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Bangor Hydro Electric News

Bangor Hydro Electric Company

1950

John R. Graham and the Bangor Railway and Electric Company

Bangor Hydro-Electric Company

Edward M. Graham

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John R. Graham (1847-1915)

and
The Bangor Railway & Electric Co.

EDWARD M. GRAHAM





"Were American Newcomen to do naught else, our work is well done if we succeed in sharing with America a strengthened inspiration to continue the struggle towards a nobler Civilization—through wider knowledge and understanding of the hopes, ambitions, and deeds of leaders in the past who have upheld Civilization's material progress. As we look backward, let us look forward."

---CHARLES PENROSE
Senior Vice-President for North America
The Newcomen Society of England

P.

This statement, crystallizing a broad purpose of the Society, was first read at the Newcomen Meeting at New York World's Fair on August 5, 1939, when American Newcomen were guests of The British Government

JOHN R. GRAHAM (1847-1915) OF MAINE —and The Bangor Railway and Electric Company



AMERICAN Newcomen, through the years, has honored numerous public utility properties both in the United States of America and in Canada, and has honored the memories of courageous pioneers in the electric light and power and railway fields. These men, facing the problems and difficulties of establishing a new and untried and not yet accepted enterprise destined to play foremost part in the development of industries, the utilization of natural resources, and the advance of national economy, made contributions of highest order—contributions whose influence far outlived them. Such a Newcomen manuscript is this dealing with the life and work and times of a great industrial leader in the State of Maine—whose memory

long will be cherished in his native Northern

New England!



Maine, where lighthouse and surf and tide and breeze, where sail and fisheries, lobstering, and pursuits of the Sea, and where rocky coast looks out upon deep blue of far horizon—Maine is a dramatic background

of this Newcomen manuscript, dealing with a typically Maine enterprise!

John R. Graham (1847-1915)

and
The Bangor Railway & Electric Co.

EDWARD M. GRAHAM

MEMBER OF THE NEWCOMEN SOCIETY
PRESIDENT
BANGOR HYDRO-ELECTRIC COMPANY
BANGOR
MAINE



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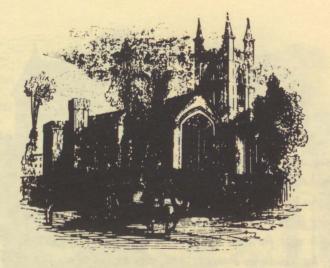


This Newcomen Address, dealing with the history of the Bangor Hydro-Electric Company and with the life and times and work of John R. Graham (1847-1915), was delivered at the "1950 Maine Luncheon" of The Newcomen Society of England, held at Penobscot Valley Country Club, Bangor, Maine, U.S.A., when Edward M. Graham was the guest of honor, on September 28, 1950









"The story of the Bangor Hydro-Electric Company is more than an account of a successful enterprise. In its growth and development is reflected the history of a vigorous and changing world. It is the story of the State of Maine at the threshold of the Twentieth Century, at a time when the slow march towards industrial consolidation had become a rush. Furthermore it is a story of the men who pioneered and visualized this changing world. And among the pioneers in the Electrical Industry in the early part of the Century, John R. Graham played a most active role. He played this role, moreover, when he was no longer a young man. Approaching middle age, the founder of a lucrative and still flourishing shoe manufacturing business, Graham turned to the young world of rapid transit and electrical power-a world in which he was to achieve outstanding accomplishment."

-EDWARD M. GRAHAM

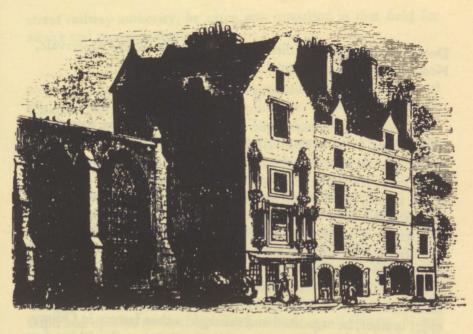
Biographical Sketch of The Author

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Ireland's famed County Fermanagh, in the Province of Ulster, "county of the lakes," is a background of great natural beauty, in a pastoral and farming countryside, for the ancestry and birth of the man who in infancy was to be brought to America, there to become a leader in Northern New England! It is related that proud Fermanagh was formed into a county on the shiring of Ulster, in 1585, by Sir John Perrot; and was included in the plan of colonization of James I: the Plantation of Ulster. Here today are seen ruins of ancient castles. Devenish Island, near Enniskillen, is notable for its ruined abbey, its stone cross, and a fine example of a round tower. The North of Ireland at its best! None better could tell the life story of JOHN R. GRAHAM (1847-1915) than his distinguished son who likewise has done so much for the State of Maine: EDWARD MONTROSE GRAHAM, President of Bangor Hydro-Electric Company. Native of Massachusetts, the youngest of eleven children, Mr. Graham, after graduation at Worcester Academy, entered utility service in 1908 with the Bay State Street Railway Company, at Quincy. Moved to Maine in 1910, in railway, light and power operations. In 1913, became Assistant to President, in charge of operations, for Bangor Railway & Electric Company; Vice-President & General Manager, in 1915; and President, in 1920. When the property's name was changed, in 1926, he retained the post of President of Bangor Hydro-Electric Company. Is a member of the board of directors of Maine Central Railroad. Public utility president, business executive, student of economic and utility history, good citizen, Mr. Graham is a beloved

The Newcomen Society of England.





My fellow members of Newcomen:

The story of the Bangor Hydro-Electric Company is more than an account of a successful enterprise. In its growth and development is reflected the history of a vigorous and changing world. It is the story of the State of Maine at the threshold of the Twentieth Century, at a time when the slow march towards industrial consolidation had become a rush. Furthermore it is a story of the men who pioneered and visualized this changing world. And among the pioneers in the Electrical Industry in the early part of the Century, John R. Graham played a most active role. He played this role, moreover, when he was no longer a young man. Approaching middle age, the founder of a lucrative and still flourishing shoe manufacturing business, Graham turned to the young world of rapid transit and electrical power—a world in which he was to achieve outstanding accomplishment.

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John R. Graham was born of Scotch-Irish parentage in the North of Ireland at Enniskillen Court, County of Fermanagh on December 19, 1847. He died in the White Mountains (Intervale, New Hampshire) on August 24, 1915.

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Moving to this Country with his family, in 1848, he passed his boyhood and youth in Boston, Massachusetts. His father, James H. Graham, a mechanic by trade, had difficulties in supporting a growing family. At the age of ten, therefore, in addition to attending grade school, John R. Graham was working for one dollar per week and board. At thirteen, he completed his formal education and left school to enter business life. At the suggestion of an older brother, he became interested in shoe manufacturing. For over thirty years, with the exception of a brief interim in which, at the age of sixteen, he served with the Union Army in 4th Massachusetts Cavalry, in the Civil War, Graham made shoes. With his older brother, he organized and managed a shoe factory in Quincy, Massachusetts-which factory rapidly expanded until, within a few years, Graham shoe became a firmly established product-wellknown along the entire Atlantic Seaboard. With this business firmly established, he increasingly directed his talents to acquiring and developing real estate. To rehabilitate worn-out, discarded, and non-profitable property to a point of a fair investment return was ever to act as a challenge to Graham—a challenge which he seldom failed to accept. It was not surprising, therefore, that during the 1890's when opportunity presented itself, he enthusiastically set about the task of reorganizing The Quincy & Boston Street Railway Company. This road was in the hands of receivers, operating increasingly in the red and with a dim prospect of a paying future. So successful, however, was he in putting this property, within a period of months, upon a sound paying basis that in recognition of his ability he was appointed one of the members of the first Rapid Transit Commission of the Massachusetts Legislature, in 1893. Later, upon the merging of the Quincy & Boston Street Railway with the larger Bay State Company, Graham was elected a vicepresident of the latter organization. In addition to these responsibilities he actively served, from 1898-1902, as general manager of the Brockton Street Railway System. Widely recognized as an able

street railway authority, he often was consulted in that field for advice and recommendations.

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In May 1902, at the request of President Coffin of the General Electric Company, Graham went to Bangor, Maine to investigate the general condition of the Public Works Company of that cityan organization in which at that time the General Electric Company held a major interest. Like the Quincy & Boston Street Railway, the Public Works Company had fallen upon difficult times. Formed in 1889, this Company was the successor of the Bangor Street Railway, and included the properties of the Bangor Street Railway, the Old Town Electric Light and Power Company, the Penobscot Water and Power Company, and the Brewer Water Company. In 1887, fifteen years prior to John R. Graham's visit, the Bangor Street Railway, with F. M. Laughton as president and F. H. Clergue as treasurer, had first made application for a franchise to build and operate an electric railway in the City of Bangor. It was in that same year that the first steam-generating plant in the City was located, on Cross Street. This station consisted of a directcurrent generator with a capacity rating in that day of 395 lamps (as current was used entirely for lighting purposes it was common practice to rate electrical generators according to the number of incandescent lamps which they would operate). At this time there were some 400 lighting Companies in the United States of America, the majority being independently-owned and of the series arclighting type. The probability is that less than sixty operations, all of them small, were giving continuous night-and-day electric service. Altogether these companies had an invested Capital of under ten million dollars.

B. B.

No history of the present Company in Maine would be complete without momentary recognition of those early pioneers, Laughton and Clergue. It was only through their courage, initiative, patience, foresight, and above all, persistence that Bangor was able to boast of the first electric street railway in New England. The electric railroad was a new invention in an untried field; and the only one

then in existence was at Richmond, Virginia—just recently completed and operating under southern climatic conditions with none of the rigors of Maine weather with which to contend.

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Overcoming strong opposition from the press and city government and with limited resources, Laughton and Clergue eventually received the franchise; and the first shovelful of earth was removed at East Hampden by President Laughton, at 6:30 a.m. on August 16, 1888, thus launching the humble beginnings of the present Company, as well as the first electric street railway in New England. During the remainder of 1888 and the early months of 1889, tracks were laid from East Hampden down Main Street up State to Exchange and Pearl, in Bangor, a distance of three and one-half miles. And, on April 29, 1889, the first trolley car, open and sixteen feet in length traveling at a rate of six miles an hour made its debut. Equipped with trolley poles and mounted on a single truck, this early vehicle was nothing more than a modified adaption of the old horse car. To eyewitnesses, however, this undertaking presented an awesome spectacle. One newspaper's account, fired with the enthusiasm of the day, even went to the extent of describing the event as ranking with the Seven Wonders of the World.

Difficulties, however, in this early venture soon became apparent. Even with the addition of extra dynamos (the alternating current generator had not been perfected at this early date and all current was known as Direct Current, the generator being called a Dynamo), the Cross Street Station did not have the capacity to drive efficiently the street railway. Therefore, the site of an old lumber mill on the Penobscot River at Veazie was chosen for the location of a new power station. Excavation proceedings on this site began in 1889, and the Veazie station was ready for operation in 1891. The first hydro-station in Maine, it was also equipped with a steam engine and boilers for stand-by service. In addition, this project was one of the early successful attempts at the transmission of Electricity in the United States. As late as 1891, the art of electrical transmission was so little known that it was considered impossible to transmit power from Niagara Falls to Buffalo, 16 miles away. In spite of frequent breakdowns in power equipment and transmission line, the

Public Works Company, first under Laughton and later under James H. Cutler, slowly increased in size until, in 1900, the Veazie power station was operating over thirty miles of electric railway, about ten thousand incandescent electric lamps, and nearly one hundred horse-power in small motors—all in Bangor, 4½ miles to the South.

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Yet, during this period of necessary expansion, all was not well. The Public Works Company was increasingly beset by financial difficulties. With the growth of the system, additional financing became more and more paramount. The money markets of Boston, New York, and Philadelphia showed little interest and foresaw no future for a small struggling street railway in Northeastern Maine. The frequent breakdowns in equipment often kept the cars idle for long periods of time, resulting in ill-afforded losses in revenue. Creditors were clamoring for more collateral. Management was stalling for more time. Of these creditors, the Thomson-Houston Company (predecessor of the General Electric Company) had the largest stake. A Mr. W. F. Pope then was Secretary to Mr. Charles A. Coffin, President of the Thomson-Houston Company. Correspondence between Mr. Laughton and Mr. Pope reflected a growing anxiety on the part of the latter over the future solvency of the Public Works Company—an anxiety which continually was expressing itself in a desire for more collateral on unsecured loans. In answer to one such request, Mr. Laughton penned the following letter, a letter by which one can gather a rather clear picture and insight into the unique character of this railway pioneer. It furthermore serves as an illustration of the financial pains afflicting the Public Works Company during the 1890's:

October 28, 1891.

(signed) F. M. Laughton

P.S.:

My dear Mr. Pope:-

Fearing that the above may lack clearness, I hasten to add, that this mirth is provoked by your saying that you have some notes unsecure, and asking if I cannot send some additional collateral.

Your mammoth Company and its giant head hold, as security for past and future advances, my lands, my tenements, my hereditaments, my prospects, my aspirations, my "Hopes, and fears, and prayers, and tears," my limbs, my wind, my muscle, with a covenant to hustle, to secure by ceaseless bustle, things to mortgage with the rest.

My partner has likewise with cheerfulness and alacrity turned his gizzard inside out and his crop is in your keeping.

You know the law requires certain things to be worn when one finds it necessary to frequent the haunts of men, so I do not send you my clothes. I have a spare pair of suspenders, not badly worn, which I would forward, excepting that I am not in a condition to prepay the freight, and I like to do things properly or not at all. I enclose an unpaid bill for my horse's board, which you may hold, not subject to redemption, as I shall have a duplicate in a few days.

Very truly, (signed) F. M. L.

B B

John R. Graham was impressed with the Bangor, Maine, of 1902. He saw a city situated at the head of navigation, on Maine's largest river, the Penobscot, as the metropolis of Eastern Maine and the gateway to the expansive territory of the Northeast. He saw Bangor as the shire town of an area embracing upwards of 80,000 inhabitants, and as a trade and shipping point for a rich agricultural and lumbering section. He noted the picturesque scenery and fine climate of this northeastern corner of U.S.A.—its virgin forests—mountains—lakes and streams, with attractions for fish and game. He noted the long line of rugged seacoast, broken by innumerable bays and inlets, the number of summer hotels unsurpassed in excellence, making it a resort for tourists and pleasure seekers from far and near.

All this did Graham note and more. He visualized the Penobscot River and its tributaries—the abundance of raw materials—the stability of population with the consequent availability of laborthe proximity of rich markets—the opportunity for the utilization of cheap electrical power at tidewater. He felt a glowing faith in the future of Bangor! So impressed was he with the possibilities of the city that, upon submitting a favorable report to the General Electric Company, he accepted the position of general manager and treasurer of the Public Works Company. Moving from Quincy to Bangor, he served from 1902 until 1905 in this capacity; Charles E. Woodward, a local citizen being president. During this period, however, through the firms of J. and W. Seligman & Co. of New York and E. W. Clark & Co. of Philadelphia, Graham raised sufficient capital to take an option on the entire equity holdings. Thus, on February 16, 1905, with John R. Graham as president and general manager, the Bangor Railway & Electric Company, the immediate predecessor of the Bangor Hydro-Electric Company, was organized. This new company consolidated all of the properties of the street railway, electric lighting, and water departments of the old company. By this joining of the weaker with the stronger links in the system, the Bangor Railway & Electric Company soon was operating on a sound financial basis, showing an average of seven percent return on capital invested.

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Meantime, new rails were laid, new trolley wires strung, distribution lines extended, additional cars purchased, and a concrete car-barn, the first structure of its type in New England, was erected. A vast and progressive program of expansion was set in motion. On February 1, 1907, the property known as the Bangor & Northern Railway, sometimes called the Penobscot Central, was purchased, thus extending the company lines northward into the area of Kenduskeag, East Corinth, and Charleston, Maine. In the same year, the Bangor, Hampden & Winterport Street Railway was added to the southern section of the system. A new track was laid between Bangor and Old Town. Always the pattern was the same. First came railway service, both freight and passenger, quickly followed by distribution lines of power and light. The

acquisition of the Bodwell Water Company, with a generating station on the Penobscot River at Milford, enabled the Bangor Railway & Electric Company to sell power at wholesale to the large pulp and paper mills along the Penobscot—notably the Eastern Manufacturing Company. To keep pace with the ever-increasing load, new generating equipment of increased capacity was installed at Veazie and Milford. The old dam at Veazie was replaced by one of concrete equipped with tainter gates—again another first in the use of such gates in New England. In addition to power, light, and railway service, the Company also was furnishing the domestic water supplies to Brewer, Veazie, Orono, Old Town, Milford, and Ellsworth.

B. B.

For John R. Graham, the Years 1902-1910 were satisfying years, years of fulfillment. His leadership had been imaginative, resourceful, determined. He anticipated that the eventual successful future of the Bangor Railway & Electric Company was to depend more and more upon revenue of commercial power and light rather than that of street railways. It was during this period (1903-1909) that the organization of the Bar Harbor & Union River Power Company was brought about through acquisition of the Electric Light and Water Companies of Ellsworth, the Electric Company of Bar Harbor, and the development of the Union River at Ellsworth. Not only did this subsidiary furnish electric light and power to the island of Mount Desert but also by erecting a transmission line between Ellsworth and Veazie, the generating station at Ellsworth supplemented Veazie in supplying hydro-electric power to the Bangor area. Because of the irregular flow of the Union River, Graham, as early as 1908, visualized a large storage basin on this river—a basin which would give in the expanding years ahead full utilization of the Ellsworth power station. Although the water storage known as Graham Lake was not completed until 1923eight years after his death—it is a tribute to his foresight that, during his lifetime, investigations had been initiated and plans drawn for such an eventuality.

In 1911, disaster struck Bangor! The biggest fire in New England history ravaged over fifty-five acres of business and residential property. During those trying days, when the city was smoldering in ashes and when business was temporarily suspended, a wave of discouragement and pessimism swept the city. Would the Queen City of the East, having already lost its place as a foremost lumbering center survive this vicious conflagratory blow. Ill and now nearing his sixty-fifth year, Graham had been spending more and more time away from business affairs in search for a return to health. These then were the most critical hours in his life—not the fire itself but the days which followed—the loneliness in which he had to form his decision-his sense of civic responsibility. But his tremendous interest in dormant property coupled with a vast capacity for work left for him but one choice. Partly because he believed in the properties in which he had a stake but more especially because he still had faith in the future of Bangor, his adopted home, Graham without hesitation proclaimed he was willing to purchase for a fair price any burnt-out property in the city. The Bangor Railway & Electric Company declared an immediate reconstruction program. At the same time, the Graham Realty Company announced rebuilding plans. These plans consisted of a total of five new mercantile buildings including a six-story Graham Building to replace the former three-storied structure. In addition, Graham's private residence also destroyed by the fire was to be supplanted on a scale larger than before. Through such optimistic releases to the press and through impromptu talks to local gatherings, the storm of panic was to a large degree alleviated. In a letter to an old friend at this time, Graham expressed the motto by which he had always lived: "Once you feel you are right—no hesitation is possible. Go ahead with it. Capital is made out of catastrophe." When the implications of his faith became evident, others soon followed his leadership. New buildings replaced the old. Bangor recovered quickly and its future was to remain secure.

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A man of many interests, the range of Graham's activities was constantly increasing. He was one of the foremost promoters of the Lewiston, Waterville & Augusta Street Railway, as well as the

Chairman of the Executive Committee of both the Portland Street Railway and the Cumberland County Power & Light Company. His directorships in public utilities, banks, and industrial manufacturing concerns in New England were many-but he did not limit himself to railways, manufacturing, electric power, and real estate. During an entire lifetime he was ever to remain an active and ardent sportsman, finding recreation in the driving and breeding of spirited horses. From his stock farm in Kentucky came the famous stallion Constantine—a race horse renowned in his day. From his model stock farm in East Corinth, Maine came early experiments in the scientific breeding of cattle. In addition he was an industrious reader of history, economics, and English literature. Contemporaries recall that he was especially fond of quoting Shakespeare. Indeed the life of John R. Graham, well travelled both in the United States and Abroad, was a full life, one of versatility, breadth, and vigor. Of necessity only the high spots have been touched—all landmarks in the career of a Maine pioneer.

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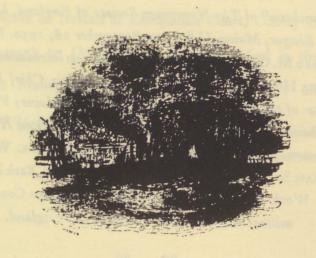
With the death of Graham, in 1915, the framework of the present Company had been established—a framework that succeeding officials during two World Wars and a Depression have been attempting to strengthen and broaden by constant application of modern practices. Avoided were the evils that befell so many in the industry. The day of individual ownership had passed, but the Holding Company—nemesis of so many operating companies in the 'twenties and 'thirties-played no role in the ultimate position of the Bangor Hydro. Equity was and is well distributed; and for the most part in the State of Maine (over 60 percent). True, the electric railway is no more. The automobile with its independent and unlimited range of transportation had proved itself too hardy a competitor. The death knell had sounded on December 31, 1945, with the removal of the last electric car. But through the vision of John R. Graham in the early years of the Twentieth Century the stage had been set to conform with the changing times—to convert from street railways to light and power. With this conversion came adoption of fundamental improvements by which the art of Electrical Service has been advanced. But a new age approaches.

Threatening clouds are in the skies! What pioneers like Graham have built up is being attacked—what they have believed in is being berated. The Bangor Hydro, along with Maine industry in general, has progressed in the past. If permitted to exercise freedom of private enterprise, the Company will continue to make progressive contribution to the welfare of the State of Maine, in the years to come!

THE END

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"Actorum Memores simul affectamus Agenda!"





This Newcomen Address, dealing with the history of the Bangor Hydro-Electric Company and with the life and times and manifold contributions of John R. Graham (1847-1915), was delivered at the "1950 Maine Luncheon" of The Newcomen Society of England, held at Bangor, Maine, U.S.A., on September 28, 1950. Edward M. Graham, the guest of honor, was introduced by The Hon. Harold H. Murchie of Calais, Chief Justice of the Supreme Court of the State of Maine; Vice-Chairman of the Maine Committee, in American Newcomen. The luncheon was presided over by Dr. William Stark Newell, Chairman of the Board, Bath Iron Works Corporation; Chairman of the Board, Bath Iron mittee, in The Newcomen Society of England.

L. L.



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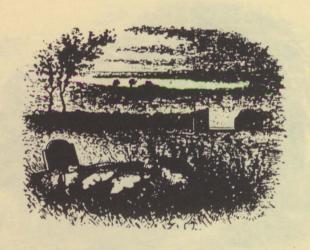
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AMERICAN NEWCOMEN, interested always in corporate history which has made contributions to Material Civilization, takes satisfaction in this delightfully told Newcomen manuscript, colorful in its recital of beginnings and growth, of struggles and successes, of courageous endeavor and abiding Faith. The State of Maine, long an example of American grit and hard work, has been served well by that indomitable band of pioneer leaders, in whatever field, whose monuments are the corporate structures that continue to serve and to promote the national economy. The God-fearing man whose life began just a century ago and whose life-story has been told is num-

bered among this proud band of pioneers. Maine and America well may honor his memory!

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THE NEWCOMEN SOCIETY OF ENGLAND

IN NORTH AMERICA

Broadly, this British Society has as its purposes: to increase an appreciation of American-British traditions and ideals in the Arts and Sciences, especially in that bond of sympathy for the cultural and spiritual forces which are common to the two countries; and, secondly, to serve as another link in the intimately friendly relations existing between Great Britain and the United States of America.

The Newcomen Society centers its work in the history of Material Civilization, the history of: Industry, Invention, Engineering, Transportation, the Utilities, Communication, Mining, Agriculture, Finance, Banking, Economics, Education, and the Law—these and correlated historical fields. In short, the background of those factors which have contributed or are contributing to the progress of Mankind.

The best of British traditions, British scholarship, and British ideals stand back of this honorary society, whose headquarters are at London. Its name perpetuates the life and work of Thomas Newcomen (1663-1729), the British pioneer, whose valuable contributions in improvements to the newly invented Steam Engine brought him lasting fame in the field of the Mechanic Arts. The Newcomen Engines, whose period of use was from 1712 to 1775, paved a way for the Industrial Revolution. Newcomen's inventive genius preceded by more than 50 years the brilliant work in Steam by the world-famous James Watt.

"The roads you travel so briskly lead out of dim antiquity, and you study the past chiefly because of its bearing on the living present and its promise for the future."

-LIEUTENANT GENERAL JAMES G. HARBORD, K.C.M.G., D.S.M., LL.D., U.S. ARTT (RET.)

(1866-1947)

Late American Member of Council at London
The Newcomen Society of England