Aspects of Hydrogen/Deuterium Loading into Pd Cathodes," ICCF5 paper #501
22. M. Okamoto, "The Present Status and the Scope of the Japan Basic Research Project of New Hydrogen Energy," ICCF5 paper #211
23. S. Pons and M. Fleischmann, "More about Boiling," ICCF5 paper #204
24. H. Ikegemi, "The Next Steps In Cold Fusion Research," *Oyuu Butsuri*, Vol 62, No. 7, July 1993, p. 717
25. E. Kennel et al., "Gamma and X-Ray Measurements in Electrochemically Active Systems," ICCF5 paper #330
26. A. B. Karabut, "Excess Heat Measurements in Glow Discharge Using Flow Calorimeter," ICCF5 paper #319
27. M. Eisner, "The Serendipitous Design and Execution of an Early Experiment which confirmed Heat in the Fleischmann-Pons Effect," ICCF5 paper #212
28. T. Lautzenhiser, D. Phelps, "Cold Fusion: Report on a Recent Amoco Experiment," Amoco Production Company, Report T-90-E-02, 90081ART0082, 19 March 1990
29. W. Hansen, "A Statistical Approach to Electrochemical Calorimetric Analysis," ICCF5 paper #213
30. M. H. Miles (Naval Air Weapons Center), B. F. Bush (SRI), D. E. Stillwell (CAES), "Calorimetric Principles and Problems in Measurements of Excess Power during Pd-D<sub>2</sub>O Electrolysis," *J. Phys. Chem.*, 1994, 98, p. 1948-1952
31. M. Fleischmann, S. Pons, "The Experimenter's Regress," ICCF5 paper #215

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# Editorial

## THE WHALE-OIL SYNDROME

By Hal Fox

When lamps were lighted by whale oil rendered from the stripped blubber (fat layer) of millions of whales, everyone enjoyed their high-energy standard of lighting. Then the early equivalent of today's environmentalists began to warn the people that the number of whales were rapidly being depleted. "Oh pain! Oh Grief!" wailed the users of whale oil, "What will we do to light our homes?"

**Then Came "Coal Oil":** Before all of the whales puffed into the smoke of our lamps, it was discovered that a burnable oil could be obtained from coal. "Oh Joy! Oh bliss!" should have been the changed cry, "There is plenty of coal to supply our blessed light." However, coal could be used for other things and with the industrial revolution, cities like London became smoke-filled and noxious. Cleaner and better methods were needed.

**Then Came "Town Gas":** Some inventor found that by closing down the oxygen flow to a bed of burning coal the incomplete combustion created carbon monoxide which with added steam, produced methane gas. Then we laid gas lines in our towns and lighted our homes, offices, and factories with "gas".

**Then Came Edison:** Even if he had to try several hundred things that didn't work, Edison found that a tungsten filament in an evacuated glass bulb would provide better (and often safer) illumination. Therefore, before we ran out of coal, we had better lights. However, electricity was good for lots of things and the proliferation of the use of fossils fuels has now become an international ecological problem. Of course, in Edison's day, even the *New York Times* proclaimed the electric light as being impractical.

**No one seem to remember that when problems occur, new solutions are found. We project the present into the future with little regard to technological changes and new inventions. This is the WHALE-OIL SYNDROME.**

**Now Some Whale Oil Syndrome Examples:** In the *Wall Street Journal Europe* for Tuesday, April 25, 1995 (page 2) an article by James Tanner appeared. "IEA Predicts

Oil Use Will Rise Substantially Over the Next 15 Years" is the title. The International Energy Agency, based in Paris, updates its long-term energy demands to show that world oil consumption will rise to more than 75 million barrels a day by the end of the decade and reach 92 to 95 million barrels a day by the year 2010. Current oil use is 68 million barrels a day. **Nothing in the projections by the IEA allow for the use of new technology.** The Whale-Oil Syndrome causes great speculation about how to solve the problem where the oil demand outstrips the supply.

**Second Example:** In the April, 1995 issue of *World Energy Update*, published by the Bell Helicopter Textron, Inc., is a chart of Total World Oil Demand Outlook and Capacity, 1980-2010. This chart shows that the total world oil **production capacity** will increase to the year 1999 and then level off at an estimated 80 million barrels of crude oil production per day. However the **oil demand** is projected to exceed the supply in about 2002 and continue rising. No forecasting is apparent in these projections for the increasing use of alternative energy beyond the small amounts of wind, solar, hydro, and hydro-thermal energies that are already invented and being gradually exploited. Here again, is the Whale-Oil Syndrome.

**Third Example:** From an April 24, 1995 letter from Norman Wooton, "...we have proceeded with additional independent testing [of the MRA] with the following results: Scientific Atlanta, Atlanta, Ga. [found] solid 10:1 over-unity; Concordant Technologies LLC, Atlanta, Ga [found] solid 10:1 over-unity; Georgia Tech University, Atlanta, Ga. [found] solid 18:1 over-unity (two full days of testing). The problem: [scientists] cannot determine the source of the anomalous power gains using classic EM theory **therefore will not publish a formal report with their names or facilities identified.** Whale-Oil Syndrome.

## SCIENTISTS AND ENGINEERS ALSO SUFFER

Even those whose training is heavily involved in invention and discovery are subject to the Whale-Oil Syndrome. Our most recent example is the intense rejection of cold nuclear fusion by the hot fusioners who have been working on hot fusion development for the past 40 years. Even many of the world's leading nuclear scientists are so secure in their knowledge of plasma dynamics that they reject evidence of different nuclear reactions in a metal lattice in an electrochemical cell. **Note that those forecasting energy use give little or no credit to the future successful development of hot fusion power sources.** These are engineers and scientists who are fearful of signing test results because they may be criticized by their peers. They are no longer primarily interested in the advancement of science!

**By mid-career many scientists are not working for the advancement of science but for the advancement of self.**

...Thomas van Slandern

Many years ago I noted the following quotation on a small card in the London Museum of Science, "**No one can invent everything. Everyone can invent something.**" Many, and probably most, scientists and engineers are comfortable with their learning. They do not want to unlearn or relearn. It is easier to deny than to discover. **But don't be overly quick to criticize and condemn some engineer or scientist who won't accept your own learned view of reality. It was always thus.** Even Aaron, the brother of Moses, went back to the golden calf when his brother stayed too long on the mountain. There are few leaders. Congratulate yourself if you are one of them.

Our collective job is not to convince all of the world that we have new discoveries. We will only be able to convince those who are amenable to change and discovery. **Our collective job is to discover, share, design, build, test, and produce the new energy devices that will change the world for the better.** It is better to build a new energy system than curse the deniers.

Few new important discoveries have been peer-reviewed into production. Few new discoveries have come from large industrial or government laboratories. Most new discoveries are made by people working outside the field in which they were trained. New insight rather than studied acceptance is the route to discovery. Be skeptical but willing to try, test, and learn. **Don't succumb to the whale-oil syndrome.** As Sir Isaac Newton said that we stand on the shore of an ocean of knowledge and are playing with a few pebbles on the beach. Go find some more and brighter pebbles as Wooton and McClain have done.

#### SOME MUSINGS FROM THE EDITOR

Zero Point - A posting to the KeeleyNet emphasized there is no such thing as zero in nature. In respect to zero-point energy: This abysmal name for space energy came from a gedanken (thought experiment) as follows: If I go into outer space, no matter, no sunlight, and then descend to zero degrees Absolute (that is the zero point), **is there energy?** No energy from mass conversion, no energy from radiation, no thermal energy in this thought experiment. The answer, as shown convincingly by Hal Puthoff and others, is that there is enormous amounts of

energy. The problem is tapping or "cohering" space energy.

Norman Wooton has been providing *NEN* with selected downloads from the KeeleyNet. The information content of postings range from questions through experimental results to theoretical explanations. Some of the explanations range from current accepted science to new explanations that may be soon included in "accepted science" to far-out ideas that might be hard to reach in a year with FTL (faster-than-light) devices. All are useful if they make people think, scheme, and reduce to experimental testing. As discussed elsewhere, the KeeleyNet is to be highly commended for its efforts to share information. New inventions seldom spring out of academic "accepted science".

The Fifth International Conference on Cold Fusion, Monaco, April 9-13, 1995 attracted more corporate visitors than previous conferences. The word is getting out that "Hey guys, there may be something to it. Go have a look." Buzz Aldrin was there and yours truly got to shake the hand that shook the hand of the moon.

There is an increasing international interest in new energy. We are being contacted by corporate types, usually small companies, who want to be in the vanguard of the new energy age. I met with one such group in Barcelona and plan to meet with an Australian group. There are now several companies who are commercializing new energy including cold fusion. More are **in process.**

The editor's desk was generously supplied with a 16" stack of mail when I returned from the Cold Fusion conference and an eight-day vacation in Spain. The end result is that *NEN* is a little late this month. Now you know why I don't get a chance to surf and post tidbits on the KeeleyNet (or any other net). **However, thanks to all of you who pump in information. Keep it up. You are the ones that make *NEN* the success that it has become. Thanks guys and gals.**

We have an excellent article (since Oct. 24, 1994) from Ashley Gray in Nelson, New Zealand, "Testing for Over-Unity in Unipolar Machines." We haven't been able to work it into *NEN*. However, if it is something important for any of you, call and we will send you a copy. Due to the expenses of publishing *NEN*, we have had to limit the size to 20 pages (maximum for low-cost bulk mail). We don't want to use smaller type because some of us old guys would have to read it with a magnifying glass.

## Space Energy

### AROUND IT GOES AGAIN, AND AGAIN

Courtesy of Ashley Gray

"You may find this of interest in regards to the Aspden 'Virtual Inertia.'"

Paul Monus, "Permanent Magnet Motors," a xerox of four pages were sent to us by Ashley Gray, pp 34-37.

#### EXCERPT FROM BOOK

[The particular system] as described is working as a Single-sided, Double-action Permanent Magnet Linear Motor, with interrupted cycle. This type of permanent magnet linear motor was built by me in different forms and lengths and with different types of magnets. All are working perfectly, without any trouble. The correct leveling and the correct setting of starting point A are important to its operation. If the gap between point A-B is too small, the roller cannot pick up sufficient energy and will be returned from point D without dropping below the track. The same thing will happen if the track is not leveled correctly.

You can perform many experiments with this simple motor. A very interesting one is the following:

The track will be leveled. The roller, after releasing from launching point A, will run around the track and crash into the space beneath point B. Now, the track will be given a small elevation by adjusting the front brackets. The roller must now overcome a small slope. It must always be started from the same distance from point B. To ensure this condition, a small piece of wood or plexiglass bar could be put across the launching pad of the motor at point A and fastened by a piece of masking tape. The roller could be started from this wooden bar, thus always the same distance from B. The elevation will be slightly raised each time. At one point the slope will be too high and the roller will not be able to overcome it. It will be returned from Point D without dropping below the track. You will allow the roller to run down until it will overshoot point B. Before it will come to a stop, you will catch it and quickly put it back to the starting mark and release it. The second time, the roller will overrun the slope without difficulty and on the bottom surface, will return to point B. You can repeat this experiment many times and you will notice that if the roller is launched after running back, it

will possess more energy than at the first time. I discovered this fact by experiment action.

The explanation of this seemingly peculiar phenomenon is straight forward. The energy conservation law teaches us that energy could not be lost. At the start, the roller possesses a certain intrinsic magnetic energy. It is inherent with its magnetization. By running over the magnetic track, which has a larger field strength, i.e. higher energy content than the roller, the roller will be further magnetized. It will pick up energy from the track. In engineering language, its working point on the magnetization curve will be steadily changed. A good analogy is the magnetization of a steel bar by rubbing with a permanent magnet.

After removing the roller from the field of the track, the energy gained by induction will not be dissipated instantly. There is a certain relaxation effect. A short time delay is needed until the magnet will return to its quasi-steady magnetization level. Consequently, in a short time the field of the roller, i.e., the flux that it produces, will be stronger than it was before passing the track field. Because the attractive power depends on the square of the flux density, the second time a larger force will interact with the track field, the acceleration of the roller will be greater. With increased acceleration, the momentum of the roller will be increased also. Thus, the roller will possess more kinetic energy to overrun the slope.

I have no knowledge that this phenomenon was utilized elsewhere before this time. Perhaps you will develop some new applications. Think about it!

This single-sided, double-action permanent magnet motor has perplexed not only ordinary people, but professors of physics and engineers as well. At first glance, it resembles something bordering on the impossible.

[Unfortunately no diagram was sent of the model in question. Does anyone have any more information about this book and experiment? Personally, I like the explanation given by Aspden. --Ed.]

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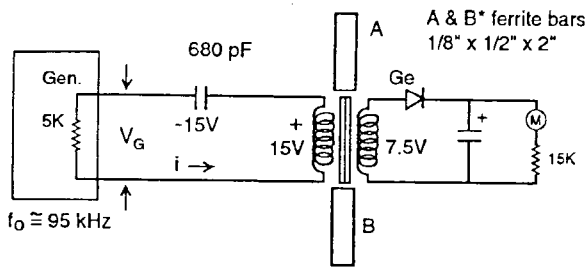
#### COSMOLOGY NOTE

By Greg Hodowanec

##### I. Another Special Coil Test

- A. Coil: on rectangular 1/4" I.D. x 3/4" long form  
 Primary = 400 turns #31 wire (= 6.5  $\Omega$ )  
 Secondary = 220 turns #30 wire  
 Core = ferrite tuning screw, 1/4" diam. x 7/8" long.

##### B. Test Set-up:



- C. Test results: at Resonance ( $\approx 95$  kHz)  
 $V_g = 2.8V @ .45$  mA = 1.26 mW (RMS)  
 AC output (loaded):  
 $7.5V @ 6mA = 45mW$  (RMS)  
 DC output (loaded with meter)  
 $9.9V @ .66mA = 6.53mW$  (DC)  
 DC output  
 $9.9V @ 50mA^*$  (peak short circuit current) \*\*

## II. Remarks

1. DC output increased with added ferrites.\* This appears to indicate that there is an interaction of the coil with space energy!
2. A Germanium diode was used to keep the voltage drop at about .3V.
3. When the LED is also placed across the output, the LED flashes very brilliantly initially,\*\* then settles down to a level of that seen with 1.85 volts @ 3-4 mA, or approximately 6.5 mW (DC).
4. The DC power at the LED (at 6.5 mW) is roughly in agreement with the DC power seen by the meter ( $\approx 6.53$  mW).
5. The circulating current (i) at resonance is roughly that due a driving voltage of 2.8V and a primary coil resistance of about 6.5  $\Omega$ .

III. Conclusion: Tests continue to show an apparent power gain for this circuitry (here about 5.2 times).

## MINI-MRA CIRCUIT

By Greg Hodowanec

### I. Mini-MRA Demo Ckt. #FE-6B Unit #2

This demonstration circuit is essentially a breadboard unit and may not be fully optimized, but it is capable of demonstrating overunity (CU) operation at low milliwatt power levels. The unit is built within a 5" x 2 5/8" x 1 5/8" plastic box with an aluminum cover plate. All pertinent

controls and test points are brought out to the aluminum panel for ease in evaluating the unit over a wide range of operating conditions. The novel built-in IC oscillator circuit eliminates the need for an external signal generator unit for these tests. LED<sub>1</sub> is a low level unit which serves as a pilot light as well as an indication that the oscillator is developing power over its design range of about 60 to 100 kHz. The oscillator is powered by a 9 volt battery which is self-contained in the box.

## II. Initial Operation

1. Make sure the power switch (SW<sub>1</sub>) is off, pointing left.  
 Make sure the shorting pin is in TP2.  
 Turn the waveform control (W.F.) down (CCW).  
 Turn the frequency control full up (CW).  
 Turn the drive control full up (CW).
2. Toggle the power switch to the right to turn on the unit. The OSC. LED<sub>1</sub> will light as will also the power output indicator, LED<sub>2</sub>.
3. Turn the frequency control counter clockwise (CCW) to the point of a sudden jump in power out as indicated by LED<sub>2</sub>. This is the start of the typical operating range. Optimum operation will require the monitoring of input and output powers (RMS).

## III. Test Points

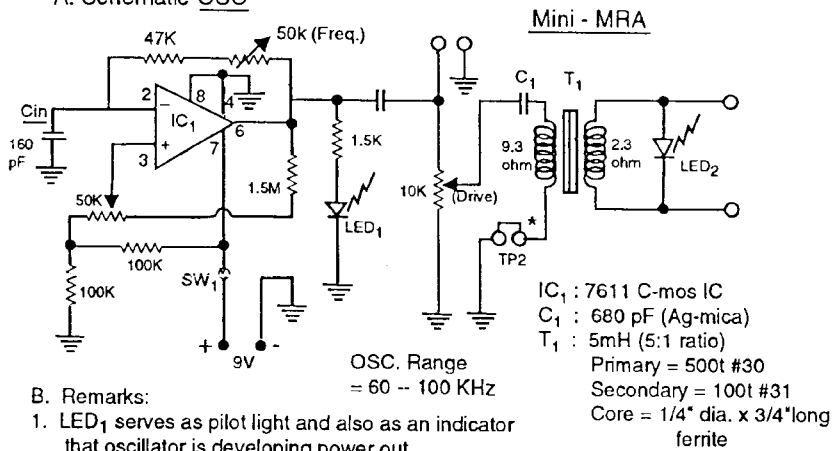
1. TP1 is used to monitor the drive RMS voltage, frequency, and wavesbase. Waveshape should be essentially sinusoidal, but may require some adjustment of the W.F. control in conjunction with the frequency control.
2. TP2 is normally kept shorted, but is removed to allow insertion of an RMS current meter to determine the line current of the circuit.
3. TP3 is used to monitor the output waveform, frequency and power levels as well as to add external load resistors. Down to about 800 ohms of load resistance can be added without affecting the LED<sub>2</sub> load itself. If it is desired to use resistive loads alone, one leg of LED<sub>2</sub> can be opened up to disable it. Similarly, one leg of LED<sub>1</sub> can be opened up if it is desired to disable it.

## IV. Conclusions

1. This simple demo unit is very versatile and can be adjusted to illustrate a wide range of power outputs and power gains.



## I. Mini-MRA Demo Ckt. # FE-6b (as made)

A. Schematic OSC

## B. Remarks:

1. LED<sub>1</sub> serves as pilot light and also as an indicator that oscillator is developing power out.
2. Shorting pin \* in the TP2 is normally kept in and removed only for line current measurements.
3. Output load LED<sub>2</sub> is normally kept in, but one leg can be opened for strictly resistive loads.

2. Since it is a hard-wired breadboard, it is not recommended that the perf board be pulled from its mounting posts to the aluminum panel to avoid possible breakage of some hard-wired connections.

3. The 9 volt battery is positioned at the bottom of the plastic case and the potentiometers. Be careful not to break the leads of the battery snap in changing the unit's battery.

V. Comments

Brief Tests on Ckt.#FE-6B, Unit #2

**Test #1:**  $f_0 \cong 75$  kHz (tuned for max. LED<sub>2</sub> output);  
 $(V_G \cong 2.8V)$  &  $(i_G \cong .72$  mA)  $\cong 2mW$  (RMS);  
 $V_{out} \cong 1.44$  V; LED<sub>2</sub> = very brilliant (est. 10mW, min.).  
 Est. Gain  $\cong 10/2 \cong 5$  times

**Test #2:** (same as #1 above but added 700  $\Omega$  resistive load)

$(V_G \cong 2.87V)$  &  $(i_G \cong 0.57$  mA)  $\cong 1.64mW$  (RMS);  
Power in Resistor

$(V_{out} \cong 1.44$  V) &  $(I_{calc} \cong 2$  mA)  $\cong 2.88$  mW (RMS);  
 Gain for resistor alone  $\cong 2.88/1.64 \cong 1.76$  times.

**Test #3:** (same as #1 above but with 700 resistor alone)

$(V_G \cong 2.57V)$  &  $(i_G \cong 0.14$  mA)  $\cong 0.36$  mW (RMS);  
 $(V_{out} \cong 1.78$  V) &  $(I_{calc} \cong 2.5$  mA)  $\cong 4.45$  mW (RMS);  
 Gain  $\cong 4.45/0.36 \cong 12.3$  times.

Notes:

1) Only rough tests were made due to time limitations.

2) Fluke 87 used for RMS voltage & current measurements.

3) Micronta Model 351 Frequency Meter used.

MRA ON KEELYNET

A very thorough paper on constructing a MRA is available on KeelyNet from Joel McClain. The phone number to get to KeelyNet is 214-324-3501, and the file you need to look for is MRA2.ASC (How to build it... how it works...April 14, 1995).

PLASMOID PHENOMENA

By Edward Lewis

During the last 20 years, the number of people who have been experiencing and reporting about the anomalies of the Q.M. and Relativity theories has been rapidly increasing. The last 20 years is that which Thomas Kuhn called a "crisis period," and there have been crisis periods at about every 80 year interval since 1501. It seems to me that a group of fundamental phenomena of the current set of phenomena is that of "plasmoid" phenomena.

Plasmoids seem to be basically an electrical-magnetic phenomena -plasmoids have converted to electricity. The magnetism is an aspect of the electricity. I suspect that atoms are like ball lightning -- if this is so then atoms may often be toroidally shaped, and may usually not contain inner clumps in the middle. The magnetism of atoms is an electrical phenomena similar to the magnetism of the earth. Light is the same as electricity since it interconverts[2]. Inertia, accretion, and separation of plasmoids is also an electrical-magnetic phenomena -- as relative motion of plasmoids also seems to be.

Substance seems to be a plasmoid phenomena because galaxies are plasmoids and substance converts to other kinds of plasmoid phenomena, light, and electricity[3]. Micrometer-sized plasmoid phenomena has been reported to be the locus of neutron emission[4,5], and ball lightning-like[6] phenomena has been associated with neutron production also. Matsumoto has shown traces of plasmoids that moved on the surface of emulsions while emitting little plasmoids people could call particles[7]. It seems that plasmoid phenomena are the same though the size varies. For example, galaxies seem to convert to jets, beams, and electrical currents in the middle, and this seems to be similar to the jets, beams, and electrical

discharges from ball lightning, the beams and electrical discharges from micrometer-sized plasmoids, the beams from discharge devices reported by Savvatimova and Karabut et al., and the beam or jet that a plasmoid emitted on nuclear emulsion that Matsumoto showed[8]. I think that EVs(5), ball lightning, plasmoids, tornadoes and galaxies are similar phenomena since they behave similarly[9].

W. Bostick produced that which he called plasmoids by discharging through electrodes[10], and according to A. Peratt[11], he coined the term. In his paper, Bostick had already begun to tell others about his speculation that galaxies and the phenomena he produced were similar. According to experimental results, many people including Bostick, Alfvén (Nobel Prize, Magneto-hydrodynamics), Peratt[12] and Lerner[13] have developed similar extensive astrophysical theories that model the universe as plasmoids; while others, such as Bostick[14,15,16], developed models of particles as plasmoids. For decades, many people have tried to use plasmoids for weapons [17,18] and for fusion, and it is well known that plasmoids are associated with element, isotope, and neutron production.

In the latter part of the 1700s, people were producing ball lightning-like phenomena by using Leyden jars, a kind of condenser, and in the late 1800s, Plante and others studied BL-like phenomena produced by discharge through wires and in plate condensers. Tesla also produced such phenomena. There have been about 8 international conferences about ball lightning and luminous atmospheric phenomena during the last 8 years. In 1992, I began to tell[19] people about my idea that tiny ball-lightning phenomena were produced in CF apparatus. Matsumoto has reported about the observation of tiny ball lightning-like phenomena in some cold fusion apparatus[20,21,22].

I suggest that people use nuclear emulsions and check their apparatus microscopically to find plasmoids or their effects. Also, check the electrical grounding of the apparatus. I suspect that storms on earth greatly affect at least some CF apparatus. Hawkins[24] and others[25] reported that a electrolysis apparatus exhibited heat and gamma-ray excursions at the times of electrical storms, but not otherwise. In this vein, it is interesting that V.A. Filimonov reports that a neutron source greatly stimulates CF phenomena[26]. Lightning is associated with neutron production[27].

On one weekly T.V. show[28] about unusual phenomena that is shown in Chicago, there was a report about people who were in Gulf Breeze, Florida in the U.S.A. who reported seeing a small light orbiting a larger luminous

orb. I have read the reports of people who have seen two BL revolve about a common center and of people who have seen several BL revolving together.

If I could suggest some experiments, as I suggested in 1992[29], look for the emission of neutrons and other kinds of plasmoids during stress of substances other than hydrogen and during stresses other than electrical discharge, such as by thermal cycling or fracture. Composites or combinations of elements with big differences of "oxidation state" or electro-negativity may prove useful; this seems superficially similar to Hora, Miley et al.'s idea[30] of using differences in Fermi level.

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## Rotating Space-Energy Machines

### BRANDT'S PERM-MAG MOTOR

Bruce Meland (Ed./publisher *Electrifying Times*), "Ron Brandt's Perm-Mag Motor," *Space Energy Journal*, vol 6, no 1, pp 46-48. Exerpts by author's permission.

Ron Brandt began building motors and radios in the third grade. He joined the Navy and went on to soon become a Math and Electronics instructor. After that he spent 35 years working with the Electrical Workers Union. On every job site, Ron would bring along his 20' truck with all his experimental motors, switching devices and controllers, so he could work on them during his off hours.

During the gas wars of the early 70's, Ron put together a '66 Dodge Dart, a 24-volt, 32 HP starter generator off a B52 bomber, and 6 batteries to make his first electric car. The tank circuit they built for it was presented to the International Tesla Conference in Colorado Springs in

1984. He went on to build even more successful vehicles, one of which he drove over 400 miles on a single charge.

In the 80's Ron experimented on advanced magnetic motors and controllers, working from experience gained in constructing an Ecklin Variable Reluctance Motor Generator, with Dr. John Jacobs. In that job he learned that in a magnetic field, the strength of the field and how fast it collapses determines the amount of energy that can be recovered. The faster the magnetic field collapses, (back EMF) the more energy can be recovered for reuse.

In the Perm-Mag Motor, he isolated the rotor from the magnetic field for a more efficient collection of back EMF. The multi-stator ring is supported by six magnetic mounting studs attached to the aluminum housing back plate. The stator is selectively triggered by a peripheral coil activator to provide the proper magnetic phase relationship. With this unique design, there is no need for commutators or brushes which cause arching and sparking, common in most electric motor designs. The magnetic flux path is reduced by the low iron mass of the stator, allowing faster switching times, guaranteeing the highest efficiency.

The Power Commutator has 3 elements:

1. The magnetic band supports neo-magnets which transmit their rotational power to the commutator plate.
2. The commutator plate serves as a mounting surface for Perm-mag actuators for "Hall Effects" triggering as well as a mounting surface for an air cooling system.
3. The insulated shaft drive collar is made of non conductive plastic.

Most elements of the motor design are non-magnetic, which tends to shunt all the magnetic energy into the desired use of motion conversion. The exterior housing is made of materials of high magnetic resistance (high temperature aluminum or non-magnetic stainless steel).

The Perm-Mag motor is one of the most flexible electromotive devices developed, light in weight, and small in size with wide ranges of power, speed, and direction which allows for easy construction, interchangeability, and repair.

In conclusion, the high efficiency of the Per-Mag motor exhibits one of the most efficient watt per horse power unit conversion ratings in the industry. The fact that Ron Brandt's Perm-Mag Motor does not create torque with electricity, but instead allows the motor magnets to create the torque by efficiently directing the magnetic flux makes the following features possible:

1. Complete variable speed control at rated horsepower.

2. Complete variable horsepower output at rated speed.
3. Complete variable braking capability from a dead stop to slow retardation.
4. Complete variable reversing from instantaneous to a slow, gradual direction change.
5. A wide range of input DC Voltages: from .5v (small designs) to application as high as 4160v.
6. Either manual or computer control.
7. Local or remote operation.
8. Can be used in high-risk environments where other types spark.
9. Has small physical size per unit horsepower.

More specific details of the Perm-Mag Motor will be forthcoming when the patents and market negotiations are completed. Ron will be at the upcoming ExtraOrdinary Science Conference '95 in July.

## Electric Vehicle

### 7th Annual American Tour de Sol May 20-27, 1995

This five states road rally for electric, hybrid, and solar vehicles will run from Portland, Maine to Waterbury, Connecticut. Approximately fifty entrants will be competing for this national championship. The American Tour de Sol is organized by the Northeast Sustainable Energy Association (NESEA), the nation's leading regional association involved in promoting awareness, understanding and development of non-polluting, renewable energy technologies. (NESEA headquarters is in Greenfield, Mass.)

### ADVANCED ELECTRIC VEHICLE

Gary C. Vesperman (Film Funding, Inc., Las Vegas), "Advanced Electric Vehicle," Space Energy Journal, vol 6, no 1, Mar. 1995, pp 10-12.

### ADVANCED ELECTRIC VEHICLE CONCEPT

Among the various technologies available for the electric vehicle (EV), Gary Vesperman writes here about some of the most promising. He lists the Ukrainian Battery (*NEN*, vol 2, no 11, April 1995, p 14), the Per-Mag Motor

(page 11 this issue), and the MRA-type converter as being on the right track for commercially viable EVs.

Since the MRA could keep the Ukrainian batteries charged even when parked, the vehicle interior could be climate controlled year round for comfort 24 hours a day, regardless of exterior temperature.

By combining these and other new technologies, Vesperman proposes a "leading-edge electric car that is obviously superior to any other car even envisioned."

## Miscellaneous

### PATENT ON SPLITTING WATER

Henry K. Puharich (inventor), "Method and Apparatus for Splitting Water Molecules," U.S. Patent 4,394,230, issued July 19, 1983.

### PATENT ABSTRACT

Disclosed herein is a new and improved thermodynamic device to produce hydrogen gas and oxygen gas from ordinary water molecules or from seawater at normal temperature and pressure. Also disclosed is a new and improved method for electrically treating water molecules to decompose them into hydrogen gas and oxygen gas at efficiency levels ranging between approximately 80-100%. The evolved hydrogen gas may be used as a fuel; and the evolved oxygen gas may be used as an oxidant.

### EDITOR'S COMMENTS

**There are three laws of science that can appear to be invalid with some devices.** These three laws are the Second Law of Thermodynamics (thermal energy can only flow from a hotter to a colder material); the Law of Conservation of Energy (energy can neither be created nor destroyed, only transformed); and the Law of Conservation of Charge (total electrons in a circuit are conserved). The reason for describing this patent to our readers is that a careful reading of the patent data indicates that the efficiency of the system was measured to be over 100%. However, in his wisdom, the patent agent did not claim any more than 80-100%. Otherwise the patent could have been rejected as being contrary to the Law of Conservation of Energy. Therefore, the data

appears to be a scientific anomaly (being out of keeping with accepted order).

**The field of new energy is anomalous!** However, not necessarily contrary to established scientific laws. For example, the Second Law of Thermodynamics **assumes a closed system**. If the system is not closed then the Law may not always apply (See "Zaev & Future Energetics", page 2, *New Energy News*, April, 1995). Another example, The Law of Conservation of Energy is usually invoked and the "over-unity" device is immediately dismissed. **However, if the device taps space energy, then the device is an energy transformer and the Law of Conservation of Energy is observed.** The third example is the possible violation of the Law of Conservation of Charge. Assume that there is something in a circuit which is a source of charge but unusual enough so that it is not a recognized source (such as a battery being a source). The Law of Conservation of Charge does not apply if some type of device is sucking charge out of the energetic ether (space energy). **The message is twofold: 1. Look for these anomalies. 2. When discussing anomalous results with text-book engineers and scientists, explain why the device is not violating some physical law.** You will be able to discuss your project more intelligently. You won't get so angry at "those stubborn academic types."

#### KEELYNET PHILOSOPHY

By Jerry Decker, SYSOP

There are many who get caught up in the conspiracy angle and so lay all attempts at suppression off to oil companies, government agencies, or some special organization whose sole purpose is to help keep humanity bound to fixed systems.

I think that is true to some SLIGHT degree but from all that I have studied, including meeting with many inventors and researchers, the problems that I have seen regarding the release of the information or the actual practical use of it have all been tied in to ego, power and or greed.

In the historical literature of the free energy or other such devices, you see always a demonstration with very little detail of the operational characteristics... the inventors want to keep it secret because they are applying for a patent, or they don't want to apply for a patent, instead wanting to keep it proprietary, or want big money from their investors.

I think part of the fear is through the release of the initial experiment being duplicated and IMPROVED upon by others, which of course could take the device and technology out of the hands and control of the inventor.

People have been ripped off for many inventions that did not even remotely have f/e, o/u or anti-gravity purposes, so the idea is that these discoveries would be prime targets to be stolen.

This has all been discussed with many people in my experience and that is the very purpose of KeelyNet, to get as much out as freely as possible, so that people would look for correlations that might lead to experiments to verify cross-fertilizing principles.

There are numerous approaches to getting things built, one suggestion was to build up many units, then release the info with all details to build, then say you 'just happened' to have all these working models ready to ship... thus, you would be first to market, open with the information to prevent suppression (if such stuff truly happens) and yet you now have to come up with the next improvement if you want to keep ahead.

Another approach is what KeelyNet has been attempting, get the details of the circuit, make it into a file with pictures, spread it around with full credit going to the inventor(s)... if it generates power, ask for some kind of shareware contribution IF it was USEFUL TO YOU! That way, you would get something back, the world would know who developed it first and no doubt there would be other offers based on it. The thinking is, if this guy can do this working out of his basement or garage. WHAT CAN HE DO with a real lab?

In all the time KeelyNet has been online (and that will be 6 years this July), I have NEVER experienced any negative acts of suppression, warnings, etc. To the contrary, it has been continual kudos and thanks from many people who either had never heard of such things or found the database and discussions very beneficial in their own researches... so FOR MYSELF, I think much of the suppression theories are just hooey.

Dr. Hal Puthoff visited with high officials of several major oil companies and asked them how they would respond to a free energy device that would necessarily result in a major reduction in oil consumption by the countries of the world. Without a single exception, each of these high officials said it would please their companies ENORMOUSLY... why? Because, with modern chemistry and technology, they can produce in excess of \$200 for a gallon of oil when it is converted to pharmaceuticals, drugs, foodstuffs, plastics, etc... and the very idea that it was being BURNED when it had so many more uses was in fact HURTING THEIR PROFIT MARGINS... So much for the oil company [conspiracy].

What I have seen, is attempts to get free shows of the details to the 'investors' (who have engineers mixed in at

the demo) with the attempt to duplicate the invention at their own facility or otherwise use what was shown in good faith... still to date and my own personal experiences, I have not seen any inventor succeed dealing in this fashion.

The single biggest problem is credibility followed closely by how to release the invention to use in the market. If it works, others can duplicate it and USE IT. If it is phased in, not everyone would find it immediately of NEED but would eventually convert to it.

One of the other problems with F/E is that a house based power unit would be several thousand dollars... that cost must be computed with maintenance fees added... once a final figure was derived, you must figure out how much your grid power costs per year... and determine if it is WORTH it to invest in this 'new fangled' invention. In my case, I would do it, just to become totally independent. And one final problem that seems to recur in such areas, that of stability... how many experiments were called off because the test unit was not working or that failed because the 'energy' was not flowing or stable? A friend calls such machines 'lab queens', because they will work only under ideal conditions.

In the REAL WORLD, machines need to work EVERY TIME (or at least 9 out of 10) before they will be accepted and used globally. I hear this from people, particularly those with money who might help to pay for some research efforts... they tell me they will just wait 'til it comes out on the market and buy it then, why should they put any money in the R&D? This includes the intense skepticism that ANY OF THIS is even remotely possible. We are truly in the Vanguard when it comes to looking into such matters as are not even considered in any serious light by most folks.

**So, are we crazy, wasting our time and money on things which have no chance, or are we forerunners and the folk who will change our world and OUR SOCIETY by discovering practical methods of using these natural occurring energies?**

I hear this from my family, my co-workers and a 'very few' of my friends... but you see, most of my friends and associates ARE OF OUR ILK, so we think alike... I know, it greatly reduces your 'local circle' but I also have 'normal' friends. They just laugh when I start talking about such things or their eyebrows raise in incredulity. That is the sign I need to shut up and get back to the real world. Well, we each have a path and I will follow mine as long as I can, both financially and physically... so it's really up to you as to whether you can 'risk the slings and arrows' etc.... >>> Jerry

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#### COMMENTS BY HAL FOX, EDITOR

The designers, owners, and operators of the Keeley Net must be given great credit for their work. The results have been impressive. New inventions are being developed and shared. Sought for information is being requested, found, and shared. Questions are being asked. People are being educated. The Keeley Net is changing the world. We give our strongest commendations to this effort and wish them the best of success in the future. Dial up and try it for yourself. 214-324-3501.

#### A SUGGESTION

No widely used computer bulletin board is operated without cost. In addition to the user's access cost, there is considerable expense in obtaining and supporting the computer equipment. **Therefore, if you have found something of value from the Keeley Net, it is suggested that you send in an operating cost donation.** We propose that the Keeley Net organizers provide on their access screen the place and "payable to" information for such donations.

#### PATENTS AND COMMERCIALIZATION

Although I am a competent technician, engineer, and scientist, there is not more than one percent of the equipment and devices in my home that I have not purchased. (In the case of consumer electronic equipment, most of it is from the Asiatic Pacific Rim countries.) **Regardless of how good an invention is, it is unlikely that there will be a commercialization of that invention unless it is patented and licensed!** Modern industry needs to have some protection from competition to induce them to spend the millions of dollars to design, test, tool up, manufacture and market services for a new product. **The marketing alone consumes about one-half the total expenditures to launch a new product.** Example: A new computer (say a new optical computer) will cost \$50 million in marketing costs to launch the new product!

**An excellent example of a willingness to share a new invention is the Magnetic Resonance Amplifier invention of Norman Wooton and Joel McClain.** They publicly disclosed their invention on the Keeley Net. In addition, this disclosure was picked up by several new energy newsletters and journal and further disseminated. **The cost to the inventors was the loss of about 40% of the potential market for their invention!** On the smart side, the wide-spread dissemination and replication of this new invention made it impossible for the invention

to be destroyed by having it covered by a secrecy order from any agency of any government.

Under U.S. patent law, the inventors have one year to apply for a patent after the public disclosure. **Knowing that this new, important invention could not be adequately commercialized without using the standard, accepted, business-like process of patenting and licensing, the inventors proceeded with the filing of a patent application.** The result was an outpouring of criticism from some of the naive and under-educated users of the Keeley Net!

**Listen up, you complainers!** The current patent law allows any person or agency to pay the sum of \$1 to the assignees of an invention which then allows for using the information in the patent for R&D purposes. The patent provides the assignee the right to license the commercial production and marketing of the invention for a limited time. **No one is prohibited from making a personal use of the invention provided that he or she does not sell such patented product.**

In the case of the handling of the MRA, the inventors did all of the right things to ensure that their invention will have a higher probability of being made a commercial product. **All of us should extend great admiration and thanks to the ingenuity and wisdom of these inventors and follow their example.** On the other hand, if you want to give up all rights to your invention, post it and forget it. It is unlikely that it will ever be commercialized.

#### SALT LAKE MACHINIST REPLICATES TOMI

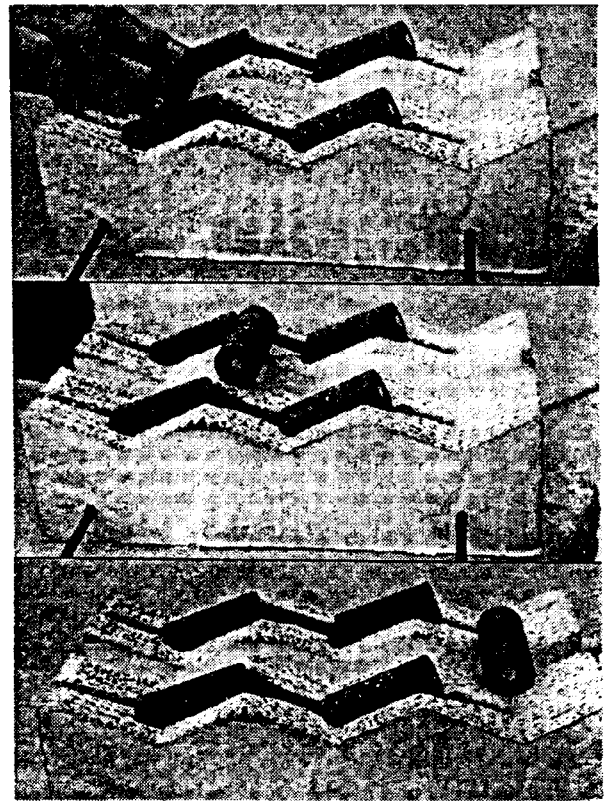
Don Casull, a close follower of new energy and a frequent visitor to the NEN office, saw the KeeleyNet information about the TOMI. Don could not stand not trying to replicate the TOMI. The pictures show the results. Note that Don's angles are the same uphill and down, which is different that other replications. At first it didn't work. The roller would climb to the top of the hill and set there enjoying life (under a spreading magnetic tree?) Don decided he had to warp the magnetic fields. His warper was parallelogram-shaped pieces made from soft iron bar he had in his shop. Voila!, now it works. We had one happy visitor on a Monday after his long weekend overcoming the mysteries of the magnetic realm.

Note that the roller magnet will start from the bottom of the hill (doesn't require the roll-down energy by starting at the top of the hill before the first inclined magnets. By moving the warp bars (but leaving them in place) you can go from a "no workie" to a "fully operational" TOMI. The bad news is that someone else independently discovered

the need for "warpers" and posted it on the KeelyNet. That information caused some short-term anguish to Don.



Remember the Aspden Effect. We have seen evidence for the Aspden Effect with this unit. First time roll, the roller magnets just don't quite get past the top of the hill. Quickly try again, and the roller magnets climb up and over twice. **I think this is a likely candidate for a popular executive toy.** By the way, you can prop up the exit end and it will still function, to a degree. Is this gadget slightly over unity?



# LETTERS

## MRA LETTERS

To Don Kelly  
From Hal Puthoff

I see by the latest letters you have copied to me that you still believe that the MRA device operates at over-unity efficiency. I have to say that I have not yet seen convincing evidence to support this, and have certainly seen firsthand evidence against it. And no one would be more excited than I if the claim were true, and I would arrange arbitrary funding to get it out into the culture.

If the MRA is truly 10 to 18 times over-unity, then there would be no problem in meeting the head-to-tail-feedback, self-running requirement. But if it can't meet the challenge, then we just deliver to our opposition another round of ammunition to use against us when it is finally realized that we cried wolf yet one more time.

\*\*\*\*\*

### Don Kelly's Response to Hal Puthoff's memo

Am most pleased to read that you remain objective about the MRA project, and wish to keep in contact with its progress. Re: your query about the researchers at Georgia Tech who are testing it; I have no idea who they are, as this info came to me directly from Norm Wootan. You could contact him or Joel McClain at (214) 449-2332.

Norm W. has also advised me that Georgia Scientific group has also tested an MRA prototype, and found it to operate well above-unity.

He advised me that the top man at Georgia Tech has put a no-no on publishing a paper on their test results, citing the Pons/Fleischmann episode as a reason for the non-disclosure of test data. Wow, the way these guys will "circle the wagons" when their careers may be in jeopardy is a thing to behold, especially when positive test results are staring right at them!

You may wonder the reason for me being quite positive about the MRA at this time; and the basic reason is seeing the test results on it from two solid guys in the field, ie. Greg Hodowanek and Bill Ramsey, of S.C. I met Bill R. last year at the Denver INE and got a good impression about them both, at that time.

Even that is really not good enough, at this point, so the only way to understand the MRA is to build one, and that's the way I'm going right now. I have completed the Ba-Fe magnet stack, and have about 1/3 of the primary transformer windings completed.

It's now turning out that the overall design parameters for the MRA are much wider than originally thought, ie.: the transformer windings may be 2:1, or maybe 3:1, with multiple taps included to get to the natural resonance of the circuitry quicker and easier!

Also, the capacitance level of the "mini-MRA," Hodowanek's version, may go to the maximum level of 8300 pF, and still function as per his original unit with the 680 pF silver/mica capacitor! (12 times higher)

These wider operating design parameters make the MRA look better all the time, and I'm now very much SOLD on this basic concept due to its simplicity, low cost, and low construction time.

Regards, /s/ Don Kelly

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### LETTER FROM ALEXANDER V. FROLOV

Received March 13, 1995

Thank you for information about G.A. Wichita's circuit. It is possible for you to compare his work and my description of this technology that was published in *New Energy News*, June 1994, p. 11.

Let's note: Mr. Wichita did not explain why he created such sort pulses for anti-gravity or free energy experiment. He did not explain why this system has certain effects. In strength of this reason it's difficult to develop Wichita's work for industry.

In May'94 I asked Mr. Hal Fox to publish my article "The Over-Unity Electromagnetic Transformer as Information System." Thanks to Mr. Fox, this idea was published. The circuit diagram version is not important to check the idea. But it is important to build it in conformity with cause for clean energy. The inventors are interested in this idea can to make own conclusions if they try to join my article *NEN*, June'94, p 11 and idea published in my letter to editor, May'94 (ref. to inertia).

I can offer again the next: the half-period of decreasing of density of energy (electric current) is connected with "help from vacuum." By Lentz the induction current here must help to support the primary current. By means of pulsed signal it is possible to create the decreasing density. The anti-gravity effect is the secondary effect in any free energy system taking power from space-time that lead to curvature change, I think.



I'll be glad to contact with anyone who is interested in development of this system, with my help and my skill. My home phone (from U.S.) is 011-7-812-2747887. Ask me to speak English if you cannot speak Russian.

Best Regards, /s/Alexander V. Frolov

#### EDITOR'S NOTES

Frolov is a very bright, intense experimenter. But Lacks funds for parts and equipment. I have visited with him in his home.

#### ANSWER FROM SAM FAILE

Dear Mr. Frolov,

I was pleased to hear of your interest in the Wichita circuit. G.A. Wichita believes his circuit will be an interesting MRA circuit if the much investigated McClain Wootan MRA (Magnetic Resonance Amplifier) displays new energy phenomena. McClain & Wootan have emphasized harmonics such as octaves, geometry such as tetrahedral lattices, and expansion series involving the golden mesh (Fibonacci). Walt Rosenthal mentioned the importance of the relative speed of the Earth in relation to the ether as being important. These insights should be able to augment the fundamental aspects of the theory you allude to in your May + June 1994 *NEN* publications. In fact, phenomena is being found that supports the idea something fundamental is going on. Norm Wootan has found the space-time changes. The piezoelectric losses weight during operation of the circuit and during a 2 hour time clocks (quartz or brass) in the vicinity of the device can be slowed down by 1/2 hour. Walt Rosenthal has found extremely rich harmonics that suggest the action of the time forward and reverse Beardon theorized biwave EM coupling characteristics of energy from the vacuum state. some people, a group at Lockheed, and Hans Becker, claim to have duplicated the MRA device while Hal Puthoff has not.

It appears there is enough promising indications from the McClain Wootan MRA to justify looking at others such as G.A. Wichita which may be easier to build and scale up. The Wichita circuit avoids problems associated with a piezo-electric hookup. The piezo-electric can crack and there may be problems getting the right amplifier. In some places there may be problems obtaining the lead titanium zirconate piezo-electric or the barium titanate ferro-electric at high magnetic saturation. In contrast the unmagnetized manganese, zinc and iron particle containing Ferrite core choke is readily available from Dale Electronics 605-665-9301 (Mr. Bruce Tschosik).

I believe your statement about the use of pulsed signals implies the production of current that has different characteristics being more negentropic and cold which should also be accompanied by antigravity and time changes. There, hopefully, will be others to augment your help and skills, perhaps with money if needed, in developing the

system. To interest others, I am sending a copy of your letter and this reply to Dr. Hal Fox, Norma Wootan, G.A. Wichita and others in the hope that publication or posting on computer net systems will produce a joint effort to develop the Wichita MRA system.

Best Regards

/s/ Samuel P. Faile.

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#### LETTER FROM ALEXANDER A. FROLOV

March 30, 1995

Thank you very much for *NENews*'95 subscription. I sincerely appreciate your kindness. I'll try to take part in scientific discussions that are developing on *NEN*'s pages.

I trust that my letter reached you safely. It was some information from old physical textbooks of 1900 - 1910 years. The Gramm's generator for electro-energy of 1888 is free energy self-rotating machine in principle. If you are interested to talk more about this technology, I'll prepare an article special for *NENews*. Let me know your interest, please.

The foundation which was recently established under the name of Institute for Free Energy aims to avail scientific community in all countries of the World of Russian news in gravity/free energy/space-time investigations. We have the possibility for Russian new energy oriented magazine produce.

We look forward to building cordial relation with *NENews*. We consider this activity as one of extreme importance, not only to provide technology transfer, but to further understanding and cooperation between our scientific communities.

Sincerely,  
/s/ Alexander V. Frolov

#### EDITORS COMMENTS

*NEN* welcomes the Institute for Free Energy and pledges to work closely in the exchange of information. We look forward to the report by Frolov on the Gramm's generator.

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#### LETTER FROM ALEXANDER FROLOV

April 25, 1995

Your Newsletter of April '95 published some materials about technology for energy transformation by means of non-linear capacitors (variconds). Let us hope that readers of *New Energy News* are interested in this way to directly transform inner heat of matter into electricity. Perhaps, my additional information will be useful for practical researchers who wish to develop this way.

St. Petersburg's inventor Tatiana Nikolaievna Verbitskaia worked with non-linear capacitors from 1960. The term "varicond" is her word that is now the official note. In the past the variconds were used in the electronic systems for variation of oscillation frequency but now the semiconductor non-linear diodes are used. So, research work on variconds was decelerated. Before Zaev's paper, the application of variconds to produce excess power was not discussed. Now one can calculate how much power can be produced by a non-linear capacitor for certain frequency, capacity, and voltage. The next stage of work is the research to discover the type of highly non-linear dielectric material which can demonstrate maximum difference between work of charge and work on discharge for capacitor. New technology is dependant on new material here.

I must note that non-linear ferrite material is more widely produced and it is easier to make the experiments for extraction of excess heat for magnetization-demagnetization process. There are different versions for utilization of "universal hysteresis curve" when the work of structuring/ordering (electric charging process, magnetization and so on) is less than the work of destructuring/disordering (electric discharge, demagnetization, etc.).

Anyone have serious interest and financial possibility for development of this work, please contact Ms. Tatiana Verbitskaia directly by phone 7-812-5520083 (home), or 7-812-5529053 (her laboratory in St. Petersburg's Institute of Condensers). She can speak english.

Sincerely, /s/ Alexander V. Frolov  
P.O. Box 37, St. Petersburg, 193024 RUSSIA

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**LETTER FROM ROBERT HINDMARCH**  
of Space Power Corporation, Australia

I have been involved with Bruce DePalma for seven years, in which time I have attempted to create a financial and commercial infrastructure to support his technology.

I can think of nothing more rewarding than to be involved in technologies which will unburden the World of its dependence on the burning of fossil fuels.

I can only concur with Dr. O'Leary's feelings that "May we all soon come together as an R&D team, free of secrecy and suppression."

As one of the investors in DePalma's latest prototype (the Quadrapole MKII) I can assure you that there was no "Whitewash evaluation" from a traditional "expert." There is too much to lose to accept a less than thorough evaluation of the technology. A thorough investigation proved to us that there was no "obvious new evidence" to support DePalma's claims, and our results concurred with the investigators mentioned in Thomas Valone's book. A full and comprehensive test report is available to interested parties

(\$20.00 to cover printing and postage) and the patent is now in the public domain. As stated previously, I have no desire to suppress information and knowledge and accept that any claims made by me or my group can not be constituted as representing the truth.

I therefore offer for sale the generator and test rig of the MKII Quadrapole to interested parties for their own evaluation. Perhaps they can carry on the basic research "whose complexities appear to be unknown," namely that torsional oscillations sets up an AC standing wave and eddy current which create electrical resistance in the generator. If the damping of torsional oscillations turns unity generator into an over-unity generator, then the world has something to celebrate.

Yours sincerely,

/s/ Rob Hindmarch  
Director, Space Power Corp., Australia

## Book Reviews

**MODERN AETHER SCIENCE**

Harold Aspden, Modern Aether Science, Sabberton Publications, P.O. Box 35, Southampton, SO16 7RB, England, c1972, 165 pages, indexed, ISBN 0 85056 0039.

A book review by Hal Fox.

Although this book is over twenty years old, it makes good reading for the non-mathematical student of the aether. The following topics are chapters in the book: Nature's Unseen World, Thunderbolts, Discovering Gravitations, Lodestone, Origin of Solar System, Perturbation of Venus, Microcosmic Foundations, Law of Force, Boundaries of Relativity, Dirac's Electron, Nature of Mass, Aether Evidence, Action at a Distance, Nuclear Aether, Earth's Electricity, and the Cosmic Aether.

To show what a difference a decade or two makes, Aspden reviews the difficulties in explaining how the solar system formed planets. The only known way was by the close approach of a stellar body and pulled filaments off the solar plasma to form the planets. As was shown in the recently reviewed, The Big Bang Never Happened, a very sensible electromagnetic explanation is possible and there must be many solar systems. Aspden suggests that the aether can be used to explain the formation of planets. Aspden goes on to make a good case for the concept that the aether rotates with a solar body.

Aspden cites Newton (in *Principia*, 1687) as saying, "That one body may act upon another at a distance through a vacuum, without the mediation of anything else, . . . is to me so great an absurdity, that I believe no man, who has in philosophical matters a competent faculty for thinking, can ever fall into." He also cites de Broglie who in 1927 stated in the *Physics Bulletin* the following: "Everything becomes clear if the idea that particles always have a position in space through time is brought back. . . . The movement of the particle is assumed to be the superposition of a regular movement . . . and of a Brownian movement **due to random energy exchanges which take place between the wave and a hidden medium, which acts as a subquantum thermostat.**" If de Broglie needed an ether (hidden medium) in 1927, who are we not to vigorously pursue such a concept?

That is a bit of the flavor of Aspden's book. It is easy reading, challenging, and supportive of the concept of an aether. If you can get a copy, it is highly recommended reading, especially for those who do not like to be slowed down by numerous equations. So goodbye Einstein, hello space energy!

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### SIX ROADS FROM NEWTON

Book Review by James Buzonas

Edward Speyer, "Six Roads to Newton: Great Discoveries in Physics," John Wiley & Sons, NY, 1994. 196 pages, indexed, illus., \$19.95.

Isaac Newton's discovery of the famous laws of physics forever shattered the medieval picture of the cosmos, laying the foundations for the great discoveries in physics. We are in the midst of another scientific revolution, started by the discoveries of relativity and quantum mechanics. The "Great Clockwork" view of the universe based on Newton's laws has been radically altered. To understand where physics is heading today and how fundamentally the Newtonian world has been shattered, Edward Speyer takes us on a trip down the main roads physics has traveled since Newton's time.

*Six Roads from Newton* is a lively tour through six important theoretical developments in physics: wave theory, field theory, statistical physics, special relativity, quantum theory, and general relativity. Requiring no advanced mathematics, this book makes crucial concepts of both Newtonian and non-Newtonian physics accessible to non-scientists.

- Your tour begins in seventeenth century England with an introduction to Isaac Newton and his laws of space, time and motion. Advancing chronologically, Edward Speyer takes you through each of the breakthroughs that have occurred since. He demonstrates how each development has either built on or challenged Newton's work, and in the case of quantum theory, forced a reexamination of even the most basic of Newtonian principles. To help you make sense of some of the knottier concepts and controversies, Speyer provides dozens of cogent real-world examples, as well as a few of the

playfully bizarre mind-benders physicists have dreamed up to test their theories, such as the Twin Paradox, Einstein's Man in the Elevator, and the deliciously diabolic Schroedinger's Cat.

In the final chapter, Edward Speyer makes an intriguing foray into the most perplexing moral, ethical, and philosophical "Big Questions" raised by modern science and speculates on what the future may hold.

A delightfully clear and entertaining journey through nearly three centuries of scientific discovery, this book offers non-scientists an unparalleled opportunity to explore the strange and fascinating world of modern physics.

On page 24, an anecdote of Neils Bohr and Wolfgang Pauli, two major physicists, illustrates the intellectual ferment of *Six Roads from Newton*. Pauli gave a lecture on his latest theories to a group of physicists headed by Bohr. The lecture was followed by adverse discussion and skeptical questions. At the end, Bohr arose and summarized: "All of us know that in order to construct a theory which will contain the new facts, some old and sure ideas must be overthrown. The feeling of the group here is that your new theory is not crazy enough."

In the conclusion to his book, Speyer says on page 162, "As civilization goes, progressive or reactionary, so goes science. Scientists share the malaise of our time; physicists show it in their readiness to surrender faith in the intelligibility of the physical universe (Einstein called it "intellectual resignation") and in their willingness to subordinate their work in the military establishment. We have not solved the riddles of quantum theory, but we should have faith. Like Columbus, modern scientists have arrived in a strange new land, which is not well understood. "We are a long way from home" is the way J. Robert Oppenheimer, top scientist at the atomic bomb project, put it. Newton said that he saw further than others because he "stood on the shoulders of giants." We have many more giants on whose shoulders we stand. We have seen, on the *Six Roads from Newton*, some of the great discoveries in physics which these later giants have made, and there is a long way ahead. The scientific revolution is not over."

Mr. Speyer asks if there is other intelligent life in the universe and if God plays dice with us. Conjecture is possible, but one thing is clear, Professor Speyer has a nice, clean book. It's deep, yet non-mathematical. It gives a good read.

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### CONTENTS FOR MAY 1995

HIGHLIGHTS ICCF-5 .....	1	ADVANCED ELECTRIC VEHICLES .....	12
EDITORIAL .....	5	MISCELLANEOUS .....	12
SPACE ENERGY .....	7	PATENT ON SPLITTING WATER .....	12
AROUND IT GOES AGAIN .....	7	KEELYNET PHILOSOPHY .....	13
COSMOLOGY NOTE .....	7	CASULL REPLICATES TOM! .....	15
MINI-MRA CIRCUIT .....	8	LETTERS .....	16
MRA ON KEELYNET .....	9	MRA LETTERS .....	16
PLASMOID PHENOMENA .....	9	FROLOV LETTERS .....	16
ROTATING SPACE-ENERGY MACHINES .....	11	HINDMARCH LETTER .....	18
BRANDT'S PERM-MAG MOTOR .....	11	BOOK REVIEWS .....	18
ELECTRIC VEHICLE .....	12	MODERN AETHER SCIENCE .....	18
7TH ANNUAL AMERICAN TOUR DE SOL .....	12	SIX ROADS FROM NEWTON .....	19

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