

43462

April E.E.

~~Follow the geographical style of attached
new sheet.~~

P. C. Sowersby, News Bureau
General Electric Company
Schenectady, New York

RECEIVED
MARCH 1927
ELECTRICAL ENGINEERING CO.
PHILADELPHIA, PA.

800g
16g
14g
10pt
13g #330

Elihu Thomson as Seen
By Some Industrial Associates

TRIBUTES TO PROFESSOR THOMSON

W04# Owen D. Young, chairman, General Electric Company

To Mrs. Elihu Thomson:

"The sad news of the death of your husband has just reached me and I send to you and the other members of your family my deepest sympathies. Mr. Thomson was one of the few great pioneers in the electrical field who had the rare good fortune to see his vision become a reality and to receive the appreciation of a justly grateful world for his contribution to the health and happiness of people everywhere. The General Electric Company was always proud of his intimate association with it, and I can send you unreservedly the appreciation and sympathy of all who are associated in the company. I deeply regret that I am unable to attend the funeral and so pay my last tribute of admiration and affection to him who has gone."

Owen D. Young

Wire sent from
St. Augustine, Fla.

→ 1 line (9pts) #

W04# Willis R. Whitney, vice president, General Electric Company

"Professor Thomson was one of the leaders who helped in the establishment of the Northeastern Section of the American Chemical Society back in '97 or '98. We New England chemists knew him as an expert in our field, just as the electrical engineers recognized him as pre-eminent in their field, and the mechanical engineers as a leader in theirs. Astronomers also knew that he was of their group. He was an all-round scientist."

"When the General Electric Company offered me the research work at Schenectady, I was in doubt as to my fitness and as to the quality of the opportunity until I hurriedly consulted "the Professor." He was very kind, as always, and was quite clear that the opportunity offered me was a great one. So I owe a large part of the satisfactions I have enjoyed during the past 36 years to Professor Thomson's kindly interest. Through those years my admiration and affection for him steadily increased, and in his death I feel a great personal loss."

Willis R. Whitney

→ 9pts #

1604

not Gerard Swope, president, General Electric Company —

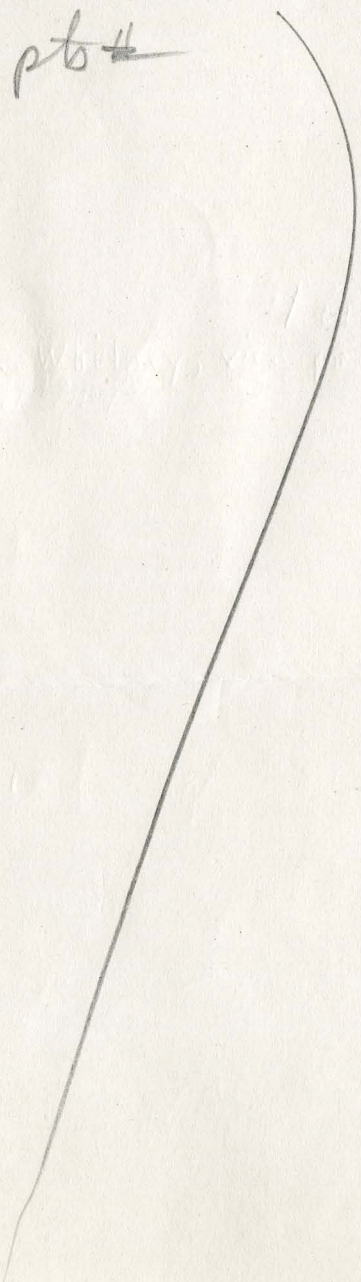
12

"Since the very beginning, Professor Thomson was associated with the General Electric Company and its predecessor bearing his name, the Thomson-Houston Company. His accomplishments for these companies and many others throughout the world bearing his name and for the entire electrical industry were many and conspicuous.

"His interest in research, his enthusiasm for new ideas, and the advancement of young engineers continued almost to the day of his passing. His memory will long be cherished by those who knew him, and he leaves a fine tradition and inspiration for those who follow him."

~~Gerard Swope~~

→
9pb#



94

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[MIT]

3

Karl T. Compton, president, Massachusetts Institute of Technology

"In his own character and in his great achievements he was one of the truly great men of his century. In all the years of his interest in the Institute, he displayed a loyal and active faith in the social values of technological education."

"Professor Thomson's loss to this institution and all others would be irreparable were it not for the fact that his nobility of character will remain as a lasting inspiration, and his scientific achievements will continue permanently to confer immeasurable benefits to the world."

~~Karl T. Compton, President, Massachusetts Institute of Technology.~~

Note. Professor Thomson on two occasions served as acting President of M.I.T.

William D. Coolidge, director, General Electric Research Laboratory

"In the death of Professor Thomson, the General Electric Company has suffered a great loss. Its earliest products were for the most part the off-spring of his brain. Great in engineering and invention, he played a most important role in the early development of the electrical art. He was a pioneer in arc lighting, was the father of electric welding, devised the first commercial recording wattmeter, and produced by the score the various devices needed for making electric generation and distribution reliable and safe."

"He was a true scientist, and by example and precept established the tradition of scientific research in the General Electric Company. When the Research Laboratory of the company was founded, he served on its advisory council, and, by his experience, wisdom, and fertility in ideas, was of great help to the laboratory in its early years."

"His breadth of knowledge, mental alertness, and originality made association with him delightful and stimulating, while his kindness and simple sincerity won the affection of all who knew him. I was privileged to know him well, and I feel the loss of a great and good friend."

William D. Coolidge

~~Handwritten scribbles and signatures at the bottom of the page.~~

AIEE EDIT. DEPT.
APR 27 1937

REFER TO FILE:	
G. R. H.	Regular Ms.
F. A. L.	Special Ms.
W. R. M.	Discussion Ms.
R. E. W.	
C. A. G.	News:
M. C. F.	
Director	Congress
	Detour #22

Delivered at Annual Dinner of American Philosophical Society, evening of Saturday, April 24, 1937, in Philadelphia

ELIHU THOMSON
(Born March 29, 1855)
(American Philosophical Society)

1408

It is with regret and sorrow that I speak of the death of Elihu Thomson. I am sure that all members of the American Philosophical Society join in the regret and sorrow for the loss of this great

Science has lost a great creative mind; electrical engineering has lost a giant in invention; the nation has lost a great citizen; and we have lost a friend and loved colleague.

He was elected a member of this Society sixty-one years ago (in 1876) when he was twenty-three years of age, and continued in enthusiastic membership until his death near the end of the eighty-fourth year of his life. At the date of his death on March 13, 1937, he was by several years the senior in term of membership among all the members of the Society. He had been active in the interests of the Society during six decades. Association with the members of this Society and attendance on its meetings seemed to charm and satisfy an appetite of his broadly intellectual character. When, during the latter years of his life, he and Mrs. Thomson made a practice of going south to avoid the rigors of the New England climate in February and March, he made it a matter of primary satisfaction and pleasure to determine their return journey so as to bring them to Philadelphia at the time of the Annual Meeting of this Society.

Thomson was a cherished member of many other distinguished scientific and professional Academies and Societies at home and abroad. He was a charter member of the American Institute of Electrical Engineers, its fifth president and its first recipient of the greatly respected Edison Medal. Of medals, honorary academic degrees and other

honorary memberships in dignified societies at home and abroad,

FOR PERMANENT RECORD
FILE IN FOLDER
MEMBER

distinctions, his number was legion. His central interest was in the development of electrical engineering industries but his many-sided mind touched many collateral fields.

He was one of that group of giants (of which exemplars are Edison, Thomson, Bell, Weston, Sprague and their like in our country and the great Werner Siemens and his compeers in Europe) who ornamented the generation bridging a gap in time and electrical engineering achievement between the generation of one hundred years ago containing such men as Faraday and Ampere and the generation of younger men who have fruitfully carried forward in the field. Thomson was one of the most creative and one of the last of these giants in applied electricity who adorned the bridging generation and brought us to our modern achievements in the serviceable and comforting uses of electrical apparatus and electricity.

Thomson's activities were widely extended, reaching from observations in various fields which he cultivated for intellectual interest and recreation (such as descriptive astronomy) to experimental discoveries leading into inventions relating to applied electricity that cover the range from devices of minor character to the bases of a new and valuable industry. ~~It is said that~~ The United States Patent Office has borne witness to his productivity in invention by issuing to him ~~over 700~~ patents for inventions ^{which are said to exceed 700 in number}. I will not enumerate a list ^{significant as it might be made}. To this Society it is particularly of interest to dwell upon his intimate relations with Philadelphia, his employment at the youthful age of 17 in the staff of his alma mater (the Central High School), his early interest in experimental science and invention while yet a teacher, his active part in the laboratory and lectures of the famous Franklin Institute, and

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Let me emphasize that in here speaking of these achievements, I refer to them as having proved to be serviceable and comforting. Later I refer to them as having contributed to the comfort and thus the happiness of men. Persons of distinguished name sometimes unreservedly state that the broad results of scientific discovery and invention have been *increased human disparity or even of* springing causes of war. This I deny. Such allegations are the outcome of incomplete observation. Our powerful and convenient processes of transporting men, animals and goods, associated with extended means for quickly transmitting intelligence, have been impressed into service by sovereign agencies for the purpose of widening the fierce conflicts of war and deepening the opportunities for bloodshed, thereby converting *these processes from* a blessings into a curse. Similar misuse has been made of other products of inventive genius; *and such products are not always used to the greatest human advantage even in peace.* But no men have more deeply deplored *incomplete use or even* this grave misuse of their discoveries and engineering inventions than such men as Thomson. The practice of engineering, and the prosecution of scientific discovery and invention within the field of engineering, lead to an intellectual richness which encourages a pacific attitude, *associated with complete patriotism and love of country.*

Such ~~as~~ was the case with Professor Thomson. Unhappily such men are few. The touch of jealousy, love of revenge and joy of combat are so ingrained in most human natures that the reluctance of scientific-minded inventors to allow their works to be applied in warfare *or in other misuse* has had little influence in restraining such applications. Here is one of those problems for statesmanship that are universally human and spread far beyond the fields occupied by those *men who are* devoted to scientific discovery, invention and professional engineering practice. We *therefore* cannot put on our Faradays, Edisons, Thomsons and the like the onus for the misuse of their works. *Such men stand in support of the greatest beneficial use of their discoveries and inventions.*

(Return to Page 2.)

his lively participations in the functions of this distinguished Society. It was in this Philadelphia period that he made, or laid the foundations for, a number of his most important inventions. To his last days, he held a strong affection for the Franklin Institute, - for, in its laboratories in the old quarters, he obtained the opportunities to carry on much experimental work in addition to that which he carried on at the Central High School.

I first met Elihu Thomson in 1886, when he was 33 years of age and I was 21. Twelve years make the difference between youth and maturity at those ages and I was fascinated by Thomson's constructive activity of mind and his mature processes of analysis which were exhibited in conversation. He delivered a lecture at Cornell University and, as one of the very few graduate students who embraced electrical engineering in those days, it was my fortune to be thrown in considerable personal contact with him while he was there. His descriptions of his methods of work, which showed his foresight in planning experiments and his fertility in filling up by empiricism the gaps in rigorous science applicable to problems of ^{engineering} design, were significant and inspiring in high degree. This was a half-dozen years after he had relinquished his posts in Philadelphia to go to New England to take up the heavy burdens of chief technical guide in a commercial development of the uses of the electric current. It was also some years before his achievements had assumed that notable international aspect which led to a great flow toward him of distinguished medals and official honors. In later years I have been again and again impressed by the unconscious manifestation

by him of those same rich qualities of mind in his scientific work, his business affairs, his social relations, and in his happy family relations. In those qualities, so unusually developed, lay not only the foundation for his personal achievements, but also a good deal of the basis for that attraction with which he drew others to him.

When Thomson was 80 years of age, in 1933, he had been officially associated with Massachusetts Institute of Technology (as a member of the Corporation) for 45 years, during which period he had frequently been called upon for committee duties including membership in the Executive Committee ^{of the Corporation} and in the Visiting Committee of the Electrical Engineering Department. Of the latter department I had been in charge for 26 years at that date and (from time to time) had seen much of Thomson. His interest in the Institute and active solicitude for the welfare of its work had led to his choice as Acting President during an interregnum in 1920-23. When a formal celebration of his eightieth birthday was proposed, the Institute gladly undertook to sponsor it, the chairmanship of the planning committee falling to me. The celebration took the form of a scientific conference in the afternoon and a formal dinner in the evening of March 29, 1933, which was the birthday. The affair is recorded in a printed booklet of eighty pages.

I speak of this birthday celebration because the interest expressed in it by societies and individuals throughout the world was very great and was crowded with spontaneous tributes of affection and respect for Thomson and his works. Such expressions flowed in in great numbers by mail and by wire, in formal and in informal garb. A gracious

tribute (among very many) came from this distinguished Society, another from alumni of the Central High School and another from the Franklin Institute. I will quote a paragraph from that of the Franklin Institute. After reciting certain of Thomson's activities in the Franklin Institute the tribute uses these beautiful words:

"The Franklin Institute is proud of Dr. Thomson's affiliation with it; it is grateful for the scientific spirit which he instilled into it; it has been eager to pay honor to him because of his contributions to the advancement of mankind; and it is today filled with affection for him because of his agreeable personality and his rugged nobility of character".

Mr. President, I thank you for selecting me to speak, before this gathering, of my elder friend who was one of the rapidly disappearing generation of men who, by discoveries and inventions, wrought electrical engineering out of the early scientific foundations into the aspect of a great contribution to human comfort and happiness. A lifetime pall of physical weariness usually leads me to leave to others a place such as I occupy this evening; but in this instance I am grateful to stand before you *in testimony to the greatness of Thomson.*

Elihu Thomson was a man who worked to better the conveniences available to his fellow men, for the very joy of it. His works are known from East to West and from the zone of the Pole Star to the Southern Cross. His achievements have contributed so much to the comfort and thus to the happiness of men that the world owes him an inextinguishable debt. In his death, our Society's loss is great. Death has erased from our list a great and creative soul of uniquely brilliant parts.

Dugald G. Jackson

In Memoriam

ELIHU THOMSON

Dr. Elihu Thomson, a charter member, the fifth president, and an Honorary Member of the American Institute of Electrical Engineers, died at his home in Swampscott, Mass., on March 13, 1937, about two weeks before his eighty-fourth birthday.

Beginning his electrical experiments at the age of eleven, when he had completed his preparation for high school but found it necessary to wait two years to meet the minimum age requirement for entrance, he built and operated several types of equipment, and quickly demonstrated his ability in fundamental science and also his remarkable inventive genius. After graduating from the Central High School in Philadelphia and teaching chemistry and mechanics in that school during the next ten years, he resigned in 1880 to devote his entire time to electrical research.

The American Electric Company which he joined soon became the Thomson Houston Company and the latter merged, in 1892, with the Edison General Electric Company to form the General Electric Company, with which Dr. Thomson was connected until his death.

His more than 700 inventions included many of outstanding importance which added materially to scientific knowledge and laid the foundation for many significant developments in the electrical industry. The combination of marked scientific ability, broad vision, sound judgment, and pleasing personality gave him a position of outstanding leadership throughout his long career.

He received the first Edison Medal awarded by the Institute, and received many of the most notable medals in the world, having been the only man to receive all three of England's highest scientific honors - the Hughes, Kelvin, and Faraday medals. He received several high honorary degrees, including Ph.D., ScD., and LL.D. He was elected an Honorary Member by the A.I.E.E. and several other societies, and received other high honors in the United States and abroad.

Entering the Institute as a charter member, he immediately became active in its affairs, and was a vice-president 1887-89, and president 1889-90. He also rendered valuable services to the Institute as member of various important committees and as its representative in joint activities. He was transferred to the grade of Member in 1891 and to the grade of Fellow in 1915. He was elected an Honorary Member in 1928.

RESOLVED: That the Executive Committee of the American Institute of Electrical Engineers, upon behalf of the Board of Directors and the membership, hereby expresses its keen regret at the death of Doctor Thomson, and its deepest appreciation of his many outstanding contributions to electrical engineering progress; and be it further

RESOLVED: That these resolutions be entered in the minutes and transmitted to his family.

Adopted by the Executive Committee of the
American Institute of Electrical Engineers,
March 25, 1937

National Secretary