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TRYFAN JUNCTION SHORT-LISTED FOR NATIONAL RAILWAY HERITAGE AWARD

In the last issue of W. H. H., we reported that our refurbishment of the station building at Tryfan Junction, along with its association with the Slate Trail to Bryngwyn, had been entered for a 2014 National Railway Heritage Award.

We have been advised, following visits and assessments by N. R. H. A. Judges, that we have now been short-listed for an award. The Awards Ceremony will take place at the Merchant Taylors' Hall, London, on December 3rd. We congratulate all who have been involved in the mammoth task of bringing the building back to life as the natural link between the Welsh Highland Railway and the Bryngwyn Slate Trail.

The value of these efforts is perhaps best expressed in N. H. R. A. Judge Gavin Johns' own words following his visit on September 13th;

"Although well versed on the background to this building, thanks to the marvelous Mr. Boyd and others, this was my first visit and I was surprised at the sheer remoteness of the site sitting as it does on the northern flanks of Snowdonia.

"Today, the site comprises of a single line railway, a modern platform and the station building. The building had decayed since final closure in 1937 to a very ruinous state. It was a brave decision to decide to restore the structure, but the Group displaying a high degree of tenacity set about it and I think have produced a hidden gem of Welsh railways.

"The work has been extensive entailing substantial stone work carefully carried

out by a local member who is a stone mason; installing new lintels and windows based on the originals and then constructing a new slate roof, all in appropriate materials, and having regard to the remoteness, not using lead. This

different floor finishes. This was I think most successful.

"Overall, I think this is a great piece of work and, whether it wins an award or not, amply and deservedly demonstrates the degree of commitment given by all those involved.

"I think that this is probably the only surviving passenger station building at a junction on the British narrow gauge (excluding Ireland) and as such justly deserves the attention given to it.

"I would like to thank Mike Hadley, Paul Townsend, Pete Gray, Stuart McNair, Lewis Esposito, Cedric Lodge and Ian Lord for their

time in showing me around."

Lewis Esposito adds;

"The news that Tryfan Junction station had been short listed for an award in the National Railway Heritage Award competition, came as quite a surprise to me, as we were competing with larger projects where volunteer labour has not been involved. It is thanks to the single minded determination of John Keylock and David Allan, that we are in this position today, as I am sure most people would have thought that the financial demands and complexities of such a project would be beyond such a small group as ours. We have demonstrated how a great deal can be achieved (and equivalent to conservation standard), for less than £50,000. Tryfan Junction station adds another facet to this wonderful Heritage steam railway of ours."

Fine testaments indeed!!



seems an eminently sensible approach and does not detract from the work. The mortar joints are a particular delight: crisply executed.

"Inside the work continues to a high standard. The decision was made not to wholly recreate the interior but instead to provide a waiting room and an open space for various uses. Both parts are separated by a pair of wooden doors rescued from a L.N.W.R. building at Port Dinorwic. The waiting area has fine benches with turned ends based on a pattern used elsewhere on the line and all painted in a wood effect (using a comb). Mr. Esposito's aspidistra on a table in the centre was a nice touch complimenting the recreated (and lit) slate fireplace. The multi-use room was finished in the same way and will be used for events. A clever feature was to indicate the various original uses (booking office, toilets etc.) in this area by the use of

THE NANTMOR COPPER MINE

The sale of Hafod Garregog Estate, on which Cwm Bychan, later Nantmor, Copper Mine stood, and the involvement of Owen Cadwaladr Owen with the mine and farms, were covered in an article by John Keylock in W.H.H. Issue 57. John received much help from Ellen Jones, Mr. Owen's daughter, when preparing this article. This present article, which brings the history up to date, is dedicated to both Ellen and to the memory of John.

Dick Lystor has provided expanded and illustrated notes covering the history of the Nantmor Copper Mine and its associations with the Welsh Highland Railway.

With the benefit of a Take Note assigned in 1918 to Richard Hughes, Auctioneer and Land Agent of Carnarvon, the sale of the mine, along with Cwm Bychan farm and the mountain took place in 1920, being

purchased by Mr O. C. Owen, who moved into the homestead, Gelli'r Ynn, in the December. At this time, W. W. Davies from Nantmor was the mine manager and Mr Flewin the engineer. Mr Owen sold some land in 1923, and it was purchased by The Snowdon Mountain Tramroad & Hotels Co. Ltd, but as

John says in his article, Mr Owen only received payment in instalments, the final one coming in 1934, 10 years after the original sale. As he suggests, it would seem that payments depended on the fortunes of the Snowdon Mountain Railway.

The 1923 Deed covered the sale of the homestead and buildings, the trees on the land, and the water of the Aberglaslyn Pass, but retained the grazing rights for a nominal sum. Most importantly to the new owner perhaps, was the prestige of being the "name" connected to a beauty spot in North Wales. Mr Owen on the other hand was far more practical, feeling that the value of the land lay in the fact that it provided a water supply to the home he had built in 1920, and grazing for animals.

Nothing seems to have been done to the mine until August 1925 when the electrical sales superintendent of the North Wales Power Company, based in Dolgarrog, wrote to Henry Joseph Jack, the Power Company's MD, after having had a meeting with a Mr Albert E. Flewin connected with and acting on behalf of the

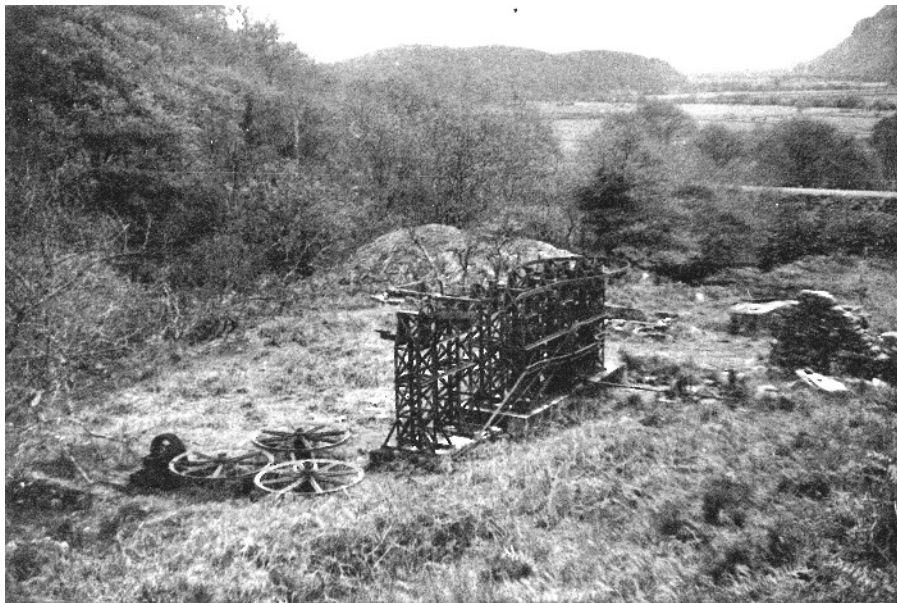


Figure 1. Discharge Terminal at lower end of ropeway, with W.H.R. embankment in background. (Gwynedd Archive Services)

Ellen has provided more information on the mine, and together with documents from the XD97, XM4170 and XS1608 deposits at Gwynedd Archives and those from the Public Record Office at Kew (BT31/32706/208335) courtesy of Richard Maund, this has allowed me to bring the story up to the time the mining company was dissolved in 1934 and beyond, and its earlier involvement with the Welsh Highland Railway.

Work began at the mine as early as the eighteenth century, the first mining taking place in 1720, but its heyday lasted for only a mere 20 years between 1782 and 1802. A little later, between November 1823 and January 1824, 11½ tons of ore were dispatched to the smelting works at Swansea, and in a letter accompanying the mining office account, the hope was expressed that future parcels of ore would be larger. Mining continued on a reduced scale until all work ceased in 1930.

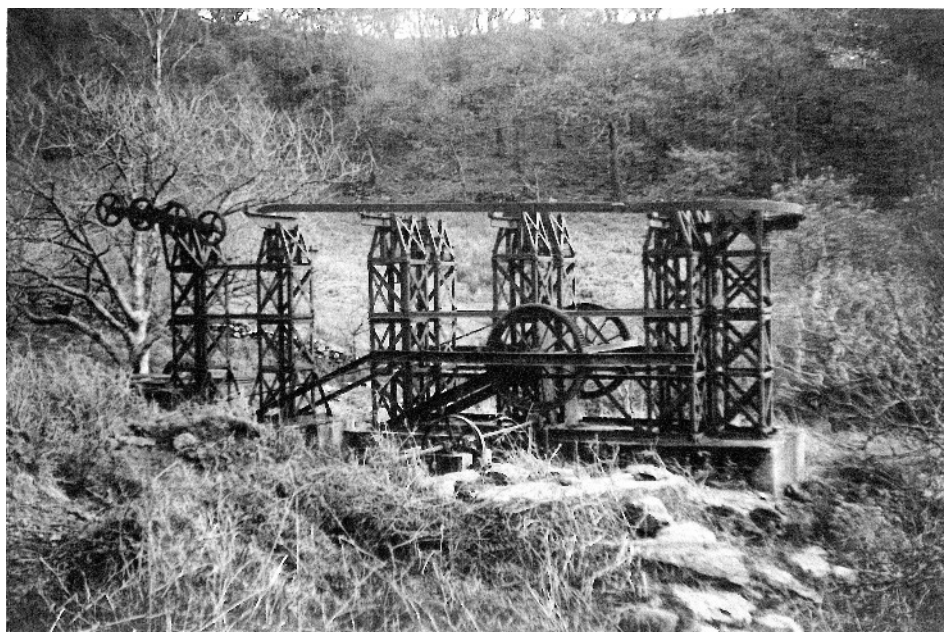


Figure 2. Close up of Discharge Terminal (Gwynedd Archive Services)



Figure 3. Bridge through W.H.R. embankment, with circular buddle in foreground. (Gwynedd Archive Services)

Hardy Trust Ltd, London E.C.2. A new Company was to be formed, trading under the name of the Nantmor Copper Company Ltd, with a share capital of £10,000. At the meeting it was announced that the Trust proposed to re-open Nantmor Copper Mine having taken it on a twenty year lease. Under discussion were power supplies, lease of land near the W.H.R. which was believed to be owned by the railway, and the construction of a siding to connect directly with the W.H.R.

The land was required for the erection of crushing and refining plant to deal with the ore having been brought there from the mine by an aerial ropeway. The land is represented by field No. 1604B as indicated on the 24" map of the area. Prior to P.B.&S.S.R. work in the area to create the embankment at the southern end of the long tunnel, it is apparent that the embankment, (1604A), and the land between it and the road, (1604), now accommodating today's National Trust Car Park, was all a single field. The Hardy Trust also wanted to take over the dilapidated building, Cwm Bychan farmstead, which was on the site bounded by a stone wall. The Trust wished to have their own siding, from the embankment to the ore processing area, so that copper concentrates could be loaded at the point of production. Mr Flewin hinted that in consideration of the additional revenue the W.H.R. would secure they may possibly consider contributing towards the cost of the siding! It was estimated that in the first month of production, 50 tons would be produced, weekly increasing to 100 tons a

week in the second month. By the end of six months production was estimated at 450 tons per week. It was suggested that initially shipments would be made weekly and later on, as output increased, quantities dependant on permissible train loads. High hopes!! Jack sent a copy of the letter to Colonel Stephens who filed it in his systematic way. This was fortunate because it would be over a year before potential copper mining activity returned to the railway's attention.

The Nantmor Copper Company Limited was incorporated on 10th September 1925, with a nominal capital of £10,000 made up of 8900 "A" shares of £1, 20,000 "B" shares of 1/- and 2000 "Labour" shares of 1/-. Memoranda of Association and Articles were published and there were seven subscribers (the aforementioned A. E. Flewin, Mining Engineer, being one) each having one "A" share each. The Registered Office was Finsbury House, Blomfield Street, London E.C.2, the home of H. C. Rogers, another of the subscribers. The initial Board of Directors was made up of Messrs. H. Hardy (Chairman), presumably the leading force behind the Hardy Trust Ltd., J. Chesterton-Porter (Secretary), J. M. Reid and Major R. Wyman.

A glowing Prospectus was issued, giving both the history of previous mining activity and an estimate of future prospects. It is interesting to read that it was noted that the old miners transported the ore on the backs of donkeys to the nearest railway point, then some 8 miles

away, but that a new railway now runs within a few yards. Mr. D. C. Griffith, the Company's consulting engineer, reported that the lode to be worked would produce at least 100 tons of ore per day at an average of 3.5% copper, for some years to come. An ideal site for a Concentration Works able to treat 50 tons of ore per day had been selected, close by a stream to provide necessary water power and near the W.H.R. where a siding would facilitate the regular shipments of concentrate. These works were expected to be completed in six weeks, and ultimately consisted of two buildings, two settling tanks and two buddles, the remains of which can still be seen today. The mines works office was by the W.H.R. tunnel, between the boundary wall of Craig Llan and the path leading down to Cwm Bychan house. A ropeway, complete with ore buckets, would be used to convey the ore from mine to works, and would be installed by Richard White & Sons of Widnes.

The estimate of profit was very encouraging to say the least! The Directors proposed to limit the output of ore to 50 tons a day for the first six months, yielding 52½ tons of concentrate per week. The sale value was given as just over £341, with costs of production and transport etc. amounting to £200, giving a profit of £141 per week. By an Agreement dated 17th October, the four initial Directors took up individual holdings of "A" shares to the value of £100, this being the minimum holding to qualify as a Director from this date. Chesterton-Porter resigned as

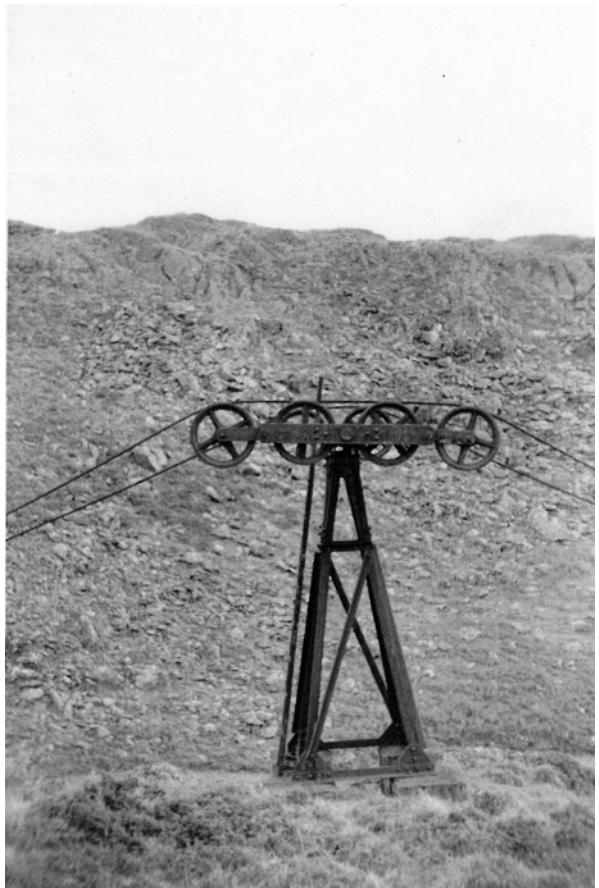


Figure 4. Single ropeway stanchion. (Gwynedd Archive Services)

Director shortly afterwards, but continued as Company Secretary. A further two joined the Board at this time, C. T. Knox and C. F. Quack.

The first Director's Report was given at the Statutory Meeting of the Company held at the Registered Office on Friday 22nd January 1926. In brief, it stated that the total number of "A" Shares allotted by 13th January was 2010, all for cash, of which £850-6-0 had been received and £1159-14-0 awaited. The total receipts were £850-6-0 (i.e. the share money) and expenses were £450 for Preliminary Expenses, £155 paid on account for Plant, £95-10-4 for London expenses, with £147-15-8 cash balance at the bank. The Balance sheet made up to 30th November showed that Issued capital was £2520, of which £547 was unpaid and expenses included £775 for plant, machinery and development costs, office expenses of £480(!) and a meagre £31 cash in the bank. Ominously, there was no mention of any sales of copper concentrates. By 13th January 1927, calls were being made on the shares, a total of 3995 having been taken up. £3447 was received, with the balance unpaid. Obviously finances were in dire straits.

Returning to November 1926, there was considerable discussion between Stephens and Robert Evans of the W.H.R. and W. W. Davies, mine manager, concerning both the siding and transport of machinery for the mine. Most of the correspondence dealt with the question of the siding and the necessary rails. Writing in February 1927, Davies was surprised that the siding had not been installed; being under the impression that this work had been completed some time ago! He stated that the siding was very necessary to enable machinery to be unloaded, and enquired as to the possibility of stone being delivered by the W.H.R. from Dudley Park Quarry at Waenfawr. In reply, Stephens stated that the railway had never been asked to install a siding, but that the agreement with the mine had been that they themselves were responsible for all earthworks and trackbed, in preparation for the W.H.R. to lay a siding of sufficient length to hold 10 trucks.

Further correspondence ensued regarding deliveries of stone, haulage rates for copper concentrates and the unpaid account of the mine, a matter which was to feature more than once over the next few years!

In March 1927, 3 wagons of stone from Dudley Park Quarry were to be left by the tunnel mouth for the mine employees to unload, and return the empty wagons to the siding at Nantmor, but it is not clear whether this stone was unloaded or not. Much machinery was being delivered by rail, but unsurprisingly, the account had still not been settled. By April this account was still overdue, and further problems arose over haulage rates, the mine threatening to consider using motor transport. The earthworks for the siding remained unstarted, Davies saying that

he had not had authority from his head office to start the work!

In the following month a visit was made to Mr Flewin, the mine's Resident Engineer, who insisted that he knew nothing about transport means and had had no correspondence with anyone regarding the matter, but would advise head office that a bed for the siding was necessary! Machinery was being got ready for operation, and the aerial ropeway was due to be erected by the end of the month. This was 4500 feet long from the mine to the small concentration plant below the W.H.R. embankment, supported on iron trellis poles a maximum of 700 feet apart, with a height of between 20 and 30 feet, and was supplied by Richard White & Sons, Widnes, as proposed in the Prospectus. Interestingly there is an earlier link with Whites and the N.W.N.G.R. In April 1901, they were the main contractors for the Great Orme Tramroad and supplied trackwork and mechanical equipment such as boilers and engines. The Engineer of the Tramroad was H. E. Taylor M.I.C.E. and relationships between him and Whites were very strained, leading to his resignation. He was replaced as Consulting Engineer by Gowrie Colquhoun Aitchison, Secretary of the Snowdon Mountain Tramway (for which Whites were sub contractors for the

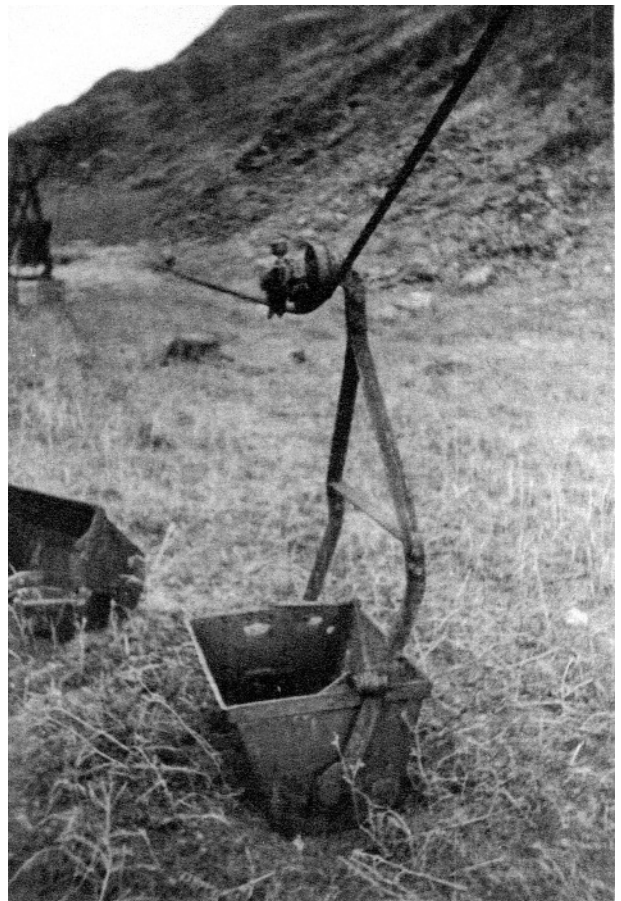


Figure 5. Ore bucket attached to wire haulage rope. (Gwynedd Archive Services)

permanent way materials), and Manager, Secretary, Engineer and Locomotive Superintendent of the N.W.N.G.R.

Matters regarding rates and motor haulage dragged on during the following months, with no sign of the unpaid account being settled. Writing to H. D. Jones at Beddgelert, Robert Evans asked how much the copper mine owed the W.H.R. for carriage account and when the last payment was made. The W.H.R. was not alone in being owed money by the mining company as a letter of 29th July drew attention to the fact that Mr Flewin was being pressed for payment by a number of firms and individuals, with little prospect of being paid. The letter also revealed that not much was being done to work the mine and that men were being laid off. Ellen has supplied a list of some of the workforce employed by the mine. Apart from Messrs Davies and Flewin, of whom mention has already been made, other employees included Gwilym Owen - blacksmith, Richard Owen - joiner, R. Pierce Jones of 'Y Wenllys', Nantmor, Eleazer Jones, William Roberts, Morris Williams, Harry Williams, Now Jones, R. Gwilym Davies, Jac Evans and Richard Williams of Dryll.

Come August, the station staff of the W.H.R. were told not to have any traffic delivered to the mine without first receiving payment. This seemed to have some effect as a cheque for the outstanding account of £11-12-9 was received just over a week later! By the end of the month things were very quiet at the mine with only a few men left employed. Local opinion was that the venture was "going down"

At the beginning of November 1927 Evans wrote to Stephens saying that a gentleman from the mine had informed him that machinery was being removed to Trawsfynydd (the reasons for which are not apparent) and that the mine was about to close. There were still outstanding debts owed to the W.H.R., but come May 1928, these had not been paid, and it is unlikely they ever were! In 1931 the Company went into



Figure 6. View at top end of Cwm Bychan, showing remaining stanchions, ropeway terminal, and spoil tips of copper mine. (Simon Lowe)

voluntary liquidation following court action on December 31st 1930. Dismantling of the mine and works took place during 1931 & 1932 and notices were put out to recruit men to carry out the work. Materials to the value of £300 were recovered comprising seven iron trellis stanchions, wire ropes and buckets, all from the lower part of the aerial ropeway, a blacksmith's forge and anvil, loose iron rails, a wooden wagon, an iron wagon and a quantity of copper ore. The remaining stanchions and upper terminal of the ropeway near the mine's entrance are still in situ today. Moveable ironwork below

It would appear that the mine was a financial disaster from 1923 onward, due no doubt to a lack of good quality ore, the best having been extracted in its earlier years in the nineteenth century. As with many mines, the prospect of financial reward was soon found to be misguided once the realisation had set in that both quantity and quality of remaining ore left in the mine did not come up to expectations; the company owed money to almost everyone with whom it had had dealings, and on 6th July 1932 a writ was issued and the Company was dissolved on 4th

December 1934. Earlier that year on 7th February, the Company, by then down to 2 Directors, Messrs Hardy and Wyman, informed the Registrar of Companies that no business had been done for some time and asked, that as it was entirely without funds to enable it to be wound up for it to be struck off in the usual way. On 16th August a further letter reiterated that the company had no funds and was unable to obtain fresh supplies and had ceased to conduct business with no hope of resuming. The notice of dissolution appeared in the London Gazette during March 1935.

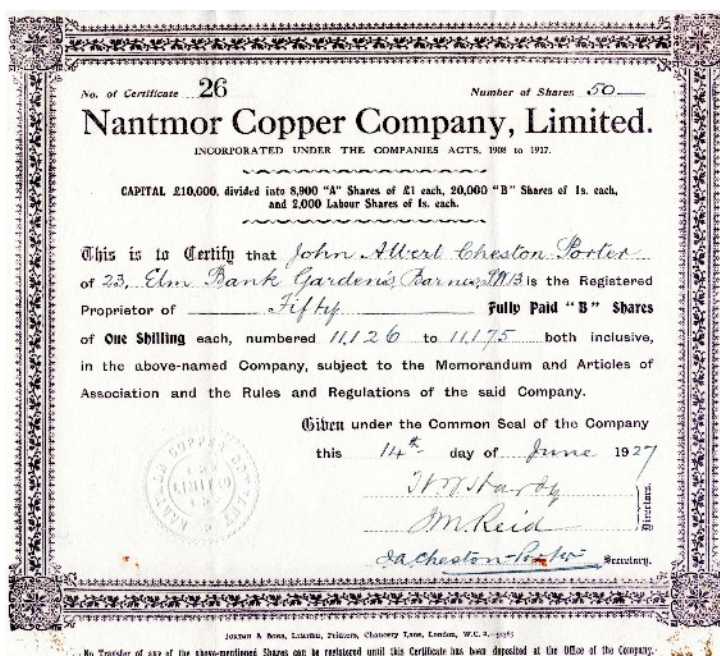


Figure 7. Nantmor Copper Co Ltd, "B" Share Certificate.

the mountain wall was taken away for the war effort by "Will Scraps" from Harlech. This is likely to have been W. O. Williams who had the contract for demolishing sections of the W.H.R. in later years.

As part of a study of potential mineral deposits in the British Isles, the mine was investigated on 2nd July 1970 by the firm of Noranda-Kerr Ltd, but they confirmed that although quantities of copper ore were still present, they were deemed to be insufficient to be viable for extraction.

The final act in the mine's history came in 1983, when Ellen Gellrina Jones sold the Mineral Rights in Cwm Bychan to the National Trust in 1983, the grazing rights having been sold the previous year again by Mrs Jones to the National Trust. Thus, through her determination, the beauty and tranquillity of Cwm Bychan will remain for all to

enjoy, something of which her father would have been justly proud.

My thanks are due to Ellen for her continued help and interest, Richard Maund, Gwynedd Archive Services, and Simon Lowe.

The North Wales Narrow Gauge Railways; As Pictorial an History as Possible. By John Keylock (Part 2)

17. Also by the mid-1870s the demand for slate was about to reach its peak and the success of the Festiniog Railway in moving slate inevitably attracted to this new venture some of those men involved with that railway to exert their influence. The North Wales Narrow Gauge Railway(s) was to be of the same 1' 11½" gauge but in construction would be a simpler task being rather more on the level.

18. Before the passing of the August 1872 Act of Parliament all the lines authorised will have been surveyed and in some cases perhaps utilising as a basis surveys for earlier abortive schemes! The Chief Engineer to the scheme was Charles Easton Spooner (1818-1889) assisted by Hugh Unsworth McKie (1822-1907).

19. **Charles Easton Spooner** was born at the Lodge (now called The Old Rectory) in Maentwrog in 1818. The third son of James Spooner, at the age of twelve he is said to have helped his father with the surveying of the F.R. James Spooner gave his son two years practical training on the F.R. before spending a further two years with that well-known railway contractor Joseph Locke while building the Lancaster and Preston Railway. A further two years were then spent with Isambard Kingdom Brunel on the Taff Vale Railway. What better tutelage could the young man have had? A further two years were then spent as a partner in James Spooner and Sons before setting up his own surveying and engineering consultancy (Spooner & Co.). In 1848 Charles married Mary Barker and moved from Morfa Lodge, Portmadoc to lease Hafod Tanygraig from the Vaudrey family in Nant Gwynant and was not much involved with the F.R. for the next few years. Shortly before his father's death in 1856 he moved to Bron-y-Garth overlooking Portmadoc harbour and from there acted as Manager, Secretary, Engineer and Clerk to the F.R., effectively taking over his father's functions. Five children were born between 1850 and 1858.

In 1862 he was Engineer for the standard gauge Carnarvonshire Railway and the following year surveyed the route of the Croesor Tramway, (H.B. Roberts and H.U. McKie) having for the previous three years investigated various methods for transporting slate from the Croesor Valley

quarries to a railhead or harbour. He was consulting engineer to the Rhosydd Quarry (where he may well have made contact with J.H. Oliver). He was also involved with survey work for the owner of Alexandra Quarry - on Moel Tryfan - in schemes to enhance its profitability. In 1865 he was Engineer to the Croesor & Portmadoc Railway and its planned extension to Borth y Gest.

In 1871 he was awarded a gold medal by the Czar of Russia following the 1870 trials on the F.R. To demonstrate the effectiveness of the double-Fairlie locomotive principle. In the same year he wrote a book entitled 'Narrow Gauge Railways'. He died in 1889 and is buried in Beddgelert churchyard.

20. Born at Garstang, Lancashire, on May 16th, 1822 **Hugh Unsworth McKie** was very much a contemporary of C.E. Spooner. He served his pupilage to Mr. William Lamb, an agent and land surveyor to the Duke of Hamilton. Between 1844 and 1850 he engaged in private practice in Lancaster with Mr. John Lawson and carried out sewerage and waterworks for Lancaster and elsewhere. During this period he also served as Resident Engineer on part of the North Western railway and harbour works at Morecambe. From 1850 to 1856 he was engaged under Mr. (later Sir) Robert Rawlinson [who was to serve as President of the Institute of Civil Engineers from May 1894 to May 1895] on water supply and sewerage works at Alnwick, Carlisle and North Shields, in the course of which he introduced several improvements in the design and method of laying sewers.

21. In 1856 he was appointed City Engineer and Surveyor for Carlisle and held this appointment until 1860. At the same time he was still involved in a private practice partnership, on this occasion with his former pupil Mr. James Mansergh who, like Sir Robert Rawlinson, would also later serve as President of the I. C. E., this time from November 1900 to November 1901. Whilst in Carlisle, he designed and carried out, in addition to street improvements and other works, a sewerage irrigation farm for that city and sewerage works for Rothbury and Silloth.

From 1860 to 1865 he was occupied in the preparation of parliamentary and working drawings for the Conway and Llanrwst Railway subsequently acting as Contractor's Engineer during its construction. Later he superintended, in the same capacity, the setting out of a railway line and tramways in the south of France.

It seems likely that the Conway and Llanrwst contract gave McKie a taste for North West Wales and the potential for his services in the area; he therefore established in 1867 a consultancy practice based at Tan-yr-Allt - previously the home of William Madocks - on the outskirts of Tremadoc. In that year he was appointed manager and secretary of the Croesor and Portmadoc Railway and its planned extension to Borth-y-Gest. Being also active as consulting engineer with the Croesor United Slate Company (until 1872) he became - in 1869 - Resident Engineer for the Hafod-y-Llan tramway to serve the South Snowdon slate workings (owned by Thomas Bolland - see later) in anticipation of the General Undertaking being built. During this period he was also responsible for the extension of Portmadoc harbour and sewerage works within the town; indeed sewerage would seem to have been his forte.

22. Having overcome some minor objections (*an official map produced by the N.W.N.G.R. refers to the 'Moel Tryfan and Bettws Garmon Lines'*. In the latter area were estates belonging to G. W. Duff Assheton-Smith who saw no necessity for a railway!) To the Moel Tryfan Undertaking the scene was set to start construction initially on the potentially most lucrative line to Bryngwyn. In December 1872 a contract was awarded to McKie who, as we have seen, was very much 'in the club'! The contracted price was £56,150, being £7,000 more than the original £3,500 per mile estimate. In the same month Hugh Beaver Roberts agreed to lease the railway based on an agreed completion date of November 1874. This agreement was sanctioned by the June 1873 N.W.N.G.R. (Lease) Act but its terms subsequently modified so that the lease would start from the date of opening for traffic.

23. Other terms of the agreement – bearing in mind that Roberts was a solicitor – are indicative of his supreme but misguided optimism in the scheme. Furthermore he agreed to spend £10,000 on locomotives (based on Fairlie's patent) and rolling stock which he expected not to have depreciated by the expiration of the lease! By this time the N.W.N.G.R. Board had already been reconstituted. H. B. Roberts as lessee of the Moel Tryfan Undertaking would as a member have had vested interests and three new names appear; Thomas Bolland, Chairman of the Snowdon Slate Quarries Company, Thomas Duncombe Love Jones-Parry MP of Madryn, Pwllheli, who had been one of those responsible for introducing the Bill to Parliament, and Charles Pearson of Bryn Seiont, Carnarvon. Both Jones and C. E. Spooner were patrons of the Portmadoc Choral Society. Nevertheless it must be remembered that Roberts owned – until 1881 – Braich Quarry on Moel Tryfan and therefore had a substantial vested interest.

24. The January 1873 prospectus stated that the company had entered into an agreement to lease the Moel Tryfan Undertaking for twenty one years at 'a minimum rent of 6% on the share capital now for subscription. Interest will accrue immediately at 6% p.a. by virtue of a sufficient amount having been invested in consuls in the names of Sir Llewelyn Turner and Thomas Bolland. The lines are to be finished within 18 months'.

25. The 'responsible lessee' was Hugh Beaver Roberts 'of Bangor and Leamington Spa'. The prospectus also stated that a contract for the construction 'of the lines had been entered into with a 'responsible contractor', Mr. H. Unsworth McKie of Tremadoc who has given surety for the completion of the Moel Tryfan line within 12 months, and 'the Bettws Garmon line' within 18 months from their commencement. The Company's Act of Parliament, a copy of the lease and the Bill before Parliament confirmatory thereof may be inspected at the office of the company's solicitors'.

26. On the 7th March, 1873, the first half yearly ordinary meeting of the company was held in London. The Chairman, Sir Llewelyn Turner, was able to report that the initial share issue had already raised

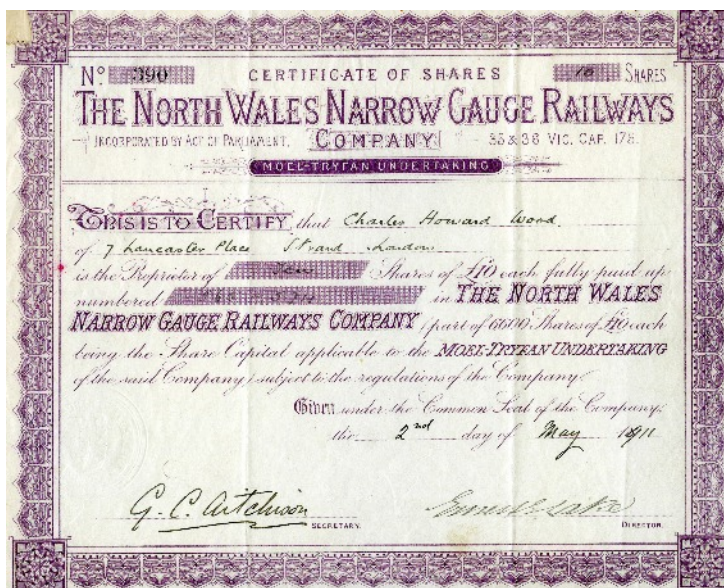
£52,688, McKie had been awarded the construction contract and that Roberts' lease was currently being sanctioned by the legislators. At special meetings on 2nd May the Board and shareholders agreed the terms of Roberts' lease as amended by the House of Lords. This received the Royal Assent on 16th June.

27. Construction work started in the spring of 1873 but McKie, having taken the contract, was obviously obliged to relinquish his position of co-engineer to

of dog spikes went to the Isle of Man where railway construction was also on-going!

29. McKie took the matter to arbitration and contrary to the board's expectations, was awarded £5,300. So McKie continued under pressure at least to get the line to Bryngwyn open for slate traffic. This would satisfy those with vested interests and provide some revenue [but by early 1875 McKie, who was still not performing to the Board's satisfaction, was seeking further arbitration - see paragraph 34 below]

30. Also in June 1874 the N.W.N.G.R. announced the issue of 6% first mortgage debentures, at par. £22,000 was required for a five year period and represented the sum necessary to complete the Moel Tryfan Undertaking. The minimum holding would be £100 and repayment would take preference over the initial £66,000 share issue that had been fully subscribed. The prospectus confirmed that Roberts's revised lease had been approved by Parliament.



N.W.N.G.R. Share Certificate (10 shares at £10 each) Issued in 1911

Spooner at whose behest he now found himself. It was not very long before work started to slow down as reciprocally did payments to McKie whose interest waned so that progress became even slower. Recalling the fact that McKie (until 1872) and Roberts had been involved together with Croesor matters, the latter began to get 'cold feet' about the project and subsequently called a special meeting (in August 1874) at which he threatened to repudiate his lease. By November 1874 – the month for projected completion – all construction work had stopped; the company was behind with its payments to McKie (short of money as it was always to be) and there was obviously no hope of a November opening!

28. As McKie was paid on results, he claimed that his work had not been properly assessed by Spooner thus his constantly being underpaid. By this time McKie had moved to live at Tan-y-Garreg (Sir Llewelyn Turner's fishing lodge) and was very much 'living on the job' with a store for construction materials at nearby Nant Mill. In June 1874 he had taken matters into his own hands by selling off rail which was presumably loaded onto the L.N.W.R. at Dinas for dispatch. Five tons

31. At the May 1875 half yearly general meeting Sir Llewelyn Turner and Charles Pearson (who relinquished ownership of the Moel Tryfan Slate Quarry that year) retired by rotation, but were re-elected. To fill the two vacancies on the board, Charles Davison of Connah's Quay and Abraham Fitzgibbon of Middlesex were elected. Six months later the directors reported that McKie was still not making the expected progress despite employing more men. He had been instructed to "proceed with all vigour" on the line to Bryngwyn so that it might open for slate traffic. Sir Richard Williams Bulkeley had died in August, his place on the board being taken by his son for the remainder of the term.

32. As we have seen the bulk of land required for construction of railway No. 6 (Dinas to Bryngwyn via Tryfan Junction) and Railway No. 7 (Tryfan Junction to Rhyd Ddu) was purchased from Duff Assheton-Smith. In June 1875 McKie entered into an agreement with said gentlemen in the sum of £35 to rent a strip of land 'by measurement two rods', to widen the limit of deviation near the access to Tan-yr-Allt farm. McKie was authorised to extract from this area 'soil, gravel, earth or clay, but on the

termination of the lease the sides and slopes of the land must be at a gradient of 1ft vertical and 1ft 6in horizontal'. The subsequent embankment 'to be covered 'with 6in of good soil and seeded down with good grass, clover and other seeds'.

33. While extraction work was in progress McKie would fence off this strip of land from the adjacent fields and compensate the tenant farmer for any damage he may sustain in the removal of the said soil, gravel, earth or clay or by sufficient fencing. McKie would be responsible for the payment of all 'rates, taxes and outgoings' in respect of the land during the term of the lease but would nevertheless 'peaceably and quietly possess and enjoy the said land and exercise the several privileges hereby confirmed without any interference, let or interruption'. However on the plan attached to the agreement the farm is described as Gwredog Canol, but either way with the coming of the railway a road under bridge would be necessary.

34. The March 1876 half yearly general meeting was told that McKie had at last been dismissed having handed over complete possession of the works, materials and plant on the 7th February previous and that completion of the Moel Tryfan Undertaking would be in the hands of other parties.

The Directors had been excessively anxious to terminate the contract amicably and the Chairman, Major Oliver had previously made a proposal acceptable to McKie but legal advice had not recommended its adoption. With hindsight such a proposal should have been accepted.

Again, Sir Llewelyn Turner emphasized the potential of the completed line 'serving about fourteen slate quarries and three iron mines as well as the singular beauty of the scenery through which the line passed bringing a large tourist traffic to Llanwnda and Beddgelert'. However, he also commented that if he had had his way the line would have joined the L.N.W.R. at Bontnewydd rather than Llanwnda for the same cost. 'This would someday have to be done'.

[At a special meeting on the same day a resolution was passed approving a Bill authorising the abandonment of Railway No. 1; the 'General Undertaking' Portmadoc, Beddgelert, Bettws-y-Coed.] McKie was subsequently awarded a further £7,147 by Mr. Brownlees the

arbitrator.

Having been relieved of his contract, McKie became involved with a Mr. Thomas Duncan on waterworks schemes in Rhyl, Abergele and St Asaph. During this period he prepared plans for the Alexandra Palace railway, the Berlin West-end waterworks and acted as Resident Engineer on the main sewerage works of Southport.

In 1877, McKie was a second time appointed to the office of City Engineer and Surveyor of Carlisle, and retaining the appointment until 1889 he carried out a number of street improvements, designed and erected public slaughterhouses and other municipal buildings, laid out a public park and new cemeteries, and



When the N.W.N.G.R. Opened in 1877, the main line to Bryngwyn was complete, but the branch to Rhyd Ddu ended at a temporary terminus north of the later Snowdon Ranger station. In this 2004 photograph a southbound train passes the site of that temporary terminus - David Allan.

prepared a report and plans for the disposal of the sewage of the city. At the same time carrying on private practice outside the city boundaries, he was responsible for sewerage and waterworks at Netherby, Haltwhistle, Wetheral and Maryport, and flood protection works on the River Nith above Dumfries.

Leaving Carlisle in 1889, Mr. McKie established a consulting practice in Westminster, and carried out water supply works for Frimley and Farnborough and was consulted on numerous other water and sewerage schemes. He retired from professional pursuits in 1898, at the age of 76.

35. At the same meeting Mr. Bolland resigned – possibly because there was no likelihood of the General Undertaking being built to provide an outlet for South Snowdon slate on his already built Hafod-y-Llan tramway. He was replaced by a Mr. H. Hill and Chaloner William Chute (1838 – 1892) barrister of Lincoln's Inn and a gentlemen who will become significant a little later, was also elected

a director. Sir Richard Bulkeley was re-elected. Mr. Davison complained that some Directors did not show sufficient diligence; Major Oliver being a case in point. In his defence, Sir Llewelyn Turner said that he had constantly attended meetings until breaking his leg prevented him. He was now living in Ireland and on a show of hands he was declared not to be reelected.

It will have been noted that the 'turnover' of directors continued; perhaps they began to appreciate how much good money was being thrown after bad?

36. There is no record of McKie having used a locomotive while he was in charge of N.W.N.G.R. Construction but his replacement – a Mr. John Boys, 'civil engineer' – obviously adopted a positive approach although much work had already been done. It has been stated that £20,000 would enable the line to be completed and the Company's financial obligations fulfilled; hence the previously mentioned prospectus for £20,000 Debentures shares. At the Festiniog Railway Company's Directors meeting on 1st June, 1876 it was agreed to lease to Mr. Boys 'one of the small locomotives for six months at £130'. To this end Palmerston had been repaired at Boston Lodge three weeks previously and had been sent to 'Llanwnda

Junction (Dinas) on 9th May'. The hire charge was to be in two installments of £65 the first due on 9th August. One condition of the loan agreement was that 'fuel coals from Coed Porth Colliery be used and carefully screened during the six month period'. Normal wear and tear would be the responsibility of the F.R. but the cost of any extraordinary repairs or damage would be paid for by the N.W.N.G.R. at cost. The N.W.N.G.R. would be responsible for delivering the locomotive back to Portmadoc free of charge. The agreement was signed by Sir Llewelyn Turner, N.W.N.G.R. Chairman and C. E. Spooner, Secretary to the F.R.

In the context of any railway the last we hear of McKie is in respect of all his railway construction equipment being sold by auction at 'Llanwnda Junction' on Friday 15th September 1876. His experience with the N.W.N.G.R. had clearly convinced him that railway building was not his forte! He was also getting rid of his office equipment and means of transport but some railway items are worthy of comment.

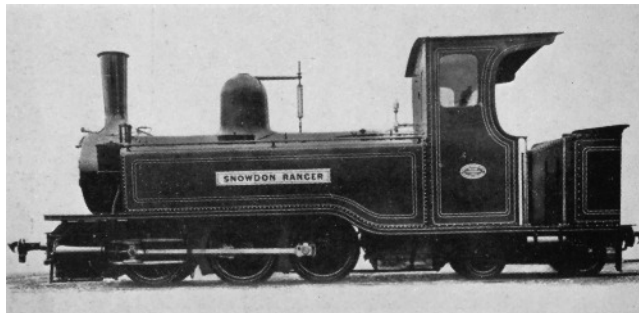
Originally the N.W.N.G.R. was laid in 35lb/yard rail, but Owen and Sons' Sale Announcement includes "250 feet of Temporary Rails 35lb/yard" along with "six tons of Nantlle Rails, Iron Chairs, Cast Iron Turntables, ditto Crossing Plates 1 1/3 cwt. Each..." which would have provided a reasonable length of contractor's track. With the recent conversion of the Nantlle Railway to standard gauge original rail and chairs would have been readily available; but no mention of rail spikes! However, as the sale took place under the eyes of his former employer at Dinas no doubt everything on offer was legitimately his property.

It would seem likely that Charles Easton Spooner gave up his position as engineer to the line as a result of Mr. Brownlees arbitration which did not show him in the most favourable light. Engineering responsibility was passed to his son Charles Edwin (1853 - 1909) who did not hold the position for long as by 1876 he was in Ceylon. However it should be noted that at the eighth half yearly general meeting in December 1876 a 'Mr. Spooner' stated that the line could be open for mineral traffic immediately and to Rhyd Ddu in about two months! It was also stated that the signals required by the Board of Trade would be put up by 'the end of February next'.

37. With Mr. Boys now in charge of line construction a special general meeting in August 1876 at the company's offices in Threadneedle St., London, was told that considerable progress had been made since he took possession of

the works. The Chairman and his colleagues had originally been induced to invest in the concern in the belief that it would pay very well. Extending the line south from Betws Garmon would enable the railway to benefit from the production at Glanrafon Quarry 'which produced 12,000 tons of slates annually' - (even though it had only opened the previous year on land belonging to the Vaynol Estate of Duff Assheton-Smith). By July 1876 the Act giving powers to abandon the General Undertaking had received Royal Assent. This had the effect of releasing much

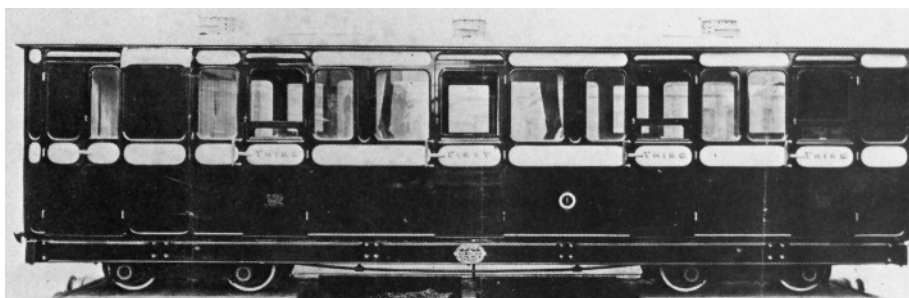
needed capital in the raising of £40,000 worth of preference shares. A figure of £27,000 was now put on the railway's completion and restoration of financial stability. [Footnote - In his book 'Cwm Gwyrfa' Dr. Gwynfor Pierce-Jones suggests that the choice of Vulcan Foundry as locomotive suppliers related to the fact that there was a Pearson on the N.W.N.G.R. Board and another owning and quarrying on Moel Tryfan. Their



Maker's Photograph of single-Fairlie 'Snowdon Ranger' (WHR16)



The three Ashbury 4-wheel carriages (WHR98 - detail)



Maker's Photograph of Ashbury Brake Composite No. 1

estate was at Golborne 'next door' to Newton-le-Willows.]

38. By this time it was hoped that the opening of at least part of the railway was imminent. As part of Roberts' lease agreement two locomotives had already been delivered the previous year (1875) from the Vulcan Foundry in Newton-le-Willows. Named 'Moel Tryfan' and 'Snowdon Ranger' these 0-6-4 tank engines were based on the Fairlie principle of an articulating power bogie. These single-Fairlies were Spooner-designed - a further indication of

continuing F.R. influence.

39. Also ordered for the opening of the railway were three 4-wheeled carriages most likely from the Ashbury Railway Carriage & Iron Co. Of Belle Vue, Manchester - and two brake composite bogie carriages from Brown Marshall and Co. Ltd. These would cater for initial passenger traffic and - presumably in anticipation of the potentially more lucrative slate and coal traffic - wagons were ordered also from Brown Marshalls. A Board of Trade Return, made prior to the partial opening of the railway, recorded a total of 14 wagons. Extended terms for the purchase of all these items were between Roberts and the manufacturers for periods of three, five and seven years.

40. Back in August 1874, when McKie was not seen by the board to be performing adequately, Roberts could possibly 'see the writing on the wall' and made it clear that he would not fulfil his lease obligations if the line was not open by the agreed date. The August 1876 meeting had been attended by Roberts who regarded the lease as no longer binding and although the company had been advised to the contrary perhaps it would be to their advantage if the lease was cancelled.

41. It would seem likely that 'Palmerston' stayed on the N.W.N.G.R. rather longer than the initially agreed six months as it was July 1877 before the locomotive next entered Boston Lodge works for a substantial list of repairs. On 21st May the N.W.N.G.R. opened for goods traffic between Llanwnda Junction (shortly to be renamed Dinas Junction to avoid confusion with the L.N.W.R.'s station serving Llanwnda) to the Drumhead at the top of the Bryngwyn Incline and a temporary terminus at Quellyn (just beyond the road over bridge at Castell Cidwm). At last Roberts could ship out the produce of his New Braich Quarry by rail.

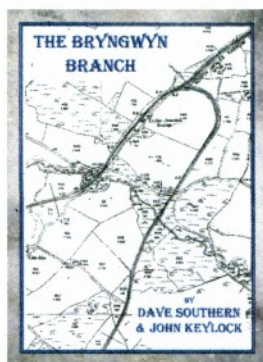
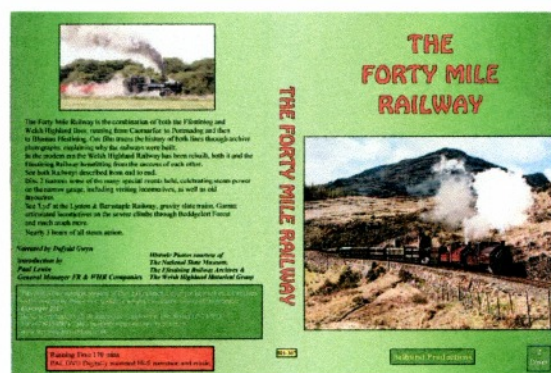
(In our next episode we will look at Major Marindin's reports on the new railway and the first mentions in the History of one J.C. Russell.)

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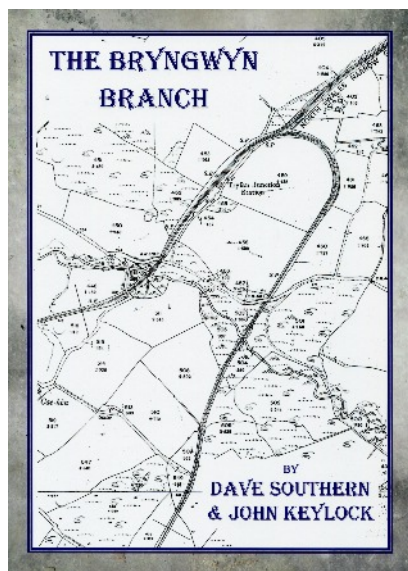
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From the Editor

The Bryngwyn Branch

Michael Davies, one of our founder members, has been reading our new book covering the history and development of the Bryngwyn Branch from inception to the present day. He has sent me his review of the book;



Tryfan Junction and the Bryngwyn Branch of the N.W.N.G.R. first captured my interest as long ago as February 1950 when walking the W.H.R. track bed during school half term holiday, and so I am quite delighted that we now have a book devoted to the subject. It may not be generally realised that Tryfan Junction was in fact the only 'junction' station on a British narrow gauge railway, and the line to Bryngwyn the only narrow gauge branch line.

Our late Hon. Sec. John Keylock was passionate about the W.H.R. and there can be no doubt that he, with co-author John Southern, have produced a most readable and thoroughly exhaustive work on what many would consider a very obscure railway.

Running to more than 70 pages we are told of the ambitious plans of the 1870s to construct narrow gauge railways stretching from Carnarvon to Corwen, later modified to a mere 12 miles from Dinas to Bryngwyn and Rhyd Ddu.

Every aspect of the line is discussed in detail and we have some fascinating documentary evidence from the early W.H.R. period when Colonel Stephens was hoping to restore the passenger service using the Simplex tractor and a single carriage. Other chapters cover operating methods, working the Incline, quarry feeders and accidents, and finally the restoration of Tryfan Junction station and opening of the 'Slate Trail'.

The book is well illustrated considering so few pictures exist from the 60 year operational period, but it is a pity that two of Roger Kidner's Bryngwyn photos are undated. They must be 1934. The date of the 1942 scrapping of '590' is wrongly given as 1937, whilst unfortunately the names Sir Llewelyn Turner and James Cholmeley Russell are mis-spelt. That apart this is an excellent publication upholding the high standard set by all the previous publications of our Group. Highly recommended.

Michael Davies - 10/2014

Membership

This Issue includes a membership renewal reminder - yes it is nearly that time of year again!

A number of members pay their subscriptions by Standing Order and I have tried to avoid including reminders in copies sent to these members. My apologies to any member receiving an unnecessary form if my 'filter' has been less than fully efficient!

To those members contemplating their membership renewal, if you would prefer this to happen automatically in future, please consider the Standing Order Option at the foot of the form.

In the last issue of W. H. H., Mike Hadley made a plea that members should supply him with their e-mail addresses. To all those who have responded to his request, thank you! To those who have not responded, Mike's appeal still stands!

In parallel, I asked if any member would prefer in future to receive their copies of W. H. H. electronically. A number of members have requested this option but a large number of copies of W. H. H. are still distributed by 'snail-mail'. If you would prefer to receive your copy electronically in future, please let me know.

Peter Liddell

More on Tryfan Junction:

We are seeking further items to 'dress' Tryfan Junction station, such as old trunks, jute sacks, ancient black umbrellas, period paper adverts, a plain basic marble topped washstand for the rear storeroom, an enamel jug and bowl.....we will consider anything appropriate of the period!

If you would like to volunteer to man Tryfan Junction station for a day next year, feel free to call us. It is a very atmospheric delightful place to be.

2015 will also require more efforts to market Tryfan Junction and the superb 'Slate Trail' and the pathways to Alexandra Quarry and Waunfawr. (If you would like to be a mountain guide to the quarries, let me know!) The scope is enormous, it is a place waiting to be discovered by the public and the Welsh Highland Railway will help to take them there.

Lewis Esposito Tel: 01286 650397

Situation Vacant – Small Objects Coordinator:

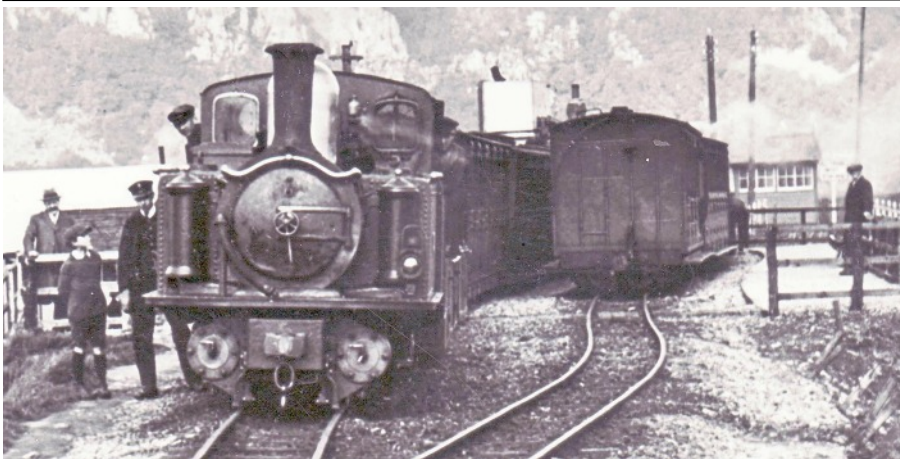
Please, ignore the possible ribald interpretations of the heading to this note and ask yourself whether you are able to assist in the conservation of the ongoing heritage of the Festiniog & Welsh Highland Railways.

There already exists a modest collection of what can only be described as 'small objects' from the pre-preservation era and from some of the post-preservation period. The latter including examples of some of the material produced as souvenirs and sales items; ashtrays, tea towels, calendars, guide books, videos, clothing, badges and so on.

The Directors of F. & W. H. R. Heritage Ltd. have realised that nobody is presently responsible for ensuring that selected examples of 'small objects' are being collected so that future generations may be able to see what the Company considered attractive to its customers as a means of obtaining extra revenue.

Therefore, the Directors would be interested to hear from anybody prepared to spend a little time each season gathering and listing examples of appropriate items for posterity. The F. & W. H. R. Ltd. Director left holding the short straw is Adrian Gray who will be pleased to talk about the role with any potential volunteer. Email to archivist@frheritage.org.uk or write to 25, The Pound, Syresham, Brackley, Northants NN13 5HG Tel: 01280 850292

Peter Liddell's Photo Analysis



Taliesin waits at Portmadoc New with an F.R. Train - W.H.R. Train to right (L.&G.R.P. 2469)

In this column in the last issue of W.H.H. I broke my own rule and referred, incorrectly, to the locomotive visible in the L.G.R.P. photograph of Portmadoc New as a 'double-Fairlie'. It has been pointed out to me that the locomotive was, in fact, the single-Fairlie *Taliesin*. As I looked more carefully at the image it struck me that there was much more to it than I had thought even after years of crossing paths with this image (isn't this often way with photographs?). Yes, the locomotive 'obviously' was *Taliesin*, but what of its train? What of the Welsh Highland train on the other line? What can we see and what can we deduce?

First, what do we see behind *Taliesin*? There were at least two bogie carriages in the train – nearer to the locomotive one of the 6-compartment 'bowsiders' with one of the original bogies, No. 15 or 16, beyond. Whilst it is difficult to be pedantic, what we can see of the nearer bogie suggests either No. 19 or 20. Between the locomotive and the first bogie we see at least two, possibly three, F.R. 4-wheel carriages. Given this visible train make up we can deduce that there must have been a brake vehicle at the far end, hidden by the train on the right. In order to determine exactly what was marshalled between the locomotive and the 'bowsider' I had to resort to analysis using the methods I described in my 'Buffet Car' book. Firstly, we can see enough of the 'bowsider', and we know enough of its geometry, to determine that the camera was positioned just over 133 ft. From its near visible edge. Secondly, we can see the lower part of the near corner of the 4-wheeler immediately behind the loco and we can also see the lower and upper corner of the far edge of the 4-wheeler nearest to the 'bowsider'. Mathematical 'manipulation' indicates that these two edges were of the order of 34 ft. apart – consistent with there being three 4-wheelers in the train. Can we deduce which three 4-wheelers? I suspect not, at least not from this photograph,

but I believe we can see enough to determine that the rear pair were Observation Cars (but whether 1, 2, 11 or 12 could only be speculative) and that the vehicle nearest to the locomotive was one of the full-width enclosed carriages.

However, this particular train formation immediately brings to mind a photograph showing *Taliesin* passing Harbour Station and entering the Cross-Town Link with a train for Portmadoc New. The train in this photo comprised one of the large bogie brakes (No. 4 or 5), one of the original bogie carriages (15 or 16), one of the Gloster 'bowsiders' (19 or 20) and three 4-wheelers (two 'observation' and one 'closed'). As an aside, note in this photograph the Gladstone Car 'parked' over by the sea wall just beyond the signal post.

Whilst the photo at 'New' is credited to L.G.R.P., the Harbour photo's accreditation is unclear. However, the similarities are so obvious that it is tempting to wonder quite how contemporary they were!

Let us now look at the Welsh Highland content in the image. We see a Pickering brake composite and, beyond, one of the Ashbury 'Summers'. There is a locomotive at the front of this short train but, other than steam, we see

nothing of it. The two W.H.R. carriages had not had their roofs lowered when photographed and it is not possible to determine with any confidence whether the 'Summer' was unglazed or semi-glazed. The Pickering, however, yields interesting clues. Not only had it not been lowered, but it still retained its original air brakes – and only its air brakes. In the very early days of the W.H.R., a small number of carriages were 'dual-braked', i.e. fitted with vacuum as well as their original air brakes. The carriages so treated were; Pickering No. 8, Ashbury 'Corridor' No. 23 and the 'Gladstone' Observation Car. This modification allowed their use behind either F.R. or ex-N.W.N.G.R. locomotives. As the Pickering in this photo is only fitted with air brakes we can deduce that it was actually No. 9. None of the 'Summers' were dual braked.

The Pickering's brake standard does tell us that, whilst we cannot see the locomotive on the Welsh Highland train, it must have been one of the ex-N.W.N.G.R. machines. There were only two of these; *Moel Tryfan* and *Russell*. Colonel Stephens had acquired an ex-W.D.L.R. Baldwin 2-6-0T to augment the loco roster. This loco, No. 590 with no continuous brakes, was delivered to the railway in July 1923. J. I. C. Boyd reports that on its arrival, fitters were sent to Dinas to fit the vacuum brake. None of the photographs showing 590 on the Welsh Highland (and some of these date from the time of its delivery) show anything other than vacuum brakes, from which it follows that the locomotive hidden in the L.G.R.P. photo could not have been 590.

So, was it *Russell* or *Moel Tryfan*? Of the two, *Moel Tryfan* was at that time reportedly in a pretty parlous state and, in any event, after some re-tubing at Dinas, from mid-June 1923 she supposedly went into Boston Lodge in July for 'repairs, fitting of vacuum brakes and cutting down' (W.H.H. Issue 3), which rather suggests that the only locomotive likely to have been hauling an air-braked Welsh Highland train at this time would have been *Russell*.



Taliesin enters the Cross-Town Link with a train for Portmadoc New

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