

ANTIQUE ELECTRIC VEHICLES

A Newsletter about antique electric cars for antique electric car people.

Newsletter #2

June 2002



Clayton Giroux's 1917 Rauch & Lang

INTRODUCTION

A Newsletter for people who want to know who owns antique electric cars, who want to participate in antique electric car driving tours, or who have parts for sale or need parts; and people interested in antique electric cars in general. You don't have to own an antique electric car to get the Newsletter.

Here is the second issue. About 40 percent of the people to whom I sent the first Newsletter have responded. I am told that is good.

If you have not yet responded, and want to continue to receive the Newsletter, I must hear from you. This will, unfortunately, be the last Newsletter mailed to people from whom I have not yet heard. I have added an R (for response) in the first column of the attached mailing list. If you don't have an R it means either you did not respond to the first Newsletter or your response got lost in the mail.

If you don't have an "R" please reply with the **Clip and Mail** below to stay on the mailing list. There are 117 names on the mailing list - I will eventually have to delete the names of people from whom I do not get a response, to save costs.

I estimate that 4 quarterly Newsletters will cost \$5.00 a year for copying, paper, and mailing. I can cover the cost at first, but cost sharing will be needed eventually.

TOURING

MICHIGAN:

Gregg Lange has organized a tour for antique electric cars for August 16-18 of this year. See his announcement in the January-February issue of the Horseless Carriage Gazette. He has also sent a mailer to all electric cars owners of which he is aware.

- Tour the Lake Huron Shoreline *Quietly*
- Electric Cars Only
- 50 mile flatland tour, historic sites, and small towns around Port Austin, Michigan
- Call Gregg or Martie Lange at 989-792-2840 to get full details.

Gregg also did an electric car tour in Michigan in August 2000.

Gregg tells me he has, so far, paid registrations for seven cars: Chuck and Lois Murphy (Texas - Ohio Electric), Jim and Deegee Bannon (Texas - Detroit Electric); Gregg and Martie Lange (Michigan - a Baker and a Detroit Electric); Ford and Phyllis Cauffiel (Ohio - Milburn Electric); Richard Lane and Micheline Daigle (Ontario, Canada - Milburn Electric); and Paul Carton (Missouri - Rauch & Lang Electric). He also has about six others that have said they are coming. It looks like it will be a fair sized tour. Don't be afraid of breakdowns on the tour – there will be lots of electric car “experts” to help get you going again.

TEXAS:

We need to have more tours aimed at electric cars, in other places around the U.S. Jim Bannon and I, from the Dallas/Fort Worth area, would love to put on an electric car tour in Texas. Call, write, or email if you would be interested in attending such a tour. We have received sufficient interest from the first Newsletter, that we are seriously considering hosting a tour in 2003.

Who else would like to host an electric car tour?

PARTS FOR SALE/NEEDED

This could be the most valuable part of the Newsletter! Send a list of parts or literature that you have for sale, and parts or literature that you need. See the **mailing list** for addresses of people whose names appear **bolded** below.

FOR SALE:

1. **Walt Barker** has his 1917 Rauch & Lang for sale. Needs restoration.
2. **Walt Barker** tells me that two electric cars are advertised for sale in the March 28, 2002 issue of Old Cars Weekly:
 - 1912 Detroit, \$35,000; Wisconsin; phone **Doug Rhode**.
 - 1917 Rauch & Lang; \$18,000; North Canton Ohio; phone 330-494-9129 from 7:30 to 4:00 weekdays; email: aleaque1@aol.com.
3. 1912 Detroit rolling chassis plus part of a body. \$600. Call **Joseph Harness**.
4. 1911 Baker extension brougham, including a trailer, charger, and extra parts. Call **Robert Hulle**. \$50,000. Westlake Village, CA. Photo on page 57 of September/October 2001 HCCA Gazette and new ad in March/April 2002 HCCA Gazette.

5. **Art Nelson** has two Voltmeter/Ammeters by Westin Electric. Price negotiable.

WANTED:

1. **Les Schubert** needs a motor brake assembly for his 1921/22 Detroit model 90.
2. **Stan Paurazas** needs switches for the interior/exterior lights and the master power switch for his 1920 Milburn.
3. **Robert Johnson** would like anything for an 1898 to 1901 Waverley, for use on his 1900 car.
4. **Chuck Murphy** would like to purchase an antique electric car charger. It does not have to work – I would use it for display in my garage. But, if it does work, I would use it to charge my car.
5. **Chuck Murphy** would like to purchase an antique electric car battery for display purposes.
6. **Robert Ruf** needs:
 - Milburn Light Electric aluminum running boards (steps).
 - Set of left and right hand brass headlights painted black. There are no marks on the lamp body itself, however, the door is marked with a brass tag on the top of the door “RUSHMORE DYNAMO WORKS – PLAINFIELD. N.J., U.S.A.” And the thumbscrew is stamped “MODEL 620”. The single pole connection comes straight out of the bottom.
 - One aluminum hubcap with MILBURN across the face.
7. **George Milburn** writes: My brother and I are looking for a Milburn Electric auto of the type with a steering wheel rather than a tiller. They made at least two body styles that had steering wheels.

GENERAL:

Keith Gill of the Chicago Museum of Science and Industry says they may have their 2nd Electric Car show in 2003 when they host the American Solar Challenge Race. I will pass along any information that Keith sends me. **Gene Burrows** took his 1925 Milburn to their 1st Electric Car Show.

Newsletter response. About 50% of the respondents have sent money to help with the Newsletter costs. In fact some have sent more than the \$5 (one person substantially more) because they felt that \$5 would not cover the annual Newsletter costs. Thanks!

List of electric car owners. There are many more people with antique electric cars than I have on the mailing list. How about sending me the names and addresses of others that you know who own antique electric cars. Such a list will enable members to contact owners of cars similar to their own, if they need information/help/parts. Also, keep me informed if you buy or sell an electric car so I can keep the list up-to-date.

Electric car story. The May-June 2002 issue of AACA's "Antique Automobile", page 52, has an article on electric cars entitled "The electric car – is its future possible" by Robert Syverson.

READERS QUESTIONS/COMMENTS

Successful newsletters seem to make heavy use of **member's correspondence/questions/answers** – this enables people to share information. The response to the questions in the last issue of the Newsletter was outstanding. I encourage you to submit your questions for the next issue, or, even better, to provide answers to questions in this issue.

- **Batteries - with regard to the question in the last Newsletter:**

1. **Gene Burrows** reports that he uses a Varaic into a diode bridge rectifier to charge his car. I (Chuck Murphy) think I use the same system (I am not too strong on my electrical engineering). The Varaic allows you to control the amperage going to the batteries.
2. **Lew Miller** says that two cars in his area are trying Nickel Zinc batteries. Maybe Lew will give us a future report on the feasibility of these batteries for antique electric cars.
3. I will repeat (part of) **Eric Luebben's** answer.

The best battery for the money is by far the 170 to 240 amp-hour 6-volt golf cart battery. It is my opinion that the set does not have to have come off the line together, or have the same date code, as long as they are of the same brand and model, are considered new, and are synchronized when they are installed in the car. By synchronized, I mean that they should all be fully charged individually before they are installed. This can be done with any automotive 12/6-volt charger. Charge each battery individually until the charger indicates no current flow or that they are finished (depends on how automated the charger is).

I learned from a Trojan battery engineer that the best charger for the flooded-cell battery is the Lester automatic charger used in the golf cart industry. These chargers have several ideal characteristics. They are automatic, have dual inputs 120V or 220V, have the capability of driving 25 to 30 amps of charge current, and can push the battery voltage to as high as 2.6 volts per cell. It is the combination of high current (more than 10 amps) and finish voltage (up to 2.6 volts per cell), and the duration of the finish charge, that will keep your batteries healthy and maintain their capacity. The other important factor is charging even when you don't drive the car. I make it a habit of charging my car every two to three weeks by allowing the Lester charger to complete the programmed cycle.

Lester makes 24, 36, 48, 72, 96, 108 and 120-volt chargers. My 1921 Milburn is an 84-volt vehicle, so I choose to use one 36-volt and one 48-volt charger, in series, to charge the whole pack. I have wired the original charger contactor to the positive of the 48-volt and to the negative of the 36-volt charger. I then connect the junction of the 48-volt negative and the 36-volt positive to the housing of the connector that is attached to the same voltage point on the battery. In this way each charger is connected to its respective batteries.

I would suggest that the Costco battery is very adequate for this application and is probably made by Trojan or US Battery, anyway. Capacity will determine range, but in most cases maximum range is probably not required for many of you for demonstration or show purposes.

In summary, the key is a strong charge current, good finish charging at 2.6 volts per cell, allowing the charger to cycle off by itself, and charging at least once a month, even if you are not driving the car. Of course, keep an eye on your battery water, don't fill the battery all the way up which will prevent overflow, and only add water after charging, not before.

- **Existence of other Ohio Electric cars - with regard to the question in the last Newsletter:**

1. **Phil Gardner** reports that a wrecking yard in the Los Angeles area had a chassis and wheels for an Ohio Electric. I will get the information from Phil.
2. **Leo Gephart** tells me that he owned an Ohio Electric, but sold it to about a 2nd or 3rd generation of the man who made the original curved glass for the car.
3. **Lew Miller** told me about an Ohio Electric owned by the Dodge family (one of the founders of the Ohio Electric Company) in Toledo Ohio; one in a museum outside of Lillhammer Norway; and a chassis in Riverside CA.
4. **Robert Johnson** told me that Art Olson is deceased. Robert attended the 1958 auction in which Mr. Olson sold his cars. Robert also sent me the names of four owners of Ohio Electric Cars from a 1961 Register of Antique Automobiles. I will try to trace them down. Thanks.

Ohio Electric	1961 Owner	Additional Information
1912	R. G. Burkhart	
1913	Henry M. Dodge	Model M, Motor No. 145453
1915	C. A. Smith	
1917	Larz Anderson Collection	Serial No. 4056

Does anyone know the whereabouts of these people or these Ohio Electric cars?

- **Steve Cook** would like to know if anyone knows how to definitely date his 1904 Columbia. He has never seen any serial number data on Columbia Electrics.
 - **Gene Burrows** would like information on restoration of a General Electric mercury jar charger that he got with his 1925 Milburn. He needs the electrical schematic for the wiring, or needs to know how to get his information from the General Electric archives.
 - **Ron Littlefield** would like information/help on rebuilding his 1914 Rauch & Lang which was running fine, until it decided to melt the brush holders in the motor and fry the resistor during a parade.
 - **Les Schubert** would like more information on the best available battery chargers for our cars. **Eric Luebben** responded (see elsewhere in this Newsletter), but do others also have helpful information?
 - **Chuck Murphy** uses a pressure hand pump with a spray wand, the type sold to selectively spray poison on lawn weeds, to easily refill his batteries with distilled water.
 - **Les Schubert** says he can help with curved glass for our cars. He has dealt with a shop in Calgary that makes laminated curved safety glass. If desired, they can make it to DOT specifications with DOT markings. Les's cost has been, with pattern costs factored in, about \$200 to \$250 US per piece of glass. They also make regular (non-safety) curved glass.
- Jim Bannon** has had curved glass made for his 1917 Detroit.

- **Robert Ruf** writes: I would love to know more about the progression of the Milburn Company as far as the Motors used in the different years. The following information is based on my observations of our cars as well as others. This information is taken from a brass plate that is riveted to the motor near the wire connection. I would like to ask the other Milburn owners to write in any information that they know about their cars.

<u>Year</u>	<u>Model</u>	<u>Serial No.</u>	<u>Motor No.</u>	<u>Volts</u>	<u>Amps</u>	<u>Speed</u>	<u>State</u>	<u>Number</u>
1915	15	15-135	283867				NV	
1915			433713	40	35	2100	AZ	GE1051E10W2
1915			457978	76	33	1950	MA	GE1051E14W6
1916	151		458491	76	33	1500	NV	GE1051E14W6
19??	27L		1026757	60	50			GE1051E24W12

- **Robert Ruff** also sent serial number information on Milburns. I will include it in the next issue. He also promised serial number information on Rauch & Lang and Detroit Electric cars in the future.

LITERATURE EXCHANGE

Several readers have expressed an interest in establishing a "list of resources" that would be available to members. If you have literature that you could make available (copies OK) to others, please send me the Title, Year, Number of pages, and a few word description of the Contents.

Les Schubert has an instruction booklet "*Detroit Electric 1922 Model 90 Pleasure Cars*", 36 pages, wiring diagram #4915, includes detailed information on operation and maintenance including battery care and charging as well as trouble shooting. He can copy the booklet if someone needs it.

Chuck Murphy has a 39 page Operating Manual for a 1913(?) Ohio Electric titled "*Instructions for the Operation, Care, and Adjustment of Ohio Electric Automobiles*", copies of several Ohio Electric sales catalogs covering models O,M,Y,Q,F,L,62,12,42,22; and copies of many Ohio Electric car advertisements. I could make copies for anyone who needs this information (I guess no one really needs it, because I still have not made contact with anyone else who owns an Ohio Electric).

Robert McDaniel has a good literature collection and may be able to copy some items if a member needs them.

MEMBERS CARS

I asked for stories about member's electric cars. The response has been great. I now have several short and long stories, and promises of more to come. It will take several Newsletters to get to all the stories.

1917 RAUCH & LANG MODEL BX17 BROUGHAM

By Clayton Giroux

(this is a condensed version of the story written by Clayton. I should also point out that the colors in the photo of Clayton's car did not scan accurately on my computer. Ed)

Our electric car, a 1917 Rauch & Lang brougham, was one of two models made in 1917 and 1918. The larger coach model is 8" longer, and those I have seen have dual control (the car can be operated from the forward seat as well as the back seat.) Otherwise the two models were the same. These models carried over into 1918, I believe because of the war. There is no change of detail or model number in 1918.

Rauch & Lang was a Cleveland company, a competitor of the Baker Electric, also made in Cleveland. The companies merged just before our car was made. Both cars continued as separate lines as before, but the brass medallions on our hubcaps read "The Baker R & L Co, Cleveland" (Later the company split, the R & L portion eventually going into body production for others – called Raulang, and the Baker portion making electric warehouse vehicles which I believe are available today). Our 1930 Ford Station Wagon has a Raulang body.

I know little of other electric cars so the features I describe, which I consider unique, may be well known to most electric car buffs.

The car has curved glass windows at the four corners, a generous bevel-edged full-width rear view mirror, and frosted cut-glass interior lights. The window and windshield glass moves up and down briskly with but a ½ turn swing of the long regulator lever.

As seems to be the custom of electrics, ours has an adjustable rain shield (rather than windshield wipers). It has an eight-day clock and a bud vase. The dome light is a courtesy light activated by opening the passenger door – but it only comes on if one of the other lighting circuits is on.

The foot brake acts both as a service brake and as a lockable parking brake. The operator rocks the pedal pad slightly to change functions.

The horn is interconnected with the foot brake so that when the pedal is set in the parking configuration (the pedal held down by rack and pawl) the horn will sound as soon as the operator asks for car movement at the speed control lever. Thus he won't drive with the parking brake on, as some of us tend to do.

This operating feature has been a problem to me as I find that when under duress in tight traffic I inadvertently rock the pedal pad to its parking position – a small movement. This sounds the horn. I let up but the pedal stays locked – the horn continues to blast at those around us. Fortunately, the other driver often directs his ire at someone else in our car, as I, the driver, sitting the back seat, pretend to be an innocent non-participant.

When I asked my wife the feature of our car of the most interest to people, she replied: "Where's the steering wheel?". Some other questions people ask are: "What kind of car is it?", "When was it made?", "Can you find tires?", "Was it difficult to convert to electric?". Maybe even: "Electric? Did you make it?"

I have restored the car to as nearly original as I can both in appearance and performance. The color scheme, light tan and black with a pink stripe, was copied from a 1917 magazine ad.

Some changes were necessary. California law requires an outside rear view mirror and a brake light. Neither of these was supplied by the maker.

The rear view mirror I have added snaps into the roof's rain gutter and is quickly removable for showing situations. The brake light added is an after-market stop light of the teens. It is activated by applying the brake on the speed control lever. The activating switch is the brake light switch from a Model A Ford. The brake light operates on 12 volts taken from any two adjacent 6-volt batteries in the 14-battery chain.

The batteries we have are Exide GC5, the heavier-duty of the two golf cart batteries offered by the company. Each 3-cell battery weighs 70 lbs. making a 1000 lb. battery load, (the original car had 40 single cells but I was reluctant to trisect a battery merely for accuracy. Thus I hopped it up to 84 volts.)

The all-white tires do not do well when supporting the car during storage. Under the heavy load the flattened area at the tire bottom prompts separation of the white rubber between the bottom and the side area. The tire likes to be round. Accommodation is made by storing the car on jackstands.

The other Rauch & Lang cars I have seen are roofed with a smooth material. I could not find such material so I used long grained cobra pattern, as was common in the 20's. I am hoping that since the car is tall, no one will notice.

The charging of the batteries is done through two modern receiver plugs, an 84-volt charger not being available. The Lester Company furnished me with a charger for the 6 rear batteries and a larger-capacity charger for the 8 front batteries. Each is fed to its batteries by a color-coded and different shaped plug assembly, which prevents a wrong hookup. The two chargers can be used at once. I use each off a separate household circuit. I have not tried otherwise.

After charging, the chargers shut off automatically. They are small, light, and trouble-free. The original 80-volt covered input receptacle I have wired shut as its prongs supply 84 volts DC (up to 105V when charging). Such voltage could light up an errant finger. I am told DC burns worse than comparable AC voltages, but I have not verified this by test.

The range and time span of a charge I do not know, although I have attempted to find out. When driving on local streets around my home I have run out of juice before the car does. It accelerates briskly up to 25 mph where it tops out. This keeps me off the thoroughfares.

The amperage draw I also cannot report. The operating gauge I found is not yet calibrated with the shunt of my original meter.