Supplement to the **HISTELECT NEWS** No. S83 April 2023

GEC HISTORY

GEC History is very a complex story so I have found out with so many amalgamations and disposals, it is quite mind-boggling. It has however enabled us to scour our archives for suitable material and of finding a few surprises. We are very fortunate to have so many GEC items in our museum, many of which are featured below.

Do you remember GEC, one of the biggest British electrical firms and still later taking over all the others. It is a surprising story!

So how did it all begin? In 1886, a German immigrant, Gustav Binswanger set up shop selling everything electrical at a site in London calling the firm General Electric Apparatus Company. He then changed his surname from Binswanger to Byng. He had a brother Max, but also took on a wealthy partner, Newgass.



Fig.1 Hugo Hirst & Gustav Byng

He also employed a fellow immigrant, Hugo Hirst, who was a keen salesman and entrepreneur travelling around Europe finding new electrical apparatus and appliances. They had established a small premises at 71 Queen Victoria Street, London, but at that time, they wanted a factory site and by chance a site in Manchester became available due to a failed firm for whom Hirst had worked. They started manufacturing telephones, electric bells, ceiling roses and switches. The next year, they renamed the company, General Electric Company. By 1889 they were becoming pretty successful and incorporated company as a private limited company and now had offices in both Manchester and Glasgow. Hirst threatened to leave but was persuaded to stay on, being offered a 20% shareholding

In 1893 a German company developed a filament lamp, they named Osram, which had succeeded in breaking the patent rights of Ediswan, by using a different filament, Osmium. Its name was formed from the name of the element osmium, and the German word Wolfram, from the element tungsten in English, which they were to use later on. In 1905 Hugo Hirst learnt of the development of Tungsten filaments for lamps in Austria-Hungary. He went to investigate and acquired rights. The German company Auer registered the trademark in Britain in April 1906, one month after it was registered in Germany, as a way of marketing its new form of filament lighting. Initially GEC imported Osram filaments lamps from Germany marketing them very successfully. In 1906/7 GEC established a factory in UK to manufacture the lamps, Osram Lamp Works. They had offered one-third shares to the Austrian and German patent holders, and so in October 1907 the Wolfram (Tungsten) Metal Filament Lamp Works Ltd was founded as a joint venture between Auer, GEC and Just & Hanaman. The rights to the OSRAM trademark in Britain were transferred to the new company, which then changed its name to the OSRAM Lamp Works Ltd. They set up a separate factory at Hammersmith to manufacture these lamps in Britain by 1909 making a fortune as Osram became very popular, outselling Ediswan lamps.



Fig.2 An Osram Lamp Box in our Museum

A new factory site was found this time in the north-east suburb of Birmingham at Witton. Over the years these works were enlarged becoming their main factory site, although they did build other factories at sites around the country. The Manchester factory had had a serious fire earlier, which completely destroyed it.

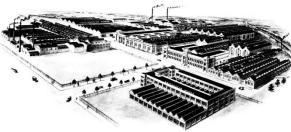


Fig.3 The GEC Factory at Witton

With the death of Gustav Byng in 1910, Hugo Hirst became both Chairman and Managing Director. Hirst's shrewd investment in lamp manufacturing proved to be very profitable. They immediately embarked on the manufacture of electrical household appliances, the first being an electric cooker.

However, it was a poor seller, being black like a gas cooker of the period and had solid hotplates which were very slow to heat up. However, with the outbreak of World Warl, they became a major company in the provision of electrical goods for the war effort, making radios, signally lamps and arc lamps.

With the death of Byng, Hirst was not alone, since a fellow German émigré, Max Railing had joined the company earlier and had risen up the management scale, which is not surprising since he was married to the sister of Hirst's wife and Railing was appointed a Director.



Fig.4 GEC's first Black Cooker on show in Bristol in 1921

The appliance market all changed in the 1920's when other manufacturers started producing similar products choosing grey vitreous enamel panels instead of black, which emphasised how much cleaner was electric cooking. Then GEC introduced their "Magnet" range of appliances, including fires and irons and washing machines, the last bought off the designer, James Cooper-Moncrieff. One notable disadvantage at the time was the absence then of thermostat control with cookers being controlled by three position switches, (low, medium & high),

with a thermometer on the front of the oven door. In 1921 they opened a new head office at Kingsway, London, it was called "Magnet House" and pioneering industrial research laboratories at Wembley in 1923.



Fig. 5 GEC's Electric Cooker in 1925 on display in our Museum

In the late 1920's, it transpired that GE of America were trying to get hold of a bigger share of Britain's electrical industry, only owning BTH. The man behind the scheming was GE's new President, Gerard Swope. He had been circling the British electrical market for some time and first managed to buy Vickers' share of Metropolitan-Vickers, with the idea of amalgamating it with BTH. This was achieved with Government approval in 1928 forming the famous brand AEI. However, the two companies were allowed to operate more or less under their respective management for many years.

Gerard Swope had already tackled Hirst, trying to get a "foot-in-the-door" of GEC, but had been rebuffed by Hirst, now being a devote British patriot. Swope carried on with

devious plots to get involved with other British electrically associated industrialists but had been warned repeatedly by Hirst.

In the 1930's GEC moved into the business of Electric Furnaces and cable manufacture being a 50:50 partner in Pirelli General Cable works. The first thermostats were used at the end of the 1930's initially on small sink heaters. That pre-war period was probably the most successful. time for the company opening branches or agencies in many countries overseas since by then they had a substantial export trade.

With the outbreak of the World War 11, they again became a major company supplying electrical goods for the war effort. The most significant items included, cavity magnetron for Radar, advances in the communication technology and mass production of lamps and lighting equipment. During the war in 1943, Hugo Hirst died and his son-in-law Leslie Gamage and Harry Railing, Max's son took over as joint Managing Directors.

It might surprise many that I joined GEC as a junior clerk in 1949 at the age of 16 in the Bristol Regional office at Lawford's Gate, since my father, Gerry Lamb was friendly with the Regional Manager, Mr Hack! I was marking time before joining SWEB as a Student Engineer a year later.

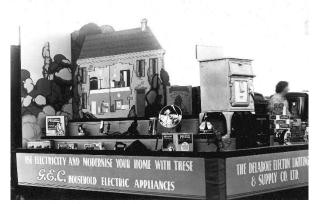


Fig.6 An Advertising Float at Delabole, Cornwall in the 1920's

Immediately after the war with Gerard Swope retired, Britain's business men began buying back the holdings held by GE of America in AEI with it becoming totally owned by investors in the UK. However, Westinghouse

still had shares in English Electric (EE) having given Lord Nelson, boss of EE, a large helping hand during the 1929 slump.

In the fifteen years after the war, GEC profits started to fall for the first time due to foreign competition and weak management. The latter was caused largely by nepotism, with first Harry Railing, brother of Max Railing taking over and then Hirst's son-in-law, Leslie Gamage following. Both these guys lacked the flair of their previous relatives.

In 1961 GEC had taken over Radio and Allied Industries, bringing with it a "new broom", Arnold Weinstock, who was the son of émigré parents from Poland. Other electrical industries were also suffering and had merged into the AEI combine of Met-Vick and BTH, adding Ediswan, Siemens UK, Hotpoint and WT Henley.

However, Weinstock was working behind the scenes with Arnold Lindley briefly as Chairman for three years succeeding Leslie Gamage. Weinstock made the headlines in the Press with sacking poor managers, so it was no surprise when he became MD in 1963.



Fig.7 Arnold Weinstock



Fig.8 A GEC 1930's Toaster in its original box on display in our Museum

Arnold Weinstock was to prove a very ruthless MD, initially moving its London Headquarters to 1 Stanhope Gate and immediately rationalised GEC to make it more efficient, and with cut-backs to make it more profitable. It was no surprise when he took over AEI in 1967, and in the following year English Electric. The last company was already a combine of merged companies such as Elliott Brothers, Marconi, Ruston & Hornsby, Stephenson, Vulcan Foundry and Willans & Robinson. After 1975 the number of companies taken over were considered, with subsidiary company holding the GEC prefix. By 1980 GEC had become Britain's largest private employer and Weinstock decided to move into the telecommunications business. He then established GEC-Plessey Telecommunications (GPT). In 1989 he then formed a new generation and transport business with the French company, Compagnie D'Electricitie (CGE) called GEC-ALSTHOM. These sort of combinations continued under Weinstock's leadership until he retired.

Weinstock had come into GEC's business via an interesting route. In 1954 he had joined his father-in-law, Michael Sobell's electronics company, Radio & Allied Industries Ltd., and in 1963 orchestrated its merger with the General Electric Company, becoming the largest shareholder of GEC. He served as a member of the board of directors from 1961 to 1963 and was managing director from 1963 to 1996, thence chairman Emeritus. He was knighted in 1970 having transformed the firm and the electricity industry in general in making it more competitive. By his retirement in 1996 he had raised the turnover of GEC from £100m in 1960 and to £11bn, an amazing achievement.

With Weinstock's retirement, the new Chief Executive George Simpson stepped into the breach and immediately took the company in a new direction. A major reorganisation was instigated aiming at high growth, high technology business, which involved many disposals and acquisitions. Once again, the London Headquarters was moved, this time to 1 Bruton Street. In 1997 he was created a life peer as Baron Simpson of Dunkeld.

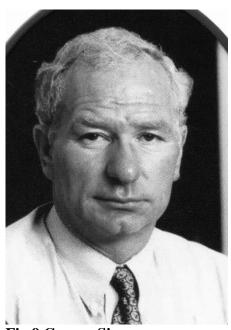


Fig.9 George Simpson

This involved the sale of Marconi Instruments and GEC-Plessy Semiconductors thus reducing the proportion of the Group that was operated under joint venture management, and increased investment in R&D and acquisitions. It was rumoured that Mr Simpson's inside knowledge of BAe was a key to his appointment so that GEC favours forging a national 'champion' defence group with BAe to compete with the giant US

organisations. 1998 GEC Alsthom was formed with association with the French company.

In 1999 the company announced that it proposed to separate Marconi Electronic Systems and merge it with BAe. However, Simpson went on to acquire technological firms in the USA, but these proved unprofitable in the end and the changes set in motion by Weinstock, and continued by his successor for short while, led to massive losses of jobs and expertise in UK manufacturing industry, and ultimately played a major part in the British electrical business demise, disappearing from many areas of high technology activity.

At that time Simpson had retained much of Marconi and managed to buy some back, as it was more successful, so GEC renamed itself Marconi plc focussing on IT and communications. The name GEC died forever as a company and all its archives ended up with Marconi. Now these have been deposited in different places as far as I can determine, including Oxford University. As for Lord Simpson, he resigned from Marconi in 2007 when they were struggling, allowing "new brooms" to step in, but to no avail. A very sad ending to Britain's highly successful electrical industry.



Bibliography

The Majority of the above detail has come from two documents in our Archives:-

- "Everything Electrical a Brief History of GEC" by 4 writers - 1999
- 2. "Anatomy of Merger a History of GEC, AEI & EE" by Robert Jones & Oliver Marriott 1970

See below for more of our GEC Museum Exhibits

EXHIBITS

No.1 GEC Magnet Bowl Fire



No.2 GEC Radiant Saucepan Heater



No.3 GEC Electric Meter



FROM THE MUSEUM

No.4 1930's Iron 15Amp 3 pin



No.5 GEC Voltmeter



No.6 GEC 15Amp Plug

