



THE GOBLIN STORY

A short history of
companies in the
Goblin (B.V.C.)
Ltd. group.

Our cover picture, by Douglas Relf, shows
one of the Vacuum Cleaner Company's
vans of the early 1900's operating from
the street.

Foreword

Published by Goblin (B.V.C.) Ltd.
at Leatherhead, Surrey,
1969.

WE HAVE much pleasure in writing this brief introduction to "The Goblin Story" which tells something of the early history of companies within the Group and provides readers with an insight into our current industrial and commercial activities.

It is our proud boast, of course, that the inventor of the vacuum cleaner, Mr. H. Cecil Booth, was the first Chairman of our Company and the story of those early days makes fascinating reading.

While domestic appliances play an important part in the overall Goblin trading scene, the progress that has been made over the years by our other subsidiary companies is equally inspiring.

Products for which these companies are deservedly renowned are industrial vacuum cleaners, time and sound systems and, in recent years, small precision motors. We believe this diversification and an emphasis on research and development augur well for the future expansion of the Group.

In addition to outlining the history of Goblin we hope the information contained in this handbook will be of interest to our many customers and visitors.



O. D. Angell,
Chairman.



D. H. S. Johnston,
Deputy Chairman and
Managing Director.

HUBERT CECIL BOOTH.

F.C.G.I., M.I.C.E.,

(1871-1955)

Inventor of the vacuum cleaner, (see portrait opposite) was born at Gloucester. He was educated at College School, Gloucester, and at Gloucester County School.

Deciding on an engineering career, he entered the Central Technical College of the City and Guilds Institute (now the City and Guilds College) in 1889 where he took a three year course in Civil and Mechanical Engineering. Distinguishing himself in his academic studies, he obtained the Associateship of the City and Guilds Institute. He became an Associate Member and later Member of the Institution of Civil Engineers and was elected a Fellow of the City and Guilds Institute.

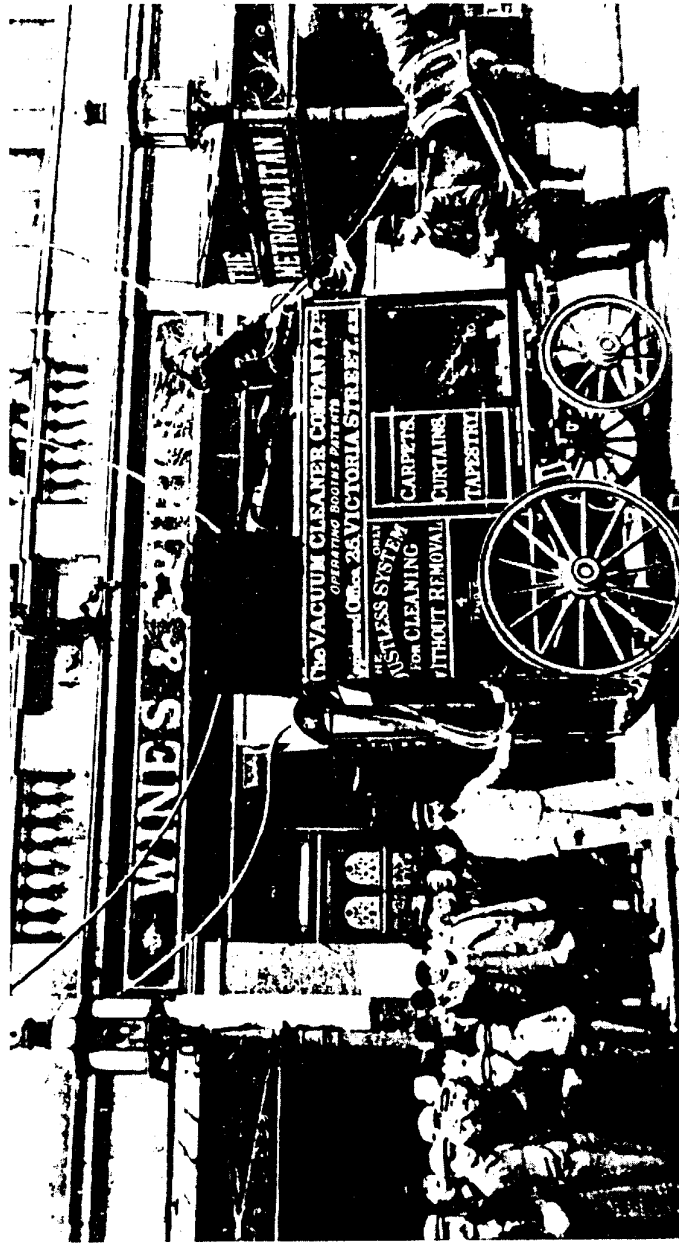
Mr. Booth's first employment was with Maudslay Sons & Field, leading marine engine builders, where he worked as a draughtsman attached to a group designing the engines for two new battleships for the Royal Navy. Later he was commissioned to design, plan and control the erection of 'Great Wheels' at Blackpool, Vienna and Paris.

Prior to inventing, perfecting and naming the first vacuum cleaner in 1901, Mr. Booth started his practice as a Consulting Engineer and in 1902-3 was in charge of erection of the Connel Ferry Bridge.

As a young man, Mr. Booth was a keen amateur boxer. He married in 1903 and had two sons.



H. Cecil Booth, F.C.G.I., M.I.C.E., Inventor of the Vacuum Cleaner, from the painting by David Jagger exhibited at the Royal Academy 1946.



One of the first vacuum cleaners on a horse drawn cart is seen here at work in a London street. Hoses can be seen running from the machine to the point of cleaning in the building behind.

The Goblin Story

VACUUM CLEANING, today an accepted part of domestic, industrial and commercial life, was unheard of at the turn of the century. Several inventors had experimented with the idea in the late 1890s but it was not until 1901 that an English consulting engineer, H. Cecil Booth, produced the first effective suction cleaner and introduced it to an unsuspecting world.

The idea that surface dust and dirt could be removed by suction had come to him a year earlier after he had attended a cleaning demonstration at St. Pancras station, London. There, he had watched attempts to blow the dirt from one side of a carriage to the other and into a grass-box-like container.

Returning home from this unsuccessful demonstration Mr. Booth wetted a piece of cloth, placed it over the arm of a chair, and using his lungs as a pair of bellows, sucked. As we know today he got a ring of dirt on the cloth and so the idea of a 'vacuum cleaner' was born.

Born at Gloucester in 1871, Mr. Booth studied civil and mechanical engineering and qualified as a construction engineer. His early working life was spent designing and erecting 'Great Wheels' including the one that for so long was a part of the Blackpool landscape. Even today one of his 'Great Wheels' is still operating in Vienna—73 years after he designed it.

At the turn of the century Mr. Booth commenced practice as a Consulting Engineer in Victoria Street, London, and designed among other things factories, roofs and bridges. In 1902 he undertook the complete control of construction of the 736-foot-long Connel Ferry Railway Bridge.

It is, however, as an inventor that Booth is best known—the inventor of the vacuum cleaner.

Having designed and built his first prototype, Mr. Booth patented his invention in 1901 and in 1902 formed The Vacuum Cleaner Company Limited (the Company today known as Goblin (B.V.C.) Limited) to manufacture and sell the invention. It should be remembered that Mr. Booth was not only responsible for inventing the vacuum cleaning process but also for coining the words 'Vacuum Cleaner' which first appeared in print on 25th February, 1902, in the new Company's prospectus.

The first cleaner produced by the new Company was rather an unwieldy machine measuring 4ft 6in high, 4ft 10in long, and 3ft 6in wide and costing anything up to £350.

Painted bright red and driven by a five horse-power piston engine this first vacuum cleaner was carried through the streets of London on a horse-drawn cart which was parked outside the building to be cleaned and the hoses taken into the building by the operators wearing white drill suits.

The cleaning powers of the new machine were quickly recognised and Mr. Booth was invited to clean the Coronation carpet in Westminster Abbey before the crowning of King Edward VII and Queen Alexandra.

DEMONSTRATION AT THE PALACE

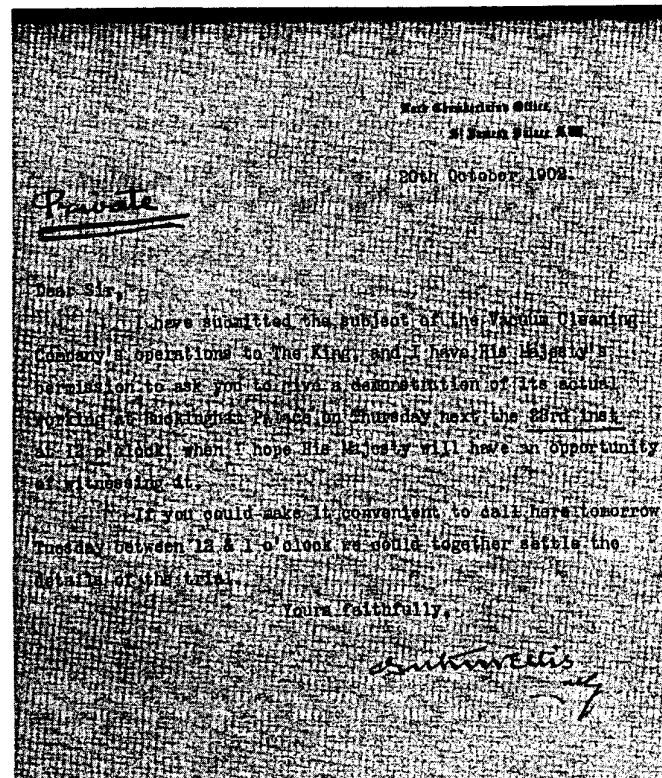
So impressed by this demonstration was the Royal Household that the Lord Chamberlain, on the instruction of the King and Queen, wrote to Mr. Booth on 20th October, 1902, requesting him to carry out a demonstration in the presence of their Majesties at Buckingham Palace.

That letter read: "I have submitted the subject of the Vacuum Cleaning Company's operations to the King and I have His Majesty's permission to ask you to give a demonstration of its actual working at Buckingham Palace when I hope His Majesty will have an opportunity of witnessing it".

Three days after receiving this letter Mr. Booth went to Buckingham Palace and demonstrated his invention to the King and Queen. So successful was the demonstration that the first two vacuum cleaners sold anywhere in the world went to Buckingham Palace and Windsor Castle. Later the Company was given the Royal Warrant of Appointment to His Majesty.

Demonstrations to other heads of state followed as did invitations from London's society hostesses who organised tea parties at which the new invention was put through its paces.

In 1903 Mr. Booth was granted world patent rights for his invention and so started a long round of legal battles as would-be competitors attempted to cash in on his invention.



The letter from the Lord Chamberlain's Office.

On 4th March, 1912, eight years after the first action, when the validity of Booth's patent was upheld in the House of Lords, Lord Shaw of Dunfermline said: "It is admitted that under the patent the extraction is satisfactory and thorough, and that while other persons have been attempting to solve the problem of the complete removal of dust from articles like carpets remaining in situ, all such attempts have substantially failed."

Mr. Booth won his actions and was granted his full costs and substantial damages against the infringement of his patent rights.

From its formation the Company was alive to the need to 'sell' the principle of vacuum cleaning to the public. To achieve this objective Mr. Booth not only commissioned an eminent artist of the day, Mr. John Hassall, to design a poster to advertise the Company, but also fitted some of his cleaners with transparent hoses so that people could see the dirt being sucked away.



A cleaning demonstration at a London society tea party.

The first poster, however, was not a success. It showed a terrified maid running from a cleaner with the caption 'Help!' and thus created the impression that the new invention was an enemy rather than a friend. This psychological error was soon corrected and a second poster was designed showing a happy smiling maid with her arm around the cleaner and the caption reading 'Friends'—just what the modern vacuum cleaner is to more than 80 per cent of Britain's housewives.

The success of the invention and the selling techniques adopted by Mr. Booth brought orders for fixed cleaning plants from the Houses of Parliament (1904), the Savoy Hotel, London, the Midland Hotel, Manchester, and the Adelphi Hotel, Liverpool, as well as five or six London theatres including the Empire, Leicester Square, and the Gaiety.

These and other orders kept the new Company working to the limit and soon licences were issued to provincial companies to manufacture Mr. Booth's patent.

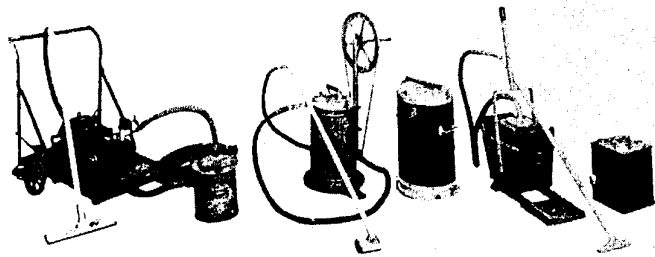
As the public began to accept the new invention and recognise its benefits to health and cleanliness so grew a demand for portable cleaners and in 1904 Mr. Booth produced the world's first portable vacuum cleaner.

It must be remembered that at this time very few homes had electricity so the early portable machines had to be hand operated. The portable cleaner produced by the Company during this period

Right, the poster that created the impression of an enemy rather than a friend.



Left, this poster struck a happier note!



A collection of early vacuum cleaners.

was operated by two people. One maid pumped the bellows to create the suction and a second maid operated the cleaning tool.

It was also at this time that the Vacuum Cleaner Company was asked to give a demonstration at the Royal Mint. Mr. Booth took one of his mobile power operated cleaners to the birthplace of Britain's coinage and put his machine through its paces. As he returned to his Lambeth premises via Tower Bridge he was stopped by the police and ordered to return to the Mint. He had, apparently, left without emptying the dustbag which, because of the excellent cleaning job he had done, contained a fair amount of gold dust.



One of the vans, with white coated crew, which operated from Fulham.

Early in these development years two important steps were taken. One involved the formation in 1903 of The British Vacuum Cleaner Co. Ltd., to continue the business of the original company, and the obtaining of a public quotation on the Stock Exchange. The second was the extension of the vacuum cleaning principle into industry.

The first industrial plant, for boiler flue cleaning, was installed at the London factory of Messrs. Tate and Lyle. Other applications followed and by the beginning of the First World War the principle of vacuum cleaning had become an accepted industrial process.

In 1908 the first Daily Mail Ideal Home Exhibition was organised and Mr. Booth, recognising the value of such an event in the selling of his invention, became an exhibitor. At every Ideal Home Exhibition held since, the Company has had a stand. This fact was recognised in 1968 when the Company's present Managing Director, Mr. D. H. S. Johnston, was presented to Her Majesty Queen Elizabeth II after she had opened the Diamond Jubilee Exhibition.

During the 1914-18 war Mr. Booth, who in 1912 had been elected Chairman of the Company, adapted his vacuum cleaner to deal with high explosive dust, including T.N.T. and fulminate of mercury, to save workmen from injury to health and risk of explosion.

355,500,000 LIVING ORGANISMS

The real value to health of the new invention was made apparent when Professor Stanley Kent of the Clinical and Bacteriological Department, University of Bristol, carried out research on dust taken from Marlborough House at the request of the Princess of Wales. More than 355,500,000 living organisms were found in one gramme of dust—a good many of which were potentially lethal.

A similar test was done on dust taken from the carpets lining the corridors of the House of Commons and here it was discovered that 15 million living organisms were present in a similar amount of dust.

During the First World War there was a serious outbreak of spotted fever amongst a company of the Royal Navy Volunteer Reserve stationed at Crystal Palace and Mr. Booth and his vacuum cleaner were called in. When the cleaning task had been completed more than 23 tons of dust had been removed from the Palace and buried—and the health of the men improved at once, all conventional attempts to control the epidemic having failed.

The health advantages of the new cleaning system were recognised by the Royal Sanitary Institute who presented the Company with the Rogers Field Gold Medal.



Mr. D. H. S. Johnston is presented to Queen Elizabeth II at the Diamond Jubilee Ideal Home Exhibition.

Earlier, in 1910, the Company had been awarded the Gold Medal and Diploma of Honour at the Brussels Exhibition.

With the return of peace the use of electricity in the home spread rapidly and the expansion of the Company followed suit.

It produced its first upright outside bag model in 1921 to be followed some years later by the first cylinder model, called the

Turbinet.

The trade name 'Goblin' for domestic vacuum cleaners was adopted in 1926 and during the next five to six years, the Company developed a wide range of cleaners including the famous 'Wizard'. With the success of this machine the price of the Company's shares rocketed on the stock market.

It was during this era that the door to door salesman had his heyday. At one stage the Company was employing more than 2,000 men to carry out this form of merchandising but today direct selling has no place in the Company's marketing operations.

In 1930 the estimated domestic market for vacuum cleaners was in the region of 200,000 a year but by the time the Second World War started in September, 1939, this figure had been doubled.

The Company was going from strength to strength and it quickly established sales and service branches all over Britain.

The 1930s also saw the start of the hire purchase boom and the Company's first steps in diversification. New selling lines were introduced—washing machines, electric clocks and the now famous "Teasmade".

TIME COMPANY ACQUIRED

In April, 1938 the organisation moved its headquarters out of London to Leatherhead, Surrey, and in order to extend the range of products acquired the Magneta Time Company Limited of Westminster—the Company now known as Magneta (B.V.C.) Ltd.

This Company was established in the 1890s, developing a non-battery master clock system using spring-wound or weight-driven master clock generating impulses in their own magnetos to drive 'slave' clocks.

With Europe plunged into war again for the second time in three decades the Company turned to manufacturing war materials. The Leatherhead factory made fuses and ignitors for shells, breech blocks and firing mechanisms. Other war products included aircraft landing lamp motors, clocks for mines, recording instruments for testing torpedoes, radar equipment, and mine sinkers.

Apart from this war work B.V.C. were also engaged in manufacturing and installing an increasing number of plants for dust control in Ordnance Factories, a large number of which were shipped overseas to War Office controlled factories.

In 1943 a factory was set up at Bangor, Northern Ireland, producing incendiary bullets.

THE BRITISH VACUUM CLEANER COMPANY, Ltd., London, S.W.

What we meet in Daily Life ! ! !

INDUSTRIAL DUST.

From Professor STANLEY KENT,

No. 1.
REPORT.

"The Clinical & Bacteriological Research Laboratory,
"University College, Bristol.

"To THE VACUUM CLEANER Co., Ltd.,
"25, Victoria Street, S.W.

"Sample of dust submitted by you.

"The total number of organisms present in:—

" One gramme of dust =	355,565,200
" One ounce "	9,856,385,740
" One pound "	157,696,171,840

"The following organisms have been isolated
"from the specimen of dust supplied:—

- "PROTEUS VULGARIS, and other forms of Proteus.
- "BACILLUS SUBTILIS.
- "STREPTOCOCCUS (several forms).
- "STAPHYLOCOCCUS PYOGENES AUREUS.
- "STAPHYLOCOCCUS PYOGENES ALBUS.
- "DIPLOCOCCUS (several forms).
- "SARCINA FLAVA.
- "MICROCOCCUS TETRAGENUS.
- "MICROCOCCUS PRODIGIOSUS.

"An organism morphologically indistinguishable from the DIPHTHERIA bacillus of Klebs and Loeffler.

"Moulds:—

"MUCOR MUCEDO. "PENICILLIUM GLAUCUM.
"A RED YEAST.

"(Signed) A. F. STANLEY KENT."

The above organisms include, among others,
DIPHTHERIA.

A SPECIAL REPORT was made by Professor STANLEY KENT
of the Dust extracted from MARLBOROUGH HOUSE during
the work there, by Special Order of H.R.H. The PRINCESS
OF WALES, and submitted by the Directors to H.R.H.

The accent of the Company's activities before the war had been on cleaning. Now, with Magneta on the one hand and a whole new range of uses for vacuum equipment on the other, a major diversification programme was started.

In 1945 a factory at Broxburn, Scotland, was leased and equipped to manufacture washing machines. A new subsidiary, now known as B.V.C. Engineering Ltd., was formed to handle a growing business in industrial vacuum cleaning units and pneumatic, hydraulic and mechanical handling.

The war-time operations of the Northern Ireland factory had proved successful and it was decided to continue manufacture there but in new and larger premises at Castlereagh, Belfast. The decision was implemented and in June, 1967 the Rt. Hon. Captain Terence O'Neill, Prime Minister of Ulster, opened a major extension to this factory where the well-known Goblin "Teasmade" is now made.

CROSS INFECTION REDUCED

Coupled with this expansion programme has been the discovery of new uses for industrial vacuum cleaning processes. These have included the removal of soot brushed from chimneys, the reclamation of gold and platinum used in manufacture, flux recovery in welding, the collection of swarf and the reduction in the chance of cross infection in hospitals.

The same principles have been adapted by B.V.C. Engineering for many 'blowing' uses—for conveying seeds, meals and cement; for the movement of soil and effluent; for boosting gas pressures and for aeration.

Hand in hand with this development went Group expansion and two new subsidiary companies were formed. A sales company was established in South Africa while at home B.V.C. Electronic Developments was set up.

The Company celebrated its 50th anniversary and Mr. Booth his 80th birthday in 1951. A combined party was held at the Savoy Hotel, London, to celebrate these two occasions. On Mr. Booth's retirement in 1952 Mr. J. J. Hambidge, the then Managing Director, was elected Chairman and Managing Director of the Company.

Mr. Hambidge died in December 1957 and in January of the following year Mr. O. D. Angell was appointed Chairman and Mr. Muir Johnston, Managing Director.

An order was placed with the Company in 1954 for a mobile industrial cleaning plant for the Royal Yacht Britannia. Similar plants can today be found in many ocean going liners and oil tankers.



One of the giant mobile vacuum cleaners.

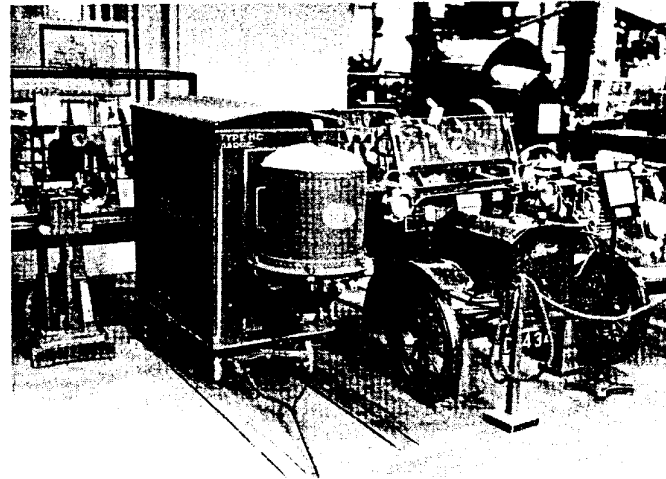
Many large tonnage passenger vessels such as the Queen Elizabeth 2, the Canberra, Iberia, and Arcadia are fitted with the Company's fixed cleaning systems to deal with the many varied cleaning requirements from the boiler room plant to the funnel top. Vessels of other countries have also adopted this method of ship cleaning.

The year 1955 saw the passing of another milestone in the Company's history when they produced for Dorman Long the biggest mobile vacuum cleaner in the world—a giant, weighing 13½ tons.

So successful was this plant that similar units were built with modifications to meet the demands of the National Coal Board who transported this mammoth plant on a trailer around the Midlands to deal with boiler cleaning problems while the Steel Company of Wales had two units.

This was also a sad year for the Company as it marked the death of the Group's founder, Mr. Booth. The world's Press paid generous tribute to him and a memorial service was held in Leatherhead Parish Church. Before the year was out a second blow was to strike the Company—the death of Mr. Booth's brother, Mr. Seymour Booth, who for many years had been the industrial section's able Technical Director.

With the Group's export business expanding a subsidiary company was formed in Germany.

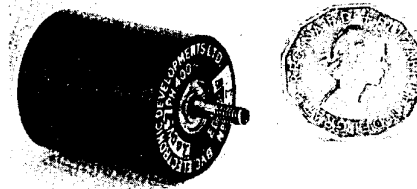


An honoured place was given to Mr. Booth's invention in the Science Museum.

At the 1958 Brussels Exhibition the Company won three silver medals for domestic and portable vacuum cleaners and for time and sound equipment. The Science Museum asked for and received Mr. Booth's original vacuum cleaner and this British 'first' now forms part of their collection of great British inventions. The Magneta non-battery Master Clock and the M-16 Time Recorder are also on display in the museum.

A major re-organisation of the Group was carried out in 1959 and the name of the holding Company was changed to Goblin (B.V.C.) Ltd. By this time the Group's range of products had been expanded to include specialised miniature electric motors—some are being used in the Concorde—and industrial floor polishers and scrubbers.

One of B.V.C. Electronic Developments' miniature motors compared with a three-penny piece.

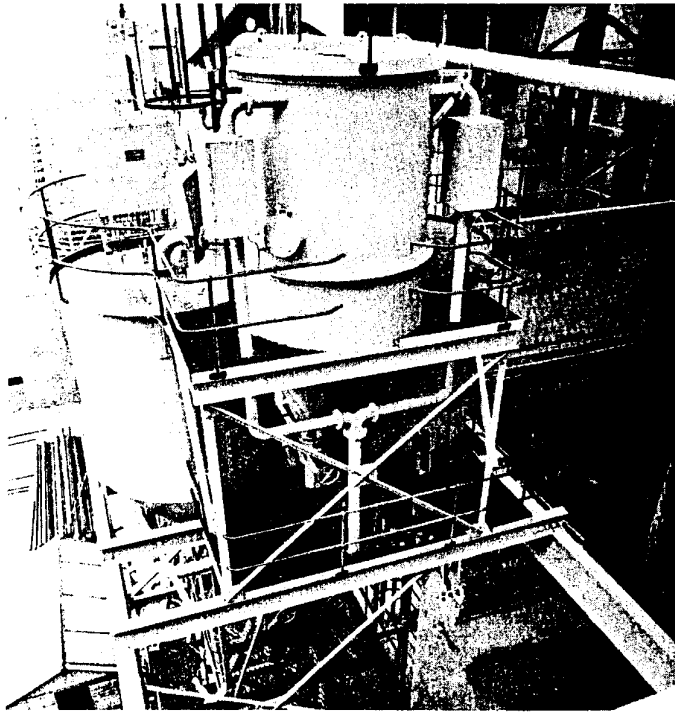


The start of the 1960s saw the acquisition of a Yorkshire washing machine manufacturer—W. & S. Summerscales Limited of Keighley, now known as Goblin (Keighley) Limited. The washing machines were phased out of production at Keighley and Broxburn and the remainder of the Scottish factory's work was transferred to the Yorkshire base.

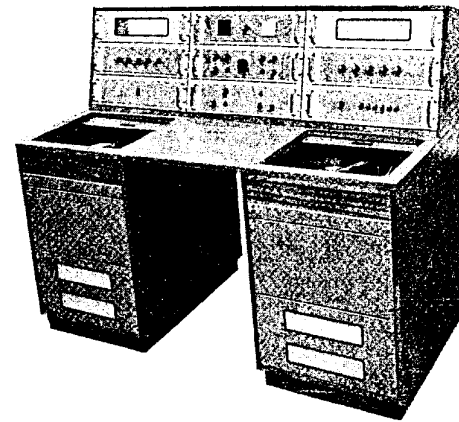
This was a period of stiff competition and changing market trends and the moves to streamline production taken by the Group clearly demonstrated its versatility and ability to keep abreast of these changes.

The installation of a fixed vacuumation unit in the Middlesex Hospital, London, in 1961 heralded a new breakthrough in the medical field for the Company.

The system, a most extensive one, drew visitors from hospital authorities all over the world which resulted in a steady increase in this type of work for hospitals in many parts of the country and overseas.



A central vacuumation system at Kincardine Power Station.



Magneta (B.V.C.) Ltd. offers a wide range of sound equipment for clubs, including this twin turntable console for discotheque use.

The development of new applications for the vacuumation process continued unabated at the Leatherhead works and a system for handling irradiated dust at atomic energy plants was devised as, too, were plants for the pneumatic conveying of nylon stockings and other textile selvage collection in the manufacture of stockings and garments.

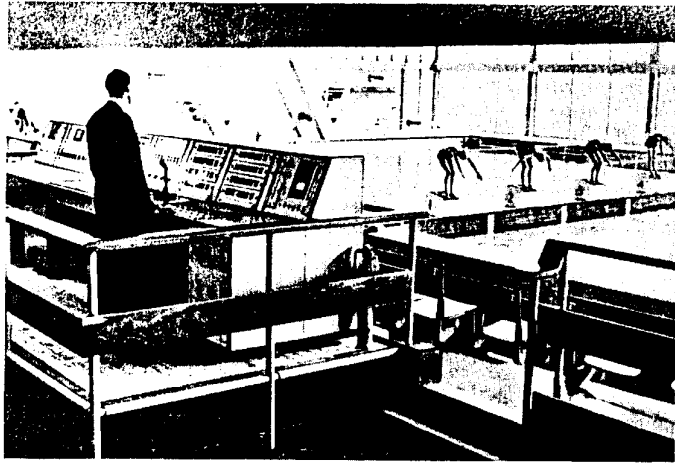
A built-in vacuum cleaning plant for the home (which the Company had supplied in other forms for industry and commerce since its earliest days) was designed to lead the present day domestic market, while during the same period a unit for disabled persons to clean a house from a wheelchair was developed. The range of the Group's products was increasing all the time during the early 1960s for both the industrial and consumer markets.

In 1964 the Company was given a contract for a third vacuum cleaning installation for the House of Lords to complete the system previously provided in the Palace of Westminster in two earlier stages in 1924 and 1954.

Mr. Muir Johnston remained Managing Director of Goblin (B.V.C.) Ltd. until his retirement in 1965 when he was succeeded by Mr. David Johnston.

Opportunities to install the Company's industrial plant for pneumatic conveying of materials by blowing and varied applications for blowers have been incorporated in the activities of the Company.

No less impressive in the Group's range of products are the time and sound units manufactured and marketed by Magneta at Fulham. This company has supplied custom built sound equipment



The audio system which Magneta (B.V.C.) Ltd. supplied for the swimming pool area of the National Recreation Centre at Crystal Palace.

for many well known public buildings and centres including the Crystal Palace. Particularly valuable from the point of view of prestige are the units which have been installed in nationally famous museums and art galleries. These can detect the slightest whisper of an intruder and details must, for obvious reasons, remain on the secret list!

Research and development of new products continues today at Leatherhead and other centres as it has done in all the Goblin factories since H. Cecil Booth first formed the Company in 1901.

In the field of exports, so important to the country's economy, the Company has built up a steady business in certain products from a diversified range, notably "Teasmades" and the heavier type of vacuumation plant. There is, however, room for expansion here and no effort is being spared to make further progress.

In the modern world of stiff commercial competition, diversification has therefore put Goblin in an extremely sound position for an active and successful future.

Magneta (B.V.C.) sound equipment in use at the London Playboy Club.



THE GOBLIN GROUP OF COMPANIES

Goblin (B.V.C.) Limited

The holding company and principal manufacturing company for the Group, with factories at Leatherhead and Fulham. Manufacturing is also carried out at Belfast and Keighley by the subsidiary companies B.V.C. Industries (N.I.) Limited and Goblin (Keighley) Limited.

Sales Companies

Goblin Electric Appliances Limited (at Leatherhead)

Domestic vacuum cleaners and "Teasmades".

B.V.C. Engineering Limited (at Leatherhead)

Handles the sales of industrial, portable and mobile vacuum cleaners, fixed plant and installations, pneumatic conveying systems, other associated dust extraction plants, floor maintenance equipment and special purpose suction plants. Also blowers for industrial applications, including bulk handling of materials by pneumatic conveying, treatment of sewage, gas boosting, aeration and other uses where oil-free air is essential.

Magneta (B.V.C.) Limited (at Fulham)

Time recorders, master clock systems, job costers, public address systems, background and bedside music systems. Fire alarms with electronic warning system sounding through loudspeakers and electronic security systems.

B.V.C. Electronic Developments Limited (at Leatherhead)

Miniature high frequency motors for the electronics industry, airborne electrical equipment, precision motors.

Overseas Sales Companies

These Companies handle the sales and servicing of all types of vacuum cleaning and pneumatic plants.

B.V.C. Staubtechnik G.m.b.h., Germany.

B.V.C. Vacuumation (Pty) Ltd., Republic of South Africa.