



Smithsonian

National Museum of American History Kenneth E. Behring Center

Prolerizer Collection

NMAH.AC.1607

Alison Oswald

2024

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Collection Overview

Repository:	Archives Center, National Museum of American History
Title:	Prolerizer Collection
Date:	1964-1974
Identifier:	NMAH.AC.1607
Source:	Jones, Joshua (Donor)
Creator:	Nucor Corporation (Manufacturer)
Extent:	.30 Cubic feet (5 map folders)
Language:	English .
Summary:	Collection documents the Prolerizer, an automobile shredder.

Administrative Information

Acquisition Information

Collection donated by Joshua Jones, Regional Manager, Advantage Metals Recycling, Nucor Company, 2024.

Related Materials

Materials in the Archives Center

Warshaw Collection of Business Americana, Series: Steel NMAH.AC.0060

Industry on Parade Film Collection, NMAH.AC.0507

Division of Work & Industry

Prolerizer hammer machine part. See accession 2024.0106.

Materials at Other Repositories

Rice University, Fondren Library, Joan and Stanford Alexander South Texas Jewish Archives

Freda Delphine "Bitsy" Proler oral history interview and transcript, 2022

Loeb Family Papers, 1834-1995

Processing Information

Collection processed by Alison Oswald, archivist, 2024.

Preferred Citation

Prolerizer Collection, Archives Center, National Museum of American History

Restrictions

Collection is open for research.

Conditions Governing Use

Collection items available for reproduction, but the Archives Center makes no guarantees concerning copyright restrictions. Other intellectual property rights may apply. Archives Center cost-recovery and use fees may apply when requesting reproductions.

Accruals

Accruals to the collection anticipated.

Historical

The prolerizer is an automobile shredder invented by Samuel Proler (1917-2018) in 1960. Prior to the 1940s automobile recycling was a labor-intensive process involving handheld torch cutters and alligator shears that nonetheless yielded a scrap product that contained too many impurities for the newer Electric Arc Furnaces at steel mills to efficiently and safely process. Used cars and appliances went to scrap yards and were picked, compacted and sometimes incinerated.

As David N. Lucsko's book *Junkyards, Gearheads, and Rust: Salvaging the Automotive Past*(2016) documented, durable goods piled up on the American landscape and derelict cars became a widespread problem for cities and the environment. At the same time, in the 1940s and 1950s there was a shortage of steel to make new consumer products. Sam Proler found a way to grind up cars, extract clean steel, and send it back to steel mills to create new products. Sam Proler and the Proler family invented a machine and a new business system to more effectively breakdown durable goods and recycle the useable metals.

Proler's first innovations to the automobile shredding business were to combine a large shear to cut through the structural components of an automobile before sending them into a baler. But the primary invention, the prolerizer, consisted of a rotor with many hammers, powered by a large engine, that shredded entire automobiles into small fist sized pieces that could be separated into ferrous and non-ferrous materials with greater efficacy and thus provided steel mills with a superior quality of scrap to recycle into steel.

Proler received a U.S. Patent 2,943,930 on July 5, 1960 for a Scrap Refining Process and Product and became known as "the alchemist," or someone who could turn steel into gold. The patent was later reissued (RE25,034) on August 29, 1961 for a Scrap Refining Process and Product.

Biographical

Samuel Proler was born on February 1, 1917 in Lancaster, Pennsylvania to Rose and Ben Proler and was one of nine children. Though not born in Texas, Sam, at the age of three moved to Houston to be closer to his mother's family. When Sam entered first grade, he spent much of his school day learning English since Yiddish was the only language spoken at home. Growing up on Houston's south side, he spent time after school and on the weekends with his father, Ben, on a horse-drawn junk wagon, learning the business. At age nine, Sam and his family moved to a two-story home in Houston's fifth ward. He and his eight siblings lived upstairs while the downstairs housed the family business, The City Junk Company.

By the eighth grade, Sam quit school to work in the family business. When the truant officer showed up at Sam's home, his father told him, "My son's stomach is hungrier than his head is. I need Sammy to work." Within four years, Sam was running the business and changed the name from City Junk Company to Proler Steel. Over the next forty years, through hard work, innovation and persistence, Sam built Proler Steel into a publicly held, global company with recycling plants all over the world. Though Sam worked hard, he thought even harder and in 1956 on an Eastern Airlines flight from Salt Lake City to Omaha, he sketched out a plan on a napkin that resulted in the US Patent office awarding Sam Proler with Patent No. 2,943,930 for The Prolerizer-his process to shred and recycle whole automobiles. By taking previously useless junk and creating a process to efficiently recycle it into high quality

steel, Sam Proler revolutionized the steel industry and helped protect our environment. Sam always enjoyed his reputation as a trusted businessman and made many deals with a mere handshake.

In 1939, Sam married Jeanette Rubin (b. 1917). Together they had two daughters, Nina Proler Brown and Joyce Proler Schechter. They divorced in 1983. In 1987, Sam married Marie J. Heurtaux (1938-).

Though Sam retired from Proler Steel Corp in 1969 at the young age of 52, he never retired from thinking. (One of Sam's favorite expressions was "Think, think, think and think. If all you do is work, you will just get tired.") He continued to contribute to the industry with new ideas and inventions throughout his retirement. Though Sam retired from Proler Steel Corp in 1969 at the young age of 52, he never retired from thinking. (One of Sam's favorite expressions was "Think, think, think and think. If all you do is work, you will just get tired.") He continued to contribute to the industry with new ideas and inventions throughout his retirement.

Sources

Jewish Herald Vice, <https://jhvonline.com/sam-proler-p23977-124.htm> (last accessed June 18, 2024)

Ancestry.com

Content Description

Drawings (87 sheets) and two (2) photographs documenting the Prolerizer, an automobile shredding machine.

Arrangement

Collection is arranged into two series.

Series1: Photographs, 1964-1965

Series 2: Drawings, 1965-1974

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

- Automobiles -- Scrapping
- Metals
- Recycling
- Scrap metal industry
- Scrap metals
- Scrap metals -- Recycling
- Steel

Types of Materials:

- Drawings
- Photographs

Names:

- Advantage Metals Recycling (Kansas City, MO)
- Houston Belting & Supply Company

Jones, Joshua
Proler Steel Corporation
Proler, Samuel, 1917-2018

Container Listing

Series 1: Photographs, 1964-1965

Map-folder 4	Photograph of Prolerizer, 1964-07
Map-folder 4	Photograph of [Main Shop], 1965-02-27

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Series 2: Drawings, 1962-1974

Map-folder 1	Proler Steel Corporation, Building Foundation, 1967-1968, 1973 5 Blueprints (24 in. x 36 in. or smaller) Notes: Drawings KCK 000-KCK 004
Map-folder 1	Proler Steel Corporation, Conveyors and Cyclones, 1973-03-1973-04 6 Blueprints (34 in. x 22 in.) Notes: Includes drawings for the skirting details, discharge chute, new chute, cyclone support, and duct work layout
Map-folder 2	Proler Steel Corporation, KRS Mill and Downstream, 1970 19 Blueprints (34 in x 22 in.) Notes: Drawings KCP 100-KCP 18
Map-folder 3	Proler Steel Corporation, New Scrubber Unit, 1974 6 Blueprints (34 in. x 22 in.) Notes: Includes drawings KPC 100-KPC 106.
Map-folder 4	Long Reach Machine Works, Shredder for Prolerizer Steel, 1962 26 Blueprints (17 in. 11 in.)
Map-folder 4	Proler Steel Corporation, Conveyor Grizzly, 1970 1 Blueprint (34 in. x 22 in.) Notes: Drawings include JCB 100.
Map-folder 5	Houston Belting & Supply Co., Engineers & Fabricators for Proler Steel Corp, 1965-03-1965-04 25 Blueprints (36 in. x 22 in.)

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