From Towyn Bach to Porth Towyn: 1831-1881.
How Burry Port got started.

Burry Port is still a very young town. My great grandparents were born in the years between 1821 and 1848, at the very same time as Towyn Bach was giving birth to Porth Towyn. This process began, roughly speaking, during the first years of the reign of Queen Victoria. The Industrial Revolution was reaching its height and a one-time agrarian society was rapidly becoming urbanised. Britain had ruled the waves since Nelson's famous victory at Trafalgar and was pretty much dominant on land too since the defeat of Napoleon at Waterloo. These victories laid the foundation for a long period of economic success and the creation of an empire that stretched into every corner of the globe – an empire painted pink and on which the sun never set. "Dark Satanic mills" rose menacingly across England's green and pleasant land. And pitheads, railway lines, factories and docks brought their smog and their squalor, their wonders and their wealth to the hills and valleys of Wales too.

The story I want to tell springs from that general background. It has nothing to do with the Earls of Ashburnham or the canals which brought coal down from the Gwendraeth Valley to Pembrey harbour. Nor will it touch on much that now exists north of the London to Fishguard railway line. This is a tale of beginnings and, in the case of Burry Port, that means the area known to us all as the Backe.

This account of how Burry Port got started begins not in Carmarthenshire, however, not even in Wales, but two hundred miles away in Birmingham. No city better exemplified the march of the Industrial Revolution than Birmingham. Its population rose from 76,000 in 1800 to 250,000 just thirty years later. It went on to top the million mark and became Britain's second largest city. It heaved with inventors and scientists and entrepreneurs. It became widely known as "the workshop of the world" or "the city of a thousand trades." Gas lighting, custard powder, the magnetron, the first ever use of radiography in an operation, the cotton Roller Spinning machine all got started in Birmingham. As too did electro-plating. And it's electro-plating, a scientific discovery which was soon to take its products to countries around the world, that linked the progress of the great midlands city with the birth and development of Burry Port.

I must mention three astonishing Brummies at the very outset. For a variety of reasons their lives touched each other in the 1840s. The creative energy released by this conjuncture capitalised the establishment and later the growth of the industry whose needs for raw materials were to kick-start the development of our town. The first of these was **Josiah** (later Sir Josiah) **Mason** who lived in the period 1795-1881. He made steel pen nibs and became the world's largest pen maker. He made a huge fortune and gave most of it away. He founded a College of Science amongst whose earliest graduates were future prime ministers Stanley Baldwin and Neville Chamberlain and which eventually became the University of Birmingham (established in 1900). His relevance to our story lies in the fact that, during a period of ill health in the 1840s, he sold his entire business to another Birmingham entrepreneur (George Richards Elkington). What's more, he took a one-third share in Elkington's electro-plating business. This injection of funds undoubtedly fuelled Elkington's capacity to contemplate a huge expansion of his activities.

The second of our triumvirate was **Alexander Parkes**, a metallurgist and inventor. He took out some 66 patents over the course of his life and developed a product known as Parkesine, later known as Xylonite, the earliest form of plastic. He improved methods of printing on calico and invented a cold vulcanisation process for rubber. A blue plaque on the old Birmingham Science Museum reads:

ALEXANDER PARKES
(1813-1890)
Inventor of the first plastic,
Worked on this site for
Elkington, Mason & Company,
Electroplaters
Circa 1840-1850

But it was in the realm of metallurgy that Parkes excelled. He had begun his career as an apprenticed brass founder in the factory of George and Henry Elkington, two cousins who had just discovered and patented the process of electroplating. He was soon in charge of the casting department and working on the development of electro-plating across a variety of fronts.

All of which brings us to **George Richards Elkington** (1801-1865). Here's the hero of the piece without whom there would have been no Burry Port. At the age of 14 he was apprenticed to his uncles Josiah and George Richards and, due to his remarkable business skills, was soon made a partner with them in their business. By 1832 he was exploring alternatives to the traditional methods of finishing metal objects and discovering a process of plating base metals with silver and gold by electrodeposition. Until then, silver plated goods were made by rolling and soldering thin sheets of Silver on Copper. This was a process which had been used in Sheffield for some years and was known as "Sheffield Plate."

In 1840, the Elkingtons took over the work of a Birmingham surgeon who had discovered the best of all liquid solutions for electro-plating – solutions of cyanides and gold and silver in cyanide of potassium. They also bought out a process invented by yet another Birmingham scientist and which drew on Faraday's 1830 discovery of magneto-electricity. There was considerable opposition to his progress in this field, especially from those dedicated to the old ways of doing things. In 1840, Elkington was obliged to take out patents for this process in France as well as England. It took seven years of struggle before he attained commercial success.

The Elkington display at the Great Exhibition in 1851 attracted huge interest and led to Prince Albert paying a visit to the Elkington factory in Birmingham. Queen Victoria permitted much of the royal plate to be copied by Elkingtons in 1868 and after that a convention was entered into by several of the reigning families of Europe whereby they agreed mutually to assist the company in allowing copies of their own national objects for the process of art. The Company have held Royal Warrants to all the British monarchs since. The Elkington product became the leader in its field and was sold widely across the world. It was Elkington who supplied tableware for the whole of the White Star line, including the ill-fated Titanic (which, of course, you can no longer see) and also for the Royal Yacht Britannia (which you can).

There can be little doubt that integral to the success of Elkington's enterprise were the developments taking place in Burry Port.

Electroplating needed a base metal and it was commonly agreed that copper would serve best for this purpose. In 1848, Alexander Parkes was attending the annual meeting of the British Association for the Advancement of Science. The BA had been founded in 1831 and was holding that year's meeting in Swansea. Swansea was popularly known as the "copperopolis", the world's leading centre for the refinement of copper. Elkington asked Parkes, whilst he was in the area, to find a site where he could cash in on local skills and experience and build a factory of his own for the refining of copper.

So it was Parkes who identified Burry Port as offering the right spot for this purpose. The 1849 issue of *Hunt and Company's Trade Directory*, under the heading "Coppersmelters" carried the entry: "Mason and Elkington, Burryport (sic) – Manager: Alexander Parkes." The firm was in business and in the field. They could count on a number of positive factors. For a start, there was already a skilled workforce in the near vicinity from which they could expect to draw their own operatives. What's more, there was the ready availability of coal, both bituminous from collieries like Cwm Capel as well as anthracite from the Gwendraeth valley. George Elkington's son-in-law, Apsley Smith (married to his daughter Emma) came to live in Burry Port and to manage the Company's coal mining operation. The harbour was another key factor. It had been sunk in 1832 and was proving to be far more efficient than its predecessor in Pembrey while the floating dock, opened in 1840, gave the possibility of round-the-clock loading and unloading of ships. Since it took two tons of coal to refine one ton of copper it obviously made more sense to bring the copper ore to the coal than vice versa.

And then there was the railway. Isambard Kingdom Brunel's Great Western Railway had been established by an Act of Parliament in 1835. By 1842 it was running between London and Bristol. There were soon plans to bring the line into South Wales. This would be via Gloucester of course – the Severn Tunnel was not opened until 1885. From Gloucester there were rail links to Elkington's native Birmingham but the potential offered by these links was largely nullified because the GWR was built with a wide gauge (7ft $0_{1/4}$) whereas the midlands railways were built to the narrower gauge (4ft $8_{1/2}$). It was the narrower gauge that became standard but not until 1872. This was a problem when the Burry Port and Gwendraeth Valley railway line opened in 1869. It was built to the narrow gauge and it made for

difficulties as far as sending coal on to the Midlands and other parts of the country was concerned. After all, it would have meant reloading coal from one truck into another, a time-consuming and costly thing to have to do. But this was little more than a blip and easily outweighed by the other factors I've described and made Burry Port an obvious choice to get a metal smelting and refining industry started.

From 1849 until 1856, Alexander Parkes lived in Burry Port house which stood right by the down platform of the newly opened station. His younger brother Henry, "the chief chemist and assayer" for the new enterprise, came with him. The brothers married two local girls, two sisters named Mary Ann and Fanny Roderick. Henry lived in the town until 1887.

Alexander Parkes oversaw the construction and development of the project personally, including the Stac Fawr, all 280 feet of it, which was completed in 1852. Whilst here, he invented a process by which silver is extracted from lead by using molten zinc, a method that became known as the Parkes process. His desilverisation process was first patented in 1850 with further developments receiving patents in the following two years. The Parkes process gained considerable attention in Germany and was widely used in the United States for some time. The older Parkes brother is remembered not only with a blue plaque in Birmingham but, by the Plastics Historical Society, with a blue plastic plaque on his home in Dulwich. He remains one of our town's unsung heroes.

We've run a little ahead of ourselves and must return to the story of copper.

Copper smelting in the Swansea area had begun in the 18th century. It reached Llanelli in 1805 and, by that time, three quarters of the world's production of copper was coming from South Wales. The Burry Port complex, begun in 1849, was able to benefit from a number of developments which had been made in the intervening years. The original direct heat furnaces had given way to the reverberatory furnaces which, by varying the direction of the heat source, were able to give a purer metal at the end of the process. It had also been discovered that there were better results when a mixture of types of ore were fed into the furnaces. The Burry Port factory began its operation by incorporating these features into its plant. Ores were shipped from North Wales, Cornwall, Devon, Portugal and (in the form of

regulus – partly refined ore) from Chile. Soon, the good quality copper produced at Burry Port served not only the needs of the electroplating industry in the midlands but was also judged good enough for use in the wiring needed for the carrying of electricity.

Significant discoveries were made in the Elkington factories, including Parkes' desilverisation process already mentioned. Some of the ores contained important quantities of silver. The copper and silver could only be separated under intense heat. The introduction of molten zinc helped to separate the two. The silver would run to the zinc and, on cooling, cling to it. But whereas the intermixture of copper and silver needed extreme heat to separate them, zinc and silver held together in sheets and could be forced apart manually. Other supplies of copper contained lead and, when separated, this gave quantities of pure lead which could either be sold on to other enterprises or oxidised and used in the paint industry.

All of these developments led to the building of factories for processing white and blue lead, silver and zinc, as well as copper. At the instigation of Alexander Parkes, the Burry Port Smelting Company Limited was set up in 1853. Silver was smelted and refined from that date with a Lead Works added in 1864. This functioned until 1877 when it gave up the ghost. In the 1867 edition of *Slater's Directory*, the Company is described as "manufacturers of lead for white lead and litharge (monoxide of lead prepared by exposing molten lead to a current of air) for sugar of lead making." The Secretary and Manager was Arthur Onslow Douglas. At the height of this process, and within a very short time, a whole range of factories were employing over a thousand workers.

Initially, these came from across the immediately adjoining hinterland. But soon, the population of Burry Port rose as more and more of the workforce began to reside within the town itself. It grew from 2,645 in 1831 to 4,773 in 1871 – an astonishing leap of 80%. Even more amazing is the fact that 1,334 of the 1871 total (28%) are recorded as "incomers" with a tenfold increase in the number of people who describe themselves as "lodgers." Over a thousand of these newcomers came from other parts of Wales, mainly from the more rural parts of Carmarthenshire. 212 were from England and about a dozen each from Scotland and Ireland. Those who came from further afield tended to bring skills not available locally.

George Elkington and his associates addressed the needs of this increasing population by providing a number of houses as part of their operation. Elkington built Refinery Row, Dyfatty Terrace and Woodbrook Terrace; the directors of the Burry Port Smelting Company built Silver Terrace. These were intended, at least in part, to accommodate the migrant workers (often from Cornwall) who came to work in the new factories. Apart from a few houses in Burrows Terrace and the remains of an old farm on Woodbrook Terrace, the area had been very sparsely populated. Woodbrook and Silver terraces gave shape to the area we now know as the Backe. Later, Morlan Terrace and Glanmor Terrace were built and much later still (during my own lifetime) council houses were constructed across the Backe to fill in the gaps between these earlier terraces.

At the northern end of Silver Terrace, the Wesleyan (later to be called the English Methodist) Chapel was built. This carries the date 1866 and it was undoubtedly erected to serve the spiritual needs of those who'd come from Cornwall – a county rich in metal mining and Methodism alike. An indenture was drawn up on December 7th 1866 granting the use of the land on which the chapel stands for religious purposes. This agreement was to stand for a period of 72 years, which was considered just to exceed the natural lifespan of a man or woman. Half of the original trustees hailed from Llanelli. There were four accountants, an ironmonger and, of all things, a gentleman! The six Burry Port trustees were Henry Squires and James Blackmore who were described as "servants", Charles Harding, Samuel Crocker, Moses Roach and David Stringer who were said to be a furnace man, smith, collier and lead smelter respectively. The Burry Port Smelting Company required the chapel to be built within a period of 18 months and imposed an annual rent of one shilling. If this were not paid or the chapel fall into disuse then the land and the building would revert to the company. Otherwise there were no strings attached.

At the northern end of Woodbrook Terrace stood (and still stands) a larger house which was constructed to house a schoolmaster who would take charge of a new school built by George Elkington for the children of his employees. The first inhabitant was Richard Williams, a Shropshire lad, and a certificated teacher. He was only 21 years old when appointed and remained in his post for sixteen years. He resigned in 1871 just after the passing of the Forster Education Act which made elementary education

compulsory for all children. By then he'd married a local girl (Elizabeth Ann McKiernon of the Neptune Railway Hotel) and they moved to Station Road to become Post Master of Burry Port and a practising architect for good measure. Indeed, it was he who designed the new schools in Stepney Road to which pupils in the Boys' and Girls' sections of the Copperworks School were transferred in 1903. Williams was Vicar's Warden at St. Mary's Church when it opened in 1877 and People's Warden from 1878-1886. He died in October 1902, just months before the opening of the Stepney Road schools which he'd designed.

The Copperworks School was another piece of imaginative philanthropy on the part of George Elkington and his associates. 1½d. per week was deducted from the wage packets of employees who wanted to send a child to the school. 2d. was the price for non-employees. At one point, it was reported that this raised less than half the cost of running the schools. The difference was made up by Elkington. As well as certificated teachers there were pupil teachers too. They learned on the job and, after a five year apprenticeship, they either stayed on as a full member of staff or went to jobs in other local schools.

The Copperworks School was non-denominational. In the days before the Forster Act, education was administered through one of two agencies. The National Schools were church schools run on principles laid down by "The National Society for promoting the Education of the Poor in the Principles of the Established Church throughout England and Wales". Children were instructed in the Litany and Catechism of the Established Church and were required to attend services at their Parish Church. Books and other supplies were ordered from the catalogues of the Society for the Promotion of Christian Knowledge. Pembrey had a school of this kind. The other agency was the British and Foreign School Society. It operated a monitorial system where older pupils helped the teacher by taking charge of groups of younger pupils. It was strictly non-sectarian and took pupils from any church background and gave them perfect freedom to attend services in any denomination they chose. This was the model chosen by Elkington, good churchman though he was.

Josiah Mason came to inaugurate the school as early as 1849 but it didn't take its first pupils until 1855. The Copperworks School was the envy of

neighbouring towns. It was always run by qualified teachers and survived the financial fluctuations that afflicted other schools. The complex of buildings included a boys' school and a girls' school as well as an infants' school. The premises were light and spacious. They included teachers' accommodation and also, another radical innovation, a library and reading room. The school could accommodate up to 500 pupils.

The wall that surrounded (still surrounds) the site was built in what I can only call "the Burry Port style." Molten slag, waste from the copper smelting process, was shaped in moulds either to serve as building blocks or as rounded coping stones. These walls and others like them are eloquent reminders of Burry Port's industrial past and an early attempt at recycling waste material.

One other detail about these premises is worth mentioning. From 1874 until the opening of St. Mary's Church three years later, Sunday evening services in English were held at the school. Until then, Burry Port residents had to walk to St. Illtyd's church in Pembrey for their services. From 1875, a Sunday School for English speaking children was added and continued to be held there until the Parish Hall was opened in Stepney Road in 1894. Alongside that, it's worth noting that towards the end of the First World War, a part of the School was altered to allow Roman Catholics to hold Mass there. A significant number of Roman Catholics had moved to Burry Port as workers in local industry and this arrangement at the School met their worshipping needs until 1934 when they moved to buildings in Pencoed Road that had formerly housed the YMCA.

As well as investing in the housing, spiritual and educational needs of his workforce, George Elkington proved to be an enlightened and humane employer in another way too. He paid his employees fortnightly and in cash. It was quite usual at that time for an employer to pay part of his workers' wages in tokens which would then need to be exchanged at the company shop. Just such a system operated at the Furnace Iron Works nearby in Pembrey. Elkington would have none of that.

George Richards Elkington died in 1865. As a lasting memorial to him, his family gave St. Mary's Church to the town he'd virtually brought into being. It's described as "a large and well-proportioned Church, built in a beautiful

French gothic style. Its architects were Wilson or Wilcox and Wilson of Bath and it cost £7,000. It was opened on December 9th 1877. The land had been given by Mr Mansel Rees of Cilymaenllwyd, Mrs J.K.Hand of Glyn Ivor and Mr T.V. Colby of Haverfordwest.

George Elkington was buried in the churchyard of another St. Mary's Church in Selly Oak, Birmingham. That church was said to have been built in "the decorated Gothic style." From photographs, it looks very much like its Burry Port counterpart. Its architect was, however, a man named Holmes. It was consecrated by the Bishop of Worcester in September 1861, a time when plans were already being drawn up for the Burry Port church. Each church has a window depicting the scene of The Ascension by John Hardman of Birmingham.

And so we leave this tale of the origins and birth of Burry Port. The period we've been considering was a time of great social unrest and much change as Wales moved from an agrarian to an industrial era. The Rebecca Riots occurred in the period 1839-1844 and they were a protest against the toll gates being established by Turnpike Trusts to extract taxes from farmers and agricultural labourers moving their goods to market. First canals and then the railways were soon to make that debate irrelevant. Soon the demand for labour would draw people from the land to the towns, from agriculture to industry. The world was changing. Wales was changing. Towyn Bach was changing and soon became Porth Towyn. And there can be few better examples of the new order of things than Burry Port, our town, the fruit of this time of social change, child of the Industrial Revolution.

Let me end by making four rather more personal points.

First of all, I must express my profound gratitude to John Nicholson whose four lavishly illustrated volumes published between 1993 and 1996 have brought so many aspects of Burry Port's early history to life. My own efforts would have been much thinner without his hard work, a labour of love. A word of thanks needs also to be said to my friend and colleague, the Rev'd Canon Edward Newell of St. Paul's Cathedral. I'm a patron of the St. Paul's Cathedral Institute which he runs and I was both astonished and delighted to discover that, whilst at Oxford, he'd written his doctoral thesis on "The

British Copper Ore Market in the 19th Century, with particular reference to Cornwall and Swansea." I knew little about mineralogy or metallurgy until I read his thesis. My debt to him will be obvious.

Secondly, the Burry Port of the period being described in this paper is, of course, what was always known as The Backe or, euphemistically and with some irony, "the South Side." It formed my whole world as I grew up in the town. My mother was brought up in Silver Terrace (my father's family lived in Glanmor Terrace where I was born). Between the ages of 4 and 7, I attended the Copperworks Infants' School. After my parents' divorce in 1947 we went to live at the Building Trades' Supply (Pricketts) which occupied the land and buildings where the White Lead factory previously existed. On one side of us as I grew up were the buildings which had originally been built as a Foundry serving the needs for the various industrial enterprises we've been talking about. On the other side of us stood Frickers which occupied the site of the original Copperworks. The first office building, the very place to which Amelia Earhart was brought in June 1928, housed our neighbours Reg and Megan Edwards and their children Paul and Heather. I was sent to Sunday School in the Methodist Church, originally known as the Wesleyan Church, which was built in 1866 for the workers who'd come from Cornwall to work in the lead and silver smelting and refining works. This little chapel, the Cwrdd Fach, was the starting point for my life as a Methodist minister. What's truly astonishing is that all these locations, so personal to me, so much part of my early life, were the creation and the gift of George Elkington and his associates. Together, they make up the Backe. In fact, they form the core of "historic Burry Port."

And that leads us, **thirdly**, in making an appeal to those who plan the development of Burry Port at this transitional time. They are to be congratulated on so many happy initiatives that are giving back to our town something of the natural beauty with which it was originally endowed. My appeal is this (and I offer it all the more urgently in the aftermath of the surprising decision to demolish the Frickers office building): *please keep a sense of Burry Port's history alive.* In particular, honour the memory and the munificence of George Elkington and his associates. When the final member of the Elkington family left Burry Port in 1903, a newspaper report commented: "Burry Port owes everything to the Elkington family, they being the founders of the place." They've been given blue plaques in their

native Birmingham and also in London. Why can't we find appropriate ways of remembering them here too? Amelia Earheart has her monument and much has been made of her story. Why shouldn't the makers of Burry Port be similarly honoured? Why not consider using the buildings of the Copperworks School in a creative way and as a lasting memorial? Here we have something that is truly historic, a construction that's been at the beating heart of Burry Port since its very beginning.

And **finally**, a word to the good folks of St Mary's parish church and the Cwrdd Fach. I limit my attention to these two churches for an obvious reason: - they were both given to the town by the industrialists of the first generation – the Elkingtons in the case of St. Mary's and the business associates of the Elkingtons in the case of the Cwrdd Fach. Both are involved at this time in significant development and refurbishment plans. That itself, in these secular times, is worth making a bit of a song and a dance about. I'm honoured to be associated with the appeals that have been launched for both churches. Since I've been very closely involved in bringing about a Covenant between the Anglican Church and the Methodist Church at a national level which binds them together in common endeavour, I'd like to think that, here in Burry Port too, church and chapel could work together at serving the needs of our contemporary society. Their origins in the opening chapter of Burry Port's life as a community might give them a sense of common identity in the great task of keeping the flame of Christian love and service alive and well in these unpropitious times. Perhaps we should take the words written on the tomb of a seventeenth century shire knight and adapt them for our purposes. If we did, this is how it would run: "At the beginning of the 21st century, when all things sacred were throughout the nation either demolished or profaned, a progressive union was formed in Burry Port between the Christians at Saint Mary's Church and the Cwrdd Fach, whose singular praise it is to have done the best things in the worst times, and hoped them in the most calamitous."

Leslie Griffiths
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