

Brush also maintained a few business interest during his retirement. He was founder and president of Linde Air Products and helped to found the Sandusky Portland Cement Company, which later became the Medusa Cement Company. Brush also was president of the Cleveland Arcade Company, Euclid National Bank, and the Cleveland Chamber of Commerce. He was also a trustee of the Case School of Applied Science.

Brush died on June 15, 1929. His wife Mary had died earlier. The large home he had built at 3725 Euclid Avenue was demolished shortly after Charles Brush's death. He did not want the building to become a boarding house or cheap hotel or allowed to fall apart, a fate which many of the old palatial homes on Euclid Avenue suffered.



Sources:

John Williams, *A History of the City of Euclid*

David Van Tassel and John Grabowski, *The Encyclopedia of Cleveland History*

John Garraty and Mark Carnes, *American National Biography, Volume 3*

William Ganson Rose, *Cleveland: The Making of a City*

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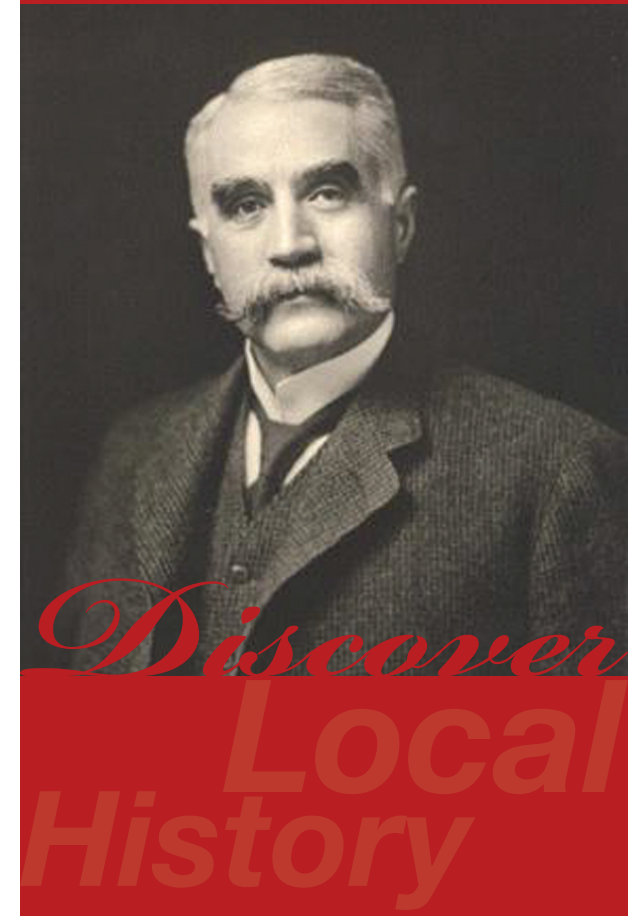
Euclid

— BICENTENNIAL CELEBRATION —

1809-2009

CHARLES BRUSH

Designed and developed an electric arc lighting system.



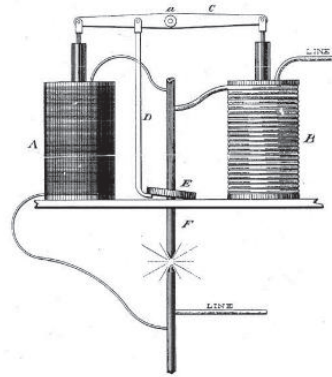
Charles Francis Brush was born on March 17, 1849 in Euclid Township. His family owned a 250 acre farm called Walnut Hills in Euclid where young Charles grew up. At an early age, Brush developed an interest in science and electricity. At the age of 12, he built a static electricity machine. Realizing that Brush needed a quality education, his parents sent him to Cleveland Central High School where he graduated with honors in 1867. Brush went on to study at the University of Michigan. He graduated two years later with a degree in mining engineering.



Brush as a student at the University of Michigan, 1867.

Brush then worked for a short period of time as an analytical chemist. He also worked as an iron ore salesman. During this same period of time, Brush began working on electric arc lighting. This system preceded Edison's incandescent light bulb and was better suited for places needing bright light, such as city streets and buildings. For the arc lighting system to work it needed a means of generating

electricity. Brush had just the answer with his dynamo. This was a machine Brush had developed which would produce electricity. He built the first dynamo on the old Walnut Hills Farm in Euclid using a horse-drawn treadmill for power.



Brush soon quit his other jobs and devoted his time to developing his new lighting system and the dynamo. In 1879, he demonstrated his new lighting system on Cleveland's Public Square. Twelve arc lamps lit up the night. From then on, Brush's arc lamp system was in high demand. By the end of 1881, Brush arc light systems were lighting up the streets of many American cities, such as New York, Boston, Philadelphia, Baltimore, Buffalo, and San Francisco. Brush's lights were also in use in Canada, Mexico, Chile, England, and Japan. To handle the demand for his new lighting system, Brush founded the Brush Electric Company in 1880. The company was located in a 200,000

square foot factory between Belden and McHenry Streets in Cleveland. Brush Electric merged with the Thompson-Houston Electric Company in 1889. Two years later, in 1891, the former Brush Electric and Thompson-Houston Companies merged with the Edison General Electric Company to form the General Electric Company. At that point, Brush retired from the business of electric lighting, selling his interest in Brush Electric. The various company mergers had made Brush a wealthy man. But instead of choosing a life of ease, Brush continued to work in the field of electricity. He



Mansion built by Brush in 1880 and demolished after his death.

made several more discoveries involving the use of electricity for which he received numerous patents. Brush also conducted some experiments in heat and gravity. All of the work was done in the basement of his Euclid Avenue home, a large mansion he had built in the early 1880s.