

What's The Big Deal About Insulators?

by Lynne Belluscio

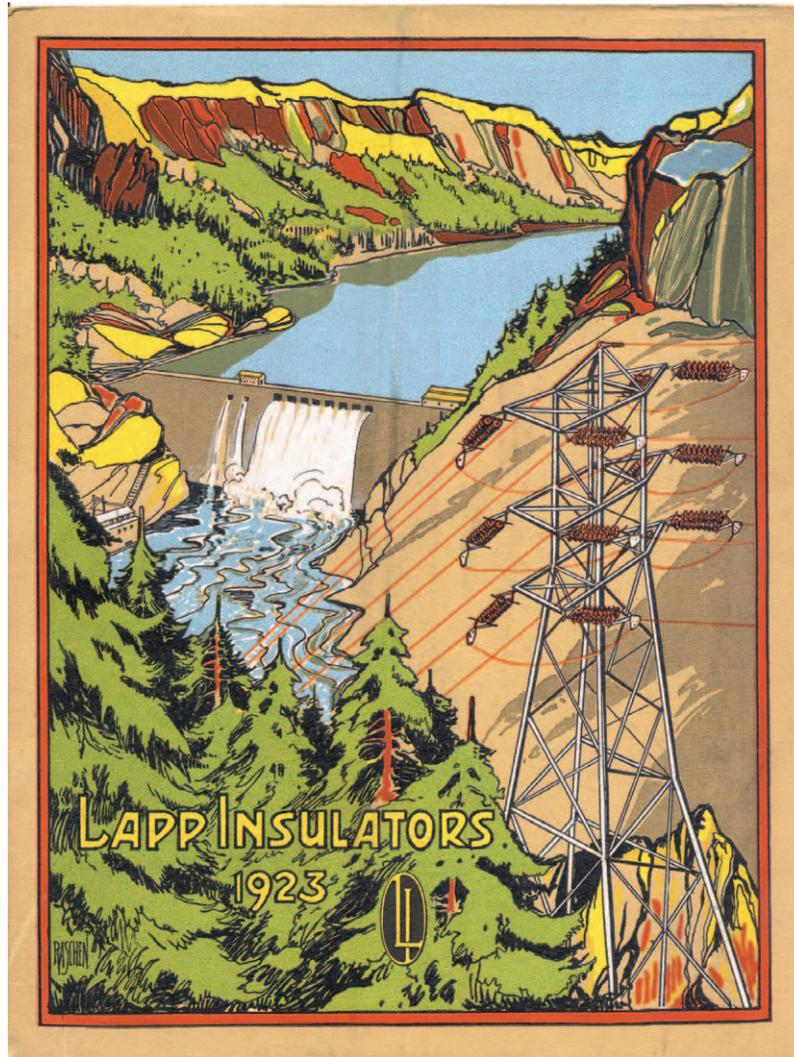
When I first became interested in collecting antiques, I remember making jokes about insulator collectors. I even received a couple of glass insulators, wrapped up in birthday paper as a joke one year. Well, I am converted -- not that I plan to start collecting insulators, but a couple of weeks ago, I decided that I would put together an exhibit about Lapp Insulator, and I have seen the light. Actually I wouldn't be able to see the light - neither would you -- if it weren't for insulators.

Lapp Insulator was incorporated in 1916 and in less than a year the first porcelain insulators were shipped out of the LeRoy factory which was built on what John S. Lapp called, "Bob Heman's potato patch." But the story of insulators begins much earlier than Lapp Insulator.

In 1838, Robert Morse introduced the telegraph. I read that at first they were going to bury the wires in tubing but that didn't work, so they began to string wires on poles. It was necessary to put insulators on the poles so the electrical current wouldn't short out. These early insulators were very primitive. Some were made from clay and many were made from glass.

In the 1880s the big discussion was about electricity - how to transmit it and how to use it. Thomas Edison, who receives all the notoriety, believed that direct current was the answer. Unfortunately direct current can't be transmitted very far, so there were proponents of alternating current. Nikola Tesla (google that name and read about a man whose name should be better known than Edison!) contracted with Westinghouse and they began making plans for the power plant at Niagara Falls. There were a couple of power transmission lines set up in California as early as 1893, but the Niagara Falls plant went on line in 1895 and the world changed. But it couldn't have happened without -- you guessed it -- insulators.

Glass insulators could not withstand the conditions needed to transmit high voltage electricity



and the power companies needed thousands of insulators. Although there were several companies producing dry-process porcelain insulators, it was Fred Locke in nearby Victor, who designed and produced a wet-process porcelain insulator that was stronger and better suited for high voltage transmission. (At this point in my research I think I need a degree in ceramic engineering -- maybe electrical engineering).

Fred Locke had a partner, John Lapp. Both men had grown up together in Honeoye Falls. Locke became a telegraph operator. Lapp was a wagon maker with a keen aptitude for making things work better. Locke and Lapp applied for a patent in 1888 for an insulator. The patent was granted in 1889. Locke would become the "father of the porcelain insulator" and it was his wet-process insulators that were used on the Niagara Falls lines. Lapp's son John S. Lapp managed the Locke plant in Victor, but the Lapps would leave Victor and

John S. Lapp would build the plant in LeRoy.

Brent Mills, who was an electrical engineer and who became the CEO of Lapp Insulator, wrote a book, *Porcelain Insulators and How They Grew*. I started reading it and I knew I was way in over my head. Brent also assembled an insulator collection which is the basis for the Lapp "Museum". This week I'll have a chance to see that collection, but before I go, I want to know what I'm going to be looking at, so I started googling porcelain

insulators and have read many articles about collecting and identifying porcelain insulators. A couple of stories have fascinated me.

One was about Fred Locke's home in Victor. When the house was sold, the new owner cleaned out the attic. Fred Locke didn't throw anything out, so all of his papers and insulators were stored in the attic. The papers were heaped in a pile and burned. Only a handful of valuable records were saved. All the insulators were thrown out.

Recently, a couple of avid collectors received permission to dig out the insulator dump and have discovered a virtual "gold mine" of Locke insulators. Other rabid insulator collectors have posted stories about adventurous hiking along abandoned transmission lines looking for rare

and unique insulators -- not for the faint of heart! I also discovered an internet site that posted the prices of some of the rare insulators -- again not for the faint of heart, when you see \$4,000 or \$5,000 for a one-of-a-kind porcelain insulator!!

So as I said, I'm not going to start collecting porcelain insulators, but the Historical Society will have an exhibit this summer and I hope some of you will stop by and see it. I promise it will be "electrifying."

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