

JOHN ELFRETH WATKINS.

THE sudden death in New York city on August 11 of Dr. J. Elfreth Watkins, for many years Curator of Mechanical Technology in the U. S. National Museum, is a severe loss to that institution and, indeed, to the world at large, for his great knowledge of the early history of the beginnings of mechanics, especially in our own country, had made him an accepted authority on such subjects.

Dr. Watkins was born in Ben Lomond, Va., on May 17, 1852, and was a son of Dr. Francis B. Watkins and Mary Elfreth. On his father's side he was descended from Thomas Watkins, who during the War of the Revolution contributed his influence and money towards the raising of a troop of cavalry of which his son became captain. On his mother's side he was descended from Timothy Matlack, 'the fighting Quaker,' who was a member of the Committee on Safety in Pennsylvania, and after participating actively in the War of the Revolution, was a delegate to the Continental Congress during the years 1780 to 1787; also on his mother's side he was descended from John Elfreth, who served in the Philadelphia City Troops in 1814.

Young Watkins received his academic education at Tremont Seminary in Norristown, Pa., and then entered Lafayette College, Pa., where he was graduated in the scientific course in 1871, taking the degrees of C.E. and M.S. For a year after graduation he served the Delaware & Hudson Canal Co. as mining engineer, and then entered the employ of the Pennsylvania Railroad as assistant engineer of construction, being stationed at Meadows Shops, N. J., where he remained until 1873, when he was disabled for further field work by an unfortunate accident that resulted in the amputation of his right leg. On his recovery he was assigned to the Amboy division of the Pennsylvania road, and

served in various capacities during the ten years that followed. In 1883 he was appointed chief clerk of the Camden & Atlantic Railroad, and a year later was assigned to a similar office on the Amboy division of the Pennsylvania Railroad, which place he then held until 1886.

The history of the beginnings of mechanical arts in the United States, especially in connection with the development of transportation, attracted his attention and he became a close student of that subject. He soon met the late Dr. G. Brown Goode, a Virginian like himself, and at Goode's suggestion he received an appointment in the National Museum as Honorary Curator of Transportation, which place he accepted in 1884, and at once began the work of organizing that division which now contains some of the most valuable exhibits of the museum.

Two years later he severed his connection entirely with the Pennsylvania road, in order to devote his entire time to the museum, and continued as curator until 1892. The knowledge which he had acquired with special reference to the early history of the Pennsylvania Railroad led to an invitation which he could not refuse, to return to the service of that corporation, and to organize the exhibits made by them at the World's Columbian Exposition in Chicago. These exhibits were of unusual interest, including the original locomotive, 'John Bull,' and many other historic objects, and of them he prepared a catalogue, which formed a volume of almost two hundred pages, which was published by the Pennsylvania Railroad in 1893.

At the close of the World's Fair in Chicago, the Field Columbian Museum was organized, and it was at once apparent that the proper man for the directorship of the Department of Industrial Arts was Dr. Watkins, and he was immediately called to that place, where he remained for one year

organizing the department. The ties that bound him to the National Museum were too strong to be completely severed, and accordingly in 1895 he returned to Washington, resuming his office as Curator of Mechanical Technology, which place he continued to hold until his death, as well as that of Superintendent of Buildings, which his early training as an engineer made him most competent to fill.

The information that he acquired naturally led to the publication of numerous papers, and among these may be mentioned 'Beginnings of Engineering' (1888); 'The Development of the American Rail and Track' (1889); 'The Log of the Savannah' (1890); and 'Transportation and Lifting of Heavy Bodies by the Ancients' (1898). It culminated in his being chosen to prepare the history of the Pennsylvania Railroad, 1845-1896, a series of quarto volumes descriptive of the first fifty years of that railroad, which is beyond doubt the most complete history of the beginnings of railroad transportation in the United States.

As his reputation increased, he became more and more widely known as the great American authority on the history of mechanical arts, and in recognition of his work in this direction, the Stevens Institute of Technology conferred upon him the degree of Doctor of Science. He served as a juror on his specialty at the expositions held in Atlanta, Omaha and Buffalo.

Dr. Watkins was exceedingly loyal to the city of Washington. He was the moving spirit in the Patent Centennial that was held in Washington in 1891, acting as secretary of the executive committee, and had much to do with the volume that was subsequently published. He also served on various committees in connection with the inaugurations of the presidents and of the centennial celebration of the capitol. He was a member of the Cosmos Club, the American Society of Civil Engineers, the

Society of Colonial Wars, the Society of Sons of the Revolution, the Society of the War of 1812, of which he was for some time treasurer, and the Washington Philosophical Society, of which he was for many years secretary.

Following the custom that has prevailed on similar occasions a meeting of the officers and employees of the Smithsonian Institution was held on August 12, for the purpose of taking action on the death of Dr. Watkins, and the following minute prepared by a committee consisting of Dr. Cyrus Adler, Mr. W. de C. Ravenel and Professor W. H. Holmes was adopted:

In the death of J. Elfreth Watkins, the Smithsonian Institute is deprived of the services of a loyal, able and intelligent official; the foremost authority on the history of transportation and of the mechanical arts in America; and a man whose reputation extended far beyond the confines of his own country. He pursued his scientific and administrative labors under physical infirmities which would have crushed the ordinary man, yet he had the heart and found the time to be kind and helpful to every one with whom he came in contact, from the humblest to the highest. He was the founder of the collection of transportation and of the history of invention now in the National Museum, and from his pen there were contributed many notable memoirs on these subjects. He was upright, hospitable, generous, and leaves behind him the memory of a conscientious official, an upright man, a patriotic American, a notable contributor to scientific literature and a sense of personal bereavement on the part of all who have ever had the good fortune to be associated with him. His colleagues and friends extend to his widow and his children their deepest sympathy in this great bereavement, with the expression of consolation which the contemplation of the life and deeds of such a man must afford to those who loved him.

MARCUS BENJAMIN.

SOCIETIES AND ACADEMIES.

THE TEXAS ACADEMY OF SCIENCE.

At the regular meeting of the Texas Academy of Science held in the Biological Lecture Room of the University of Texas, April 17, 1903, Mr. Robert A. Thompson, president of