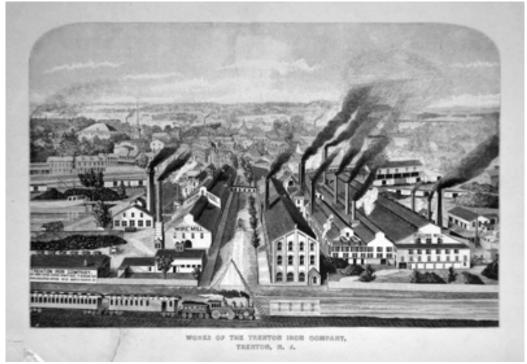
## **Over 3 Centuries, Mercer Makes – & Innovates**

by Barbara Figge Fox
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(Excerpted)



Peter Cooper's Trenton Iron Company

Two centuries ago, on the southern end of Mercer County, Trenton was forging its industrial reputation with iron, steel, and porcelain. Peter Cooper made the first I-beams in the United States to build the first fireproof buildings. John Roebling built the first railroad suspension bridge using wire ropes from his Trenton factory. To the north, at Princeton University, Joseph Henry was pioneering in the field of electromagnetism, which led to the telegraph and the telephone. Fast forward to the 20th century: Albert Einstein came to Princeton's Institute for Advanced Study, RCA pioneered in satellites and color television, and Western Electric made telecommunications history. Today's scientists tap this heritage.

To celebrate its 175th anniversary, Mercer County is staging an unusual day-long conference on technology developed within its borders. It is set for Friday, October 4, at the education building of the College of New Jersey (TCNJ). In a tip of the hat to the iconic sign that spans the Delaware River, "Trenton Makes The World Takes," the conference is titled: "Mercer Makes: Innovation and Technology in the Capital County." Co-sponsors of the conference include TCNJ, the Historical Society of Princeton, the Trenton Historical Society, and the Princeton Regional Chamber of Commerce.

"It's hard to imagine how many discoveries were and are being made here, when you consider that Mercer County encompasses Trenton's manufacturing heritage, GM in Ewing, Princeton University, the Institute for Advanced Study, and the RCA/Sarnoff labs," says County Executive Brian M. Hughes. "We have an amazing legacy."

When interviewed for this article, the panelists brim with enthusiasm for their parts of the

story. Iron, clay, and electromagnets are the focus for the panels on the 19th century. Clifford Zink, architectural historian, will discuss the remarkable accomplishments of Peter Cooper and John Roebling who were giants in Trenton's iron and steel business. Richard Hunter, archaeologist, will tell about the massive ceramics industry in Trenton. And Michael Littman has entertaining story after entertaining story about Joseph Henry's scientific adventures. Emily Thompson, a Princeton University history professor, will moderate. In separate presentations, Benjamin Gross, curator of the Sarnoff Library museum (now housed at TCNJ), will discuss RCA/Sarnoff's legacy, and Christine diBella will tell about research and discovery at the Institute for Advanced Study.

## Steel: Cooper & Roebling

In the 19th and 20th centuries, Trenton and Princeton were hubs of innovation. Clifford Zink, who has chronicled the Roebling family, will sign his book "The Roebling Legacy" (U.S. 1, June 8, 2011) at the event. Zink grew up in northern New Jersey, with his father working as a fireman, and his mother as a department store manager. He majored in communications and documentary filmmaking at Temple University in 1972 and has a master's degree in historic preservation from Columbia. His other recent books are on the history of Monmouth County parks and Somerset County parks.

Thanks to recent archaeological discoveries at Petty's Run, says Zink, we know that in the 1750s Trenton was one of only four sites in the colonies where steel was being made. In the 19th century the skilled labor pool and excellent access to water and railroad transportation made Trenton attractive to Peter Cooper, an industrialist and serial entrepreneur from Manhattan. (He founded Cooper Union as a free college.)

In 1845 Cooper established his Trenton Iron Company on the Delaware River where the baseball stadium, Arm & Hammer Park, now stands. He soon expanded Trenton Iron to the site of the current arena, Sun Center. When John Roebling wanted to move his wire rope making business from Pennsylvania he asked for, and took, Cooper's advice. The Roebling Steel Works was built near Cooper's plant. Before Roebling began making his own wire for ropes, he bought Cooper's wire.

Roebling designed, and his son Washington built, the world-famous Brooklyn Bridge in 1869. Both Roebling and Cooper made wire ropes for the newfangled elevators and cable cars. Cooper's Trenton plant also made wheels and rails for railroads; he thought they were more profitable than making locomotives.

Cooper's determination, as well as his deep pockets, helped Cyrus Field do the seemingly impossible, to lay the transatlantic cable — using Trenton Iron wire, of course. Cooper's company forged the first I-beam in the United States for Cooper Union, but soon all the architects wanted to build fireproof structures, and, a little later, the first skyscrapers, including Trenton's eight-story Broad Street Bank. Cooper's I-beams were also used in 1855 when Nassau Hall had to be rebuilt, after a fire.

"Roebling and Cooper were Trenton entrepreneurs making very important contributions to the 19th century," says Zink. "They changed the way people lived."

For the full article see:

http://www.princetoninfo.com/index.php?option=com\_us1more&Itemid=6&key=10-2-13mercer)