

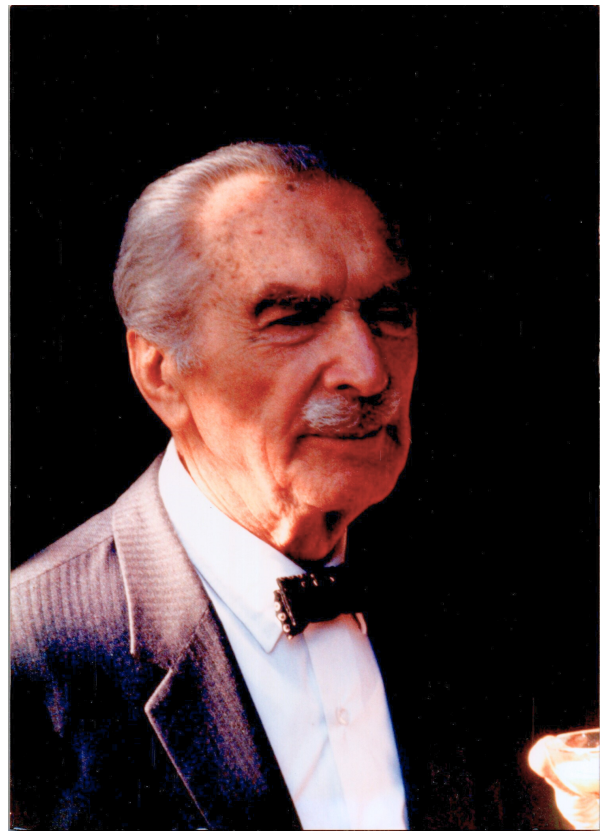
# Tadeusz Sendzimir: Inventor Extraordinaire

Tadeusz Sendzimir, born on July 15, 1894, in Lwów, was a globally renowned Polish engineer and inventor. His innovative methods fundamentally transformed the way steel and metals are processed, and his techniques are employed in every industrialized nation across the globe.

As the eldest son of Kazimierz Sędzimir and Wanda Jaskółowska, Sendzimir displayed a fascination for machinery from an early age. He built his own camera at the tender age of 13 and later studied at the Politechnika Lwowska. However, due to the Russian capture of Lwów and the subsequent closure of the Polytechnic Institute, Sendzimir moved to Kyiv. He worked in auto services and the Russian-American Chamber of Commerce, where he honed his Russian and English language skills.

His journey took him from Vladivostok to Shanghai following the Russian Revolution of 1917. In Shanghai, he built the first factory in China to produce screws, nails, and wire, backed by the Russian-Asian Bank.

In 1922, Sendzimir married Barbara Alferieff and welcomed his first son,



Sendzimir ranks among the top five inventors in the history of steel. His inventions revolutionized the utilization of galvanized and stainless steel. Notably, he made radar light enough to be mounted on airplanes during World War II, and steel produced in his mill was used to construct the shell of the Apollo spacecraft.

His unpublished notebooks and unfinished projects will likely inspire many

Michael, two years later. During this time, he designed and created his own machines and began experimenting with new methods to galvanize steel. His breakthrough discovery was that zinc was bonding to a thin layer of iron hydroxide on the surface rather than the iron itself, which led to oxidation.

Despite his significant findings, Sendzimir struggled to secure the interest of American industrialists due to the onset of the Great Depression. Undeterred, he returned to Poland in 1930 and established his original rolling mill. His revolutionary technology of continuous hot-dip galvanizing of steel sheets - the Sendzimir process - gained worldwide recognition.

Sendzimir's innovative techniques continued to reverberate through the industry when he implemented a cold rolling thin sheet metal method in industrial production in 1934. In 1936, he established a steel mill in Butler, Pennsylvania, and by 1938, Armco Steel had formed a partnership with him to expand his galvanizing and mill technology globally.

Sendzimir's patented mill, capable of rolling hard materials down to very light gauges, led to the formation of the U.S. company T. Sendzimir, Inc., in the 1940s. In 1945, he married Bertha Bernoda and became a U.S. citizen the following year.

more innovations for decades.

Though he chose to be an American, Sendzimir retained a deep passion for his Polish heritage. He actively supported numerous Polish-American cultural activities and was notably generous towards them and Poland itself. This led his native land to honor him by naming its largest steelworks after him, making his name one of the most revered in Poland.

Despite his lack of recognition in Communist Poland during the Cold War, Sendzimir's achievements were eventually acknowledged when Edward Gierek came to power. Sendzimir was awarded multiple distinctions and honors, including the Polish Gold Cross of Merit (1938), the Bessemer Gold Medal (1965), the Brinell Gold Medal of the Royal Swedish Academy of Sciences in Stockholm (1974), and an Officer Cross of the Order Polonia Restituta. He also received an honorary doctorate from the AGH University of Science and Technology in Kraków in 1975.

Tadeusz Sendzimir passed away on September 1, 1989, in Jupiter, Florida, leaving behind a legacy of 120 patents in mining and metallurgy, 73 of which were awarded to him in the United States.