Ben M. Hall

son of Dr. N. B. Hall

Company were accented considerably during the period of the World War, and Mr. Gilmore's position as Chief Engineer contributed toward the expansion of the engineering and construction organization, which covered a large amount of industrial plant construction, warehouses, and special work, much of which was done directly for the United States and Canadian Governments in co-operation with the Army officers. A citation given to the Company after the war by the United States Government was due in a large degree to the efficiency of the organization developed under Mr. Gilmore as Chief Engineer.

In 1920, Westinghouse, Church, Kerr and Company was merged with Dwight P. Robinson and Company, continuing along the same lines of endeavor, and Mr. Gilmore became Consulting Engineer in the combined organization, giving particular attention to railroad shops, locomotive terminals, and power stations. In 1921, he entered private practice as Consulting Engineer, specializing on the lines in which he had been most actively engaged and thus continued until the time of his death.

Mr. Gilmore's contact with a great number of railway systems in the United States and Canada and his habits of observation and analysis fitted him for rendering unusual service in the development of designs and construction of railway facilities for any given location. Moreover, his faculty of co-operation with the various departments of the railroads for which he was doing work, produced results which reflected the best ideas of all concerned.

He was a member of the American Society of Mechanical Engineers, and the Structural Engineers' Association of Illinois. His connection with social organizations included the Engineers' Club of New York City, and the Echo Lake Golf Club of New Jersey.

Mr. Gilmore was elected a Member of the American Society of Civil Engineers on April 7, 1915.

BENJAMIN MORTIMER HALL, M. Am. Soc. C. E.[1]

DIED NOVEMBER 19, 1929

Benjamin Mortimer Hall was born near Winnsboro, in Fairfield County, South Carolina, on January 31, 1853, the son of Dr. Nathaniel Hall and Nancy (Boulware) Hall. The family moved to Georgia in the boy's childhood and located in Webster County, where his early youth was mainly spent. He attended the University of Georgia and was graduated in 1876 as Bachelor of Engineering. Following his graduation, he became Professor of Mathematics in the North Georgia Agricultural College at Dahlonega, in the Blue Ridge Mountain section of the State.

During the four years of his incumbency there Professor Hall became interested in the surrounding mining and hydraulic operations which influenced his studies in securing the Post-Graduate Degrees of Civil and Mining Engi-

[1] Memoir prepared by a Committee of the Georgia Section consisting of W. C. Spiker, *Chairman*, J. Houstoun Johnston, C. M. Strahan, and S. B. Slack, Members, Am. Soc. C. E.

neer bestowed by the University of Georgia in 1885 and which gave bent to his later professional activity and connection with mining work. Thus, from 1880 to 1890, he served as Mining Engineer and Superintendent of gold mines and marble quarries of Northeast and Northwest Georgia and established a reputation for thoroughness, initiative, character, and professional engineering ability of the highest order.

In 1890, together with his brothers, Max R. Hall, M. Am. Soc. C. E., and Mr. James R. Hall, he organized the firm of Hall Brothers, Engineers, with offices in Atlanta, Ga.; and through this firm, as its head and senior member, he served most acceptably a growing clientage in Georgia, Florida, Alabama, the Carolinas, Tennessee, Texas, New Mexico, and, later, in Porto Rico.

As Consulting Hydrographic Engineer for the United States Geological Survey (1896-1903), Mr. Hall directed the organization and active field operations for stream flow, run-off, and other significant water-power data on the principal streams and water-sheds of Georgia, Alabama, the Carolinas, and Tennessee. Under joint authorship with his brother, Mr. Max R. Hall, two important volumes, "The Water Powers of Georgia," and "The Water Powers of Alabama," published by the U. S. Geological Survey and by the respective States, record and attest the sound professional judgment and clarity of presentation with which Mr. Hall handled this large mass of basic and important hydrographic and water power information. To these larger publications, he added a goodly array of special reports and a store of personal records and memoranda which deservedly ranked him as an outstanding authority in hydrographic matters among the engineers of the Southeastern States.

Mr. Hall served from 1904 to 1907 as Supervising Engineer for the United States Reclamation Service. Connected therewith he built in the Southwest, the Hondo, Carlsbad, and Leesburg Projects, and negotiated the terms of the Mexico-Rio Grande Treaty at El Paso, Tex. He prepared the original plans for the Elephant Butte Dam and Rio Grande Project and supervised the settlement of all water-right disputes arising from this large storage and irrigation enterprise. The lake formed by Elephant Butte Dam which was named Lake B. M. Hall in his honor, is the largest artificial reservoir in the United States.

From his Texas and New Mexico experience, Mr. Hall was called as Chief Engineer to study, supervise, and construct (1908-1910) the widespread irrigation development for the Porto Rican Irrigation Service. This work has received distinct professional approval for its comprehensive planning, durability, and efficiency.

Returning to Atlanta in 1911 he acted for two years as General Manager for the Amicalola Marble Company in Pickens County. He also became active at this time in a growing consulting practice related to water power development and flood-water damage problems. The City of West Point, Ga., profited by his sound advice and by his proposals for flood protection.

Subsequent to 1917, Mr. Hall's services as Consulting Engineer were in great demand. He served on important boards of arbitration involving engineering issues, and was sought as an expert witness in many controversies. Among these should be noted long hearings in Raleigh and Durham, N. C., and in New York, N. Y., and Washington, D. C.

Mr. Hall was a member and supporter of the American Institute of Mining and Metallurgical Engineers. He was Chairman of the Water Power Committee at a session of the National Conservation Congress and performed important committee services for many engineering and civic organizations.

He was also a member of the Atlanta Board of Consulting Engineers for a number of years. His professional attainments were recognized by his charter membership in the Georgia Academy of Science, representing therein the Engineering Profession. He was always liberal of his time and means in civic and other altruistic movements. His support carried the weight of a strong clean-cut and high-minded personality which attracted friends to himself and the causes he espoused. He was an active member of the Civitan Club and other social organizations which he greatly enjoyed.

Mr. Hall had a systematic practice which can be commended to all his professional colleagues. He seldom failed to enter each day in a special pocket notebook brief data of the day's happenings; where he was, names and addresses of persons whom he met, and subjects of business matters discussed. Thus, his office library contained a special shelf of notebooks duly labeled which made a well-nigh complete inventory of his business contacts and matters handled. It served to solve many important problems regarding new projects or additions to old projects the original details of which had grown dim in memory through lapse of time. These notes furnished an explanation of the systematic thoroughness with which he executed all professional matters committed to his care, and show why he was a most convincing and accurate witness before Court, jury, or conference board.

Mr. Hall always showed unswerving loyalty and active interest in the work of the Society. He exemplified by precept and example its professional ideals and was a factor in advancing the standing of the Engineering Profession in public opinion. He was active in the organization of the Georgia Section of the Society and a constant supporter of its efforts. He took much interest in the young engineers of the Student Chapters at the University of Georgia and the Georgia School of Technology and honored them with timely addresses and advice.

He was long a devoted member of the Methodist Episcopal Church and a Steward and Trustee of the St. Mark's Church at the time of his death.

Mr. Hall was married on January 5, 1881, to Kate Chamberlin, of Weston, Ga., who died in August, 1929. They had two sons and a daughter, Mrs. Brainard K. Clapp. His sons, Benjamin Mortimer, Jr., and Warren Easterly, Assoc. Members, Am. Soc. C. E., in 1917 joined with him professionally under the firm name of B. M. Hall and Sons. He remained the active head of the firm until his death.

A kindly gentleman who attracted and enjoyed friends, he was genial, sagacious, clear-minded, professionally able, energetic, thorough, sympathetic, conscientious, and fair; such is the record which he has left.

Mr. Hall was elected a Member of the American Society of Civil Engineers on February 6, 1901.