



## Thomas Alva Edison

Given by Ohio to the National Statuary Hall Collection

BORN ON FEBRUARY 11, 1847, to a middle-class family in Ohio, Thomas Alva Edison became one of the world's most celebrated and prolific inventors, amassing over a thousand patents during his lifetime. As an entrepreneur and businessman, he used mass-production techniques to ensure that his inventions spread around the world, bringing electric power and light, motion pictures, and sound recordings to millions.

Throughout his childhood, Edison was fascinated with scientific experiments. Between the ages of 16 and 20, while working as a telegraph operator, he decided to become an inventor. He received his first patent, for an electric vote recorder, in 1869. Subsequent profitable successes with stock-ticker and telegraph equipment allowed him to create a new type of facility in Menlo Park, New Jersey, in 1876. Consisting of a main laboratory, glass house, carpentry and machine shops, smithy, and other facilities, it was the precursor of the modern industrial research and development (R & D) laboratory; at its peak in the 1880s, it would employ as many as 60 experimenters, chemists, machinists, engineers, draftsmen, and support staff.

The first major invention at the facility was a carbon microphone that improved the audibility of telephone transmissions. Another project under way at the time was directed toward improving the telegraph repeater, which recorded and replayed messages composed of dots and dashes. Inspired to combine elements of the telephone with the repeater, Edison in 1877 recorded sound as indentations—first on paraffin-coated paper, then on wax cylinders, and finally on tinfoil. When the indentations were moved beneath a stylus, the sounds were reproduced. The phonograph brought Edison worldwide fame, and the press began to refer to him as a “wizard”; it



Bronze by Alan Cottrill, 2013

Given in 2016; located in National Statuary Hall

would also remain his personal favorite of all his inventions.

In 1878, Edison began work on what would be his most far-reaching accomplishment: the large-scale commercial distribution of electric light and power. Although electric light bulbs had existed since 1802, none had been long lasting or economical enough for widespread practical use. Edison's new idea was to use a high-resistance filament rather than the low-resistance ones favored by other inventors, and in 1879, after thousands of experiments, his workshop produced a bulb that burned for 40 hours. Further experimentation with filament materials yielded one that would burn for a thousand. In 1887, Edison moved his "invention factory" from Menlo Park to a new, larger facility in West Orange, New Jersey. A major effort there concentrated on what Edison described as "an instrument which does for the eye what the phonograph does for the ear, which is the recording and reproduction of things in motion"; his Kinetograph and Kinetoscope would open the way for today's film industry. Other work in the following decades included phonograph improvements, dictating machines, a fluoroscope, and the nickel-iron storage battery, a safety lamp for miners, and processes for manufacturing various chemicals. In the last years of his life he tried to develop a process for producing rubber from native American plant material.

Edison died of complications from diabetes on October 18, 1931, at his home in West Orange, and his remains are buried behind the home.

Edison received numerous awards during and after his lifetime for his inventions and his service to his nation and humanity. The first, in 1881, was a designation by the French Republic as an Officer of the Legion of Honor. It was followed by Italy's Matteucci Medal for physics in 1887 and election to the Royal Swedish Academy of Sciences in 1890. In addition to other international and professional awards, he was honored in 1920 with the Navy Distinguished Service Medal for his work on defensive weapons during the first World War, and in 1928 he received the Congressional Gold Medal. Fittingly, the Institute of Electrical

and Electronics Engineers (IEEE) and the American Society of Mechanical Engineers (ASME) have named high awards after Edison.

In this statue, sculptor Alan Cottrill depicts a middle-aged Edison wearing a typical work suit, standing in a relaxed position with a bent right knee, and holding aloft the invention for which he is most widely celebrated—the electric light bulb. Assuming his characteristic stance with his left hand in his pocket, he raises the inverted cone-shaped bulb known as the Edison light bulb in his right hand; a similar bulb appears in a 1911 photograph of Edison. The pose evokes the Statue of Liberty. Above all, Cottrill sought to capture Edison's "energy and sense of accomplishment," aiming to convey his tireless activity. The bronze statue, inscribed *EDISON* on its self-base, stands on a speckled mahogany-colored granite pedestal with the simple inscription *OHIO*.

Alan Cottrill was born in 1952 and raised in the Appalachian region of Ohio. In 1990 he discovered his affinity for working in clay, so he sold his business interests and dedicated himself to sculpture, studying in New York City at the Art Students League and the National Academy of Design. He also studied Human Anatomy at Columbia Medical Center and took numerous trips to Europe to study the world's greatest sculptures in person.

In 1996 he and lifelong friend Charles Leasure founded the Coopermill Bronzeworks casting foundry in Zanesville, Ohio. To date they have cast well over 500 of Cottrill's statues and hundreds of other sculptors' works. Cottrill's works are displayed throughout the nation at libraries, universities, memorial sites, and other venues. Among his subjects are Presidents George Washington, Abraham Lincoln, and Theodore Roosevelt; football coach Woody Hayes; Olympian Jesse Owens; Saint Elizabeth Ann Seton; the Marquis de Lafayette; and figures honoring military personnel and war dogs, coal miners, firefighters, and Native Americans.

September 2016