

**HADEN**

AUSTRALIA



## THE AUTHOR

Paul Yunnie relocated to Australia in 2005 after retiring from the position of Managing Director of Andrews Water Heaters, a company he co-founded 30 years ago.

Paul's interests include industrial history particularly of the HVAC industry. He has served as Vice Chairman of CIBSE's Heritage Group for 15 years, being awarded the CIBSE Silver Medal for services to the Institution, and twice served as Chairman of ASHRAE's Historic Committee. In collaboration with Brian Roberts, Paul published five books on the industry's industrial heritage: 'Quest for Comfort', 'Magic of Hot Water', 'Hagens of Trowbridge', 'HVCA @ 100' and 'Building Services Heritage'.



# ACKNOWLEDGEMENTS

It is not possible to write the history of a company like Haden Engineering without the help and assistance of many people. First and foremost my thanks to Gerard Whittaker who played a major role in the formation of Haden in Australia. Also to other past employees who have given their time, reminiscences, photographs and loaned items of interest – namely, John Arkins, Bill Chadwick, Bob Chisholm, Alan Irwin and Richard Simcock. It has also been my fortune to be able to refer to present employees – Bernard Alleck, Alan Bowles, Ken Campbell, Alan Dunn, Mark Fenton, Alf Henriques, Garth Hugo, Sue Jackson, George Komorowski, Alan Moore, Mike Palmer and Warren Young – all having been with the company for many years. Thanks to one and all for your time and interest.

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Also my thanks to those who made this project possible and recognised the value of recording the company's history, David Rafter, Richard Nicholson and Ian Barrat. Lastly my thanks are due to Joanne Bennison for her patience and assistance and Jason Brown for his valuable assistance in bringing this book to publication.

P.G.Y.

# THE BOULTON AND WATT CONNECTION, THE FOUNDATION FOR AN ENGINEERING DYNASTY

The names of Boulton and Watt are synonymous with the industrial history of Great Britain and the development of steam to power the Industrial Revolution. Matthew Boulton (1728-1809) inherited his fathers business in Birmingham and in 1756 established the famous Soho Manufactory. James Watt (1736-1819), born in Greenock, Scotland, had recognised that the early engines of Thomas Newcomen could be improved and have an increased efficiency. This was 1763 and it wasn't until 1774 that he was able to enter into a partnership with Boulton. One of the most famous partnerships in history had begun. When Boulton and Watt died their sons, Matthew Robinson and James Watt Jnr. continued the firm. The rest, as they say is 'another story'...

Our story is that of the Haden family and it was George Haden Snr. who worked at Soho in the 1780's/90's. All three of his sons, George, James and John entered employment at the engine works of Boulton and Watt. George became an engine erector and eventually was transferred to the West of England and settled in Trowbridge in the County of Wiltshire in 1814 with the principal business then being steam engines for the woollen mills. One year later, in 1816, he was joined by his brother James and they started their own business of G&J Haden – they were joined by brother John in 1824. The association with the Soho Manufactory continued until 1850 as Haden's continued to install Boulton and Watt engines in the West Country.

An interesting connection back to those early days happened in Sydney in 1984, at the City's new Powerhouse Museum. Haden Engineering were employed to provide steam, as part of a multi-services contract, for the 1785 Boulton and Watt steam engine that was being erected as one of the principal exhibits. This engine had been acquired at the time of the refurbishment of Whitbread's Brewery in the Barbican, London and shipped to Australia. And as a footnote to that, Haden Young in the UK also carried out the M&E services contract at 'The Brewery' during its transformation into a conference centre.



*1785 Boulton and Watt steam engine at the Powerhouse Museum, Sydney*



*The names of Boulton and Watt are synonymous with the industrial history of Great Britain and the development of steam to power the Industrial Revolution*

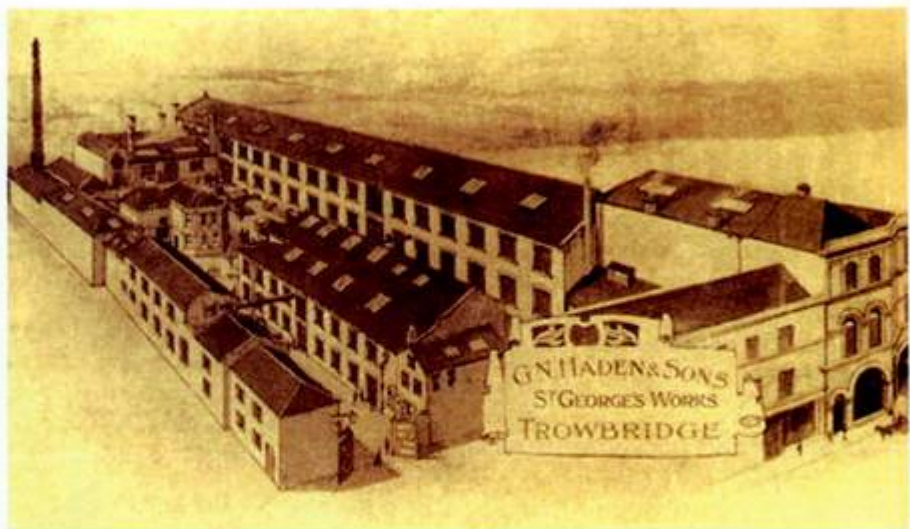


*William Murdock (Father of Gas Lighting), Mathew Boulton, James Watt.  
Statue in Centenary Square, Birmingham UK*



*Mr Boulton's manufactory at Soho near Birmingham*

'When the weather was very inclement, the most robust of my parishioners complained to me of their inability to endure the cold of the church. We got erected a ventilating stove by Mr George Haden: the consequence is our church is about as warm as my sitting room.... from about 52 to 57 degreesF.'



G.N.Haden & Son's, St George Works in Trowbridge

Reverend Peter Balfour of Clakmannan, testimonial dated 4th February 1840



An early Haden Advertisement, circa 1825



# THE HADENS OF TROWBRIDGE

## GEORGE HADEN

George Haden was born at Handsworth, near Birmingham, on 23rd July 1788. He received his education locally and at an early age worked in several of the manufactories in that neighbourhood. He developed an interest in engineering and in 1804, on his 16th birthday, secured a 5-year apprenticeship with Boulton & Watt at their Soho Works. Mr Brunton, the Manager of the engine-works, recalled that if he wanted any little matter schemed and fitted up, young Haden was generally employed upon it, for he never hesitated to work all night, and would not leave until it was completed, frequently working during three nights in a week. On completion of his apprenticeship he was employed by the firm, first at Manchester, because he was "the young man that was never tired" and then at Leeds where he erected the first gas-works to be established there. Next, he went to Glasgow for five years, where he erected steam engines for the Cranston Hill Waterworks, and installed the first pair of engines, that worked together at right angles, on board the River Clyde steamboat "Princess Charlotte". He erected many engines in Glasgow, Edinburgh and elsewhere in Scotland. It was said that he was so indefatigable and industrious that James Watt at one time doubted whether he could have been occupied so many hours as were stated. However, after examining the books, and seeing what was done each day and night, Mr Watt returned the books, paid the overtime and gave George a present to show his appreciation. One incident serves to show the active and persevering character of the man. On being sent to repair an engine, 15 miles from Glasgow, he rode over on horseback in a storm of sleet and snow. Upon removing the piston he found a leak in the bottom of the giant cylinder. As the cylinder was still too hot to stand in, he was suspended head downwards for twenty minutes, repaired the leak, started the engine, and rode back immediately to Glasgow. Returning from Scotland in 1814, he settled in Trowbridge, having been appointed by Boulton & Watt as their agent in the West of England, including the counties of Gloucestershire, Wiltshire and Somerset. He was so taken with the town that he stayed, and in 1816 set up the firm of G&J Haden, in partnership with his brother James who was paid £2 per week. The agency lasted for 34 years, during which time the company erected a great number of steam engines for the cloth-manufactories. Also in 1816, he married Ann Nelson from Handsworth. In 1817 their eldest son George Nelson was born. Tragically, Ann died on 6th August 1819, shortly after the birth of their second son, Benjamin. She was only 29 years old. Benjamin died several days later.

A natural development of the engine work was the installation of steam systems, both for process work and heating in the mills. The heating stove business seems to have been initiated by James and thereafter taken up enthusiastically by both brothers. George became a member of the Institution of Civil Engineers in 1834. In 1844, he married Christianna Hicks. Letters written by him reveal a somewhat pious nature, but he was unquestionably the more dynamic of the two brothers and seemingly by far the better business manager. Christianna died 20th July 1854 aged 70 years. When George Haden died on 29th October 1856, the firm was predominantly engaged in heating work. His obituary read, "In the decease of Mr Haden, science has lost an able engineer, society a useful member, and the poor a generous and sympathising friend."



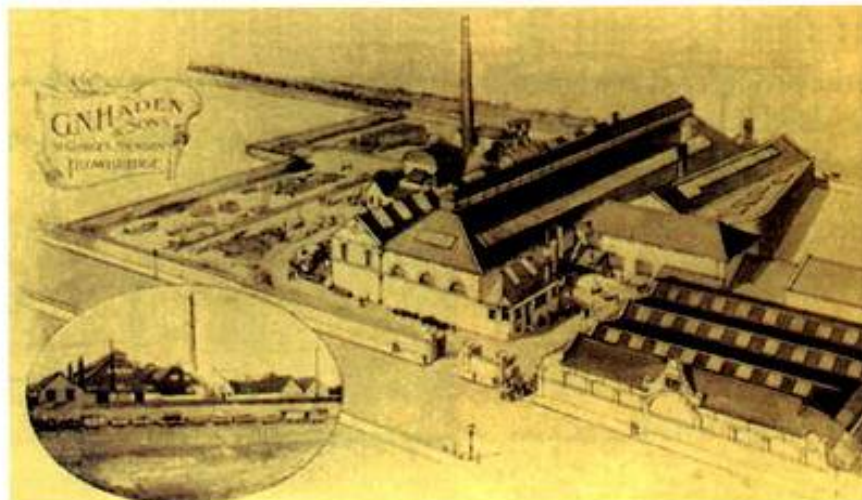
George Haden  
1788 - 1856



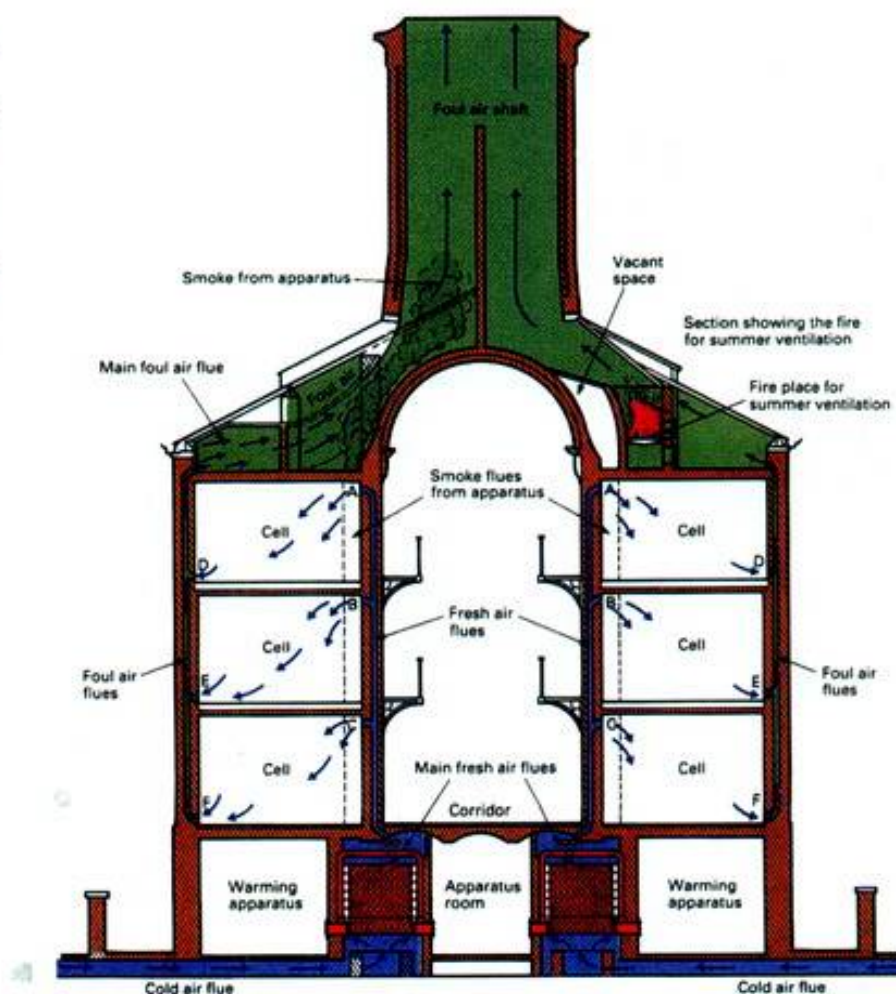
George Haden's "Scottish" Business Card

Following the installation of 'new hot water apparatus', at Pentonville Prison, London, Major Jebb of the Royal Engineers writes to Messer's, G. and J. Haden,

'...you have now completed your contract with the Commissioners of Her Majesty's Woods and Forests, for work at Pentonville; and I only do you justice in stating that everything you have undertaken has been executed in a manner which has proved your practical skill and ability and that your engagements have been fulfilled with straight-forward integrity.'



G.N. Haden & Son's, St Georges Foundry in Trowbridge



Pentonville Prison, London; circa 1844



## JAMES HADEN

James Haden was born on the 8th July 1790 at Handsworth, Birmingham. Like his brothers George and John he was employed by Boulton & Watt, and in 1804, on his 14th birthday, entered into a 7-year apprenticeship at their Soho Works, being listed as engine erector/engineer. It is known he carried out work at Soho House in 1814. His interest in heating work appears to have been fostered by Matthew Robinson Boulton, whose father died in 1809. In 1816 James went into partnership with his brother George, when G&J Haden was established in Trowbridge. The same year he attended M R Boulton's house at Great Tew in Oxfordshire "to fix up the heating apparatus." This resulted in several more orders in the district and on 1st June 1817 he wrote to George, "I have asked Mr Boulton to allow me to put up warm air stoves about here and he has given me leave." It may be that initially the Hadens were erecting another firm's stove. However, the manufacture of their own stoves in the Trowbridge Works commenced in 1819 according to their Order Books.

For the next 20 years or so James travelled the British Isles meeting prospective clients, giving them estimates for heating stoves and then fixing them or supervising their installation. His early clients were mostly the landed gentry and nobility, and his orders flowed in by personal recommendation. By 1825 his work expanded to include churches, schools and various kinds of institutions. His most prestigious warm air stove installation at this time was for His Majesty George IVth's apartments at Windsor Castle in 1826 as part of Sir Jeffry Wyatville's restoration. This was to be the first of many long-standing relationships with the major architects of the Victorian period. Where the Windsor Castle order delayed the work of other customers he delighted in writing letters of apology – "But I have been much occupied fixing stoves for His Majesty at Windsor."

The amount of work undertaken by James is amazing. A typical itinerary in November 1826 covered Trowbridge, Birmingham, Manchester, Blackburn, Preston, Carlisle and Edinburgh in 5 days, travelling by coach, often through the night. Throughout these travels he sent a constant stream of letters back to George ordering stoves and their fittings, telling what prices to quote and how much to pay certain contractors. He remained a bachelor and his letters show that he regularly sought his brother George's advice on personal, family and financial matters.

James appears to have cut down on his travelling by the 1840's. The census of 1851 shows the firm employing 83 men at the St George's Works in Silver Street, Trowbridge. James Haden decided to retire in 1855 at the age of 65 years. George died a year later in 1856. James lived until 1871 when he died on the 21st April in Trowbridge.



James Haden  
1790 - 1871

*When James Haden received an order, in 1826, for a warm air stove installation for King George IV at Windsor Castle, he was able to apologise to customers whose orders were delayed by writing*

*"But I have been much occupied fixing stoves for His Majesty at Windsor".*



George Nelson Haden  
1817 - 1892



G. Haden & Sons, business card, circa 1860

## GEORGE NELSON HADEN

George Nelson Haden, the only son of George and Ann, was born in Trowbridge on 8th March 1817 and baptised at the Tabernacle Church in Back Street on 25th April in the same year. Sadly, his mother Ann died when he was only 2 years old, and for the remainder of his childhood he was brought up by his two aunts, Sarah and Mary. Sarah was the main provider and influence during his younger years. In 1835 he is recorded as becoming a member of the Tabernacle Church. On the 30th September 1837 he married Mary Poyton in that church, the first to be held there following the passing by Parliament of the new Marriage Act. The census of 1841 finds him living with his Father and Uncle James in the Silver Street Offices of the St George's Works. George and Mary had 8 children, who were born from 1842 until 1852 but sadly only 2 survived into adulthood. Particularly tragic was the death of their eldest son, George Slade, at his school when only 10 years old. His first wife Mary died on the 22nd April in 1853 at the young age of 43 years. He then met and married Emma Louisa Batley in Bristol during the summer of 1856. She was 28 years of age and came from St Andrews in London. George and Emma had 4 children, who were born from 1857 until 1863, and all of whom survived into adulthood. By 1861 he is living with his family at Homefield House, 1 Polebarn Road, Trowbridge.

When James retired in 1855 the name of the partnership changed to George Haden and Son. Then in 1856 his Father died and he was left to run the business. By 1861 he was employing 93 men at the Silver Street Works and under him the business prospered. The Order Books show there was no shortage of work, which included not only churches and country houses, but many notable public buildings. He designed a hard labour crank and a treadmill, which were sold to prisons all over the British Isles and the Commonwealth.

His character was said to be a shade sanctimonious by today's standards, but undoubtedly he was a pillar of the church and the local community. In 1880 the teachers at the Tabernacle Sunday School presented him with a silver medal. His service spanned a total of 61 years, carrying on the tradition started by his father. He was a teacher for 20 of those years and a superintendent for the remaining 41 years. He revered his father and had a stained glass window, dedicated to his memory, erected in the Tabernacle Church. George Nelson died of influenza on the 3rd January 1892 in Trowbridge, aged 73 years. He was then head of the largest, and one of the oldest and most famous, heating and ventilating firms in the country. He had consolidated the work of his father and uncle and guided the business for over 40 years. He left it to his three sons Joseph Poynton, William Nelson and Charles Ingham. His wife Emma lived until 1901 when she died on the 9th June at the age of 73 years.

*George Nelson Haden*



## WILLIAM NELSON HADEN

William Nelson Haden was born in Trowbridge on the 10th March 1859, one of the three sons of George Nelson Haden, and was educated at Oakley House, Caversham. When George Nelson died in 1892 he left the Company to his sons. Of Joseph Poynton, the oldest, little is known and his younger brothers, William and Charles Ingham, managed the business. William was apprenticed to G.N.Haden & Son in 1875, became a Partner in 1892 and Chairman in 1919 serving until his retirement in 1933, a total of 58 years with the firm. He joined the Institution of Heating and Ventilating Engineers in 1902 and served as President in 1906 and 1907. He was Honorary Treasurer for 34 years from 1909 to 1943 and served on numerous committees. The William Nelson Haden Fund was instituted in 1943 to provide scholarships and assistance to students training in the industry. He was presented with the Gold Medal in 1942 in recognition of his valuable services rendered to the Institution. He served as President of the Association of Heating, Ventilating and Domestic Engineering Employers (now the HVCA) for 1919-20. He was also a Member of the Institution of Mechanical Engineers from 1904.

'Mr William' greatly enlarged the firm's activity in heating by air and by hot water circulation. He was an early advocate of centralised heating, hot water supplies and steam services, in very large and scattered institutions and one of the pioneers in the utilisation of exhaust steam from private generating plants in hospitals and asylums. Although the headquarters of the Company moved to London, he lived all his life in Trowbridge, Wiltshire being appointed a Justice of the Peace for Wiltshire in 1897, and then Chairman of the Trowbridge Bench from 1920 to 1936. From 1899 to 1908 he was a member of the Urban District Council and in 1928 was elected to the Wiltshire County Council.

An obituary by W W Nobbs (IHVE President 1920) recalls the encouragement given to him by "Mr William" and commented, "I think a clue to his character, in spite of his commanding position in industry and civil affairs (was that) he was most approachable and always ready to give sound advice whenever, but not until, it was sought. However momentous or contentious the occasion I never heard him raise his voice. On the contrary, the modest manner adopted in expressing his own opinion carried conviction, but behind that almost apologetic attitude was an inflexible will that would not be bent by extraneous considerations... He did not drink intoxicants himself, but as head of any table at which he was sitting he saw to it in his own unobtrusive way that whatever you fancied was on the table. One other clue to a character respected and admired by all who knew him, is that to the best of my knowledge, no one ever ventured to tell him a vulgar story." He died in London on 28 April 1946.

*William Nelson Haden*



William Nelson Haden  
1859 - 1946.



1910 St Thomas' Church, Salisbury -  
Specification of Engineers Work



*Charles Ingham Haden  
1863 - 1947*

## CHARLES INGHAM HADEN

Charles Ingham Haden was born in Trowbridge on 2nd May 1863 and he worked for the family firm for the whole of his professional career, as an apprentice from 1880-84, then as a draughtsman until he was admitted to partnership in 1892 and placed in charge of contracts. He became Joint Managing Director when the Company was incorporated in 1919 and was appointed Chairman in 1933, a position he held until his retirement in 1938, after 58 years service. His capacity for design greatly enlarged the scope of the business, many important institutions being equipped under his direction, including the new buildings at Leeds University, St Bartholomew's Hospital, St Paul's Cathedral and the new Cheltenham Town Hall. C Ingham Haden was a Member of the Institution of Heating and Ventilating Engineers from 1902, being elected President for 1910. He was elected an Associated Member of the Institution of Mechanical Engineers in 1904, transferring to Member in 1910. He held the position of President of the Association of Heating, Ventilation and Domestic Engineering Employers (now HVCA) in 1911-12. He was a Justice of the Peace for Wiltshire from 1916 and served as Chairman of the Trowbridge Bench for many years, a position he held at his death. He was also a member of the County Education Committee and Chairman of the Local Council Schools. He devoted much of his time to maintaining charitable, religious and social institutions. A cause near to his heart was the Trowbridge and District Hospital of which he was President; He died at Red Gables, Trowbridge, on 24 May 1947, at the age of 83 years.



*One of four Haden warm air stoves in St Pauls  
Cathedral, London, 1912*

*C Ingham Haden*



## GEORGE NELSON HADEN OBE

George Nelson Haden, the elder son of William Nelson Haden, was born in Trowbridge on 9th March 1900. He was educated at Mill Hill School and took his BSc at Manchester University. After experience in America with the American District Steam Company of Tonawanda, New York, and the Detroit Edison Steam Company on district heating systems, he joined G.N.Haden & Sons Ltd in 1923. He became a Director in 1924, Managing Director in 1935 and Chairman in 1938, a position he held until his retirement from the company in 1958.

He joined the Institution of Heating & Ventilating Engineers as an Associate Member in 1924, became a Member in 1925 and was elected to Council in 1932 and as President for 1938-39. He served on numerous committees and was considered one of the most outstanding members of the Institution, his services being recognised by the award of the Gold Medal in 1959. It was said that his contributions to Council discussions over a long period were particularly valuable in their wisdom and clarity of expression, serving as an inspiration to younger members. George Nelson Haden was a member of the Council of the Association of Heating, Ventilating and Domestic Engineering Employers (now HVCA) from 1935, its President from 1941-42, and Chairman of the Labour and Negotiating Committee from its first meeting in 1939 with only short breaks until 1958. It was on this latter Committee that he made many outstanding contributions. He was also a Liveryman of the Worshipful Company of Plumbers. In 1948 he was awarded the OBE. He was a member of the Council of the Institution of Mechanical Engineers from 1947 to 1957 and served on a number of committees. Education, in the widest sense, was of particular interest to George Nelson Haden and he was the IMechE nominee on the Board of Governors of the National College for Heating, Ventilating, Refrigeration and Fan Engineering at its inception. Later, the Nelson Haden Lecture Theatre at the National College was named in his memory. He was also very interested in research and was one of the early advocates and workers in the setting up of the Heating and Ventilation Research Association (now BSRIA).

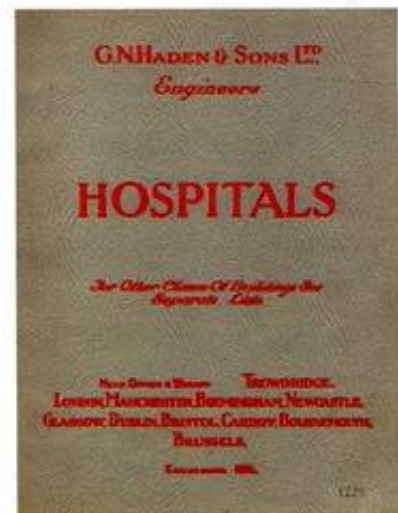
He was a member of the commission appointed in 1947 by the Ministry of Fuel and Power to visit the USA to study district heating and a member of the Egerton Committee on the Heating and Ventilation of Dwellings. He was first a Governor and then Chairman of the Board of Bedales School and, for a time, he was a Governor of University College Hospital, until ill health forced him to resign. He was described as "A man of broad vision whose personal charm evoked the loyalty and love of those who served under him." It was said, "He built well on the foundations his predecessors had laid." When Nelson Haden died on 30 July 1960, at the age of 60 years, the last link to the family firm was severed.



George Nelson Haden OBE  
1900 - 1960



The headquarters of the Hong Kong  
and Shanghai Bank, Hong Kong



An early G.N.Haden list of around 300 completed  
hospital installations.