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PERPETUAL MOTION SCULPTURE

Courtesy Stefan Marinov, Patrick Bailey, Jerry Decker

Reider Finsrud, Norwegian Sculptor, invents "Moving Sculpture".

For one of the few times in mankind's history, a perpetual motion device has apparently been successfully developed. Stefan Marinov, Editor of *Deutsch Physik* called *NEN* from Austria to report on a Norwegian TV broadcast showing pictures of Reidar Finsrud and his latest work.

Apparently this Norwegian Sculptor has solved the problem of how to keep a device moving with the use of magnets. Patrick Bailey faxed us some information from the KeelyNet and Jerry Decker sent us further information in *the Plenum* publication. Frode Olsen of the Norwegian Free Energy Group sent KeelyNet the following description of how he believes the device is constructed, see Fig. 1.

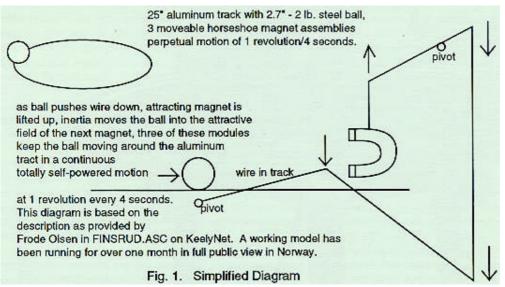
A steel ball about two inches in diameter and weighing about one kilogram is placed in an aluminum trough in the form of a circular track about 25 inches in diameter. Three sets of strong magets are positioned along the track and mechanically arranged so that when the heavy ball gets

right to the magnet, the magnet is moved out of the path of the rolling ball. Jack Schow, a Salt Lake friend of *NEN*, worked several years in Norway and volunteered to call Reidar Finsrud at his home near Oslo. Apparently, there is more to the device than shown on the Norwegian television because Reidar mentioned that part of the mechanism was not shown. We are corresponding with Mr. Finsrud and expect to get further information. He indicated that he has an improved model that he expects to build in the near future.

We commend Finsrud on his work. We think it is a clever idea to make the device into a **moving sculpture** and place it under glass for public show. *NEN* will publish further details on this new **moving sculpture** as we receive them.

THE PERPETUAL STORY ABOUT PERPETUAL MOTION

By Stefan Marinov (Editor of *Deutsche Physik*, Gras, Austria)



"A war has not been won if this was not announced by CNN," General Karatashvili

"Ein Gespenst geht um in Europa - das Gespenst des Freiener-giesmus," Charles Xram. A free translation: "There is a ghost going around in Europe - the ghost of the Free Energy Movement."

When people ask me about my profession, my answer is: "Engineer for perpetual motion machines." I constructed my first such machine half a century ago, <u>2</u> <u>JULY 1996</u>

at the age of 15, by sending the current produced by a bicycle's dynamo to a motor rotating the bicycle's wheel. My two machines with modest over-unity effect, MAMIN COLIU (*Nature*, 21 August 1986, p. x) and VENETIN COLIU (*Deutsche Physik*, **2**(5), 5, 1993) were exactly of this type: the current produced by an electromagnetic generator was sent to the motor which rotated the generator. In half of a century I realized dozens of projects of free energy machines and some months ago I succeeded finally to run one of them with a closed energetic circle, i.e., as a <u>perpetuum mobile</u>: the machine SIBERIAN COLIU (*Nature*, 28 March 1996, p. xiv).

Let me note that under the name **free energy**, our **free-energy community** understands either energy produced from nothing (SIBERIAN COLIU) or energy whose source still cannot be identified (the **so-called** "cold fusion"). A machine has **over-unity effect** when it produces free energy, i.e., when its efficiency is "over unity." A machine with a considerable **over-unity** effect can be run as a perpetuum mobile if the input and output energy are of the same kind and the latter surpasses the former. If, however, the output energy is heat, as is the case with the **cold fusion** machines, the closing of the energetic circle remains problematic. The recently developed Patterson cell (*Infinite Energy*, 1(5/6), 18, 1996) which is a kind of **cold fusion** machine has over-unity effect about 1,000.

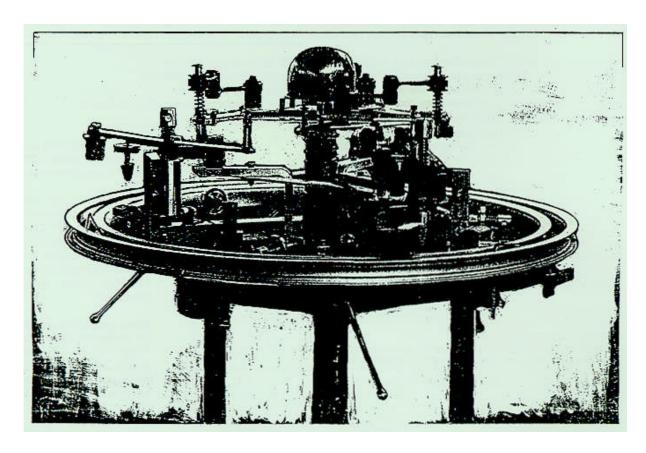
The first **functioning** perpetual motion machine I saw, was the machine TESTATIKA, constructed by Paul Baumann in

1977 in the Christian community METHERNITHA in Linden, about 20 km south of Bern, Switzerland. I am member of the community and have tested the machine. The fifth volume of my series <u>The Thorny Way of Truth</u> (1989) is dedicated to it.

In 1989, I tried to present this machine in an advertisement in *Nature* and prepaid a respective sum but just before the publication the advertisement was rejected and the prepaid sum was sent back (see the whole documentation in the sixth volume of the series <u>The Thorny Way of Truth</u> (1989)).

Recently another perpetual motion machine was presented to the public: the machine of the Norwegian sculptor Reidar Finsrud. A whole-page article was published in the Norwegian local journal *Ostlandets Blad* on 2 May 1996 and a 5-minute film was presented on May 10, 1996 on the Norwegian TV. I saw the film but I have not seen the machine. However my good friend and free-energy enthusiast, Frode Olsen, was for two hours in Finsrud's studio and convinced himself that the machine, indeed, is a **perpetuum mobile**, rotating [over] more than a month. The inventor is an artist and does not give some physical explanations. He calls the machine a "moving sculpture." After a couple of conversations with Frode Olsen and Reidar Finsrud, I came to the conclusion that the explanation of its functioning is the following:

The machine consists [See the picture below, which is a touched-up (dark background removed) copy of a photocopy



of a poor newspaper picture. We are trying to get a better picture.] of two bicycle hoops with slightly different diameters on whose edges an iron ball with diameter of 6.8 cm can roll. In the inner space of the smaller hoop there are three pendulums to each of which a horse-shoe magnet is fixed. The ball must be set to roll with such a velocity that the time of one revolution must be equal to the period of oscillation of the pendulums whose phases of oscillation differ with 1/3 of the period. The pendulums oscillate in such a way that when the ball approaches the respective horse-shoe magnet the ball remains longer time near the magnet than when the ball escapes from the magnet. In this way the positive impulses which ball receives on the approach of the ball are larger than the negative impulses obtained at the escape of the ball. The first impulses support the motion of ball and pendulum, while the second impulses oppose their motion. If the magnets would be at rest, supporting and opposing impulses will be equal in value and because of the inevitable losses after certain time, the rolling ball will come to rest.

We can consider the rolling ball as a rotor and the magnets fixed to the pendulums as a stator. In **all** machines constructed by humanity the stator magnets are **always** at rest and for this reason a **Finsrud effect** was never observed. This is the **whole trick** in Finsrud's perpetual motion machine.

Will the Finsrud machine repeat the story of the other free energy machines which were constructed in human history (Bessler, Tesla, Morey, Schauberger, Hendershot, Coler, Gray, Mayer, Takahashi, etc.): after having found coverage

in a local journal or local TV station, a couple of curious persons will go to visit it and then will it be covered by silence?

NO!!! This time when in my hands I have my own perpetual motion machine, I shall put a full stop to the eternal story. This time soon, **very soon** there will be a breach in the wall of silence with which official science encircles the free energy evidence and soon, **very soon** the children of the world will breach this wall, as they have breached Berlin's wall!

THE MARINOV BATTLE CONTINUES By Hal Fox

One of the world's most prestigious science publications is the 400-year-old *Nature* magazine. Although Stefan Marinov has submitted numerous publications to *Nature*, his papers are seldom published. Recently (see report in *New Energy News* April 1996) Marinov bought advertising space in *Nature* to get his message to their readers.

When Marinov recently learned about the Finsrud perpetual motion **moving sculpture** he sent an article to *Nature* with the offer to place it as an advertisement if they

didn't want to publish the article. Here is the response from *Nature's* editor:

"I am sorry to have to tell you that I am not willing to publish any of your submitted papers in *Nature* because in my judgement they will not persuade readers of the validity of your claims. Finally, we are not willing to publish further papers as advertisements. I think it is permissible, very occasionally (less than once every two years), to allow somebody with **unorthodox** views to advertise them to our readership. But anything more frequent becomes in effect a policy of systematically selling space to people who have failed our usual tests of acceptability, which would be quite unacceptable."

"Yours sincerely, /s/ Dr. Philip Campbell, Editor"

The message is that if you are not following **orthodox** teachings you will not be published nor allowed to advertise in *Nature*. In case you haven't looked it up recently, **orthodox** is defined as conforming to established doctrine. It is the nature of true science to **periodically** <u>unestablish orthodoxy</u>. Then, of course, after an appropriate number of years, we have a new orthodoxy that somehow forgets its radical past and becomes the conservative line.

NEW-ENERGY DISCOVERIES THAT WILL CHANGE THE WORLD

By Hal Fox, Editor, NEN

Written especially for the attendees at the June 19, 1996, **Seventh Annual Energy Efficiency Forum**.

This author was raised on energy efficiency. "Turn out the lights, we don't want to pay more than necessary to Utah Power and Light," was an oft-repeated instruction from my father. My generation was born in the twenties, struggled through the depression, served in World War II and grew to enjoy the world's most dramatic development in technology-based standard of living that the world has ever known. Now this author is dedicated to providing an even higher energy standard of living for our children and grandchildren. This objective can only be achieved by new-energy devices and systems not based on the burning of fossil fuels.

For the past seven years we have been investigating the world-wide development of new-energy technologies. Over three thousand peer-reviewed (or presented in technical conferences) new-energy papers have been obtained, read, and reviewed in our newsletters and placed in our computer database. From our trips and contacts with new-energy scientists and inventors in several countries, we can make some informed comments about the development and commercialization of new-energy systems. That is the purpose of this article.

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Four new energy-related technologies are being developed. These four are "new hydrogen energy" (the Japanese name for cold fusion); solid-state electromagnetic or plasma-type devices; super motors based on super magnets; and low-energy nuclear reactors. All four of these technologies share the same academic fate: They do not conform to the current physical science models and therefore are unacceptable to many in the scientific community. However, only two changes in scientific models are required to embrace all four of these technologies. Those changes are: First, that nuclear reactions in a metal lattice are not the same as nuclear reactions in hot plasma physics. Second, the acceptance of an energetic zero-point energy (also known as aether, space energy, vacuum energy, etc.) [1]. With these two changes, cold fusion is acceptable and other devices no longer appear to be contrary to the Law of Conservation of Energy but are merely clever energy transformers. These four technologies are briefly discussed in the following paragraphs.

Cold fusion is being commercialized in Japan (Pons-Fleischmann discovery) and in the U.S. (Patterson Power Cell™). Pons and Fleischmann, working with Japanese funding (from a Toyota affiliate), have made excellent strides in the development of the heavy-water, palladium cathode, electrochemical cells. Operated under pressure, these devices are capable of providing large amounts of thermal power. Licenses for the newer Patterson Power Cell™ are being marketed by Clean Energy Technologies of Dallas. Texas. This device has been independently tested and replicated by several universities, utilities, or corporate research laboratories, but not vet by the U.S. DOE. While the Japanese have added an additional hundred million dollars to the development of cold fusion, the U.S. DOE does not recognize the technology and this mistake is echoed by the U.S. Office of Patents and Trademarks.

Solid-state and plasma-type devices have been patented and are being funded for further **development.** Five separate devices (two patented, one being publicly revealed in September 1996, two others being patented) are under development. Ken Shoulders' high density charge clusters (U.S. Patent 5,018,180) and Correa & Correa (U.S. Patent 5,449,989) are examples of plasma-type devices that produce from four to thirty times as much electrical power as input electrical power. An electro-magnetic device is scheduled for scientific and media presentation in Germany in September 1996. Two other devices are involved in patent applications and will be announced later. All five of these devices are being privately funded and are expected to provide energy for applications ranging from computer chips to power plants. The patent for the Shoulders' device states that the source of the energy appears to be the zero-point radiation of the vacuum continuum. The plasma device by the Correas was presented at the Third International Symposium on New Energy and is being developed in Canada. The German inventor claims that his

device can be scaled up to power-plant size. No publishable information is available on the other two devices. These devices all appear to obtain their excess power from the aether.

Super magnets used in super motors provide excess mechanical power. Two separate super magnets have been developed in Japan. These developments provide magnets at least twice as strong as previously accomplished. The Takahashi motor, based on the superstrong Takahashi magnets is reported to provide sufficient energy so that a moped can be powered and still charge the battery. Obviously, claiming this type of performance would lead to ridicule in almost any engineering facility. Therefore, the Japanese inventor (with previous patents on magnetic coatings for video tapes) has delivered motor and moped for independent testing in England. Reports are expected later this summer or fall.

Low-energy Nuclear Reactors represent an important new discovery. Although not a source of energy, these reactors are energy-related because they can be used to stabilize radioactive slurries. Obviously, to stabilize a radioactive material it is necessary to change the nucleus so that the resulting new element or new isotope is no longer radioactive. In the currently-accepted scientific models, only high-energy bombardment of atomic nuclei can affect nuclear stability. Although these new reactors are energy intensive, they have proven effective in removing radioactivity from naturally radioactive thorium (demonstrated in this author's laboratory). The next step is to build and demonstrate these reactors in such a place as the Hanford Site where over 130 tanks (some of which are not leaking) of radioactive slurry are awaiting the development of adequate means of stabilizing or storing these slurries.

These are the technologies that we predict will dramatically change the way energy will be produced and distributed. Out of hundreds of proposed developments, these are the devices and/or technologies that we have selected as being the most dramatic energy developments that the world has ever seen. In this nation we have progressed from whale oil to "coal oil" to natural gas to electricity for lighting our lamps. We have progressed from wood to diesel-electric generators to move our trains. We have used electricity, steam, and progressed to gasoline-powered internal combustion engines to power our automobiles and trucks. Now we will move to an abundant, cleaner, and less expensive (essentially fuel-less) source of energy to power our future.

To our new friends at the **Seventh Annual Energy Efficiency Conference** we suggest your serious
consideration of these new technologies. Few believed in
the Wright brothers aircraft, or Goddard's rockets but now
air-bases have been named after both of them. It is highly
likely that these are the types of new technologies that will
power our future. We quote Utah's Governor Michael O.

Leavitt (who attributed the words to Ray Noorda of Novell), warning us:

"Fight it and die, Accept it and live, Lead it and prosper!"

You are today's leaders. With proper management of the much-needed transition to these new energy technologies, you will be the leaders of tomorrow!

References

[1] Hal Fox, "Four New Discoveries Best Explained by an Energetic Aether", presented at the Southwestern Area Regional Meeting of the AAAS, June 5, 1996, University of Northern Arizona, Flagstaff, AZ.

Hal Fox is just completing the book, <u>Space Energy Impact in the 21st Century</u>. This book reports in more detail the development of space energy devices. In addition, the book reports on the strong impact that new-energy systems will have on a variety of industries. The book will be available through this publication.

SEVENTH ANNUAL ENERGY EFFICIENCY FORUM A conference report by Hal Fox.

Over three hundred invited attendees enjoyed the one-day Seventh Annual Energy Efficiency Forum at the National Press Club in Washington, D.C. Wednesday, June 19, 1996. The attendees were variously from the Department of Energy, energy-interested corporations, major power utilities, and the media. Johnson Controls, Inc. was the co-sponsor of this forum along with the United States Energy Association, which is the U.S. Committee Member of the World Energy Council (WEC).

After a welcome by Barry Worthington, Executive Director, U.S. Energy Association, the first forum was presented: "What Policies Should the Federal Government Pursue in Changing Energy Markets?" The moderator was Douglas A. Decker, Government affairs, Johnson Controls, Inc. The presenters were J.D. Hayworth, U.S. House of Representatives, Arizona; Scott Klug, U.S. House of Representatives, Wisconsin; Christine Ervin, Asst. Sect., Energy Efficiency and Renewable Energy, USDOE; and Mary Nichols, Asst. Adiminstrator, Air & Radiation, USEPA.

A summary of comments including the following: Pollution by power plants is deemed to damage the health of 54,000 persons each year. Acid Rain and particulates also cause some premature deaths. A sixteen member advisory committee is studying the transition to new pollution control standards including the abatement of mercury pollution in 44 states. Global warming due to carbon-dioxide emissions is a long-range fossil fuel problem. There is a Presidential Committee on Environmental Quality and a 37-state group

which will meet next year. The goal is to cut emission by an additional 20 percent by the year 2005.

Based on the successes of the privatization of some government functions, privatization of other governmentmanaged functions is pending. For example, the DOE manages 132 hydroelectric dams that furnish about 30% of the electric power consumed in the U.S. The TVA has managed to accumulate \$28.5 billion debt. The Northwest has access to much lower government subsidized hydroelectric power. The DOE energy labs have grown far beyond their original mission and now consume 40% of the DOE budget. In one comparison, a privately run energy installation used 12 employees to produce the same power produced by 95 government employees. However, some types of R&D that will probably not be funded by private industry should be supported by an increase in the government support of R&D. [This reporter would caution against another institution of self-serving one-project advisory committees that have been responsible for advising funds for hot fusion (over \$20 billion spent) and denving funds to new renewable energy projects.) Representative Klug properly advised that the government does not have the capability to commercialize new technology. Private industry does a far better job. The air traffic control system was used as an example.

In a plea for more funding for renewable energy, Christine Ervin stated that the budget request was for only \$4 per capita and that any attack on clean energy was an attack on the environment. The **free market** is distorted and does not best handle long-term results, and therefore, is not a substitute for leadership. What was lacking in Ervin's presentation was any knowledge of the latest new energy technologies. Renewable energy is currently limited to wind, geothermal, hydroelectric, biomass, and photovoltaics. No knowledge of, nor funding for, cold fusion, solid-state devices, or super motors was mentioned by any members of this forum. Of course, the main topic of this conference was on energy efficiency and energy conservation.

The next forum topic was, "Global Energy Efficiency, Who will Pay for it?" This session was moderated by James B. Sullivan, President, World Energy Efficiency Association. The presenters were Mason Willrich, Chairman, EnergyWorks; Jefferson Seabright, Director of Energy, Environment & Technology, US Agency for International Development; Joseph Gilling, Industry and Energy Department, World Bank; Paulo C. Tavares, Director, Electrobras, PROCEL, Brazil.

The question was posed as to how we can accelerate the rate of change in new energy technologies. In the U.S., energy production is characterized by slow growth, aging plants, low-cost natural gas, the world's best energy infrastructure, and high-efficiency new technologies (such as natural-gas-burning turbine generators). Change is stifled by the need to recover old plant costs. **One approach is**

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legislation that permits faster cost recovery for capital investment. With existing technology there is a market for small, distributed power generation. In the future such installations as natural-gas-fired turbine generators will account for one third of new electrical power production. New power may well be driven by customers influenced by green power advocates. In less-developed countries power is often susidized, involving poor infrastructure, and as a result these state enterprises are bankrupt. The answer is in privatization coupled with regulations favorable to business. The World Bank can help by encouraging better privatization climates in countries being funded.

The U.S. Agency for International Development's budget is under assault. The U.S. is now the fourth largest contributor to international development on a per capita basis. However, international market barriers are coming down; energy markets are poised for growth; private funds will be used to catalyze new developments where business regulation is favorable. There are excellent opportunities developing. Experts from U.S. utilities are serving as international advisors.

The role of the World Bank in energy efficiency involves poverty relief, human resource development, and the building of an energy infrastructure. A rapid growth rate in energy-use of 6 to 8 percent annually by 2010 is forecast. The increasing use of energy will be coupled with increasing pollution as the large populations of China and India increase their energy useage. The big problems are the lack of information, the lack of informed financial support, and the lack of funds for infrastructure development. The World Bank has had a policy failure and is now establishing new policies, which are expected to result in reform by borrowers and a shift to privatization. The World Bank is supporting 137 projects with \$53 billion in capital since 1986.

An excellent summary presentation was made by Paulo Tavares of PROCEL in Brazil. With the growth of energy use in Brazil, \$50 billion will be spent in the next 20 years with \$35 billion in investments that must be raised from the international private sector. Plants are being designed with user-group input and with the help of international partners. A big investment must be made in education where five million students must be trained in the use and conservation of energy.

Here again, in this session, none of the presenters appeared to be aware of the impending huge changes that will be made by the new-energy technologies now being commercialized in various parts of the world. There is apparently a huge information vacuum about new sources of energy.

Casper Weinberger was the luncheon speaker. Weinberger is currently the Chairman of Forbes, was formerly Secretary of HEW, and also served as Secretary of DOD. Here is a synopsis of some of Weinberger's observations:

We must reduce our reliance on oil imports in an unstable world, but not by selling off our emergency oil reserves. The trade deficit is expected to double to \$100 billion per year. Political considerations will probably prevent any hikes in energy costs. The forecast 8 billion world population by the year 2,000 will place additional demands on energy. The use of energy in the Pacific Rim countries is expected to exceed the use of energy in the U.S. Disruption of oil imports could bring the U.S. economy to a standstill in 90 days. The U.S. cannot afford the large dollar transfers to other nations to support oil imports.

The basis of the national energy policy should include offshore oil development, new methods of oil recovery, and new energy sources. We must continue to support energy efficiency. We cannot reduce the quality of life in the U.S. We have the best life style in the world's history. Our energy policy should encourage incentives, not just in dollars but also in education. Other nations look to the U.S. for leadership and they need our help in building clean, efficient, energy sources. We must draw a line in the sand and say 50% of our oil and no more will be imported. Encourage other means of energy production. Continue with this type of forums.

In a short private visit with Casper Weinberger this reporter had the following conversation:

HF: "With three new energy technologies being developed by private companies, what U.S. department do you suggest be informed about these technologies?" CW: "Well, the Department of Energy would be an obvious choice."

HF: "But they are the ones who have turned thumbs down on funding these new energy developments."

CW: "Perhaps they are concerned about too rapid growth in energy technologies. However, the Department of Defense should be interested."

HF: "Thank you sir. It has been a pleasure to meet you."

The third forum, "Impacts of Deregulation on Efficeincy in a Changing Electric Industry," was moderated by Ronald E. Russell, Senior Advisor, Hagler-Bailey Consulting. The presenters were Frederick W. Buckman, Pres. & CEO, Pacificorp; Girard F. Anderson, Pres. & CEO, TECO Energy, Inc.; William J. Lhota, Exec V.P., American Electric Power; and Robert N. Culshaw, Minister-Counsellor: Trade & Transporft, Embassy of Great Britain. Here are some of their comments:

With the changes in energy regulation the American customer now has choices. The wholesale production and marketing of energy is highly competitive and the result has been a reduction in energy costs. Air and water quality have been improved. There will be more ingenuity in energy production and more efficiency in energy transport and distribution. British Colombia can now sell energy to

Arizona and the transfer is made by shutting down production in the northwest and increasing production in the southwest **thereby cutting down on-line losses -- the energy is not wheeled.** Regulators have traditionally regulated the entire energy system and that will end as regulatory authority is diminshed and transferred to the free market forces.

The consumers know little about the production and distribution of energy. The customers want reliable, efficient, and economical service. The U.S. has the most reliable and and lowest cost energy-delivery system in the world. For example, energy costs in the U.K. are about 1.5, Germany two times, and Japan 3 times the U.S. energy costs. Little further reduction in energy costs is expected. The natural gas and some other fuel supply infrastructures are approaching maximal use. With the new Energy Policy Act there will be some cost adjustments (particularly to protect those who wheel the energy to be able to charge suitable costs for such services.) There will continue to be an emphasis on better management of energy use and consumption. The integration of energy and communications is underway (it is assumed that the power companies are making use of their rights-of-way to emplace fiber optic cables).

Power companies will be faced with new regulations for wheeling the energy from other power companies. The customers will be sold services from more than one source but the same infrastructure will provide the distribution of services. The customer will expect competition, fair and efficient service, and near parity of costs among suppliers. Subsidies will be eliminated (especially the subsidizing of hydroelectric power), the price will be determined by free market forces of supply and demand and there will probably be a merging of operating companies into total energy delivery companies. There will be functional realignment of Generation - Transmission - and Delivery of energy.

In this forum there was some mention of unspecified new energy developments that would tend to keep energy costs low. However, there was no recognition of the enormous potential for change of the way in which we will soon produce and distribute energy. Except for the concept of natural-gas-burning turbine generators, the concept of a pending distributed energy system was entirely ignored. It is interesting how well protected this group has been from information about pending newenergy technologies. However, it was also interesting that, with only one exception (Casper Weinberger), none of the speakers were mentioning hot-fusion energy development as having any commercial potential.

The final session of the conference was a report by Mark Ginsberg, Director, Federal Energy Management Program, USDOE. Ginsberg's talk was available in printed form and details the great dollar savings that have resulted from energy efficiency and energy conservation used throughout

the DOE. It would be interesting to determine how much of the identified energy conservation was achieved by the down-sizing of some government projects.

REPORTER'S SUMMARY REMARKS: This reporter was pleased to have been invited to this important Energy Efficiency Forum. The most interesting part of the entire conference was not so much what was said but the obvious almost complete lack of information about the most dramatic energy changes in the history of the world. Not one of the presenters appears to be aware of any practical renewable energy systems except photovoltaics, wind, and geothermal. Except for special cases, none of these renewable energy sources are costeffective when compared with the latest efficient use of natural gas in turbine generators. None of the presenters made any reference to cold fusion, solidstate energy devices, nor super motors. We will try to change this lack of information. We have a list of conference attendees, with their companies and cities. We will try to get mailing addresses and send them a copy of the July 1996 issue of New Energy News so they will know there is a source of information available to them on new-energy devices.

Space Energy

PHENOMENOLOGICAL MODEL OF AETHER

A.M. Mishin (St.-Petersburg, Russia), "The Phenomenological Model of Aether as Result of New Empirical Conception. Experimental Results," from Frolov's St.-Petersburg abstracts.

ABSTRACT

Many riddles of the Universe can be solved by means of a new, in principle, method for experimental research. There was created laboratory system (physical device) that is imitating biosystems in Aether perception aspect. It is a technical system that has artificial biofield. The device has reaction on flows, "temperature" and polarization of aether. By means of device is possible to make the registration of signals from Sun and Moon, aether's wind that is creating in strength of the movement of Earth, Sun and Galaxy. The obtained results are the base for qualitative concept of aether that have spatial vortex for states from nano to mega scales and which have the variety for topology. The materiality of vortex structures are dispersed on space axis of quantum states spectrum, is naturally transform in note for "parallel worlds".

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Some investigated properties of aether allow to suppose the existence of nature law that repeatable demonstrate the violation of principle of relativity in limits of classical physics and to prove it experimentally (it is not connected with artificial biofield).

SEARL ANNOUNCEMENT ON INTERNET

Received 12 June 1996

SPECIAL ANNOUNCEMENT FROM PROFESSOR JOHN R.R. SEARL

The following information has been approved for publication by John R.R. Searl in a telephone call with the Editor.

London Report by Brad Lockerman

At the seminar, Middlesex University London, England, on March 10, 1996, Professor John R.R. Searl revealed for the very first time the secret of Searl technology. This is something he has known for fifty years.

On this occasion Searl chose to approach his audience strictly on a scientific level. He used readily available common measuring instruments such as the oscilloscope to prove his discovery.

The spike shown on the oscilloscope screen proves conclusively that a charge does exist when a specific combination of elements are pressed and formed in a predesignated fashion. In this case, a charge of three volts every five milliseconds, repeatable. One of Searl's associates was able to measure a charge of twelve to fifteen volts repeatable, from his section of the SEG.

He starts with one segment built to his specifications. He then touches one probe from the oscilloscope to the center of the segment, the other probe is touched to the outer ring of that segment. The result is shown as a spike or peak on the oscilloscope screen.

The circuit is moving through the layered elements in the segment. <u>The segment shows a negative potential</u>. That is, a release of electrons is evidence of charge.

This phenomenon will set the scientific world on its ear. It shows that you can draw power from the surrounding space fabric, the area around the segment. It will continue to pulse just by using the elements. There is no photoelectric effect. It is not a solar cell. It is not a conventional capacitor. There is no energy input into it. Yet it is giving out energy, consistent and repeatable, that is, energy from the surrounding space fabric.

In fact, the energy is all around us. It exists in the surrounding space fabric. The segment emits an electron flow by tapping the potential of this surrounding space fabric. This means that there is a source of electrons that is being transmitted from the inner core of the segment to

the perimeter of that segment in a continual release. Thus conclusively demonstrating how to access the energy all around us, the unlimited energy of the universe.

[We telephoned Prof. Searl. He stated that they have made some wonderful discoveries in the field of magnetics which will be released later. We strongly commend Searl for his decision to make some of the technical details of his work public. This information was released to the Internet on June 11, 1996. Ed.] (Used by permission ©MLEE)

Solid-State Space-Energy Devices

SUMMARY OF STUDY OF DIODE NUMBER AND OUTPUT OF MICRO-INDUCTIVE SYSTEMS

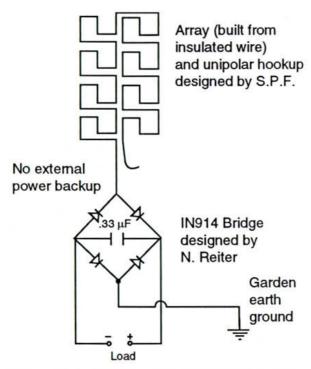
By Samuel P. Faile and Nicholas Reiter

A study by S.P. Faile was spurred by the innovation of N. Reiter involving a balanced rectifying circuit that was tested on the Flag Matrix coil.

Fig. 1 is a Diagram of the passive system. The voltage output increased by about 60% and the current by about 300%. Since this is the best result so far for our passive arrays and the coil design is relatively simple; others may want to duplicate it, which should be relatively easy with the information supplied in the schematic diagram. Construction of the 96" x 96" Flag Matrix 16, that is about 8 feet wide, is not knotted but can still cause biological effects for some with lower body pain lasting a few days. When secured with the polyethylene film and polypropylene tape, the device is not so unwieldy and can be handled like a blanket. This device produced less of the glowing in the dark phenomena and less geiger counter activity than for the large Caduseus Virtual Device that N. Reiter tested earlier.

The balanced rectifying circuit was so effective, S. Faile decided it might be effective in its own right if made large enough without the need for a coil or a ground connection. Each IN914 diode was connected to 2 feet of insulated 18 gauge wire to product the device shown in Fig. 2 that is autonomous. The capacitor used was a $1\mu F$ ceramic capacitor from Radio Shack (# 272-1055).

A good flash with the LED shorting out the capacitor was obtained every 10 seconds and an easily visible one every 5 seconds. The five second interval would not work if one stayed in the middle of the array; that may have been due to one's body soaking up activity in the atmosphere operating between the diodes across the array. By getting up and walking out of the array, stepping out for a couple of seconds and then returning for the measurement, one could study the five second interval with positive results. Probably



At 10 ft. altitude, on Keithley 175 meter: 8.779 V, 1.87 μA

Fig. 1. 96" x 96" 16 Flag Matrix

a faint LED flash could be obtained for shorter times for remote switching and viewing.

There were fairly strong biological effects from being in the middle of the array that first felt exhilarating but then led to an over-energized pent-up/wound-up feeling followed for several hours by disruption of kidney and bladder function. By wrapping an extension cord into an inductive coil and then touching the plug spades to the skin of the head and legs there was some relief from the pent-up feeling.

Surprisingly when six more diodes were hooked in parallel at each of the 16 sites for a 10' x 10' Diamond 16(7) device, there was no LED light output. Perhaps longitudinal waves operating across the array between the diode sites, faced with a multitude of diodes at each site, dampened out being unable to pin to a single diode at each end and build up a resonance.

Other Diamond arrays were built that were also ten feet across. The one with eight diodes produced a faint flash at about every 40 seconds. The one built with 96 diodes, the 10' x 10' Diamond 96, device also performed less well producing a flash every 16 seconds in contrast to the original devices with 16 diodes that were capable of flashes of 5 seconds or less. Some devices were built at a smaller size, being 5 ft. or less in width, and did poorly.

Thus it appears that use of 16 diodes may be a good number for this passive system. A more powerful system may result from the use of larger and higher frequency diodes.

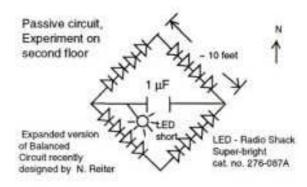


Fig. 2. 10' x 10' Diamond 16

An active system to produce fireballs involves a unipolar hookup to aluminum foil covering a 7 watt plasma globe. with the usual ground to a neutral wire attached to the rectifying circuit where a non-inductive flexible homemade capacitor was used, of about 0.8 µF. The use of eight diodes worked well (Radio Shack # 276 1114, Silicon Diodes 1kV, 2.5A) for both the balanced circuit and the old design. Loud, white fireballs were produced, up to 11/2 cm. in length and nearly 2 cm. in length by painting a tincture of iodine on the wire tip region used for the arc/fireball production. Smaller, less bright fireballs, making a lesser noise were produced when 2 or 4 or 12 or 16 diodes were used again indicating an intermediate number is best. With the various modifications it appears one can triple the size of the fireballs suggesting a possible multiplication of energy output.

If an intermediate number of diodes of 8 is best for the active system and something like 16 is best for a passive system, what could this correspond to in regard to the phenomena that is being tapped for new energy? Perhaps there is an "EM" wave with many hidden components. These components might resonate in some way with the diodes allowing one to break out all sorts of different energy forms depending on the type of collector used.

THE PRODUCTION OF VOLTAGE POTENTIALS IN STRUCTURES EMBODYING VARIABLE CAPACITANCE

By Nicholas Reiter, 24 June 1996

In May and June of 1996, my associate, Dr. S.P. Faile and I had been examining spark discharge phenomena from energized large non-inductive plastic and paper capacitors. During the course of routine testing on one of these capacitors, a new, interesting, and startling observation was made. We observed that when the device was completely discharged, and then connected to a voltmeter, a potential of over 1 volt DC was produced when the capacitor was flexed or compressed. This production of voltage appears to be linked to the shifting of the capacitive value of the device. Considerable testing has shown that the effect is consistent and is not due to an easily recognized artifact.

First discovery of this effect occurred on 9 June 1996. The piece under test was the model 2468 capacitor, built by Dr.

10 JULY 1996

Faile from plastic (polyethylene) sheet and aluminum foil plates. In a mechanically non-stressed condition, the value of C for this device was read by an LCR meter at .780 uF. When compressed by a hand push, the alleviation of air gaps and folds caused this value to rise to about .90 uF. An earth grounded Fluke 79 meter was connected to the capacitor, and the leads of the device were shorted for 1 minute. Upon un-shorting, the voltage read across the capacitor rose from 0 to about 40 millivolts in the course of 3 minute. Such spontaneous low level charging of large value capacitors has, of course, been observed and speculated upon for years. However, while shifting leads, I brushed my hand across the top of the capacitor (lying on a wooden table) and noticed a small jump in voltage on the Fluke meter. By applying a strong push by hand to the body of the capacitor, a voltage of over 500 mV was produced. Later, potentials of over 1 volt were produced by decreasing the impulse period (pushing faster).

The produced voltage appears to rise over the course of the mechanical impulse only. When a steady pressure is achieved, the potential begins to bleed off through the 10 meg-ohm resistance of the meter, and thus drops. If the pressure is taken away, the plastic and metal layers relax, and voltage will rapidly drop back to zero, then actually swing in a negative direction before finally bleeding back to zero again. I have plotted this action in Fig. 1.

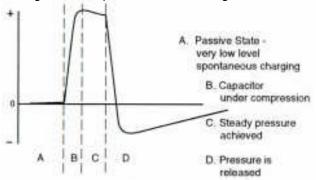


Fig. 1. Voltage Potential on Capacitor Plates

In this respect, the voltage production within the capacitors mimics the actions of a piezoelectric transducer. However, it seems unlikely that materials used in the construction of these devices; polyethylene, paper, and commercial aluminum foil, poses any piezoelectric characteristics. To date, three large homemade capacitors have been provided by Dr. Faile for testing. All have exhibited the production of voltage potentials:

Device Mtls. Used C (passive) compression)

2443 paper* - Al 0.860 uF 1.00 uF 0.14 uF 1.2V

2468 poly - Al 0.780 uF 0.90 uF 0.12 uF 1.0 V

2472 poly - Al 0.160 uF 0.20 uF 0.04 uF 0.32 V

A number of experiments have been performed for the purpose of defining the voltage production mechanism. We also seek to assure ourselves that the effect is not due to artifact. A short summary is provided here, of these tests.

- 1. The 2468 capacitor was wrapped in a sheath of aluminum foil which was earth grounded. Voltage was measured with the Fluke 79, using about 10 lb. push over 1 second. We read slightly over 1 volt on each of ten trials. Thus, we would conclude that simple electrostatic shielding from the environment does not attenuate the effect to a noticeable degree.
- 2. The 2468 capacitor was warmed in an oven to about 55°C. Voltage produced was NOT noticeably different in magnitude from room temperature trials.
- 3. A 1 meter wooden beam was used to apply pressure to the 2443 capacitor, placed on a wooden table. Over 1.2V was produced. Thus, we would conclude that the effect is not due to the transference of charges from the human experimenter pushing on the device.
- 4. Orientation of the capacitor under test does not seem to affect the output voltage.
- 5. A strong magnet was placed in various locations near the 2443 capacitor while under test. No change in output voltage magnitudes was apparent. From this, we may conclude that the effect is not due to induction, by flexing of the foil plates in the geomagnetic field.
- 6. Artifact of location seems to be ruled out. The 2443 and 2468 capacitors have both been tested in my house, outdoor on my property (away from power mains), and at an industrial location in Toledo. Readings made at all three locations have been comparable.
- 7. Artifact of instrumentation seems to be ruled out. I have observed the effect with both grounded and un-grounded meters (Fluke 79, Fluke 77, Kiethley 175) and an oscilloscope (Sencore SC61). Recently, Dr. Faile, has informed me that he has confirmed the effect with another home built capacitor, similar to the 2468. A small multi-meter was used for voltage measurement, and about .5V was observed.
- 8. Current measurements were made on the 2443 using the Kiethley 175. A short period strong push produced a peak current of about $10\mu A$.

If the production of voltages from flexed capacitors is indeed linked to a fundamental quality such as a rapid shift in C, then we should observe the phenomenon with other geometries. The most available device to accomplish this would probably be an air variable capacitor from an RF tuning circuit.

^{*} plastic coated meat wrapping paper

On 15 June 1996, this hypothesis was confirmed. A 1000 pF air variable capacitor was procured and tested with the earth grounded Fluke 79. When given a quick spin by hand, the device was observed to produce about 2mV during the period of increasing capacitance (plates meshing). When spun from a full C position to the position of plates completely un-meshed, similar value was observed in the opposite polarity. Later, this capacitor was mounted in an aluminum box, and coupled to a gear reduced DC motor mounted external to the box. When powered at 12 V, the motor spins the capacitor rotor at 100 rpm.

When the output of the spinning capacitor was connected to an oscilloscope, a low frequency AC signal of about 10mV p-p was noted. When the speed of the drive motor was changed, the amplitude of the output wave changed proportionally.

On 23 June 1996, another arrangement was tried at the suggestion of Dr. Faile. Two non-stressed capacitors were placed such that one could be rapidly switched into a parallel connection with the other, thus instantly adding or subtracting a discreet quantity of capacitance. In this case, no spontaneous voltages were seen to appear. This experiment was performed using non-L capacitors, and also commercial electrolytic capacitors of large value. We would conclude from this that the voltage production effect is based on a MOTIONAL principle of capacitive elements.

One serious factor needed for a proper evaluation of the effect mechanism is the determination of polarity. On both the large flexible capacitors, and the spinning air variables, a voltage polarity is seen which remains quite consistent for a given device. Yet all devices tested thus far are fairly symmetrical in construction. What factor determines + and -? This question is a primary focal point of current efforts.

We disclose, then, the following:

An effect has been observed which suggests that in the absence of external electrical influences, a device whose geometry contains a value of capacitance will spontaneously develop an electrical potential when this value is rapidly shifted. The magnitude of the voltage produced seems to be proportional to the total change in capacitance, and is inversely proportional to the period of time during which the capacitance changes. This effect has thus far remained consistent for reasonable testing and quantification using easily obtained instruments. Certain aspects of this effect remain unclear, and it is as of yet unknown if a multi-stage mechanism is responsible, or if a fundamental new physical principle is involved.

For whatever the underlying principle behind the observed effect, it seems to be the sort of energy source which is well suited for energy conversion engineering. One possibility would involve a rolling set of thin capacitor plates spun by a motor or engine at perhaps 1000 rpm. An air or vacuum gapped meshing set of rotor plates with a max C shift value

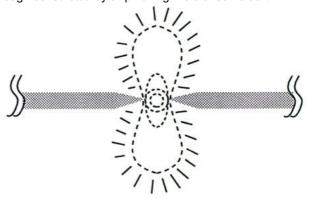
of 1 uF at 1000 rpm should produce a pulsed or AC waveform of between 50 and 100 volts RMS.

Another possible application would be in the capturing of periodic wave energy by floating flexible capacitor sheets on ocean or lake surfaces.

FURTHER ARC DISCHARGE TESTING WITH THE 2468 CAPACITOR

By Nicholas Reiter, 14 June 1996

The more recently procured 2468 non-inductance capacitor was connected to our 15 KV DC supply and tungsten spark gap. For initial testing, the circuit was energized with a gap setting of 1mm. The arc produced, at a frequency of about 1 per second, was a blue white fireball. This discharge was oddly dumbbell shaped, as though constricted by a "pinching" field of some sort:



Wide axis of the discharge plasma was about 1 cm. The amount of noise in the "bang" was actually somewhat muffled and subdued. We also observe a pronounced concussion from the capacitor with each discharge. Opening the gap up to about 2 mm caused a loud breakdown "thump" from the capacitor. Luckily, the device may have healed itself; as melted plastic possibly covered over an internal arc path. In any event, the internal breakdown did not kill the capacitor. The gap was backed off to between 1 and 1.5 mm, and continued to fire properly.

Next, we applied de-ionized (DI) water to the tungsten tips. The increase in apparent discharge energy was striking! The dumbbell shaped plasma was increased to about 2 cm in width, and was more of a white color. We also note that the edges of the "dumbbell" are almost flame-like or ragged in appearance. Acoustically, an increase in the amplitude of the gap "bang" was noted. The H₂O swabbed gap arc was also higher pitched, like a "crack," as opposed to the muffled bang of the dry gap.

Other materials were applied to the gap region, though none gave quite as striking results as the DI water. 12 JULY 1996

<u>Size</u>	Color S	<u> Sound (1-10)</u>	
Dry gap (1mm)	≃ 1 cm	blue-white	5
DI H ₂ O	≃ 2 cm	whitish	10
NiCl ₂ : H ₂ O	≃ 1 cm	blue	6?
Thorium Nitrate	≃ 1.5 cm	whitish	8?
Hg Bead	≃ 1.5 cm	blue-white	5

At very least, we may say that arc fireballs produced using the non-L 2468 capacitor are strikingly different and more powerful than those produced by the canned 0.5 μF capacitor. It also seems as though the $\rm H_2O$ enhancement effect is more pronounced.

The virtues of low inductance capacitors in energy discharge systems have been touted for many years by the exploding wire and water arc folks. We might speculate though, that our "flexible" non-L capacitors may be able to enhance energy discharge circuits, by acoustic triggering of high potentials. (As observed recently by myself and corroborated by Dr. Faile.)

Rotating Space-Energy Devices

APPLICATION OF POTENTIAL FIELDS

A.V. Frolov (St.-Petersburg, Russia), "The Application of Potential Field to Create the Work," (Permanent magnet motor-generator and self-generating electric discharge system are for demonstration), from Frolov's St.-Petersburg abstracts.

ABSTRACT

The experiments of N. Tesla and otherS to extract power at the point of maximum amplitude of a standing wave that is created in single-wire line, are considered.

The research work of T.E. Bearden is discussed to substantiate the possibility for making of useful work in power load by means of source of potentials difference and without the decreasing of this difference in the process of work. Example of permanent magnet motor is demonstrated to show the principle for utilization of two opposite processes to take power from field of permanent magnets.

Some simple but important formulation is discussed: To create zero-state is possible to join two or more processes:

$$A + B = 0$$
 or $A + B + C + ... + N = 0$

To create power from zero-state of power (by means of potential only) it is necessary to create two or more opposite processes:

$$0 = A + B \text{ or } 0 = A + B + C + ... + N$$

The anomalous great output of power in electrolysis process taking place in high pressure electrolyte (D.A. Latchinov 1888, Russia) and self-cooling of electrolytic cell is explained. The analogy between machinery of cold fusion excess power output and process above is showed for causes when there are no neutrons output.

The conception for electric discharges (arc) in vacuum is offered for consideration. Arc is considered as polarization and electrolytic separation of non-structured space into component electrical charged elements, that is in accordance with experiments of Alexander V. Chernetsky and other authors on self-generating electrical discharge. The circuit demonstrates the production of additional power output in load (lamps) by means of "arc discharge" that is connected in serial with the load. Ordinary electromagnetic transformer is used for demonstration of this Chernetsky's effect.

The conclusion was made about possibility to use the potential fields (electrical, gravitational) and vortex magnetic field to make the useful work without consumption of power from source of field. According to generalized Conservation Law for Energy in this case the process of creation of power (work per unit of time) is compensated by process of creation of negative power (work per unit of reverse-time). The applied aspects for technology of reverse-time are considered also.

SELF-ACCELERATING GENERATOR

Stefan Marinov (Graz, Austria), "The Self-Accelerating Generator," courtesy of the author.

ABSTRACT

The story around the invention of the self-accelerating generator SIBERIAN COLIU will be narrated. This generator produces energy from nothing and will be the basis of energetics in next century.

The invention was a result of the discovery of the scalar magnetic intensity, S, which acts on the current elements with longitudinal forces directed along the current elements. The presently known vector magnetic intensity, B, acts on the current elements with forces perpendicular to the latter. In every B-machine (motor and generator), a Lentz effect does appear, i.e., the action of the induced current is opposing the rotation, while in every S-machine an anti-Lentz effect does appear, i.e., the action of the induced current is supporting the rotation.

The scalar magnetic intensity was discovered after the establishment that the well known Lorentz-Grassmann equation (which in magnetism reduces to Grassmann's formula) is wrong and the Lorentz-Marinov equation was discovered (which in magnetism reduces to Marinov's formula). To the best of the author's knowledge, there is no experiment contradicting the Lorentz-Marinov equation.

Miscellaneous

ROBOTIC EXPLORATION OF THE STARS: A REALISTIC POSSIBILITY?

Robert L. Carroll, "Supercold Fusion and the Pion Drive." By Mark Goldes

"Cold Fusion," increasingly called New Hydrogen Energy, is steadily moving toward commercialization. This is in spite of continuing skepticism in much of the scientific community. Japanese firms are estimated to be spending \$100 million annually in pursuit of this goal. Pons and Fleischmann, whose experiments began the furor, where until recently located in an attractive new laboratory outside of Nice, France. Their work is generously supported by a Foundation begun by a member of the Toyota family and they and a staff of 30 are rumored to have recently been relocated to Japan.

Their research stimulated successful replication six months later by Dr. Robert Huggins and his associates at Stanford University. This fact, published in the refereed journal *Fusion Technology*, confirmed that they had achieved "Breakeven," a goal still not attained by the hot fusion community after billions have been spent worldwide. At least eight other approaches to new types of seemingly benign nuclear reactions that yield heat energy in excess of input energy have been prototyped. A few U.S. firms are developing pre-production examples of heat producing devices belonging to this family.

However, what might be called "supercold" fusion, at temperatures close to absolute zero, was the subject of a rejected U.S. patent application by Dr. Robert L. Carroll in 1971. It was a secondary effect of an even more fascinating invention, a propulsion system intended to open a practical path to visiting the stars.

Carroll was one of the few physicists to immediately applaud Pons and Fleischmann following their controversial press conference. Shortly afterwards, he wrote a two page technical memorandum explaining why he believed they had

achieved fusion. In it, he stated that their experiments produced a catalytic reaction resembling that between platinum and hydrogen which he had tried to patent in 1971

Before the recent inconsistencies highlighted by observations made with the Hubble telescope, most contemporary astronomers (with the exception of a few dissenters such as Fred Hoyle and Halton Arp) were firm in the belief that the universe is expanding. Carroll, a mathematical physicist, has been struggling to gain a hearing for almost half a century. His analysis indicates that we inhabit a toroid (doughnut) shaped universe that is neither expanding nor contracting.

Carroll has had a life-long argument with relativity theory. Although relativity is now accepted by the large majority of physicists, a Section of the 1994 American Association for the Advancement of Science (AAAS), Pacific Division Meeting in San Francisco, featured a number of dissenting voices, including Carroll's. He was well received.

In an expanding universe, interstellar space travel is an extremely unlikely event. If what has been called Carrollian mechanics (in contrast with classical and quantum mechanics) proves valid, robotic interstellar flight may prove surprisingly practical and near-term.

According to the Search for Extraterrestrial Intelligence (Project SETI) there are one billion stars for each person now alive on earth. Recent articles have mentioned that our Milky Way galaxy is estimated to contain more than three hundred billion stars. Many scientists believe the universe contain upwards of one hundred billion galaxies.

William R. Corliss once wrote that, "The energy requirements for interstellar exploration are so great that these voyages will be impossible unless a new device is found that can completely transform mass into energy." Carroll has developed the theoretical physics necessary for such a device. He believes it makes possible space travel with a speed limit of 20 million times the speed of light. In his opinion, a craft of suitable design, leaving earth at dusk, would be orbiting the bright star Arcturus by the time dawn arrives at the point of departure. A younger scientist, familiar with Carroll's work for more than 15 years, and convinced it is fundamentally correct, has stated more conservatively that it might take a few weeks, or even months, for a spacecraft to execute a round trip.

Carroll began his analysis toward the end of World War Two. He was influenced by a 1942 *Physical Review* article by Robert Millikan and two colleagues, speculating that the spontaneous annihilation of certain atoms in space, blown about by the solar winds, might explain the origin of at least some cosmic rays. The Millikan team performed additional high altitude balloon measurements, reported in 1943 and 1944 *Physical Review* articles, that they believed confirmed their hypothesis.

Experiments at Lawrence Berkeley Laboratory in 1947 demonstrated that proton, anti-proton annihilation, yields highly energetic pi neutral mesons (pions). Carroll began to pursue technology that would induce a controlled collapse of specific atoms in a manner that would release all of the enormous internal energy, far exceeding the formula $E = MC^2$ that has long been accepted as gospel. In short, he began designing an immensely powerful pion drive.

Now eighty-six years of age, Carroll retired some years ago as Chairman of the physics and math departments at what is today known as the Charleston Southern University in South Carolina. His career includes sufficient merit to warrant inclusion in Two Thousand Men of Achievement; Who's Who in American Education and American Men of Science. He earned a doctorate in mathematical physics from West Virginia University.

His first full time job was as a Research Associate at an MIT Field Experiment Station operated by what was then the U.S. Bureau of Standards, during 1944-45. In addition to his own Carroll Institute editions of The Energy of Physical Creation. and as yet unpublished books entitled Arcturus By Dawn, and Beyond the Farthest Star, he is the author of The Aerodynamics of Powered Flight, a once popular text published by John Wiley & Sons.

If the galaxy is truly open to relatively low cost voyages of exploration by earthlings, many millions of people could conceivably live elsewhere in space by the end of the 21st century. Realization of Carroll's pion propulsion system may supersede expensive chemical rocketry. It could help make possible the late Gerard O'Neill's vision of numerous satellites with populations averaging 10,000, in orbits between Earth and Mars.

Carroll's analysis of the energy contained in the atom led him to an alternative source of propulsion based on induced electron capture. A secondary effect suggested to him that a fusion reaction, involving spongy platinum and hydrogen, would be possible at a temperature close to absolute zero. This was the subject of his 1971 patent application. The fuel for electron capture might be hydrogen or helium. Neither the fuel nor the products of the reaction are radioactive. Carroll has done an analysis indicating such systems can be designed to meet safety requirements.

A device that Carroll terms a Resonance Absorber, which can reduce the temperature of the fuel to a couple of degrees above absolute zero, might induce a controlled collapse of the structure of the hydrogen atom (or other suitable fuels). One variation, not so far tested, was granted a U.S. patent as a Heat Transfer Device in 1972. The supercold fusion and space propulsion applications, submitted about the same time, were denied patents.

In a system of induced atomic collapse (disruption) the complete mass to energy conversion is expected to yield a copious supply of pions. These short-lived, high energy

particles can be ejected to drive a spacecraft at phenomenal speeds with a light, compact, fuel load.

Electron capture now appear to have a reasonable possibility of becoming the subject of experiments. Fresh insights by others, and knowledge gained as a result of the ever increasing interest in "cold fusion," make it entirely possible that with sufficient efforts practical new embodiments of the technology suggested by his ideas might be realized.

His life-long argument with relativity theory is one reason his work has been largely ignored. However, the singularly significant question would seem to be whether technology derived from his inventions will function as predicted.

Galilean Electrodynamics, a refereed journal dedicated to the work of a small number of physicists who take issue with relativity, carried articles by Carroll in three of the first four issues. His work has also been featured in *Aperion*, a similar Canadian journal. In a small body of published (and a large collection of unpublished) work he has detailed his unorthodox, dissenting, interpretation of many key experiments that are used to support relativity.

He states that spacecraft, powered as he suggests, can transcend the Mach limit for the speed of light as readily as Chuck Yeager broke the Mach limit for the speed of sound. (It might be useful to recall that, prior to Yeager's successful flight, many scientists were skeptical that aircraft could break the sound barrier.)

It may soon be possible to build a Resonance Absorber. If electron capture is achieved, a robotic spacecraft might be designed and constructed. It may prove feasible to fabricate it at the microscale, as nanotechnology. If it reaches Arcturus (or some other destination star) - and rapidly returns with proof in the form of useful data, consistent with extrapolated observations of the same star using the Hubble telescope, Carroll will have brought about a revolution in physics and cosmology.

The very unorthodoxy of his approach is a reaffirmation of the importance of the stubborn individual when faced with overwhelming authority. If he is right, as some believe, he has unlocked the doors to exploring the universe in a manner hardly suspected previously, except by a handful of writers of science fiction.

We are reminded by the death of Thomas Kuhn, author of The Structure of Scientific Revolutions, and from the furor surrounding cold fusion, that physics is usually taught as a dogma. A case can be made for presenting physics students with two systems - both self consistent. Each explains all of the key experimental data within its own framework. One would be Carroll's physics and the other the physics of relativity. As an example of its utility, Carrollian Mechanics does away with the mystery of the missing 90% of the mass of the universe which has recently

deepened for conventional physics with the data revealed by the Hubble. Students would learn to use whichever perspective seems appropriate, just as we switch from seeing an electron as a particle or a wave. Perhaps physicists would then become more open minded about anomalies - even those discovered by electrochemists.

Publications (and two as yet unpublished books) of Interest:

Robert Millikan, Victor Neher and William Picketing: A Hypothesis as to the Origin of Cosmic Rays and its Experimental Testing in India and Elsewhere, Physical Review, April 1942.

Further Tests of the Atom-Annihilation Hypothesis as to the Origin of the Cosmic Rays, Physical Review, April 1943.

Further Studies on the Origin of Cosmic Rays - Helium Annihilation Rays and the Cause of Their Variability with Time, Physical Review, December 1944.

Robert L. Carroll:

<u>The Eternity Equation</u>, Carroll Research Institute, 1972. (Out-of-print but available in some college and university libraries):

<u>The Energy of Physical Creation</u>, Carroll Research Institute, 1985.

<u>Heat Transfer Device</u> (Resonance Absorber), U.S. Patent 3.664.143. 1972.

"The Nature of Space," Galilean Electrodynamics, 1990.

"The Mass-Space Principle? *Galilean Electrodynamics*, 1994.

Arcturus By Dawn, (unpublished Manuscript), 1990.

Beyond the Farthest Star, (unpublished Manuscript), 1994.

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P.A.C.E. - 20 YEARS OF ENERGY

A. Michrowski (President of P.A.C.E), "The Planetary Association for Clean Energy, Twenty Years of Science," *The AEN Newsletter*, vol 3, no 1, March 1996, pp 8-12.

AUTHOR'S ABSTRACT

The Association is now entering its 20th year of existence. It began as an initiative by Hon. Chesley W. Carter, chairman of the Canadian Senate Standing Committee on Health, Welfare and Science, "to encourage maximum utilization of science and technology to the problems that face us... to keep [ourselves] as well informed as possible

about what was being done in this respect, particularly with regard to the development and possible application of new technology, new devices and new approaches to current problems." [P.A.C.E. is a non-profit, charitable corporation whose objectives are to facilitate the discovery, research, development, demonstration and evaluation of clean energy systems.]

GENERATING GRAVITATIONAL WAVES

I.M. Shahparonov, (Member of Acad. Energy & Informational Sci., Moscow, Russia), "The Generation of Scalar Type Gravitational Waves by Means of Oscillating Kozyrev-Dirac Beam," from Frolov's St.-Petersburg abstracts.

AUTHOR'S ABSTRACT

Information: "The powerful generator for Kozyrev-Dirak radiation" Will reported about creation of powerful (in 10° times more intensive than power used in Kozyrev's experiments) generator of Kozyrev-Dirac radiation. The schematical description of device will reported. On the base of hypothesis about magnetic-monopolar nature of radiation the conclusion is proposed for some methods for detecting of it.

For the first time will reported the information about interaction of photons beam with beam of magnetic monopolies of Kozyrev-Dirac radiation. Experimentally demonstrated that laboratory source of Kozyrev-Dirac radiation can create fixed gravitation field that is equal to mass 10³² gram, and forced oscillations of the Kozyrev-Dirac radiation beam can create the scalar type gravitational wave.

GRAVITY MASS OF AETHER?

V.G. Shulgin, (Engels prospect, St.-Petersburg, Russia), "Gravitation Result from Interaction of Substance with Gradient of Aether Density," from Frolov's St.-Petersburg abstracts.

The aether has a gravitational mass and its density increases in area around of massive bodies and inside of bodies. If the compression of the aether have place, the electrical and magnetic constants of aether are increasing. The gradients of those constants creates attractive forces of electric and magnetic fields. Forces are equal to gravitational force.

Total force of gravitation is directed along of aether density gradient. This force is equal to sum of three components: electrical, magnetic and strong nuclear. Author calculated: the density of aether - it is equal to 5×10^{15} gram x sm⁻³, the inner pressure of aether 1.5×10^{35} Pa. The density of energy and mass of gravitational field on the surface of planet Earth was calculated also: 6.4×10^{10} gram x sm⁻³.

16 JULY 1996

The principle of "mathematical scissors" was used to prove the incompatibility for some well-known transformations and laws of modern physics.

NEUTRINO SCREENING EXPERIMENT

M.G. Vinogradova and A.E. Khodkov (St.-Petersburg, Russia), "About Experimental Proofs of Attraction of Earth to the Sun by Screening of Part of Surrounding Inflows of Aether's Neutrinos," from Frolov's St.-Petersburg abstracts.

AUTHORS' ABSTRACTS

Published information is considered on the experiment of Stephan Marinov on "detection of aether" that was made in 1984, Graz, Austria.

The results are explained by means of new cosmogonical theory by Khodkov and Vinogradova. Also modern achievements of K.P. Butusov and Dr. M. Mueller were used

Shown that the current was registered in experiment (approximately 1 x 10⁻⁷ A) that was changing by asymmetrical sine law is connected with aether but it is caused by longitudinally polarized neutrino. Those neutrinos are inflowing to the Earth on day and on night sides in different intensity in strength of its partial shielding.

LETTERS

LETTER FROM HAROLD ASPDEN

Over-Unity in South Africa

I returned from the Energy Symposium in Denver to find that my fax machine had received a message from Nicky Knoetze of Telecontrol Services (Telemetry, Earthing and Lightning Protection Specialists), P.O. Box 510, Umlanga 4320, Republic of South Africa.

After acknowledging receipt of my book <u>Modern Aether Science</u>, and my Energy Science Report No. 1 on "Power from Magnetism," which he said "made some very interesting reading," he stated:

"I have been working on an energy device powered by ferromagnetism for some time now, but I have never found a scale of reference to apply to my device, which presently runs at 105% above unity. I have found a lot of my answers in your report. Do you have any further reports on

ferromagnetism as I do not understand the "flyback" action mentioned in Report No. 1."

For information of *NEN* readers who might have the same problem, my response to that inquiry includes the following comment:

Flyback as applied to a transformer simply means power into primary winding through a diode or equivalent as the magnetic flux increases to store energy in the transformer inductance and power out from a secondary winding through a second diode as the magnetic flux decreases to shed the inductive energy stored in the core. That will not give over-unity if the primary and secondary are wrapped close together on the same section of core, one around the other, but there are interesting consequences if the windings are well segregated on the core.

Nicky Knoetze gives his tel/fax no. as Int+031-561-6305.

/s/ Harold Aspden

[An early paper by Aspden explores the results of varying the air gap on the transformer core. Ed.]

LETTER FROM WIN LAMBERTSON

In the past week I have been able to read two unusual and outstanding books. The first was The Coming Energy Revolution by Jeane Manning [see review p 19] and the second was The Tenth Insight by James Redfield (c1996, Little Brown pub., \$19.95). In the first, Jeane gives us the history of the free energy movement and short accounts of 37 inventors in that field. In the second, James writes about the earth's spiritual renaissance and names "fear" as its major obstacle.

The reason for this letter is that James uses a free energy inventor, Feyman, as his bad guy. Notice that the villain has almost the same name as Richard Feynman, the famous quantum physicist.

Feyman is trying to perfect a free energy device in a national forest and is blowing up the landscape in the process. James writes:

"...basically it works this way. Imagine that the electromagnetic field of the Earth is a giant battery that can provide plenty of electrical energy if you can tie into it in the correct way. For that you combine a room temperature, superconductive generator system with a very complicated electronic feedback inhibitor, which mathematically enhances certain static output resonances. Then you tie several of these in series, amplifying and generating the charge, and when you get the calibrations exact, presto, you have virtually free energy right out of the immediate space. You need a small amount of power to start, perhaps a single photocell or a battery, but then it's self-perpetuating.

A device the size of a heat pump could power several houses, even a small factory."

Does that not sound familiar?

Everything we learn from Jeane's book is that small is beautiful. None of the present day inventors are working on 500 megawatt size conversion units. Clearly, the use of long, high voltage power lines is obsolete. The reason Feyman is bad is that he is trying to centralize the generating process into large power plants and in so doing, he can gain recognition and status. He is going to save the world from hyperinflation resulting from the sudden reduction in energy costs by the gradual shift to the inexpensive source. Centralized control is the Feyman goal.

Jeane's book opens up the free energy field to the general public. They know that the planet is headed towards an energy crisis and can now learn that there is an alternative to the nuclear route. We have already witnessed a struggle for control of this knowledge within our small group. Fear of change is something which we all go through and the development of free energy will be a greater change than the world has ever seen.

The free energy movement has suffered -- or been blessed -- by benign neglect from both government and the energy industry. I think this has been a blessing and that we should "stay the course." Free energy is going to make it possible to feed the world, reduce pollution, and to realize the concept of abundance. The need for scarcity and struggle by some groups is going to fade away.

W.A. Lambertson, Ph.D.

TO EDITOR FROM EDITOR

Dear Editor Wayne Green, Cold Fusion

In your editorial, "Making a Mess," *Cold Fusion*, May 1996, issue no. 17; you make the following statement:

"I'm no fan of the government doing anything more than a bare minimum of running things. But in this case, where there are humongous vested interests threatened, it's unlikely that private industry is going to do anything other than impede progress. Well, if you were a top executive in a power, oil, coal, or other energy generating or distributing company, wouldn't you do your best to stop progress in a product that fares well to put your company out of business within a few years?"

Here is another view: The utilities cannot afford to build new power plants in the U.S. and follow all of the clean-air regulations from the EPA. If they did, says one expert, they would have to charge \$0.40 per kilowatt hour. Oil

executives have stated that they would sooner keep their oil in the ground to sell later as chemical feedstocks rather than pump it to burn. Forty years of remaining oil (at present energy demand growth rates) is the world-wide supply. I'll admit that the coal companies are the most threatened. However, I suggest that you will find that it will be the private companies in America that develop new-energy devices and systems. So please don't tar us all with the same brush.

Sincerely,

Hal Fox, President, Fusion Information Center & Editor of *New Energy News*.

Book Reviews

By Hal Fox

NEW ROLE FOR MAGNETIC SCIENCE

Elsewhere in this newsletter is a dramatic announcement by Professor John R.R. Searl, the inventor and developer of the Magnetic Levitating Disks [see page 8]. After fifty years he has now shared information about the construction and the effect of his special magnetic materials to produce a voltage from tapping the energetic aether. Prof. Searl promises more astounding announcements of discoveries concerning magnetic science.

Several of the new devices that are being prepared for commercialization use magnets. The advent of new super magnets (such as the Takahashi super magnet) will undoubtedly have a favorable impact on the development (and re-development) of various types of magnetic motors and other devices. A group being funded by the Fusion Information Center (FIC) plans to market a magnetic kit that will have a variety of magnets and, more important, a large array of magnetic experiments that can be performed. FIC believes that it is important to have more individuals involved in the rediscovery of magnetic science.

Although it has been over 2,000 years since Magnes lost his shoe when the nails stuck to a strong lodestone, magnetism still has not been fully understood. For example, it is this author's belief that a magnet would not work in the absence of an aether. It is important that we re-examine our concept and model of what magnetism is. Another erroneous concept of magnets (according to this editor) is that magnetic forces exhibit action at a distance. It is suggested that an improved model of magnetism will show that the magnetic poles and therefore the magnetic forces are formed in the flowing and aligned aether external to the magnets and that the forces generated are local and not action at a distance.

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These new ways of looking at magnetic science are not shared by current textbooks. In a search for good experiments for youth to learn more about magnets, the following book was purchased and is recommended to the lay readers of this newsletter.

Glen Vecchione, <u>Magnet Science</u>, c1995, published by Sterling Publishing Company, Inc. 387 Park Avenue South, New York, NY 10016, 128 pages, illus., glossary, indexed

This book is written for any bright young-in-mind person. The reading level is about sixth to eighth grade. A variety of uses of magnets are explained and simple, easy-to-follow illustrated experiments are detailed for the reader. The last chapter of the book reviews some of the more complicated, modern use of magnets such as in the medical Magnetic Resonance Imaging equipment. Included in the experiments that can be performed are the building of games and even an operating electric motor. If you or your child is interested in magnetism, this book is a good place to start.

THE REVOLUTION IS COMING

Jeane Manning (freelance journalist), <u>The Coming Energy Revolution</u>, c1996, published by Avery Publishing Group, Garden City Park, New York, 230 pages, illus., resource list, glossary, indexed, ISBN 0-89529-713-2.

This timely book is highly recommended for all readers, especially for the general reader. It provides both an excellent report on the historical background of the search for new energy and introduces the readers to those who are now involved in various aspects of new energy developments.

The book is divided into four parts: Part I - Past Revolutionaries; Part II - Space Energy and the New Physics; Part III - Emerging Energy Technologies; and Part IV - The Energy Revolution -- Potential Amid the Problems. In addition, the book begins with a favorable Foreword by Brian O'Leary, who is well known in the newenergy field.

Part I discusses some of the historic work of Nikola Tesla, John Ernst Worrell Keely, Walter Russell, Thomas Henry Moray, Lester Hendershot, Viktor Schauberger, and Wilhelm Reich.

Part II tells us about some of today's geniuses such as Moray King, Harold Puthoff, and Thomas Bearden and their efforts to help provide a scientific underpinning for "space energy." Next, the works of Kenneth Shoulders and his high-density charge clusters, Wingate Lambertson and his cermet devices, and John Hutchison and his new rock-crystal devices. These three innovators are apparently tapping space energy with three different solid-state devices. The work of the late Floyd "Sparky" Sweet is described. Four other persons who have worked with rotating machines

in the production of energy are introduced: Bruce dePalma (now of New Zealand), Bertil Werjefelt (Hawaii), Shiuji Inomata (Japan), and Paramahamsa Tewari (India). These are four of the leading lights in the development of the "N-Machine" which was instigated by Bruce dePalma.

Part III discusses the advent of cold nuclear fusion, first announced in 1989 by Professors Stanley Pons and Martin Fleischmann at a press conference called by the staff of the University of Utah. The author cites that the work not only is continuing but is being commercialized. The work of the late Francisco Pacheco in producing hydrogen gas from sea water and using this power for a variety of energy devices is presented. In a similar task to develop the power of hydrogen, Jeane Manning brings us up to date with the life's work of Roger Billings (formerly from Utah and now in Independence, Missouri).

Part III also includes the stories behind the work of Peter Lindemann and George Wiseman in using relatively lowgrade heat as a useful power source. Their efforts to develop Low-Temperature Phase Change (LTPC) technologies are discussed. Also, Jeane tells us the story of Harold Aspden (one of our active correspondents) and his search for better ways of using magnets and heat to produce useable energy. This part of the book includes a report on William Baumgartiner who is improving on the work of the late Viktor Schauberger in the use of vortexing water. The trials and tribulations of the use of the new technology of low-flow water power, as developed by Martin Burger, is included in this part of Manning's book. Finally, the work of Johann Grander (another follower of Viktor Schauberger's work) and his discovery of "living water," the rotating energy-producing disks of Paul Baumann at the Methernitha commune, and the hydrosonic pump of James Griggs, are discussed. These are fascinating tales of the difficulties of getting (or not allowing) new-energy developments to get to the market place.

Part IV of this easy-to-read book consists of three chapters entitled, "Harassing the Energy Innovators," "Society and a New-Energy Economy," and "The Power is in our Hands." This finale of an excellent book discusses the problems, the solutions, the challenges, and the opportunities that we all face in the development, acceptance, marketing, and enjoyment of the new energy devices.

The reader of this book will find that we still have things to learn from early new-energy developers who devoted their lives to their work. Of great importance is the fact that there are a number of living researchers who are likely to become well known as the inventors and developers of viable new-energy technologies. In this reviewer's opinion, some of the products mentioned in the book will not become commercialized because the technology is maturing so rapidly that a better product may be on the market before an existing product can be commercialized. For example, it is this reviewer's judgement that the N-Machines will be replaced by such developments as the Takahashi

super magnet, super motor. Some of the solid-state devices may never make it to market because there are newer and better devices that are emerging from laboratories. The past, present, and future development of new-energy devices that will change the world from a fossil-fuel economy to a space-energy economy makes an exciting story. All three classes of events are treated in this excellent book by Jeane Manning. We recommend this book to you.

[In a personal note, as the author of <u>Space Energy Impact in the 21st Century</u>, I am indebted to Jeane **because this book of hers is an excellent introduction to my own forthcoming book** (scheduled for July, 1996). From the vantage point of being the editor of two newsletters and having the privilege of becoming personally acquainted with some of the world's leading workers in the newenergy field, my book will reflect some of the latest materials that can be published about several new devices that are tapping space energy. Therefore, from a selfish point of view, thanks Jeane Manning for an excellent introduction to space energy! --Ed.]

QUANTIZED MASS - A BOOK REVIEW

Petar K. Anastasovski & Trevor M. Benson, <u>Quantum Mass Theory Compatible with Quantum Field Theory</u>, Nova Science Publishers, Commack, N.Y., c1995, 44 figs, 30 refs, indexed, 165 pages.

In high school I was taught an atomic model that was like a miniature solar system. With hydrogen it was one central body (the nucleus) and one oribiting planet (the electron). As I and the model grew up, the oribiting electron became variously a wave of energy surrounding the nucleus at some distance; endowed with indeterminacy so that you would never be able to tell exactly where it was; and ultimately a spread-around force moving rapidly in an orbitshell. In this book the electron gets some new attributes.

Consider the following sketch:

N<----- r < h/mc ---->r=h/mc<----- r > h/mc ----->

N represents the nucleus of a hydrogen atom. The electron occupies an **orbitshell** at various distances from the nucleus at a radial distance **r**. The distance is measured by Planck's constant **h**, divided by a mass **m** multiplied by **c**, the speed of light. **r=h/mc** at about 4 x 10⁻¹¹ centimeters. At larger distances, the normal physics of the hydrogen atom can be used, that is the charge of the electron and the mass of the electron are provided by standard text books.

The remarkable development in this book is the concept that as the electron interacts with a photon **the electron absorbs the mass of the photon**. Therefore, when an electron absorbs a photon it changes its orbit. There is empirical (experimental) evidence for the changes in orbits

of electrons around the nuclei and the concept that only certain orbits are permitted. This book provides an explanation. **Mass is quantized.** Therefore, the electron cannot have any mass but only discretes increments (or decrements) of mass. With different mass, the electron occupies a different orbitshell.

Another concept discussed in this book is that the mass of the electron responds normally to gravity at distances **r** greater than **h/mc**. At closer distances gravity becomes antigravity and the electron is repelled from the nucleus. However, the charge on the nucleus (consisting of one proton for hydrogen) attracts the electron (the well-known Coulomb barrier). The balance between the charge attraction and the anti-gravity repulsion determines the electron's orbit. Remember that when the electron emits a photon or absorbs a photon, it is changing its mass **and therfore changing its orbitshell distance**.

Assume that the authors are correct. Here is one possible application of this new view of the hydrogen atom:

Photons traveling through interstellar space will have a small (but finite) probability of interacting with hydrogen atoms that exist in interstellar space. As small but finite quanta of photon mass is lost to the electrons there is a reduction in photon momentum or energy. When such a photon arrives at our telescopes, we observe this phenomena as a red-shift. Currently we accept the redshift as being due to the velocity of the source of the photons. Nearly all distant galaxies demonstrate the redshift. Our current explanation is that all of these galaxies, in every direction, are moving away from us and the more distant the galaxy the faster it is moving away. Therefore, we must be living in an expanding universe. If we accept this simple and easy to understand concept that photons from more distant stars give up more quanta of energy in their travel through interstellar space than do the photons from less distant stars, the implications are the following: 1. The universe is not expanding. 2. The velocity of light may not be a constant (in line with experimental evidence). 3. The big bang is not needed. 4. The universe is relatively stable. Remember that the major reason for the Big Bang is to give the universe the impetus for expanding. Thanks to these authors, the universe has just become much simpler, more quescient, and much easier to understand.

This book tells us a lot more about the implications of the Quantum Mass Theory and provides numerous equations (258 are labeled) and explains what are implied by the equations. If you have a reasonable math background, you will find this book to be an exciting adventure into a set of new ideas. The book is expensive, \$87 plus shipping, and is not for the lay person. However, I am convinced that you will see the new ideas and concepts detailed in this book make their way into the forthcoming **paradigm shift** (the big model change) in science. We commend the authors for

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reporting on new great ideas in a well-prepared, well-written, important book.

GRAVITATION OF THE SUN

A book review by Hal Fox

Pari Spolter, <u>Gravitational Force of the Sun</u>, c1993, 260 pages, 351 refs, illus, indexed, ISBN 0-9638107-5-8, published by Orb Publishing, 11862 Balboa Blvd. #182, Granada Hills, CA 91344-2753, \$29.95.

This is the most readable technical book that it has been my pleasure to review. Dr. Spolter begins every topic with a review of the earliest experimental data and writings. She quotes what the original authors wrote, and what later authors thought they wrote. The topics covered range from The Universal Law, Relativity (two chapters), Fundamental Problems, Gravitational Force of the Sun, to The Distance Law, Gravitational Force of the Planets, and ends with Eccentricity, Inertia, and the Units of Force and Energy. In every chapter, the author exhibits a readable style, carefully prepared review of the background for each topic, and ends most chapters with a simple statement of her position.

After chapter 1 (**The Universal Law**), the author states factually, "Newton did not need, nor did he estimate the masses of the earth and the moon to deduce the reciprocal square of the distance from the center of attraction--and therefore--there is no basis for inclusion of the term **product of the two masses** (\mathbf{m}_1 , \mathbf{m}_2), or for that matter, for inclusion of any terms for mass in the equation of the gravitational force. In her evaluation of the universal law, Spolter looks at the dimensions of the formulation:

F = ma = G (m₁ m₂)/r² and finds that dimensionally kg· m/s² = kg· kg\m², or m³ = kg· s²,

and relates that the instructor will tell you that the constant G just happens to have the dimensions that balance the equation. She also reports that other authors throw in a unit vector to explain why the vector F is equated to scalar quantities. It is careful analysis like this that leaves the reader pondering, "Why didn't I question that?"

It was the two chapters on Relativity that was the most interesting to me. Dr. Spolter cites over thirty authors who questioned the validity of the theory of relativity. Two of the most interesting are the following: "General relativity is a splendid piece of mathematics built on quicksand and leading to more and more mathematics about cosmology (a typical science-fiction process)." L. Brillouin (1970).

The quote I liked best: "In spite of its great success in various fields, the present theoretical physics is still far from being able to provide a unified foundation on which the theoretical treatment of all phenomena could be based. We

have a general relativistic theory of macroscopic phenomena, which however has hitherto been unable to account for the atomic structure of matter and for quantum effects, and we have a quantum theory, which is able to account satisfactorily for a large number of atomic and quantum phenomena but which by its very nature is unsuited to the principle of relativity." **Albert Einstein** and N. Rosen (1935).

When I was in high school, I read that there were only ten people in the world who could understand Einstein and in my youthful enthusiasm I determined to be no. 11. Since that time, I have read nearly everything Einstein wrote that was published. My conclusion is that Einstein (and, as it turns out, with his wife) did a wonderful job of structuring a partial explanation of reality based on a negative experiment (the Michelson-Morley experiment) but not consistent with physical reality.

Dr. Spolter also demolishes the strongly-held belief that Michelson & Morley proved that there was no energetic aether. She cites Shankland quoting Einstein, "He [Michelson] told me more than once that he did not like the theories that had followed from his work!" Spolter states (page 254), "In the Michelson and Morley experiment the calculations were based on an assumption of simple additive effect of c ± v. ... an assumption of a simple additive effect of velocities is incorrect when dealing with electromagnetic radiation." [It is interesting to consider Zielinski's statement: "Had Michelson and Morley pointed their interferometer in a vertical plane, they would have concluded that the earth is moving in a perpendicular direction to the surface of the earth into space." This quote is from "A New Theory that Unifies the Forces of Nature," to be presented at the Third International Symposium on New Energy, April 25-28, 1996, Denver, Colorado.]

Judging from the covers of most magazines and pocketbooks, sex is the most compelling topic for readers. If you, as a reader, are as interested in science as the typical American reader supposedly is in sex, this book, to you, will be as readable as any of the current best sellers. It is superbly written with painstaking research to quote the original experimenters (or theorists). Each conclusion is buttressed by careful explanation of the facts. Although the author uses the calculus when required, she ensures that the non-mathematician reader can read between the equations.

The book quotes Newton as saying, "Hitherto we have explained the phenomena of the heavens and of our sea by the power of gravity, but have not yet assigned the cause of this power." *Philosophiae Naturalis Principia Mathematica* near end of Book III. We leave it to the reader to discover why Pari Spolter writes the following: "What is constant for all planets, is the gravitational force of the sun. ... $F_s = a \cdot A$, where a is the acceleration and A is area." It is a challenging conclusion in a book that is a pleasant reading journey. We promise that you will be much less ready

to accept the lecturing of physics instructors or the writers of textbooks as being the sole and ultimate truth! That questioning attitude lies behind every new-energy invention and development and should be the attitude adopted by every seeker of truth.

NEW BOOK JUST RECEIVED

Courtesy of James Berry, The Message Company

Dale Pond, Edgar Cayce, John Keely, Rudolf Steiner, Nikola Tesla, <u>The Physics of Love: The Ultimate Universal Laws</u>, c1996, letter size, paperback, 144 pages, 183 refs, illus., indexed. Available from The Message Company, 4 Camino Azul, Sante Fe, New Mexico 87505, \$17.95.

PUBLISHER'S BLURB

Explore the physics of love and consciousness in an easy-to-understand and exciting manner. The universal laws in this book are applicable to music, electronics, mechanics, healing and all branches of science and philosophy. This science demonstrates the commonality that underlies all phenomena - vibration. Another name for Sympathetic Vibration is Love. Science and Spirituality are finally reunited!

Meetings

1966 INTERNATIONAL TESLA SOCIETY YEARLY CONFERENCE

July 19-21st in Colorado Springs Colorado Springs Sheraton Hotel South 1-800-324-3435 for hotel reservations

For information and registration call (719) 475-0918 or Fax (719) 475-0582 Registration fee for full conference \$250.

There will also be a series of workshops featuring Don Smith & his Free Energy Device, George Wiseman on Brown's Gas Generator, Bill Wysock on Large Scale Tesla Coils, Dr. Deborah Banker on Improving Vision, Sonnie Ward on Implosion Technology and Jerry LaBine on Tesla Pump Technology.

INTERNATIONAL SYMPOSIUM ON CONSCIOUSNESS, NEW MEDICINE AND NEW ENERGY

Yomiuri Hall, Tokyo, Japan November 21-22, 1996

An International symposium to discuss and present research results in such areas as consciousness phenomena, holistic medicine, integration of Western and Eastern medicine, and new energy technology. The sponsor is the Japan Green Cross Society. 18 key-note speakers have been determined, among them 5 are overseas speakers, including Paramahamsa Tewari. Conference chairman is Dr. Shiuji Inomata, and overseas advisory board consists of Dr. W. Harman (USA), Dr. David Lorimer (UK), and Dr. Beverly Rubik (USA). Participation fee is approximately US\$ 185 (¥20,000).

Contact: Mr. Tetsu Nagano, Japan Green Cross Society

10F Takanawa-chuo Bldg. 2-20-23 Takanawa Minato-ku Tokyo 108 JAPAN

Tel: +81(0)3-3442-7521 Fax: +81(0)3-3442-7651

For academic information contact:

Dr. Shiuji Inomata

2-2-2 Sekigawa-cho Arai-shi Niigata 944, JAPAN

Tel/Fax: +81(0)255-72-0558

ICCF6

Sixth International Conference on Cold Fusion

will be held 13-17 October 1996 Hotel Apex Toya, Hokkaido, Japan Conference Secretariat: Tel +81-3-3508-8901 Fax +81-3-3508-8902 E-mail mac@iae.or.jp

The conference will consist of both oral and poster sessions covering experimental work and theory on the following topics:

- Excess Energy Phenomena in D₂/Metal Systems
- Correlation Between Excess Energy and Nuclear Products
- Nuclear Physics Approaches
- Material Science Studies
- Innovative Approaches (Miscellaneous Phenomena)

Registration fee of ¥40,000 (about \$400) includes a banquet and proceedings. A technical tour to the NHE lab is scheduled on Oct. 18, along with other professional and social events.

Hotel: Deadline for guaranteed accommodation is August 1. Contact: Hotel Apex Toya Hokkaido Aza-Shimizu, Abuta-machi, Abuta-gun 22 <u>JULY 1996</u>

Hokkaido 049-56, Japan.

Tel: +81-142-73-1111 Fax +81-142-73-1157

Registration: Final Deadline August 1. Send for application

package to Conference Secretariat

c/o NHEI-Center, IAE Shinbashi TS Building 1-22-5 Nishi-Shinbashi, Minato-ku Tokyo 105, Japan

(tel. info above)

Commercial Column

The following companies (listed alphabetically) are commercializing cold fusion or other enhanced energy devices:

COMPANY: PRODUCT

American Pure Fusion Engineering and Supply: Information and troubleshooting for the fusion research and development industry. Developing "Fullerene Fusion Fuel™." Salem, Oregon. The president, Warren Cooley, can be reached at 1-800-789-7109 or 503-585-6746. Email to: Coolwar@aol.com

CETI (Clean Energy Technologies, Inc.): Developers of the Patterson Power Cell™. Dallas, Texas. Voice 214-982-8340, FAX 214-982-8349.

Clustron Sciences Corp.: New energy research consulting and information. Contact: Ron Brightsen, 703-476-8731.

ENECO: Portfolio of intellectual property including over thirty patents issued or pending in cold nuclear fusion and other enhanced energy devices. Salt Lake City, Utah. Contact Fred Jaeger, Voice 801-583-2000, Fax 801-583-6245.

E-Quest Sciences: Exploring <u>The Micro-Fusion™</u> process. Seeking qualified research partners for their sonoluminesence program. Contact Russ George, FAX 415-851-8489.

Fusion Information Center (FIC): Research and development of new energy systems. The world's most complete resource depository for cold fusion research information, as well as other new energy research including zero-point energy; space energy research; electronic, electromagnetic, and mechanical over unity devices and more. We are the publishers for *Fusion Facts, New Energy News*, and *the Journal of New Energy.* Voice 801-583-6232, Fax 801-583-2963.

Holotec AG, Clean Energy Technology, contact André Waser, Gen. Mgr., Bireggstrasse 14, CH-6003, Luzern, Switzerland. Phone 011 41-41 360 4485, or Fax 011 41-41 360 4486.

Hydro Dynamics, Inc.: Hydrosonic Pump, heat-producing systems using electrical input with thermal efficiencies of 110 to 125 percent. Rome, Georgia. Contact James Griggs, Voice 706-234-4111 Fax 706-234-0702.

International Management Systems Co. (IMSC): Technical project/program management assistance, and technology development and commercialization assistance. Contact Mark Harris or Richard Youngs, Phone 801-583-6232, Fax 801-583-2963, or Phone/Fax 801-255-3000.

JET Energy Technology, Inc.: Design and manufacture of π-electrode systems, calorimeters, and associated equipment and systems. Consulting regarding radiation, materials, and other scientific and engineering issues. Weston, MA. Contact Dr. Mitchell Swartz, Voice 617-237-3625. Fax 617-237-3625.

Labofex, Experimental and Applied Plasma Physics: R&D of PAGD (Pulsed Abnormal Glow Discharge) plasma technology. Applications under development include protable power supplies, electric vehicles and autonomous housing. Licensing. Ontario, Canada. Contact Dr. Paulo N. Correa. Tel 905-660-1040 Fax 905-738-8427

Magnetic Power Inc.: The Joint Venture partner with Sciex (UK) for Takahashi supermagnets and supermotors in North America. Sebastopol, CA. Contact Mark Goldes, Voice 707-829-9391, Fax 707-829-1002.

Nova Resources Group, Inc.: Design and manufacture ETC (Electrolytic Thermal Cell); EG (commercial power cogeneration module); and IE (integrated electrolytic system). Denver, CO. Call Chip Ransford, Phone 303-433-5582.

UV Enhanced Ultrasound: Cold Fusion Principle being used for an ultrasonic water purifier. Hong Kong. FAX 852-2338-3057.

Zenergy Corporation: Founded in 1996 to facilitate the introduction of commercially viable energy alternatives. (formerly Power Cell Technologies) Chandler, AZ. Contact Reed Huish: 602-814-7865, Fax 602-814-7665, e-mail: reedh@indirect.com

Note: The Fusion Information Center has been acting as an information source to many of these companies. We expect to augment our international service to provide contacts, information, and business opportunities to companies considering an entry into the enhanced energy market.

INFORMATION SOURCES

Academy for New Energy (ANE) is a subsidiary organization to the International Association for New Science, which has specific goals directed toward the field of alternative and "New" energy research. 1304 S. College Ave., Fort Collins, CO 80524. Tel. 970-482-3731

ANE Newsletter, quarterly publication of ANE, providing an open forum for discussion, and disseminating newsworthy and inspirational information on invention and new energy. Edited by Robert Emmerich.

Advanced Energy Network Newsletter, quarterly, a reprint of articles and papers from other energy publications, with book reviews and worldwide conference list. Advanced Energy Network, P.O. Box 691, Rondebosch 7700 Capetown, Rep. South Africa.

Cold Fusion, monthly newsletter, edited by Wayne Green, 70 Route 202N, Petersborough, NH 03458.

Cold Fusion Times, quarterly newsletter published by Dr. Mitchell Swartz, P.O. Box 81135, Wellesley Hills MA 02181. Home Page: http://world.std.com/~mica/cft.html

Cycles, a R&D newsletter, published by Dieter Soegemeier, Editor, GPO Box 269, Brisbane, QLD.4001, Australia. Phone/Fax: +61 (0)7 3809 3257.

Electric Spacecraft Journal, quarterly, edited by Charles A. Yost, 73 Sunlight Drive, Leicester, NC 28748.

Fusion Facts monthly newsletter. Salt Lake City, UT. 801-583-6232, also publishes <u>Cold Fusion Impact</u> and <u>Cold Fusion Source Book</u>. Plans on-line database access.

Fusion Technology, Journal of the American Nuclear Society, edited by Dr. George Miley, publishes some papers on cold nuclear fusion. 555 N. Kensington Ave., La Grange Park, IL 60525.

Infinite Energy, new bi-monthly newsletter edited by Dr. Eugene Mallove (author of Fire from Ice), P.O. Box 2816, Concord, NH 03302-2816. Voice: 603-228-4516. Fax: 603-224-5975 E-mail 76570.2270@compuserve.com

Institute for New Energy (INE), organization to promote and help find funding for new energy research.

Home Page: www.padrak.com/ine/ contains many important scientific papers and current reports on all areas of research. E-mail: ine@padrak.com Salt Lake City, Utah. Voice 801-583-6232, Fax 801-583-2963.

New Energy News monthly newsletter for INE, highlighting the research and development in the worldwide new energy arena. Edited by Hal Fox.

Journal of New Energy, quarterly, presenting papers representing the new areas of energy research, leading-edge ideas in the development of new energy technology,

and the theories behind them. Published by the Fusion Information Center, Inc., for the Institute for New Energy. Editor: Hal Fox.

KeelyNet BBS - Science and health oriented information exchange that specializes in nonstandard research, much of it on new energy. Jerry Decker, 214-324-3501 Internet: www.keelynet.com E-mail: jdecker@keelynet.com

Planetary Association for Clean Energy Newsletter, quarterly, edited by Dr. Andrew Michrowski. 100 Bronson Ave, # 1001, Ottawa, Ontario K1R 6G8, Canada.

Now available: Clean Energy Review, a technical and scientific discussion on nuclear fuel wastes disposal. Discusses transmutation as one possible solution. \$5 U.S. and Canadian, \$7.50 other countries.

Space Energy Journal, quarterly, edited by Jim Kettner & Don Kelly, P.O. Box 1136, Clearwater, FL 34617-1136.

21st Century Science & Technology, P.O. Box 16285, Washington, D.C., 20041. Includes cold fusion developments.

The above list of commercial and information sources will be growing. New listings will be added as information is received. Send information to *NEN*, P.O. Box 58639, Salt Lake City, UT, 84158.

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