Thomson was born in Manchester, England, on the 29th March, 1853, his family moving to Philadelphia in 1858. He attended the Central High School in Philadelphia and graduated in 1870, then took up a teaching position at the School. In 1876, at the age of 23, he held the Chair of Chemistry. In 1880, Thomson left Central to pursue research in the emerging field of electrical engineering.

Together with Edwin J Houston, Thomson founded the Thomson-Houston Electric Company in 1883, where his inventions included an arc-lighting system, an automatically regulated three-coil dynamo, a magnetic lighting arrester and a local power transformer.
In 1884, the Thomson-Houston International Company was formed. Then in 1889, Thomson-Houston bought the Brush Company which resolved their patent disputes relating to the arc lamp and the dynamo. Thomson-Houston went on, in 1892, to merge with the Edison General Electric Company to form the General Electric Company (Edison having been the loser in the battle of DC versus AC current).

Thompson chose to continue to work in his laboratory at Lynn, Massachusetts. It has been recorded that Thompson “displayed methodological characteristics in the workshop and the laboratory as inventor and in the business world as entrepreneur.” He particularly enjoyed solving problems in the field of electric light and power, receiving more than 700 patents for his inventions.
THE AMERICAN ELECTRIC COMPANY.

Proprietors of the Thomson-Houston System of

ELECTRIC LIGHTING.

MANUFACTURERS OF THE

THOMSON-HOUSTON

Dynamo-Electric Machine,
Electric Lamps, Current Regulators,
And Electro-Plating Apparatus.
Unrivalled for Simplicity, Economy, and Efficiency.

MANUFACTORY AND PRINCIPAL OFFICE:
Nos. 25 and 27 Lake St., New Britain, Conn.
Thomson-Houston Works, c.1895

The electric welder of Elihu Thomson.
Thomson at leisure
In 1893, the Compagnie Francaise Thomson-Houston (CFTH) was formed in Paris. Then in 1896, British Thomson Houston (BTH) was created (having been previously Laing, Wharton & Down, in business since 1886).
RECTIFIERS
FOR TRACTION AND ALL INDUSTRIAL SERVICES

Glass Bulb Type

Entire Equipments, including Glass Bulbs, made in BTH Factories

We manufacture ALL Types of Glass Bulb and Steel Tank Rectifiers.

Glass Bulb Rectifiers installed at Dudley Hill Substation, Bradford Corporation.

BTH RUGBY

THE BRITISH THOMSON-Houston COMPANY LIMITED, RUGBY, ENGLAND.
Elihu Thomson died on his estate in Swampscott, Massachusetts, in 1937. His house was designated a U.S. National Historic Landmark in 1976.
APPENDIX I: SOME THOMSON AMERICAN PATENTS

E. THOMSON.
ELECTRIC ARC LAMP.
No. 261,790.
Patented July 25, 1882.

[Diagram of an electric arc lamp]
E. THOMSON.
LEADING-IN WIRE FOR INCANDESCENT LAMPS.
No. 508,659.
Patented Nov. 14, 1893.

Fig. 1.

Fig. 2.

INVENTOR
Edison Thomson

Witnesses.
A. G. McDonald
J. J. Hayes
APPENDIX II: EXTRACT FROM THE THOMSON-HOUSTON ELECTRIC COMPANY CATALOGUE of 1890

THE

THOMSON-HOUSTON

ELECTRIC

COMPANY

MANUFACTURER OF

ELECTRICAL APPARATUS

DYNAMOS FOR ARC AND INCANDESCENT LIGHTING

ARC AND INCANDESCENT LAMPS

ELECTRIC RAILWAY APPARATUS

STATIONARY MOTORS

ELECTRIC LIGHTING AND POWER

SUPPLIES

BOSTON, DECEMBER 1, 1890
INCANDESCENT LIGHTING ON ARC LIGHT CIRCUITS

SERIES INCANDESCENT LAMPS

IN INCANDESCENT LIGHTING there frequently occur situations such as stores, halls, and public enclosures, which it is often desired to illuminate by incandescent lamps, without the necessity of running a circuit from a separate dynamo. To meet this requirement, incandescent lamps are placed in the lighting circuit directly in series with arc lamps of 1,200 or 2,000 candle-power.

They are provided with an automatic cut-out, which furnishes a path for the current, and prevents an open circuit in case the filament breaks. These lamps are denominated “Star” and “Crescent,” the former being used on 1,200 candle-power circuits, and the latter on circuits of 2,000 candle-power.

They are made of 20, 25, 32, 65 and 125 candle-power. The facility with which both arc and incandescent lamps can be operated from the same dynamo and upon the same circuit, is one of the most important features of this system. By its use it is possible for local electric lighting companies to supply both forms of light in a great variety of candle-power, without employing a separate dynamo. These advantages are equally as great in the case of isolated plants. The Thomson-Houston Electric Company is the owner of all the fundamental patents for the automatic cut-outs used in series incandescent systems.

INDIVIDUAL DISTRIBUTORS

What are known as Individual Distributors are sometimes used where it is desired to maintain a group of incandescent lamps on arc light circuits. When such is the case, lamps are placed in groups of five on the 1,200 candle-power circuit, or eight on the 2,000 candle-power circuit, an equal amount of current passing through each one. Each lamp has its own individual cut-out, consisting of a resistance which is automatically thrown into circuit as a substitute for the filament itself, and which provides for an excess of current in the other lamps, when one of a group is broken or turned off.
BRACKETS FOR SUSPENDING

INCANDESCENT LAMPS

BRACKETS FOR USE WITH INCANDESCENT LAMPS are made in two forms as shown on the opposite page. The upper bracket has an inverted shade, which reflects the light, and a glass globe which serves to protect the lamp and socket from moisture and mechanical injury.

The lower hood is used in connection with Series Incandescent Lamps and is provided with a cut-out, placed in the upper part of the hood, by means of which the lamp can be extinguished and relighted at will. These hoods, which are made of tin, are strong and durable, and especially designed for out-door use.
SHADE AND PROTECTOR

HOOD FOR SERIES LAMPS
INCANDESCENT LAMPS

THE INCANDESCENT LAMPS used with the Thomson-Houston Dynamo for Incandescent Lighting are superior in many respects to lamps of other makes, being manufactured under the well-known Sawyer-Man patents. Owing to a special method of treatment during the process of manufacture, used only by this company, the carbon filament, though similar to that used by other manufacturers, gives this lamp superior advantages. It has a distinctive form, a quarter turn being given to it, which permits an equal radiation of light in all directions. Under repeated tests the life of these lamps has greatly exceeded the guaranteed number of hours, and at the same time they maintain a uniform candle-power without blackening of the bulb. They are made for long-distance incandescent lighting, using the Transformer System; for use with Distributors; in series on Arc Lighting circuits and for Direct Current Lighting by low-tension currents.
BIBLIOGRAPHY

1890 Thompson-Houston Electric Company (Electrical Apparatus), Catalogue, Boston, 1st December

1924 Kelvin Medal awarded to Elihu Thomson, Journal, AIEE: February

------ Elihu Thomson, US Patent Office Records


http://www.gracesguide.co.uk/BTH


FURTHER READING

Beloved Scientist
Elhu Thomson, A Guiding Spirit Of The Electric Age

David O. Woodbury
Owen D. Young

Kissinger Legacy Reprints

2010
In later life, Thomson was showered with awards. In 1889, he was decorated by the French Government for his electrical inventions, being made Chevalier et Officier de la Legion d’honneur. He received an honorary degree from Yale (1890), a Ph.D from Tufts College (1892), a D.Sc from Harvard (1899) and was the first recipient of the Edison Medal of the American Institute of Electrical Engineers (1900). His other awards included the Rumford Medal (1902), the Hughes Medal of the Royal Society (1916), the John Fritz Gold Medal, the Franklin Medal, the Elliot Cresson Medal and the Kelvin Gold Medal (1923). Elihu Thomson died in 1937.

Dr Thomson was President of the AIEE (1889-90), a founding member and 2nd President of the International Electrotechnical Commission and went on to serve as Acting President of MIT (1920-23). He was a member of many British Institutions: the Institution of Civil Engineers, the British Association for the Advancement of Science, and the Institution of Electrical Engineers of which he was an Honorary Member.

His second wife, Clarissa Hovey Thomson, is reported to have said that she needed a basket to carry all of her husband’s awards and honours.
Grave of Dr Elihu Thomson

Thomson at his desk