LIVES

OF THE

EMINENT DEAD

AND

BIOGRAPHICAL NOTICES

OF PROMINENT

LIVING CITIZENS

OF

MONTGOMERY COUNTY, PA.

BY M. AUGE.

We do not give the actions in full detail, and with scrupulous exactness, but rather in short summary: since we are not writing histories but lives.—PLUTARCH.

PUBLISHED BY THE AUTHOR,
NORRISTOWN, PA.
1879.

whom he held a tournament some years ago in the Norristown *Herald*. As an orator in court or on the stump he is distinguished by great fluency and elegance of diction, a quick, energetic and pointed speaker, always addressing himself to the matter in hand. While occupying the floor of Congress he was without doubt the most ready and efficient debater that for many years past has been sent to that body from our district. His mental characteristics may be expressed in three words, directness, quickness, and energy.

In 1876 Mr. Boyer was appointed by Governor Hartranft one of the eleven gentlemen composing the municipal commission authorized to devise and report to the Legislature a plan for the better government of cities, who made their report to that body in December, 1877, and which is an exhaustive printed document, covering two hundred and sixteen pages.

Mr. Boyer made a number of elaborate speeches in Congress, among which may be mentioned that on the admission of Alabama, the impeachment of the President, public expenditures, the New Orleans riots, and many other passes at arms, but the above attracted the most marked attention.

PROF. T. S. C. LOWE.

We spent them not in toys, in lusts or wine,
But search of deep philosophy.—*Cowley.*

Thaddeus S. C. Lowe, of Norristown, the distinguished aeronaut and scientific inventor, was born August 20th, 1832, at Jefferson, New Hampshire, and is the son of Clovis and Alpha Greene Lowe, of that town. His mother was a daughter of Thomas Greene, and on both sides the ancestry claims to be of the early Pilgrims who came from England in the sixteenth century. Mr. Lowe enjoyed only common school instruction in early life, but soon found himself drawn as by an irresistible force to chemistry, natural philosophy, and kindred studies. At a very early age, therefore, he turned his attention to aerostatics and ballooning as a specialty. When a young man he

studied medicine, but did not graduate or go into practice, experimenting instead in chemical and scientific matters for several years, till 1855. In that year, while residing in New York, he was married to Miss Leontine Gachon, who had been born and educated in Paris, France. Very soon after, in 1857, he went into ballooning, and made numerous ascensions in different parts of the country. In 1860 he came to Philadelphia, and after making several successful ascents there with a monster balloon that would lift ten tons, became satisfied from frequent observations that there is a nearly uniform upper air current constantly passing to the east, and he conceived the project of constructing a balloon or air-ship of sufficient capacity to test the theory.

He communicated his views to numerous scientific gentlemen of Philadelphia, who fully enlisted in the possible enterprise of crossing the ocean to Europe in a few days or hours. These gentlemen, including Messrs. Morris, Fisher, Stewardson, Morton McMichael, G. W. Childs, and others, gave him a letter of recommendation to Professor Henry, of the Smithsonian Institute. This was in December, 1860. Without recommending an outlay by the institute for the purpose of testing the theory, Professor Henry endorsed it by saying that "it has been fully established by continuous observations collected at this institute for ten years from every part of the United States, that as a general rule all of the meteorological phenomena advance from west to east, and that the higher clouds always move eastwardly."

After holding several consultations with Professor H. thereon, Professor Lowe was advised to first try an inland voyage from a Western city. Accordingly he took his small balloon, which was but of moderate dimensions, to Cincinnati, Ohio, and on the 20th of April, 1861, about the time of the breaking out of the rebellion, made his experimental trip. This ascent was one of the most successful on record, his ascension occurring at four o'clock in the morning, some time before daylight. He passed over that city, observing the stars above and the lights beneath, which gave the idea of floating between opposite starry spheres. He was soon eight thousand feet high, with the ther-

mometer at 13°. As he passed over Virginia, feeling a curiosity to know his whereabouts, he descended near enough to ask some men in a field, who, not seeing him or knowing from where the voice had proceeded, answered in extreme terror, "Virginia!" Soon after he rose to the prodigious height of twenty-two thousand feet, and into a temperature of 10° below zero. Descending a short time after, he saw the ocean in the distance, and proceeded to land, which he did in Spartansburg, South Carolina, where the negroes and ignorant poor whites were much terrified by the sudden appearance of what they called the "hellish contrivance." He landed at one o'clock in the afternoon, thus floating twelve hundred miles in about nine hours. The Professor, in his narrative of the landing, says: "I soon noticed some heads peeping around a log hut near by, in which there seemed to be people in great distress. I inquired what the matter was in the house, and was told that several old persons were praying, as they thought the day of judgment had come. I then asked if there were any white men about, and was informed that they had gone for their guns." In summing up the result of his trip, Professor Lowe expressed the opinion that only the want of a balloon of sufficient size to rise out of the influence of mountain currents prevented his moving due east, as he designed.

Soon after this experimental trip, the chivalry, after a full examination, having permitted the Professor to come North, he proceeded to offer his services to the government at Washington, in which he was assisted and encouraged by Professor Henry, Captain Whipple, and other officers.

On the 21st of June, 1861, Professor Henry recommended him to Secretary Cameron, and on the 26th Captain Whipple, of the topographical engineers, informed him that the bureau had concluded to employ the balloon for military purposes. The Professor made numerous experimental trips from the grounds of the Smithsonian Institute, and during one of them forwarded a telegram to President Lincoln through a wire extending to the balloon. Owing to the government treating also with Professor Wise, a contract was not reached until about the time of the first battle of Bull Run. On the 24th of

July Professor L. made an ascension at Washington, and put at rest a report that the enemy were advancing on that city. At last, on the 2d of August, he was authorized by Captain Whipple to construct a balloon at the expense of government, and during that month and the following autumn frequent ascensions were made, revealing much valuable information of the movements of the enemy.

His practice at first was to inflate the balloon at the gas works in Washington, bear it across the river, and ascend while still attached to guy-ropes. Later he invented apparatus whereby he extracted the necessary hydrogen gas from any pool of water nearest at hand. During his operations near that city, Generals McDowell, Heintzelman, and others, ascended with him, and safely returned. Professor Lowe continued with the army through 1862 and 1863, rendering valuable services, as acknowledged by Generals Stoneman, Sedgwick, and McClellan. General Heintzelman, in Lowe's balloon, was the first to discover the evacuation of Yorktown by the rebels in 1862, and during the whole time of the battle of Fair Oaks, Professor Lowe, in his balloon at a height of two thousand feet, overlooked the fight and reported by telegraph. In addition to Professor L.'s operations with the Army of the Potomac, he made ascensions near Island No. 10 on the Mississippi and near Fort Wagner in South Carolina.

On the 26th of May, 1863, Professor Lowe made a full report of his operations in connection with the army, covering a large amount of correspondence with army officials and scientific men, proving conclusively that he had rendered the government important aid.

Finding that ballooning was uncertain in its returns and unsatisfactory on other accounts, Professor Lowe left Philadelphia in 1863, where he had been residing, and moved to Chester county, near Phœnixville. About this time he announced his celebrated ice-making process, now largely in use in warm climates, and also organized a refrigerating steamship company for the preservation and transportation of meats, fruits, and the like. From the experiments then made has since grown an extensive business both on land and water.

After experimenting for a time in the manufacture of gases from petroleum, he brought out his invention of illuminating gas. When the process was patented he introduced it in Phœnixville, Conshohocken, Baltimore, Lancaster, Harrisburg, Indianapolis, and many towns in New York and Canada. Up to this time over thirty cities and towns, aggregating at least a population of one million, are lighted by his process, which appears destined to supercede all the former methods of artificial lighting. It has even been put in operation in France, Sweden, England, and elsewhere. Professor Lowe has also discovered a process of decomposing water in the manufacture of non-illuminating or heating gas, which is perfectly under control, and yet as to the caloric produced, exhibits an immense gain in cost over the use of coal alone.

During the Brazilian war with Paraguay, the Emperor of Brazil, through his minister, purchased his system of aeronautics, with a complete outfit, which was greatly instrumental in bringing that war to an early close, owing to the accurate information given of the location of the enemy. Later the same system was adopted by the English and French governments, and is now a part of their army equipments.

In 1871 Professor Lowe purchased a dwelling on Main street, in the upper part of Norristown, which he has fitted up in munificent style and taste, and where he resides. It is lighted by gas of his own manufacture on the ground, and by the use of his own invented works. In 1875 he organized in the borough of Norristown the People's Fuel and Gas-Light Company. Works were erected at DeKalb and Washington streets for the manufacture of heating and illuminating gas, and in the process to also burn lime as a means of utilizing the waste heat. Owing to the hard times, however, the enterprise, after obtaining a charter, and laying a number of pipes, was disbanded. In 1878 Professor L. took the extensive coal and ice establishment erected by George Zinnel, in the lower part of Norristown, which he has fitted up, and has now therein large experimental gas works in operation, where he exhibits his various patent processes to visitors from abroad, and where he has considerable facilities for the manufacture of the machinery and fix-

tures needful to produce his heating and illuminating gases.

Like Fitch, Morse, and other theoretical inventors, Professor Lowe has had to encounter the usual amount of derision and opposition to the progress of his discoveries, and, also like them, expended his own money in experimenting before asking assistance from friends. He is a man of thought and ingenuity, pushing his investigations in nearly every direction connected with chemistry and hydrostatics. The audience room formerly called Zinnel's Hall he has furnished as a lecture room and laboratory, where, with the aid of his scientific apparatus, he explains his inventions to scientists from abroad. Like most other inventors, he is perhaps undervalued and misapprehended by unthinking people. Had he invented a process of turning water into wine—or whiskey—as he has of converting the first substance into hydrogen, and was living idly, enjoying a large fortune acquired thereby, he would be very popular and voted an unbounded success, the prevailing idea being that the genuine is only that which secures "a pile." Professor Lowe's pecuniary success, however, is quite flattering, he receiving a royalty for the use of his gas works established at many places. He has little more than reached middle life, and it is warrantable to suppose that his speculative and fertile mind will grasp and produce other valuable inventions. He has already made a number of ingenious cooking and heating contrivances for using his heating gas, the right of which he holds for the protection of his business.

Professor Lowe is eminently a domestic man, having a large family of children, whose names are as follows: Louisa F., Ida Alpha, Leon Percival, Ava Eugenie, Augustine, Blanche, Thaddeus, Edna, Zoe, and Sobieski. The three eldest were born in New York.