## WILLIAM GIDDINGS CURTIS, M. Am. Soc. C. E.\*

## DIED JUNE 15TH, 1900.

Like many other natives of Connecticut, the subject of this memoir was of good colonial stock, tracing his lineage back hundreds of years in Essex County, England. The descendants of William Curtis, his ancestor, who came to the colonies in the ship *Lion*, in 1632, took a prominent part in the colonial life, and, when the final separation from the old country came, several of the Curtises figured in the great struggle for independence.

Mr. Curtis was born at Bridgeport, August 19th, 1849.

At the age of fifteen, he removed with his parents to San Diego Cal., thereby doubtless changing the whole trend of his life and fortunes.

At that period, there was a ready market on the Pacific Coast for probity and ability, even in the very young, and, but a year later, 1865, Mr. Curtis obtained employment with the Central Pacific Railroad Company, and began a career of success no more marked than deserved, and whose achievements only terminated with his life.

Most engineers commence the practice of their profession after a more or less complete course of study, but Mr. Curtis, beginning as a rodman at the age of sixteen, was obliged to acquire most of its theory during such leisure hours as were left him from active duties in the field and office. He passed through nearly the entire period of location and construction on the Central Pacific Railroad, an experience which profited him during his whole professional career.

He became successively Assistant Engineer, Resident Engineer, Assistant General Superintendent, and Superintendent of Track, and finally reached the position of Assistant to General Manager, and Engineer, Maintenance of Way, of the Pacific System of the Southern Pacific Company, comprising, at the time of his death, nearly 6 000 miles of railroad, which position he retained during the rest of his life.

Owing to the total lack of timber on most of their lines of railroad, the Southern Pacific Company early turned their attention to the subject of timber preservation, in which they have had marked success and have perhaps done more than any other railroad company in America, if not in the world. The achievements in this regard have rightfully been largely credited to Mr. Curtis, under whose able direction the work progressed until, at the present time, practically all the timber and ties used in or about the roadway, excepting redwood, are

<sup>\*</sup> Memoir prepared by John D. Isaacs and Virgil G. Bogue, Members, Am. Soc. C. E.

treated with creosote and chloride of zinc, respectively. Mr. Curtis was an authority in this science, and one or more of his papers are among the best contributions that have appeared on this most important subject.

As Engineer, Maintenance of Way, Mr. Curtis kept himself well informed by observation, reading and discussion, and was fully abreast of the times. His enthusiasm, however, was tempered by that judgment which comes only from experience and attrition with men and the duties of life. His constant aim was to do the best possible under the conditions and circumstances presented.

His advice was frequently sought in relation to the business of other departments of the railroad, and there was scarcely a work or study related to the railroads of the Southern Pacific Company with which he did not have more or less to do, and always with credit and success. He was one of the controlling forces of that vast property.

From boyhood to his last day he remained faithful and industrious in the same employ, and it is fair to say that Mr. Curtis, more than any other, was the author of the present perfected methods and organization of the Maintenance of Way Department of the Southern Pacific Company. His duties covered thousands of miles of railroad and a wide range of climate, from the tropic heat of the Colorado Desert to the Arctic cold of winter in the Pequod Hills; from the restful scenes and orange groves of the Los Angeles Valley to the deep snows of the Sierra Nevada and Siskiyou Mountains, or from the sunny skies of the San Joaquin to the storms and floods of the Soledad and Sacramento Cañons, or the cloudbursts of the Arizona Plains. There was no time of the year when his presence might not be required on some distant portion of the property where inundation or snow impeded traffic or threatened disaster. But he was full of resources and always ready for any emergency, and in the process of time he devised expedients which have largely lessened the disastrous effects of storm and flood.

The busy life he led left him little time for recording the results of his experience, but on several occasions he prepared papers dealing with subjects to which he had devoted much thought and attention. These are most instructive, and models of brevity and careful statement.

Mr. Curtis had a wide range of knowledge and an accurate, comprehensive memory, which doubtless added to his success. It was said among his associates that he never forgot a figure.

On June 15th, 1875, at Stockton, California, he married Mary Elizabeth Burton. In her he found a fitting helpmeet. Both as son and husband he was exceptional, manifesting in his domestic life the same disposition which had made him so respected and liked by subordinates and associates. For all about him he had ever a genial

smile; for the ambitious, a word of encouragement, and for the unfortunate, one of sympathy. He never forgot the social side of life, and even on a wearisome business trip, was wont to entertain his companions with enlivening repartee and anecdote, when no affair of moment was under consideration.

Mr. Curtis was not only an engineer and manager of rare judgment, but also a clever man of affairs, outside of technical matters. His assistance and advice were often sought in other enterprises and organizations.

Two years before his death his health began to break, but with the tenacity of purpose and loyalty to his employers which had characterized his long period of service, he gave of his best until compelled to seek complete change and rest. The end came at Highland Springs, California, on the twenty-fifth anniversary of his marriage, 1900.

His loss, great as it has been to the corporation with which he was so prominently identified, was not alone a public one. It was also distinctly a private loss, and those intimately associated with him can only recall him with the poignant regret caused by the departure of one possessing all the traits of a kindly gentleman, a well-balanced citizen and a true friend.

Mr. Curtis was elected a Member of the American Society of Civil Engineers on May 3d, 1882, and served as a Director from January 15th, 1890, to January 21st, 1891. At the time of his death he was Second Vice-President of the American Railway Engineering and Maintenance of Way Association. He was also a member of the Geographical Society of California; of the San Francisco Microscopical Society; of the Technical Society of the Pacific Coast; and of the Bohemian Club of San Francisco. In the two latter societies he was formerly a Director. To all of these he gave the same careful, precise attention which he gave to his railroad duties.