



The Newsletter of The North Texas Skeptics

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Free energy

by John Blanton

First let's run down what this is all about.

People have long known that it takes effort to get anything done. Long ago a few smart people got concerned with what it took to do work. People like Watt and Joule. And Carnot.

And, they had some bad news for us—there is no free lunch. This was called the First Law of Thermodynamics. Energy is conserved. If you wanted to pump so much water up from the mine shaft you had to burn so much coal (and more). This was good news for the coal company but bad news for people who wanted to get things done—which is what work is. Somehow there had to be a better way.

First there were the perpetual motion machine cranks who looked holes in the first law. For example, they might hope to have a water wheel that operated a pump. The pump supplied water to power the water wheel. A lot of inventors went crazy trying to get these devices to work. Most of these people have since been replaced by a new group—those who can live with the first law but think it can be finessed. Here is the idea.

Joule, for example, developed a concept called the mechanical equivalent of heat. So much work was equivalent to so much heat. You do the work, and you produce an equivalent amount of heat.

This gave the entrepreneurs a great idea. Why not use the energy manifested by all this heat and stiff the coal company. The stockholders would be pleased.

The problem with this was the Second Law of Thermodynamics. The second law allows for the conservation of energy (and matter) and goes one step further. Even if the energy is there (in the form of warm water, for example) you still may not be able to use it. Physicists have a cute way of restating the laws of thermodynamics in terms of a poker game: “You can't win” [first law], “You can't break even” [second law], and “You can't get out of the game.” This last is supposedly a take on the so-called Third Law of Thermodynamics. I won't get into explaining that here, because it always appeared to me that the third law was just a restatement of the second.

In short, the second law just says you can't do work by extracting the heat energy from something at or below the temperature at its surroundings. This doesn't keep us from doing work by extracting heat from hot (or even warm) bodies of rock or water. Geothermal power is a practical implementation of doing just this, although the energy ultimately comes from nuclear fission.

Joseph Newman

This brings us to the matter of Joseph Newman. John Thomas previously told about Joseph Newman here in 1997. ¹ Since then we have come into the possession of Newman's book *The Energy Machine of Joseph Newman*. It's an impressive volume, 8-1/2 by 11 format running over 350 pages.

Like all good books, it starts with a bold statement by the author.

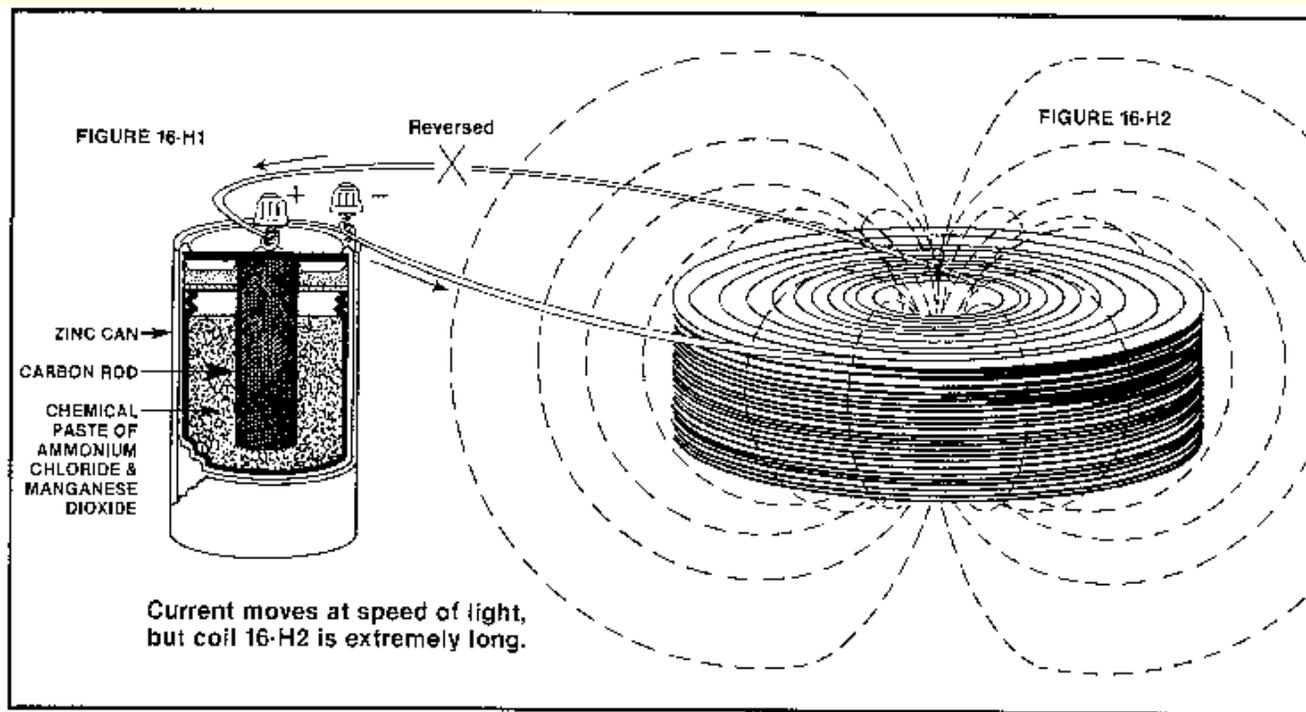
In my search for Absolute Truth over the last nineteen years, I have often questioned why the conclusions I drew from present physics, electrical engineering, and astronomy teachings were not in accord with the scientific community's conclusions.

A quick view of his book seems to indicate Newman is a free energy crank of the first type. That is, he wants to violate the first law of thermodynamics.

I haven't had a chance to go over all of Newman's ideas, but it appears he bases his theories on a number of serious misconceptions about physical principles. Take a look at this drawing from his book and follow along with his explanation:

Let's examine a typical battery—an electro-chemical cell. These devices operate according to Faraday's Laws. Faraday's First Law states that the quantity of electricity that passes through a solution is proportional to the quantity of substance decomposed. You will note that this action is solely dependent upon the current (gyroscopic particles) completing the circuit. If the current (gyroscopic particles) does not complete the circuit, there will be no quantity of substance decomposed.

The first thing you may notice is Newman's reference to "gyroscopic particles." He states early in his book his impression that ... a magnetic field consists of particles with a mechanical gyroscopic-type action which can be understood and predicted and which occurs at the speed of light. Furthermore, the energy in a magnetic field is the energy which comprises the atoms of the material from which the energy comes and is literally Einstein's Equation of $E = MC^2$. Consequently, the mass (in the form of a gyroscopic particle) must move in a given direction at C , or the speed of light, and it must also spin at the speed of light.



From *The Energy Machine of Joseph Newman*

He goes on to explain how the current from the battery would traverse the many windings of the coil and produce a magnetic field of great energy. However, he proposes to reverse the current at point X in the diagram, after it has traversed the coil and before it can return to the battery to deplete energy from the battery.

Now, I have left out a lot of Newman's explanation, but I think I have given the essence of it here. So, what are the problems?

First, he has the wrong view that electricity flows at the speed of light in wires. Actually most people believe this. In fact, electrons travel only a few millimeters per second in a wire. The high speed is an illusion caused by the transmission of electrical signals down wires at nearly the speed of light. What really happens is that the mobile electrons in a wire are lined up like cars in a train, and they all get going together in quick order when you start pushing somewhere along the train.

He also indicates that he sees the current flow in the wire as a horse race starting out from the battery. Hook up the battery and a bunch of horses, rather, electrons, start off down the wire and through the coil. He wants to turn the pack around at the commutator before they can reach the battery and effect chemical decomposition. As explained by the train analogy, this is not what happens in real life.

Zero point energy

After serving ten years in the Korean War Alan Alda finally came home and started a new career explaining science on TV for Scientific American. In Austin he interviewed physicist Harold Puthoff, who seems to have given up on remote viewing and is now pursuing zero point energy.

Zero point energy is possibly a valid idea, and it comes from the notion that empty space is not empty at all. Even in a perfect vacuum, particles may momentarily appear and then return to nothing from whence they came. Energy (really equal to matter) can do the same. We have Werner Heisenberg to thank for this.

In the Scientific American episode on pseudo-science we saw Puthoff exploring a device to coax zero point energy from the bubbles formed when an ultrasound source induces cavitation in a container of water. “Even in far out empty space there’s enough energy in the volume of a coffee cup to, for example, evaporate all the world’s oceans,” he explains.

That appeared a bit extreme, so Alda stopped by to consult with another physicist, Steven Weinberg, who also lives in Austin. Weinberg never got involved in remote viewing, but he did become famous for writing a book titled “The First Three Minutes,” which recounts the history of the universe, but only up through the first three minutes. He also shares a Nobel Prize with Sheldon Glashow and Abdus Salam for developing the theory that unified the weak and electromagnetic forces.

Yes, zero point energy is real, says Weinberg. However, don’t sell your Exxon-Mobil stock just yet. Puthoff’s expectations notwithstanding, in the space the size of the Earth there is likely less energy than a gallon of gasoline.

Free energy

So, is energy free? Well, sort of.

It’s not inexhaustible, but you’re never going to run out of it. It’s free only in the sense that once you have gotten the first kilowatt hour, the second and every one thereafter incurs no additional expense. That source is solar power, of course.

Down the street from my house a light flashes to mark the boundary of a school zone. The light and the timer that regulates it both run on solar power from a silicon cell array above the light.

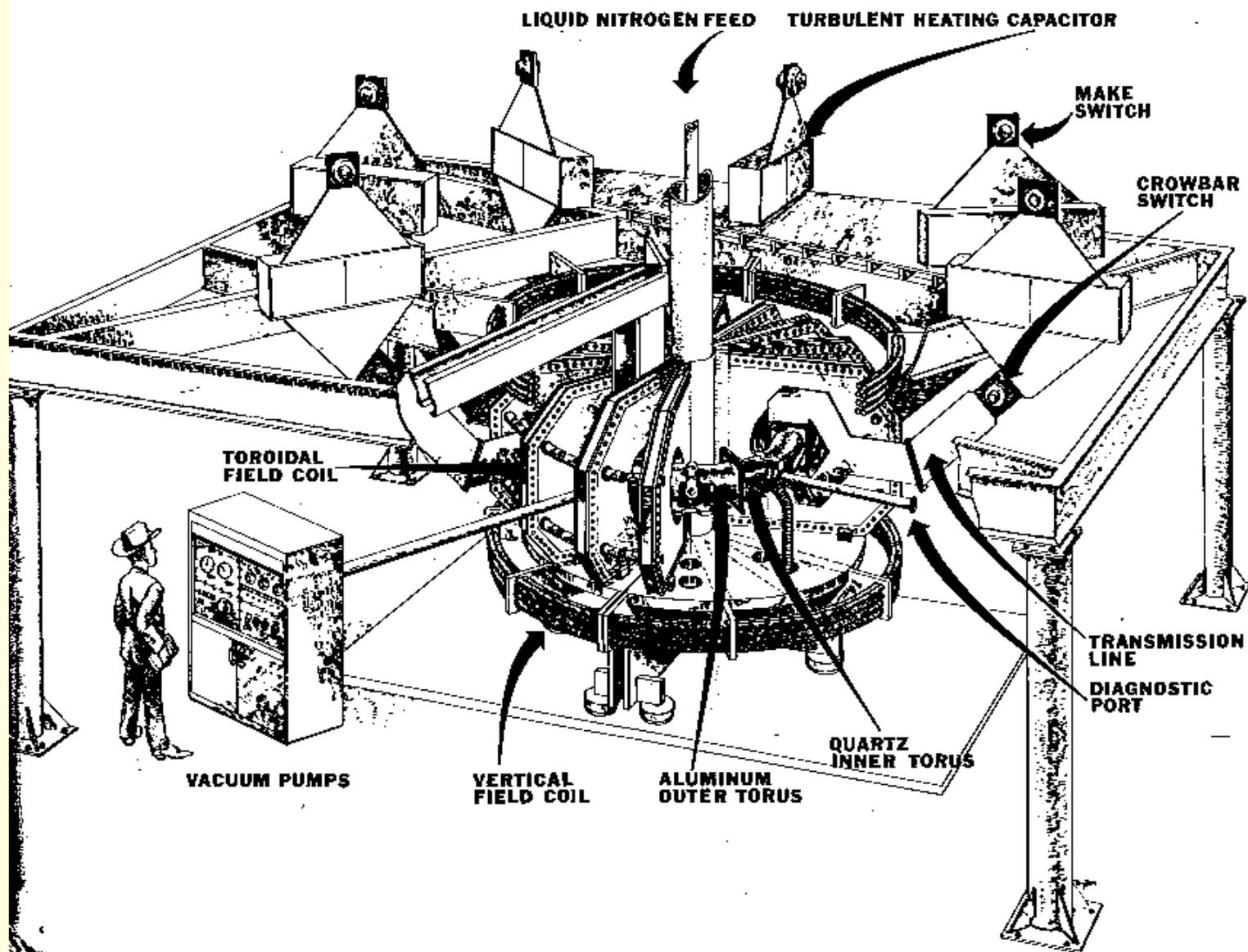
So why is OPEC still in business? It’s unfortunately that first kilowatt hour I spoke of. Solar cells are expensive, and that makes the first KWH prohibitive, except in special cases such as the school zone signal.

The source of all this energy is the Sun—that giant hydrogen bomb that’s been blasting away for over 4 billion years now. Now there’s an idea. The oceans are full of hydrogen, even the heavy kind needed for fusion. Wouldn’t it be great if we could harness the power of hydrogen fusion?

It “sure would,” and that was the origin of the name of a project back in the 1950s — project “Sherwood.” The pun was intended. Sherwood used a twisted tubular container in an attempt to confine and compress the hydrogen magnetically to induce fusion. Its lack of success is indicated by the fact that I am having to explain it to you now.

In the late 1960s (twentieth century technology, again) the Russians invented a device they called tokamak. We even built one at the University of Texas Center for Plasma Physics (below where Weinberg was sitting when Alda interviewed him).

Artist Tony Bell produced this drawing of the UT tokamak from the engineering drawings. The hydrogen got heated and compressed within the quartz inner torus. The big slab-like sections radiating out from the center are really electrical coils. The conductors for the coils were flat copper sheets that momentarily carried 30,000 amps. It goes without saying that this device consumed more power than it produced.



The University of Texas tokamak. (art by Tony Bell and John Blanton)

Tokamaks seem to hold out more promise than Sherwood did, but after more than 30 years they still have not reached the break-even point. Furthermore, nobody expects successful operation for another 50 years.

Throw another log on the fire.

References

John Thomas. Perpetual Nonsense in The Skeptic, May 1997

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Skeptics Web site at The Dallas Morning News

by John Blanton

As promised this month, we bring you good news about our Web site hosted by The Dallas Morning News.

Yes, the great metropolitan newspaper that has previously taken on the likes of WV Grant and Benny Hinn (and also endorsed creationist George Bush) has now extended its generosity to The North Texas Skeptics. Non-profit organizations like ours have been offered free Web sites with unlimited content.

Our new site boasts an on-line calendar of NTS events, support for chats, form processing for information requests, and e-mail. Eventually there will be an on-line form to allow generous fans to donate to the NTS using their credit cards.

Web master (and NTS President) Curtis Severns is currently setting up the page and adding content. Eventually we hope to see all back issues of the newsletter on-line (thereby testing the offer of unlimited space).

Check us out at

<http://community.dallasnews.com/dmn/ntskeptics>.

Log on and register as a participant.

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Web news

by **John Blanton**

The straight homeopathy

Cecil Adams writes “The Straight Dope” column that appears weekly in tabloid publications around the country and particularly in The Met here in the Dallas area. “The Straight Dope” is also published on the Web at <http://www.straightdope.com/>.

Cecil answers readers’ questions and is notable for giving well-researched answers. He is a true skeptic.

Joanne Keefe of Albuquerque, New Mexico, has asked:

This friend of mine is taking a homeopathic remedy for a cold. He explained that it’s “the vibration of the molecules of the plant” that is the active remedy here. What’s up with this?

Where have we heard this before?

Cecil’s response is to the point:

Homeopathy! I can’t believe this has made a comeback. The last time homeopathy was big, Ulysses S. Grant was president. Now here it is, two months into the year 2000, and you walk into one of these pricey organic supermarkets and see aisles full of homeopathic nostrums, all of which have a proven effectiveness on a par with eye of newt. So, recognizing the complete futility of the effort, I feel obliged to state for the record: Come on, folks. This is nuts.

TSD is always a fun read, so pick up The Met for free at your local bookstore or sex shop. If wouldn’t be caught dead in a bookstore you can always log onto the Net.

Northern exposure

From the Skeptic list server August Pamplona from Willmar, Minnesota, reports on a creationist speaking at a local school. See, folks. We don’t own the market on creationism yet.

A story in the local paper is at

<http://www.wctrib.com/stories/monday28/n040228.htm>.

The news item recalls the story of creation in the Bible and the more recent theory of evolution.

When Dr. Don Bierle speaks to Willmar High School students Tuesday, he’ll be discussing both concepts.

A biologist and Bible scholar, Bierle is also speaking to NLS and KMS students today and at Central Minnesota Christian School on Wednesday.

The West Central Area Ministries is hosting Bierle's talk, and the West Central Area Churches is sponsoring them.

Bierle will also meet with science teachers tonight and with parents at 7 p.m. Tuesday at the Evangelical Free Church in Willmar, he said last Wednesday during a telephone interview from his Twin Cities home.

At all his meetings, Bierle said, he will speak more about science than the Bible.

Apparently he will be the first creationist to do so.

Crop Circle Beer

Pat Reeder has passed us an item from the Electronic Telegraph (London Daily Telegraph online) "on a new product from (you guessed it) California: Crop Circle Beer, the beer that makes you supernaturally drunk. I wonder if they'll harvest the hops from fields full of hop circles?" The item reads:

Crop circles give beer a mystic flavour

A small traditional maltster is helping to produce a batch of unusual real ale—brewed using barley grown in fields with crop circles.

Warminster Maltings in Wiltshire was approached by a local farmer after an American company expressed an interest in the barley grown in his numerous mysterious fields.

The Californian-based Crop Circle Beer was anxious that its specially selected barley should not be mixed with crops from ordinary land. So farm owner Tim Carson, of Alton Barnes, near Devizes, contacted his local maltings, which still uses the traditional labour-intensive method of steeping the grain in vats of water, and then spreading it on the floor to ensure germination.

Head maltster Chris Garratt said that the American brewer was insistent that the crop circle barley should be clearly identifiable and traceable throughout the malting process. That is now complete and the barley is being transported to California for brewing.

The beer will not be available in this country [England] but Mr Garratt said he planned to make every effort to visit the Californian brewery to try it. He said: "It was a unique moment to have this batch isolated and we knew it would turn into something special."

The wild, wild world of Kent Hovind

The Paleo Ring site is owned by Ken Harding. His page on Kent Hovind is at http://www.geocities.com/Tokyo/Temple/9917/hovind/wild_hovind.html.

We last visited Kent Hovind back in 1994 after he gave a three-day presentation on creationism at a local church. ¹ Hovind is noted for his unorthodox perspective of science and his exaggerated scholastic record.

Hovind claims to possess a masters degree and a doctorate in education from Patriot University in Colorado. According to Hovind, his 250-page dissertation was on the topic of the dangers of teaching evolution in the public schools. Formerly affiliated with Hilltop Baptist Church in Colorado Springs, Colorado, Patriot University is accredited only by the American Accrediting Association of Theological Institutions, an accreditation mill that provides accreditation for a \$100 charge. Patriot University has moved to Alamosa, Colorado, and continues to offer correspondence courses for \$15 to \$32 per credit. The school's catalog contains course descriptions but no listing of the school's faculty or their credentials. Name It and Frame It lists Patriot University as a degree mill [3]. ²



Kent Hovind's alma mater was previously in this split-level house (from the Paleo Ring site).

Kent Hovind's own home page at <http://www.drdino.com/> boasts a challenge similar to Randi's. Originally \$10,000, it has since been upped to \$250,000.

I have a standing offer of \$250,000 to anyone who can give any empirical evidence (scientific proof) for evolution.* My \$250,000 offer demonstrates that the hypothesis of evolution is nothing more than a religious belief.



Kent Hovind's challenge (from Kent Hovind's Web site)

Links from Ken Harding's page explain the reality of the Hovind challenge.

Human energy fields

Vic Stenger is a physicist at the University of Hawaii. He has recently participated in some extraordinary research on solar neutrinos, and he maintains a skeptics Web site at <http://www.phys.hawaii.edu/vjs/www/vjs.html>. He has been sued by Uri Geller, as well, which means he's just an ordinary guy like everybody else. His presentation "A physicist looks at the human energy field" is available on his Web site. Just click on the link to obtain the PDF file.

Lions and tigers and bears!

The Scraphorn Monster Society is at <http://scraphorn.web.com/>. Now you know it. Big Foot is a piker. Wait until you read the tales of the scraphorn monster.

Hold on! There's more. The site also offers scraphorn monster merchandise, including T-shirts with real photos of the monster. You read about it here first.

References

1. John Blanton, "Traveling creationism" in The Skeptic, December 1994.
2. From The Talk.Origins Archive at <http://www.talkorigins.org/faqs/credentials.html> . The footnote [3] refers to "Steve Levikoff, Name It and Frame It? New

Opportunities in Adult Education and How to Avoid Being Ripped Off by 'Christian' Degree Mills, 4th ed. (1995), available at <<http://training.loyola.edu/cdld/nifi.htm>>"

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What's new

[Robert Park publishes the *What's New* column at

<http://www.aps.org/WN/index.html>

Following are some clippings of interest.]

Patent nonsense: infinite energy meets infinite bandwidth. On Tuesday, BlackLight Power was awarded a patent for a chemical means of shrinking hydrogen atoms into "a state below the ground state." The, uh, inventor, Randall Mills, calls his teeny little hydrogen atoms "hydrinos" (WN 22 Jan 99). Mills describes them as, "the most important discovery of all time...up there with fire." The second most important discovery, I suppose, would be to find the hydrino line in the spectrum. In November, a patent was awarded to Media Fusion for Advanced Sub-Carrier Modulation, a method of transmitting data over ordinary power lines with a 10 GHz bandwidth. The claim is that magnetic fields surrounding the conductor can act as a waveguide. In a classic understatement, the Electric Power Research Institute (EPRI) has issued a warning to members that Media Fusion's claims "lack scientific merit."

Science and religion: AAAS council to discuss "the dialogue." The AAAS Dialogue on Science and Religion started in 1995 with \$1.5M from the Templeton Foundation, a private foundation devoted to the views of its founder (WN 16 Apr 99). In the opinion of the officers of the Section on Physics, the Dialogue has been distinctly at odds with the AAAS mission to advance science. At the insistence of the Section, the program will be discussed by the AAAS Council at its meeting on Sunday at 9:45 a.m.

Alternative medicine: even placebos have side effects. An NIH study of St. Johns wort, a popular herb used to treat depression, found that it interferes with protease inhibitors used to treat AIDS. The herb may also interfere with cyclosporin, used to prevent transplant rejection. On NBC News, Bob Bazell reported that one company was selling Sam-E, another fashionable dietary supplement, at zero concentration. Under the Dietary Supplement and Health Act of 1994, suppliers of "natural" substances are not required to provide evidence of safety or efficacy.

Who wants to be a millionaire? ABC pays inept psychic \$1M. In 1993, ABC covertly videotaped Mark Sanders and his colleagues working the telephones of the Psychic Services Network. The tape aired on Prime Time Live, which depicted the telephone psychic business as a scam. Sanders sued ABC for ruining his reputation.

A jury, of course, agreed: Having failed to sense that he was being secretly taped, Sander's career as a psychic was shattered.

THE AMERICAN PHYSICAL SOCIETY (Note: Opinions are the author's and are not necessarily shared by the APS, but they should be.)

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Skeptical Ink.

An oil spot dries in the Sun on a driveway in North Dallas. Some people think they see the face of a man in the pattern.



It's just the way I thought he would look.



Even some news celebrities are attracted to the spectacle...



By Prasad Golla and John Blanton
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