

## F. H. Lloyd & Company Limited

The Darlaston based Bills & Mills steelworks at The Green were purchased by the Lloyd family for a quarter of a million pounds when its owner Samuel Mills retired.



Charging a blast furnace.

Mr. Sampson Lloyd of Wassel Grove, Stourbridge became company Chairman and Mr. Francis Lloyd Managing Director.

The name was changed to the Darlaston Iron & Steel Company and rapidly expanded.

The number of puddling furnaces grew to 43 with 17 reheating furnaces, 8 rolling mills, a drawing-out forge, 63 steam engines, including the three 70h.p. blast engines for the blast furnaces, and rails were laid to all parts of the works.

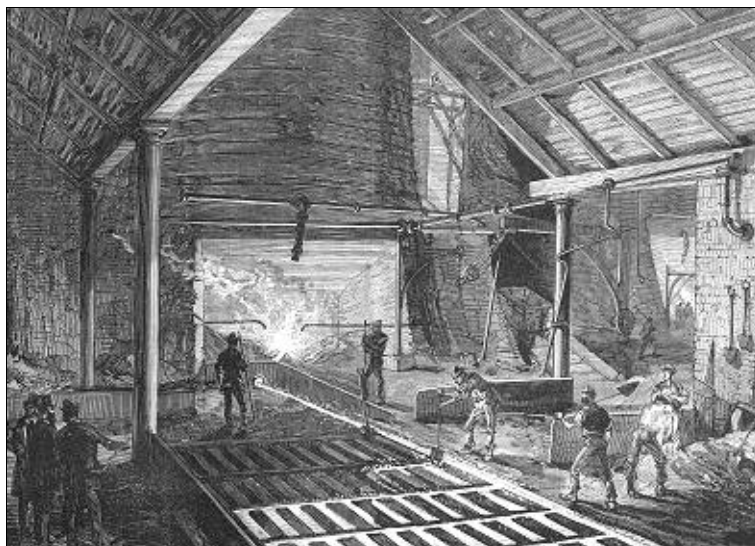
The company's collieries and mines, mining a 12 yards thick seam, covered 850 acres, 350 of which were freehold and 500 leasehold. Some of the seams produced what was called "Brooch" coal and others "Heathen" coal. The company survived until the depression in the 1880's. After the closure, Francis Lloyd brought a disused timber yard at James Bridge, and established a small foundry which eventually became F. H. Lloyd's James Bridge Steel Works.

By 1887 the company was producing steel and had a foundry and a tilting machine for drawing out steel and for making steel forgings.

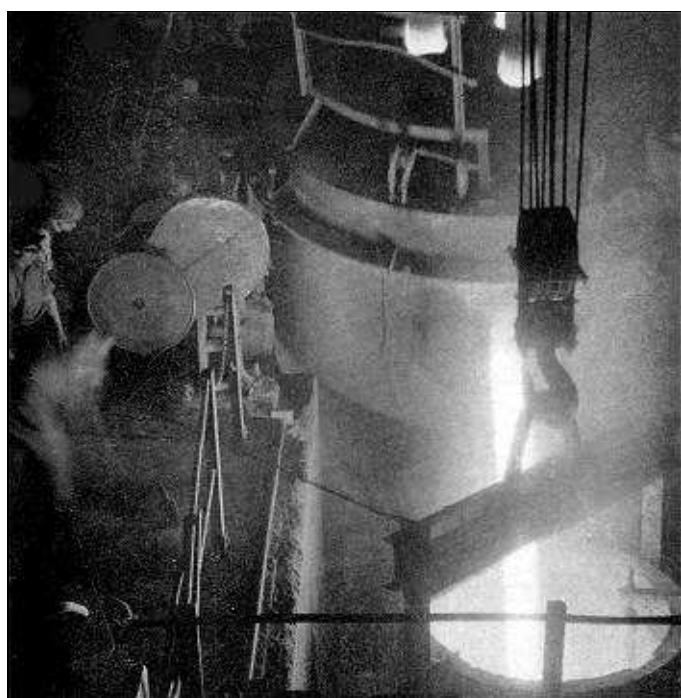


**Read an illustrated article about F. H. Lloyd & Co. Ltd. from the "South Staffordshire Institutions and Trades Illustrated" of about 1900.**

The business was extremely successful and a foundry for producing small castings was added in 1909. By 1912 the works produced 2,000 tons of steel castings and forgings each year, and during the 1914-18 war, production concentrated on cast steel shells. After the depression of the late 1920s production greatly increased with over 13,000 tons of steel products being produced annually. Their success was no doubt helped by the excellent management-employee relations that always prevailed at the works.



Tapping a furnace to produce pig iron.



Tapping an electric arc furnace at F. H. Lloyds.

In the early 1930s the company started to produce heavy castings for mechanical excavators and earth-moving machines for an engineering firm in Lincoln.

The company's staff magazine "The Steel Casting" appeared in 1938, around the same time as many operations in the factory were reorganised.

Mr. A. B. Lloyd made an exploratory visit to America to discover how large American engineering companies were organised. He visited Bucyrus Erie Company, manufacturers of surface, and underground mining equipment, including steam shovels, draglines, hydraulic excavators, and mining trucks. He also talked to engineering consultants.

On his return to Wednesbury he carried out a preliminary survey of operations at the works, and appointed a firm of engineering consultants to produce a plan to make the factory operate more efficiently.

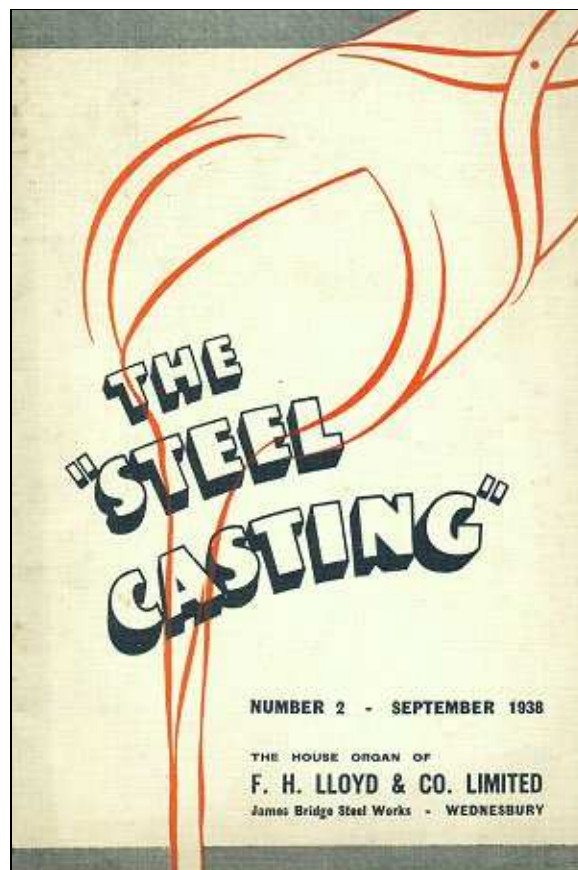
The consultants began their investigation on April 1st, 1938, which resulted in the formation of a central production department to take responsibility for the coordination of production throughout the works.

A standards department was also created to oversee and standardise production times. Internal order forms were redesigned, and a printing machine was installed to print them.

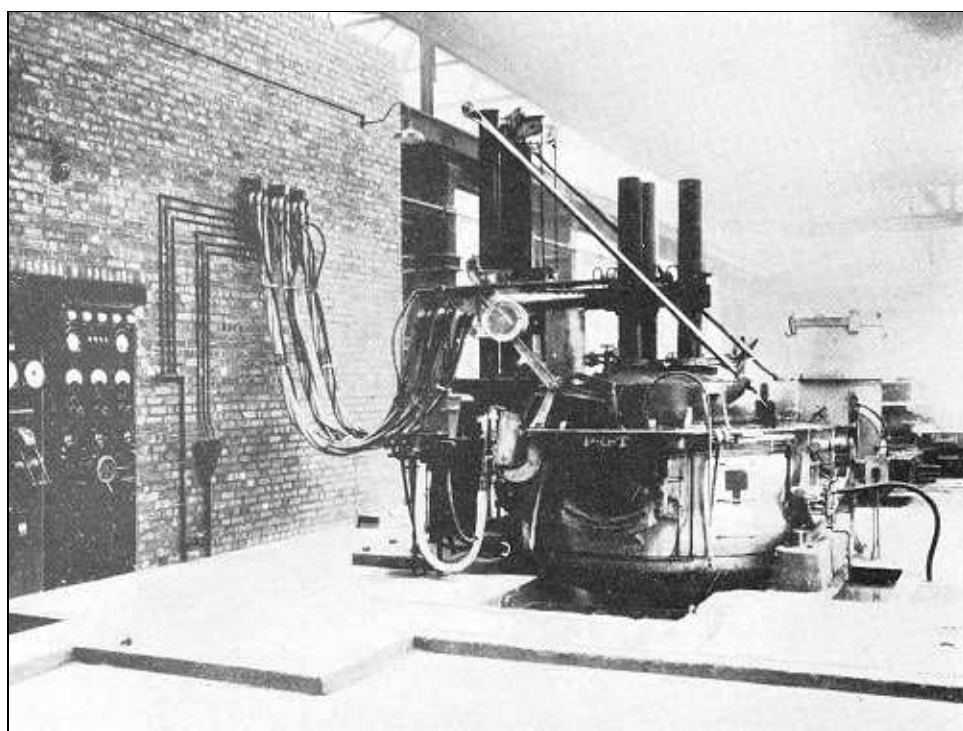
Before the reorganisation, productive effort was measured by tonnage produced, which was misleading due to the increased use of intricate steel castings with lighter sections.

Under the new scheme, man hours were taken into account when considering the efficiency and output of each department.

The reorganisation ensured that every department was kept fully employed without congestion, and an improved standard of service was given to customers.



The staff magazine.



The electric furnace, charging bucket and control board.

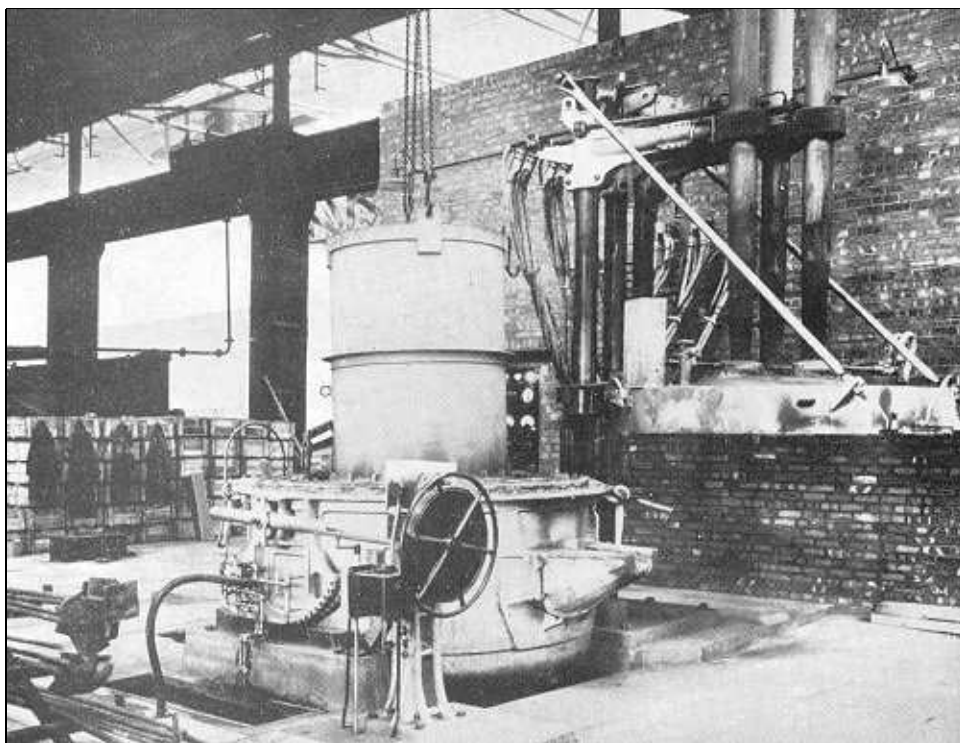
In 1938 a new electric arc furnace was installed to increase the steel-making capacity at the works.

The company's first electric furnace, acquired for experimental purposes was acquired by Mr. D. C. Lloyd in 1914. The 5 cwt. furnace proved to be uneconomical due to high running costs.

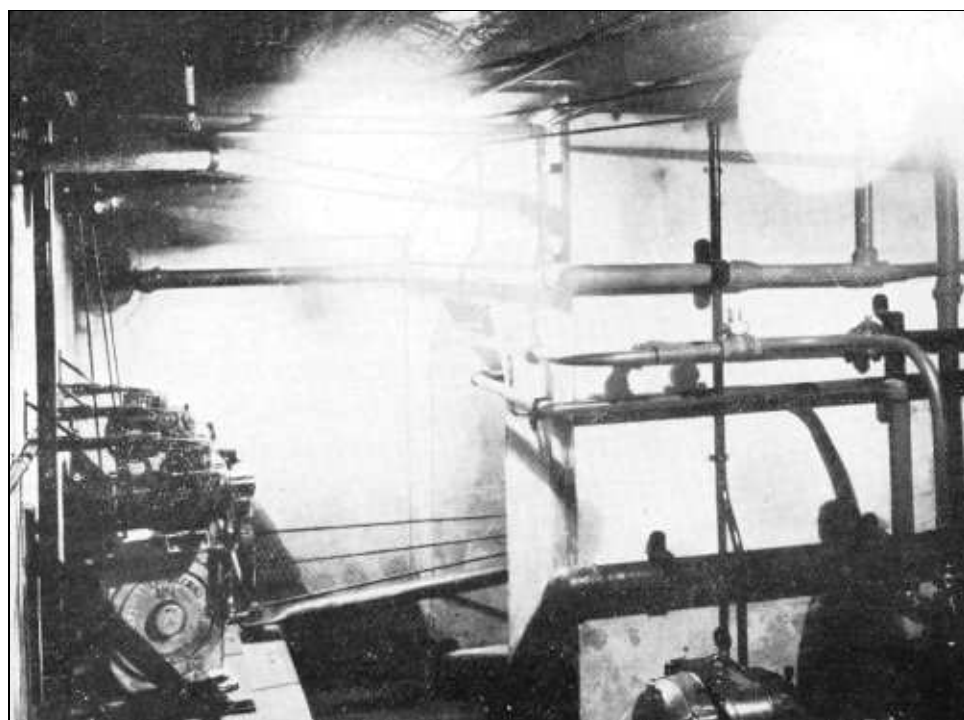
By the late 1930s the advent of the national grid and cheaper electricity, together with improvements in furnace design and operation, made an electric furnace a practicality.

The direct arc furnace had a capacity of 4 to 5 tons and was supplied by Birmingham Electric Furnaces Limited, which had the manufacturing rights for the Moore Rapid Lectromelt Furnace, made by the Pittsburgh Lectromelt Furnace Corporation of America.

The installation went well. Within 14 weeks of the initial order the furnace was in operation. The furnace was charged by a swing roof, actuated by a hydraulic ram, which also swung the electrode gear. The steel scrap used to charge the furnace was loaded into a bucket with drop-bottom doors, secured with a hemp rope.



The bucket is swung into position in readiness for charging.



The winch motors controlling the electrodes.

After lowering the bucket into the furnace, the rope quickly burnt away, allowing the scrap to fall. The whole charging operation only took a few minutes.

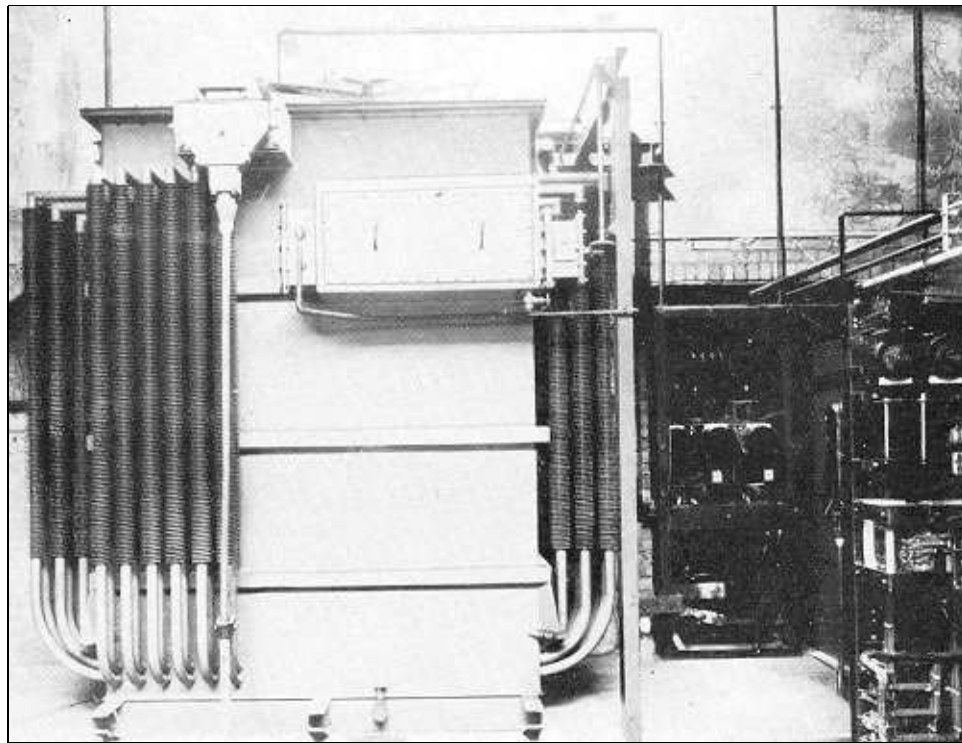
The roof, the body of the furnace, the electrode holders, the doors, and all metal parts exposed to heat were water-cooled.

The hearth was lined with refractory material to remove as much sulphur and phosphorus from the charge as possible.

The 7,000 volt supply that fed the furnace sub-station was stepped down by an oil-filled transformer with a tapped secondary winding supplying up to 215 volts to the furnace.

The charge was heated by the current flowing through the graphite electrodes, arcing across the gap between the electrodes and the charge.

The gap had to be precisely maintained to supply the correct amount of heat.



The transformer and automatic electrode control.

This was accomplished by a Westinghouse automatic regulator which operated each electrode independently through a winch and motor to lower or raise the electrodes and maintain a steady operating current. The average time taken from charging to tapping was about three hours, giving an output of one ton per hour. The furnace was mainly used for the production of carbon steels, but also for the alloy steels which were being developed at the factory.



The machine shop.

In 1938 the company opened Lloyds (Burton) Limited at Burton on Trent, which would eventually be the last part of the business to survive.

During the Second World War castings were made for tanks, and by the end of the war James Bridge Steel Works could produce over 26,000 tons of castings a year in 60 different grades of steel.

In 1946 the company acquired a competitor, Parker Foundry Limited of Derby and doubled production there.

By 1952 when the company's last open hearth furnace was scrapped, Lloyds had 6 electric arc furnaces with a capacity ranging from 2½ to 12 tons.

The foundry could turn out very large castings, and machine them to individual customer's requirements in an up-to-date machine shop.

Around this time large machines such as tyre presses were produced in the factory.



Mr. A. B. Lloyd (on the left) presents a silver tankard to Robert Thynne.

Some of the largest castings produced were steam chests for the electrical generating industry. They weighed up to 60 tons. Two cranes would be linked together with a lifting beam to take them out of the casting pit. When freshly cast with the pouring heads still attached, they weighed around 70 tons.

During the financial year ending on the 31st March, 1952, Lloyds produced more than 23,000 tons of black or un-machined castings, consisting of over 650,000 single castings. Large numbers of machined castings, patterns, and ingots were also were produced.



The pattern shop.

F. H. Lloyd & Company had the largest steel foundry business in Europe, but it fell into a severe decline in the 1980s, which resulted in the closure of the Wednesbury foundry in 1982.

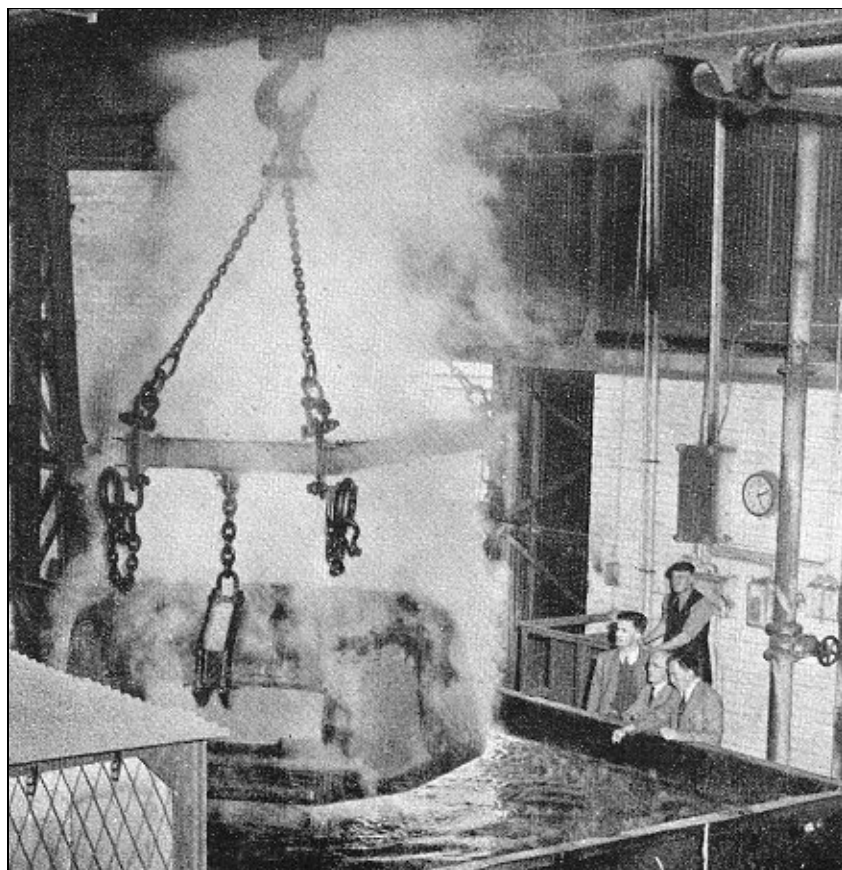
The Parker Foundry Limited at Derby survived until 1987 leaving Lloyds (Burton) Limited as the sole survivor.

Shortly before the closure of The Parker Foundry Limited, F. H. Lloyd was acquired by Triplex plc to form Triplex Lloyd plc.

Although Lloyds (Burton) Limited was trading profitably, it became irrelevant to Triplex Lloyd which had other plans for the future. It was sold in 1989 to William Cook plc. At the time it was the second largest producer of steel castings in the country.



Using the hydroblast system to clean steel castings.



Lloyds specialised in large, high quality castings, some of which were for the Centurion tank. The photograph shows a 7¾ ton turret emerging from the 18 foot deep quenching tank.

The onlookers are Mr. F. N. Lloyd, Arthur Reynolds, supervisor of the heavy heat treatment department, and Jim Petridge a BBC outside broadcast commentator.

**STEEL CASTINGS**

The photographs above, of the Canteen, Baths, and Ambulance Room, illustrate a few of the amenities at these Works.

The Steel Castings illustrated above—a Frame for a Stone Crusher and a Gear Chamber for Chemical Plant, are two examples of the variety of work we produce to serve the needs of British Industry.

Weight: 17½ tons

Weight: 2 tons

**F. H. LLOYD and CO., LIMITED**  
 JAMES BRIDGE STEEL WORKS, Nr. WEDNESBURY  
 Telephone: DARLASTON 225 (7 lines)      Telegram: STEEL, DARLASTON  
 SPECIALISTS IN HIGH QUALITY STEEL CASTINGS

An advert from 1949.

**Camera catches craftsmen**  
 AT BRITAIN'S LARGEST STEEL FOUNDRY

SEE **Lloyds** FOR STEEL CASTINGS

The output of Steel Castings at Lloyds for this year is expected to reach 20,000 tons, an increase of over 100 per cent over 1948. This big step is due to the Craftsmen who bring together in the 20th century, the traditional skills of Lloyds, craftsmen and the great scientific knowledge.

Modern machines—and no other steel foundry in Britain is better equipped with them than Lloyds—are greatly speeding the many foundry processes, but it is the Craftsmen of Lloyds who, with their mechanical knowledge and skill, also add their own touch to the machine-made product.

Particularly, moulders, iron casters, steel pourers, benders and finishers, continue all along with the year's expansion, to ensure the firm's steel castings meet the demands of a growing market, from 1000 to 100,000 and finally to specialities.

F. H. LLOYD & CO. LTD., JAMES BRIDGE STEEL WORKS, WEDNESBURY, STAFFS. TELEPHONE: DARLASTON 225

An advert from 1952.

**“We like working for Lloyds”**  
 say the craftsmen of James Bridge

It is logical, that if good relations exist between management and men, the product and service will reflect such harmony. At Lloyds, the management are always improving working conditions, introducing new equipment, modern methods and safety devices. Welfare is as much a substance of Lloyds' foundry as machines.

**F. H. LLOYD & CO. LTD.**  
 Britain's largest Steel Founders  
 James Bridge Steel Works, Wednesbury  
 Phone: James Bridge 2401

An advert from the early 1960s.



The advert on the left from 1952 is worded as follows:

The output for steel castings at Lloyds for this year is expected to reach 26,000 tons, an increase of one hundred percent over 1948. Does this large output mean that craftsmanship is being forgotten? On the contrary, it is because of the traditional dexterity of Lloyds craftsmen that this great increase is possible.

Modern machines - and no other steel foundry in Europe is better equipped with them than Lloyds - are certainly speeding the many foundry processes, but it is the craftsmen of Lloyds with their time-honoured knowledge and skill, who wed hand-made perfection to machine-made efficiency.

Patternmakers, moulders, core makers, metal pourers, fitters, and machinists, craftsmen all, many with 40 years' experience; these are the men whose skill makes steel castings of optimum accuracy, finest finish and exactly to specification.

### Sports and Social Activities

Like many of the other local manufacturers, F. H. Lloyd had a recreation ground that was suitable for all kinds of activities. Sports and social activities within the workforce were actively encouraged. Lloyds had a successful football team that played in the Wolverhampton Works League, known as the "Villians", a cricket team that played in the Bloxwich Knock-Out Competition, the West Bromwich Knock-Out Competition, and in matches far and wide. There were also inter-departmental cricket matches. The two Bowling teams competed in the Staffs Cup, and the Darlaston Works and Social League. There was an active swimming club which used to meet at Wednesbury Baths, and a fishing club which entered many competitions. Tennis, Billiards, Snooker, Whist and Crib were also popular. Lloyds also had a musical society which organised visits to local events, and an annual summer outing.

The works fire brigade competed annually against other works teams at Guest, Keen and Nettlefolds' sports ground in Darlaston. The opposition included brigades from Guest, Keen and Nettlefolds Limited, Rubery Owen and Company Limited, Charles Richards and Sons Limited, Wilkins and Mitchell Limited, the Steel Nut and Joseph Hampton Limited, and John Garrington and Sons Limited.

There was also an annual gala day and horticultural show in September with a band, a marquee, and tents on the recreation ground. The following is part of a description of the 1952 event from the staff magazine:

If, during the few weeks preceding our Gala Day and Horticultural Show on September 6th, you had been near the office of Mr. J. S. Minton, our Personnel Manager, you would have heard the telephones ringing incessantly, and at any time during that same period you would have seen, in the office of Mr. J. R. Swinnerton, our Welfare Officer, numerous conferences, both official and unofficial, of the various Sports and Horticultural enthusiasts on whose unfailing interest the success of "the Day" depended.

All this was but a fraction of the hard and willing work which goes on behind the scenes to ensure that everything goes right on the Day. The efficient and smooth running machinery of our Personnel and Welfare Departments, whose comradely co-operation, guided by the tact and personality of our Personnel Manager, Mr. J. S. Minton and his two extremely able and helpful colleagues, Mr. J. R. Swinnerton, and that doyen of the Sports, Mr. O. R. Parry, again resulted in a grand day that was a pleasure to the visitors and a credit to the organisers.



*A prize winning exhibit by W. C. Leavesley.*

On that Saturday, bright sunlight and animated groups of visitors gave our recreation grounds a really attractive holiday atmosphere.

Our firemen, in smart blue uniforms, were marshalling the numerous cars which rapidly filled our commodious car park.

The neat flower beds in front of our sports pavilion added a further touch of colour to the scene. Specially designed by G. Alsop, the arrangement of lobelias and taggetes gave a clever floral representation of the F.H.L. sports club colours, blue and gold.

Having arrived on the field, there was the pleasurable perplexity of where to go first. At the far end of the field, willing parents were being propelled by their determined offspring to sample the delights of swings, roundabouts and the immeasurable opportunity of acquiring a whole real live goldfish by the simple expedient of persuading a table tennis ball to drop in its jam jar home. Nearer at hand, the Band of the 5th South Staffs. discoursed sweet music, their repertoire ranging from the waltzes of Waldteufel to melodies of a transatlantic variety.

A brisk breeze set the flags and brightly coloured bunting fluttering above this scene of animated gaiety. Near one tent the Welsh flag proudly flaunted its red dragon, doubtless in honour of the Welsh ancestry of our Mr. O. R. Parry, whose savoir faire and vibrant personality contributed so much to the success of the proceedings.

Another flag, the White Ensign, the symbol of the Silent Service, was being flown, we felt sure, to represent the silent service and quiet unassuming personality of our Personnel Manager, Mr. J. S. Minton.

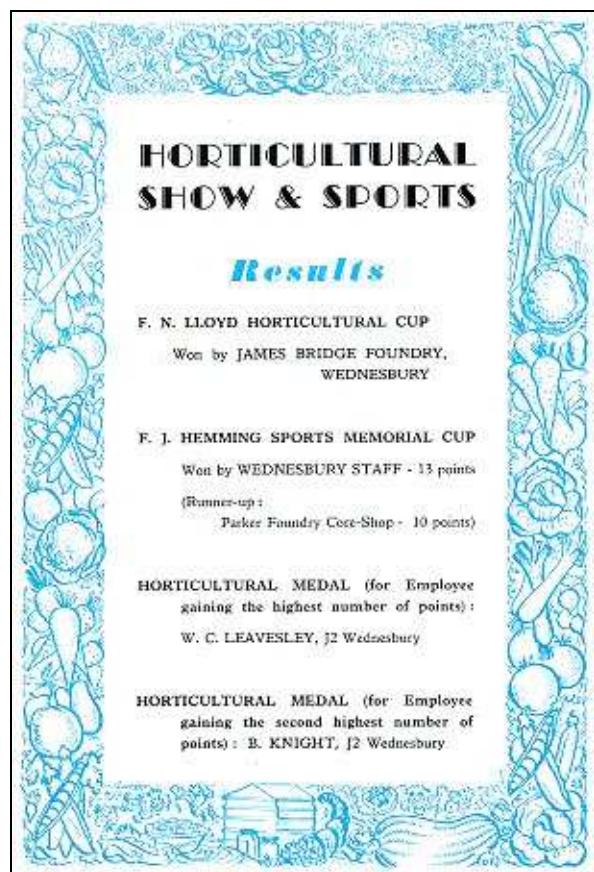


*A photograph of the event taken by G. Rooke.*

But, seeking the horticultural exhibits, the real reason for our visit, our eyes were attracted by a large flag of Scotland, a red lion rampant. Here, we knew, under his country's heraldic device, we should find our Scotch horticultural expert, Mr. J. R. Swinnerton, whose untiring efforts have won the respect and admiration of all Lloyd employees, whether they are gardeners or merely chaps who sit on the lawn on Sundays.

In the large marquee laid out for the horticultural exhibits produced by employees of the three Lloyd companies, there was that rich profusion of colourful flowers and appetising arrays of vegetables—proof enough of that skill and patient work which we now always associate with our gardening fraternity. At the other end of this long marquee, the displays which had taken such careful and painstaking work to prepare,

consisted of other exhibits of a different but equally interesting nature.



Here the excellent displays of crochetwork, smocking, embroidery, knitting and fine needlework (by ladies and children) proved beyond all doubt that the Black country housewife can produce such beautiful work, especially if there is an exhibition such as that organised by Lloyds, to stimulate and encourage her efforts.

Usually such things as bottled fruit, jams and kitchen delicacies, home-produced from the garden or the oven, are associated with country village shows, but here again the Black Country housewife proved that the old skills of preserving fruit, and cooking, are her pride and pleasure.

All this time, a variety of things were happening outside. People were proving their inherent British sportsmanship by bowling at a wicket, kicking a football, and wielding the table tennis bat, tennis racket and putter with an enthusiasm engendered by joie-de-vivre.

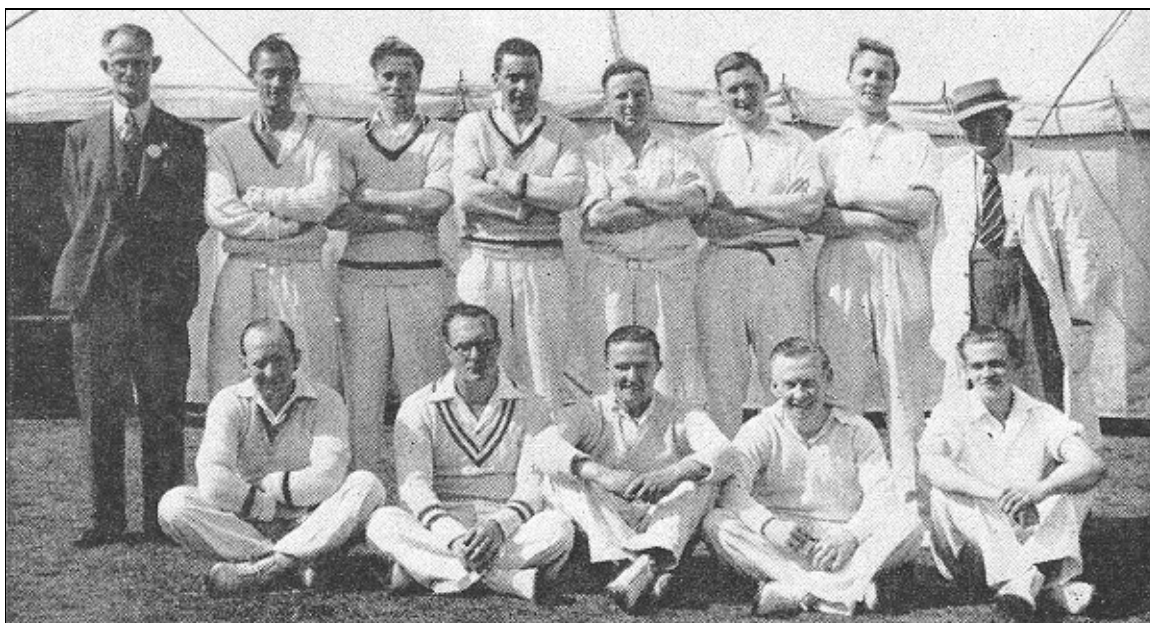
At the back of the field, a cavalcade of tolerant ponies and donkeys, each bearing a child of tender years, passed slowly to and fro, against a deceptively rural background of stately trees, and green fields of grazing cattle.

Near by other youngsters were perhaps "moulding" their lives by playing in the large sand pit provided for their amusement.

As they gaze in starry-eyed admiration at our Mr. O. R. Parry, as he graciously moved amongst them with benign and pontifical air, resplendent in yellow waistcoat with shining gold buttons, we could almost hear their unspoken thoughts: "Ooh let's be quick and grow up, so that we can be interviewed for a job by this luvverly gentleman".

A compact audience of children were enraptured by that old perennial of favourites the Punch and Judy show. How that miniature stage and squawky voice of that model of successful acumen, Punch, aroused memories of seaside holidays more years past than we care to remember.

Some of Lloyd's sports teams from 1952



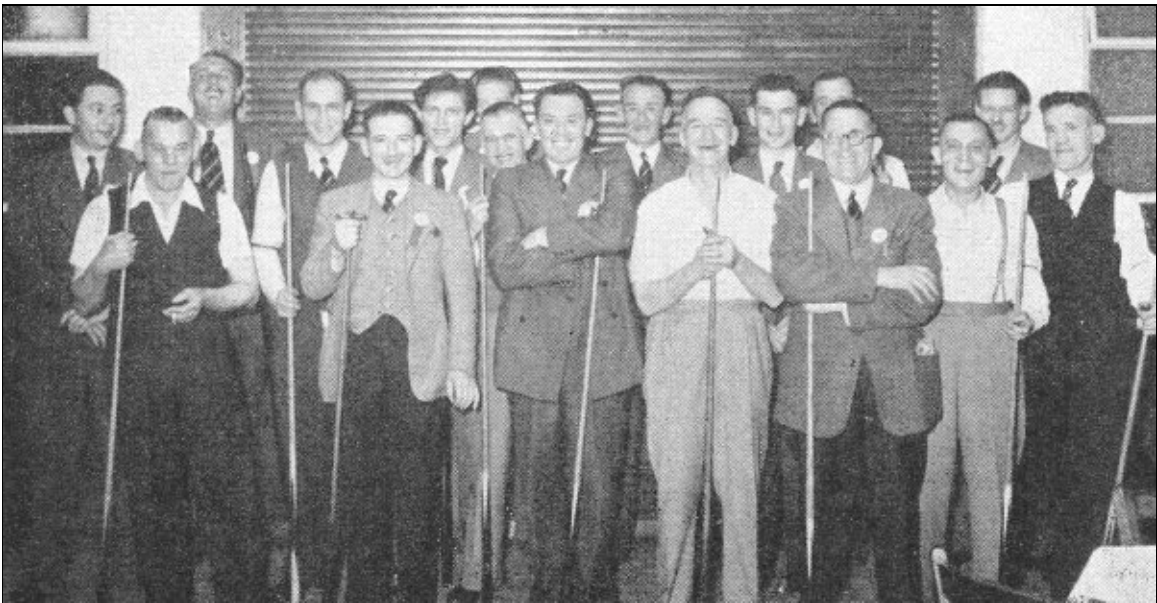
The cricket team.



The table tennis team.



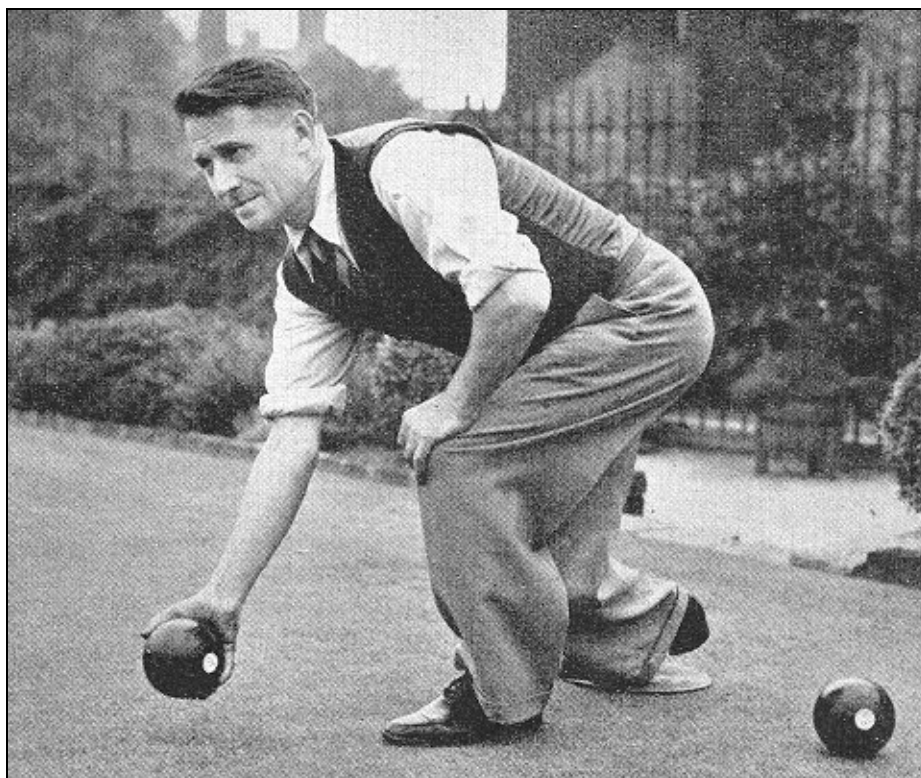
The bowls team.



The snooker team.



The shooting team.



A. Duckett from the bowls team.

I would like to thank Margaret Roberts for her help in producing this section.



**Return to  
industries**