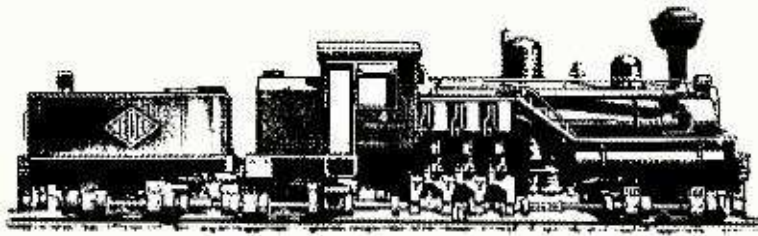


The Manifest



August, 2012

Official Publication of the Southern Oregon
Chapter of the National Railway Historical
Society

P.O. Box 622
Medford, Oregon 97501
<http://www.soc-nrhs.org/>

REMINDER: the Special MEDCO NO. 4 FUND RAISING Offer with Matching Donations is still on through September, 2012. Get your donations in before the end of September to qualify for matching funds.

GLASS INSULATORS AND RAILROADS, A Colorful History

By: Allen Dobney

How I Got Started Collecting Insulators:



From September, 1968 through May, 1972 I was spending most of my time getting educated at Oregon Technical Institute in Klamath Falls. Most of my spare time was spent chasing trains with Rod Loder and Leonard Olsen. On one beautiful May, 1970 Saturday Leonard, his wife Nora and I went on a picnic. Nora provided the picnic lunch and I provided the transportation, a not so powerful 1962 Comet. We thought it would be fun to go north to Algoma and drive to the top of the Algoma incline. Once we got to the top we found old buildings partially collapsed and some sort of sheet metal object that looked like part of a still. Then we saw it, a telephone pole on the ground. The top of the pole was completely engulfed in brush. My heart was racing as we cleared away the brush, and there they were 4 light green McLaughlin No. 9 insulators. Leonard took 2 and I took 2. My insulator collecting hobby was now in full swing!!!

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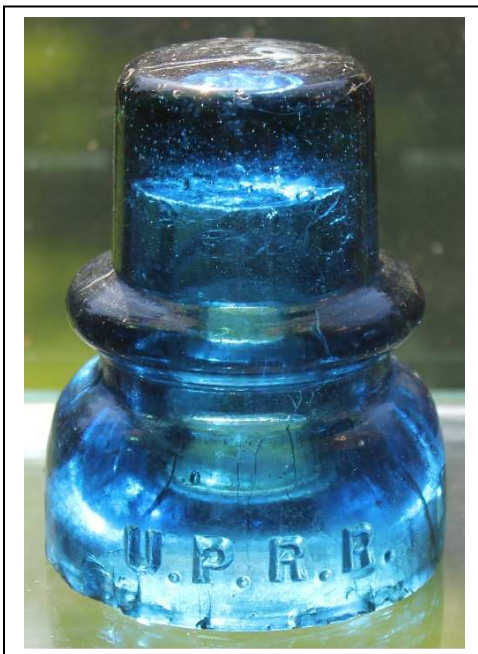




After a little more exploration we found the remains of a neat wooden trestle, but not in very good shape. We found a nice shady spot under a large pine tree near the trestle and proceeded to set up our picnic lunch. Usually when having a picnic in the wild you run into some pesky ants. We were lucky there were no ants, but we did get attacked by nastier creatures. We started noticing little black things dropping from the tree, upon closer investigation we were surrounded by ticks. We ended up finishing our lunch in the car.

In the Beginning:

Just a few years before my time, back in 1843 Samuel Morse successfully convinced congress to appropriate \$30,000. to build an experimental telegraph line between Washington DC and Baltimore, Maryland. An agreement was drawn up with the Baltimore & Ohio Railroad to place the line along their right of way. The initial construction commenced as an underground line with the wires being wrapped in lead, (not a good idea). By December, 1843 the underground approach was abandoned because the insulation was determined to be faulty. In the spring of 1844 the project was restarted as an above ground line on poles. The crude insulators were designed by Ezra Cornell. These insulators consisted of sandwiching the wires, wrapped well in cloth saturated in gum shellac, between 2 plates of glass. This arrangement was then inserted into a notched crossarm, over which a wooden cover was nailed.



Jumping forward to the late 1860's, the insulator technology had advanced to a threadless pin type glass insulators. On the transcontinental railroad being built by the Union Pacific through Wyoming and Utah the railroad used an insulator manufactured by Mulford & Biddle embossed U.P.R.R. and appeared in several different colors.

Also during this time period eastern railroads such as the Erie Railway were also using threadless insulators embossed with their initials. (Photo: *Crown Jewels of the Wire*)

Since threadless insulators were "stuck" on a wooden pin usually with cloth and/or tar, they had a habit of coming off the poles.



The Threaded Era Begins:

On July 25, 1865 Louis Cauvet patented the idea of a threaded pinhole that matched threads on the pin thus solving the problem with loose threadless insulators. Brookfield, an insulator manufacturer located in New York, was the first manufacturer to adopt Mr. Cauvet's design. Brookfield continued in the insulator business until 1922. All of the other manufacturers across the US, Canada and Mexico eventually adopted this same design.



My first encounter with Brookfield insulators was at the summit of Cajon Pass in 1971 when the Santa Fe was relocating their tracks to reduce curves and lower the summit by 50 feet. In the reconstruction area all of the old polls and insulators were being replaced with underground cabling. To the left is a sample of a Brookfield insulator and a Hemingray insulator. When I saw 100's of polls on the ground with 1000's of insulators just sitting there waiting to be harvested, I starting drooling. I ended up with a trunk full of beehive insulators manufactured by both Brookfield, (B), and Hemingray, (H.G. CO.).



Also in 1971 my college roommate and I built a rope ladder to harvest some insulators from SP lines near Chiloquin. By the 1970's there were a lot of insulators on poles that had no wires attached to them. In the 60's and 70's many railroads including the SP were attaching insulated multiconductor cables to existing poles as can be seen in this picture in Roseville which reduced the need for bare wires mounted on glass insulators.

From our outing to Chiloquin we harvested about a dozen insulators. Most of the insulators used by the SP in Oregon were signal types manufactured by Hemingray, California and McLaughlin. The California factory was

located in Long Beach, Ca. and was serviced by the SP. McLaughlin was also located in Southern California in the town of Vernon. Hemingray was located in Muncie, Indiana.

In the picture to the right a sample of each of these manufacturers are shown, and no we were not this lucky to find these colorful samples on poles in Chiloquin, what we found were just ordinary aqua and clear insulators.



Unusual Insulator Applications:



Through the years there have been several unusual insulators made to deal with a specific railroad needs. Left is a nice looking unembossed beehive insulator. These insulators of this color were only used on the Grand Canyon Railway between Williams, Arizona and the south rim for the Grand Canyon. To this day it is not known where these insulators were made.

This unusual and quite large, 5 ½" tall, 4" in diameter, insulator was designed to support heavy direct current trolley feeder cables. This insulator is embossed with "N.E.G.M. CO." which stands for "New England Glass Manufacturing Company",

was located in Boston, Mass. This type of insulator was only found on an eight mile section of elevated trolley line built about the turn of the 20th century in Boston. The feeder cable were usually 1 ¼" in diameter or larger. The insulators were mounted on cross timbers under the railway catwalk, with the heavy cables draped through the insulators at 12 foot intervals. It is entirely possible these insulators were specially made for this line since none have been found in use anywhere else. During 1987 & 1988 the line was abandoned and dismantled.





Yes I Know we were talking about Glass insulators, but I could not leave out the story about these wooden insulators. After the 1906 San Francisco earthquake, because of the urgent need to rebuild the streetcar system and the inability to obtain regular insulators for the electrical feeders fast enough, a significant number of insulators were turned from wood readily available from the ships in the harbor as ballast as a "temporary" solution. Many of these lasted into the 1970s with a small number remaining in service into the late 2000s (most of these came down when the overhead 600V

DC feeders were replaced with a new system of underground feeders, the rest coming out of service as aging crossarms supporting the remaining overhead feeders were replaced). Lignum vitae is the wood used to make these insulators, also called guayacan or guaiacum, and in parts of Europe known as pockenholz, from trees of the genus *Guaiacum*. This wood was once very important for applications requiring a material with its extraordinary combination of strength, toughness and density. It is also the Jamaican national flower. (Photo: NIA.org)

The Declining Years:

Beginning in the 1980's large numbers of wires on poles and insulators were being replaced with underground cabling both wire and fiber optic. Below is a picture of the top section of a very old and rare square pole with a few insulators still in tact and a second square pole with insulators. These pictures were taken in March, 2004 at Black Butte, Ca.



To the right is another picture showing a pole on its last legs. This picture was taken in the Sacramento River Canyon in July, 2004. Even today you can still find some interesting glass insulators along railroad right-of-ways, but they are disappearing fast. Now you know how I got hooked on collecting glass insulators through my love of trains.



Credits:

Many thanks to John & Carol McDougald for allowing me the wealth of insulator information in their book "A History & Guide to North American Glass Pintype Insulators".

Wikipedia -- historical information on the San Francisco wooden insulators.

Photos are from the author's collection except where noted.

We are looking for the donation of a riding lawnmower working or not as long as it is fixable. Contact Ric Walch at ric.walch@medfab.com

**Southern Oregon Chapter – National Railway Historical Society
Board of Directors
Regular Meeting Minutes of June 26, 2012**

1. Call to Order: Meeting was called to order at 7: 06 PM by President E. Don Pettit
2. Roll Call: E. Don Pettit, John Powell, Jerry Hellinga, Ric Walch and 3 other members were present. Larry Tuttle was absent.
3. Consent of the Agenda: Jerry Hellinga moved to accept the agenda as presented. John Powell seconded. Passed unanimously.
4. Approval of the May 22, 2012 Board Meeting Minutes and June 12, 2012 Membership Meeting Minutes. Jerry Hellinga moved to accept the minutes as presented. John Powell seconded the motion which passed unanimously.
5. Treasurer's Report: Jerry Hellinga presented the Treasurer's Report. Jerry reported that we would finish the fiscal year in the black. The Telegraphers group has covered the cost of the new park

donation sign and \$500.00 to help cover the cost of the motor car operation. The Treasurer's Report was accepted by consensus.

6. Committee Reports:

- a. Allen Dobney presented that he is in need of articles for the newsletter. Allen also reported that he will be needing material for membership meeting entertainment soon.
- b. Ric Walch reported that the concession stand is doing very well this year with the selling of hamburgers, chicken burgers, veggie burgers, and sliders.

7. Old Business:

- a. Medco 4: Jerry Hellinga reported that the boiler work is continuing well. All of the stay bolts are in and the tubes will be installed by the end of this week. Boiler work will be done by the end of June and the FRA inspection is scheduled for the week of July 9th.
- b. CTC Relay Panels: The cases have been moved to the blacksmith shed.
- c. Signs for Railroad Park: The sign machine donated by Larry Tuttle is now installed and operational in the storage shed.
- d. Membership Campaign – Allen Dobney reported that the new application forms have been revised with the new dues structure. Allen plans to start distributing Historical Society flyers and application form next week.

8. New Business:

- a. N Scale Convention – Coverage for the N Scale Convention was discussed. Ric Walch and Allen Dobney committed to be at the park and open the concession stand and exhibits. Allen will contact the motor car operators to see if they can make it to the park.
- b. Signage in the gazebo – Discussed that we need to get signage made and installed in the new park gazebo. Allen Dobney committed to work on the signage.

9. Good of the Order:

- a. Jerry Hellinga reported that he attempted to find alternate insurance for the group without any luck. He has renewed our current policy.

10. Adjournment: Jerry Hellinga moved to adjourn; Ric Walch seconded. Meeting adjourned at 7:35 PM.

Allen Dobney, Acting Secretary

Next General Meeting: July 10, 2012 at 7:00 PM
Next Regular Board Meeting: July 24, 2012 at 7:00 PM

MEMBERSHIP MEETING ENTERTAINMENT

If you have railroad slides or videos that you would like to present, please email me at (adobney@gmail.com) or call me at 541-582-0605 with the details and I will put you on the schedule.

ARTICLE SUBMISSIONS

As always we need articles for the newsletter. If you have something you would like to see included in an upcoming newsletter, please send your submission to; adobney@gmail.com or call 541-582-0605. Thanks.....Allen

CHAPTER OFFICERS

President	E. Don Pettit		541-601-4772
Vice President	Ric Walch	engmgr@medfab.com	541-772-6255
Treasurer	Jerry Hellinga	ghelling@jeffnet.org	541-944-2230
Secretary	Larry Tuttle	larry@alpharail.net	541-660-0989
National Director	John Powell	rebel_780@hotmail.com	541-601-9256

COMMITTEE CHAIRS

Newsletter & Entertainment	Allen Dobney	adobney@gmail.com	541-582-0605
Webmaster	Larry Tuttle	larry@alpharail.net	541-660-0989
Medco #4 Restoration	Jerry Hellinga	ghelling@jeffnet.org	541-944-2230

UPCOMING CHAPTER EVENTS

August 12, 2012, 11:00AM – 3:00PM: Railroad Park open house. If you would like to help during the open house, contact Dan Wilkinson at whetstone@budget.net or (541) 479-1210.

August 14, 2012, 7:00PM @ Model Railroad Clubhouse: Membership Meeting. Allen Dobney will be presenting the video "SP 4449 Washington Steamfest".

August 26, 2012, 11:00AM – 3:00PM: Railroad Park open house. If you would like to help during the open house, contact Dan Wilkinson at whetstone@budget.net or (541) 479-1210.

August 28, 2012, 7:00PM @ Model Railroad Clubhouse: Southern Oregon Chapter of the NRHS Board Meeting.

September 9, 2012, 11:00AM – 3:00PM: Railroad Park open house. If you would like to help during the open house, contact Dan Wilkinson at whetstone@budget.net or (541) 479-1210.

September 11, 2012, 7:00PM @ Model Railroad Clubhouse: Membership Meeting. Tony Johnson will be presenting: What I will show are photos, and a few minutes of old 8mm color movies I took when I visited Southern Pacific's Sacramento Shops and Roseville diesel facility on Aug. 18, 1974. At that time I had a SP photo permit that was about to expire, so I decided to visit the shops.

It was on a Sunday. There was no one working except the security guard at the gate so I had the entire shop complex to myself. This was when SP was about four years into their diesel upgrading program so my footage shows GP9s being rebuilt inside the shops, as well as other larger locomotives in the shops for repairs. I climbed up to the overhead cranes and shot images looking down on the erection floor. At the time 4-8-8-2 cab forward SP4294 was stored outside.

Roseville was busy as usual during my visit. Lot of diesels everywhere, plus the deadline had the four TR6B units waiting for a rebuilding that never happened.

September 23, 2012, 11:00AM – 3:00PM: Railroad Park open house. If you would like to help during the open house, contact Dan Wilkinson at whetstone@budget.net or (541) 479-1210.

September 25, 2012, 7:00PM @ Model Railroad Clubhouse: Southern Oregon Chapter of the NRHS Board Meeting.

NOTABLE NON-CHAPTER EVENTS

May 13, 2012 thru December 16, 2012 – Oregon Coast Scenic Railroad 2012 operations. For more details go to: <http://www.ocsr.net/>

May 25, 2012 thru December – Sumpter Valley Railway 2012 steam operations. For more information go to: <http://www.sumptervalleyrailroad.org/index.html>

If you know of any other events that should be added to our newsletter, please email, (adobney@gmail.com), or call, (541-582-0605), with the details.
