



# THE FLIGHT OF THE PHOENIX

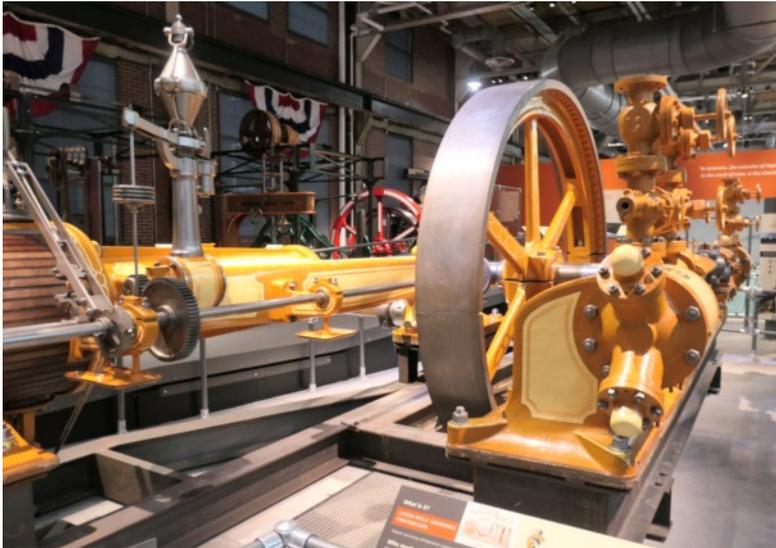
The Newsletter of the McNeill Street Pumping Station Preservation Society

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## An Industrial Relative From Elsewhere



*Steam driven Ammonia Compressor from 1884*

own someday, but for this edition we'll tell you about some head-turning steam engine equipment NMIH has on display.

The museum has a beautifully restored and handsome steam engine-driven ammonia compressor that was used for refrigeration at American Brewery in Baltimore beginning in 1884. The compressor came from Switzerland and the steam engine was manufactured by Wolf in Chicago. The machine doesn't have anything to do with water, but it is so pretty it had to get a mention and a photo! Right next to it is a real water works classic and a first cousin to one of the machines at SWWM. It is a Snow crank-and-flywheel pump that was built in 1914 at the Snow Steam Pump Works in Buffalo New York. A slightly convoluted series of mergers and buy-outs produced the Worthington Pump and Machinery Company in 1916 that built the Shreveport Water Works' "Worthington-Snow" pump in the Buffalo Snow Pump Works in 1921.

The Snow machine at NMIH is a bit larger than the pump in Shreveport as it could deliver 8 million gallons per day versus the 5 million for our pump. The Snow pump was originally installed at the York Water Company's plant in 1914 and ran until 1956 and then replaced with electric pumps, then kept on standby until 1982 when it was completely retired.

York Pennsylvania is about 100 miles from Bethlehem and the York Water Company is the oldest investor-owned water company in America. The company was incorporated in 1816 and delivered spring water using hollowed out logs for pipes, a common technique at the time. By 1840 cast iron pipes had become available and York switched to these from wood, then installed its first steam pumping station in 1847. A typhoid outbreak in 1897 prompted the installation of a new technology: sand filters. By this time the Shreveport Water Works had been built in 1887 and was an early adopter itself of sand filtration in 1890, predating the York filters by 7 years. Shreveport's water system was also privately owned at the time but was bought out by the City in 1917, unlike the still private system in York.

From time to time your newsletter highlights a historic site from elsewhere that might be of interest to our readers. This edition turns the spotlight to the National Museum of Industrial History (NMIH) and the York Water Company.

NMIH is located in Bethlehem in eastern Pennsylvania in a repurposed building of the now closed Bethlehem Steel mill. The museum presents exhibits mostly from the industrial heritage of the Lehigh Valley, which with justification claims to be the cradle of the industrial revolution in America. Beginning in the 1830's the Valley was the home to anthracite coal mining, iron ore mining, pig iron production, steel production, zinc mining/products, slate mining/products, world leading Portland cement production, silk spinning and weaving from raw silk, and (more recently) Mack Trucks and Crayolas! The story of some of these industries, particularly steel, would be worth a newsletter article of their



*Ca. 1914 Snow Steam Water Pump*

The old Snow machine in York was disassembled and moved to the National Museum of Industrial History in Bethlehem about ten years ago. Restoration work by volunteers and staff began, later with support from corporate sponsor Victaulic, and was only recently completed. But, it was worth the wait as the machine has been refurbished in the original factory colors and RUNS on compressed air. The machine is quite impressive to watch when it is underway with the big 14-foot flywheel spinning about 20 rpm, the Corliss valve mechanism clicking-clacking-rocking and the pump drive shaft flinging back and forth. Public demonstrations of the compressed air operation occur occasionally and the schedule can be found on NMIH website.



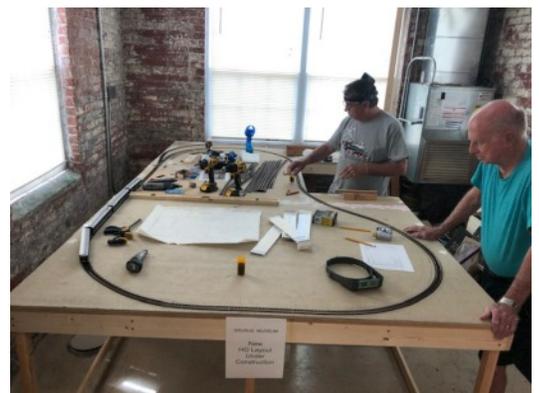
*View of Engines of Snow Water Pump*

The Preservation Society has always shied away from attempting to run Shreveport's Worthington-Snow engine like the one in Bethlehem on compressed air because it requires such a large air volume (more than 500 cubic feet per minute) and an expensive compressor to furnish it. It does indeed require a big compressor, but the showpiece machine at NMIH is a proof-of-concept showing that it can be done, so maybe we will restudy this project locally someday.

## *Under Construction*

The railroad museum has for quite some time displayed an HO-scale model railroad donated by the Carl Little family. It has always been a favorite exhibit in the museum for visitors and some pint-sized visitors have been known to boo-hoo when dragged away before done looking. Sadly, wear and tear has taken its toll and it has become impossible to keep it running any longer.

A cadre of railroad society volunteers has taken on the task of building a new layout for the museum. The layout is being custom made from scratch and will showcase downtown Shreveport. There isn't enough room for a full blown scale model but there will be a representation of familiar buildings and railroad scenes from the 1960s. The star of the show will probably be a model of the Union Station along with plenty of trains and multiple other buildings including none other than the Shreveport Water Works that will be familiar to long-time residents.



*Jim McClure (L) and Jim Monk at work*

Work on the new HO model has consumed weeks and months but is on the home stretch now. Stand by for further updates. You will want to come out and see when done!