

THE H.I. S...
BRANCH S...
THE L I...

EVERYTHING ELECTRICAL



5 Amp.



10 Amp.

The unanimous approval and recommendation of our Press and Contractors, and the ever increasing sale justifies the workmanship, design and finish are perfect, and its appearance capacity and most perfect; its action does not depend solely on "on" or "off"; heating or arcing is impossible. Made on metal parts at back of base.

PRICES.



No. 1651-1653.

Carrying Capacity up to	Diameter of Base	List No.	With Brass, Bronzed or Nickel Cover.
5 amp.	2½ in.	1651	3 6
10 "	3 "	1652	6 6
20 "	3½ "	1653	10 0



No. 1656-1657.

WITH CUT-OUTS.			
Carrying Capacity.	Diameter of Base.	List No.	With Brass, Bronzed or Nickel Cover.
5 amp.	2½ in.	1656	4 6
10 "	3 "	1657	7 6

SCALE: ¼.

"I hope these things as I have picked them out will be taken care of somewhere and will form the nucleus of some archives to which I invite all GEC men to contribute."

Hugo Hirst 1920, Co-founder & Chairman of GEC 1910-43



FRONT DOOR ELECTRIC PULL

List No. 885.



No. 885.

THE "REGENT" PULL.

High-class finish,
Bright or Bronzed.

5½ in. 21/-



No. 886.

List No. 887.



No. 887.

THE "VENICE" PULL.

In Wrought-Iron, very handsome.

8 x 3 in.
9 x 3½ "

We manufacture Wrought-iron Pulls to order and will give estimates on application.

List No. 890.



No. 890.

THE "QUADRANT" PULL.

2 x 6 in., 9/-

621.3
GEN

a Brief History
of GEC

2nd Edition

G21.3 GEN OR

1886 in the beginning



GEC traces its origins to G.Binswanger and Company, an electrical goods wholesaler established in London during the 1880s by a German immigrant Gustav Binswanger (later Byng). Regarded as the year GEC was founded, 1886 saw Byng joined by a fellow immigrant, Hugo Hirst, and the company changed its name to The General Electric Apparatus Company (G.Binswanger) located at 5, Gt. St. Thomas Apostle. This small business found early success with its unorthodox method of supplying electrical components over the counter.

Hugo Hirst was an entrepreneurial salesmen who foresaw the potential of electricity and was able to direct standardisation of an industry in infancy. He travelled across Europe with an eye for the latest products and in 1887 GEC published the first electrical catalogue of its kind. The following year the company acquired its first factory in Manchester where telephones, electric bells, ceiling roses and switches were manufactured.

In 1889, the General Electric Co. Ltd. was formed as a private limited company and moved to larger premises at 71, Queen Victoria Street. Now known also as G.E.C., the company was expanding rapidly, opening new branches and factories and trading in 'Everything Electrical', a phrase that was to become synonymous with GEC.

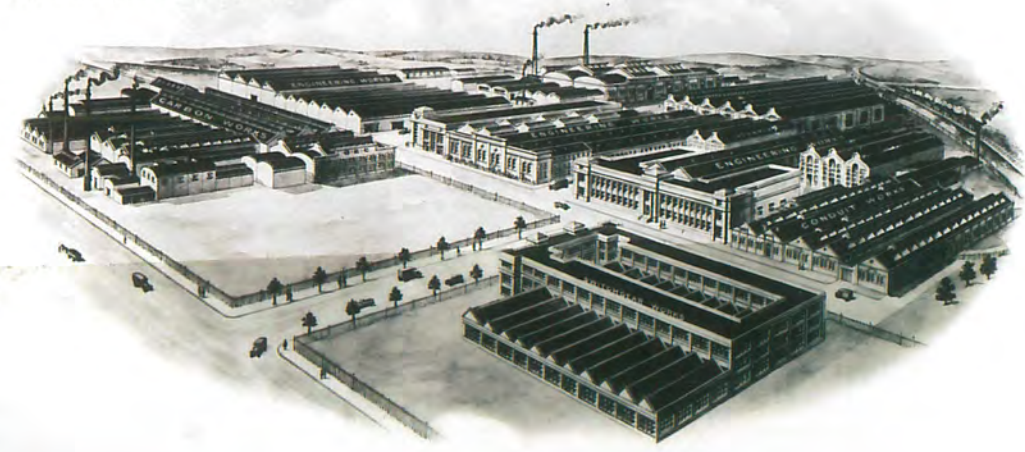
In 1893, GEC decided to invest in lamp manufacture. The resulting company, (to become Osram in 1909), was to lead the way in lamp design and the burgeoning demand for electric lighting was to make GEC's fortune.

In 1900, GEC was incorporated as a public limited company, The General Electric Company (1900) Ltd, (the '1900' was dropped three years later). In 1902, GEC's first purpose-built factory, the Witton Engineering Works was opened near Birmingham.



Hugo Hirst

Gustav Binswanger



Expansion of an empire



With the death of Gustav Byng in 1910, Hugo Hirst became Chairman as well as Managing Director, a position he had assumed in 1906. Hirst's shrewd investment in lamp manufacture was proving extremely profitable and in 1909 Osram began production of the most successful tungsten filament lamps in the industry.

Rapidly growing private and commercial use of electricity ensured buoyant demand and the company expanded both at home and overseas, with the establishment of agencies in Europe, Japan, Australia, South Africa and India and a substantial export trade to South America.



The outbreak of World War I transformed GEC into a major player in the electrical industry with profits to match. The

company was heavily involved in the war effort, with products such as radios, signalling lamps and arc-lamp carbons.



Between the wars, GEC expanded to become an international corporation and a national institution. The take-over of Fraser and Chalmers in 1918 took GEC into heavy engineering and consolidated their claim to supply 'Everything Electrical'. During the 1920s, the company was heavily involved in the creation of the UK national grid.

The opening of the new purpose built company headquarters in Kingsway, London in 1921, and the pioneering industrial research laboratories at Wembley in 1923, were symbolic of the continuing expansion of both GEC and the electrical industry.

During World War II, GEC was a major supplier to the military of electrical and engineering products. Significant contributions to the war effort included the development of the cavity magnetron for radar, advances in communications technology and the ongoing mass production of lamps and lighting equipment.



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Arnold Weinstock

the Weinstock era

The post-war years witnessed a slow down in GEC's expansion. Following the death of Hugo Hirst in 1943, his son-in-law, Leslie Gamage, along with Harry Railing took over as joint Managing Directors. Despite the demand for electrical consumer goods and large investments in heavy engineering and nuclear power, profits began to fall for the first time in the face of increasing competition and internal disorganisation.

In 1961, GEC took over Radio and Allied Industries, and with it emerged the new power behind GEC, Arnold Weinstock, who became Managing Director in 1963, moving the headquarters of the electrical giant from Kingsway to a modern building at 1 Stanhope Gate.

Weinstock embarked on a program which was to rationalise the whole of the UK electrical industry, but began with the interior rejuvenation of GEC. In a drive for efficiency, Weinstock made both cut-backs and implemented mergers injecting new growth into the company. GEC returned to profit and the financial markets' confidence was restored.

In the late 1960s, the electrical industry was revolutionised as GEC acquired Associated Electrical Industries (AEI) in 1967, which encompassed Metropolitan-Vickers, BTH, Edison Swan, Siemens Bros., Hotpoint and W.T. Henley. In 1968, GEC merged with English Electric, incorporating Elliott Bros., The Marconi Company, Ruston and Hornsby, Stephenson, Hawthorn & Vulcan Foundry, Willans & Robinson and Dick, Kerr.

The Company continued to expand, with the acquisition of Yarrow shipbuilders in 1974 and Avery in 1979. By this time, GEC had become Britain's largest private employer.

The late 1980s witnessed some major mergers within the electrical industry, with the creation of GEC-Plessey Telecommunications (GPT) by GEC and Plessey in 1988, and the acquisition of Plessey by GEC and Siemens the following year. An equal investment by GEC and Compagnie General D'Electricite (CGE), formed the power generation and transport business, GEC-ALSTHOM in 1989.



The movement towards electronics and modern technology, particularly in the defence sector, marked a change in direction away from the domestic electrical goods market. GEC acquired parts of Ferranti in 1990 and Vickers Shipbuilding and Engineering Ltd. (VSEL) in 1995. Lord Weinstock retired as Managing Director in 1996.



George Simpson



new directions

In 1996, George Simpson took over as Chief Executive of GEC and with him came a wave of new corporate management. A major reorganisation, aimed at focusing the company on key high growth, high technology business areas was soon underway, involving various disposals and acquisitions.

In 1998, GEC Headquarters moved to One Bruton Street, London. 1998 was a turning point for GEC and a year of intense activity, during which the substantial joint venture bias in the company was eliminated with the flotation of Alstom and the purchase of Siemens' 40% stake in GPT. Early in 1999, the company announced that it proposed to separate Marconi Electronic Systems and to merge it with British Aerospace. The future of GEC as a high technology, high growth player in the communications and information technology market was later reinforced by major acquisitions in the United States such as Reltec and Fore Systems.

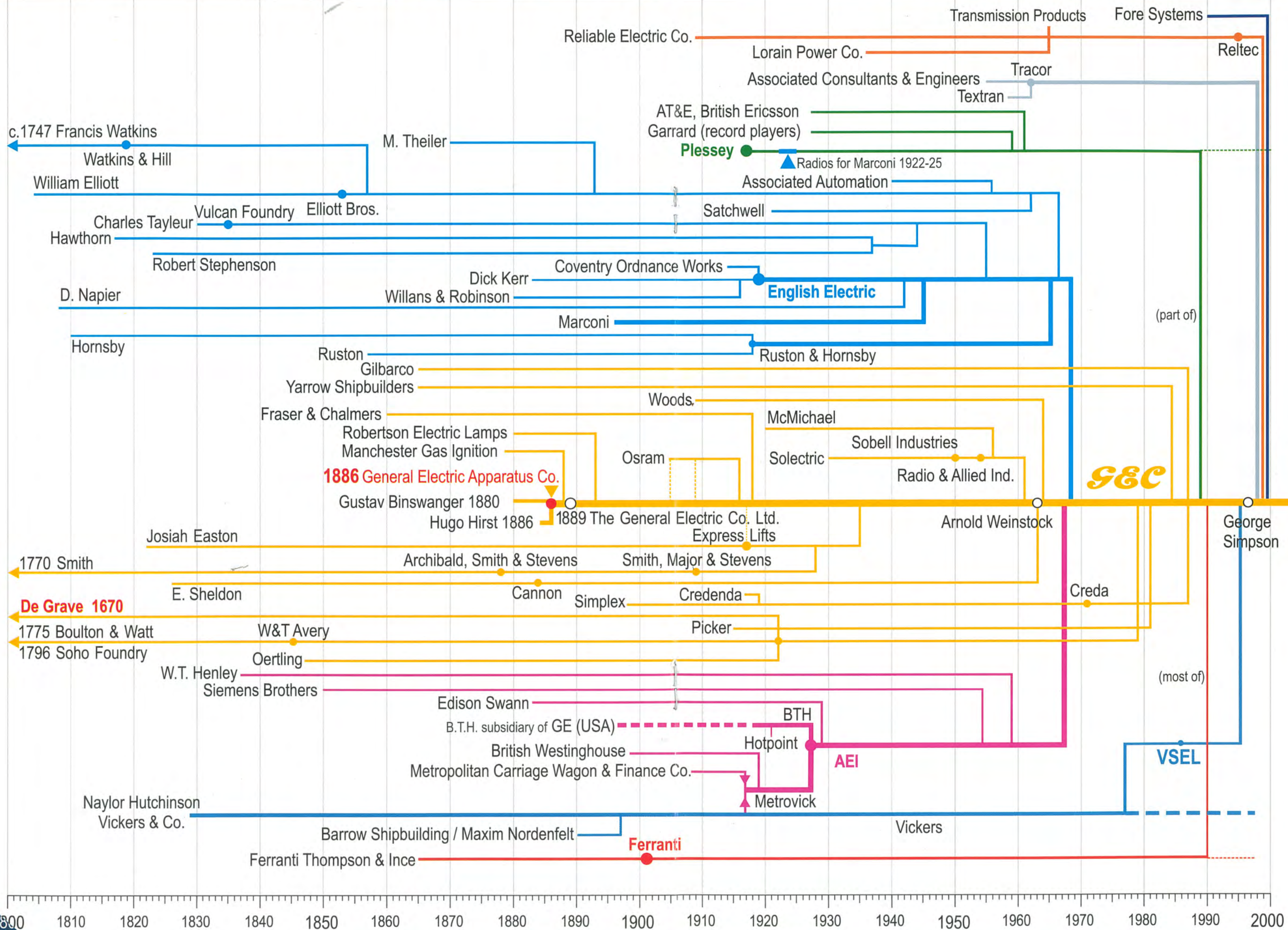
As the new millennium dawns, GEC looks set to increase its role as a leading global player in Communications and IT.



sending information
by light

GEC

THE ROOTS OF *GE* 1670-1999



This chart does not show companies which have left GEC.



a rich heritage

1670

earliest root

This is a copy of an engraving held in the Museum of London. On the far left is the shop of Charles De Grave, Scalemaker. His business was established here at 59 St. Martin's le Grand, near St. Paul's Cathedral in 1670.



This image is the earliest record we have of a business that is now part of GEC. Avery purchased De Grave in 1922 and in turn was acquired by GEC in 1979.

pioneers of technology

Many famous names have contributed to the innovative history of GEC. Here are examples of just a few:

Guglielmo Marconi (1874-1937), revolutionised communications, when in 1896 he filed the world's first patent for wireless telegraphy using Hertzian waves. In 1897 he formed The Wireless Telegraph and Signal Company and opened the first radio factory in the world in 1899. His company continued to make advances in radio communications, radar and television. In 1946 The Marconi Company was taken over by English Electric who in turn merged with GEC in 1968. Today, Marconi Communications continues to innovate as a world-leader in communications technology.



Robert Stephenson and his son George produced the 'Rocket'. This famous steam prototype locomotive can be traced via the history of English Electric.

The Soho Foundry, which is linked to GEC via Avery, is associated with the names Boulton and Watt, inventors of the steam engine and William Murdock, the pioneer of gas lighting.



Guglielmo Marconi

the GEC archives

1993



history

Hugo Hirst, began a unique personal collection of catalogues, press-cuttings and documents in c.1886, the start of GEC. The 'Hugo Hirst Collection' as it has become known, moved with him and continued to expand until his death in 1943. Upon closure of the Kingsway headquarters in 1962, the collection was transferred to the GEC Patent Dept. at Wembley where it languished, rarely used, until 1988 when the need for historical material in the GEC Journals led to its rediscovery and transfer to the Hirst Research Centre Library in 1990. On closure of the Wembley site in 1993, the collection was moved to the Marconi Research Centre at Great Baddow.



From this time on, the GEC Archives changed rapidly. Hugo Hirst's original document collection was greatly expanded to include contemporary as well as historical records. An ongoing programme of electronic archiving began allowing automated searches of the 10,000+ records. Conservation techniques were introduced and a small museum area now displaying some 400 artefacts was set up.

In November 1996, the GEC Archives launched their first pages on the GEC Website at: www.gec.com/a3.htm and subsequent additions now include Marconi Centenary pages and a 'Visual Guide' of the museum area.

In 1997, GEC decided that all Head Office records older than 10 years should be maintained by the GEC Archives and in 1998 a large quantity of material was transferred to the archives from Head Office during GEC's move to new premises. The same year saw the first GEC Historians and Archivists Colloquium held at Marconi Research Centre and hosted by the GEC Archives.



aims

The GEC Archives aim to demonstrate the Company's strong pedigree and to protect our heritage, both by recording GEC's history and that of its roots, and by ensuring examples of its products and technologies are preserved.

As a member of the Business Archives Council, the GEC Archives are part of a national effort to promote the history of business and industry.

activities

GEC Archives staff regularly provide historical information for inclusion in GEC publications and stage exhibitions on behalf of the company to promote historical interest.

The GEC Archives staff answer enquiries for private, academic and commercial researchers and, by appointment will provide guided visits for individuals and small parties. A records database of our collection is maintained to allow rapid searching in response to enquiries. We are always on the lookout for artefacts and documents related to GEC's history.

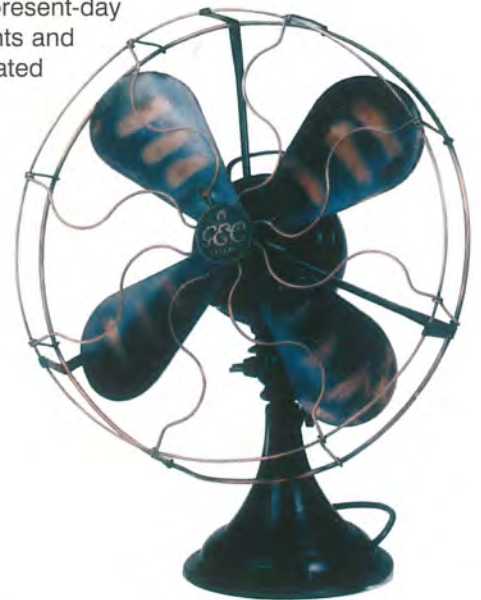




the collection

The collection encompasses a fascinating range of documents and artefacts many of which are on display. These reflect the development of GEC from its early origins, through to present-day technology. It also includes a wide range of additional documents and artefacts from the many companies that are or have been associated with GEC.

The GEC Archives also preserve close links with subsidiary companies in the UK and overseas holding related historical collections. By sharing information, we endeavour to provide co-ordinated help with historical enquiries about any part of the Company.



artefacts

domestic



From the rise of consumer enthusiasm for electricity at the turn of the century, right up to the 1960s, GEC put its name to all manner of domestic appliances. In doing so it played a vital role in re-defining the modern home and removing some of the drudgery from household chores.

The range of domestic appliances that can be seen in the artefacts collection includes examples of: lighting; heaters; cookers; refrigerators; fans; irons; hairdryers and home entertainment including radiograms, radios and TV sets.

industrial and military

Artefacts held by the GEC Archives illustrate the important developments made by GEC in the fields of defence, telecommunications and industry.

A particularly significant artefact in the collection is a Cavity Magnetron radar valve dating from 1940, the second ever to be produced. The Magnetron was a major factor in the Allies' military capability during World War II.

'Chain Home' was the name given to the UK's radar defence system during World War II, forming an arc around the British Coast. The only Chain Home Radar Tower remaining in its original form can be seen at the Marconi Research Centre. The tower was moved from its original site at Canewdon on the Essex Coast in 1956.

Other artefacts include avionics equipment, electric motors, street lamps, valves and measuring instruments.

The GEC Artefact Collection is to become the responsibility of the new charitable trust set up by GEC in conjunction with Chelmsford Borough Council and the Essex Records Office. The artefacts will be housed in a new museum to be set up in Chelmsford along with the Marconi, Elliott and Eddystone Collections.

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documents

special collections

Hugo Hirst's Personal Collection, including photographs, speeches, correspondence and press cuttings. 1880-1945

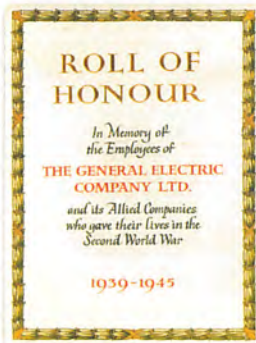
Lord Weinstock Collection

Hirst Research Centre Collection, including research reports, architectural plans, photographs and personnel records.



corporate records

Statutory corporate records form an important part of the Archives, documenting the administrative and legal history of GEC and its subsidiary companies. These records include:



Memoranda and Articles of Association; Directors' Meeting Minutes; Board Meeting Papers; Shareholders Meeting Minutes; Registers of Directors Attendance at Board and General Meetings; Annual Reports; Directors Correspondence; Registers of Directors and Secretaries; Registers of Directors' Shareholdings and Interests; Share Certificates; Registers of Mortgages and Debentures; Seal Books; Diaries; Ledgers; Company Seals; Patent Records, Legal Correspondence and Accounts.

images

The GEC Archives contain a large section of visual material, which provides a pictorial history of GEC and its roots. A large photographic archive contains images of people, premises and products throughout GEC's history.

Other images include: Paintings, including an oil painting of Hugo Hirst; framed photographs of GEC Managing Directors and Chairmen; cartoons; sketches; posters; architectural plans; maps; advertising material; technical drawings; multi-media material such as sound recordings, video and films.



archives

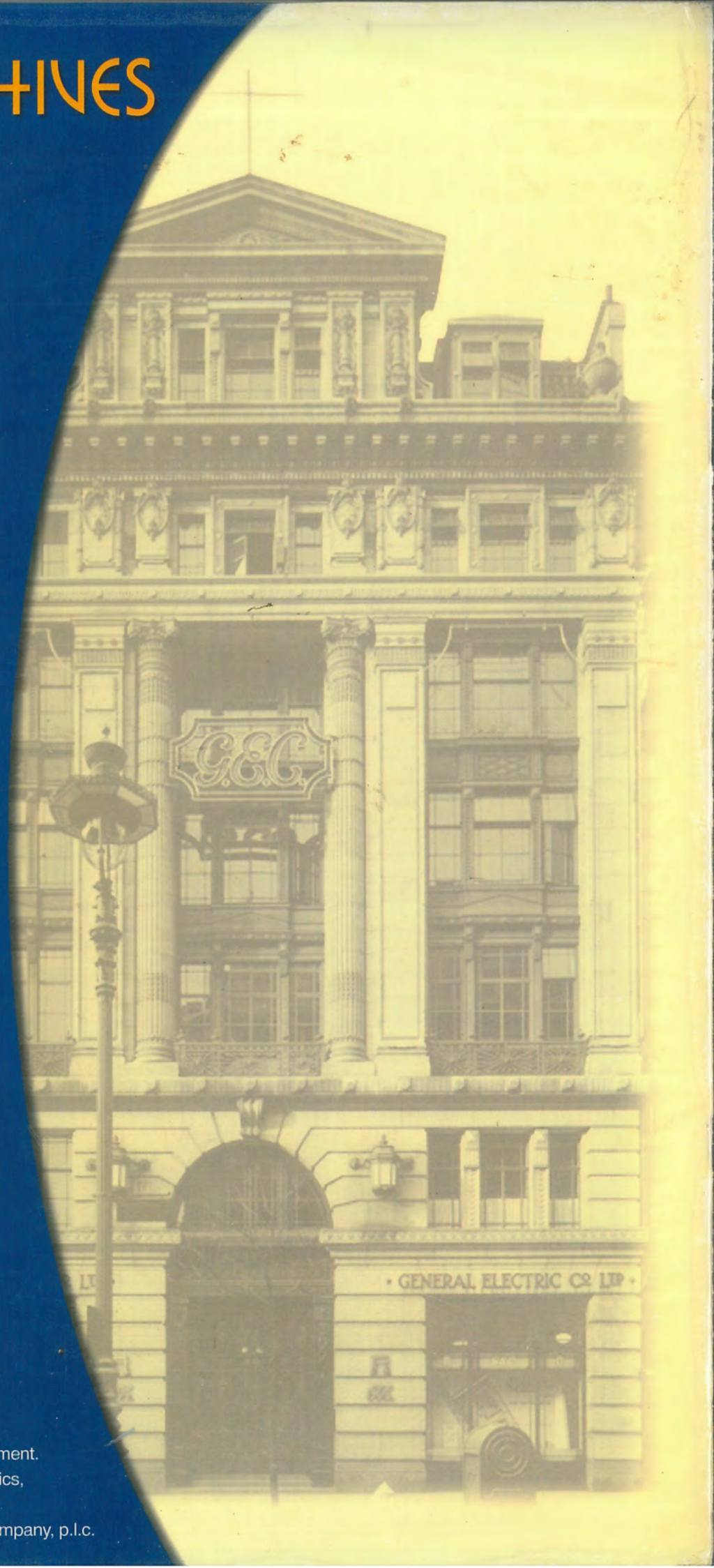
In addition to official documentation, the GEC Archives hold a wide selection of in-house company journals and newsletters; research and technical reports; site histories and plans; catalogues and product directories; press cuttings; Rolls of Honour; biographies and business awards.



The collection covers most of GEC's subsidiary companies, with substantial collections relating to: English Electric; The Marconi Company; Vulcan Foundry; Elliott Brothers; Napier; Associated Electrical Industries; British Thomson-Houston; Metropolitan-Vickers; British Westinghouse; Siemens; Ferranti; Vickers Shipbuilding and Engineering Ltd.. Fraser & Chalmers and Plessey.

GEC ARCHIVES

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