



December 2001

David Shapiro, Co-Editor

David Smith, Co-Editor

ASME Hudson-Mohawk Section

Newsletter

Tour of the Burden Iron Works

On November 8, about 15 members of the Hudson Mohawk Chapter toured the Burden Ironworks Museum in Troy, NY. For anyone interested in the history of the Albany Region and history in general, this was quite an eye-opening tour.

The tour was conducted by P. Thomas Carroll, Executive Director of the museum. His wealth of knowledge kept the attendees interest and his delivery of the information was very entertaining.

Did You Know?

(Copyright 2001 by the Hudson Mohawk Industrial Gateway)

- The armor hull plates for the U.S.S. Monitor from the Civil War were made in Troy?
- That two Troy manufacturers - John A. Griswold and John F. Winslow, were instrumental in convincing the Lincoln administration to approve construction of the Monitor?
- That certain valves on the locks of the Panama Canal were made at Troy's Ross Valve Manufacturing Co. in the very same building where they are still making valves today?
- That the Burden Iron Company in South Troy produced almost a million horseshoes and muleshoes a week in the late 1800's?
- That the most powerful vertical water wheel in history was designed and built by Burden?
- That many people suspect that Burden's wheel was the model for the first Ferris Wheel, made in 1893 by George Washington Gale Ferris, Jr., a graduate of RPI?
- That the hooked railhead spike, presently used around the world, was invented by Henry Burden?
- That the replacement for the Liberty Bell that hangs today in the bell tower of Independence Hall in Philadelphia was cast in Troy.
- Many of components for the modern fire hydrant were developed here?
- That more than a million detachable collars and cuffs a day were produced in Troy?
- That Troy was home to the first truly all-woman labor union – founded in 1864?
- That the W. & L.E. Gurley Company in Troy produced some of the finest surveying instruments used by leading explorers as the first reached the ends of the earth?

History

The Troy region was arguably the first to use cutting edge technology as the focus of a self-conscious effort to cultivate regional economic prosperity. In actions similar to those taken in California's Silicon Valley in recent memory, during the American Industrial Revolution, visionaries from all across the region deliberately constructed:

- a superlative transportation infrastructure that included the Erie Canal
- a regionally-responsive educational infrastructure that included RPI
- and an investment banking infrastructure that included about two dozen banks in Troy alone and such regional financial luminaries as Erastus Corning

The Troy Iron & Nail Factory was established in 1809 upon the banks of the Wynantskill in South Troy. This was known as the Upper Works. The first business produced iron nails, hoop iron, and bar iron for local consumers. Henry Burden became superintendent in 1822 and production expanded due to his inventions. By 1848, Henry Burden owned the company and changed the name.

The increased demand for horseshoes in the Civil War resulted in the need to expand, and in 1862, the Lower Works was created. It was powered by steam engines. However, as with all things, the failure and unwillingness of Henry Burden to change with the times ultimately led to its decline. Today, the office building stands not only as a monument to the Burden Iron Works, but also as a lesson on the relationship between technology and commerce.

Presently under renovation, the Burden Iron Works is only open by appointment only. Mr. Carroll can be reached at 518-274-5267 or email at carroll@rpi.edu.

ASME International **Hudson-Mohawk Section Officers**

Chair: Paul Kehoe (518) 475-5174, X-125 paul.kehoe@ps.ge.com

Vice Chair: OPEN

Admin.Assoc.: Tom George (518) 395-4045

Treasurer: Mike Brilliant (518) 387-6558 brilliant@crd.ge.com

WEB SITE

As a reminder, you can check out the latest happening of the Hudson Mohawk section on our web site. Included is the copy of the newsletter. The URL is: www.asme.org/sections/hudson-mohawk

Not an Official Event..But

A program will be held at the Schenectady Museum on December 1 entitled "How Did They Do It?: Innovation and Team Based Creativity at GE." This program examines how GE has fostered and structured the creative process over the last 50 years through a panel discussion of current and retired researchers. This will be a worthwhile event for all ASME members and it represents an opportunity to pick the brains of those involved in the process. It is scheduled from 1:00 - 3:00. The Schenectady Museum is open year-round and puts on many interesting events during the year.

For additional information and those that will be on the panel, please contact: Randy Fox
Schenectady Museum
Nott Terrace Heights
Schenectady, NY 12308
382-7890

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
HUDSON-MOHAWK SECTION
Paul Kehoe
278 Kenwood Avenue
Delmar, NY 12054

Hudson Valley Community College

A team of students participated in a design contest this past weekend down in Dutchess County. They had to design and build a device that would launch a pumpkin a maximum distance. Points were awarded based on distance thrown and weight of the pumpkin. The four HVCC students that participated were: Michael Clark, Davin Card, John Michasiow, and Nathan Alois. This was a ton of work for the students and it was all voluntary on their part. This was not part of any class. They had to come up with all the material, build it, test it, and get it down to Dutchess County. HVCC has participated in this contest for three years now. This year's team did a great job - increasing the total number of points we were awarded by almost 3000 points over last year's score and increasing the maximum distance that we launched the pumpkin (180 feet). We came in third in the college division and fourth overall (there were high schools and colleges participating). The event was sponsored by the Dutchess County Community College (Foundation) and held on Sunday, Oct 28th at Secor's Farm in LaGrange, NY.

NON PROFIT ORGANIZATION
U.S. POSTAGE PAID
SCHENECTADY, N.Y.
PERMIT #334