



Heartland Science



Ohio's Legacy of Discovery & Innovation



Manufacturing

From Price Tags to Process Control

Ribbons of Steel

John Butler Tytus, Jr. born in Middletown, Ohio, and in 1904, began work at the American Rolling Mill, or Armco. While working there, he developed a method of continuously rolling sheets of steel called "the continuous hot strip mill." His process made possible the fast and cheap production of high-quality steel sheets. Those continuous ribbons of steel proved essential for the manufacture of automobiles, airplanes, appliances, and thousands of other products. The continuous hot strip mill was economical, allowed for mass production, and is often considered one of the ten greatest inventions of modern times. Tytus's rolling mill went into operation in 1926. The growth of ARMCO helped spur the growth of Middletown, where from 1900 to 1930, the population grew from 9,215 to 29,992.



ARMCO was acquired by **AK Steel** in 1999. At the time, Armco Inc. was a leading domestic producer of specialty flat-rolled stainless and electrical steels with primary plants in Butler, PA and Coshocton, Mansfield, and Zanesville, OH. Armco also produced snowplows and other ice control products, and standard pipe and tubular products. AK Steel is headquartered in Middletown, Ohio.



**American Rolling Mill Company
East Side Plant, 1918**

Did You Know?

- Robert Carnahan, an inventor with the company, developed the first rust-resistant steel in 1907.
- P. Steckel, of Youngstown, invented a process for the continuous cold-strip rolling of steel. It produced high-quality steel with great efficiency and was adopted throughout the world.

Find out more...

- **AK Steel**
(www.aksteel.com)
- **Photos of Rolling Mills**
(<http://freepages.history.rootsweb.com/~butlercounty/armco.html>)