

The Story of Oberlin Smith

Local historian Arthur Cox has discovered information about the father of Bridgeton's Ferracut Machine Co. that proves the substantial contribution Oberlin Smith made to developing the technology we take for granted today. Cox is looking for an author to tell the story.



Smith's importance not recognized here

By JEAN JONES
Staff Writer

BRIDGETON — With a name like Smith it's easy to get lost in the crowd, but Oberlin Smith was a familiar name to area residents in his time and today is still considered important by those interested in the industrial heritage of our country.

His impact was worldwide, though the extent was never really appreciated in his hometown.

The original inventor of magnetic recording, without which there would be no TVs, CDs, telephone answering machines, video or other electronic devices, and inventor of dies and presses that were important in the development of industrial mass production, he patented numerous other inventions for a wide variety of items, ranging from an egg boiler to a remote controlled sound system that was the forerunner of the first jukebox.

Born in Cincinnati on March 22, 1840, of English parents, he moved with his family to Shiloh when young, living on the Howell farm, then Bridgeton, where he attended local schools. He continued his education at the West Jersey Academy, then the Philadelphia Polytechnic Institute, where he learned drafting, patternmaking, blacksmithing, die making, gas and steam fitting and other skills of his trade.

In 1863, he established a business here for metalworking and the design of dies and presses, incorporated in 1877 into Ferracut Machine Co.

Arthur Cox published a book in 1985 "Ferracut, The History of an American Enterprise," devoting a chapter to

Smith. Now, new information discovered since the publication of the book proves that Smith was much more than a local industrialist and inventor. He was a contemporary and equal of some of the greatest inventors and industrial movers and shakers of his time.

Cox wants someone to expand that chapter into a book, a biography, exploring more fully the man who first envisioned magnetic recording. True, someone eventually would have discovered the process, but the fact that the first prototype was conceived and built here was a discovery that came through the efforts of Jay Gandy, president of the Oberlin Smith Society, formed in the late 1980s to try to preserve what remained of Ferracut. The property was tied up in bankruptcy proceedings and the effort failed.

Gandy had gathered documents, records and personal correspondence, which he shared with Cox. More than 600 letters provided intimate glimpses into the life and times of the man who rubbed elbows with presidents and inventors, such as Thomas Edison, Alexander Graham Bell and Sir Henry Bessemer.

"In Bridgeton, he was the owner of Ferracut. When he got on the train and went to New York, he entered the world of some of the most famous men of his time. He was their equal and in them, he found others with whom he could discuss his work," Cox says with growing excitement as he warms to his subject.

He wants somebody to use the available information to permanently record the greatness of a man whose inventions spanned everything from

Images courtesy of Cumberland County Historical Society

(Above, left) A 1917 illustration from a Ferracut catalog, with vignettes of earlier factories in the corners. (Above, right) A formal portrait of Oberlin Smith, taken around 1890. (Below) Ferracut executives, left to right, Henry Janvier, P. Kennedy Reeves, William Ware and Luther Meyers, with Percival Smith and his father, Oberlin.



the mundane to the magnificent. In his home, years before the advent of the jukebox, he had built the record changer and remote control that allowed him to sit in his chair and select any of 50 records from a case in another room by simply pushing a combination of buttons.

When Smith saw a new invention he immediately looked for ways to improve upon it. It was after he saw Edison's first phonograph that he invented the new method of recording, using a long wire to

record music and another wire, on a silk or cotton thread impregnated with metal, to play it back.

Smith didn't patent many of his inventions. Instead, he would draw a diagram, write a description and file it in a sealed envelope with the county clerk. This was how his magnetic recording invention was recorded.

"He made endless little sketches on scraps of paper and filed them in the courthouse. Some he patented, some he just filed away," Cox said.

Smith later wrote an article in an 1888 issue of Electrical World, describing his device, making the information available to others. It was the basis for an improvement 20 years later by a Dane, Valdemar Poulsen.

He received no credit from Poulsen and wrote him a letter rebuking him for the omission. The proof of his prior invention came when he had the county clerk open two sealed envelopes he had filed in 1878, describing the recording device and the method of playback.

That was only one of what Cox describes as "gee whiz" moments in Smith's life. As he displays copies of letters, articles and numerous photographs of the early days of Ferracut, Smith's home, Lochwood, which burned in 1934, and the man himself, his excitement grows. As he lists Smith's many achievements, it is easy to see why Smith was an important part of the industrial revolution in the U.S.

"History has been rediscovered that was long forgotten. There would be no extensive research. It would be so much easier to do than starting from scratch," Cox said of a possible biography.

Much of the information Cox gathered for his book is now in the Hagley Museum, but there is much more now from Gandy's collection, he

said. Smith often worked on inventions, then moved on before refining them as his active mind found new problems to solve.

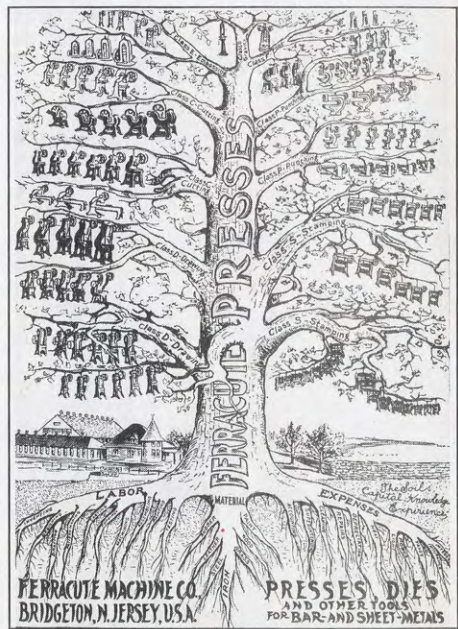
He adopted systems of time management, efficiency studies and inventory forms. He worked for standardization in

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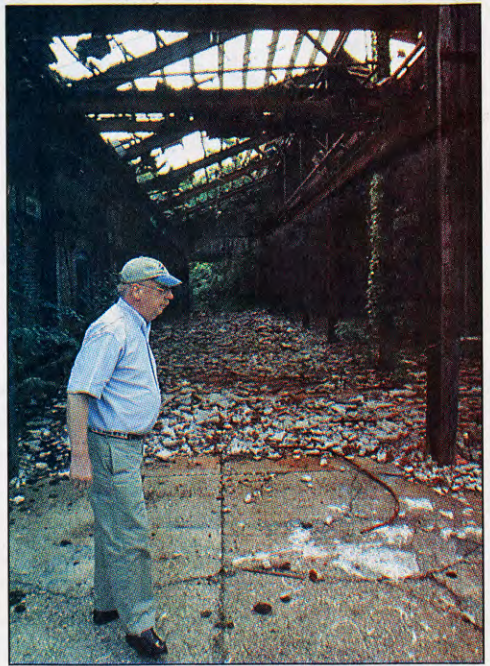


Staff Photo by BRYAN LITTEL

Arthur Cox sits at his research desk in his Bridgeton home.



A pencil drawing by catalog designer P. Kennedy Reeves of a 'genealogical' chart showing various products of Ferracut Machine Co.



Staff Photo by BRYAN LITTEL

(Above) Arthur Cox tours Ferracuta as it appears today. (Left) A view of the Ferracuta office building when it was new.



Ferracuta shop floor, with rows of machinery ready to be shipped out to major industries.

Smith

(Continued from Page A-6) many areas of manufacturing so parts were interchangeable and advocated simplified spelling.

Oberlin Smith was not just an inventor who spent all his time hunched over a drawing board or tinkering. He was a multi-faceted individual, who liked to entertain and had a reputation for being an expert dancer up until his death of a heart attack, at age 86, in 1926. He also enjoyed swimming, rowing and golf and driving one of the first motor propelled vehicles in the area.

Smith had invented a steam-powered auto before

1869 and in 1874 test drove an auto powered by a marine engine, which went out of control and docked itself in East Lake.

He designed elaborate gardens for his home, including a sunken garden created from the site of the original factory buildings, which had burned. The home itself did not escape his continuing efforts to improve everything that captured his fancy. Ideas were constantly being conceived, then reworked, before his interest turned to something new.

A button on his bedpost closed the bedroom window

and his ballroom had a disappearing stage. Clocks popped out of the walls to announce the time. As fascinating as his life and the man himself were, it was for his inventions of dies and presses for metal-working that he was best known and it was his work at Ferracuta that kept him from pursuing many of his ideas for other inventions.

He designed and built more than 500 types of presses, including machines to make items ranging from the first cans for the packaged oil trade to presses for manufacturing Chinese coins.

He designed improvements

for Northrop automatic loom parts for the Draper Corporation, for the New England textile trade, and designed a key-less lock, always alert for some new challenge.

He saw a "traveling sidewalk" at the Columbian Exposition and soon had a letter from the builder naming him the eastern representative. He had invented one himself 18 years earlier.

Smith was a frequent speaker and a prolific writer of articles for trade journals, both here and in England, but he wrote only two books during his lifetime: "Press Working of Metals," still considered

by some to be one of the best books on the subject, and "The Material, Why Not Immortal," a metaphysical writing.

He belonged to many organizations and societies and was president in 1890 of the American Society of Mechanical Engineers. A member of the American Institute of Electrical Engineers, the American Society of Civil Engineers, the Franklin Institute, the American Automobile Association, the Philadelphia Art Club, the Luther Burbank Society, the National Geographic Society and the Advisory Council of the Simplified Spelling Board, to name only a few. He also had served as vice president of the Men's League for Woman Suffrage.

"He was not only a member of these organizations he was a founder and key member of many," Cox said. "He ranks high in South Jersey history and how many other people have their lives so well-documented? He was the real glue that held together the county's contribution to science and industry."

So why has there not been a biography of a man of so many talents who was one of the keys to the industrial revolution? The full story never would have been apparent without Gandy's years of work in gathering and preserving the record. Years of lunch hours were spent copying articles from old newspapers at Bridgeton Public Library, one of which told of Smith being presented to King Edward at Buckingham Palace, along with other members of the American Institute of Mining Engineers, in 1905.

Smith's era has passed, but interest in the man has not. As late as 1997, in his book, "Endless Novelty: Specialty Production and American

Industrialization," Philip Scranton called Smith one of three men who were noted figures in the development of metal forming machinery, making mass production and mass marketing possible. The book devotes space to a brief biography of Smith.

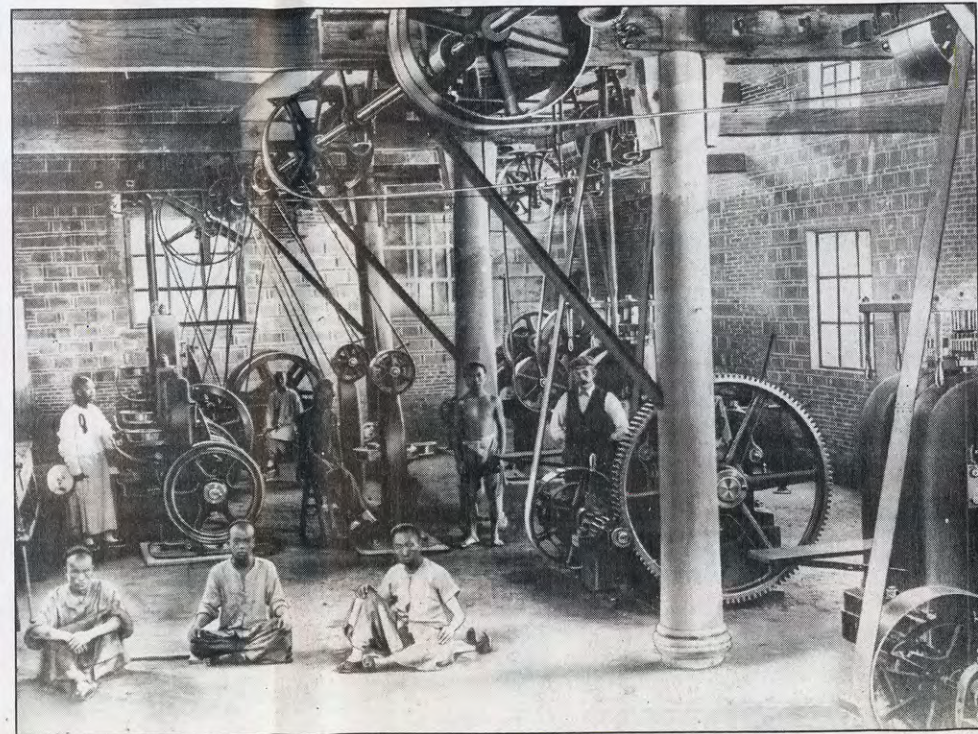
While Bridgeton may not have appreciated him, Smith was constantly looking for ways to improve his community. He was active in establishing the YMCA, the country club and the library. He promoted paved streets and sidewalks and the purchase of the land for the city park. Gandy also believes his importance was trivialized because Smith was removed from the products his presses produced.

"When you bought a Model-T Ford, you saw the Ford, not the parts that were made by Ferracuta presses," he said. "His presses produced anything you could think of that was stamped from metal, from frying pans to belt buckles to coffins, to artillery shells for the Spanish American War. He was important to the whole history of the industrial age, to the assembly line."

Cox had a further explanation.

"There were many published stories, but they were fragmented," he said. "No one ever put together the whole story."

Cox, a retired educator and curator at the Lummis Library of the Cumberland County Historical Society, would like to hear from any qualified person with an interest in writing the biography. He may be contacted at (856) 455-6329 or by calling the Lummis Library, (856) 455-8580.



(Above, left) Probably the last photo taken of Oberlin Smith, shown with his improved version of the autofono, similar to a jukebox but invented by Smith years earlier. (Above, right) View of the Chinese National Mint, Chentu, China, with Ferracuta coin presses.