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FEATURES

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# TROLLEYVILLE VISITS RICHARD ORR

## SOUTHERN CALIFORNIA TRACTION CLUB OPEN TO NEW MEMBERS

*George Huckaby* - The Southern California Traction Club founded October 15, 1995, will march into its sixth year with its twenty-ninth public appearance at the Great American Train Show in Las Vegas. The club has come a long way since the five original members founded it at the All Aboard Model Railroad Emporium. The club now has eleven members, one of which resides in Tokyo, Japan. The club is now interested in acquiring new members as they now have the facilities to demonstrate all the "how-tos" necessary for successful operation of model streetcars and interurban vehicles from a 'live' overhead wire.



Almost every year of the club has been marked by some noteworthy achievement. After being founded in 1995, the club had its first three operational modules in 1996 just in time for the National Train Show in Long Beach. April 1997 saw the first public display at the South Bay Botanic Garden with five modules. In keeping with the club purpose to share information on modeling methods, two club members combined resources and placed a lesson in the Trolleyville Schoolhouse "Color Guide for Painting Model Pacific Electric Railway Cars". This article put to rest much discussion and a sequel will be coming shortly. The club also acquired and modified their first trailer, shown at right in the photo below:



The present clubhouse in Baldwin Hills (Los Angeles), CA was obtained in June 1998. It is basically a two-car garage not used for some time and needed extensive clean-up. While this clean-up was happening, other members of the club were assisting the Bowser Manufacturing Company with the development of their new traction drive. More lessons to assist traction modelers also were placed in the Trolleyville Schoolhouse. The subjects of these articles were "Operational Trolley Poles for HO Scale Model Electric Streetcars and Interurban Vehicles" and "Operational HO Scale Traction Couplers". Tests on the breadboard Bowser traction drive began in August 1999 and that particular drive is still running in the Kawasaki

Light Rail Transit vehicle shown in the first photo. Two more lessons by club members appeared in the Trolleyville Schoolhouse. The first, "Hanging Simple Overhead Wire for Trolley Pole Use" was published after being revised for the second time since its original publication in 1996. This revision corrected some terminology inconsistencies. The second was "Improving the Turning Radius of the New Bowser Trolley Power Unit". Members of the club pooled resources and established the Trolleyville Library. Each one of the publications listed in the library is actually on hand in this library, which is maintained by one of the Trolleyville vendors, who is also an SCTC member. Meanwhile the club members pitched in and by 1999, the garage had been fully cleaned out and transformed into the clubhouse and the test track shown below was operational.



In 2000, the club obtained its second trailer, shown previously, and the club produced another new lesson for the Trolleyville Schoolhouse, "A Short List of Model Interurban Freight Cars". The club also installed a 1999 Bowser drive into the first of MTS Boston "Picture Window" PCC models and refinished the car with the Custom Traxx decals created for it, including the now famous PCC wheel decals which simulate the six bolt pattern.



The crowning achievement was the club display at the National Train Show in San Jose in August with 25 modules, incorporating almost two scale miles of track, half a grand junction and trains of PERY "Blimps" and 1200 series steel cars. The first of the 1999 Bowser drives installed in a brass trolley was also operated here for the entire three days of the show without incident.



The club did not relax much in 2001. Efforts were made to improve the clubhouse so that all types of work from module benchwork to painting models could be accomplished. Due to the efforts of the members, by June of 2001, the clubhouse was ready for almost anything. A full entertainment center is in place, allowing the viewing of any video, or listening to any tape or CD. There is an operational bead blaster and resistance soldering set and both have been extensively used.



Meanwhile certain members of this club continue to support Stewart Hobbies in their project to produce a Southern Pacific version of the VO-1000 diesel in HO scale.

But probably the best achievement of the club was to help find a replacement headlight lens for the Los Angeles Railway pre-war PCC car at the Orange Empire Railway Museum. This lens had been damaged in an April collision at the museum and was unavailable. But the replacement should be at the Museum by the time you read this. So if you have any interest in the fun of operating from a live overhead wire, please do not hesitate to contact us. Dues are very low and rules are minimal. Call at 310-990-5422 or e-mail at [sctc@customtraxx.com](mailto:sctc@customtraxx.com). The club wants to hear from you.

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Contained below are some of the photos of the investment casting of the Orr special work, which may be a subject of a future article in the Times or a lesson in the schoolhouse.





Trolleyville took extensive notes and photos of the process so if there is enough interest in this process, we could develop an entire article for a future issue of the Times. So if you are one of these people, please E-mail the Times at [times@trolleyville.com](mailto:times@trolleyville.com)

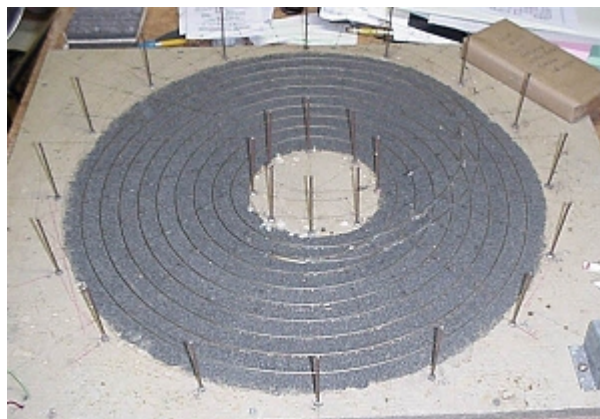
## CASTING HO SCALE SPECIAL WORK

**George Huckaby** - Anyone who is participating in HO scale traction has heard of Orr Switches and Crossings for street trackage. Richard and his wife, Martha Ann, both shown below, have been in the business of providing these items, commonly called special work in the industry, since 1971.



Trolleyville was invited to observe the entire process of casting the special work, using a process called investment casting. This is a multi-step process that takes up to two days to complete, and there are several important steps. Basically, investment casting is the process of making a rubber mold of the part that you wish to make; making wax duplicates (called waxes) of the same part and then surrounding those waxes in steel cylinders called flasks with a plaster-like substance called investment. The investment is then placed into an oven and heated to 1350degrees, eliminating all the wax. Finally, the molten metal is poured into the cavities vacated by the wax. The metal used for the special work is White Tombasil, obtained from H. Kramer & Co. The composition is Copper 58.0%, Zinc 22.0%, Manganese 12.0%, Nickel 5.0%, and other elements 3.0%. This metal can readily be welded, silver soldered, brazed and soldered. The entire process may be reported in a later Trolleyville article, but I must stress the fact that while the process sounds simple, it is quite involved. The entire process takes about two full days to complete and it involves overnight use of an electric oven heating up to 1350 degrees. The last part of the process involves use of a furnace, which heats up to 1800 degrees.

All of this gets done in his workshop at his home in Omaha, Nebraska, and resulted from his desire to build a trolley layout. The required overhead parts and trackwork were not available. So in 1968, he decided to make his own HO scale overhead wire fittings. These were the only pure HO scale overhead wire fittings ever made to date. They are used exclusively on the modules shown below.



You can clearly see the line poles but believe me, there are overhead wire and fittings on these modules. They carry power and they work. Richard designed his own model trolley shoes to use on his #32 overhead wire and scale size fittings. All of these items were available to traction modelers in the early seventies.

By 1971, it was time to start making special work. He started with the points and mates for street switches. The size of the original flasks that he used at the time did not allow the turnouts to be made with frogs. It was only after he upgraded his equipment and acquired larger flasks that entire turnouts with frogs could be made. So Richard has made this special work for thirty years and after we viewed the entire process, he concluded that whatever he is currently charging for these items is not nearly enough. He does it as an artist and it is highly unlikely that anyone else would do this work, and if they would be willing to do it, they would definitely not do it for the same price. So if you are thinking about Orr HO scale track components, I would recommend that you not wait until he is no longer making them.

Richard Orr and his wife are truly amazing individuals both of whom never stop working or thinking. At 76 years of age and successfully beating the traumatic effects of Guillaume Barre' Syndrome a few years ago, Richard is always thinking of new and better ways to do things. And his ways are always the better ways. When he felt that the history of Omaha and Council Bluffs streetcars should be documented, he, with a lot of help from his wife, wrote the book, "O & CB." This was done with a typewriter and a 1978 Compugraphic 7500 Editwriter, the machine shown below.



There weren't any Personal Computers in the house and there are still not any. But Trolleyville's super Macintosh PowerPC G3 laptop was in the house and we introduced Richard Orr to the internet and the Trolleyville web site while we were there. Most people vent their dryers and water heaters the easiest way possible, though a wall. Richard, hand cut perfect circular

openings in the cinder block foundation with hand tools. Such a hole was made for the water heater, clothes dryer, and his electric oven.



When not making these items, he is working in his vegetable garden or road race running, capturing many medals in his long career. Some of these medals are shown at the bottom of column two.

From 1972 to 1980, Richard marketed some streetcar calendars featuring photos of Omaha and Council Bluffs streetcars, ensuring that on each month with a historic photo, the same location was shown as it existed at the current time. We conclude this article with a photo of his inventory wall and a photo of pouring the molten Tombasil into the flasks containing the investment molds.





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