

WELSH HIGHLAND HERITAGE

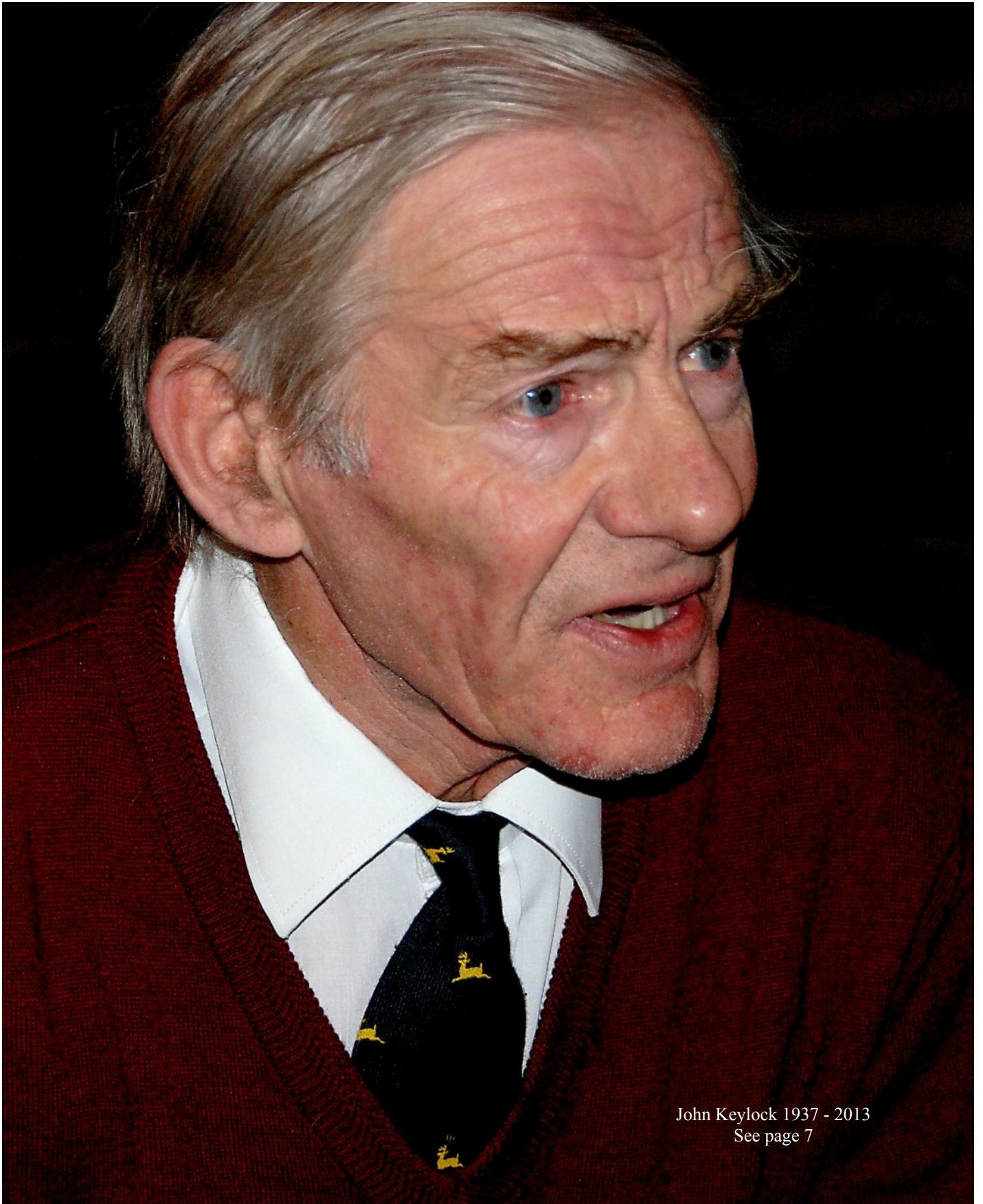
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John Keylock 1937 - 2013
See page 7

Berkeley Dean Wise (1855 – 1909)



In recent editions of the “Journal”, I have attempted to describe the methods of staff working on both the North Wales Narrow Gauge and Welsh Highland Railways, with particular reference to Wise’s Patent Staff & Ticket system. This method of train control was designed in 1886 by Mr. B.D.Wise, Engineer of the Belfast & County Down Railway, and came into use on the NWNCR in 1892, continuing to control a short section of the Welsh Highland line until closure in 1936. Recently I have been able to acquire a copy of B.D.Wise’s original patent, and this account will hopefully give a better insight into both the man and his invention.

Derek Lystor completes the Story of Wise’s Patent

Berkeley Dean Wise was born on 2nd October 1855 in Berkeley Forest, New Ross, Co.Wexford, Eire, later moving to Dublin where he grew up. After going to school in England, he returned to Dublin and entered Trinity College in 1871. His engineering career began a year later with the Midland Great Western Railway of Ireland and he was the Resident Engineer during the construction of the Navan & Kingscourt Railway. After a spell of two years as Assistant Engineer to the Dublin, Wicklow & Wexford Railway, Wise moved north to Belfast in December 1877 to take up a new post as Chief Engineer to the Belfast & Co. Down Railway, remaining there for the next eleven years.

In April 1888 he was appointed Chief Engineer to the Belfast & Northern Counties Railway, and later that year was

B.D.Wise & his wife Leah at the Tubular Bridge, The Gobbins c.1902

elected a member of the institute of Civil Engineers. Ill health forced his resignation from both organisations in 1906, but during his period of tenure with the B&NCR he upgraded both the standard of trackwork and signalling systems, and introduced the use of reinforced concrete for railway structures. He also designed, amongst other things, many of the stations on the line, the most famous being Portrush, constructed in 1893, and through his endeavours the B&NCR became the most prosperous railway in Ireland. He was also heavily involved in promoting the local tourist industry in County Antrim and in 1892 the B&NCR opened up the coastline around Whitehead and Blackhead to excursionists to encourage rail traffic

from Belfast and Larne, resulting in the construction of coastal paths at both Whitehead and Gobbins Cliff. The former, known as the Blackhead Path, ran for 2½ miles from The Banks at Whitehead along the shore to the Blackhead Lighthouse, and a commemorative plaque dedicated to Wise was erected nearby at The Old Castle Road, Whitehead.

The Gobbins was an elaborate coastal cliff path on the Islandmagee peninsula a few miles from Whitehead station. Construction work commenced in May 1901 and the path incorporated tunnels and spectacular bridges carrying sections of the path high over the sea. The tubular



Dinas to Tryfan Staff. (photo courtesy Gareth Williams)



The commemorative plaque at The Old Castle Road, Whitehead. (courtesy Aubrey Dale; www.geograph.org.uk)

and suspension bridges were built in Belfast and floated out from Whitehead on barges before being lifted into position. The first section, entered through a tunnel known as “Wise’s Eye”, opened in 1902 in a blaze of glory, the advertisements proclaiming “New cliff path along the Gobbins Cliffs, with its ravines, bore caves, and natural aquariums has no parallel in Europe as a marine cliff walk”. It was completed in 1908, and in Wise’s honour, two promontories were named after him – Deane’s Head and Berkeley’s Point. The walk remained very popular until the outbreak of World War II, when it was closed in 1940. It reopened in 1951, but subsequent erosion and lack of maintenance caused it to close finally in 1962. However, at the time of writing this account, there are plans to restore the path and reopen it to the public once again.

Wise left Belfast in 1896 and moved to Jordanstown, but after a serious setback in his health he moved to Portrush in 1906 to live with his sister. Sadly he gradually deteriorated and he died on 5th May 1909 and was laid to rest in the City Cemetery, Belfast. He was survived by his son James Berkeley Wise who was also a railway engineer, and by his wife Leah, who was buried alongside him on 27th April 1922. His obituary, given in the *Railway Engineer*, said: ‘His designs were both original and artistic, and he always strove to make the stations under his charge as attractive as possible. He was a great lover of the beauties of nature, and he will perhaps be best remembered as one who made several of the beauty spots of a beautiful country easily accessible without in the least

marring their natural charms. His kindly disposition and gentle manners made him deservedly popular.’

It was during the time he was employed as Chief Engineer to the B&CDR that he devised and patented the train staff which bore his name. Accident rates on single lines in the UK were causing much alarm to the Board of Trade and Wise had come to realise that there were a number of deficiencies in the existing staff and paper ticket system currently in use. A Station Master, possessing the staff, was able to obtain as many paper tickets from the staff box as he wished, and there was a possibility that a driver could take a train out on a ticket without seeing the staff, even though this was strictly against regulations. Wise’s solution was an integral staff, whereby the tickets were contained in the staff itself, which was at once safer and simpler to use, eliminated

risks and delays, and prevented any error on behalf of both Station Master and driver. His provisional specification was issued on 23rd January 1886, followed by the full Patent, No.1030 on 10th July that year. (See separate insert).

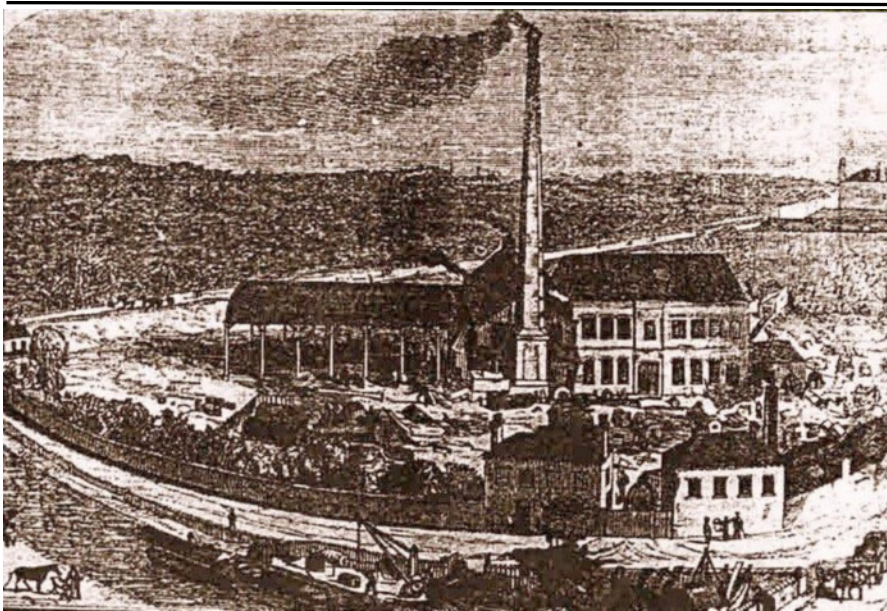
The NWNGR Staffs

The NWNGR introduced Wise’s Patent Staff & Ticket working over the main line from Dinas to Rhyd ddu in 1892. It is almost certain that three instruments were supplied by McKenzie & Holland for the sections Dinas to Tryfan Junction, Tryfan Junction to Waenfawr and Waenfawr to Rhyd ddu, but there is a possibility that as Waenfawr did not become a block post until the new loop put in during 1895 was upgraded for passenger use the following year, a single instrument may have covered the Tryfan Jct to Rhyd ddu section. There is no hard evidence to support this and no mention is made of train staffs in surviving BoT documentation concerning the loop installation. It is highly likely that the BoT considered the existing arrangements satisfactory, strongly suggesting that separate Wise’s staffs already existed each side of Waenfawr in 1894.

Manufactured from solid brass and weighing approx 3½lbs., each was 14½” long with “Wise’s Patent” engraved in fine letters at one end, and “McKenzie & Holland, Worcester” at the other. The staff held two Up tickets or permits at one end, and two corresponding Down permits at the other, and each set had a dedicated key by which they were released. Although M&H catalogues advertised a staff with integral Annett’s key (for working intermediate points)



Tryfan Junction, 15th May 1923. Moel Tryfan waits alongside the signal box with the 9.45am train from Dinas to South Snowdon, whilst a staff exchange seems to be taking place.



An early view of M&H's Vulcan Works, Worcester

which slotted into the body of the staff, examples of which were used on the Cavan & Leitrim Railway, those supplied to the NWNCR did not have this feature, and it is surmised that the key was simply attached to the staff by chain.

All three staffs were used up to the end of the NWNCR's independent existence and continued to be used in the early days of the newly formed Welsh Highland. The new section of line from Rhyd ddu, by then renamed South Snowdon, to Portmadoc did not use Wise's instruments however, but was worked on the Staff & Ticket system, full details of which are given in Journal 51. In 1927, coinciding with new Work Instructions for the northern section, both the Tryfan to Waenfawr and the Waenfawr to Rhyd ddu staffs were withdrawn and replaced by a single wooden staff, coloured blue, for the new Tryfan Jct to South Snowdon section. The loop at Tryfan had only been used for scheduled crossings of passenger trains between March 1924 and September 1925, and that at Waenfawr between June 1923 and July 1925, so the need for both Wise's staffs had become redundant. The Dinas to Tryfan instrument was retained right up to the end of the Welsh Highland's existence as it was required to be carried by those goods trains requiring access to the Bryngwyn branch; its key, attached by chain, being needed to unlock and lock the branch points.

Of the three staffs, two are known to have definitely survived to the present day. The Tryfan to Waenfawr example complete with its full complement of permits is now in the NGRM Tywyn,

having been donated by the late Arthur Rimmer on 29th August 1964, along with the note

"Found in the bunker of Russell in 1938". The Dinas to Tryfan Junction staff, again complete with permits, was discovered along with the Snowdon Ranger to Rhyd ddu Annett's Key in the BR signal box at Dinas Junction, and is now in private hands. It varies in minor details to the NGRM example and is not stamped with either Wise's Patent or the manufacturer's name. As might be expected, it shows signs of a hard life, not surprising when one considers that it was in use for over forty years! Nothing is known of the whereabouts of the remaining Waenfawr to Rhyd ddu staff.

McKenzie & Holland

The firm of McKenzie & Holland, Worcester, were the Agents and sole manufacturers of Wise's staff and a full description of its use was given in their various catalogues. Apart from the NWNCR and the B&CDR, it was used by a relatively small number of railway companies including the Ashover

Railway. A number of glowing tributes were given in the catalogues expressing much satisfaction both with the use and robustness of the staff.

In 1857 Thomas Clunes established the Vulcan Iron Works at Shrub Hill, Worcester. A firm of iron and brass founders, they manufactured wrought iron work for various railway structures including bridges and columns. In 1861 Clunes was joined in partnership by John McKenzie and Walter Holland, both of whom were former employees of the Oxford, Worcester and Wolverhampton Railway, forming the firm of McKenzie, Clunes and Holland. At this time, signalling systems on railways had not yet been developed and serious accidents were commonplace. Consequently, the government of the day recommended that safer forms of train control should be introduced, and as a result, realising the growing demand, the firm turned the works over to the manufacture of various types of signals, interlocking systems, lever frames and other safety equipment, soon establishing a worldwide reputation for their products.

The works were located on part of a heavily industrialised area founded by Shrub Hill Station and the Birmingham and Worcester Canal. Shrub Hill Road bisected the area and Clunes' works lay between this and the canal. On the opposite side of the road were the works of both the Worcester Engine Works Co. Ltd., and the West Central Wagon Company. Rail access to the Vulcan Works was by means of a spur off the 'Vinegar Branch' from Shrub Hill Station, which served the vinegar works of Hill, Evans and Company. This spur also gave access to the Worcester Engine Works and the line to the Vulcan Works actually passed through this firm's site, before passing under Shrub Hill Road. M&H had their own Manning Wardle



FR England loco and train entering Waenfawr with the fireman holding what appears to be the South Snowdon – Waenfawr Wise staff.



Tryfan Junction in 1923, with 'Palmerston' and FR stock on a Dinas bound train. The fireman is holding the Wise's staff which he has obtained from the station building. (See enlargement below)

0-4-0ST which worked the sidings including those of the Worcester Engine Works.

During the 1870's the firm changed its name to the more familiar McKenzie & Holland (M&H), not only supplying signalling equipment to many British railway companies including the GWR and Cambrian, but to railways in Australia, New Zealand, Egypt, Japan and many other countries. M&H were so successful in Australia that it warranted two factories being established, one in Melbourne and the other in Brisbane. In 1899, in conjunction with the Westinghouse Brake Co., they introduced the first power signalling into Great Britain with an installation at Bishopsgate station on the Great Eastern Railway. In 1901 M&H merged with various other signalling companies and became a limited company wholly owned by the Consolidated Signal Company (CSCo). The following account of the work carried out by M&H appeared in a local paper during 1903-;

"McKenzie & Holland have from the date of the establishment of their business devoted their entire attention to the manufacture of one branch of railway equipment. They are the patentees and contractors for the manufacture and erection of railway signals, patent interlocking apparatus and signal work of every description. They also make and erect signalmen's cabins in brick, stone or wood; signal

posts in wood, iron or steel and wrought iron telegraph masts to any height; electric light standards and wrought iron towers for telephone lines; combined electric telegraph block and interlocking apparatus; cast iron water tanks, water cranes and columns for railways and cast and wrought iron bridges for all kinds of signal work. Much of their apparatus is made after their own exclusive patents. They are also sole licensees for the manufacture in Great Britain of Sykes's combined electric block locking and the principal agents for the Westinghouse electro-pneumatic system of signalling and interlocking apparatus. All the appliances leaving their works represent the highest stage of manufacture, both in design and construction."

In 1920 the Westinghouse Brake Company acquired the CSCo and a number of other signalling firms, becoming the Westinghouse Brake and Saxby Signal Co. M&H's Vulcan works was closed in 1921 and the site has now been redeveloped.

In compiling this account, I should specially like to record my grateful thanks to Paula Stuart, the Information Support Assistant at Sheffield Central Library for her invaluable help and kindness in finding the original patent in the library's archive. My thanks are also



due to John Keylock for M&H details, Edward Dorricott, David Woodcock, and Don Newing for notes on the original staff held at the NGRM, Tywyn.

Notice

Following the death of John, who has been the Group secretary for 16 years, a special committee meeting has been arranged for late in November to arrange the reorganisation of the Group committee.

How 'The Locomotive' saw the FR & their leased WHR in 1934

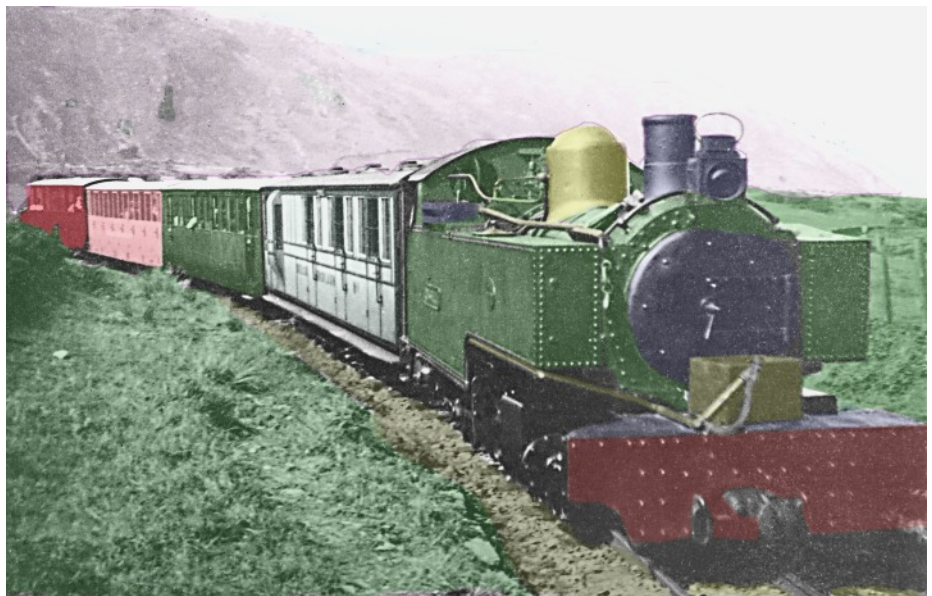
It is gratifying to note that these two interesting narrow-gauge railways have taken on a new lease of life and are this year making a determined effort to cater for the tourist traffic.

The Festiniog Railway is particularly interesting as being the first narrow-gauge railway in the British Isles, it being opened for traffic as long ago as 1836. Originally built for the conveyance of slates it was for a time worked by horses, but later steam power was adopted and a passenger train service introduced. At the present time a service of six passenger trains is run from Portmadoc to Blaenau Festiniog, with five trips in the reverse direction, on weekdays.

The passenger rolling stock has recently been thoroughly overhauled and is in good condition, the coaches being painted in various colours including green, pink and blue, as a novelty. Observation cars are run on most trains for the use of which a supplementary charge of 3d. per person is made. Connection is effected at Blaenau Festiniog with the L.M.S. and G.W. Railways, the Festiniog trains terminating at the station of the latter company in that town. Duffws station is no longer used for passenger traffic although the track is still maintained up to that point for slate traffic.

It is at Tan-y-Bwlch station that the lady stationmaster in picturesque Welsh national dress is to be seen. An extensive publicity campaign has been embarked upon with the slogan of "take a trip by the Toy Train through Faeryland." and fares have been reduced to an attractive level. Special combined circular tour tickets embracing journeys over the Festiniog and Welsh Highland Railways, are being issued by the Great Western and L.M.S. Companies, and these and other cheap facilities together with the extensive issue of seven-day holiday contract tickets by these companies are inducing large numbers of holiday makers to take trips over these interesting narrow gauge lines.

The Welsh Highland Railway, which is an amalgamation of the North Wales Narrow Gauge and the Portmadoc, Beddgelert, and South Snowdon Railways, is now managed and operated by the Festiniog Railway.



I apologise for this pathetic attempt to try and show what a rake of the bizarre multi-coloured Welsh Highland coaches might have looked like in 1934 as mentioned in this article. So please don't write in and tell me the colours are all wrong! This 'disfigurement' is of a 1934 picture taken by Bill Rear.

At the present time a service of four trains each way on weekdays is operated over the main line between Portmadoc and Beddgelert two of which are extended to and from Dinas Junction, and on Wednesdays and Thursdays an additional train is run between Dinas Junction and Beddgelert. The branch line from Tryfan to Bryngwyn is still used for slate traffic but no passenger service is operated over it.

As on the Festiniog Rly., the passenger rolling stock on the Welsh Highland Rly. is painted in various colours, and observation cars are available at a supplementary charge of 6d. per passenger. There is also a lady station master dressed in Welsh national costume at Beddgelert station. Connection is maintained at Dinas Junction with the L.M.S. trains to and from Carnarvon and the North Wales coast resorts, and at Portmadoc the Welsh Highland trains run into and out of the Festiniog Railway station. Numerous cheap fare facilities are available and large numbers of holiday makers are by this means being induced to make the trip over the line which passes through some of the most delightful scenery in Wales.

The locomotive stock of the Festiniog and Welsh Highland Railways now consists of nine steam engines and two petrol tractors.

Four of the Festiniog Railway's four-wheeled saddle tank locomotives, with coal tenders, are still in service, viz.. No. 1 *Princess*, 2 *Prince*, 4 *Palmerston*, and 5 *Welsh Pony*, as are also the Fairlie double engines No. 9 *Taliesin* and 10 *Merddin Emrys*.

The present *Taliesin* is understood to be the old *Livingston Thompson* renamed. *Little Giant*, *Little Wonder*, *James Spooner* and the original *Taliesin* have all been scrapped.

Festiniog Railway No. 11 is a four-wheeled Baldwin petrol tractor, the other tractor, a "Simplex," built in 1917 by the Motor Rail and Tramcar Co. Ltd., not carrying any running number.

The Welsh Highland Railway locomotive stock now consists of the Fairlie tank engines No. 11 *Moel Tryfan* and the rebuilt Hunslet 2-6-2 tank No. 12 *Russell*, and ex War Dept. No. 590, a 4-6-0 tank locomotive built by the Baldwin Locomotive Works in 1917.

The locomotives generally are kept in good condition and, like the carriages, are not all painted the same colour, some being brick red, others dark blue and the remainder bright green.

John Keylock



It is with great personal sadness that I write this obituary for my friend and colleague. Not that John would have wished any of us to be sad on his behalf, on the contrary, he would be urging us to undertake, or complete, some task or other that centred on 'some silly little railway in the Principality'.

John was the heart and soul of Welsh Highland Heritage. He lived and breathed his 'silly little railway'. His was the motivation behind the creation of a Heritage Group for the old line, his dedication and total commitment to the cause combined with his unbridled enthusiasm inspired all with whom he came in contact.

He and I had been friends for over 32 years. The photograph reproduced above is the one that he always asked me to use for his obituary. It shows him standing on the girders of the little bridge at Croesor Junction that carried the new Welsh Highland over a drainage ditch before it merged with the Croesor Tramway. It was taken on one of our first forays up the trackbed in 1985.

John was both a dedicated letter writer and a serial user of the telephone - 'with wires' - as he insisted! The correspondence that passed between us on a very frequent basis became known as 'the diplomatic bag'. His telephone calls, with his opening remark of 'Greetings Chairman' and his closing salutation of 'Speak anon', became a nightly ritual. Certainly for the last twenty years he rang me nearly every evening, our conversations would last between five and thirty minutes and if I wasn't in he left a message in which he

would mutter "ah culture", or "taken Jenny out" and would finish with "I will try my luck later". In fact the last message that I had from him was on the morning of his heart attack. I had sent him a copy of a 'new' old Welsh Highland photograph that Dick had managed to acquire from eBay. John, in his message, said that he was phoning 'on the basis of do it now' and that having received and reviewed this new gem 'he could hardly contain his excitement'. It was this enthusiasm, this exhilaration, this eternal optimism that he so brilliantly communicated to others. His sunny disposition was totally infectious.

John had been secretary of the Welsh Highland Heritage Group since its inception in 1997 and under his prompting the membership has grown to its current steady position of 320. He was a prolific writer of articles and his encyclopaedic memory enabled him to see connections where others may have seen only a part of the story.

Although the Welsh Highland was his abiding passion that didn't stop him from being interested in all things narrow gauge. Together, he and I with others, visited the Isle of Man, Lithuania and more recently Transylvania. He was Secretary and Treasurer of SARUK the UK group supporting the re-opening of the Sibiu to Agnita 760cm (2ft 6 in) gauge line in Transylvania.

John's interests outside of the narrow gauge extended to nature and to gardening; indeed it was at the Broadway Show (of which he had been chairman for

several years) that his heart attack occurred.

John was that quintessential English gentleman, mildly eccentric, but determined and focused on his abiding passion - the Welsh Highland. He was not a complex character but he demanded standards both of himself and others. Woe betides anyone who referred to young children as 'kids'. 'Young goats' he would say contemptuously!

Of course we are all saddened by his passing, but all of us who are narrow gauge enthusiasts will continue to benefit from his work. His chronicling of the history, archives and ephemera of the WHR is his contribution and his legacy to the somewhat unconventional world of narrow gauge preservation. He was the driving force behind the replica signal box that was destined for a site at the Cambrian Crossing, his determination enabled the group to provide a replica water tank to go atop the concrete water tower at Beddgelert, but his ultimate challenge was his inspired and single-minded administration of the reconstruction of the derelict and almost vanished station building at Tryfan Junction that has been so well managed by Lewis Esposito. Alas, John will not see the finished job but I cannot think of a more appropriate memorial for such a dedicated, committed and indomitable man than the finished Tryfan Junction station building.

Thanks John - speak anon.

David Allan

Thank you from Susan

May I say a 'Big Thank You' to all John's friends and colleagues from the W.H.R.. The response to his death was incredibly heart-warming. You all knew John with his W.H.R. hat on but he was also a very loving and affectionate person who brought so much happiness to our 40 years of friendship.

I hope his ashes will be scattered in Lou's lovely wild flower meadow that John loved so much. This lies just below the site of Salem Halt and is bounded by the Afon Gwyrfa. I will wait until the fritillaries are out as he planted so many there. It would be wonderful if some of you might like to add their own 'handful' into the ground as a more personal thing to do. More about that nearer the time.

Aspects of 'Keylock'



Above : Awaiting Prince Charles at Waunfawr.

Above right : Walking the trackbed in 1997 with Cedric Lodge, Michael Davies & Alan Donaldson.

Far right : In pensive mood at Castletown station in the Isle of Man.

Right : gingerly trying out a velocipede at Agnita in Transylvania

Below - Perched on the footboard at the top of Snaefell in the Isle of Man.

Below : Trying out a pump trolley with David Morgan on the Sweet & Narrow, Anyksciai. Lithuania.

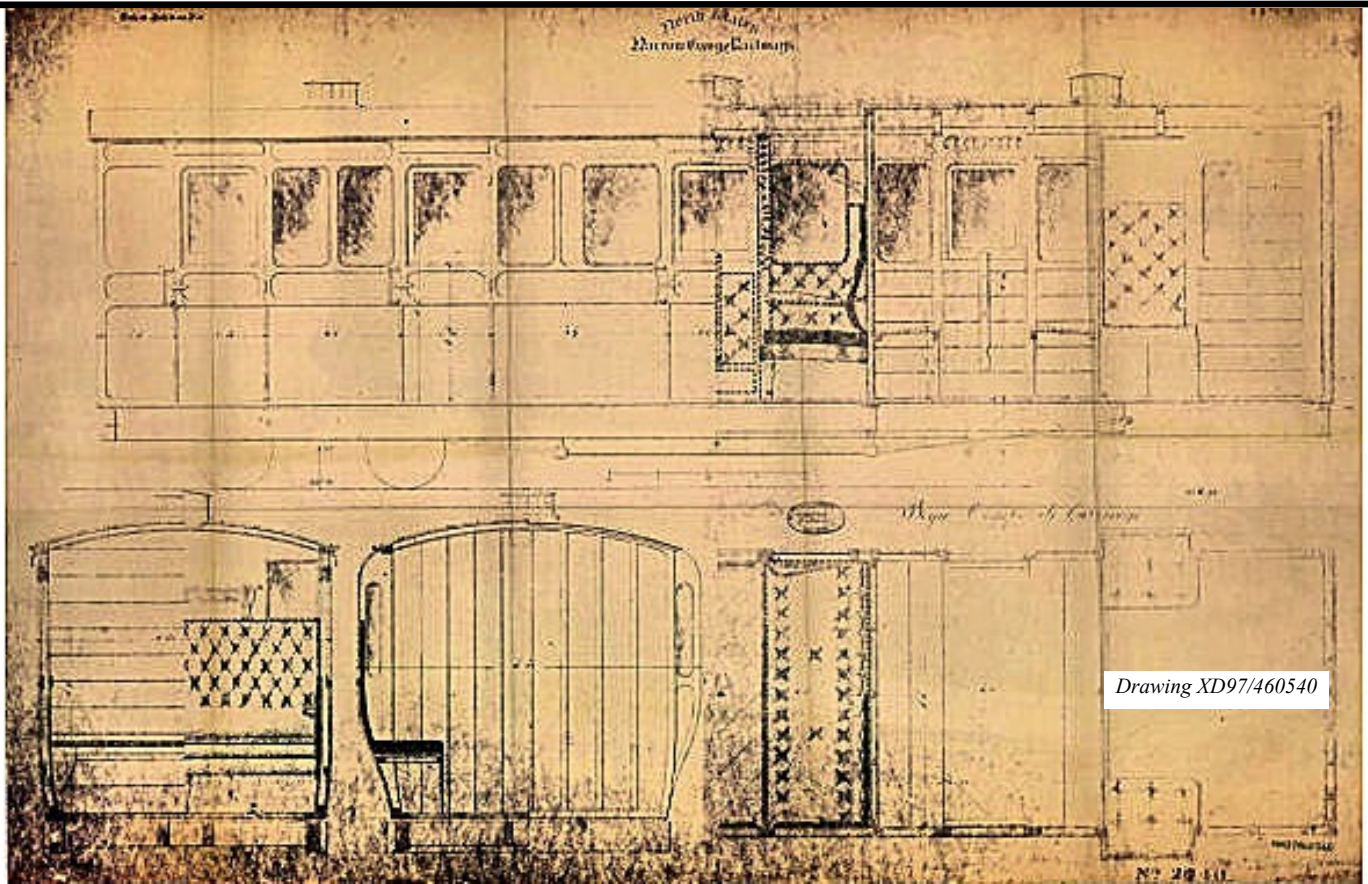
Below right : 'dancing' with the Governor of Panevėžys Province in Lithuania.





Top left : In country squire attire at Plas y Nant.
 Top right : Hanging the waiting room sign at Dinas station.
 Above left : In defiant pose on a level crossing on the 'Sweet & Narrow' Anyksciai, Lithuania.
 Above right : With some lovely ladies in Agnita, Transylvania.
 Centre left : with Philip Vaughan-Davies and James Boyd at Dinas.
 Centre right : with Roger Kidner at his home 'Inglewood'.
 Bottom left : Contemplating construction debris at Pont Croesor.

NWNG Coaches - the Prototypes?



Two drawings in the Festiniog Railway collection at the Gwynedd Archives in Caernarfon are particularly interesting in reflecting the development of narrow gauge bogie carriage design in the early 1870s when C E Spooner was Engineer of both the FR and the NWNGR.

One of these drawings (XD97/460540 - see above) is dated 29th January 1873 and headed *North Wales Narrow Gauge Railway*. It appears to be of the first two NWNG coaches, Nos 1 and 2. The second drawing (XD97/461084 - see page 11 - No 1084 in the old FR drawing sequence), is very similar. It is also of a five compartment bogie carriage. This drawing is not dated, but the paper is watermarked 1872 and the FR number sequence suggests a date of mid 1873.

The drawings are two of a number that illustrate the development of Spooner's thinking on carriage design following the first pair of FR seven compartment bogie carriages (Nos 15 & 16) in 1872. They are for five compartment wooden bodied bowsided bogie coaches on an iron or steel

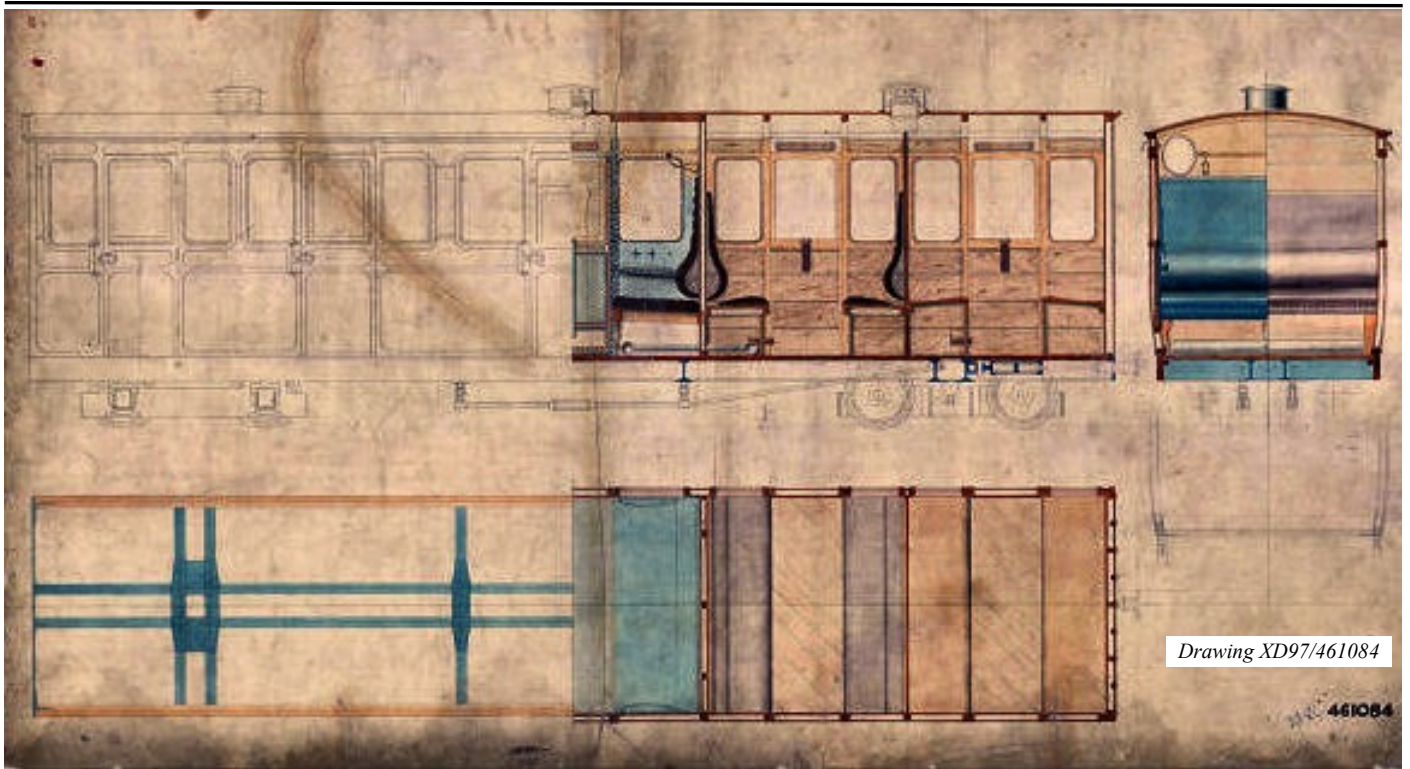
underframe. In these aspects they anticipate the first FR six compartment bowsiders, Nos 17 & 18, of 1876. 17 and 18 were not only elegant, but successful. Two very similar carriages, Nos 19 and 20, followed in 1879, and the FR even asked for a quote for similar vehicles post restoration. So the five compartment design represents the point at which the lessons of the initial bogie carriages had been learned. Why they should be two compartments shorter is not known.

John Prideaux & John Alexander Investigate the Origin of early NWNG coaches

The NWNG carriage shown in drawing 460540 has a central upholstered compartment, which was presumably first class, three compartments with wooden seats, presumably third class and a brake compartment. The brake compartment has double doors and two duckets with upholstered seats. There is a very thin

panel between it and the adjacent third class compartment. The third class and brake compartments all appear to be of the same size. The central compartment has its own oil lamp for lighting and there is one lamp between each pair of the smaller compartments. As with subsequent FR designs, the carriage is bowsided, but lacks the end balconies characteristic of FR Spooner coaches. In the absence of any knifeboard four wheelers, balconies would have been unnecessary on the NWNGR or elsewhere.

As far as we know, the carriage shown in drawing 461084 was never built. The drawing shows a symmetrical coach with two smaller compartments on each side of the first class compartment. The smaller compartments on each side of the first appear to be second class and the two at either end to be third class. Again, the central first class compartment has its own oil lamp for lighting and the adjacent pairs of second and third class compartments each share a lamp between the two compartments. The four smaller compartments are all of the same size – irrespective of class. The carriage shares



Drawing XD97/461084

the symmetry of drawing 460540 and is an early example of modular design.

It is not known whether drawing 461084 was developed from 460540, or vice versa, or if they were developed at the same time; all three appear to be possible.

The dimensions given below have been taken from photocopies of the 1½ inches to the foot drawings. The scale may have been distorted in copying, so the dimensions should be treated as approximate. They appear to be as shown in the table below.

Two examples of one variant of this five compartment carriage design were built. These became the first two NWNG carriages Nos 1 & 2 and appear to have been built to drawing 460540, or a variant of it. Design of the carriages in January

1873 would have been consistent with the authorisation of the NWNGR in August 1872. The carriages are believed to have been built by Ashbury in 1874 and this is supported by the sending of a drawing of a carriage lamp to Ashbury in October 1874 and is consistent with the originally intended November 1874 completion date of the Railway. However, although construction of the NWNGR started in the spring of 1873, it stopped between late 1874 and April 1875 and the railway was not opened for passenger traffic until 15th August 1877. By that time Spooner was no longer connected with the NWNGR and the next carriages, delivered in 1877, were three four wheelers, followed by three Cleminson six wheelers in 1878. It would seem that the first two carriages were built before the first two locomotives were built in 1875 (to drawings dated October 1874).

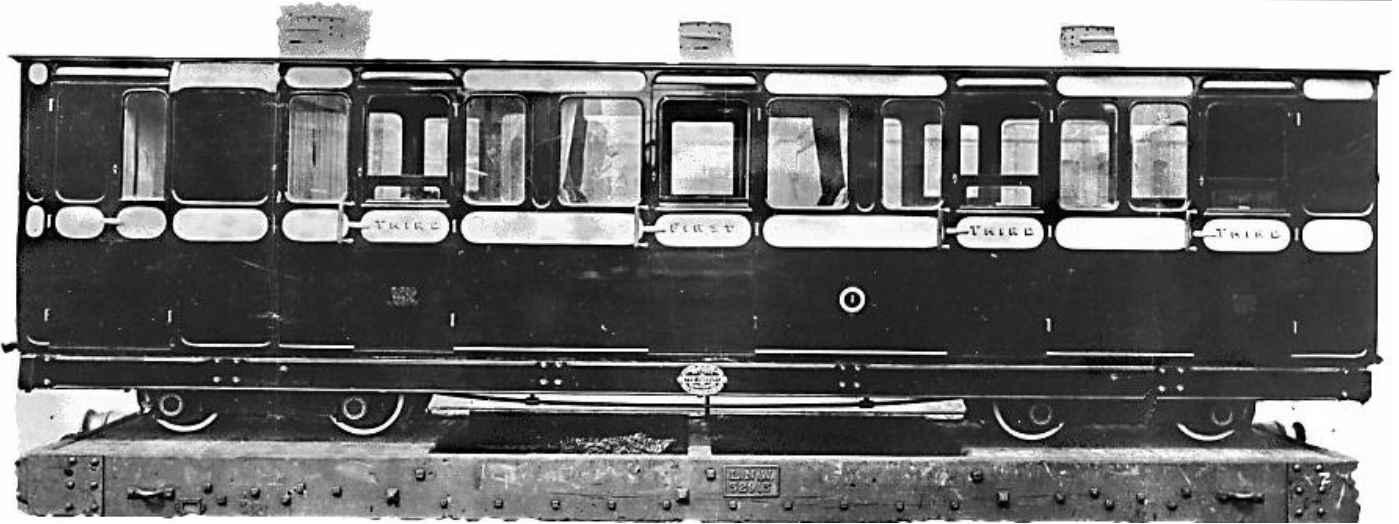
What the two carriages (or the first two locomotives) did before the NWNGR opened in 1877 is unclear. The plans for Dinas Junction are dated March 1877, so it is very unlikely that there was anywhere to store them under cover on the railway for the years before it opened. There would appear to have been no need for the carriages. During this period Dinas was probably largely a construction site.

In the early 1870s, Spooner was promoting very similar carriages for the proposed Penrhyn Railway. There are four drawings in the Bangor University library, which accompanied a letter of 16th January 1873 from Spooner to Lord Penrhyn. One of the drawings is of a five compartment third class carriage and a second is of a four compartment first / second composite for what presumably were expected to be longer trains. The other two drawings are of a separate bogie brake van, similar to the FR curly roof vans, and a four compartment covered open first.

	Drawing 461084	Drawing 460540
Length over body	26ft 6in	25ft 2in
Width over body	5ft 8in	5ft 6in (internal)
Width over ducket	N/A	6ft 11½in
Width of underframe	5ft 5in	N/A
Height	8ft 8in	8ft 9in
1st Class Compartment	6ft 4in	6ft 4in
2 nd & 3 rd Class Compartments	4ft 11in	4ft 8in

The works photograph of NWNGR No. 1 is reproduced on page 12. The carriage appears in a two colour livery.

Photographs are difficult to interpret, but the tones suggest a livery similar to that applied to FR Nos 17 and 18 two years later - hardly surprising in view of the Spooner connection. Whatever happened before August 1877, these would have been the carriages available for the first



Maker's photograph of one of the two Ashbury Brake Composites built for the N.W.N.G.R. This example was their 'No.1' - Courtesy FR Archives

NWNG passenger trains. The NWNG finances were both peculiar and distressed. To the best of our knowledge there was no carriage shed until the 1890s. With limited maintenance and no covered storage the condition of the vehicles would have rapidly deteriorated and the paintwork become less elaborate. It is no coincidence that all the initial NWNG carriage stock had a short life as passenger vehicles.

One or other of these first two carriages appears in virtually every photograph of a NWNG passenger train before 1906. By that time the bodywork must have been in very bad condition. This is apparent from photographs, and from various contemporary press reports recently published in *Welsh Highland Heritage*. There is no record that we know of these carriages being used as such after the two Pickering brake composites, which replaced them, were delivered in 1907. However, one or both underframes may well have survived, even if the bodies were worn out. The NWNG / WHR had one or more short bogie flats. The 1934 FR lease refers to 'timber wagon 25ft long – old carriage converted into timber wagon to carry 2-3 tons.' This was used in

the demolition train, and this underframe could well be one of the original two carriages minus its body. It raises the probability that these carriages were used both for the first services on the NWNG, and as a flat wagon for the last train on the old WHR.

We are unaware of any material from the two carriages that survives, with the possible exception of axle box covers. FR bogie carriages of the 1870s are said to have been supplied as bodies with running gear built at Boston Lodge, and with the Spooner involvement it is possible that something similar happened here. However, as the works photograph appears to show quite elaborate axle box covers and the carriage being supplied by Asbury complete with bogies, it seems more probable that the axle boxes for the current No 24 came from later Ashbury vehicles.

The first two NWNGR carriages represent an important stage in the design of narrow gauge bogie carriages and reflect a stage when Spooner was closely involved with the FR, NWNGR, the embryo Penrhyn Railway and other proposed narrow gauge lines between the building of the original FR bogie carriages, 15 and 16, in 1872

and the first bowsiders, 17 and 18, in 1876.

Although many of these carriages were never built, it seems worth pulling together all the information that we can about them, and the development of Spooner's thoughts on carriage design at this formative stage. Has any reader additional information? Can anyone help with manufacturer's information? Is it possible to confirm that Ashbury built them and if so when. Is there any information on what happened prior to NWNG opening? Could WHRHG compile a collection of relevant drawings and photographs? At the least, information collection would be an interesting exercise in Spooner / Boston Lodge / NWNG / WHR history. At most, recreating one of the carriages could be a long term volunteer project if the idea of retrieving a missing link in Welsh narrow gauge carriage design attracted enough support.

References:

- FR Archives at Gwynedd Archives, Caernarfon
Drawings XD97/460540 and 461084
- Bangor University Archives
Maps 264
- The Welsh Narrow Gauge Railway*
J D C A Prideaux
- Narrow Gauge Railways in South Caernarvonshire*
J I C Boyd Vol 1
- Narrow Gauge Railways in North Caernarvonshire*
J I C Boyd Vol 2
- Welsh Highland Heritage* Nos 29, 40 and 41



The nearer vehicle is the Ashbury Brake Composite No. 1. The giveaway is that one of the guard's access doors is glazed, whereas in No 2 they were solid. The left hand coach is Ashbury "Corridor" No.10 after its conversion into a 1st/3rd Composite. Date between 1897 and 1902. (Information from Peter Liddell).

Early Days at Dudley Park Quarry

The small granite quarry at Waunfawr, now Parc Dudley Nature Reserve, has had mention in previous Journals, most notably being the late Bill Rear's article recalling his memories of the place which appeared in issue *WHH No.16*. Very little official documentation has come to light, but one or two files in the recently deposited XD97 archive at Gwynedd Archive Services gives an insight into its early relationships with the WHR during 1926 & 1927.

On 5th February 1926, D.O.Jones at Dinas wrote to Robert Evans at Portmadoc informing him that the farms at Cilfechydd and Park had been purchased with a view to opening a granite quarry to provide road macadam. The manager of the concern was said to be Mr. W. Edmunds, late of the Treflan Quarries which had folded some years earlier. Jones suggested that Edmunds be approached with the idea of the stone being moved via the Welsh Highland railway.

The approach seems to have been made, for the following day the Dudley Park Granite Company wrote to Evans

requesting permission to connect the quarry to the WHR, outlining their proposals for traffic and requesting haulage rates. Stone setts were to be delivered to Dinas along with train loads of stone in their own side-tip wagons anticipated to be 2 trips a day of 30 wagons a time. A request was also made for a quotation for putting a siding connection into the works.

Evans passed this letter on to Col.H.F.Stephens who agreed to the Quarry Co's applications and to the use of their own wagons subject to their suitability. They were to be examined by the railway's

An abandoned stack of granite setts in Dudley Parc Quarry. 18th April 1998. David Allan



engineer and certified before use. He suggested that haulage rates were to be the same as those quoted for the "Bettws Garmon Co", but later in the month, having found out that the output from Dudley Park was to be less than Bettws Garmon, set a figure of no less than 1/9 per ton for 100 tons a week minimum for a six month experimental basis. As will be seen, the subject of rates was to become a major stumbling block in dealings between the quarry company and the railway!

Derek Lystor Delves into Waunfawr's Dudley Parc Quarry

inspected by Col A.H. L. Mount until October 6th that year, and his full report is given in *WHH No. 16*, page 4. In May rates were again discussed internally, Stephens stipulated 1/7d for the first 100 tons and 1/6d thereafter for macadam in PO wagons, and an additional 6d per ton for setts. The quarry company were also obliged to carry out the handling at Dinas.

By December, things had begun to take a turn for the worse. The quarry company had not paid their carriage account for several months or paid for the siding. They were complaining that unless there were reductions in both rates and siding costs, they would not be able to compete financially with other suppliers. Edmunds was forecasting a production rate of 1500 tons a week and stated that 120 tipping wagons had been ordered to cope with the traffic. Writing to Stephens, Evans clearly saw through all this hype and concluded that they had very little money to play with and although 40 men were employed and machinery ordered, unless more capital was forthcoming, the quarry could not carry on



An abandoned skip chassis is engulfed by a growing tree at Dudley Parc. David Allan 18th April 1998

The siding had been completed and was ready for use by March 29th 1926. It was not

for long. He remembered that when Edmunds was in charge of Treflan Quarry before it went bankrupt, he was always demanding lower rates for the thousands of tons of stone which never materialised, leaving the WHR with a debt of £80. He concluded that whilst it would be bad to lose the traffic, it would be better than dealing with it and not getting paid.

Not surprisingly, by the end of January 1927 the old quarry company had ceased to trade and Managing Director Edmunds was no longer involved. Accounts had become muddled, suppliers had not been paid and a new company, Dudley Park Granite Quarries Limited, was formed. The unpaid sum of £30 in respect of the quarry siding was finally paid on the last day of the month. The new manager of the quarry, Colonel B.S.Johnson, reputed to be a personal friend of Stephens, soon raised the old question of haulage rates, threatening to send output by road unless a rate of 9d per ton was granted whilst insisting that he "would very much like to help the WHR"! It would seem that the new company was in no better a financial state than the old. Trying his luck a little further, he wrote to Stephens in mid February and asked as to whether a WHR loco could take wagons containing coal etc over their siding. Naturally the WHR rate for coal was not to his liking and a rate of 2/- was requested. The threat of using road transport was raised once more, but Evans rightly pointed out to Stephens that if Dudley Park got cheap rates, then coal merchants at Waunfawr

would get to hear of them and demand the same. At this time the WHR rate for coal was 3/10d – 8d of which was paid to the loaders.

An enquiry was received from the quarry later that month with respect to an order of 1500 tons of macadam to Cardiff via Portmadoc to which Stephens duly replied giving rates etc. Whilst Col. Johnson mulled over the figures, he asked if the WHR could provide some wagons to deliver 10 tons of stone to Nantmor Copper mine, a tonnage more in keeping with the quarry output! (Had this stone been delivered it would seem likely that it was used to construct an ore dressing floor – CJK 6th Aug 2013) Once again Evans was not convinced of the quarry's sincerity, having been told by D.O. Jones that they had given instructions that no more empty trucks were to be sent as they were going to arrange road haulage. Jones considered it to be all bluff in an attempt, yet again, to get rates reduced as no lorries were actually in use. He believed that they were stockpiling stone with a view to selling the quarry as a going concern, and that Johnson was on "the same tack as Edmunds, wanting everything on the cheap". However, it would seem that the quarry did in fact supply Nantmor Copper Mine with three trucks of macadam, as the latter firm had made enquiries in February 1927 to the WHR, to lay in a siding, and asked for the stone to be dumped outside the long tunnel. In March the three trucks were stabled in Nantmor station siding, and it was arranged that they be taken to Beddgelert, attached to a Portmadoc bound train and dropped off by the tunnel to be unloaded by the mine employees. WHR platelayers were in attendance and the empty trucks were returned on a later Dinas bound train. Payment for haulage costs for this was to become an issue in future dealings with the mining company, and in fact no siding was ever laid in.

Throughout March 1927, rates were the main subject of correspondence. Johnson informed Evans that the siding would not be repaired until rates had been sorted and threatened to pull it up if no agreement was reached, although at various meetings rates seem to have been reduced in an attempt to pacify him. A supposed order of 20,000 tons spread over 9 months was mentioned, but the only traffic which seems to have passed over the WHR was a load of setts to Dinas. By the end of April the carriage account for December through to March had

not been paid. By May, it was reported that the outlook at the quarry was not very bright, due it would seem, to a lack of workable faces. Several WHR trucks were at the quarry and were needed for work at Dinas and the quarry was asked for them to be moved within reach of an engine. The quarry was of the opinion that this was all the fault of WHR employees, but that the trucks were now ready to be taken away.

Early in September Johnson requested that someone from the WHR visit the quarry to discuss making the siding fit for locomotive working. Evans and Inspector Griffith met him on site and although Griffiths explained what was necessary, Johnson disagreed saying that he was an engineer and knew everything about railways and was not prepared to spend any more than £15 or lay heavier rails! The old argument of rates was brought up, with an additional threat to only use the railway if the siding was put in order. He maintained that he had orders of 30,000 tons of stone for Capel Curig and a further 15,000 tons of setts for Liverpool and Leeds. Evans was not convinced and reasoned that these were merely applications for prices and not firm orders. During the visit there was very little work going on and only a small amount of setts were produced. The crusher was not working, 2 lorries were lying idle, and quarrymen were standing around waiting to be paid off, asking when they would get a job again – a question that Johnson could not answer. Hardly a state of affairs for a quarry with an expected output of 45,500 tons!

Writing to Evans on 8th September, Stephens suggested that Johnson appeared to be coming around, having found that the lorry business was not as profitable as he first thought! The siding would be put in order dependant on a guaranteed output and payment of £15. With regard to locomotive working, he thought that no WHR loco would run over less than 30lb/ft rail. Replying, Evans expressed his opinion of Johnson in no uncertain terms, saying that from day one he had put no weight on anything he had said! Griffith had visited the site again and confirmed that the rails were not 30lb/ft, but Johnson was adamant that no heavier rail would be used.



The old explosives store at Dudley Parc 20th January 2006 - David Allan

Stephens was of the opinion that the rails were 20lb/ft and that the Baldwin and trucks would be able to use the connection if the sleepers were no more than 30" apart. He also thought that Russell and Moel Tryfan would be safe at low speeds with the sleepers 24" apart. He was sure that £15 would suffice for putting the siding in order, subject to a guarantee of traffic and the quarry company providing the necessary ballast. Obviously he was keen to hold on to this quarry traffic however sparse!

In the last letter in the file dated 6th October, Evans was not surprisingly becoming exasperated by the whole episode! He had met with Johnson and was of the opinion that it was very hard to know what he wanted. He would not pay the £15 for the siding and was prepared to do the work using quarry labour. The WHR could have the traffic on condition that they gave cheap rates! He was only prepared to pay 1/- per ton to Dinas, to include transshipping costs. However, they were prepared to fix the tipping machine at Dinas at their own expense.

Throughout the period covered in this article, it is clear that the quarry was run on a shoestring without sufficient capital and could only survive if the WHR was prepared to lose money on haulage rates. No evidence has yet come to light to suggest that the huge amounts of stone forecast to be produced ever left the quarry, and it seems that it remained a small operation throughout its life.

Ref:- GAS files XD97/7696c, 13818, 13823, 22787.

What the Guidebooks Said!

Extract from "On Foot in North Wales" by Patrick Monkhouse, published by Alexander Maclehose & Co. in 1934.

There follows a description of a trip on what purports to be the Welsh Highland Railway, though unfortunately the author seems to have mixed his railways up, as you will see.....

....."If you are coming from the south the most amusing way to get to Tan y Bwlch is not to walk, but to use the Welsh Highland Railway. This narrow gauge line has champion qualities. Its main purpose is to bring slates from Blaenau Ffestiniog to the harbour at Portmadoc. It carries passengers as a side line. It tackles the gradients heroically. I once waited for it, at Penrhyndeudraeth, on a wet morning. For a good ten minutes, I could hear it puffing up the mile incline from Minffordd, and when at last it came into view, the stoker was standing on the running board of the engine, holding on with one hand, and dropping sand on the wet rails with the other. A

peculiar custom of the line is to lock all the carriage doors, presumably to stop you stepping out between stations, which you could often do. When you reach the station you want, you stick your head out of the window (if you can get it through the window bars) and gesticulate to the guard who, in due season, releases you. The views over the Vale of Ffestiniog are exquisite."

Never Trust a Journalist! *'Research' by Richard Watson*

".....and so down to Tan y Grisau and Blaenau Ffestiniog. This is no sort of a place to stay in – a small grim quarry town only – but it has, as the Scot said in praise of Glasgow, grand facilities for getting away from it. There are three railway stations, all termini. The L.M.S. line from Llandudno Junction arrives by a two and a half mile tunnel from Dolwyddelan. The Great Western sends out a long straggling branch from Dolgelley. The Welsh Highland

Railway – the one that goes by Tan y Bwlch – also ends at Blaenau. Once you are there, there is nothing to do but to go away by one of these three. There is a hill called Manod Mawr (2166 feet) on the far side of Blaenau Ffestiniog. But it does not look worth climbing. I would rather take the train."....

"....The railways, Saxon at heart, are rather cautious about plunging inland; though there are the line up to Clwyd and to Corwen, and another up the Conway and Lledr valleys and through a long tunnel to Blaenau Ffestiniog, and the Bala line on the Great Western, with its venturesome offshoot, also to Blaenau Ffestiniog. But the west coast route is more useful to the walker – particularly for the link between Harlech and Portmadoc, which solves many knotty problems. Two narrow gauge railways should be mentioned. The one from Portmadoc to Tan y Bwlch and Blaenau Ffestiniog has been described already on page 145; and there is a narrow gauge line from Portmadoc to Caernarvon by Beddgelert and Snowdon Ranger. But this only operates for a small part of the year, and I have never had occasion to use it. The Snowdon Mountain railway doesn't count".....

Tryfan Junction - Let's Finish the Job!

During the last six months many members will have seen – and applauded – progress on our flagship project. In view of the number of volunteer hours devoted to the building's rebirth we are optimistic that the original estimate of £50,000 to complete the job could well prove to be an over estimate. This is perhaps an unusual situation these days! Nevertheless money is still required.

To date £38,000 has been spent but the fund of approved expenditure contains a mere £1,250.00 and it will be next May before our AGM can have the opportunity to approve major additional funding. However, in the meantime, members have the opportunity to top up the fund in two modest ways. If you haven't already

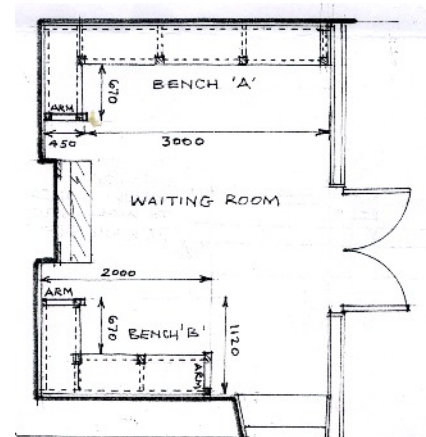
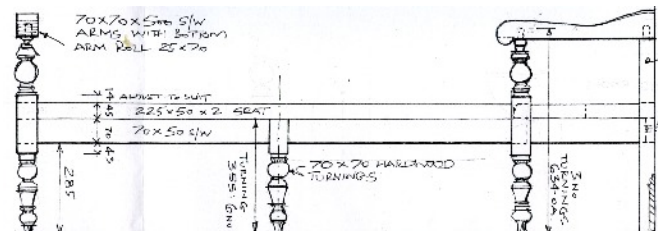
ordered your Christmas cards there is still plenty of time to do so. Additionally membership renewal time is upon us so a donation included in your subscription cheque would be much appreciated. If you pay by standing order then Michael Davies would be pleased to receive your donations by post.

Bench seating for the waiting room is being privately sponsored. These are based on an old bench from Dinas station with oak or ash being used for the turnings. The drawing are by Lewis Esposito showing the position of the bench and the style. Lewis and Ian Lord will undertake the work.

Lewis is seeking steel wall hung oil lamps, a waiting room sign for a door and finally a slate water tank to conceal a plastic one. These are just some of the finishing touches, so if any member can help please get in touch with Lew.

This appeal is the last item that John wrote before his death. It would be a fitting tribute to him if members could contribute sufficient funds to complete the work. Lewis Esposito advises that about £5,000 should do the job. It is proposed that the building should become John's memorial with a simple plaque inside the building to commemorate his work. If finished by next May it is also proposed to enter the building for the Railway Heritage Awards. Any excess will go towards the restoration of Tryfan Junction Signal Box.

John Keylock Appeals



More Light on the PB&SSR Electrification Proposal

In January (2013) I gave a talk to the Gwynedd Industrial History Society about the proposed electrification of the Portmadoc, Beddgelert & South Snowdon Railway and the subsequent development of the North Wales Electric Power and Traction Co. While putting the material together I came across a couple of points which may be of interest to readers of this journal.

One of my sources was an article in *The Electrician*¹. This included two figures² referring to the distribution network from the Cwm Dyli hydro-electric power station in Nant Gwynant: one a map (fig. 3 p. 57 – see right) showing the routes of the power lines, the other a diagram (fig. 14 p. 660 – see below) showing the arrangement of the four three-phase circuits from the power station to the various quarries at Blaenau Ffestiniog and Nantlle.

The map shows the route of the three-circuit power line from Cwm Dyli to Llyn Peris via Pen y Pass. At Llyn Peris the three circuits turn south for a short distance before one circuit diverges west to Glyn Rhonwy quarry and the remaining two continue generally southwards through Cwm Maesgwm to the east end of Llyn Cwellyn. From there they go to the Nantlle quarries via Drws y Coed. A photograph (fig. 24 p. 662 – see

page 17) in the same article in *The Electrician* shows the line south of Llanberis (the Dinorwig quarries can be seen in the background) with the poles carrying three three-phase circuits, which accords with the map.

The diagram shows a corresponding arrangement except that the three circuits go to Llanberis where one circuit continues west to Glyn Rhonwy quarry and the other two go south. They cross the 'Electric Railway' west of Llyn

Quellyn and then run westwards parallel to it as far as perhaps Tryfan Junction. From here they go south to the Nantlle quarries. The diagram shows the railway running as far as Caernarfon (which possibly dates it around 1904³) but does not show the Bryngwyn branch. Michael Bishop⁴ mentions a proposed sub-station for the railway at Bryngwyn, which suggests an intention to electrify the Bryngwyn branch. Had that happened it would have made sense for NWEPTCo to run their HV line along the railway as far as Tryfan Junction, and then up the Bryngwyn branch and over to the Nantlle quarries, as suggested by the fig. 14 diagram. (Left)

There was an extension to the NWEPTCo's transmission line at Drws y Coed⁵. This was probably to feed the copper refining works that David Bick⁶ describes being there 1906–11. Bick states that the ore was heated to remove the sulphur, leached with sulphuric acid and the copper metal obtained by electrolytic deposition. This process would require substantial amounts of direct current electricity, provided by motor-generator sets (as used at Dolgarrog aluminium works in 1908⁷) or possibly mercury-arc rectifiers.

Dave Linton Shares His Research

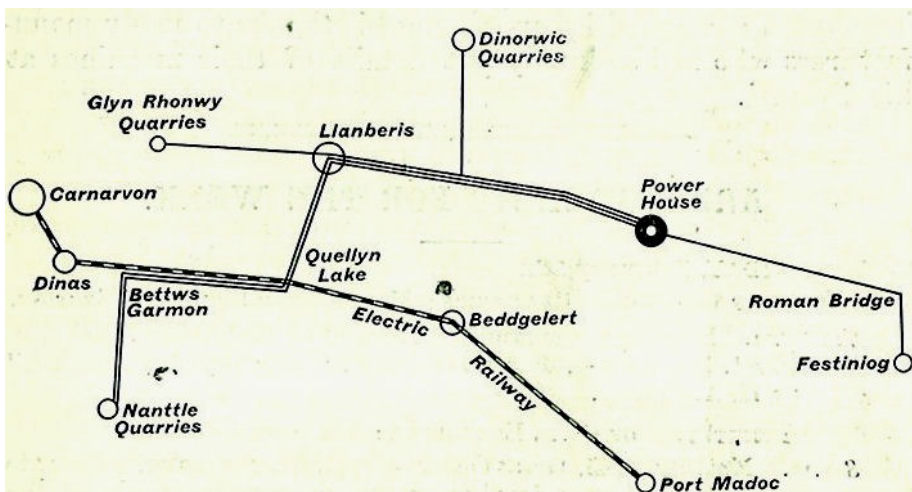
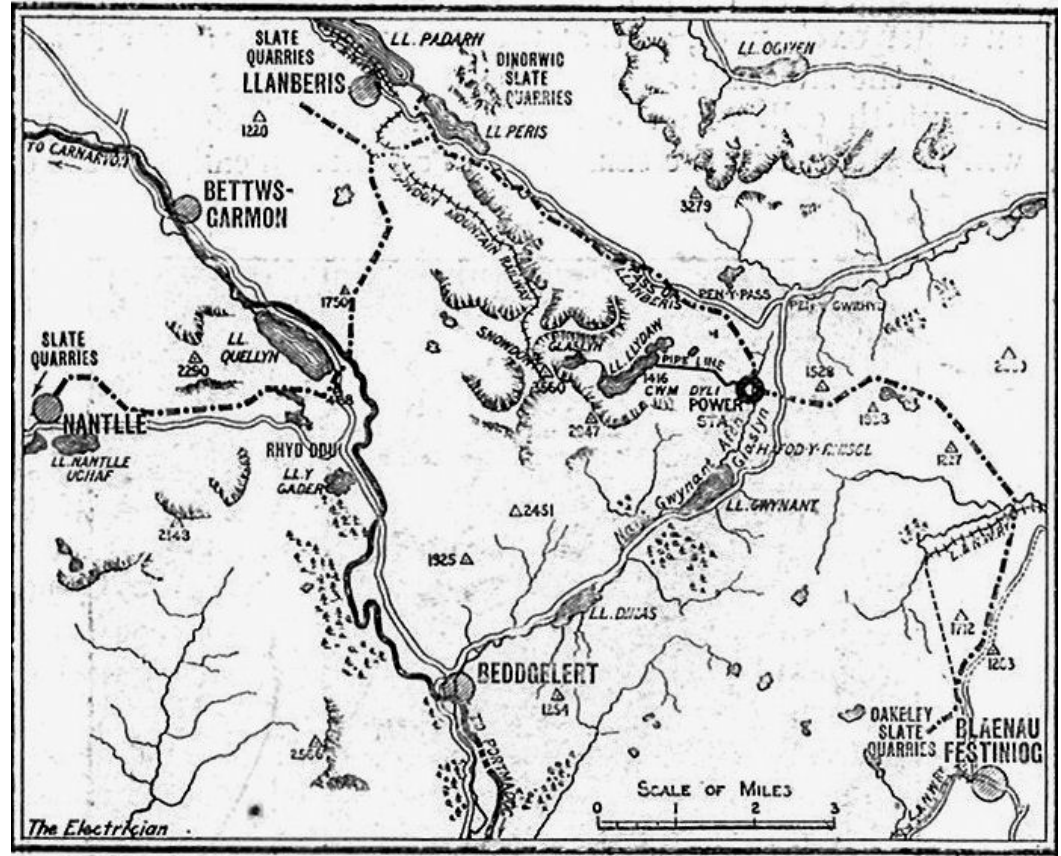
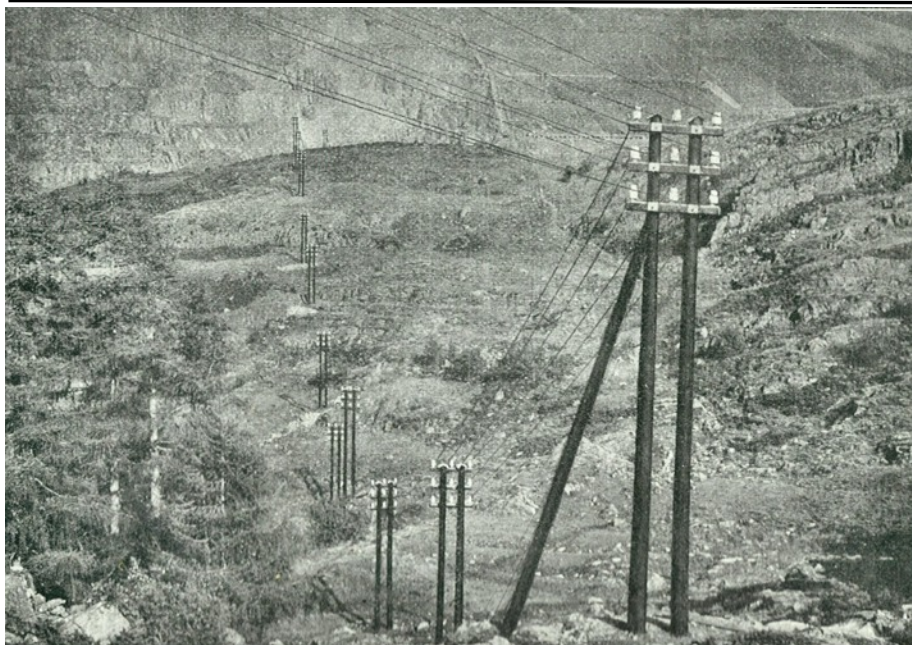


FIG. 14.—DIAGRAMMATIC SKETCH SHOWING ROUTE OF TRANSMISSION LINES.

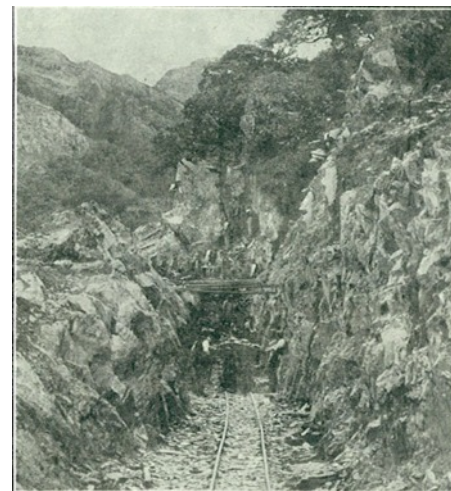


I would suggest that by the time the power lines were being planned and constructed (say 1904–5), NWEPT were already becoming concerned about the viability of the PB&SSR electrification scheme, and the shorter route via Drws y Coed would have been attractive. Whether the availability of power at Drws y Coed was influential in the construction of the copper works there, or whether NWEPT were alert to the possibility of a potential significant customer at that location when choosing

their route is a matter for further investigation. However, it would appear that by the time of its publication in *The Electrician* the distribution diagram had already been superseded.

References

- 1 'Electric Power Distribution in North Wales', 2
- 2 *The Electrician*, 26th January 1906, pp. 578–80, 622–5, 660–3.
- 2 Possibly supplied by NWEPT&TCo.
- 3 *The 1904 Act making arrangements with the NWNGRCo included extension to Caernarfon.*



4 Michael Bishop, 'More History of the PB&SSR', part II, *Welsh Highland Heritage* No. 34, December 2006.

5 Dewi W. Thomas, 1997, *Hydro-Electricity in North West Wales*, p. 50.

6 D.E. Bick, *The Old Copper Mines of Snowdonia*, 3rd ed., 2003, p. 50.

7 G. Woodward, 'Hydro-Electricity in North Wales 1880–1948', *Transactions of the Newcomen Society* Vol. 69 No. 2, , pp. 205–35.

Photographs

Top left - The power line south of Llanberis

Top right - Work in progress on the southern exit of the 'Long Tunnel' on the Nantmor embankment

Diagrams and photographs courtesy of the The Institution of Engineering & Technology

PB&SSR Speculation - more from Dave Linton

Unrelated to the above article, my second point is that while looking for a meaningful way to describe the PB&SSR's electric locos, it occurred to me that its dimensions and probable tractive effort were quite similar to those of the George England locos operating on the Festiniog Railway at that time.

Admittedly, I have been selective in choosing figures for my comparison; however, it would be interesting to know whether the similarities were intentional or if they just resulted from similar requirements.

The dimensions of the locomotive are such that, with minimal alterations to line structures to accommodate the overhead electrification, it might have been able to operate on the Festiniog Railway. It's interesting to speculate

	PB&SSR Electric Loco	FR Prince (1892 rebuild)
Weight	8.5 tons ⁸	8.5 tons ⁹
Wheelbase	56 inches ¹⁰	54 Inches ¹¹
Wheel arrangement	0-4-0	0-4-0
Wheel diameter	25.5 inches ¹²	27 inches ¹³
Static tractive effort	4,500 lbf ¹⁴	4,489 lbf ¹⁵
Capacity	3 coaches ¹⁶	3 coaches (on WHR) ¹⁷

that had the electrification of the PB&SSR been successful, a similar scheme might have been proposed for the FR.

References

- 8 http://www.festipedia.org.uk/wiki/Bruce_Peebles_Electric_Locomotives, accessed 30/1/2013.
- 9 J.I.C. Boyd, *The Festiniog Railway*, Vol. 2, 1975, pp. 317–18.

10 J.I.C. Boyd, *Narrow Gauge Railways in South Caernarvonshire*, Vol. 1, 1988, p. 293.

11 Boyd, *Festiniog Railway*.

12 Boyd, *Narrow Gauge Railways*.

13 Boyd, *Festiniog Railway*.

14 Tractive effort based on that given by Rodney Weaver in 'Ghosts of Aberglaslyn', *The Narrow Gauge* No. 122(?), pp. 10–13. I have used 140% of his estimate of continuous TE to make the value comparable with the static figure given for Prince.

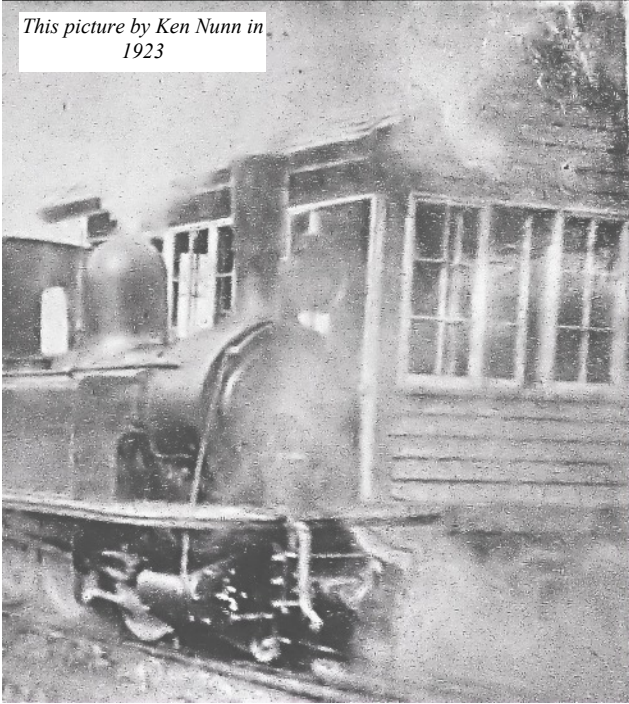
15 Boyd, *Festiniog Railway*.

16 Weaver, *op. cit.*

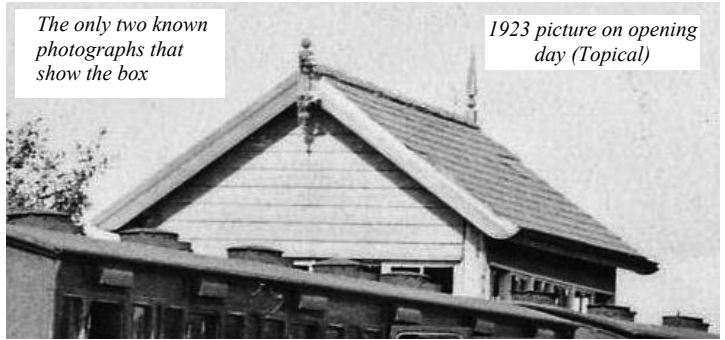
17 *Festiniog Railway Rule Book*, 2011, General Appendix: Passenger Trains.

Tryfan Junction Signal Box

This picture by Ken Nunn in 1923



The only two known photographs that show the box



1923 picture on opening day (Topical)

the Slate Trail, Tryfan Junction would increasingly become part of the reason why people buy tickets to travel on the railway. Another reason is that, after rebuilding the Lamp Hut at Beddgelert, we got bored!

land design with 20 levers and was never used in WHR days. Only the stone base remains which, at some stage, has been filled with slate waste.

It was with all of this in mind that members of the WMG met at Tryfan Junction in late September to investigate the signal cabin base. John Keylock sold us the idea by calling it a 'Time Team Investiga-

With the main Tryfan Junction building project nearly complete thoughts have been turning to 'what next?' - the obvious answer is the restoration of the signal box that was located directly opposite the station building. The base of the box remains extant and at the insistence of the WH Heritage Group was well protected during the construction phase. Now therefore is surely the time to examine the possibilities of restoration. The box has gone down in WH folk lore for its secondary use as an aviary when stationmaster. Owen Benjamin Thomas was able to indulge in his passion for canaries!

Mike Hadley takes up the story

Why restore a building that has no use? That is the question that has been asked several times ever since the West Midland Group (of Cym. R.E.) decided to investigate the possibility of rebuilding Tryfan Junction signal box. The main reason, of course, is that heritage sells, and the readers of this journal would probably agree that in today's competitive atmosphere tourist attractions require a rounded appeal. The rebuilding of Tryfan Junction station under the direction of Lewis Esposito is an incredible achievement, and if a heritage tableau could be created with more of the original scene recreated, together with the attractions of

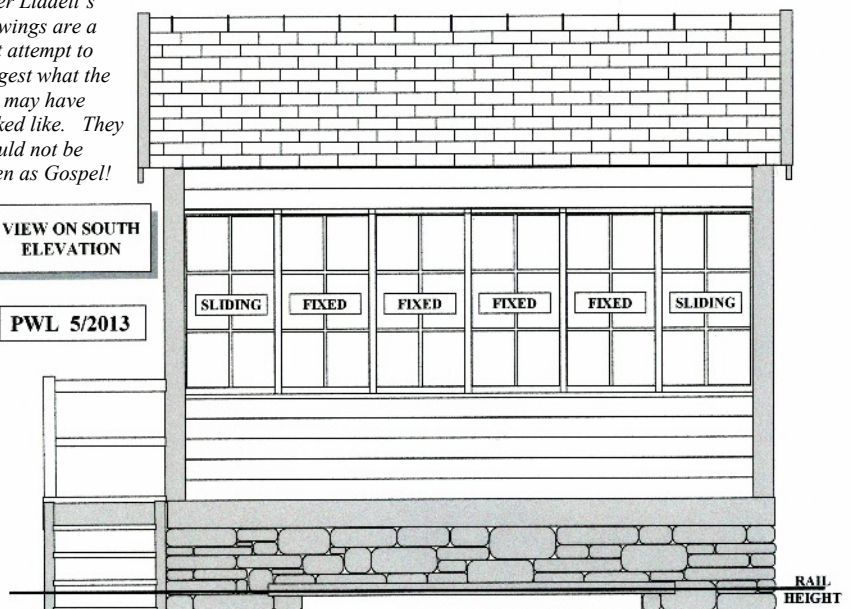
Peter Liddell has undertaken some preliminary research but has had to make a number of assumptions, there being only two known photographs of the box, both partly obscured by trains and both taken in 1923. Built in the 1870s it seems likely it was a McKenzie and Hol-



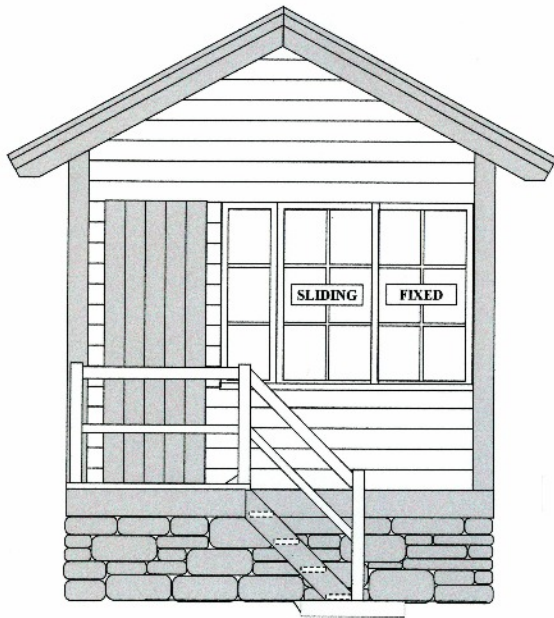
Peter Liddell's drawings are a first attempt to suggest what the box may have looked like. They should not be taken as Gospel!

VIEW ON SOUTH ELEVATION

PWL 5/2013



Side elevation facing the rail - Peter Liddell



View of west elevation - Peter Liddell



tion' without clarifying who was going to be Tony Robinson!

After clearing away vegetation and the slate waste from one corner, we believe that we have established:

i) That there is a recessed section at the front, indicating that the rodding entered/left the building that way; indeed the remains of a timber baulk was found directly in front of the stonework which may have been part of the base for attaching the pulleys, etc.

ii) To the front left-hand corner, the top stones are fitted together in such a way that, with the help of lime mortar also found, there appears to be a 'slot' of just the right shape to take the ends of floorboards. That being the case, the building had a timber upper floor and the stonework is pretty well at its original height (there had been speculation that the stonework may have been higher).

iii) We discovered an internal concrete base and what may be one end of the concrete moulding to which the frame was attached.

iv) A roughly 250 mm 'slot' in the stonework to the rear of the left-hand (Caernarfon) end. Purpose unknown.

The project is at the investigative stage and no firm decisions have been taken or approvals sought, however the slate waste infill will shortly be removed to expose what is left of the original structure. After that, any further work will require the

approval of FR & WHR Heritage Ltd.

If successful the probable next steps will be to repair the stone base and erect information signage probably in the station building, followed by a full investigation into costs, funding and planning

Wouldn't it be great for growing geraniums!



Peter Liddell's Photo Analysis



This image shows Russell and train at Beddgelert water tower heading, bunker first, towards Dinas with veteran driver 'Willie' Hugh Williams standing by the base of the water tower. Also visible is the pit in the siding (extreme right); two lorries waiting by the coal siding in the distance; a gentleman with his bicycle; in the foreground the point lever for access to the goods shed road.

The train includes the Buffet Car note "towel" hanging over safety bar fitted to

door giving access to service area and, behind, an Ashbury "Summer" whether glazed or un-glazed is not discernible — the open door visible could be from either. The station building still has its flue, but the Bookstall has gone. The Goods Shed point lever shows that the trap point interlocking had been fitted when the photo was taken.

The Bookstall was written off in the severe storm towards the end of 1927, so an operational photograph without the bookstall probably would have been

taken in 1928 or later. In fact, the operational arrangements for the Buffet Car show that this image could only have been taken in 1928 and only on a summer Saturday between 14:45 and 15:05.

Note that the Beddgelert booking office was closed at the end of September 1928 and it was probably shortly thereafter that its stove and accompanying flue would have been removed, further confirming that this photograph dates to the summer of 1928.

CHRISTMAS CARD

For this coming festive season we will have our own seasonal greetings card. This has been commissioned from Jonathan Clay whose work will be familiar to most readers.

At approximately 8" x 6" in landscape format as below with bi-lingual festive greetings inside. Cards cost £7-00 for a pack of five - inclusive of 'P & P'.

Orders to :-

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