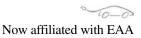


Published by the Eastern Electric Vehicle Club

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Vol 24 No 12 **DECEMBER, 2004**



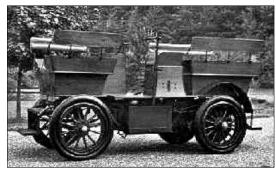
UNIQUE ANTIQUE ELECTRIC IN HUNTINGDON, PA MUSEUM

The Boyertown Museum of Historic Vehicles may have the largest collection of electric vehicles, but some other museums in the area of Eastern Pennsylvania have some electrics as well. Guy Davis recently visited the Swigart Antique Auto Museum in Huntingdon, This 1908 Studebaker electric ran in a tunnel the oldest automobile museum in America and

was established in 1920) and got a look at an unusual EV: a 1908 Studebaker Electric bus, used to transport passengers in the tunnel beneath the U.S. Capitol between the House of Representatives and the Senate.

The bus is most impressive: in mint condition, it sports a cherry wood body that seats ten passengers facing each other, and could travel at 12 mph. Power came from twelve 6-V batteries. Range was 85 miles, and the museum's specimen was driven from Philadelphia to the New York World's Fair in 1940, according to a 2001 article by Fred Fox in Turning Wheels, the Studebaker Drivers Club magazine, and later from New York to Chicago and back.

Because there was no room in the tunnel



PA, (which bills itself as beneath Washington, DC until 1912.

for the vehicles to turn around, there was a driver's seat, complete with tiller, at each end. When it came time to reverse direction the driver changed seats—which took some skill, according to a March 14, 2000 article in the *Hannibal* Courier-Post by Associ-Press Writer ated Lawrence L. Knutson, as when going the other way

the driver had to steer backwards.

There were two cars, which picked up the nicknames Peg and Tommy, and they stayed in service until 1912, when a rail system was installed. The one in the Swigart museum is Tommy, while Peg went to the Studebaker museum, according to Knutson.

EEVC members might put a visit to the Swigart museum on their calendars for an outing some warm day in May.

PAUL HAFER DIES AT AGE 93

Paul Hafer, founder of the Boyertown Museum of Historic Vehicles, died on October 24, just 13 days short of his 94th birthday. Paul, who was the last owner of the



Boyertown Body Works, filled the museum with historic vehicles from all around the area, including cars, trucks, wagons and other horse drawn vehicles, bicycles, sleighs—all with a connection to Eastern Pennsylvania, and many of them

built by the Boyertown Body works or by its predecessor, the Jeremiah Swinehart Carriage Works.

We'll have more on Paul in a future issue.

PRESIDENT'S MESSAGE Oliver Perry

The November EEVC monthly meeting was small in turnout but enthusiastic in content. I began the meeting with a slide presentation for the eight individuals gathered in room 35. We revisited the 1984 Neshaminy Mall electric car display and our 1985 dinner meeting with guest speaker Victor Wouk. It was good to see some old familiar faces on the screen and relive some past but exciting experiences.

Guy Davis was in attendance at our meeting and was able to add to the conversation sparked by pictures of the Cinnaminson High School Battronics Van and Carey Rowen (from Philadelphia Gas and Electric Company). Carey was instrumental in the transfer of the Van to the High School. I also brought along the beautiful and informative picture book, A Century of Vehicle Craftsmanship, written and organized by Erminie Shaeffer Hafer for the Boyertown Museum of Historic Vehicles. I read the section describing the creation of the unique Battronics Van, and showed the related pictures. This unique electric truck was spearheaded by Paul Hafer and constructed by the Boyertown Auto Body Works back in the early sixties. Sadly, after I showed a picture of Paul Hafer standing next to a Battronics Van, Guy Davis announced to us that Paul had just recently passed away. We will devote more space to the legacy of this great man in another article. He will be greatly missed.

Rare find

Guy presented us with information and a few pictures of an old electric vehicle, only two ever made, that he had discovered in a museum, constructed by the Studebaker Company and updated us on his recent attempts to market an improved lead acid battery. Some technical discussion related to Valve Regulated AGM batteries followed.

Mike Manning report

Mike Manning reported on his discovery of a lithium-ion battery producer that is marketing, what he believes is a better and more economical lithium-ion battery suitable for electric vehicle applications. If interested, the sales contact is Hsin-Chang Lan + 886-933-921679. The address is 4F, No.49-1, sec 3, Nan-Gang Road, Taipei, 115, Taiwan. Email: export@edan.com.tw

Two new members

This past fall two (new to our group) very enthusiastic electric vehicle enthusiasts from Wilmington, Delaware joined us. Eric Eisenberg shared his adventures with kit car and off road racing car construction. He owns and operates a shop that specializes in classic car restoration, VWs being one of his special interests. Eric missed the last meeting because he had a confrontation with a burglar that broke into his shop. Eric ended up in a fist fight and car chase that put him in the hospital with serious broken facial bones. The details of the episode caught our attention. And, while Eric was sitting in our meeting he was interrupted several times by cell phone messages informing him that his shop alarms were going off. EEVC meetings are as entertaining as any TV adventure you might see at home

Eric Eisenberg also made us aware of federal grant money available for small companies interested in producing electric vehicles. His particular efforts are now directed toward producing a three wheel electric kit car. If interested in learning more about his work contact Eric, E-mail: GravGuy@yahoo.com.

Excellent video

We closed our meeting by watching an excellent Scientific American Frontiers PBS video (featuring Alan Alda) that explored the latest development in alternative fueled vehicles. The video was brought to the meeting by Eric's friend Jack Waddell from Wilmington, Delaware. Remember to bring your interesting EV video recordings to our meetings. When time permits we enjoy viewing them.

Don Zimmerman picked up the newsletter from Tom Moore in West Chester and brought it to the meeting for us. Don is doing the leg work for Tom while his leg is mending.

Update on The Ehrenbergs



(I to r): Dottie Perry, Roberta Ehrenberg, Oliver Perry, and Gus Ehrenberg dining at the dining room at the Quadrangle Retirement Center.

My wife and I were invited to join Gus and Roberta Ehrenberg for dinner this past Sunday, at the Quadrangle Retirement Center in Havertown Pa. After an excellent meal, with multiple choices of entrees in a most modern restaurant setting, we retired to their cozy apartment located at the opposite end of the complex. We spent the remaining hours of the afternoon in pleasant conversation catching up with the latest events in our lives.

Mrs. Ehrenberg continues to drive her electric vehicle daily. Roberta travels the lengthy hallways of the retirement center on a Rollins electric tricycle type scooter, which is the vehicle of choice on the property. They actually have a parking room designated for these scooters located outside the dining facilities, with parking lanes marked on the floor. I happened to notice an eight month old used identical scooter advertised on a nearby bulletin board for \$1600. Charging receptacles are located on the walls outside each apartment.

Mrs. Ehrenberg still is very active in online work related to the League of Women Voters. She has had a lot of e-mail to read and respond to in regard to the latest election. She missed attending a recent town meeting because of sudden questionable symptoms requiring a several day check up in a local hospital

Thankfully ,at this time the testing has not revealed anything serious.

Both Gus and Roberta are experiencing some of the health hazards that accompany longevity and find their retirement home very suitable under the circumstances. Assistance always is a push button call away. Transportation is available. They have decided the time has come to give up their Honda car as neither feel comfortable driving it.

Mr. Ehrenberg has suffered macular degeneration in his eyes and has lost his ability to read without the aid of significant magnification. Steroid treatment is being applied in hopes of stabilizing his condition. But meanwhile Gus is in the process of building one of his electric steak preparation ovens for large scale meat preparation. The printed circuit board work for the power supply requires good vision. He has had to acquire some outside assistance to keep the project going. He showed me some of the electronic parts that he has piled on his workbench kept in a small side workroom reserved for books and the computer.

For the benefit of our readers, years ago, before we met him, Mr. Ehrenberg designed a unique way to cook meat in a elongated oven that moves the meat through high temperatures on a conveyer belt. The cooker uses convection and radiation heat only, and seals the juices inside the meat by simultaneously applying heat from both sides. Grease is removed by a water type grease removal system. Gus has sold several of these large machines in the past and with some left over parts that are still available he plans on building a smaller version. Such a project keeps his mind busy and occupied. Now, he simply would like his body to keep up with his mind in order to complete the project.

Most of you remember the 4 wheel drive, 4 wheel steering electric vehicle that we constructed during a 18 year period at Cinnaminson High School. The car was dubbed "The Ehrenberg." It was taken out to Arizona for further development and ended up sitting unused in a warehouse. Sometime I may do some research and provide an update on what exactly happened to this vehicle.

When we tested the vehicle we found out

that it tended to dive excessively in the front when the brakes were applied. Mr. Ehrenberg immediately made some design changes to correct the diving. He also made several other design changes to improve the suspension system, including utilization of the Boeing 747 air shock landing gear concept. He has prepared updated drawings and would very much like to build a vehicle with the improved design.

Ultimately, as many of you already know, Gus would like to incorporate a flywheel with a hydrogen burning small internal combustion engine and alternator to power the car. You may remember that we powered the vehicle with ten 12 volt batteries when we last had it. Although we had managed to link up a motorcycle engine to an aircraft alternator we never went as far as to even test it out. All of this equipment was sent to Arizona with hopes that it would be put into operation.

In summation, although the project may have died with those in Arizona, the project is still alive in Mr. Ehrenberg's mind. Gus remains anxious to complete this project, although thus far no one has managed to come up with a specific means to do so

Dais Corporation, the Hydrogen Fuel Cell company that Gus and Roberta's son Scott Ehrenberg started a number of years ago, is still functioning. The company continues to operate in Florida. Gus said that his son has come up with a number of unique and excellent applications for the fuel cell membrane other than in the fuel cell. However Dais needs to find sufficient funding for mass producing the membrane in order to make a success of these applications. Money is sometimes difficult to acquire, especially if you have competitors in the field. The Enron scandal of a few years ago negatively impacted the Dais Corporation. Although Scott wants to maintain control of his company, he is finding it difficult to acquire funding without compromising his interests. We wish him the best of luck as the saga continues.

SEASON'S GREETINGS FROM THE LEFT COAST California Pete



The recent presidential election is still a major topic of conversation among the liberal establishment here in the San Francisco area. This part of California is the bluest of the blue (remember when the TV networks

used red for Democratic and blue for Republican? I guess they decided that was too obvious). The newspapers are full of columns and opinion pieces that attempt to answer the Big Question: "What Went Wrong?"

What went wrong was that the rest of the country doesn't necessarily share the Bay Area's view of things. But the liberals shouldn't worry: the pendulum keeps swinging, and the permanent Republican majority they worry about will probably last about as long as the permanent Democratic majority of a few decades ago.

In any case, and wishing for comfort from memories of the old times during the holiday season, here's a song from the late '50s that may bring a bit of nostalgia to the folks in the Peoples' Republic of Berkeley. Oddly enough, it was written by a guy named Roy Berkeley. Sing it to the tune of *The Twelve Days*, and see if you can recognize all the references (it helps to be old like me):

On the first day of Marxmas, my comrade gave to me:

A picture of Leon Trotsky. Two Das Kapitals Three bayonets Fourth International The Five Year Plan Six splinter groups Seven strikers swinging Eight Bulganins bulging Nine men in the Kremlin Ten days a-shaking Eleven Lenins leaping Twelve Hunky fascists

Have a happy holiday, whether you're on the Left, on the Right, in the Middle, or just perplexed.

NEWS UPDATE

Kansas gov blocks wind farms

On November 22nd Kansas Governor Kathleen Sebelius called for wind energy developers to hold off on projects in the Flint Hills area in order to preserve the tallgrass prairie ecosystem there. The temporary moratorium is meant to allow counties in the area time to develop local guidelines for wind energy development and to evaluate the role of wind energy development in the Flint Hills. The governor designated a protected area of land called the "Heart of the Flint Hills," a 60-mile-wide swath of land just east of Wichita. Governor Sebelius also encouraged wind developers to move ahead on projects outside the designated area, and is expected to draw on recommendations from the Kansas Energy Council to establish a package of wind energy incentives within the state.

Here's a hot EV indeed



At the recent Paris Auto Show Venturi Automobiles of Monaco unveiled the production version of its high-performance Fetish electric sports car, first shown as a concept car at the 2002 Geneva International Motor Show. The car moves along briskly with a drivetrain from AC Propulsion (San Dimas, CA), with a top speed of 170 kph (106 mph) and acceleration from 0 to 100 kph (62.5 mph) in 4.5 seconds. It's powered by a 180 kW (241 hp) electric motor fed by a bank of 100 Li-ion batteries with a capacity of 58 kWh and a weight of 350 kg (770 lb), for a claimed range of 350 km (218 miles).

The body is carbon fiber, while the chassis is a combination of carbon fiber and aluminum honeycomb, giving a curb weight of

1100 kg (2420 lb).

The car is scheduled to be made available for sale in the U.S in Los Angeles in January, although the price is a little steep: 540,000 (about \$855,740 at current exchange rates).

More from AC Propulsion

AC propulsion, which has built three of its high-performance tzero electric sports cars, is studying a plan to manufacture safety-certified electric vehicle conversions and sell them to retail and fleet customers. The conversions will be based on the Toyota Scion xA and xB sport compact vehicles. A base model, and a premium model with a larger battery will be developed. The base model will, the company says, outperform the Toyota RAV4 EV and is expected to sell for about the same price. First production is planned in 2005.

Maine calls for clean cars; car makers, dealers object

The state of Maine recently released a report designed to fight global warming by setting short- and long-term emission-reduction goals for the state. Buyers of gas-guzzling automobiles would pay a penalty and owners of fuel-efficient cars would get a rebate under the so-called "feebates" idea, which is among 54 recommendations in the report. The plan also calls for the state to crack down on tailpipe exhausts, cap emissions by power generators and impose a fee on electric utilities or electricity consumers to help finance alternative energy sources. Tougher tailpipe standards, which might be paid when owners get their cards registered, came under attack from the Maine Automobile Dealers Association, DaimlerChrysler and General Motors. The state Board of Environmental Protection responded by voting to adopt the regulations, which should make for a well-funded holiday for some lawyers.

If fully implemented, the report would eventually meet the goals of a 2003 law that calls on the state to reduce greenhouse gas emissions to 1990 levels by 2010, cut them by another 10 percent by 2020 and and then reduce them by as much as 75 percent over the long term. Other recommendations would expand recycling; make homes, other buildings and appliances more energy-efficient; capture or burn off methane that landfills now release into the air and reward lowmileage drivers with low insurance premiums.

Kids want electric motorcycles



Tops in popularity among 7 to 12-year old kids on Yahoo Inc.'s Yahooligans Web site this year is the Honda Minimoto Maxii electric miniature motorcycle, according to CNN. The Hasbro Video Now Color personal video player came in second.

Survey: GM tops polluter list

A recent report from the Union of Concerned Scientists labels General Motors "Public Polluter #1" when it comes to emissions generated by automakers, while Honda was listed as most environmentally friendly

The report, Automaker Rankings 2004: The Environmental Performance of Car *Companies*, says that Honda, which has ranked best since the biennial reports started for model year 1998, increased its overall lead by building vehicles that produce less than half the smog-forming pollutants of the industry average and 18 percent less heattrapping emissions. GM, which had the least polluting vehicles of the Big Three automakers just six model years ago, fell behind industry laggard DaimlerChrysler into last place. "General Motors, on the other hand, is stuck in reverse. GM has spent countless dollars in advertising trying to create a green image, but as the only automaker to move backwards on both smog and carbon dioxide, its rhetoric doesn't match reality," said David Friedman, Research Director of UCS's Clean Vehicles Program and lead author of the report. Ranking behind Honda were Nissan, Toyota, Ford, and DaimlerChrysler. The report is based on model year 2003 sales information and certification standards. The report rates the pollution performance of the average vehicle produced by each company; total sales volume does not influence the results. More information is available at www.ucsusa.org.

COMING EVENTS

SAE seminar: Hybrid Vehicle Technologies—Today & Tomorrow

February 9-10, 2005, Costa Mesa, CA. Contact Nancy Eiben, 724-772-8525.

2005 Clean Heavy Duty Conference

Feb 22-24, Palms Springs, CA. Contact Susan Romeo, 626-744-5686 or visit www.weststart.org

NHA Hydrogen Conference 2005

March 29-April 1, Washington, DC. Contact the National Hydrogen Association, 202-223-5547, or e-mail info@hydrogenassociation.org **POWER-GEN Renewable Energy**

March 1-3, 2005, Las Vegas, NV. Contact Donna Welch, 918-835-3161, http://pgre05 .events.pennnet.com.

EVS-21: The 21st Worldwide Battery, Hybrid and Fuel Cell Electric Vehicle Symposium & Exhibition

April 2-6, 2005, Monte Carlo, Monaco. Contact the EVS-21 Monaco Organization, +377 97 77 54 21/+377 97 77 54 22.

11th National Clean Cities Conference

May 1-4, 2005, Palm Springs, CA. Contact Annalloyd Thomason, 702-254-4180 x23 or 702-294-2333, or e-mail Info@afvi.org

MEETING SCHEDULE

Meetings are held in Room 35, Plymouth-Whitemarsh High School, 201 East Germantown Pike in Plymouth Meeting, PA, and begin at 7:00 p.m.

> January 12 February 9 March 9 April 13 May 11