

SIR DANIEL GOOCH – ENGINEER.



On a cold February evening in 1831, lit only by a bright full moon, there arrived at Sirhowy a young lad of 15 years, who was destined to become a "Giant of the Victorian Age both as an engineer and businessman". This accolade, paid by the author Alan Peek, was no exaggeration because the man was none other than Daniel Gooch — a true entrepreneur and the world's greatest locomotive engineer, a real Richard Branson of the 19th Century. Yet

this man, lauded throughout Britain, Europe and America maintained that:-

"The time I spent at Tredegar was by far the most important years of my life and I will ever be grateful to the many people who were so kind to me

From the start it seemed certain Daniel would become an eminent railway engineer. Perhaps inspired by the times when George Stephenson, father of the steam railway and builder of the famous 'Rocket', would take young Gooch on his knee and talk to him about the joys of engineering.

At 15 years of age, in 1831, he and his family moved from Bedlington in Northumberland to take up work at Tredegar Iron Works, with Daniel going to the moulding department. He lived with his family at the still-existing Sirhowy House whose rear service quarters are now the Railway Tavern.

That proved to be the beginning of a lifetime of on-going brilliant achievement. Successful in everything he did, Gooch became extremely wealthy, powerful and influential yet always retained a commitment to seek justice at all times in his dealings with others — whatever their position in life, a true socialist and philanthropist if ever there was.

Even as a 15 year-old moulder, Daniel moved quickly from 'making cores' to the moulding of tram wheels, heavy and specialised work only entrusted to the best. Daniel was soon making his mark starting at 6.00am and finishing not before 6.00pm. He was quickly promoted to the Pattern Shop from where he honed his skills as a furnace expert, knowing how to equate this to the quality of the iron output. Every and any fact that he learned or was taught was recorded in writing in his books which he retained even throughout his life. His foreman and mentor at this period was one Jonathan Miles, who saw the great potential in Gooch and was a great source of information and instruction to the technically thirsty pattern maker.

Later, when commercially so successful, Gooch would recall that *"Mr Miles was most kind to me and instructed me in the careful and correct use of tools. He gave me a pearl handled knife which I have treasured all my life."* Gooch developed much respect for Mr Miles, so much so that when he became the Chief Locomotive Superintendent of Great Western Railway in 1837, at just 21 years of age, he offered Miles an important role at the Swindon Works which was at the centre of G.W.R.'s activities. Gooch recorded that *"Mr Miles became a revered and respected workman at Swindon, living to a great old age."*

During his time in Tredegar, Gooch continued to show his entrepreneurial skills and never lost an opportunity to develop business side-lines. He recalls that *"me and Miles used our skills to make coffins at Tredegar and then deliver them to the House of the dead!"* One such journey on a freezing winter night resulted in an incident when *"not seeing the frozen waters of a feeder, fell into it along with the coffin!"* Gooch says *"we scrambled out, picked up the coffin and delivered it by another route...."*

Very movingly, Gooch tells of the duty he and Miles had of providing coffins to the bereaved during the first cholera outbreak in Tredegar. He tells of how the sight of dead children had a deep and profound effect that stayed with him all of his life.

During his time at Tredegar Gooch had a number of narrow escapes. One such

occasion resulted from a job he had repairing valves on one of the Furnace Blowing Engines. During this work, Gooch explains *"some old scamp opened another valve and completely engulfed me and my workmate in powdered lime, almost suffocating us both. We got our own back later by watering the culprit's beer."*

Another example of Gooch's entrepreneurial spirit was shown when he was sent on one of his many visits to Bedwellty House to *"make fancy things for the ladies"*. Mrs Homfray's mother, a certain Mrs Staples, needed Gooch for carpet laying and whilst there was asked by Mrs Staples to engineer for her a stylish 'back scratcher'. Evidently the good lady, being 'very fat' was unable, according to Gooch, to *"reach a great deal of her body....."* Gooch said of Mrs Homfray that she was a very nice, kind woman, much liked by everybody. He said *"she took a great deal of interest in me and shortly before I left Tredegar, I thought, much more than I liked....."*

Gooch was at his home in Sirhowy House when the Merthyr Riots took place and he relates the story of being pressed, by a group from Nantyglo and Ebbw Vale, to *"join the Dowlais and Merthyr men"*, being forced to do so by men with spikes in the end of their sticks. According to Gooch, they got as far as Rhymney where the would-be rioters saw *"a lot of soldiers drawn-up along the Dowlais Hill ridge"*. After a short stand-off, with the men refusing to disperse, the soldiers were ordered to 'present arms', whereupon the rioters' zeal was promptly dissipated and a scramble to disperse ensued. With Gooch and his friends safely back at Sirhowy, they took some mild revenge by pelting the stragglers from the top of Sirhowy Hill as they returned en-route to their homes.

The time was fast approaching for Gooch to leave Tredegar to father his engineering career but, shortly before going, he was *"dared to go down a pit, 30 yards deep, by a chain and come up in the same way"*. Never one to shirk a challenge, Gooch accepted and taking a *"piece of iron to put through the links to rest upon..."* He successfully descended the mine. However, it was a very different story on the ascent, growing weaker by the yard, Gooch says *"I felt my muscular power failing me and only the struggle between life and death enabled me to hold on. Had the pit been a few yards deeper I would have crashed to the bottom — it is a lesson I have never forgotten."*

And so in July 1834, some 3 ½ years since his arrival, it was time to leave Tredegar in order to continue his journey to relentless success, fame and fortune. Looking back though Gooch was to write:

"I look back upon my time at Tredegar as by far the most important years of my life and I will ever feel grateful to those, many in number, who were so kind to me in enabling me to obtain information. It was at Tredegar where the feeling of having earned money for myself was first felt by me, a feeling that cannot come twice in your life. Those first few sovereigns gave me more pleasure than millions do now...."

Daniel was to travel to the Vulcan Foundry in Warrington, a brand new Works built by the great Robert Stephenson himself. At 18 years of age he immersed himself in the art of developing and building locomotives, to become the very best locomotive Engineer in the world. He tells of his determination to become Works Manager.... *"The road to success in life is open to all who will, with determination and honour, follow it never looking back but keeping the eyes and the soul ever fixed forward."* That was the philosophy that saw Daniel become the Great Western Railways' Locomotive Superintendent at first 21 years of age, being mentored by none other than the great Isambard Kingdom Brunel. Gooch said at this time *"I was very young to be entrusted with the management of the locomotive operations of so large a railway but I felt no fear."* And so Daniel Gooch went on from strength to strength with Brunel becoming his greatest friend until, sorrowfully, Brunel died in 1859. This alliance ensured the introduction of Broad-Gauge Tracks and under Gooch, 340 locomotives were designed and built which were faster and safer than anything that had gone before.

By 1864, aged 48, Daniel Gooch set his sight upon the laying of the first underwater telegraph cable, across the Atlantic Ocean. Noting that 3 attempts had been made by others and each had failed. Daniel, characteristically, however set out to succeed. He therefore, on becoming Chairman of the "Telegraph Construction and Maintenance Company", chartered Brunel's magnificent vessel the Great Eastern — a vast steam ship — to lay the cable.

On his first attempt that same year (1864) the cable broke after paying out 1000 miles. Undaunted, Gooch made another and this time successful laying, when in 1866 1,750 miles of cable were laid across the Atlantic Ocean — more than 150 years ago! Amid scenes of great rejoicing and thanksgiving, Daniel Gooch sent the first telegram shore to shore on July 27th at 6.00pm. *"Our cable has been laid and a most perfect cable under God's blessing to allow telegraphic communication between England and America..."*

Such an achievement created scenes of great excitement and optimism with

messages between the Queen (Victoria) and the United States President declaring:-

"The successful completion of an undertaking which will serve as an additional bond of Union between USA and England." The Times Leader carried the message: *"This is a great work, a glory to our age and Nation and the men who have achieved it deserve to be honoured among the benefactors of their race."*

Shortly afterwards, a grateful Government and Her Majesty moved quickly to create "unto Daniel Gooch the dignity of a Baronetcy...."

Even this failed to persuade Sir Daniel to ease up and 'sitting on his laurels' was not an option for him. Indeed, the creation of the Severn Tunnel was yet another triumph for G.W.R., whose Chairman by now was none other than Sir Daniel Gooch. Under his Chairmanship the Company flourished and in 1886 the Severn Tunnel opened for goods and passenger traffic, having overcome major obstacles mostly associated with water ingress and flooding.

Despite his success as a businessman, entrepreneur and engineer, with a remarkable record of achievement so appreciated by a grateful Nation, there was no hint of ruthlessness or self-gratification in Daniel Gooch. He said of his time as "father of the Swindon Works", *"The happiness of my men and their families depend much upon the influence I exert on them. I strive always to make that influence beneficial...."* Always aware of social deprivation among the working classes of Swindon, Gooch formed the Mechanics Institute there and saw to it that his workers *"were the best educated in the world."*

Witnessing sickness and disease when trade depression hit his Swindon Works, Gooch (perhaps drawing on his Tredegar experiences) employed doctors and health professionals in purpose built accommodation to treat the sick and injured — so important a social leap forward was this, that it led to the formation of a Medical Fund, contributed to by the workmen and the Company. (Ed. Note: The GWR's Swindon Health Care System helped inspire the NHS.) The sheer goodness, decency and respect that Gooch had in all of his dealings throughout his life was summed up by the distinguished author Alan Peck who said that Gooch was *"A giant of the Victorian Age both as an engineer and businessman — a man who always sought justice at all times in his dealings with others, whatever their position in life. Britain can never repay its debt to him "*

It is very difficult to think of any person who made more of his talents and ambitions than Daniel Gooch.

For a man who came to Tredegar to start his working life and then reckoned them to be the "best years of his life" is indeed a tribute to a Town that encouraged and nurtured him into becoming a true giant among the men of any generation.

At the very least his Sirhowy home should bear a Memorial Plaque.

Ralph James



Tredegar Works – Mid 19th Century.

EXPERIENCES IN THE EARLY NHS.