Batteries Not Included

By Joe Terry

Historians may disagree as to who deserves credit for the idea of the telephone (Bell or Gray), but the year is indisputable - 1876. From that point on,



Porter Burns

telephone technology was on the rise, and like all good commercial ventures, everyone wanted in. The scramble for supremacy in an area not yet dominated by one lent for much experimentation and in the end, shaped the world of communications as we know it. Bits and pieces of this race have been left behind, from candlestick telephones to the devices that powered them. Unlike today, the power for your early telephone came from within the unit and required another invention that in itself was undergoing constant change. I speak of the galvanic battery.

The concept of the battery is old. Up to a point in history, it was a curiosity only because no one had any practical use for it. The use of electricity in things like fire and burglar alarms, not to mention the telegraph, gave a rise to the improvement on old designs. But it was the telephone that really pushed matters. Each individual unit required power to work, and the batteries needed to be small, efficient, and relatively safe. Enter the inventors.

Our story focuses on one in particular. Born in Fond du Lac, Wisconsin, Peter Cooper Burns was, like all good inventors, interested in how things worked. By age 15, he was tinkering with acoustic telephones at his parents' house. The next year, he was hired as an operator for the Bell Telephone Company in Chicago, where he moved up to inspector. From there he worked variously for the Electrical Merchandise Company and the Knapp Electric Works.

He then moved on to building his own companies, first one in Chicago, and then moving his enterprise to Missouri as the St Louis Electrical Company. All such enterprises were essentially wiped out by a court decision upholding Bell's patent. Undaunted, Peter went on to conceive his first invention, for a battery. Patent #393814 became the starting point for a lifetime of inventing, somewhere in the neighborhood of 15. This first, however, is of concern to glass collectors for the interesting, if rarely seen, Burns Microphone Cell. The jar is actually the battery casing, as glass was one of the few things impervious to acid.

What drew the author's notice to this particular item was the location of its manufacture. Being a member of the Findlay (Ohio) Antique Bottle Club tends to expose a person to all



McGraw Battery Jar

things Findlay. One of them concerned fragments of these jars found on the site of the former Findlay Bottle Company. It turns out that Peter Burns contracted



Burns patent Drawing

with this glass factory to produce the casings for his batteries. Not content with just that, he also built his own factory right on the grounds to produce another component of the battery, the carbon terminal. His company here was named the Findlay Glass and Carbon Company. It went into operation in 1888, producing the components for an unknown number of batteries. The plant employed 15 men, so it was a modestly sized factory. Finished pieces were shipped back to 807 Locust Street, the site of his former electrical business. It was now renamed the St Louis Battery Company.

One of the last reports found for the Findlay company is in April of 1890. The Electrical Engineer reported the following. "Mr. P.C. Burns, of St Louis, has been a recent visitor in New York, and reports the Findlay Glass and Carbon Co. as being busy making porcelain cut-outs and cut-out rosettes for electric lighting purposes, in addition to their making carbon batteries, jars, insulators, etc."

Bollies and Exiras

It was this year that Mr. Burns announced he was moving. His decision may have been based on the fact that gas pressure was lessening in the local gas fields. His new location, Peru, Indiana, offered free land, free gas, and a \$5,000 inducement. Once built, the new factory of the Peru Electrical Manufacturing Company remained here for a number of years. This did not stop Peter from forming the Laclede Carbon and Electrical Company in nearby Kokomo around 1892. Both companies were in operation simultaneously.

In 1896, he was granted patent #514845. This patent, while similar in the drawing to the Microphone Cell, seems to have spun off from already existing battery styles --- The Hercules and The Laclede. As early as 1892, The Laclede was being marketed across the country. But even as more efficient designs were being produced, that aspect of the business was soon to fall to the wayside. Alexander Graham Bell's patents were beginning to roll over into the public domain, allowing inventors such as Mr. Burns to pursue their own inventions. While of little importance to this story, the work he carried was in its own way instrumental. Of greatest fame was the American Electric Telephone Company of Chicago. It was while he was president of this firm that he obtained most of his patents.

These included a wide range of



Burns Battery Jar



Burns Second patent

today for all telephones, including cellular phones. This then helps explain the name, as the battery was for use with telephones, unlike later brands, which saw a wider array of applications.

Throughout his life, Peter seemed to be embroiled in disputes. Starting with the Bell monopoly in 1887, he encountered various troubles. He was even sued by one of his own companies. The Peru company sued (for unknown reasons) against Peter and the Laclede Carbon and Electrical Company. Later still, the American Electric Telephone Company declared bankruptcy due to its inability to pay dividends to its stockholders.



Findley Bottle Company

devices, from extendable arms to receiver mouthpieces. Like today, the mouthpiece contained a device for picking up and transmitting the sound. The term for this had been coined at some undetermined date to be a – microphone. While today

we think of a microphone as a device used by television news teams, awards ceremonies and the like, it is still applicable



INPROVED LACLEDE BATTERT.

In 1938, Peter set aside money for the now defunct PC Burns Fellowship. It would appear that he died in 1940, leaving behind a legacy hardly hinted at by the limitations of this article.

In preparation for a new membership directory in early 2011, please verify your information. If changes are necessary, please contact: June Lowry, FOHBC Business Manager 401 Johnston Ct Raymore, MO 64083 816-318-0160 OSUBuckeyes71@aol.com