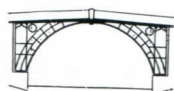
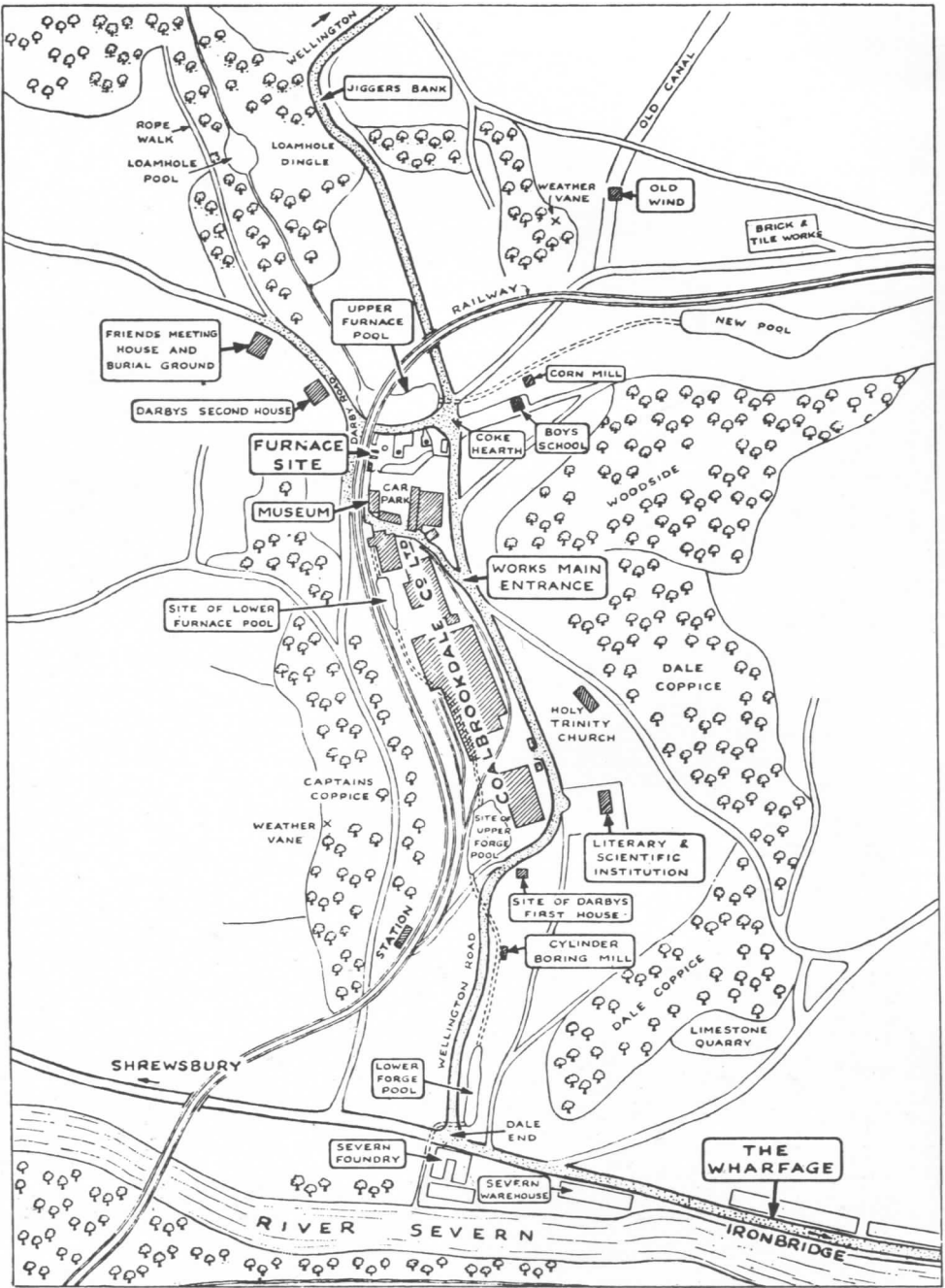


The Coalbrookdale Ironworks

A short history





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Based on an original text
by Dr Arthur Raistrick

A common answer to a question about Abraham Darby would speak of him as living and working in Coalbrookdale, and few people would stay to ask whether or not he was a Coalbrookdale man, or to differentiate between the several generations of Darbys with the name Abraham. The first Abraham Darby, who founded the works now The Coalbrookdale Company, came from a family whose home was at Sedgley near Dudley. His grandfather and father, both called John, had worked a small farm and carried on the trade of locksmith, and his father had joined the Society of Friends called Quakers. His mother and step-mother were also Quakers. In his boyhood Abraham would be familiar with the locksmith's hearth and with the sight of his father working in iron and steel. Born in 1678 he was apprenticed in 1691 or 1692 to Jonathan Freeth of Birmingham, also a Quaker, a maker of malt mills and small machinery. In his apprenticeship Darby became familiar with two matters which were to be of great importance in his later work, the art of working iron and steel and the use of coke as fuel in malting. In 1699 he married Mary Sergeant and moved to Bristol where he set up first as a malt-mill maker, then in 1702 formed the Bristol Brass Wire Company in partnership with a number of other Quakers. Two years later he was turning his attention to the making of brass pots, then after a visit to Holland began the experiments which finally led in 1707 to the patent for casting *iron* bellied-pots in dry sand, and in particular to the art of casting them thin and light. In 1708 Abraham Darby was looking for a furnace of his own and after examining the furnace in Coalbrookdale, took it on lease and in the next year began to smelt iron ores using coke as his fuel. The success early in 1709 of this new method was one of the events celebrated during the year 1959 when the Coalbrookdale Museum and Furnace Site was opened. The choice of Coalbrookdale, which he heard of from Richard Corfield, was probably influenced by Darby's knowledge of the coke made from one of the coals occurring there, the Clod coal, and also by its position on the excellent waterway of the Severn, linking it with the group of Quaker merchants in Bristol, already interested in the iron trade.

Coalbrookdale had been an area of ironworking and making long before Darby knew it. In 1638 Sir Basil Brooke, Lord of the Manor of Madeley, had a furnace in the Dale, the 'Old Furnace', and smelted iron ores with charcoal by the same

Cover illustration: A View of the Upper Works at Coalbrookdale, 1758
(F Vivares after G Perry and T Smith of Derby)

methods he had used for twenty years at his furnaces in the Forest of Dean. The furnace had a chequered career until the great floods in about 1706 when the pool dam burst and the furnace flooded and blew up so that when Darby took it he had to do considerable repairs to the hearth and provide new bellows.

In the country in and around Coalbrookdale there were at that time at least eleven forges which took some iron from local furnaces and supplemented this with pig iron from the Forest of Dean. When Darby repaired the furnace in 1708 and began casting pig iron in 1709 he used his output for casting pots and other articles and for a small supply to Bristol. (Coke-smelted iron was not at that date suitable for converting into wrought iron for use in forging). His works made no appreciable change in the Dale beyond stirring it to a more vigorous life. Work at the three small forges in the Dale had been uninterrupted by the floods and they continued to produce bar iron, making the handles for the pots and frying pans at the Lower forge at Dale End.

Darby no doubt employed some of the men who had worked at the old furnace but he brought some of his own workmen with him from Bristol and so introduced names which are still remembered in the area. His stepmother was Joan Luccock, John Darby's second wife, who came with her husband to the Dale in 1709, and her nephew, Thomas Luccock, was in 1714 indentured to Abraham Darby I. In the nineteenth century the family was still in the district and Ann Luccock became the mother of W. G. Norris, a manager of the Company, members of the Luccock family having worked in the Dale for over two centuries, Luccock's father-in-law, John Tyler, Darby's brother-in-law, Anthony Parker, and Parker's son-in-law, Crannage, had families which for generations remained in the works. The families of Thomas and Rose also came with Darby. The fact that many of the workpeople were Quakers and that there was some degree of relationship between many of them helped to establish the friendly "family" tradition that has always been so characteristic of the works. Abraham Darby, amidst all the activity of establishing the business, was very active in the affairs of the Society of Friends attending meetings in Newport and Broseley, where the Meeting House was built in 1690. He was for a time Clerk both of Monthly and Quarterly Meetings and this position called for his attendance at and responsibility towards meetings over a very large area. The business of the meetings brought him into close and frequent contact with many Friends such as the Lloyds, Crowleys, Milners, Osbornes, Goldneys and others who were also interested in iron, and in the ordinary way of Monthly and Quarterly meetings he would have many opportunities to talk over things with them, to stay in their homes on meeting days and to travel with them between meetings. There is abundant evidence that the group of Quakers in the Severn and Border country and in North Wales formed a closely bound community within which there was a considerable interest in iron making and the iron trade. As Clerk of the Broseley Meeting he had charge of the Trust Deeds for the Meeting House and Burial Ground, and was in close touch with the Trustees who included such well-known Friends as Charles Lloyd, William Reynolds, Samuel Roden, John Simpson, names closely associated with the Coalbrookdale story. Abraham I died in 1717 and was buried in the Broseley Meeting House Ground, leaving his widow with six children, survivors of the ten born to them. Mary, the eldest, married Richard Ford, clerk in the works, and on her mother's death in 1718, she took the oversight of the children with Richard Ford, Thomas Goldney and Joshua Sergeant as Trustees for them. Ford took the management of the

Cast-iron
cooking pots
in the
Coalbrookdale
Museum



works in partnership with Thomas Goldney who came up from Bristol for a while and under their care the works were extended. When Ford entered on the management an inventory was taken which gives us a good idea of what buildings there were in the works and helps us to picture the general appearance of the Dale. There were now two furnaces for Abraham I had started to build his second, the "Lower Furnace", in 1715; there were three moulding rooms, three air furnaces, a warehouse, a smiths' shop, carpenters' shop, dressing room, store room, a copper house, office and a few other small buildings. Near the works when Darby came there were only three houses, the 'Mansion House' of Laurence Wellington, called 'White End' and two other small houses, but later he built for himself a new house across the Dale and two cottages near the Lower Furnace. Thomas Harvey, husband of Abraham's sister-in-law, had built part of Nailers' Row on the side of the River Severn and there were the three forges, the Lower

Forge forming the nucleus of Dale End.

The work of founding was shared between the two furnaces and the three air furnaces, and pig iron, pots, pipes and pumps were being produced, and before long the first steam engine cylinder was cast at the Old Furnace. There was now a prospect of an increased trade as the steam engine was well established in the mining fields and cylinders of cast iron were much cheaper than the early ones of brass. The demand for pig iron among the Bristol merchants was growing, and the pot trade was extending both by sales to smaller customers at the fairs and to a few wholesale customers like the Champions, Ives, Jukes and others. Ford and Goldney leased two new furnaces, Bersham and Willey, in 1732 and so released the Old Furnace for the expected steam engine work, transferring some of the pot casting to Bersham. The men in charge of the Old Furnace were now Crannage and Parker and at the Lower Furnace, Onions and Slicer. It was the foresight of Ford and the financial help of Goldney that brought the concern through a period of difficulties and experiments into a successful condition in the middle 1730s. Abraham II left school and went into the works in 1732, began to act as assistant to Ford, and in 1734 was a partner in the new tenancy of the works; in 1736 he was brought into full partnership and the business was renamed the Dale Company. Edmund Darby, brother of Abraham II, had a small interest in the works and acted for some time as a traveller to the fairs, but developed a business of his own as a general merchant which he continued alongside his work in the Dale Company. He was killed by a riding accident in 1756. During Ford's management there were some important changes in the works; the furnaces had worked to a great disadvantage because of an insufficient water

Workpeople of the Coalbrookdale Company, c 1880



supply through part of the year, so that the bellows could not be worked to the capacity needed for a full blast. Ford built horse-driven pumps which returned water from the tail of the wheels into the ponds so that it was used over and over again. Abraham II, in 1742, replaced the horse-driven pumps by some driven by a steam engine which was built in the works. He also took over part of the management in 1738 and during the next ten years secured leases of iron and coal mines in Lawley, Dawley and Little Wenlock. In 1749 he began the construction of wooden waggon ways between these and the works. This was the beginning of the extensive system of waggon ways which Richard Reynolds, twenty years later, relaid with the world's first cast iron rails.

During the management of Ford and Goldney the Company took part for a few years in the unQuakerly gun trade. The casting of guns had ceased by the time of the wars with revolutionary France at the end of the century, but exactly when is uncertain. Between 1755 and 1758 Abraham II built four new furnaces, two at Horsehay and two at Ketley, and made in them a pig iron suitable for conversion to bar iron. Some of the best known ironmasters of the Midlands; Knights, Foleys, Lloyds and others became his customers. From the early 1780s forges were developed at Horsehay and Ketley. In 1776 the Madeley Wood (or Bedlam) furnaces, built by another concern in the 1750s, were acquired, and in 1784-85 new furnaces were built on the land of the Leveson Gower family in Donnington Wood. Richard Reynolds came from Bristol in 1756 and took over the management of the Ketley works. By 1790 therefore the Darby and Reynolds works, with their associated coal and iron ore mines, were one of the largest iron-making concerns in the country.

With a great increase in the number of workmen Darby turned his attention to their social needs. In the succeeding years he and Reynolds built many groups of workpeople's houses in the Dale, at Horsehay and Ketley, and on the New Dale estates at Dawley. The Friends Meeting House in Coalbrookdale was built in 1745 and extended in 1763, another being built at New Dale in 1759. The building programme had already included schools, repairs to a schoolhouse being mentioned in the accounts as early as 1718, and throughout the Company's history, the education of its workpeople's children was cared for.

We can get an idea of the appearance of the Dale from the engravings made by Perry and Smith in 1758 and from the Plan of Coalbrookdale 1753, which is in the Museum. A great mass of buildings was clustered around the Upper (Old) Furnace in the area between the Upper Pool Bank and the present road through the works leading on to Darby Road; this is the area now cleared as a surround for the Old Furnace. Outside the works 'Dale House' is shown and near it the 'Tobacco House' and the Meeting House, with 'Sunniside', built by Abraham II, on the hill crest above them. In the furnace area the crowded mass of buildings included air furnaces, moulding rooms, blacksmiths' shops and many other small buildings. Next in the Dale below Upper Furnace came the Lower Furnace Pool, then the Lower (New) Furnace with its moulding houses, warehouse and blacksmiths' shop. The Upper Forge Pool, the largest of the three pools, separated Lower Furnace from the Upper Forge, where the principal buildings were the old house 'White End', the Malt House and the Upper Forge, with several smaller buildings and a number of small cottages. Waggon ways ran all through the works and down the road to Ludcroft (or Loadcroft) Wharf (sometimes known locally as Severn Wharf), and up the Dale into the Loam Hole and also by Jigger's Bank to the many iron and coal pits beyond the Dale Head.



The Loadcroft wharf and warehouse from which the company's iron goods were shipped down the River Severn

We have Hannah Darby's description in the same year when she tells her aunt, Rachel Thompson, 'Methinks how delightful it would be to walk with thee into fields and woods, then to go into the Dale to view the works; the stupendous Bellows, those alternate roars, like the foaming billows, is awful to hear; the mighty Cylinders, the wheels that carry on so many different Branches of the work, is curious to observe; the many other things which I cannot enumerate; but if thou wilt come, I am sure thou would like it. It's really pleasant about our house, and so many comes and goes that we forget it's the Country till we look out at the window and see the woodland prospect.'

Life in the Dale was not uneventful - the great increase in the price of food led to rioting in 1756, when bands of workmen, particularly from Broseley, Madeley Wood, and some from the Lawley and Dawley pits, marched on the local markets, forced farmers to sell their corn and goods at less than the enhanced prices, and plundered some shops. Fortunately the Darbys had little trouble and when the men came to Sunnyside, food was provided for them and their families, Hannah Darby telling her aunt that several hundreds had meat and drink at the house

and that 'we baked bread three days together and sent several miles for it besides, for there was not a bit of bread nor flour to be had for money, for some miles about - so that the country was in the greatest distress'.

Abraham II died in 1763 but from 1756 had the help and friendship of Richard Reynolds who married his daughter Hannah in 1757 and in 1762 bought a half share in the Ketley works. Reynolds took over the management of all the works until Abraham III was of age in 1768, when he returned to the management of the Ketley works. In the years 1758 to 1768 the Company was expanding beyond the Dale with forges at Bridgnorth and Liverpool and agents in Cornwall, London and Newcastle-upon-Tyne. The forge at Liverpool founded in 1758 became eventually the great engineering firm of Fawcett-Preston while the Carron Ironworks was started in 1759 with the help of skilled workmen from Coalbrookdale, one of whom later took part in the Perran Foundry development in the south.

By 1758 the Company had cast more than 100 steam cylinders and had built a great many complete engines. Abraham III continued his father's interest in this work and found an able supporter in Richard Reynolds' son William, who took the management of Ketley about 1777, and who, with Darby, built several Boulton & Watt engines for the works, under licence from the patentees. The event most publicised in this period of the Works' story was, of course, the building of the Iron Bridge over the River Severn, the first cast iron bridge in the world. It was cast at the Old Furnace and after its erection the Gold Medal of the Society of Arts was presented to Abraham Darby. It was for the bridge castings that the Old Furnace was re-designed and built in its present form. Abraham I's furnace was on the same site and was essentially the original charcoal furnace of 1638, repaired and improved time after time. The foundations now exposed on the west side of the base of the Old Furnace probably belong to the 1638 structure. The rebuilt furnace incorporated cast iron beams from the first one with the cast on inscription B E w 1638 E w B though the letter B is seen really to be a monogram **B** and the w is probably a crown. The newer beams carry the inscription ABRAHAM DARBY 1777. The members for the bridge structure were cast in open sand moulds (on a floor prepared on the east side of the furnace) and the procedure of their casting can still offer a puzzle to the founder who considers their great length of 70 feet and their small section. It must have been an exciting time in the Dale. The workmen would be intrigued with the rebuilding of the furnace and its unusual design, but interest must have been far wider when the metal for the great bridge castings was poured into the moulds; we cannot doubt that crowds watched anxiously as the glowing metal took the shape intended for it. The excitement would spread during the transport of the 378 tons of members through the Dale to the site of the bridge. For three months the work of erection went on 'without any accident either to the work or the workmen, or the least obstruction to the Navigation of the River'. After the bridge was opened, it became one of the sights for the traveller and many famous people visited it and left notes and descriptions in their diaries.

This was the beginning of a long connection with bridge building, the Buildwas Bridge and the Albert Edward Bridge, also over the Severn, being two local examples of which the former has been replaced by a newer structure.

The reputation of Coalbrookdale was growing among engineers and many experiments were made there both by people in the works and by visiting engineers who brought their ideas to be tried out. Adam Heslop, who was

apprenticed in the works, invented the Heslop engine of which several were made and used about the Dale, then set up a business for himself in Cumberland and supplied numbers of his engines to collieries in the North of England. Sadler, the first balloonist, had his invention of an improved steam engine built in the Dale and several of these were made for use at the works and collieries about Shropshire. Visiting engineers included such men as Hornblower, with his improved steam engine, Telford and Trevithick.

Telford was interested in the bridges and designed the Buildwas one, but was also attracted by the canal and canal inclined planes. He had come to the area in 1787 and got to know the Company while acting as Surveyor of Public Works for the County of Salop, and responsible for the county bridges. The inclined planes were installed by William Reynolds in the course of the canal which he was building for the Company; they were used for lowering boats from one level to another of the canal, or from the canal to the river side. There is a picture of an inclined plane on one of the Coalbrookdale tokens. On one side - Inclined plane at Ketley, 1789. On the other side - Iron Bridge at CoalbrookDale erected Anno 1779. Span 100 feet. On the edge - Payable at CoalbrookDale and Ketley. Of equal importance was the cast iron aqueduct made by the Company to carry the Shrewsbury canal across the valley of the Tern at Longdon, the success of which persuaded Telford to use cast iron troughing on his famous Pont Cysyllte and Chirk aqueducts on the Ellesmere canal.

Trevithick knew the Dale through its steam engines which were working at many Cornish mines, and through his friendship with the engineer Hornblower had visited the district in 1796. After his famous road engine experiment at Redruth, on Christmas Eve, 1801, he came to the Dale in January 1802 to test his high pressure boiler and engine. The Company had made boiler plates for half a century and their haystack boilers were widely known. Trevithick also wanted to build a locomotive to run on rails. William Reynolds may have experimented before 1787 with a locomotive, but a fatal accident to a workman caused him to abandon the idea; he would be very sympathetic to Trevithick's attempt. In 1802 folk in the Dale with a crowd of local engineers were able to watch the splendid performance of the high pressure boiler and engine made for Trevithick, which in part of the test took steam at 145 pounds a square inch pressure, a pressure incredible at the time.

The locomotive was built and it seems probable that it was the one depicted in the drawing wrongly titled 'Tram Engine 1803' and known as the Penydarren locomotive. This was the first successful locomotive built to run on rails and so created another world record for the Company. Others were built for Trevithick and for the Company's own use and an engine was even tried out in a boat which it propelled at seven miles an hour. In the years following these experiments the Company built many high pressure engines on the Trevithick plan.

When Abraham III died in 1789 the finances of the Company were in a poor order. Richard Reynolds helped them with big loans and easy leases and in 1790 some re-organisation was started. Richard Dearman became manager until 1803 when Edmund Darby, nephew of Abraham III, took charge. Dearman's sister was a daughter-in-law of Richard Reynolds and so Dearman was not a stranger to the family of Darby. He had been partner and manager of Dearman and Freeth of the Eagle Foundry, Birmingham. In the next few years there was a thorough re-organisation of the company's concerns, and in July 1796 after a long series of meetings it was agreed to separate the interests of the Darby and

Reynolds families. The Donnington Wood works was sold to John Bishton and Co., and of the remaining works, Ketley and Madeley Wood went to the Reynoldses, and traded as William Reynolds and Co., while Coalbrookdale and Horsehay went to the Darbys, who retained the right to trade as 'the Coalbrookdale Company'. The works were now equipped as follows: *Coalbrookdale*: small furnaces, foundry, light rolling mills and forge, engine shops.

Horsehay: larger furnaces, heavy rolling mill and forge, boiler shop, brick yard, ceramics works.

Associated with the works were the extensive mining fields of Dawley and Lawley. New blast furnaces were built at Dawley Castle in 1810, and in 1839-40 the existing works at Lightmoor, which dated from the 1750s, was purchased. Engine work was mainly done at Coalbrookdale, and blooms rolled at the Coalbrookdale and Horsehay forges where new rolling mills had been erected in the 1780s. At Horsehay boiler plates were being rolled, a most important innovation which soon led to an extended activity. The Company had a steady output of boilers, many of them made to the customers' drawings or special requirements, and many of them were of large size. In 1838 the plate mill could roll boiler plate 5 feet wide and 7/16 inch thick, says they are the largest ever made, and 'the Coalbrookdale Iron Co. . . . are the only Company in Britain (we may say in the world) that can make plates of this size, or even approach it'.

By 1795 and 1796 there was throughout the country a period of distress caused by the high prices and scarcity of food and in some parts there was rioting among work-people. The Coalbrookdale and Ketley Companies, along with two neighbours, the Old Park and Snedshill firms, subscribed £8,000 with which stocks of rice and corn were purchased and resold to the work-people at three-quarters of the cost price. The Dale Corn Mill was built to produce flour from the corn and so avoid any exploitation by millers. This mill remained an active concern for many years, and at the mid-century it is described by a visitor as grinding flour for the 3,000 employees of the Coalbrookdale Company. This help in obtaining reasonably priced food, along with the many allotments provided by the Company helped the steady work of reconstruction to proceed without any rioting in this area. The Company also loaned a large amount of capital to enable the Shrewsbury Bank to continue its payments in the crisis of 1797.

In this brief account of the Dale we cannot afford to overlook the remarkable group of Darby women who, besides being active in the Dale and some of them even sharing the direction of the Company, were great travellers in the affairs of the Society of Friends. Hannah, the daughter of Abraham II, travelled regularly through Wales with her father to attend the meetings at Cardiff, Swansea and many other towns, and on some occasions made the journey across the mountains herself, with a single companion. Abiah Darby, Abraham II's second wife, was a very active Friend and even before her marriage to Abraham, had travelled widely through the country as a Quaker preacher; her diary and letters show that after coming to Coalbrookdale she also took an interest in the works. Deborah, wife of Samuel Darby, travelled extensively, not only in this country but in America where she did much for the welfare and relief of the Negro slaves. She was a good friend to Elizabeth Gurney who spent some time in the Dale and while there was influenced by the Darbys towards her life work among prisoners,

in which work she is known throughout the world under her married name of Elizabeth Fry. Deborah's Journal and diary is still a treasured piece of Quaker literature. Sarah, the sister of Rebecca, the wife of Abraham III, took responsibility in the directorate of the Company when Abraham died, but also kept up a wide interest in Friends' work. Sarah was a supporter of Dr. John Fothergill in his founding of the Friends School at Ackworth, and among her more local work, gave bequests for the use of prisoners in the gaol at Shrewsbury. Mary Darby, wife of Joseph Rathbone, was described by Adam Luccock as 'an angel of a woman, indeed everyone of the Miss Darbys have been so'. Adam Luccock, born in 1728, lived to be 103 and so knew many of the family; he says of them 'they all liked a joke right well; and as for kindness it seemed as if they thought it a favour to be allowed to assist you'. He gives an equally happy picture of Richard Reynolds, who among other things, laid out the paths along Lincoln Hill and around the Dale, so that people might enjoy walking there. In September, 1801, a cloud burst caused the Upper Furnace pool dam to break, flooding the Old Furnace, which exploded. Luccock says of Mary (Darby) Rathbone: "Is there anyone hurt, Adam?" she said. I said "No, ma'am, there's nobody hurt but the furnace and blowing mill, the pool dam and the buildings are all gone." "Oh, I am so thankful", she said, "never mind the buildings so no one's hurt." And they all looked as pleased if you'll believe me, as if they had found a new vein of coal in the Dawley Fields instead of having lost an estate in Coalbrookdale'.

The furnace, not quite so far gone as Luccock would suggest, was repaired and the works rearranged. Until 1810 the works were kept busy over a variety of productions, engines, pig iron bars and castings, with pots and hollow castings continuing as always. By 1812 a period of depression in trade was severely felt and the Coalbrookdale furnaces were finally blown out in about 1818. Francis Darby, son of Abraham III, was now in charge at the Dale from 1810, and it is to him, after the long depression, that we owe one of the best known of Coalbrookdale's special lines, that of art castings. Richard, his brother, took part interest in the Dale but was more actively busy in work for the abolition of the slave trade and in other philanthropic causes.

In 1810 Horsehay and Dawley Castle were put in charge of Edmund Darby's brother-in-law, Barnard Dickinson, who managed them until 1827. Dickinson had the hard task of carrying these works through a period of great depression and only succeeded in this by introducing many economical methods of working and by extending the variety of work undertaken. While Horsehay was kept in full work the Dale works were somewhat neglected and experienced their quietest period until a revival began about 1833; it had even been suggested in 1825 that Coalbrookdale might be given up and all the work concentrated at Horsehay. Two years later, however, a lease of the whole concern was renewed and a plan made for the lease shows us essentially the same arrangements in the Dale as in 1753, but with a few extra buildings crowded into the works and a number of gardens and houses spread along the sides of the valley.

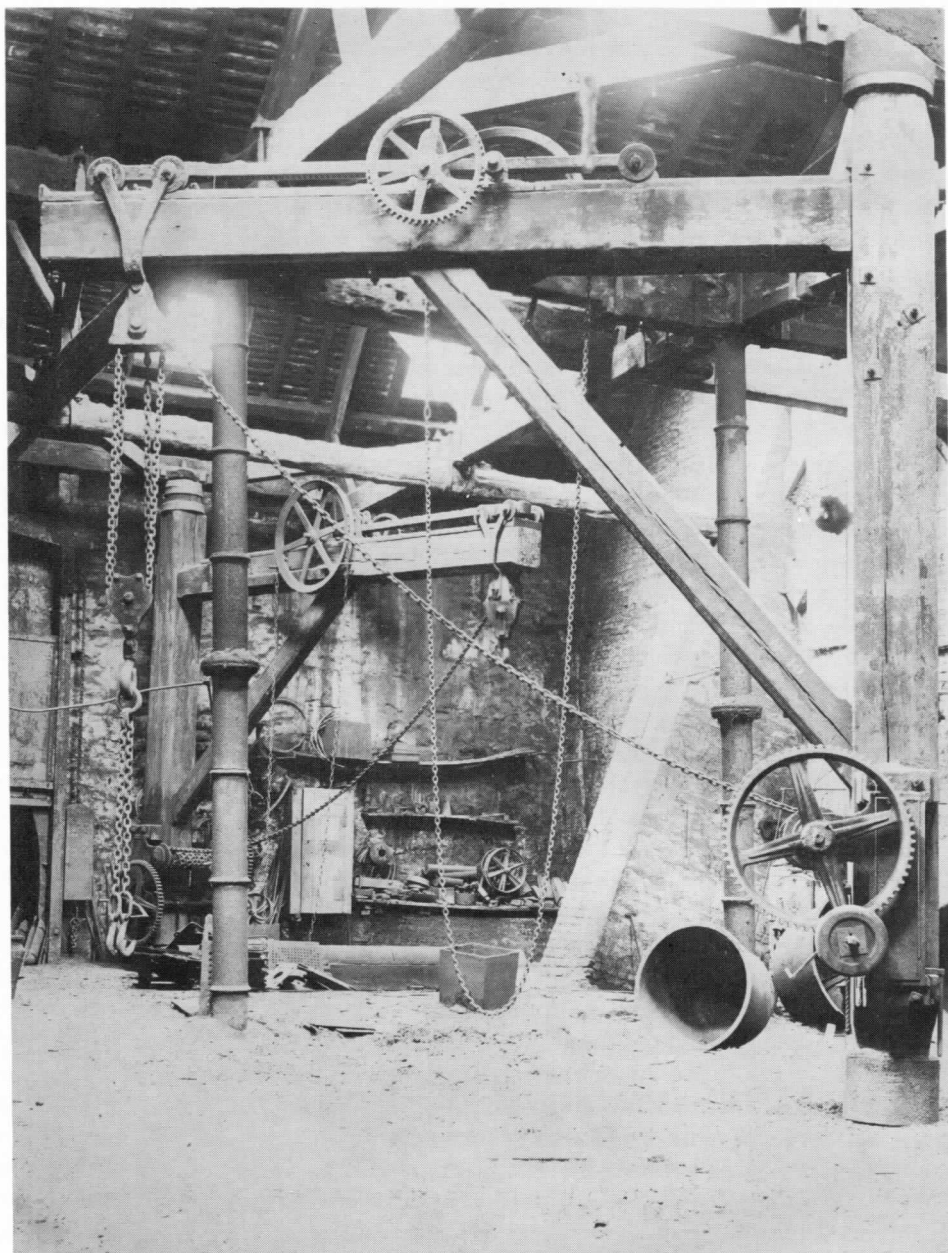
At Horsehay Abraham IV and Alfred, the sons of Edmund Darby, followed Barnard Dickinson as joint managers and very soon developed their own particular interests. Abraham took a keen interest in the mines and in all technical problems, and Alfred turned to the forge, foundry and office side, so that between them they made an excellent working partnership. Methods of furnace management were greatly improved and the forge extended to 26 puddling

furnaces, with new engine and rolls, and reached a capacity of 1,200 tons a month. Abraham was largely responsible for the purely technical work but Alfred made equally important changes on the office side and in the social provisions for the workpeople. The work was departmentalised and foremen and heads of departments spread responsibilities more widely among the workers. With about 2,000 employees some social problems were felt to be pressing. More houses were built for the men, and to keep up with the building programme a new brick yard was opened on the Pool Hill estate. Among houses built there were Sandy Bank Row (18), Pool Hill (6) and Frame Lane Row (8), with 12 others. The Friendly Society and Sick Club in the works were reorganised and with the help of Alfred and Abraham, put on a very sound financial basis. Alfred reorganised the transport of finished goods and established agencies in many towns, built up a small fleet of twenty boats on the river and canals and developed Horsehay Farm as the centre for more than a hundred horses used by the Company.

During the extensive reorganisation of Horsehay, the Coalbrookdale works had made its contribution through a series of new engines designed individually for mines, forges, furnaces and mills, and in the course of this had built up an engineering department which maintained the Company's earlier traditions and developed considerable skill in the design and construction of heavy forge and rolling mill machinery.

At Coalbrookdale a long period of depression was ending in the 1830s and Francis Darby was extending the Company's activities on what had been for nearly a century a minor line of production. As early as 1731 a large consignment of pallisades, pillars, rails, scrolls and spears had been cast for Preston Hospital and the interest in railings and other architectural cast iron work had continued in a quiet way which made it easy for Francis to expand to the heights of the Hyde Park Gates and the Vienna Exhibition Gates. Speaking of Francis Darby, Randall says: 'Of the later members of the Darby family we may speak in part from personal knowledge. Whilst adhering to the grand cardinal doctrine of the Inner Light they indulged their own ideas of the extent to which the strict discipline of the body should control their tastes. They were birth members but lax in their opinions and did not live by their strict Quaker rule. Francis Darby, of the White House, had great taste and loved high art. He filled his rooms with costly paintings. Others indulged in a love of music and luxury.' This was not a very bad character to have and most of the Quaker attributes were still to be found through all the family. The movement away from the quiet simplicity of the Quaker way of life, however, led Abraham, Alfred and their sister Mary to build and bequeath the present Church of England building in the Dale, though Francis and his brother Richard were both buried in the Friends Burial Ground there.

Francis, with his great love of art, expanded the foundries on another branch, that of casting figures and sculptures, introducing good artists, some from France, to improve the designing section. In 1849 the Company was awarded the Gold Medal of the Society of Arts for their castings and approached the Great Exhibition of 1851 with considerable enthusiasm and with a very varied group of exhibits. The great fountain 'Boy and Swan', designed by John Bell, stood near the gates now generally known, from their position, as the 'Hyde Park Gates'. The fountain, after a chequered career among Wolverhampton parks, is now re-erected in the grounds of the Old Furnace at Coalbrookdale. The quality of



A crane in the Coalbrookdale Works, c 1890

much of the modelling of the art castings was very high and a figure such as the statue of Andromeda, cast in iron, from the design and model of John Bell, was described at the time as 'forming altogether a design of exquisite beauty'. This statue is now placed in the Coalbrookdale Museum. As well as large works such

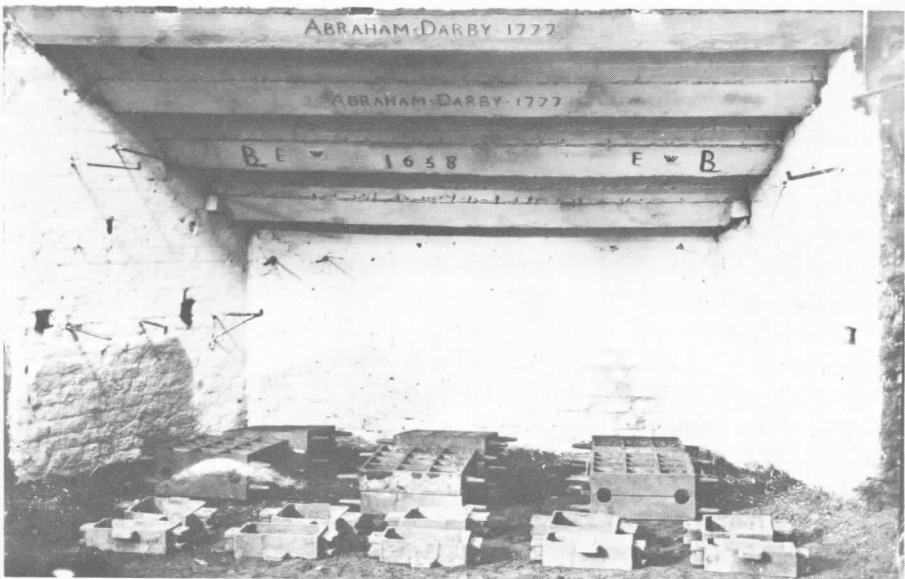
as these, a great number of small objects were cast, many of them of beautiful design, small busts, plates, statuettes, and even pictures such as the famous 'Last Supper'.

Towards the mid-century there seemed to be an almost inexhaustible field for the application of cast iron - railway stations, house balconies, bridges, staircases, fireplaces, even shop fronts, were made up of cast members, and a multitude of furniture both for house, office and garden was made. In the introduction to the Coalbrookdale exhibits in the Great Exhibition catalogue it is stated that the Company employed between three and four thousand men and boys at Coalbrookdale and Horsehay. The output was 2,000 tons a week and the works were then the biggest foundry in the world.

While the art castings took the popular fancy, the Company was producing a great range of rolled bars and sections, structural members, beams and columns, lamp-posts, machinery, engines, pots, stoves and fireplaces, and in fact every kind of hardware that could be made in cast iron, from chimney pots to grave stones. For the material shown at the Great Exhibition the Company were awarded a Council Medal. These Medals (only 170 were awarded as compared with 2,918 Prize Medals) were for some 'important novelty of invention or application, either in material or process of manufacture, or originality combined with great beauty of design'. The exhibits were seen by more than six million visitors, and among nearly 14,000 exhibitors those receiving Council Medals must have been outstanding, and their names would be carried by the visitors throughout the world.

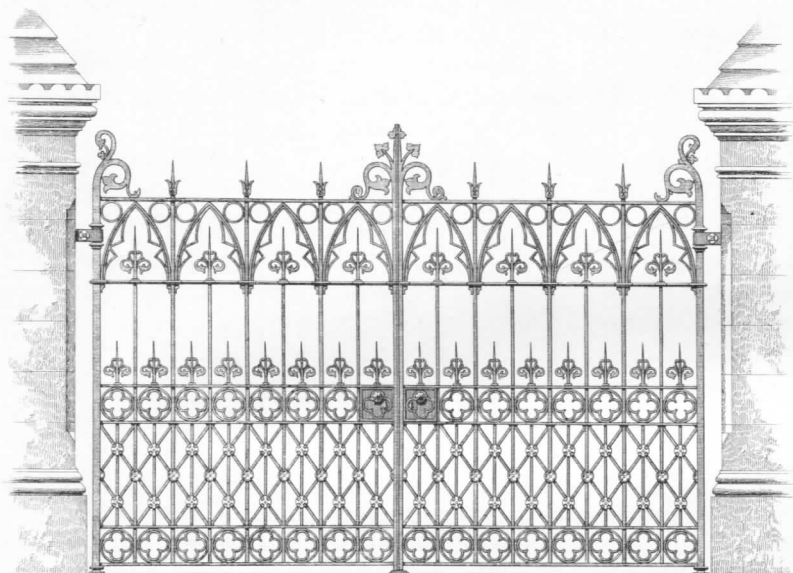
To meet much of the increase in foundry work which Francis and Alfred achieved, the great warehouse, built in the 1830s at Coalbrookdale, was brought into full use and the fine cast iron clock tower was added in 1843. This building is in itself of excellent design and is noteworthy for its extensive use of cast iron, both structurally in columns, and in the graceful lintels and sills of doors and

The beams of the Old Furnace, Coalbrookdale in the late nineteenth century



windows and the window frames, all in cast iron. Other buildings built by the Darby's of this period are the school at Pool Hill, to accommodate 700 of the workpeople's children, and the church in Coalbrookdale in which cast iron is used in gothic tracery in the pew doors and in other details of the architecture. In 1849 Abraham IV and Alfred I had nominally retired from the works and removed from the area and Alfred died in 1852. Francis died in 1850 so that in some ways the mid-century marked the end of an era. The chief designer, Charles

Wrought and cast iron entrance gates from the 1870 catalogue



Crookes, carried on the oversight and management, but without the necessary technical knowledge of iron making was unable to make improvements or even maintain the necessary standards at the furnaces and forges. However, he kept the works going, extending the art castings section so ably started by Francis. In 1866 William G. Norris was in a position to take over the management of all departments of the works. Norris was brought up in the Dale and was of a Quaker family which had long connections with the district, his father being at the works before him. His mother was Ann Luccock, great grand-daughter of Thomas Luccock, who was apprenticed with Abraham Darby I in 1714, and whose aunt, Joan Luccock, was John Darby's second wife.

During Crookes' management some important social advances were made in the Dale. In 1853 it was proposed, in response to public interest, to form a Coalbrookdale Literary and Scientific Institute and this was followed in 1856 by the School of Art which served not only the Dale but the whole Borough of Wenlock. W. G. Norris was its secretary and its Patrons included Abraham Darby and several of the local influential people. These institutions were so successful that in 1859 the present building was opened to house both the School of Art and the Institute. The Annual Report for 1859 says:

'The year that has passed will be an epoch in the history of the Institution from the occurrence in the course of it, of the opening to the use of the

Institution of the handsome and commodious Building which has been erected for its accommodation, and from the opening having been attended with circumstances of no ordinary interest. Whilst recording this event it is due to the Coalbrookdale Company that the Committee should acknowledge the enduring obligation under which the Members of the Institution at all times are, and will be, placed by the Company's liberality in providing this building, and it is fitting that the exertions of the Vice-President of the Institution, Mr. Crookes, should be thankfully remembered by the Members. That the Institution may exist as long as the Building and that in its new abode it may exercise a permanent and beneficial influence in the Dale must be the ardent wish of all its Members.'

It was a very happy coincidence that the year which marked the 250th anniversary of the foundation of the Darby concern in the Dale, was also the centenary year of the Institute.

The Company under Mr. Crookes continued to extend the range of its art castings, and exhibited some particularly fine subjects at the 1862 International Exhibition in London, securing two First Class Medals. They had previously been awarded two Gold and one Silver Medal for casting at the Paris Exhibition of 1855 and continued to take the highest awards for the next forty years. Crookes had brought into the designing department, M. Carrier-Belleuse and M. Guinet, from Paris, along with Dresser, Talbot Kremer and others who were making a name in design. A new development was the modelling of large vases and garden ornaments, containers, etc., in terra-cotta, some being designed by their best artists, and creating considerable attention in the art world. The terra-cotta work was given up in 1870. Their work established Coalbrookdale as one of the foremost foundries in the world for art castings of the greatest variety.

Under the management of W. G. Norris, while the art casting continued by the momentum and reputation it had gained under Francis Darby and Charles Crookes, other sides of the Company's activity were remodelled or extended. Conditions were not very happy at Horsehay where the quality of the forge iron had been allowed to deteriorate. Foreign ores were brought in to be mixed with the local ones and the furnace regulation was overhauled so that the highest quality of iron production was regained. In addition to pig iron and heavy plate, large quantities of bar, including fancy sections, were rolled for the gate and railing department at Coalbrookdale as well as for sale.

A section of the works which expanded during the second half of the century was that devoted to the design and manufacture of stoves and fireplaces. On the ornamental side, Maurice B. Adams and Alfred Stevens were brought in as designers and they produced many varied and elaborate groups - fireplace, fender and overmantel - described in the catalogues as *en suite*, including designs in the style of the Adam Brothers and Chippendale as well as Gothic and Classical. Though a great many of their designs are over-elaborate and quite out of today's taste, they were popular at that time and the *British Architect*, in an article in 1882, says - 'The Coalbrookdale Company Limited, in introducing this series of designs have gone for instruction to old examples of the period, and have been guided and assisted in this by several well-known architects who have not been slow to recognise cast iron, under these conditions, as an admirable material for low-relief decoration, some hundreds of these mantelpieces, in conjunction with their now well-known Iron Bridge controlled combustion grates, having already

been used for buildings in the Queen Anne style, now so much in favour.'

At the same time the Company was giving attention to two serious problems, that of smoke abatement and that of improving all forms of the domestic cooking stove from the modest cottage fitting to the largest hotel and canteen outfit. Commercial cooking vessels, steam boilers, chemical pans, etc., also had their attention and were produced in tremendous variety. In smoke abatement they introduced both the Iron Bridge series of grates and the Kyrle fire, which, after official testing by the Smoke Abatement Committee of the International Smoke Abatement Exhibition at South Kensington, 1882, was awarded the Exhibition's Silver Medal. The Company secured a number of other medals and awards for stoves and grates at various exhibitions until 1911, so that their present achievement with the Rayburn Cooker is a perfectly logical continuation of their tradition for excellency of design and manufacture of cooking and heating appliances for more than a century.

The engineering section rapidly extended and built a large variety of steam engines and machinery, including the machines and rolls for the forges both in the Dale and at Horsehay. The engine shop was well fitted with large machine tools, among them some of the best of the time, which were capable of the heaviest work; a lathe with a 20 feet diameter face plate and a planing machine to take 20 feet by 8 feet, were matched by drills, shears, presses and other machines on the same scale. About 1830 the Company had begun to develop high pressure pumping engines, though this work was no new venture for pump barrels had been cast from the time of Abraham I. Some very large installations were made both for mines and for use in canal and harbour work. An important invention was the Parker and Weston Patent Pump of which the Company was the sole maker. Parker was a moulder and Weston a machinist in the works. The former was also an inventor and later founded his own firm.

There was an early interest in electrical work and in the art casting department the Company used electro-deposition of bronze and copper finishes on a large scale. The Elwell and Parker patent High Speed engine, running at 500 r.p.m., was built in great numbers, and along with generators, for which most of the castings were made at Coalbrookdale, were used to engine the earliest electric power generating stations, as well as for small industrial and private plants. Tank locomotives for collieries, ironworks, contractors' plants and works' shunting, continued their long standing interest in the steam locomotive.

In the foundries small utility castings still held an important place in production - pots, frying pans and a hundred other small ware articles for the ironmonger were made, alongside a rapidly increasing range of rainwater and soil goods - gutters, fall pipes, drain and water pipes, gratings, etc., articles still made by the Company. The Horsehay works had their own specialities in production, mainly arising in forge work. Sections were rolled in a great variety of forms, tee, channel, flats, and innumerable special sections, along with plates of all sizes. Using these products was an active boiler making department, and bridge and constructional work continued to increase. Decking and other plates for the shipbuilder were made, along with special roofing and other building sheet irons. The boiler shops were making Lancashire, Cornish, Haystack and Vertical Boilers up to very large sizes; the plate rolling mill also turned out material for bridge, roof and structural work as well as plates for various engineering jobs. About 1886 the Coalbrookdale Company leased and later sold the Horsehay works to the Simpson family who considerably extended the bridge and engineering side.

Today the Horsehay Company is still making bridges and specialising in the gigantic cranes used in modern steel works throughout the world and capable of lifting up to 410 tons. The 300 ton cranes for the Steel Company of Wales at Margam and many other works are of their making.

In the midst of the great expansion the Company took advantage of the legal provisions and was registered, in 1881, as THE COALBROOKDALE COMPANY LIMITED. The Company prospered and at the beginning of the new century employed about 1,100 men in the Dale works. In 1901, to meet new demands, the Severn Foundry was built on the river bank at Dale End and for five years, among other work of many kinds, it developed and produced a fine group of pioneer gas cookers, many thousands of which were used by the London County Council in their housing schemes. Rainwater goods, large cooking ranges for hotels and canteens, furnace and sugar pans for export and architectural castings were also made. This foundry continued to operate until early in 1917 when it was closed down due to the loss of manpower to H. M. Forces in the 1914-18 war.

A reversion to early tradition is seen in one side of the foundry work - the casting of internal combustion engine cylinder blocks and air-cooled cylinders for the famous 'Jap' motor cycle engines.

In 1903, to allow a further extension of the Dale works, the Lower Furnace Pool was filled in. All trace of the Lower Furnace of 1715 had gone during the expansion of the engine shops and now many of the landmarks of the old works in the middle and lower Dale disappeared. The Old Furnace in the upper Dale was buried among and under a mass of moulding, pattern makers' and smiths' shops, but fortunately was left intact and to some extent protected by them. These numerous moulding shops in the Upper Works were only closed in 1930 when the Upper Forge Pool was filled in and new moulding shops of a very modern design were built over the site.

There had been changes in the management; W. G. Norris handed over the works to Duncan Sinclair in 1897 but remained in the Directorate until about 1910. From 1904 to 1906 B. S. Brockbank was manager and was followed by W. S. Malcolm who remained until 1929, although Alfred Darby II was Chairman of the Company from 1886 to 1925 and his retirement marked the end of the Darby connection with the Works.

With the outbreak of war the course of normal work was diverted. The production of gates and railings terminated in 1915 and the engineering department was leased to The Liverpool Refrigeration Company who retained it until 1929.

Aerial bombs, hand grenades, gun carriage brake blocks and many types of light engineering castings were the principal manufactures during the war years, but on the cessation of hostilities the Company turned its attention to the development of the "Servall" Oven-over-fire Combination Grate, over 100,000 of which were produced, a large proportion of these being taken by the London County Council.

In 1922, many Companies were feeling the strain of world conditions and 'rationalisation' was the new watchword for industry. The Coalbrookdale Company responded by forming with the Planet Foundry Company Ltd., Guide Bridge, Manchester, M. Cockburn & Company Ltd. and McDowall Steven & Company Ltd., both of Falkirk, an allied group under the title of Light Castings Ltd. The four constituent Companies continued to produce their own specialities

but shared matters of major policy and sales organisation.

The five years 1923 to 1928 was a period of active development of all the lower works area in Coalbrookdale, with a great increase in the output of rainwater goods and the mechanisation of garden roller production. The brick yards were active at Shutfield and Lightmoor and clay was still mined at Cherry Tree Hill although bricks were not made there after 1905. The Company made all the firebrick shapes for their solid fuel appliances and for outside sale produced fire brick goods and roofing tiles, making as many as 125,000 tiles a week as their contribution to the local authority housing schemes.

In 1929 The Coalbrookdale Company became a subsidiary of Allied Ironfounders Limited, but like all the other constituent Companies, on its working side it retained its autonomy and its peculiar character. In 1930 a great remodelling was undertaken starting with the closing down of the Upper Works moulding shops and the filling in of the Upper Forge Pool. A central gas plant with electric generators which was started in 1906 was closed down and the whole works turned over to a public electricity supply. Coalbrookdale again added to its long list of 'firsts' by designing and installing the first completely mechanical moulding and sand conditioning plant in the country, on which a large variety of castings could be produced with a greatly increased output. The engineering department had been taken from The Liverpool Refrigeration Company Ltd., and became a plant maintenance and production unit for Allied Ironfounders, making and maintaining the patterns for the Ketley Pipe Plant which was the first of its kind, and is still today probably the finest in Europe. In 1938 the road down Coalbrookdale was improved at the Upper Forge and in the alteration of its line a direct link with Abraham Darby I was severed. The house 'White End' and the Malt House were pulled down, only the stable block, now in a ruinous condition, being left. 'White End' was rented from Lawrence

The Coalbrookdale Literary and Scientific Institute under construction, late 1850s



Wellington by Abraham Darby in 1708 for a year and a quarter, and was occupied subsequently by many of the persons concerned with the works and was in the nineteenth century, the home of Francis Darby.

The war of 1939-1945 again imposed new tasks on Coalbrookdale and in spite of its older Quaker tradition the Company had to take up the making of bombs and other war materials. However, with the end of hostilities, thoughts and energies were directed to the problems of peace and in 1944 the Company was able to produce a series of solid fuel appliances including the 'Post-war Cookers' of revolutionary design. The Minister of Fuel and Power in 1946 appointed an Advisory Council to study the problems of space and water heating and cooking in houses, and the Council reported that 'solid fuel burnt in efficient appliances for continuous heating of rooms or of water costs the householder about half as much as gas or electricity and uses about half as much coal'. This was a challenge to Coalbrookdale which was in part already met by the 'Post-war Cookers' and later by the range of continuous burning open fires such as the 'Marathon', 'Brook' and 'Haddon'. The enormous development of this type of appliance in recent years is only one more example of the many pioneering discoveries and designs made in Coalbrookdale and taken up by the world at large. Further work on the cookers produced the 'Rayburn' of which more than 150,000 were made at Coalbrookdale at rates varying between 300 and 500 a week.

A mechanised moulding plant was designed and installed for the production of the large castings required for the 'Rayburn' Cooker and this came into operation as part of the No. 2 Mechanical Plant in 1947. In the post-war housing and rehousing programmes which constituted a major social revolution,

Coalbrookdale played a large part, producing about 10 per cent of the country's solid fuel appliances for domestic use. The Allied Ironfounders group expanded the same story with the 'Aga' Cooker, 'Agamatic' and 'Rayburn' water heaters, gas and electric cookers, including the 'Auto' Range Automatic Gas Cooker and the 'Falco-Royal' Automatic Electric Cooker, baths and rainwater and soil pipes and fittings, have made a spectacular contribution to the improvement in the living conditions of the nation. In 1969 the Works was taken over by Glynwed Foundries Ltd.

A long story draws not towards its end but to the point where we can pause and look back over a quarter of a millennium of work and invention and feel sure that such a virile concern can look forward with confidence to the future.

The skill and inventiveness which time after time have met changing demands with originality and pioneering innovation are not just a matter of historic interest but are a lively character of the Company today.

There has been little room to speak of the most important item of the Coalbrookdale story - the character of its workpeople, the men and boys and in the later years the women also, who have shared the efforts, successes and disappointments of the Company. The physical nature of Coalbrookdale, the deep cleft running up from the Severn into the high ground to the north, has provided a closed in area in which the population has developed a unity of feeling and strength of character which is easily recognised by anyone familiar with the Dales of Yorkshire or South Wales. The Coalbrookdale people are in fact dales-folk, deep rooted, loyal to their dale and to people whom they recognise as being part of their community. The stability of such a group is nowhere better demonstrated than in the unusually high proportion of older workmen who have been in the works 30, 40, 50 years or even more and the surprising frequency

with which men will speak of father, grandfather, or even earlier generations who were in the works, often in the same job which has been a family tradition for generations. The earliest account books of the Company contain many names which are still found among the workpeople.

The managers have been named and we have seen that though not in direct father-son descent, seven generations of Darbys have been in the works. Other managers were connected by marriage with the Darby family - Reynolds, Ford, Dickinson were sons-in-law and Dearman and Norris more distant relations by marriage. The former Managing Director, Mr. G. F. Williams could speak of father, grandfather and great-grandfather with connections with the Coalbrookdale works and with more generations in the area going back even before the Darbys. Managers, owners and men have for two and a half centuries been part of one community passing on special skills from generation to generation, sharing a love of the countryside and building up a pride in and loyalty to the works which has been the focal point of Dale life for so long. The Darbys, Ford, Reynolds, Dearman, Norris and others and many of the workpeople were Quakers. In later years Methodism took a strong grip on the Dale and these religious movements gave their particular flavour to the outlook and relationships of employer and employed - a sturdy independence combined with a respect for persons built upon their character and the quality of their work and not upon position or authority.

The diversity of goods made in the course of the years is almost fantastic and the motto of the Company might well have been 'if it can be made in iron, we can make it'. From the cooking pot of Equatorial Africa to the Placer Gold Washer for the Malay States and everything between, sugar mill plant for the West Indies and stoves for the Far East, bridges, engines, statues, gates, nothing has come amiss and one knows that the works still hold a collective skill that can face any demand that might be made upon it. The people of Coalbrookdale will take a pride in these demands with justifiable confidence that they can be met. The workpeople are proud of The Coalbrookdale Company, and the Company is proud of its workpeople.



A SYNOPSIS OF SOME IMPORTANT EVENTS IN THE HISTORY OF THE COALBROOKDALE COMPANY

1709 - 1959

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| <p>1708-1717 Abraham I
 1707 Pot casting patent No 380
 1708 Lease of Coalbrookdale Works and Old Furnace rebuilt
 1709 First successful smelting of iron with coke as fuel
 1715 Lower Furnace built</p> <p>1717-1745 Richard Ford
 1722 Cast iron engine cylinder for Richard Beech
 1731 Engine cylinder for Hornblower</p> <p>1732-1763 Abraham II
 1732 Bersham Furnace bought
 1732 Willey Furnace leased
 1740 Boring Mill for cannon
 1742 Steam engine in place of horses to drive pumps
 1753 Bersham Furnace sold to John Wilkinson
 1753 Horsehay Works started
 1755-6 Horsehay Furnaces blown in</p> <p>1756-1770 Richard Reynolds
 1763 Walker Colliery engine
 1766 Crannage Brothers patent for Puddling Iron, No 815
 1767 Cast Iron Rails</p> <p>1769-1789 Abraham III
 1775 Richard Trevithick Senior, Dolcoath pumps and engines
 1776 Madeley Wood Furnaces purchased
 1777 Old Furnace, Coalbrookdale, rebuilt
 1778-1787 Boulton & Watt Engines built in the Works for Ketley, Horsehay and Coalbrookdale
 1779 The Iron Bridge erected over the River Severn
 1780 Steam cylinder Boring Mill
 1781 Hornblower's Patent Engine
 1786 Rolling and Slitting Mill engines
 1788 Gold Medal of the Society of Arts awarded to Abraham III for his work on the Iron Bridge
 1788-1793 Canals and Inclined Planes
 1790 Heslop's engine Patent No 1760
 1791 Brickworks opened
 1792 Forty workmen's houses built at Ketley</p> <p>1789-1804 Richard Dearman
 1796 Trevithick and Telford at the Dale
 1796 Cast Iron Aqueduct for canal over the River Tern
 1796 Buildwas Bridge
 1801 Explosion at Old Furnace
 1802 First Locomotive built to run on rails
 1802 Trevithick's high pressure engine experiments
 1804 Steam Boat experiments</p> <p>1803-1810 Edmund Darby
 1810 Dawley Castle Furnaces blown in</p> <p>1810-1828 Barnard Dickinson (Horsehay)
 1816 Ketley Works closed down
 c1818 Coalbrookdale Furnaces blown out</p> <p>1810-1850 Francis Darby (Coalbrookdale)
 c1830 Development of Art Castings</p> <p>1828-1849 Abraham IV (Horsehay)
Alfred I (Horsehay and Coalbrookdale)
 1838 World's largest boiler plate rolled at Horsehay
 1849 Awarded Gold Medal of the Society of Arts</p> <p>1850-1866 Charles Crookes
 1851 Great Exhibition. Company awarded Council Medal. Exhibits included "Hyde Park" Gates and statue of Andromeda
 1853 Coalbrookdale Literary and Scientific Institute founded
 1856 School of Art founded
 1859 Coalbrookdale Institute opened
 1863 Albert Edward Railway Bridge built over the River Severn</p> | <p>1866-1897 William G Norris
 1876 Elwell & Parker High Speed Electric Engine
 1881 The Coalbrookdale Company Limited. Registered as a public limited liability company</p> <p>1886-1925 Alfred Darby II Chairman of the Company</p> <p>1897-1904 Duncan Sinclair
 1901 Severn Foundry built
 1903 Lower Forge Pool filled in. Works extended. Engine cylinder blocks, sugar and furnace pans</p> <p>1904-1906 Bertram S Brockbank</p> <p>1906-1929 William S Malcolm
 1906 Works electric power generating station installed
 1917 Severn Foundry closed
 1917-8 Munitions - aerial bombs, grenades, gun carriage brake-blocks
 1919 Servall Oven-Over-Fire Grate patented
 1922 Formation of Light Castings Ltd
 1923 Development of Lower Works commenced
 1929 Allied Ironfounders Limited
 The incorporation of The Coalbrookdale Company (Light Castings Ltd) within Allied Ironfounders Ltd, made changes in the management pattern which will not fit into a continuation of the above above scheme. These are indicated below in a slightly different form</p> <p>1929-1940 David Sturrock
 Director of Allied Ironfounders Ltd, appointed to supervise and co-ordinate the operations of The Coalbrookdale Co Ltd, and Sinclair Iron Co Ltd
 1930-1 First mechanical moulding plant designed and installed
 1930-1 Upper Works moulding shops closed</p> <p>1932-1937 Charles W Edwards Managing Director
 1931-6 Continuous extension of the foundry and dressing shops</p> <p>1937-1960 Thomas Offley Lander Chairman of the Company</p> <p>1937-1941 Thomas Offley Lander
Charles W Edwards
John H Jones
Joint Managing Directors
 1937 Installation of No 1 Vitreous Enamelling Plant
 1937 Production of patterns for Ketley Mechanical Pipe Plant
 1938 Commercial staff transferred to new Shropshire Group Offices at Ketley</p> <p>1941-1949 Thomas Offley Lander
John H Jones
Joint Managing Directors
 1939-1944 Production of munitions
 1944 Post-war appliances designed leading to the 'Rayburn' Cooker in 1946
 1946 'Brook', 'Haddon' and 'Marathon' Continuous Burning Fires
 1946 No 2 Vitreous Enamelling Plant installed
 1947 No 2 Mechanical Moulding Plant designed and installed</p> <p>1949-1954 Thomas Offley Lander
Managing Director</p> <p>1954-1960 George F Williams
Managing Director
 1958 'Rayburn Royal' Cooker introduced
 1959 250th Anniversary of the Coalbrookdale Works
 Old Furnace cleared and preserved for public view
 Coalbrookdale Museum opened</p> <p>In 1969 Glynwed Foundries Ltd absorbed Allied Ironfounders and in 1970 the Coalbrookdale Museum and Furnace Site were leased to the Ironbridge Gorge Museum Trust.</p> |
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