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Title: Transactions of the American Society of Civil Engineers, Vol. LXX, December, 1910

Author: American Society of Civil Engineers

Release date: May 24, 2014 [EBook #45735]

Language: English

Credits: Produced by Richard Tonsing, Juliet Sutherland and the
Online Distributed Proofreading Team at <http://www.pgdp.net>

*** START OF THE PROJECT GUTENBERG EBOOK TRANSACTIONS OF THE AMERICAN
SOCIETY OF CIVIL ENGINEERS, VOL. LXX, DECEMBER, 1910 ***

**TRANSACTIONS
OF THE
AMERICAN SOCIETY
OF
CIVIL ENGINEERS
(INSTITUTED 1852)**

VOL. LXX

DECEMBER, 1910

Edited by the Secretary, under the direction of the Committee on Publications.

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NEW YORK
PUBLISHED BY THE SOCIETY

1910

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MEMOIRS OF DECEASED MEMBERS.

LINUS WEED BROWN, M. Am. Soc. C.E. ^[1]

DIED MARCH 7TH, 1910.

In the death of Linus Weed Brown, which occurred in Monrovia, Cal., on March 7th, 1910, this Society lost one of its valued members and the Engineering Profession a most able exponent.

Mr. Brown was born in Burnside, Orange County, N.Y., in August, 1856, and received his early education in the schools of that town. He studied his profession in the Stevens Institute of Technology, Hoboken, N.J.

At the age of eighteen he entered the machine shops of the Pennsylvania Railroad, and later was employed as Draftsman by that Company, which position he held until 1880.

In 1880 he accepted a position with the Southern Pacific Railroad in New Orleans, La., and designed and supervised the construction of the Algiers shops.

In 1883 Mr. Brown severed his connection with the Southern Pacific Company and engaged in general engineering practice, principally in the line of sugar-house installations.

In 1885 he was elected Assistant City Engineer of New Orleans, which position he held for four years.

In 1890 he became Chief Engineer for the Caffrey Central Sugar Refinery, designing and supervising the erection of the buildings, which represented an expenditure of about \$600,000. In the same year Mr. Brown was appointed Chief Engineer of the Franklin and Abbeville Railroad and built that road. At the same time he designed and built the Des Lignes sugar-house. In fact, he designed and built many of the large sugar mills and refineries erected in Louisiana about that time.

From 1892 to 1896 Mr. Brown held the office of City Engineer of New Orleans, and it was during this term that some of the most important works of his career were accomplished.

Under the direction of the City Council, and in consultation with B.M. Harrod, Past-President, Am. Soc. C.E., the late H.B. Richardson, M. Am. Soc. C.E., and Rudolph Hering, M. Am. Soc. C.E., Mr. Brown made a topographical survey of New Orleans, a study of precipitation and run-off, and prepared plans and specifications for a drainage system.

At the expiration of his term of office as City Engineer, he engaged in private practice, assuming charge, as Chief Engineer for the contractors, of the first construction work of the drainage system.

Prior to and during his term of office as City Engineer, Mr. Brown was Architect of the McDonogh School Fund in New Orleans, during which time he designed and built several new schools and remodeled a number of old buildings.

He was also Special Engineer for the New Orleans Levee Board on harbor and bank protection work. To the study of this work Mr. Brown devoted all his energies and knowledge for several years. At the same time he was a member of the New Orleans Advisory Board of Engineers on Sewerage and Water.

When the oil fields of Texas were first discovered, Mr. Brown's services were immediately engaged, and in the following years he devoted almost his entire time to the development of the oil fields and facilities for handling the oil. His operations were principally in the Beaumont and Sour Lake fields.

The holdings of the Southern Pacific Railroad Company in these regions demanded the services of an expert engineer, and Mr. Brown was engaged to take full charge of its interests.

In 1904 he was compelled to give up active business and seek the restoration of his health. To this end he spent some time in the Middle Western States and finally decided to go out to the Pacific Coast. The climate there proved so beneficial that he eventually settled in Bakersfield, Cal., where he accepted an appointment as Consulting Engineer for the Oil Department of the Southern Pacific Railroad and Chief Engineer of the Atlantic Division of the same line.

Shortly after he accepted this appointment the Colorado River broke through its banks and overflowed the valley known as the Salton Sea, across which the tracks of the Southern Pacific Road were laid. The Company was compelled to make a detour of approximately 100 miles around the inundated region, but, under the direction of Mr. Brown, they succeeded in closing the break with two massive dams, confining the river to its ordinary channel and preventing the increase of the Salton Sea.

While in California Mr. Brown invented an oil and sand separator, which the Southern Pacific Company is now using throughout its oil fields. He also invented a continuous water purifier and a special oil power-pump. All these machines are now on the market.

Mr. Brown was a man of sterling integrity; one who regarded his profession in the light of an obligatory public service. To this sense of duty he sacrificed much, primarily the necessary relaxation and rest from arduous labor, which undoubtedly accelerated the end of his useful and honorable career.

In recognition of the valuable services he rendered in connection with the levee protection work

in New Orleans, Mr. Brown was made the recipient of public honors and testimonials of appreciation.

He is survived by a daughter and two sons; the latter are preparing to follow the engineering profession. His wife, who was Miss Joan Von Vesterfeldt of New York City, died in 1903.

Mr. Brown was elected a Member of the American Society of Civil Engineers on June 7th, 1899. He was also a Member of the Louisiana Engineering Society.

FOOTNOTES:

[1] Memoir prepared by Ole K. Olsen, Esq.

CHARLES ALFRED HASBROUCK, M. Am. Soc. C.E.^[2]

DIED FEBRUARY 1ST, 1910.

Charles Alfred Hasbrouck was born at Forest Home, a suburb of Ithaca, N.Y., on July 31st, 1864. After studying in the schools at Ithaca, he entered Cornell University in 1880, from which, after completing a course in Civil Engineering, he was graduated in 1884, the youngest member of his class.

In July, 1884, Mr. Hasbrouck entered upon his professional career as Assistant Engineer of the Detroit Bridge and Iron Company, continuing with that firm until 1888. From August to November, 1888, he was employed with the King Bridge Company as Assistant Engineer.

In November, 1888, he was appointed Assistant Chief Engineer of the American Bridge Works, of Chicago, specializing in bridge and structural engineering.

In May, 1900, Mr. Hasbrouck was made Contracting Manager of the American Bridge Company, of New York, in charge of railroad structures on the Western Division, which position he held until his health failed. Thus, after 24 years of active service in his Profession, he was obliged to give up all work.

On June 14th, 1893, Mr. Hasbrouck was married to Miss Mary Fobes, of Cresco, Iowa, who died in 1907.

After retiring from business, Mr. Hasbrouck spent part of his time in El Paso, Tex., in search of health. In 1909, he went to Sierra Madre, and, later, to Pasadena, Cal., where he died on February 1st, 1910. He was a patient sufferer, never uttering a word of annoyance or fretfulness at his condition.

At his expressed wish, he was buried from his boyhood home which he had always kept up, and which, with its beautiful grounds, he left to Cornell University.

Mr. Hasbrouck was elected an Associate Member of the American Society of Civil Engineers on February 3d, 1892, and a Member on December 5th, 1894. He was elected a Member of the Institution of Civil Engineers, of Great Britain, on February 2d, 1904.

FOOTNOTES:

[2] Memoir prepared by Mr. Edward Capouch, Contracting Manager, American Bridge Company, Chicago, Ill.

JOHN HENDERSON SAMPLE, M. Am. Soc. C.E.^[3]

DIED MARCH 4TH, 1910.

John Henderson Sample, the only son of Judge William Sample, was born on April 3d, 1849, at Coshocton, Ohio. He entered Dennison University, Granville, Ohio, from which he was graduated in 1872. After leaving college, he was engaged on the early surveys of the Toledo and Ohio Central lines, working up from Axeman to Division Engineer.

Afterward Mr. Sample served as Chief Engineer of the Cincinnati, Lebanon, and Northern Railway, and Chief Engineer of the Cincinnati and Georgia (now the Southern Railway), from Rome to Macon, Ga., except from Austell to Atlanta. In 1883, he made surveys for the East Tennessee, Virginia and Georgia Railway (now the Southern Railway) in Alabama. He then became Chief Engineer of the Alabama Improvement Company, engaged in the location and construction of the Northern Alabama Railroad, and the development of coal and ore lands and the Town of Sheffield, Ala.

He was appointed Chief Engineer of the Toledo and Ann Arbor, on location and construction from Hammond Junction to Durand; Chief Engineer of location and construction of the Missouri Pacific lines in Kansas, Colorado, and Missouri; and from 1887 to 1889, he served as Chief Engineer on the construction of the Louisville, Henderson, and St. Louis Railway, from West Point to Henderson, Ky.

Mr. Sample made examinations and reports on timber and mineral lands in Kentucky, Tennessee, Virginia, and West Virginia, and in 1889, he examined and reported on the Mexican National Railroad, from Laredo, Tex., to the City of Mexico.

From 1889 to 1896, he was Chief Engineer of location and construction and General Superintendent of operation of the Pittsburg, Akron, and Western Railroad, from Delphos to Akron, Ohio. In 1897 he was appointed General Superintendent of the Cleveland, Akron, and Columbus Railroad, which position he held until this road was purchased by the Pennsylvania Company, in September, 1899. From that date to the time of his death, Mr. Sample was in the employ of the Pennsylvania Company, as Assistant Engineer, being engaged on line and grade revision and special work.

His father being a lawyer and Judge, he partook of his judicial nature, and all his lifework was based on the broad foundation of equity and honesty of purpose. He was a man of unobtrusive manner, retiring disposition, and unpretentious ways.

On June 7th, 1876, Mr. Sample was married to Miss Virginia Hughes. His wife died on June 24th, 1889.

Mr. Sample died suddenly in the Fort Pitt Hotel, at Pittsburg, Pa., on March 4th, 1910. He intended to leave for New York City during the day to bid farewell to his son, who was Assistant Engineer on the Madeira and Mamoré Railway, in Brazil, and had been spending his vacation of three months with his father.

To his children, and to those who knew him intimately, Mr. Sample leaves a memory of a life well rounded out by noble endeavor, and a fixedness of purpose to know and do the right. He was conscientious in every act and thought, a man of deep religious conviction, and though called suddenly from his earthly labors, he was ready for the higher service and duty.

Mr. Sample was elected a Member of the American Society of Civil Engineers on October 6th, 1886.

FOOTNOTES:

[3] Memoir prepared by W.B. Hanlon, Esq.

ALBERT MATHER SMITH, M. Am. Soc. C.E. [4]

DIED FEBRUARY 27TH, 1910.

Albert Mather Smith was born on October 5th, 1837, in New York City. He was the son of Charles Smith and Miss Alleta Loverich, and a direct descendant of Cotton Mather.

As a boy of fifteen he entered the Engineer Division of the Manhattan Gas Light Company, and later became Engineer of its West 18th Street Station. At the outbreak of the Civil War, Mr. Smith joined the 37th Regiment, New York Volunteers, organized by Colonel Roome, the President of the Manhattan Gas Light Company, and was chosen Captain of Company B. This Company was largely recruited from the force of the gas-works, and drilled in the office of the Gas Company at 4 Irving Place, New York City. Mr. Smith's regiment saw active service during the invasion of Pennsylvania, and also as special detail on the Chesapeake; and, later, during the Draft Riots in New York City.

After the close of the War, Mr. Smith became Chief Engineer of the Manhattan Gas Light Company, and, later, when this Company was merged into the Consolidated Gas Company, he became Engineer of Distribution of the latter Company. At the time of his death he had been connected with the gas companies of New York City for 57 years.

On March 18th, 1863, Mr. Smith was married to Miss Anna Provoost Elwes, who died on January 14th, 1873. In 1878, Mr. Smith was married to his second wife, Miss Jane H. Bull. His widow, two sons, and a daughter survive him.

Mr. Smith was a Charter Member and Vice-President of the Society of Gas Lighting, the oldest existing gas association in the United States. He was elected a Member of the American Society of Civil Engineers on May 5th, 1886.

FOOTNOTES:

[4] Memoir prepared by W. Cullen Morris, M. Am. Soc. C.E.

JACOBUS VAN DER HOEK, M. Am. Soc. C.E. [5]

DIED DECEMBER 22^D, 1909.

Jacobus Van der Hoek, son of the late Gysbertus Van der Hoek and Johanna (Tupers) Van der Hoek, was born at Goes, The Netherlands, on March 19th, 1862. He received his early education at the Public Schools, and was graduated from the High School of his native town in August, 1879. In September of the same year he entered the Polytechnic School at Delft, The Netherlands, from which he was graduated, as Civil Engineer, in July, 1883.

During 1884 Mr. Van der Hoek was employed as Inspector on the construction of a dike across the "het slaak," a shallow tidewater 1½ miles wide, and made surveys and soundings for a record map of adjacent waters covering an area of 6 sq. miles.

In 1885 and 1886 he was employed by the Dutch Government as Assistant Engineer in charge of a party, to re-survey the principal rivers of Holland, and triangulated about 25 miles of river.

During 1887 Mr. Van der Hoek was Engineer in charge of the submarine shore protection for the "Polder of Schouwen," The Netherlands. In 1887 he left his native land for the United States, arriving in New York City, on December 25th.

From the latter part of 1888 to the beginning of 1890, he was employed by the Wheeling Bridge and Terminal Railway Company, at Wheeling, W. Va., under the late Job Abbott, M. Am. Soc. C.E., Chief Engineer. The work comprised steam railway construction, a bridge 2,000 ft. in length, including one span over the Ohio River, 525 ft. long, and three tunnels from 400 to 2,400 ft. long, all double-track and heavy work throughout. The Engineer who was in charge of the work, writes:

"Mr. Van der Hoek reported to me as Chief Draftsman and Office Assistant during the period above mentioned. He was so capable and earnest in all of his work, and so well qualified to perform it, that our relations were not only uniformly pleasant, but they marked the beginning of a friendship that lasted until the deplorable end of Mr. Van der Hoek's useful life."

In 1890, Mr. Van der Hoek entered the service of the Lehigh Valley Railroad and continued with this Company until July, 1909; during this time he was successively engaged as Chief Draftsman, Assistant, Resident, and Division Engineer. During the extension of the main line of the Lehigh Valley Railroad, from Sayre to Buffalo, he was employed as Chief Draftsman, designing masonry and other structures, also as Assistant and Resident Engineer in charge of certain sections of the line. Paul S. King, M. Am. Soc. C.E., the Chief Engineer in charge of the construction of this 175 miles of double-track railroad, soon recognized the exceptional engineering ability of Mr. Van der Hoek, and appointed him, successively, Assistant and Resident Engineer in charge of several sections; of his success and ability, Mr. King writes:

"The sad and sudden death of Mr. Van der Hoek was indeed a great shock to me and his many friends in the Lehigh Valley System, particularly in New York State, his field of professional work for so many years.

"I highly regarded his technical ability, sterling character, and untiring industry, both in the field and office. During the time he was engaged with me (nearly four years), he filled the positions of Chief Draftsman, Assistant, and Resident Engineer, and earned the respective promotions by the zeal and energy which was always characteristic of him with any work he had in hand. He continued throughout the period of construction, a record not equalled by any of the dozen or more Resident Engineers connected with that work. It was this observation of his conduct and activity in executing his work that warranted me to have confidence in his ability to take up the work to be done after the Operating Department took charge of the line, recommending him as the Engineer for Maintenance of Way of part of the new line."

In 1893, Mr. Van der Hoek was appointed Division Engineer of the Buffalo Division of the Lehigh Valley Railroad, and had charge, under the Superintendent of Maintenance of Way, of constructing stations, water stations, coal trestles, wharves, stone ballasting the line, building storage yards, rebuilding bridges, etc.; he continued in this position until July 1st, 1909.

One of his associates on the Lehigh Valley Railroad writes:

"I was intimately acquainted with Mr. Van der Hoek and his work from 1894 to the time of his death, and as a co-worker on the Lehigh Valley Railroad it is a privilege to testify to his exceptional engineering ability, his strong, unflinching character, his untiring energy, and implicit adherence to the lines of duty. He had exceptional executive ability combined with a thorough knowledge of details. It was these qualities that made him so successful in his work.

"Mr. Van der Hoek was a sober, unassuming, and honest man, a generous and respected superior to his subordinates, a true friend, ever ready to assist an aspiring young man to greater knowledge and better positions; by these he will be truly missed and mourned."

On July 12th, 1909, Mr. Van der Hoek entered the service of the Lehigh Coal and Navigation Company, as Civil Engineer, under the General Superintendent of that company, at Lansford, Pa., to take charge of the railroad maintenance, water supply, land surveys, and new outside construction, on the extensive mining properties of that company in the anthracite coal fields.

Mr. Van der Hoek's exceptional ability was thoroughly recognized by his new employers, and his work and its results were fully appreciated; he had but laid his plans and perfected a proper organization when, on the afternoon of December 22d, 1909, while inspecting the work of laying a new water main through the Lansford, Pa., tunnel, he met his death by being run over by an engine, and his successful professional career was thus sadly ended. His Assistant, who had accompanied him on this inspection, met with the same lamentable fate.

On May 30th, 1896, Mr. Van der Hoek was married, in New York City, to Johanna Van der Bent, and is survived by his wife and two children.

He was elected a Member of the American Society of Civil Engineers on April 7th, 1897.

FOOTNOTES:

LUTHER ELMAN JOHNSON, Jun, Am. Soc. C.E.^[6]

DIED MARCH 23D, 1910.

By the death of Luther Elman Johnson, the Engineering Profession has lost a bright and able young engineer whose career, though short, gave promise of a steady rise and a brilliant future.

Mr. Johnson, the son of Mr. and Mrs. M.D. Johnson, of Lawton, Okla., was born in Union, West Va., on August 10th, 1881. Most of his childhood and early manhood, however, were spent in Missouri. He received his High School training at Nevada, Mo., and his technical education at the Missouri State University, from which he was graduated in 1904, on his completion of the four years' course in Civil Engineering. In connection with the training at the University, Mr. Johnson, on graduation, was appointed and commissioned Brevet Second Lieutenant, in the National Guard of Missouri, by the Governor of the State.

His professional work began shortly after graduation, with his employment in the United States Reclamation Service, in connection with investigations of reservoir sites for the storage of irrigation water in Oklahoma. Following this, Mr. Johnson was transferred to the Garden City, Kans., pumping project, where, from 1905 to 1907, he was engaged in concrete construction and other work. In the latter part of 1907, he was transferred to the Minidoka, Idaho, pumping project, where, as Assistant Engineer, he was engaged until shortly before his death.

His work on the latter project was in connection with the location and construction of canals, and he was in active charge of the building of a large number of small reinforced concrete and timber structures and bridges for the irrigation system. In prosecuting this work, Mr. Johnson showed ability of the first order, and gave evidence, by his conscientious, thorough, and careful work, of great promise for the future.

In March, 1910, his health failing, he returned to his home in Lawton, Okla., to recuperate from a general breakdown, but pneumonia set in, and he died on March 23d.

Mr. Johnson was a young man of sterling qualities and rugged honesty; his life was clean and strong, his character sweet and lovable, and his capabilities exceptional. Untiring devotion to and interest in his work were traits which had won for him the deepest respect of his associates and those who worked under his direction, and his death was a keen loss, not only to his family to whom he was a devoted son and brother, but to his many friends and to all those with whom his work brought him in contact.

Mr. Johnson was elected a Junior of the American Society of Civil Engineers on September 6th, 1904.

FOOTNOTES:

[6] Memoir prepared by P.M. Fogg, Assoc. M. Am. Soc. C.E.

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