

ABRAM STEVENS HEWITT.

As we pause in our feverish struggle of life to mourn the loss of a great man, to recall his ambitions, to review his masterful career, we have the comforting satisfaction of knowing that there is gain as well as loss—we are inspired by the narrative of his achievements to resume our battle with renewed courage and a loftier purpose. The death of Abram Stevens Hewitt, on the morning of January 18, was a loss, not only to his native State, but to the entire country. His wonderful influence over men was felt throughout the land, and our hearts are all joined in profound sorrow at the departure of this grand and noble type of American citizen.

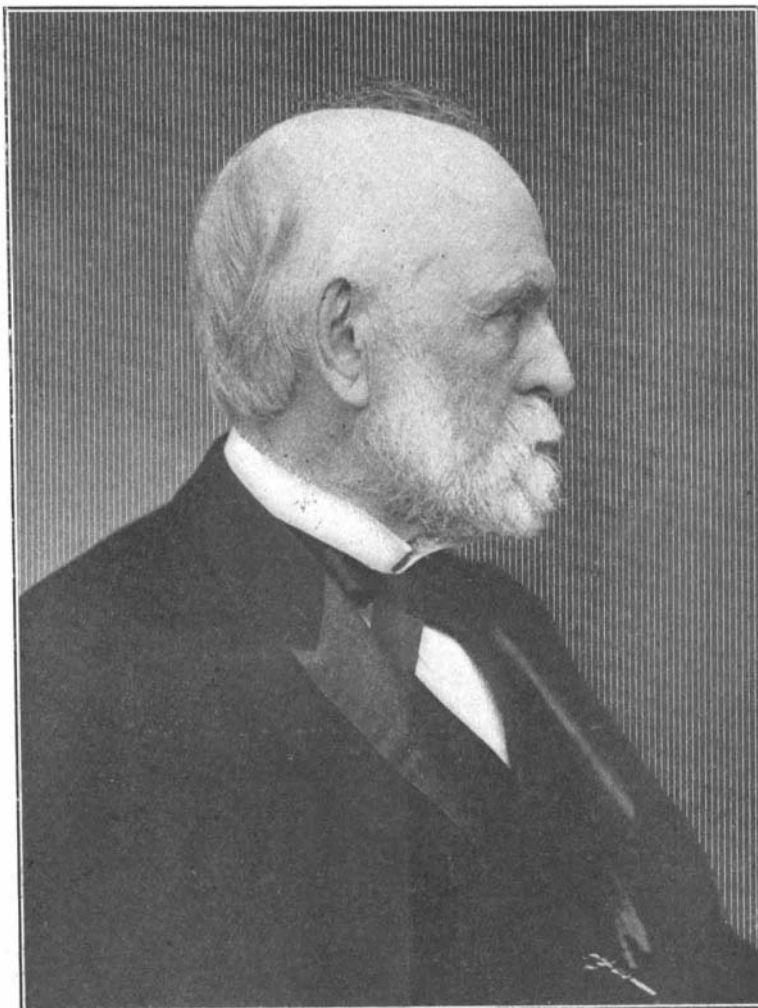
Mr. Hewitt's greatness is all the more marked by reason of his humble origin. He was born in a log cabin near Haverstraw, Rockland County, N. Y., July 31, 1822. His father was at the time a poor workman, having lost all his property by fire. The elder Hewitt came to the United States in 1790 as a representative of the English firm of Boulton & Watt, and assisted in setting up the first steam engine ever used in this country. He later took up the trade of cabinetmaker, and was also a dealer in cabinet lumbers. After the loss of his property he became a farmer, cultivating the tract of land in Rockland County which had been inherited by his wife. On this farm was the young Hewitt reared, imbibing there the sturdy principles which governed his entire career. At an early age the boy showed a great love for books. Although the father planned to have his son taught a trade, he wisely gave up this ambition as soon as he observed these academic tendencies, and gave the boy every opportunity to study, sending him to school in New York city during the winter months. Young Abram made the most of his advantages, and determined to prepare himself for college. Knowing full well that his father could not afford to pay the college expenses, he set to work in an effort to win one of the two prizes which some one had offered to the two students who passed the best entrance examination to Columbia College. Twenty thousand school-boys entered this competition, but young Hewitt secured one of the prizes, which was enough money to pay his tuition fees through college. He paid his other expenses by tutoring fellow students, also by winning several Greek prizes and all the prizes in mathematics offered during his course. Such was his ambition and devotion to study, that when in 1842 he graduated at the head of his class, he was obliged to pause; for his general health, and particularly his eyes, had been greatly injured by the confining work.

In 1843 Mr. Hewitt was appointed acting professor of mathematics at Columbia, and saved enough from his salary to enable him to visit Europe in the following year. On this trip he was accompanied by his friend, Edward Cooper, son of Peter Cooper, the philanthropist, whose daughter he later married. The return voyage was marked by an incident which, as Mr. Hewitt himself says, had much to do with his future, and was, in fact, the turning point of his life. The ship on which they embarked from Leghorn was buffeted by a number of violent storms, and finally sprung a leak when about twenty miles off Cape May. The crew and passengers worked the pumps until it was evident that further efforts to save the ship were useless, when they took to the boats. After drifting about twelve hours and suffering greatly from wintry weather, they were picked up by a vessel bound for New York city. In speaking of this experience some years ago, Mr. Hewitt said, "It taught me for the first time that I could stand in the face of death without fear and without flinching. It taught me another thing—that my life, which had been miraculously rescued, belonged not to me, and from that hour I gave it to the work which from that time has been in my thoughts—the welfare of my fellow citizens. For thirty years I have never turned aside from that task. The task which I had set for myself was to contribute, as far as I could, to the employment of men, so that they could help themselves and not be made the subjects of public charity. Self-help is a remedy for all the evils of which men complain."

In 1845 Mr. Hewitt completed the study of law which he began while professor at Columbia, and was admitted to the bar. Shortly afterward he was persuaded by Peter Cooper to give up his legal ambitions and go into business with Edward Cooper. Peter Cooper gave the young men charge of a small rolling mill in Trenton. With characteristic thoroughness Mr. Hewitt immediately made careful study of the iron market, and built up the financial success of the works. This firm was the first to manufacture iron girders and supports for bridges and for fireproof

buildings. Another fact which argued much for Mr. Hewitt's ability as a manager is that the firm never had any trouble with its employes, though at times they employed as many as five thousand men. There was occasional dissatisfaction among the workmen, but their grievances were immediately taken to Mr. Hewitt, who always dealt fairly with them. The works were never closed, and wages were regularly paid, even though the business was sometimes carried on at a loss.

Mr. Hewitt made a specialty of the making of steel, and, as in everything he undertook, soon became the foremost expert on this subject in the United States. During the civil war he went to England to study the manufacture of gun-barrel iron, which he supplied to the United States government at a loss to his firm. The Martin-Siemens, or open-hearth, process of making steel was introduced into this country largely through his efforts. At the Paris Exposition in 1867 he was one of the United States Commissioners, and made a special study of the iron and steel exhibits. In 1876 he was president of the American Institute of Mining Engineers, and won great prominence at home and abroad by an address on "A Century of Mining and Metallurgy in the United States." In 1889 he was again elected president of the Institute, and in the following year they presented to him the Bessemer gold medal for his services in promoting metallurgical science.



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ABRAM STEVENS HEWITT.

Ex-Mayor of New York. Ex-President of the American Institute of Mining Engineers.

Appreciating the value of learning, his efforts in behalf of education were particularly marked. He took an active part in the management of Cooper Institute from the year of its establishment, and contributed largely to its support. As secretary of the Board of Trustees he devoted much valuable time to the regulation of its educational and financial conditions. The United States Geological Survey also owes its existence largely to his efforts while in the House of Representatives.

Mr. Hewitt first became active in politics by assisting in the reorganization of Tammany Hall after the overthrow of the Tweed ring. He served in Congress from the year 1874 to 1878, and again from 1880 to 1886, when he was elected Mayor of New York city. In this office, as a fearless champion of justice he made enemies, as all strong men will, and was not chosen for a second term by Tammany, but polled a large vote at the next election on an independent ticket. His political career was characterized by a quickness of perception and a readiness of speech that always served him in good stead in public addresses. Whatever he had to say was said positively and decisively, carrying conviction to his hearers. He was never at a loss for a word. His extemporaneous speeches had the smoothness of written lectures. His keen insight enabled him to immediately grasp the details of the most complex subject, so that he could

deliver an impromptu address in which the facts were assembled logically and in order, leading up to a final conclusion which was as convincing as if the result of long study. While Mayor of New York city, Mr. Hewitt, in one of his annual messages, urged the improvement of the city's rapid transit system and recommended municipal ownership. Though his suggestions were not heeded at the time, he continued actively to promote the cause, and it was largely through his efforts that the present improvements were undertaken. In consideration of these services the New York Chamber of Commerce recently presented him with a gold medal.

Mr. Hewitt married Sarah A. Cooper, Peter Cooper's only daughter, in 1855. Six children were born to them: Peter Cooper Hewitt, Edward R. Hewitt, Erskine Hewitt, Sarah Cooper Hewitt, Eleanor G. Hewitt, and Mrs. Amy B. Green. Peter Cooper Hewitt, the eldest son, is best known to our readers as the inventor of an electric mercury vapor lamp for which he obtained a large number of patents. He has also recently invented a static converter, which is very simple and economical.

Those who knew Mr. Hewitt in his private life were greatly attracted by his animated conversation and his sense of humor. He made a wonderful impression on everyone with whom he came in contact. His sterling qualities, personal and social, found fitting expression in Richard Watson Gilder's poem read at the funeral of Mr. Hewitt:

"Mourn for his death, but for his life rejoice,
Who was the city's heart, the city's voice.
Dauntless in youth, impetuous in age,
Keen in debate, in civic counsel sage.
Talents and wealth to him were but a trust
To lift his hapless brother from the dust.
Because he followed truth, he led all men,
Through years and virtues, the great citizen.
By being great he made the city great;
Serving the city he upheld the State.
So shall the city win a purer fame,
Led by the living splendor of his name."

THE RECENT BERLINER TRANSMITTER PATENT DECISION.

The second Berliner telephone transmitter patent, No. 463,569, dated November 17, 1891, which was held to be invalid some time ago by Judge Brown in the United States District Court, was on appeal to the United States Court of Appeals declared valid as to metallic electrodes by this court on January 16 last. The case was that of the American Bell Telephone Company against the National Telephone Manufacturing Company and others for the infringement of the patent.

The opinion was written by Judge Colt and was concurred in by Judges Putnam and Aldrich. It holds that Berliner was not entitled either to the credit of the advantages to be derived from the employment of a carbon electrode in telephone transmitters or to the discovery of microphonic action; that the former was discovered by Edison, and that Prof. Hughes is entitled to the credit of the latter discovery, which is the principle utilized in every practical battery transmitter, and that Prof. Hughes embodied his discovery in an instrument which he was the first to term a microphone.

The Court further found that Edison's discovery of the carbon electrode and Hughes' discovery of microphonic action solved the problem of a variable-resistance transmitter, whereby speech may be transmitted long distances; and that both these discoveries were embodied in the defendants' transmitters.

The Court further found that claims 1 and 2 of the Berliner patent in suit, although upon their face open to the objection of excessive breadth, may be sustained when read in connection with the specification, provided they are limited to metallic electrodes, but that when so limited the defendants' transmitters do not infringe.

For these reasons the Court held that the decree of the Circuit Court must be affirmed on the ground of non-infringement.

Under this decision, as heretofore since Judge Brown's decision, the free use of variable-resistance carbon transmitters may be continued.

A series of experiments was recently carried out at the Altenburg colliery, near Saarbrucken, Germany, with lime, tar, and carbolineum to determine the respective value thereof as preservatives of mine timber against rot. Lime was found to be of the least value, while coal tar, although insuring perfect preservation of the surface of the timber, failed to protect the interior, which in every instance was found to be seriously attacked by rot. Carbolineum, however, gave excellent results, provided the timber coated had been previously barked and well dried.