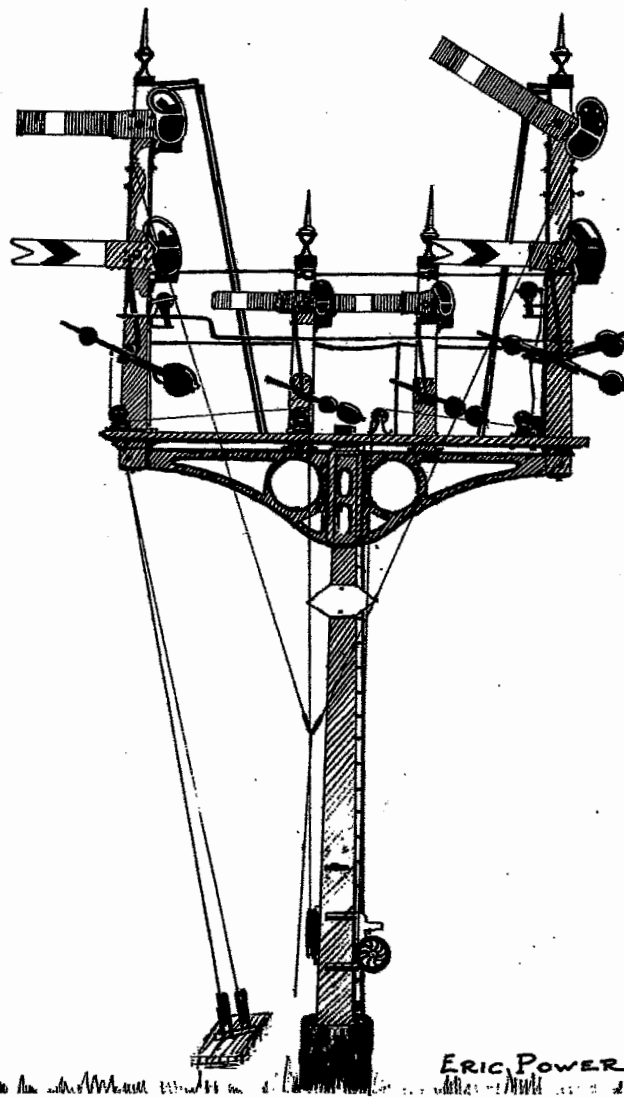


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Barrowmore Model Railway Journal



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Published on behalf of Barrowmore Model Railway Group by the Honorary Editor:
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Contributions are welcome:

- (a) as e-mails or e-mail attachments;
- (b) as a 3.5in floppy disk, formatted in any way (as long as you tell me if it's unusual!); disks can be provided on request;
- (c) a typed manuscript;
- (d) a hand-written manuscript, preferably with a contact telephone number so that any queries can be sorted out;
- (e) a CD/DVD;
- (f) a USB storage flash drive.

Any queries to the Editor, please.

The **NEXT ISSUE** will be dated September 2009, and contributions should get to the Editor as soon as possible, but at least before 1 August 2009.

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Copies of this magazine are also available to non-members: a cheque for £7 (payable to 'Barrowmore Model Railway Group') will provide the next four issues, posted direct to your home. Send your details and cheque to the Editor at the above address.

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The cover illustration for this issue is another of Eric Power's drawings – this time of the Cheshire Lines Committee Up Junction home signals at Glazebrook East, on the Liverpool to Manchester line. Bob Miller has kindly written the following caption:

This type of upper quadrant signal was first produced from the CLC signal works in Warrington in 1929; these particular examples probably date from the mid-1930s. Note that the main post is concrete and only the four shorter dolls (to which the signal arms are attached) are of timber. The home signal top left (operated by lever 31 in the signal box according to a diagram of 1958) was for the main line straight ahead on to Manchester Central; below the Irlam distant (lever 30) was slotted with Irlam box (its lever 43) so would only move if pulled off by both boxes. The subsidiary arm second left (lever 27) controlled access to the Bottom Sidings which lay on the down side much of the way towards Irlam. Third left another subsidiary arm (lever 29) gave access to the Ship Canal Sidings alongside the Stockport line. The home signal on the right (lever 34) was for the line to Stockport and Godley and for some reason has been provided with a longer arm than the other home; below was the Cadishead distant (lever 33) which was slotted with Cadishead's lever 17; again only pulled off with the agreement of both boxes. Note for modellers – the lower spectacles were the red ones with the upper glasses being green or amber. The cast finials, spectacle casings and the timber dolls were white in CLC days with the other ironwork black and the concrete unpainted.

Forthcoming events

- 13/14 Jun. 2009:** Chatham show.
27 Jun. 2009: 7mm running track (American), Llanbedr (see Editor for details).
27/28 June 2009: Perth exhibition (“Mostyn” is appearing).
11 Jul. 2009: 7mm running track, Llanbedr (see Editor for details).
19 Jul. 2009: 7mm running track show, Gresford.
8 Aug. 2009: 7mm running track (American), Llanbedr (see Editor for details).
22 Aug. 2009: 7mm running track, Llanbedr (see Editor for details).
12/13 Sep. 2009: ExpoEM North, Slaithwaite.
26/27 Sep. 2009: Southport show (Birkdale High School, Windy Harbour Rd., Southport PR8 3DT).
2/4 Oct. 2009: Manchester show.
3 Oct. 2009: 7mm running track, Llanbedr (see Editor for details).
17/18 Oct. 2009: Blackburn show.
30 Oct./1 Nov. 2009: Merseyside show.
31 Oct. 2009: 7mm running track (American), Llanbedr (see Editor for details).
21 Nov. 2009: 7mm running track, Llanbedr (see Editor for details).
21/22 Nov. 2009: Warley show.
5 Dec. 2009: 7mm running track (American), Llanbedr (see Editor for details).
12/13 Dec. 2009: Wigan show (“Mostyn” is appearing).

(2010)

- 6/7 Feb. 2010:** Rochdale show.
6/7 Feb. 2010: Stafford show.
20/21 Mar. 2010: Nottingham show.
11/12 Dec. 2010: Wigan show.

(The Editor welcomes details of other events of railway interest for this column)

Our web-site address is: www.barrowmoremrg.org.uk
(Also of interest is: www.mostynhistory.com)

Ship Canal Sand Co. Ltd., Mouldsworth

While I was in Chester Library recently, I thought to look for any references to the firm that operated the sand pit at Mouldsworth (see ‘Letters to the Editor (Phil Hindley)’ on a later page). Searching through commercial directories, I found just one entry, in the 1939 edition of *Kelly’s directory of Cheshire*, listed in the ‘Ashton Hayes and Mouldsworth’ section; but it didn’t give any information other than listing the firm’s name.

John Dixon reports that there is no sign of the rail connection on the Ordnance Survey 6in map of 1909.

[This obituary was published in the L.N.W.R. Society's *Journal* in 2003; it is reprinted here in view of the several photographs by Norman in the last issue of *BMRJ*].

NORMAN JONES APRIL 1918 – MARCH 2003.

by Tony Robinson

It is with regret that I have to announce the death of my good friend Norman Jones, late of Warrington.

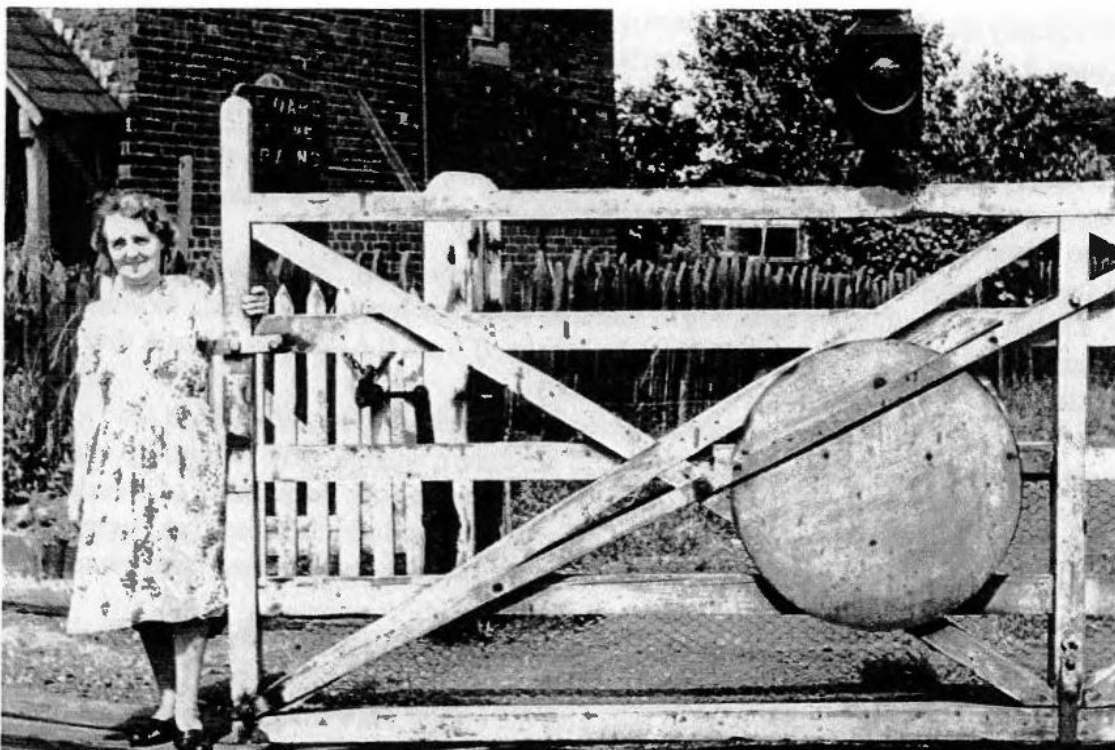
Although never a Society member I believe Norman deserves a mention on account of the excellent work that he did over the post-war period in N.W. England and North Wales recording the activities on lines that were part of the L.N.W.R. system. He was essentially a branch line man keen on bringing into focus the more esoteric workings of railways to the public eye in his numerous short dissertations in the likes of *Country Life* and the *Meccano Magazine* to name but two well known periodicals.



Many members [of the L.N.W.R. Society] will be aware of his recent excellent two-part work on the C.&H.P.R that he did jointly with Mike Bentley (published by

Foxline) and for my part the work completed in 1996 entitled *Ben Robinson – a centenary appreciation*, together with *Holyhead's Royal visit* published in 2001 would never had seen the light of day without Norman's foresight and unstinting enthusiasm.

His photographic work stood out as he invariably included the station, goods, or locomotive staff, etc. wherever he went; names and occupations were always meticulously researched and as a result Norman made many friends on the lines that he visited.



Mrs Crank, crossing keeper at Plemstall (between Mouldsworth and Mickle Trafford, and not far from Barrow), in 1959.

A commercial accountant by profession, he joined the C.W.S. Soap Works at Irlam in 1955, where he also was given charge of their own internal railway. His recent article in *By-Lines* revealed this to include an 0-4-0 saddle tank and ex-Midland four wheel coach that twice daily ferried the company employees twixt the works and the nearby Irlam station on the C.L.C. Manchester – Liverpool mainline.

A life long bachelor, he spent his twenty year retirement doing what he loved: writing books and articles utilizing his vast collection of personal notes and photographs. His charm and enthusiasm will be sadly missed by all who knew him.

Tony Robinson.

Workshop notes, no.19

Whilst looking through some old copies of *Precision* (the magazine of the Protofour Society, the organisation which eventually 'merged' with the Scalefour Society) I came across several items which I thought would make bases for subjects for "Notes". Here is the first; it was contributed by 'E.B.Clark' to whom acknowledgement is made, and first appeared in issue no.4, in January 1973.

Keeping corners square

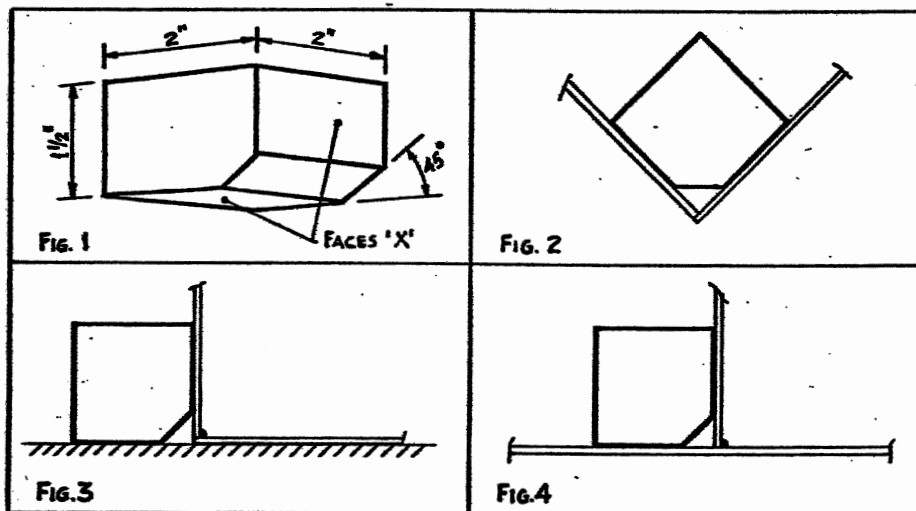
The maintenance of squareness between two plane components, e.g. a wagon side and end, whilst adhesives cure, is a constantly recurring problem. As I have neither a sufficiently steady hand nor an excess of modelling time to sit and hold the parts square, I devised the simple aid described below, which can be used in a number of ways. In addition it is cheap – mine was an off-cut from DIY carpentry.

The jig, shown in Fig.1, consists of a piece of timber, approximately 2in x 1½ in with the faces 'X' planed accurately at right angles to each other and with the corner between them chamfered off at approximately 45°. The length is immaterial but I have found 2in to be satisfactory.

In use, the components to be joined are attached to the faces 'X' of the jig by means of double-sided adhesive tape, Fig.2, and can be left as long as required. When the adhesive has cured, the assembly may be removed from the jig with aid of a thin knife blade.

I use two such jigs in order to produce two identical L-shaped units which are subsequently joined, again using the jig, to produce a wagon body. Naturally enough, the jig lends itself to mass-production, simply by increasing the number of wooden blocks in use. N.B.: if plastic parts are being joined with liquid adhesives, support the assembly with the joint downwards, Fig.2, to prevent the adhesive from running into the wood.

The jig has also been used successfully for solder construction of white metal wagon kits, Fig.3. Here the block and one side of the vehicle are attached to a flat, rigid surface with double-sided adhesive tape and the end of the vehicle likewise held onto the block. Soldering is carried out from inside the corner, where generally an excess of solder is unimportant. Fig.4 shows a loco motive footplate as the flat surface with a cab front being erected thereon. No doubt readers will devise other applications for themselves.



“A RUDE AWAKENING” (Extract from “Dad Had an Engine Shed”, an unpublished manuscript by Tony Robinson)

In May 1961 my father was admitted into the Royal Infirmary at Chester for a minor operation. It was the first time in his life that he had entered a hospital as an ‘in patient’ and he spent about five days (and nights) in the surgical ward which overlooked Chester racecourse (the Roodee) and of course the main line as it emerged from the city walls immediately to the west of the city [The hospital was later demolished and the site subsequently redeveloped]. At that point the railway is elevated on a long viaduct that runs along the entire northern flank of the Roodee. It was in those days of four tracks with the nearest two carrying the ex-G.W.R. trains to Shrewsbury and beyond, these also doubled up as the up and down slow lines along the North Wales coast as far as Mold Junction No. 1 box where the arrangement negotiated crossovers to put the slow lines outside of the fast lines which near the hospital were the two furthest tracks emerging from the city walls and tunnels etc. The four tracks at that point climbed a short bank out of the city of 1 in 414 before levelling off onto the Roodee viaduct.

Medically the week was a success and a sabbatical for my dad who welcomed the relief from the grinding pressure of work at the shed, he emerged full of praise for the nursing staff who came out ‘top of the class’ for their quality of care and dedication to the patients in their charge. However the same cannot be said for his fellow railwaymen! As he and the other inmates of the ward had quite an awakening experience each night. From around 1960 the incursion of diesel traction in the form of the English Electric Type 4’s (later to become known as the Class 40 “Whistlers”) began to make itself felt on the heavier passenger workings originating from Euston and Holyhead. Naturally the Irish Mails were among the first trains to be so hauled and the down night working of this train left Chester at about 12.45am each morning. As invariably the down fast was clear at that ungodly hour the crew wasted no time opening up the throttle as they came up the bank out of the Northgate tunnels. Anyone who has any memory of these beasts will know that under full throttle they make an



*Twenty years later the Class 40s could still be seen passing the site of Crane Street box.
Photograph by S.D. Wainwright.*

absolutely cacophonous roar! Add that to the audible shock of emerging from a sound muting tunnel at speeds of forty mph and accelerating and one can imagine the effects

on the nearby slumbering patients! Well I think it was the second or third night of my dad's hospitalisation that finally did it, one of the patients with whom he had struck up a friendly relationship (a well known local estate agent) went into a shock-induced fit at the sudden awakening caused by the said train, apparently the man was in a somewhat precarious state after an op that evening and this experience came close to finishing him off! My father was absolutely furious having been awoken on the previous nights by the same 'racket'. I think whilst still in hospital he penned a letter to the 'Powers That Be' at Crewe explaining just how serious a problem the noise from these locomotives was. He also advised that all engine crews should be reminded of the line-side presence of the hospital by a clearly worded sign as they emerged from the Northgate tunnels.

Well, his advice was heeded and strict instructions were issued to keep throttles from being fully opened until well clear of the vicinity and in due course a sign was erected to remind the offenders. So not a bad ending to what could have been a tragic event. It also kicked off a lasting friendship between my father and the estate agent who just happened to share the same surname!

Wrexham Central, 1959



Wrexham Central in 'the good (or slightly better) old days'! B.R. standard 2-6-2T no.82037 with the 17.05 to Seacombe. A contrast to the scene today as portrayed in the photograph on page 33 of "BMRJ" no.18. Photographed by Syd Wainwright on 21 June 1959.

The station has a complex history: opened in 1887 as a terminal on the extension from Wrexham General, losing its terminus status in 1895 when the Ellesmere Branch was built. Reverting again to a terminus in 1962 (after the above photograph was taken) when the Ellesmere Branch lost its passenger services, re-sited in 1998 when a new shopping complex was built – as shown in the picture in "BMRJ" no.18.

Letters to the Editor

[E-mail forwarded by Dave Millward:]

To: ParkRoyal103@yahoogroups.com

From: alfredroberts2003@yahoo.com

Date: Sat, 28 Feb 2009 17:21:57 +0000

Subject: [ParkRoyal103] Shackerstone Park Royal News

“Members, at the requests of Messrs Northfield and Thornton I write to update you on these vehicles. You will note that I and others have been quiet for months now on this matter, apart from a pic of M50397 in yellow livery sent in on 31 December 2008, this is whilst we get matters relating to these vehicles (and especially M50397) resolved. The debate before was going nowhere and ended in bickering.

News on M50397

For some time now I have been conversing with Mr Richard Thornton who is currently 'indisposed' at HM Prison Haverigg, Millom, Cumbria.

We have been discussing the last but one remaining Park Royal class 103 DMU set M50397 and M56160. The Amman Valley Railway has dropped out of the scheme now and in any case M50397 has been totally neglected since it moved to Swansea in June 2006 and looks a real state in the middle of somebody else's land. M50397 now has to be removed within four weeks at the most from the location the Amman Valley Railway placed it at.

There is the scheme to move M50397 to the North Essex Transport Group Transport Museum at Great Yeldham in Essex where a space has been reserved for it. The cost of transport from Swansea to Great Yeldham will be £1670 plus 15% VAT = £1925 (unless anyone can 'beat' this quote?). Donations would be gratefully received! Photos of M50397 (July 2008) are at <http://www.flickr.com/photos/31318026@N02/> The Park Royal class 103 M50397 was to leave the premises of T.D. Williams (Fabian Way, Swansea) at the beginning of March the people at Great Yeldham in Essex are doing some essential work (two of the bus men are installing a three-phase power supply and new lighting in the road vehicle stabling bays) so the buses and trucks have spread across the floor space onto the railway vehicle area whilst they do this work. Like all volunteer transport preservation groups they can't demand that the members installing the power / lighting “GET ON - HURRY UP THEIR WORK”. Furthermore it has been decided by the people at Great Yeldham that laying track with sleepers and base plates would create an obstruction to both visitors and vehicle movements in the hangar. The people at Great Yeldham have therefore obtained 720ft of FB rail which is to be fixed to the floor using tie rods and rag bolts. The Bus department leader is the member who will drill and fit the tie bars onto the rails once the other work is complete. I have been told verbally that, until this is done, the people at Great Yeldham cannot put any more rail vehicles in to the shed at Great Yeldham because they cannot unload any more vehicles inside the shed, they will have to be unloaded outside of the shed and towed in to the shed. So the departure of the vehicle M50397 from the premises of T.D. Williams, Swansea has been delayed until the last week in March.

M50397 is in very poor condition indeed and I have said in past I feel it would suit being used for spares for the Helston 103 or M56160 BUT there is now the **proper** chance to restore the coach in suitable facilities with no more 'issues' arising.

I know that there have been a lot of false starts with this vehicle BUT this one looks the best chance the vehicle has had so far, as the museum has 100%

covered work space and accommodation.

Mr Richard Thornton has said on many occasions that he had acquired some Leyland 0.680 diesel engines from scrapped class 101 diesel units in 2003 - 2004. But he has also said to me in letters sent to me from the prison that his fears that some people may have taken the opportunity of his imprisonment to 'help themselves' to these and other parts stored at Bodfari have been realised. As some people have taken the opportunity of Mr Thornton's imprisonment to 'help themselves' to parts then M50397 will also need some Leyland 0.680 diesel engines and R14 gearboxes and final drives as well.

News on M56160

Mr Thornton has told people that when he is released from prison he wants to resume work on M56160 again. He has already significantly cleaned up the vehicle and glazed it. The problem is that the land at Bodfari is probably being sold to meet the requirements of a 'Proceeds of Crime Act' hearing held in Northwest (Mold) Crown Court (?) at the beginning of the year so it may be that a new home may be required for M56160 if the land is sold - unless either Mr Thornton keeps the linear strip of land beside the council plant nursery at Bodfari that the vehicle is parked on, which is separate from the extensive fields or the landowner agrees to let M56160 stay there until a new home can be found and the council are happy with it there.

Can anybody suggest anywhere that M56160 can go to? It still has blue asbestos in the body-shell, and exposed blue asbestos material underneath it, BUT I am soon going to start liaising with Heritage Lottery Fund about a grant to remove the exposed blue asbestos material amongst other things. Could M56160 go to the Helston Railway, where in the open air it would be a far more suitable exhibit than M50397 which is in such a poor state of repair that it needs to go undercover simply to protect it?

Note re HLF: either we (or HRDG with their 103 set) would need to provide opportunities for public learning and participation (public educational and volunteering opportunities) as part of any application 'package'. Yours - Alfred.”

E-mail forwarded by Dave Millward: “103 birds are go!!!! ...

To: ParkRoyal103@yahoogroups.com

From: steigertrak2@yahoo.com

Date: Wed, 25 Mar 2009 17:01:11 +0000

Subject: [ParkRoyal103] M50397 MOVE FROM WALES TO GREAT YELDHAM

“Hello All: I posted this yesterday, but it seems to have got lost some where, so let's try again.

As you are no doubt aware, car 50397 has been allocated fully indoor accommodation at the above premises.

Much has been written regarding the possible electrical and mechanical refit of this vehicle, most of it negative. However I can assure anyone who is interested in this project, that having the interior all but stripped out makes the mechanical and electrical refit MUCH EASIER, VERY MUCH EASIER!

We already have the engine and gearbox control groups and the engines and gear boxes are awaiting our collection.

So there you have it, a 1950s diesel unit restoration plan on the starting blocks ready

to get moving.

We need to raise approximately £1200 to cover the transportation costs to Yeldham.

Can you help?

If you are able to contribute please contact myself on steigertrak2@yahoo.com or contact Andy Dickinson on andy1414141@yahoo.com

Let's get this show on the road.

Thanks for your attention."

E-mail from Philip Hindley of Old Colwyn:

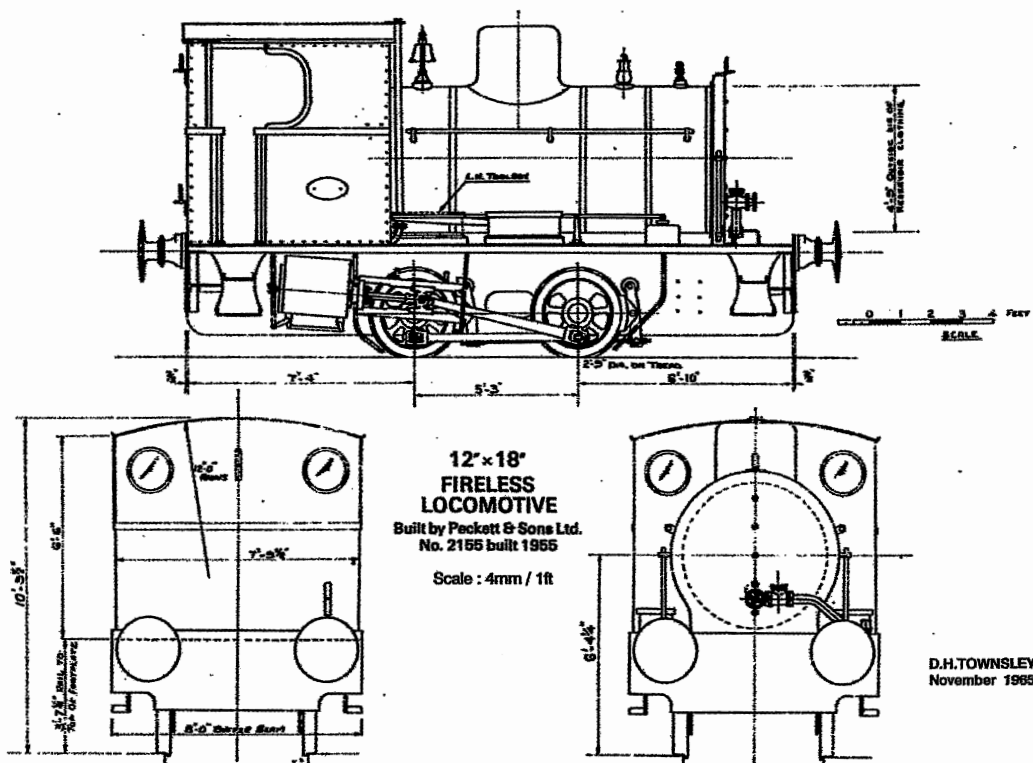
"Mouldsworth Sand Quarry I can't add any more definite information on this subject but the following comments may be of use.

The photo on BMRJ p.39 shows the end of the narrow gauge track, not the standard gauge siding. The 'V' skip wagons would have been tipped onto the grating inside the shed, under which would have been a hopper feeding the conveyor leading to the screening plant in the distance. This would presumably have been over a standard gauge siding to the east of Mouldsworth Station. The pit lies between the railway and Stable Lane, a continuation of which the railway crosses with an overbridge and embankment, i.e. the ground appears to fall away from the railway towards the lane. This ties in with the rising ground between the pit and the railway siding evident in the photograph. Also aerial photos show the bank of trees between the pit and the railway, and I think this view would be in a south or south west direction. The pit is currently used as a venue by the Frodsham & District Motor Cycle Club. The point at the bottom of the photo is presumably the start of a loop where full and empty wagons would be exchanged, and where the 4 wagons are shown standing in the photo on p.40.

The locomotive details quoted from the ILS Handbook are from the Lister works records, and I don't think there were any actual observations of the loco at this location. The 'V' skips appear to be the standard 2ft gauge type, and, considering the limited clearance between the wheels and frame, are more likely to be 2ft gauge rather than 21". The distance between working face in the pit and tipping point would have been very short, and perhaps loco haulage was found to be uneconomic and abandoned in favour of hand propulsion. Maybe 2ft gauge jubilee trackwork was installed at that time as much of the layout would have been temporary and moved around the pit as required. It may be reasonable to assume that if a locomotive, or shed for the same, existed in the late 1950s it would probably have been photographed. Regards, Philip".

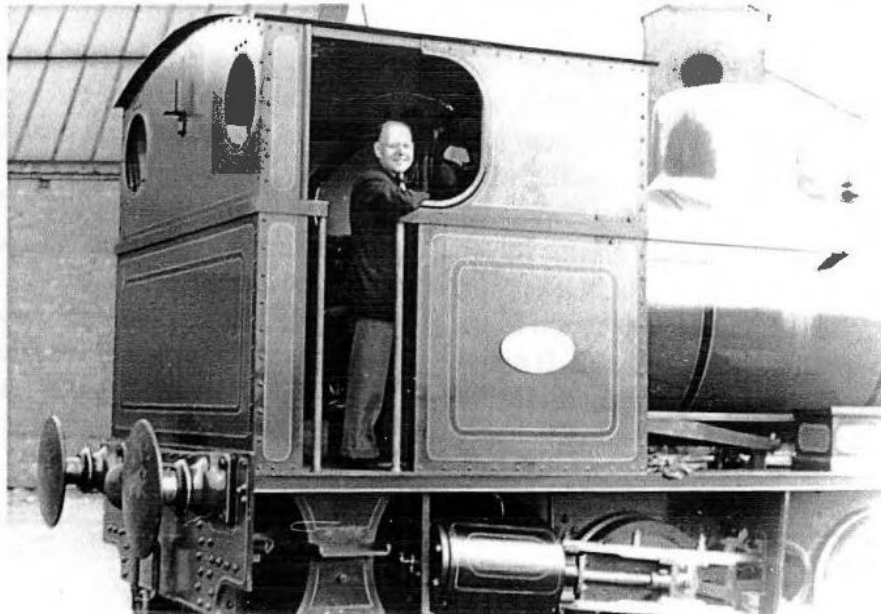
(More letters: see 'Contents' page).

The C.W.S. Soap Works fireless Peckett locomotive



After printing Norman Jones's photograph of the unique Peckett fireless shunting engine on page 14 of the last issue of "BMRJ", and repeated here,

I came across (Serendipity!) a short piece about the locomotive by Steve Young in the April 2007 issue of the "EM Gauge Society newsletter". Included in the article was



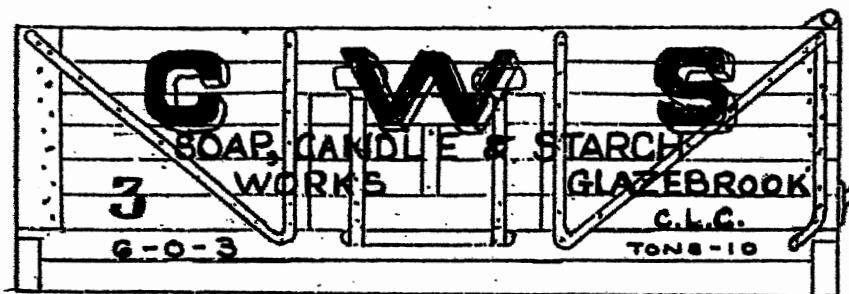
a reprint of the drawing by D.H. Townley which first appeared in "Railway Modeller" in 1965, and reprinted once again, above.

I remembered that I had modelled some wagons (illustrated below) from the works, as



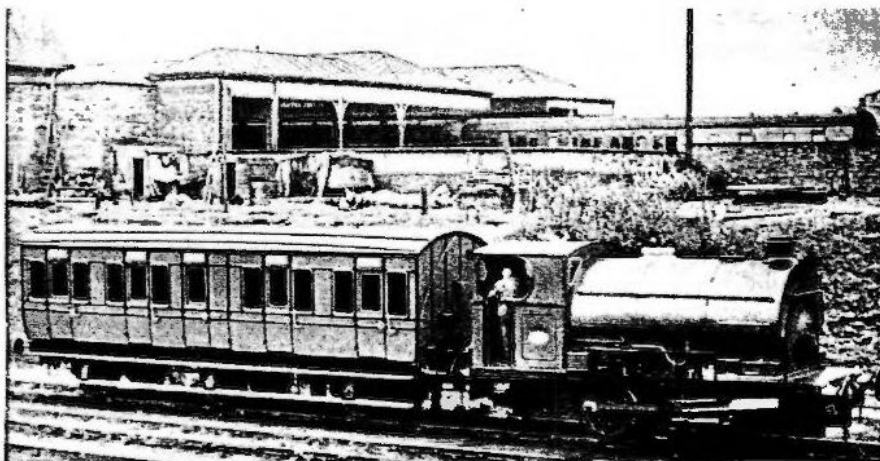
Back in 1983 I made two 4mm-scale models of C.W.S. Soap Works wagons for the Merseyside M.R.S. "Plemsworth" layout, which was based on 1929 Cheshire Lines practice. The livery was: mid-brown, with yellow lettering and the big letters were shaded red. The lettering diagram was provided by the L.&Y. Society.

part of a previous modelling project, and looking up this project in my files revealed a copy of yet another article on this Peckett – this time from volume 1 (1962-1966) of "Industrial railway record". This article, by R.W.Yate, seems to date from about 1963.



Glazebrook was the C.L.C. station designated as the return destination for wagons: the factory was situated in Irlam

The Irlam soap works apparently started production in 1894, producing 265 tons of soap per annum in the early years, rising to 660 tons in 1907. At its maximum in 1950, there were 1100 workers, but contraction resulted in the fireless engine



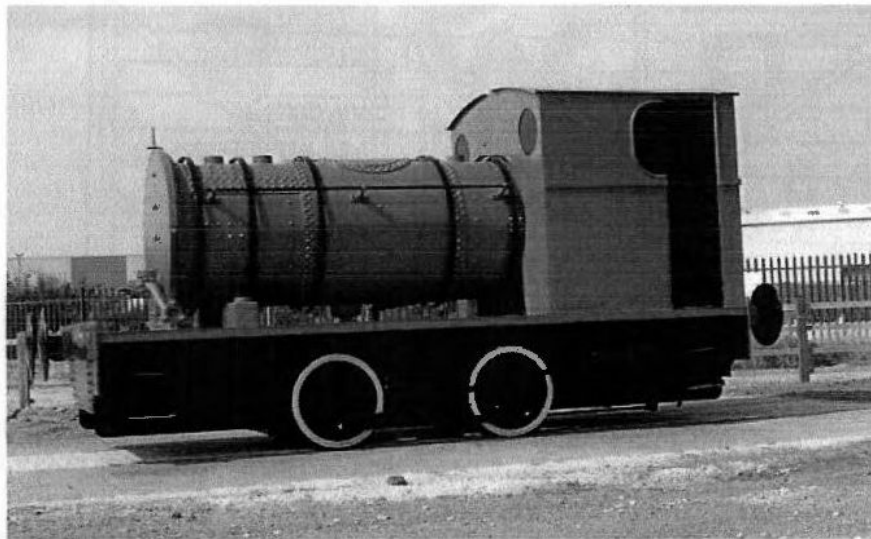
and end of the working day.

becoming surplus to requirements by 1960.

The Peckett saddle tank which was employed to transport Irlam workers, in an old Midland six-wheeler, between the soap works and the C.L.C. station, at the start

The fireless Peckett was built in 1955, works no.2155, and was Irlam Soap Works no.8 – a continuation of a long-standing relationship between the soap works and the Atlas Works of Peckett in Bristol. It worked satisfactorily for a number of years, but there were a couple of problems: the low weight (20 tons) and tractive effort meant that only a few wagons could be managed at a time; the sharp curves in the track in the works, together with the fact that they were all left-handed, made for tyre problems with the wheels which had to be replaced every couple of years. And then there was an operational problem with the driver having to be careful always to have enough steam to get back to the charging point. Substitution of compressed air with a bigger capacity compressor could have helped, but at the expense of a high capital cost. Any way, other factors reduced the amount of shunting needed within the works by 1960, and the fireless, with its poor tractive effort was unable to operate successfully up the bank leading to the main line, and the locomotive was in effect 'moth-balled'.

The factory closed down in 1969 and the engine was given to the local council who placed it (re-painted in blue, with a face!) in the children's play area in Prince's Park, Irlam. By 2005 it had deteriorated so as to be judged hazardous to children, and it was then transferred to a new site (repainted in un-lined green) near to the new Irlam and Cadishead by-pass, after purely cosmetic repairs including the complete stripping of the boiler cladding/sheeting.



It was photographed here in September 2005 by Keith Williamson.

Notes:

- [1] *Fireless locomotives* by Allen Civil and Allan Baker. Oakwood Press, 1976. ISBN 0 85361 193 9.
- [2] *Railway modeller*, April 1966.
- [3] *Industrial railway record*, vol.1. 1962/1966.
- [4] *EMGS newsletter no.171*. April 2007.

J.I.C.Boyd: 1921-2009

This obituary for a most respected railway historian is based on that published on the *Daily Telegraph's* website with additional input from the Editor. He first met James ('Jimmy') Boyd some twenty years ago, when Tony Miles took him to see the author in his house in Malvern. Prior contact had been by correspondence on subjects of mutual interest (County Donegal railway braking systems and Wrexham Mold & Connah's Quay rolling stock) but a meeting had not occurred. His home in Worcester county was not all that far from the Shropshire base of Tony Miles, who had first met Boyd because of their interest in Irish railways. Among other things, our host showed us his model test track in his loft, built to the odd scale of 6mm/1ft; the reason for the scale was that he reasoned that it was easier for him to scratch-build Great Southern & Western rolling stock, than scale track to the Irish standard gauge of 5ft3in: he had chosen to use fine-scale 7mm track (which was commercially available). Of course, other problems arose with the scale/gauge solution chosen! For instance, Boyd had to generate art-work to obtain things like wagon W-irons in 6mm scale. But it's not a bad compromise.

J.I.C.Boyd, who died on February 20 aged 87, was an assiduous and authoritative chronicler of dilapidated and narrow gauge railways; his books were encyclopedic, yet always readable; fellow enthusiasts, renowned for their fussiness on points of detail, paid him the ultimate tribute: "If it's in Boyd, it must be right."

JIC Boyd with his wife and children



Boyd's passion was fuelled by the branch line histories pioneered before the war by the Oakwood Press, for which he later produced his own formidable chronicles. He attributed his precision to W.H.Auden, his prep school English master, who insisted he find out more than was necessary for each weekly essay.

Armed from the age of 10 with a field notebook in which everything was meticulously recorded, Boyd explored such oddities as the Woodhead Reservoir Tramway in the Pennines, the lines radiating from the long-lost Blodwell Junction on the Welsh border, the Whittingham mental hospital railway in Lancashire and the Snailbeach Light in Shropshire. Another favourite was the quayside line at Neyland, where locomotives would tow grounded trawlers back into deep water.

He particularly loved the extensive (but now vanished) 3ft-gauge railways of Ireland. On his travels Boyd found new signal boxes replacing those burned down in the Civil War, and was stoned by loyalists in Portadown when insouciantly going trainspotting in a green rugby shirt.

Boyd was best known for his books on the railways of North Wales, and above all the Festiniog. He first encountered the line on a school field trip, and as war broke out

was arrested as a potential spy while cataloguing its rolling stock (on V-E Day he was photographing locomotives in Inverness).

The line closed in 1946, but reopened in 1954, when Boyd produced his definitive two-volume *The Festiniog Railway* (1956); it ran to several editions.

Railways became a passion for his entire family: Boyd and his wife Dorothy spent their honeymoon in 1941 visiting decrepit lines in Shropshire; he included his daughters in photos of pint-size locomotives to give an idea of scale, and when he led working parties from Manchester to renew track on the Talylyn Railway – the first line in Britain rescued by enthusiasts – his wife and daughters painted the locomotives.

James Ian Craig Boyd was born in Cheshire on July 31 1921. He completed his schooling at Bryanston, where he spent as much time as possible on the nearby Somerset & Dorset Joint Railway and founded the school's railway society, which visited engine sheds under the supervision of the history master. He had barely started work with the family textile machinery business in Manchester when war broke out; he spent it as an Army map reading instructor. His first book, *Narrow Gauge Rails to Portmadoc*, was published in 1949. More than a dozen others followed, including the three-volume *The Isle of Man Railway, Narrow Gauge Railways in South Caernarvonshire* (1971), *Narrow Gauge Railways in North Caernarvonshire* (1981), *The Schull and Skibereen Railway* (1999) *Saga by Rail*, (2006/07, a two-volume account of his early travels); and what the Editor thinks is his best book, *The Wrexham Mold & Connah's Quay Railway* (1991).

Boyd was a keen hockey player, and with his wife shared a deep interest in church music. She died in 1994; both his daughters predeceased him.

Tracking down the best archive railway films **by Dave Millward**

Railway films recorded on television studio equipment in the 1950/60s are automatically worthy of closer inspection, as the equipment available to and afforded by the everyday enthusiast was often woeful in comparison. The **Railway Roundabout** films (1958-1962) are a case in point, this archive television series has been newly released on DVD, at a giveaway price of under £30 for a total of 9 discs, covering a staggering range of steam railway topics. The short version of this write-up is, quite simply, buy them (I purchased mine from Duke Marketing on 01624 640000). The longer version is the following list of the contents of each disc, they are as good as it gets for their subject and period, with the added advantage that a name like the BBC opened doors within BR and other railways that the general public wouldn't have managed to knock on:

Disc 1, 1958, Black/White – closure of the Abergavenny – Merthyr/Ebbw Vale and Rhymney branches including Webb coal tank and Super D double heading; The

Bristolian including loco preparation, C&W examination, restaurant car preparation and film of the train interior; Cardigan branch mixed trains; Fishguard Harbour including ferries and Irish emigration; Irish narrow gauge including cattle wagons and diesel rail buses; Camping coaches at Gara Bridge; the Lickey incline including gas wagons, banking signal operation, stop and pin down wagon brakes procedures; the Halesowen branch with 2F/1Fs and the Dowery Dell Viaduct; Southwell branch with Johnson 0-4-4 tanks; Hayling Island branch; Rother Valley railway; Southampton docks radio controlled USA dock tanks, named boat trains with Lord Nelsons.

Disc 2, 1959, Black/White – Wye valley lines including Monmouth/Ross and Chepstow autotrains; E4 at Cambridge; SLS special to Harborne with a 2F; A Worcestershire branch line, Fowler compound to Redditch; Midland compound no. 1000; Scottish historical locos inc Glen Douglas, Gordon Highlander, CR no.123 and the Jones goods; Fort William – Mallaig; The Brighton Belle; Top Shed including Mallard and Flying Scotsman; Newly completed Thornaby shed maintaining Q6s; Saltley shed including 3F/4F, jubilees and 9Fs; Colour - Western 45xx tanks; Kingsbridge branch; Route availability; B set coaches.

Disc 3, 1960, Colour - Adams radial tanks on the Lyme Regis branch; Merchant Navies; West Countries; The use of concrete on the Southern; Coaching set numbers; T9s on the Withered Arm, the ACE; Southern system of through coaches; Route disc system; Black/White - 2 Dukedogs to Barmouth; Perth shed with J37; Pickersgill 4-4-0, Midland 4F, B1, V2, K4, LMS mogul and Mackintosh shunting tank; 2 Caley bogies to Perth and Aviemore; Gordon Highlander on the Speyside line; Newcastle-on-Tyne with J21, A2/3, J72, J39, A3, J27 and Tyneside electrics; Trains at York; A4 on the Elizabethan; the fledgling NRM, A1, K1 and Thane of Fife; Colour - Cromford & High Peak, LMS 0-4-0, attaching wagons to cables on rope worked inclines, water tanks, LNWR 0-6-0 tanks and the Hopton incline.

(Discs 4-6 next time).



Where the standard-gauge Cambrian Coast line and the new 2ft gauge Welsh Highland line cross, on the level, on the outskirts of Porthmadog. Photographed by Tony Robinson on 2 March 2009.

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The Dee Bridge accident, 1847: part 3

by David Goodwin

Further "Chester Chronicle" reports from 4 June 1847 – continuing the reporting of the Coroner's inquest:

(THE LATE RAILWAY ACCIDENT ...)

In continuing the proceedings of this lamentable event, we desire first to recur to the condition of those injured individuals who were taken to the Infirmary. Up to the moment of this journal being put to press, we learn from Mr. Jones, the house surgeon, that –

Mrs Aveson, near Wrexham, is convalescing:- but still very ill.

Mr Towne, of Wrexham, is no worse since our last report; but continues in a serious condition, and cannot be pronounced out of danger.

Miss Towne, of Wrexham, continued to convalesce up to Saturday evening, when she left the infirmary. She resides in the immediate vicinity, and is in constant attendance upon her suffering brother.

Mr Macgregor, of Chester, is greatly advanced towards convalescence; and may be pronounced out of danger.

John Jones (near Llangollen), is going on very favourably. Indeed, it is thought he will be able to return home at the close of this week.

Elizabeth Jones, his wife, is in a fair way to recovery; but, from the nature of the injuries received, considerable time will be required for restoration to health.

Ann Evans, servant in the family of Captain Hopkins, up to Wednesday noon continued slightly to improve; but remains in a very precarious state, and cannot be satisfactorily pronounced out of danger.

Elizabeth Roberts, of Garth, continues dangerously ill; very slight improvement.

Mr Bruce Ford, of Manchester, progressed favourably until Monday last, when he returned home to his friends.

Mr David Evans, of Llangollen, is in an improving condition; and no doubt entertained of his ultimate recovery.

Mrs Evans, his wife, quite recovered; she returned home on Tuesday last.

John Stevens, out of danger; and in a fair way for rapid recovery

Mr Warburton, tailor, of Chester, although able to walk home on the evening of the accident, has been confined to his bed ever since; is still receiving medical aid, and remains very ill.

Mr Isaac Jones, of Wrexham, whose remains the jury viewed at the Infirmary this day week, was interred on Monday last at Mold.

We think it right to correct a rumour that is in current circulation, viz., that the late stoker was the fourth in number, who had been killed by the side of Clayton, the driver of the engine that drew the train connected with the late accident. We have Clayton's own declaration, that he knows of no other death or accident that has occurred in connection with himself since he has been an engine driver than the late one.

No more bodies have been found in the river.

THE ADJOURNED INQUEST

The proceedings commenced on Wednesday [2 June 1847] at ten o'clock in the Town Hall.

The Court was fully and respectably attended. The Coroner, John Hostage, Esq. had the able assistance of Captain Simmons, R.E. and Mr Walker, C.E. deputed by the Railway Board to enquire into the cause of the accident, and to aid the enquiry before the Coroner. Mr Owen, from the Board of Admiralty also held a watching brief. The Right Worshipful the Mayor, and several of the magistrates were also present. Mr Tyrrell appeared for the Holyhead Company; and Mr Kelsall and Mr W. H. Brown for the Shrewsbury and Chester Company. Several of the Directors of the latter Company were present, but none of them took any part in the proceedings. We observed the following;- Mr R. Stephenson, Mr Robertson, Mr Locke, Mr Vignolles [*sic*], Mr Gooch, &c. &c. There was again a goodly array of the 'gentlemen of the press', for whom the Coroner ordered every accommodation to be provided at the table. The whole proceedings were conducted with great regularity.

After the Jury had been called,-

The Coroner said the court would call witnesses as to some facts connected with the accident that had since transpired, before going into the engineering evidence.

William Clegg.- I am a painter; I have painted the girders on the new bridge in April and May last; they had been painted before that; I observed no peculiarity at the joints where the trusses fastened the girder; I was on the bridge when the ballast train passed over it; I observed a deflection of the girder from 1½ inches to 2 inches on both lines; I observed it also when the passenger trains went over; they went faster than the ballast train considerably; the extent of the deflection was 3½ inches to 4 inches; I got my rule and put it under the girder and noticed how much it went down; there were then supporters under the bridge.

[Questioned] by Sir ED. WALKER.- The quicker the train the greater the deflection; I tried it several times with the same result; I never measured the outside girders; only the middle girders; I was working under at the time.

William Clarke.- I was employed with the last witness in painting the girder over the bridge; I observed the deflection of the girder when ballast trains went over to extent of 2½ inches to 3 inches; this was on all the girders; when passenger trains have gone over the deflection was according to the speed; in one instance it was 5½ inches; it was the outside girder in the middle arch, which afterwards broke and was replaced; I measured it with my rule.

By Sir E. WALKER.- I rested my rule on the balk under the girder; the balk at one end was 5½ inches from the girder and 9 inches at the other end; the girder touched the balk in the deflection; I told Mr Baker, who was employed at the bridge about this deflection.

William Anthony Rowlands.- I was employed by Mr Betts to paint the girders at the railway bridge; I have observed the deflection of the girders, when ballast and passenger trains passed over; when ballast trains passed over it was 1½ inches to 2 inches; and when passenger trains passed over from 3 inches to 4 inches; the deflection was greater in proportion to the speed of the train; it did not depend so much upon the weight as the speed of the train; I have taken the deflection repeatedly; when I have been standing on the bridge, I have noticed when trains were passing over, that the girder elbowed out at the bottom, and inward at the top; it was probably an inch or an inch and a half from the perpendicular; I was employed by Mr Betts; I

never mentioned it to anyone in authority; I do not know that the girder has been screwed up since.

William Clarke recalled.- I told George Woods who put the bridge up, about a bolt being loose; it was an under bolt; I do not know whether he screwed it up or not; I do not know the number of carriages which passed over.

Nathaniel Hillman.- I am a stone mason; I was foreman of the works in building the piers and abutments of this bridge; I built them according to the plans furnished by Mr Morley, the contractor's agent; I never saw any plan for three stone arches; I had a plan for five arches; I understood the plan was altered too three arches, on account of Tidal Commissioners; the five arches were to be stone coins and brick arches, like the arches over the Roodeye; I consider the piers are very sound and substantial; two inches were allowed for a settlement; but beyond that they never went down a quarter of an inch.

By Sir E. S. WALKER – I did not consider the girders safe; it ought to have been on the suspension principle, connected with the piers of the bridge; the tension rods were too high up; if lower down they would have been a better support; I never thought the tension rods of any use; I have mentioned my views repeatedly.

James Kennedy – I am an engineer in the firm of Bury, Curtis, and Kennedy; I have not examined the bridge.

The Coroner and jury instructed the witness to examine the bridge.

Mark Morilli.- I am agent to Mr. Betts, the contractor; I ordered a quantity of ballast to be put on the broken girder and its pair, on the morning of the accident; I should think eight or ten tons; it was put on to prevent accidents from fire; William Watson put it on; the ballast was put on, about one hour or an hour and a half before the accident happened; this was the first passenger train which passed over after it was put on; about twelve ballast waggons passed over; about five or six waggons and engine and tender might have been on that pair of girders when unloading the ballast; they might be on a quarter of an hour; the weight might be 38 or 40 tons; I have had no complaints made to me of the insecurity of this bridge; I heard reports that the bridge was insecure; I have mentioned them to my employer Mr. Betts; I had no instructions to alter the bridge; I have incidentally mentioned these reports to Mr. Lee the surveyor of the bridge; he never stated that he had mentioned the reports to



The railway bridge over the canal, mentioned on the next page; the bridge crosses the Shropshire Union Canal, in between the Chester City Walls (to the right) and Raymond Street (on the left). The canal locks can be seen beyond the railway. (17 Apr. 2009 photograph).

the directors; I superintended the building of the masonry; I had nothing at all to do with the girders; I consider the abutments perfectly secure, to carry ten times the weight they have had to support; I do not consider bolts would have added to the security of the masonry; I have seen the masonry in the bridge over the canal [a short distance towards the station]; I consider it equally safe; it is cracked but insecure [*sic* - I think this must be a misprint]; the cracks are in the first course and lower down; the centrifugal force would act on the outside girder more than any other; there was nothing in the masonry to counteract it; I think it would have been no better had there been that security; there are bed plates at the Saltney bridge; there are none at this bridge, or over the canal; bed plates would have made the bridge more secure; on most of the bridges on the Chester and Holyhead line there are iron bed plates for the girders.

By Sir E. S. WALKER.- There are bed plates on the canal side now unused; they would not do for either the canal or Dee bridge.

The CORONER said before the next witness, General Pasley was examined, he wished to state, that the General was not at the Royal Hotel, as had been supposed, previous to the adjourned inquest. As soon as he understood his attendance was required, he immediately came over

General Sir Charles William Pasley:- I was the Inspector General of railways when this railway was opened; I surveyed the bridge previous to the opening; that was on the 20th October last, and my report in which I pronounced it to be safe and efficient was dated the 22nd of the same month; I did not examine the smaller details, but as much as I considered necessary; I inspected carefully all the drawings, and the dimensions of the various parts; I compared the drawings with the actual building; it is an iron girder bridge in three openings or spans of 98 feet each; wrought iron tension bars are used to truss or strengthen it; I always was of opinion and am so still that these wrought iron tension bars are not of great use, because I consider the expansion of wrought and cast iron from heat, differ in some degree, not very greatly, but that iron girders being very massive, and tension bars thin, and of much smaller dimensions, that the sun acts more powerfully on the wrought iron tension bars, than on the girders, and that therefore supposing them to be adjusted to a moderate temperature, that intensely hot weather coming on may destroy the proper proportion, and do away with the benefit of those tension rods. It may be asked therefore my reason for approving a bridge under these circumstances. I remark that there have been a great number of bridges of this construction erected on railways in various parts of England, both before and some after I held the appointment of Inspector General of railways; none of these ever failed; none were quite of the same extensive span as this; but the bridge on the same principle over the Ouse at York on the York and Scarbro' railway, has two openings of 70 feet span; the least depth of the girders there is 3 feet; the least depth of these is 3 feet 9 inches; and as the bridge at York and other bridges had stood I considered this as equally safe, as it had extra depth given it to render it so; there is another bridge over the Tees at Stockton of 87 feet span, and the least depth of the girder is 3 feet; I have not seen it.

CORONER:- I had better not take it if you have not seen it.

Witness.- But it is of importance, because government officers are obliged to make themselves acquainted with other works of a similar nature, to those they are called to give an opinion on; the flanges on this bridge both in the ends and in the centre segments, are rather deeper, than on the bridges I have mentioned; I have frequently mentioned to civil engineers, that wrought iron tension bars could do little good; and in a report I made on the Bixton [? illegible] and Peterborough Railway, I

noticed that tension rods had been omitted, in a bridge constructed by Mr Liddell, and I reported that I considered it a preferable construction; Mr Liddell had said that he could not get his tension rods in time, and he made his girders stronger; Bidder and Gough told me that they had tried girders without trussing and they were weaker than with trussing; as I cannot set their authority on one side, I consider Mr Stephenson was justified in erecting this bridge, and myself in passing it; I don't know any girder bridge of this construction where the railway passes on a curve; but the radius of this is so great, as to have an immaterial effect, scarcely worth noticing; the Tinting valley bridge built upon iron and timber, has a curve; the radius of the Dee bridge is two miles; the pressure is nearly equal on the outgoing and ingoing trains; the difference in action must be very insignificant considering the greatness of the curve; I have surveyed the bridge since the accident; there had been a defective girder replaced since the opening of the line; accidents or failures are never reported to government; that was never reported, and I did not know it till this time; this circumstance and this accident, induce me to believe that the girders are too weak, that it is in short the cast of the die, between safety and danger; and by examining the bridge on Thursday last and to-day, I consider the tension bars are of very little use indeed; the tension bars are connected with the girder alone, forming a part of it, and have no independent support; there is a difference between this bridge, and Mr. Stephenson's former iron bridges; in all his former bridges there is a connection from girder to girder on central piers, from one end of the bridge to the other, by bolts, so that when a weight passes over one girder. The other girders in the same line contribute to assist it; that is the case in the bridge over the Ouse in York, the last I inspected before this; the horizontal portion of tension bars is useless; the oblique tension bars would be of use, if upper ends were fixed in independent support over each pier, and to similar independent support to each abutment; and that standard or independent support, should have an equal inland support from suspension bars, on the same angle as on the bridge, the same as the suspension principle; there is an example of this sort, in a swing bridge [illegible] river Wensome [i.e. Wensum], near Norwich, constructed by Mr. Bidder, which I consider extremely judicious; it has a double acting suspension screw, by means of which they either lengthen or shorten the rod; it is fixed to the girders, but it is so massive and of such weight, that in moving they act as well as independent supports could do; I think that in this case, the girder broke with the weight of the train, after several tons of ballast had been put upon it, which ballast I estimate at twenty tons; I consider the masonry gave way in consequence of the girder breaking, and from that cause alone; the castings of the girder are good, and therefore I consider it too weak to bear the weight put upon it after the ballast was put on; the girder was placed far enough on the masonry; it was five feet on the solid part, not including the coping; there was bearing enough to render the thing secure; I did not see any blow on the girder; the engine never was off the rails; the tender had got clear and upon *terra firma*, and I don't suppose the tender struck the girder; my opinion is that the girder broke first, and that then the carriages fell and not before; there was nothing to throw the carriages off the rails except the girder breaking; there are very strong guard rails; the engine driver suddenly putting on all the steam would not cause such a bound as to break the girder; when I surveyed the bridge I saw trains pass over but I did not see much deflection; I think an iron girder with five inches deflection, must snap short at once; I believe the man who said that was the deflection, was a very inaccurate observer; repeated deflection to the extent of four inches would weaken the girder.

Mr Broad.- The eagles that have been subsequently appended to the bridge are twelve cwt. each. [*We hope to expand on these "eagles" at a later time.*]

General Pasley.- I would not pass the bridge again; I am not infallible; I reported once in its favour; I believe now it was too weak; I believe now it may be made safe by adopting the plan of Mr Bidder – by placing standards or independent supporters on the piers or abutments with suspension rods from these to each joint or parts of the girder. I would cut off the horizontal tension bars. I would put suspension rods so as to make the girder of three equal independent parts; and the suspension rods should have an inland support or reliance; if the girders were fastened together at the end they would be safer and stronger; if this bridge is properly strong, there is, after this accident no security for the public; I am not troubled with nervousness, but unless the bridge is hereafter secured on the principle I state, I would not travel over it.

By Mr. TYRRELL.- I saw the tender off the line; it got off the bridge; it landed on the ballast; I noticed the masonry; I think the tender may have run against the masonry; a young man present advanced a most ridiculous thing to me, that the wheel had mounted four or five feet on the masonry; I do not believe that to be the case; the tender is not much injured; the masonry is disturbed to a certain length; the masonry on the pier is much more disturbed, and that could not have been done by the tender; I have not seen in any chain an indentation of a wheel; I saw a wheel of a carriage broken; I am surprised they are not all broken; I was told all these facts; I do not consider the flange a weak part; I have seen brackets which I consider judicious; the result of this accident proves that that the flanges were strong enough; but brackets on each side would be an improvement if placed at intervals of five or six feet.

By Sir E. S. WALKER.- If the tender had struck the girder, the stoker might have been thrown into the river; but it appears he was thrown onto the other line.

Sir E. S. WALKER.- The opinion of the jury generally is, that the tender did not strike the girder.

Gen. PASLEY.— I think not.

[In reading over General Pasley's evidence he wished it to be inserted that wrought iron would elongate considerably without breaking, as in wire-drawing, but that cast iron will not to the same extent, when a straining force is applied.]

Clayton recalled.—I was going about 15 miles an hour; I felt the sinking of the bridge before I put on the whole of the steam; I was better than half way over the last girder; I was just over when the engine *reared*; the train was five minutes late; I had no instructions to make up the time between [Chester] and Saltney.

[John Dixon of Saltney has been researching the Chester & Shrewsbury (later Great Western Railway) minute books at the Public Record Office at Kew. He came across 'Minute no. 146' in the book, photographed it, and it is reproduced in reduced size on the next page.

William Watson proved that on the morning of the accident he was desired to put ballast on the railway bridge, which he did about four o'clock in the afternoon on the broken girder; it was eight or ten tons, witness did not see any deflection; the next train was the 6h. 15m. which broke down the bridge.

R. Broad recalled, said that the flanges were tested at the same time the girder was tested, by two-thirds the usual weight.

Matthew Lack.—I am superintendent of works on the Shropshire Union Line; I have seen the work during its progress; I have examined the ruin; I can only speak as to the Canal bridge.

Thursday 18th January 1849

Dee Bridge Accident.

The Secretary directed the attention of the Board to the case of James Clayton, the driver of the Locomotive Engine, at the time of the accident, who altho his conduct had been approved, had not received any mark of the approbation of the directors, in case his evidence should have been required.

Ordered that James Clayton be paid £10 as a mark of the approbation of the Board of his conduct at the time of the accident. The Board having delayed this expression of their opinion, until there should be no chance of his evidence having been required in the event of any discussion with the Holyhead Company.

[For the benefit of those (like the Editor!) whose eyesight has seen better days, it reads:

"Thursday 18th January 1849. 146. Dee Bridge Accident. The Secretary directed the attention of the Board to the case of James Clayton, the driver of the Locomotive Engine, at the time of the accident, who altho his conduct had been approved, had not received any mark of the approbation of the directors, in case his evidence should have been required.

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Matthew Lack.—I am superintendent of works on the Shropshire Union Line; I have seen the work during its progress; I have examined the ruin; I can only speak as to the Canal bridge.

Mr Tyrrell said that they would take that evidence when an accident occurred there.

Mr Lack—That will not be long.

Mr TYRRELL.—I hope you will not prove a true prophet. He then suggested that Major Gordon should be examined who saw the accident.

The CORONER.—He saw it at a distance of a mile.



Robert Stephenson (1803-1859), one of the most prominent railway engineers of the time

Mr Robert STEPHENSON.—I am principal engineer of the Chester and Holyhead Railway Company; I approved of the design of this bridge which was made by other parties in detail; I have examined the bridge since the accident, and I hand in a report I made to the Directors of the Company, which I believe to be true.

“ 24, Great George Street, Westminster,
31st May, 1847.

" DEAR SIR,—I beg to lay before you such remarks as have occurred to me in reference to the lamentable accident which has taken place at the Dee Bridge, in order that the Directors may be in possession of my views upon the subject, and the reasons which have led me to certain conclusions respecting the primary cause of the fracture of the cast iron girder. You are already aware that on the day of the accident, a few hours previously, I narrowly inspected every part of the bridge on my way to Bangor.

“I saw nothing to indicate weakness, neither could I perceive any imperfections in the manner in which the work had been fitted. I confidently concluded that every part was firm and sufficient, and if anything were wanting to justify such a conclusion, I felt that the fact of the traffic of the Chester and Shrewsbury Railway having been uninterruptedly carried on since October last fully supplied it.

“On my return to the spot after the accident on Thursday, I minutely examined every circumstance which appeared calculated to elucidate the cause of the catastrophe, and the following circumstances appeared most prominent, and best calculated to lead to a rational explanation of the occurrence.

“1st. The masonry of the wing parapet on the Saltney side was much shattered and displaced, bearing evident marks of having received a violent side blow.

“2nd. On examining the tender of the engine, it was clear that it had come violently in contact with the masonry and caused the disturbance just alluded to.

“3rd. All the lateral ties which bound the girders together side ways, 13 in number, each measuring 4 inches by 1, (giving a total of 52 inches), were either torn from the sockets in which they were firmly fixed, or forcibly wrenched off near to the sockets of the girder left standing.

“4th. That portion of the broken girder which is now lying against the pier at a considerable angle, must have been drawn off the pier, and after the fractured end had reached the ground, the end which rested upon the pier must have fallen back against the upright side with great force, as it shows by the deep indentation made in the masonry by the upper end of the girder, without any trace of violence between the top course of masonry and the indentation.

“5th. On examining the wrought iron of the girder, the whole was found sound excepting one of the leaves of the internal wrought iron link, against which the tender or the carriages would necessarily strike on leaving the rails, which was severed about 18 feet from the Saltney abutment, and near to the point where the first fracture of the girder itself took place.

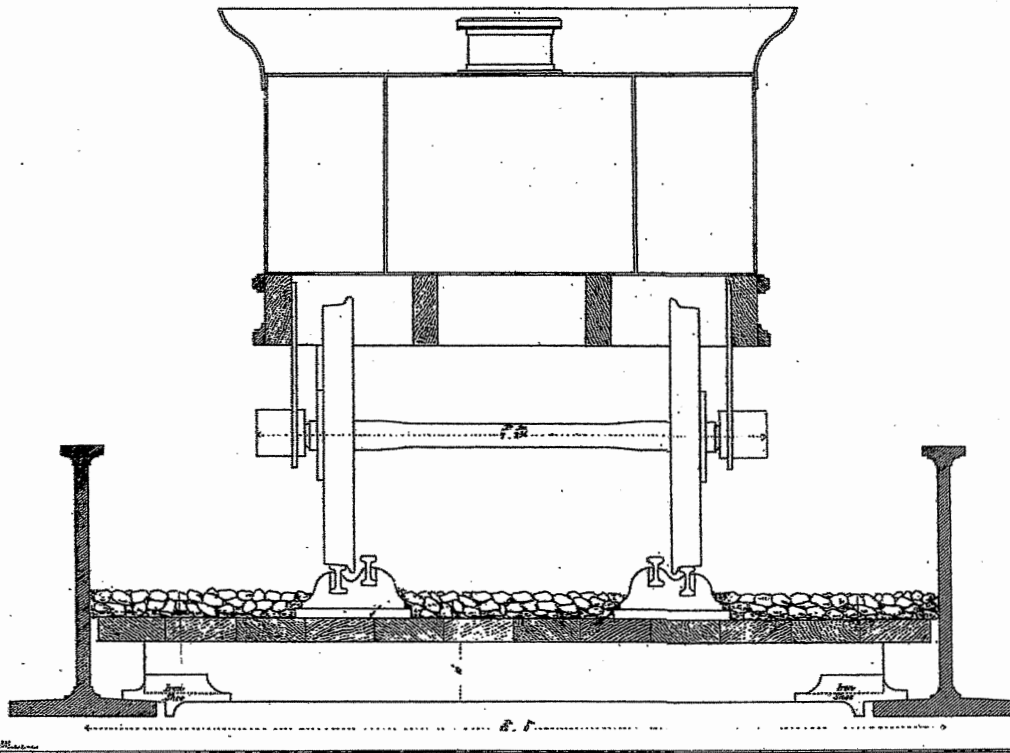
“6th. On examining the broken girder itself, the fracture was precisely such as might be expected from a lateral blow, a large piece of the rib being broken out of the girder, and separated from the lower flange which remains perfect, a description of fracture which could scarcely be produced by a vertical action.

“After attentively reflecting upon these facts as indicative of the movement which took place during the accident, I can arrive, at no other conclusion than that it arose from a violent side blow against the girder, near to the abutment on the Saltney side. That this was the first place of fracture. That the other fractures were consequent upon the fall.

“The tender of the engine had incontestibly [*incontestably*] left the rails before reaching the abutment, because it struck the first portion of masonry and moved it laterally. The tender must also have been considerably raised up, because the marks on the masonry are much higher above the level of the railway than those parts of the tender which have produced the effects, when in their proper position. These two circumstances leave no doubt on my mind that the tender, and probably some portion of the train, were off the rails some distance before reaching the Saltney abutment.

“If we suppose the fracture to have taken place by vertical action, it is evident that this would give no tendency to side motion until the platform of the bridge assumed an angle in the direction of the broken girder, but the horizontal ties connecting the girders on opposite sides of the roadway would immediately come into action to prevent any side motion. They clearly did so, and their great strength and number is fully equal to the entire suspension of the platform and girder after fracture, they consequently would tend to draw the broken girder in its fall underneath the firm girder, which was left standing.

“This tendency having been entirely counteracted is another proof that great lateral action had come into play. With this view of the subject, the question naturally arises, what could cause any portion of the train to leave the line? The entire demolition of the platform unfortunately prevents even a probable reply; yet there is a fact connected with the state of the wheels of the carriages, as found in the river, which seems to justify the suspicion that a wheel did break antecedent to the accident. All the wheels were found in a sound state except one, which I am informed entirely destroyed, the rim and spokes being stripped from the boss. Now the simple fall of a carriage, even with other carriages, is scarcely likely to cause such a destruction to a wheel; on the other hand, any accident to a wheel in a train when in motion would cause such a separation of the rim and spoke of the boss.



N^o 803 Ordered, by The House of Commons, to be Printed, 30 June, 1847.
Henry Blount, Printer

[A diagram from the official report into the accident by the Board of Trade's Commissioners of Railways, published on 30 June 1847 – i.e. after the start of the inquest.]

“Whatever may have been the primary cause of the accident, I think it is most clear that a violent lateral blow was the immediate cause of the fracture of the girder. It has been urged by some that the existence of check rails throughout the whole length of the bridge precludes the possibility of any portion of the train having left the line. To those acquainted with railways practically no argument need be adduced to contravert [*controvert*] this opinion, since it is well known that on any violent collision amongst the carriages of a train check rails scarcely ever avail, as they are only calculated to counteract any moderate tendency to leave the rail, and are consequently very generally adopted on long viaducts.

“In considering this accident, some persons, while they acquiesce in the evidence tending unequivocally to establish a violent side action, endeavour to attribute it to the centrifugal force arising from the railway being on a curve throughout the length of the bridge. Now there can be no doubt that the condition of the rails gives rise to side pressure, and also, on viaducts, to some vibration; but in the present case the radius of curvature is fully two miles, which would give for the centrifugal force at a speed of thirty miles per hour a lateral strain of 1-177th part of the weight of the train, which, in the present instance, would be about 750lb, a pressure totally inadequate to produce any sensible effect.

“The curved direction of the line would doubtless occasion a little more vibration throughout the structure than if the line had been perfectly straight; and this, no doubt, might by a remarkable concurrence of causes, occasion a little more than ordinary strain upon the bridge; but I cannot conceive such to have operated in the

instance before us. Looking fairly at the fact that much heavier trains, moving at greater velocities, than that to which the accident occurred, have been constantly running over the bridge since October last, without the slightest symptom of failure, it appears to me unreasonable to attribute the accident to any combination of causes, which one would say must have been daily repeated for some months past.

"It has also been suggested that the unequal expansion and contraction of the girder during great changes of the temperature might probably interfere with the uniform strength of the metal. It is impossible to deny that this circumstance does sometimes interfere with the strength of cast iron beams, but generally this influence may be regarded as confined to castings where the thickness of the different parts vary considerably. In the present case the form of the castings was carefully studied, and with only such small deviations from absolute uniformity in all the thicknesses of the different parts of the section as practice has long proved justifiable.

"With regard to the competent strength of the structure I concur generally in the deduction drawn by Mr. Yarrow, in which I am confirmed by an extensive experience in the construction and use of similar structures tried under circumstances that demonstrate their capabilities to meet all the ordinary contingencies of railway traffic. George King, Esquire, Secretary to the Chester and Holyhead Railway Company."

Mr WALKER, C. E., said that Mr Stephenson attributed the accident to a lateral blow, which was dependent upon fact; and for that he referred to Mr Yarrow's report.

Mr TYRRELL said that was a slight error; but he would examine Mr Stephenson if thought proper; but perhaps it would be better that Mr Stephenson made a narrative.



Mr Stephenson said that he would state the reasons why he considered the structure as it stood a few days ago was safe and efficient had it not been for an untoward event. He stood in a painful situation, as the public feeling was against him; had he been wrong he would have acknowledged his fault. He commenced the enquiry to ascertain whether he was correct or not; and the result was that he felt assured of the efficiency of the bridge. About two years ago, he had countenanced the castings; and up to this time he conceived the principle had been sufficiently tested, and he conceived so now. The principle was compound, and had been in operation for 30 or 40 years in building, combining a rigid beam, with wrought iron bars, which should sustain the beam itself. It had been said the links did not aid in sustaining the rigid fabric. That opinion was submitted to him twelve months ago. He considered the objection, and caused experiments to be made, which were superintended by Mr Gooch [*illustrated above, he was Chief Mechanical Engineer of the Great Western Railway*], and which were made by Mr Gazelle of London. The result was conclusive to both, that wrought iron links were efficient, and acted in concert; but the structure since then had been varied so as to meet the objection. He explained the principle from a model he held in his hand, and proceeded to say that the weight of the girder itself would deflect it to two inches; but the suspenders could be screwed up so that the girders could be bent two inches upward; at that time the whole weight passing over the bridge was placed

on the suspenders; and the wrought iron really takes the place of the cast iron girder, and that was what he sought most to rely upon; he differed with General Pasley about the utility of the suspenders, and contended that the whole weight could be thrown upon the suspenders; with respect to testing, and said that Hodgkinson took 25 as a constant, but that was below the truth, as he had found 28; but he would take 25, and from that illustration he contended that the pair of girders were capable of carrying 280 tons dead weight spread over the whole of the platform. The greatest weight that could by possibility be run over that bridge by railway traffic, was 170 tons; but that was an extreme case. There was clearly 100 tons to spare, treating the bridge as a pure girder bridge without suspenders, which were capable of sustaining that weight also. It had been said the links were liable to more expansion than the girders, supposing that they had been adjusted at freezing point. He was prepared to admit that the equilibrium might be disturbed; but he was not prepared to admit this had any influence in this case, for the difference between the freezing and boiling points would not be more than one-ten-thousandth part of the whole extent of the girder; but taking the temperature at what it actually was, the difference was not one-fiftieth-thousandth part of the girder, or one-two-hundredth part of an inch. In this case the link could not have come down one-eighth part of an inch; but take it at one-fourth, and that would not relieve the suspender, nor could it be under two inches. In respect to the bridge over the Tees alluded to by General Pasley, he had loaded the girders himself with 40 tons, till they took $4\frac{3}{4}$ inches deflection, which was left for three days when the girder recovered itself. He was anxious to have broken the girder to have found the breaking point. He afterwards screwed them up to camber; the girders were erected and the bridge is still standing, and it had had conveyed over it, besides passengers, about 5,000,000 tons of coal. With that proof before him he could not hesitate as to the bridge over the Dee, as in that case there was a treacherous soil, and it was peculiarly adapted to meet any subsidence in the piers or abutments. The bridge was sufficient and secure, and he believed that the cause of the accident was that the train had left the line, a conclusion to which his attention had before been drawn by his assistants, and which he was originally slow to arrive at. (At Mr Walker's instance) he then stated that the wrought iron links were capable of sustaining 129 tons, uniformly diffused over the bridge; and double that for the whole system of castings and iron work for one railway; he wished not to be understood as maintaining that the two principles could be brought into strict unison, at one and the same time; but that they might mutually aid each other, and it was impossible they could work against each other; I have erected in twenty years more iron bridges than any other member of the profession, being more partial to them; and I have lways acted upon Hodgkinson's experiments and this is the first failure I have had, large or small; with respect to the curve in the line, no doubt there was a greater curve on the outer than inner line; but then the centrifugal force was only a pressure of 750 lbs., and could have no effect in this instance. He then went into the causes of the accident; said that some of the chains had been indented, and drew the attention of the jury to the fact that the only point of the wrought iron that was broken, was the outside one on the girder, which had evidently been striped by something, he concluded the tender, as the paint and wood of the tender had been left upon it; and he said that it was his conviction that the collision took place as he had speculated; but what was the cause of the train leaving the line he could not tell – for trains did not leave lines without a cause; but the probability was that the cause was the breaking of one of the wheels of a first class carriage, and which was the only wheel broken. He now alluded to an assertion of Sir Charles Pasley as to his (Mr.S.) bridges

being on a different construction; and stated that the gentleman did not thoroughly appreciate the principle or understand it. He alluded to his position as being on his trial; but he expressed his belief the principle was a good one; and though it might admit modification, yet he was convinced that it would be more generally adopted than it had been, and was quite safe for the public. With respect to the resting place of the girders, those at Chester had twice the area of any other at any other bridges he had built; and he concluded by alluding to the deflection, he stated that he having already tested to 4½in. and 5in. deflection to shew the elasticity, he had been content with a limited test used in this case, and these girders were proved to have been sound. The bridge had been tested to be a stable structure before the props were taken away; and after regretting the accident which was one that could not be guarded against, he again expressed his confidence in the principle of the bridge, and that these sort of structures are safe.

In answer to the coroner; he said that his experience of deflection was contrary to General Pasley's theory, and he had tested the elasticity of girders to be equal to five inches deflection, which after continuing three days, the horizontal level was again attained. With respect to the flanges he had tested them up to fifty tons, whilst in the most extreme case, not more than 12 tons could rest upon any one point.

By Sir Ed. Walker:- I have made up my mind what to do as to the repairs of the bridge; I do intend to alter the construction of the bridge in order to appease the public mind; I shall do all I can to appease the public excitement as well as your own; I hope there is ground to hope that this accident has been the result of an untoward accident, and not of neglect or inconsiderateness.

Mr Joseph Locke, C. E. – I have inspected the fallen part of the bridge over the Dee; I participate in the opinion of Mr Stephenson, that the failure is not to be attributed to downward pressure, but from a side blow; I believe the girder itself without the aid of the bars would not have given way without a side blow; I inspected the fragments, and believe the piece broken out could not have been so broken except by a side blow; a vertical weight could not have produced that fracture; I have no doubt that the axle-box of the tender struck the blow, as I find the paint on the bar from the axle-box; I find also that the tender had risen from the rails and run along the tension bar, stripping off the clips, and struck the masonry with the axle-box at the termination of those bars; the axle-box would then reach the under part of the pillar cap, which is broken off and tossed into the river; the mark of the axle-box is traceable on the inner side of the masonry, and the masonry of the pier is forced back ten inches; the lines of paint and wood rubbed off the tender correspond with the height on the pillar; after passing the top of the suspending bars, the course of the tender was downwards until it landed; I believe the tender got off the rails before it reached the point of the bridge where the fracture took place; I looked on the road for marks of anything having been off the line; I examined as much of the road as is still standing, and there is no indication of anything being off the line; when a carriage leaves a rail, the chairs are snapped at the sides; I examined those taken out of the river, and I found four of them snapped in



*Joseph Locke (1805-1860)
until 1846 he was Chief
Engineer of the Grand Jcn. Rly.,
forerunner of the L.N.W.R.*

that way, evidently by the flange of a wheel; the marks could not have been made any other way than by the wheel of a carriage getting off the line; the collision might have loosened a tire of the wheel; I think the bearing of the girder sufficient; I don't like cast iron girders in any shape; a brick or stone bridge would have been much cheaper; if the bridge was reinstated I should consider it safe; but if left to my own choice, it is not a bridge I would adopt; the Board of Admiralty, the Board of Trade, and Commissioners of Railways, require bridges of such large span, without safety to the public, or the pockets of railway companies; I do not know that the board just stated caused this bridge to be erected on this plan.

Mr Stephenson said that those boards did not interfere as to the construction of the bridge, but the Admiralty approved of it; the five-arch plan was abandoned because of the bad foundation.

Mr Locke – If ballast had been left on the rails it was too soft to have thrown it off.

Mr Vignolles [*sic*] C. E. generally confirmed Mr Locke's testimony, and said

that from the way the carriages lay in the river, being



(Charles Blacker Vignoles (1793-1875): Irish railway engineer who worked with Stephenson on the Liverpool & Manchester Railway, and later with William Dargan on the first railway in Ireland; from 1848 to 1855 he worked on his best known project – the four span Nicholas Suspension Bridge over the Dnieper at Kiev, at that time the longest in the world.)

transversely and not

longitudinally, he is of the opinion the fracture took place from a lateral blow; his opinion is not in favour of these bridges.

Mr Thomas Longridge Gooch, C. E., said he agreed with the previous engineering evidence as to the accident having resulted from a lateral blow; he described some experiments to show the effect of tests in producing deflection, and in showing the utility of the tension rods, the breaking weight having been doubled.

Mr Walker said that he did not understand General Pasley to say that he would remove the horizontal rod without continuing the suspending rods from the inland extremities.

Mr R. Stephenson said he understood General Pasley to say the same thing; but this supposition was not practicable.

Captain Bertie Gordon being sworn said that he was going to races, and when near to St. Brides church, he heard the train coming; he paused to look at it; it reached the bridge; when the engine had nearly reached the Saltney abutment, my attention was attracted by a sensible deviation of the train from its true direction; the engine as I thought got off the line; that was my impression but it appears I was wrong; I thought it struck the top of the abutment and knocked the stones off into the

river; the train fell down in a wavy sort of a line; the carriages did not fall perpendicularly one upon another.

By Mr TYRRELL.- The first object that struck my eye was the stones falling; I infer now that it was the tender that was off the line.

Mr Robert Turner.- I was near Major Gordon at the time of the accident, and saw it; the train was running at a speed of 20 miles an hour; I saw the train go over the first two spans; the engine & tender appeared to bolt over, & leave the carriages, which all went down; they appeared to go down in a line, and to wave as they went down; he condemned the principle of the bridge as a practical mechanic, & said that wrought and cast iron will not work together, particularly when the heat expands them; he complained that when he went to examine the bridge Mr Munt ordered him into custody; I consider Mr Munt a very rude young man (loud laughter.)

Mr Kennedy examined.- The quality of the wrought iron is good; I could discover no flaws; I have inspected the place, I agree principally with much that Mr. Stephenson said; but I cannot understand how the tender could have left the rail, so well protected as it appears to be, when going at twenty miles an hour; I think it must have gone off the line at the end of the projecting rail; it could not then have caused the fracture; it has only one mark on the wheel, and I can't imagine how it can have caused the fracture, and run up the suspending link, and have only one mark on the wheel; in experimenting upon beams, I have found that when the sectional area of the upper rib was too small to stand the compression out upon it, that similar fractures have been made as the triangular one in this girder, which have been sprung out; I find that Mr. Stephenson's calculations are correct as to the weight the girder would stand; I am quite astonished how the bridge has failed; I conceive it was strong enough for all the purposes intended; I think the tender did get off from the evidence given; but still I am puzzled at only finding one mark on the wheel; I respect the opinion of the gentlemen who have preceded me, but still I incline to my own opinion; I think the girder may have broken with the weight of the road-way, the ballast, and the train; the beam has broken against all our calculations; the axle-box is broken; I have never known an instance of an engine getting off a line with such a good check rail.

By Mr TYRRELL.- Assuming the tender was off the line and struck the beam, that would fully account for the accident; I think the wheel which has all the spokes broken, may have been so broken by the fall; I defer generally to the opinion of the engineer; but I cannot find any reason for the tender getting off the line; I also think the tension rods have not fully done their duty.

At this stage of the business, (about six o'clock) —

Mr. TYRRELL wished to know what course the Coroner proposed to pursue?

The Coroner said that they had present several government officers who had been sent down to aid the enquiry, and it would be desirable to have their opinion. He alluded to Captain Simmons and Mr. Walker from the Railway Board.

Capt. SIMMONS said he was not prepared to give evidence at present, as he had not sufficiently investigated the cause of the accident. He had a most important duty to perform and could not come to hasty conclusions. There was perhaps £100,000 of these girders in use in various parts of the kingdom, and the question at issue was one of grave importance.

Mr. WALKER said, he also attended for the Commissioners of Railways, and he had been called in from the importance of the case. He had not yet seen enough to enable him to form an opinion, The Company must get the beam out of the water,

and he should at once state to the jury what his opinion was. The evidence so far had been given impartially, but it would be agreeable to him, if the jury could come to a decision without examining him and Captain Simmons.

The CORONER observed that to leave out Capt. Simmons and Mr. Walker, would be like leaving Hamlet out of the play. All the scientific evidence so far had been that of parties who had a feeling – he did not use the word in an invidious sense – in favor of the railway company. He did not mean to say the evidence had been unfair; but still it would be more satisfactory to the public, the jury, and certainly to himself to have the evidence of the government officers. In fact it would be an insult to the government, not to give its officers time to thoroughly investigate the case, and to receive their opinions before coming to a verdict. The enquiry would be incomplete without such evidence. For instance a gentleman named Owen attended from the Admiralty. He should like to hear from him.

Mr. OWEN said he merely attended as an observer, and not as an investigator.

The CORONER suggested an adjournment, either for a week, a month, or sine die, just as might best suit the convenience of the government officers.

Mr. TYRRELL approved of that course.

Sir ED. WALKER said it was desirable to know if any report was really intended to be made. If the matter was intended to be shirked, then it was no use to adjourn.

Capt. SIMMONS said his duty was imperative. He must make a report. But when he would be able to make such report he did not know, inasmuch as he had so many important matters to attend to.

Mr. WALKER said he could not lie under the imputation of shirking; and read his instructions, which were decisive as to aiding the Coroner, and also to make a report. When he saw all the materials now under water, he would fully investigate the matter.

After some conversation, the inquest was adjourned for a fortnight, to afford Captain Simmons and Mr. Walker time for investigating the accident.

Immediately after the termination of the inquest, the jury again inspected the bridge; and minutely went over the alleged marks and signs on which the theory of Mr. R. Stephenson and Mr. Locke is founded. We are given to understand that they are not at all satisfied that some of the alleged facts have the slightest existence. For instance, what Mr. Locke called paint, some of the jury conversant with paints are of opinion is not paint at all. It is not a metallic soap, but easily rubbed into dust. Again, indications have been found that the first class carriage gained ‘terra firma’ and then was pulled back. That is quite repulsive to the theory that the tender played the vagaries deposed to as probable by Mr. Locke, the Engineer. But one thing, everything is consistent with – that a fracture of the girder took place, and that all the rest that is deposed may have followed. Mr. R. Stephenson did right when he said that all he hoped was to convince the world that the fatal event resulted from an untoward circumstance, and not from any disregard of human life. That he has satisfactorily established; and to go further is uselessly to complicate the matter.

(To be continued in the next issue with the “Chester Chronicle” report of the adjourned inquest of 16 June 1847, published on Friday 18 June 1847)

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Letters to the Editor (continued from page 11)

[E-mail to regular operators of the "Mostyn" layout from Dave Millward]

".... I would prefer everyone to rotate through each [operating] position. However, the re-marshalling of freight trains requires the observance of a few basic rules which if not observed reduces the value of building the stock for that train to zero. The ten commandments are:

1. Thou shalt marshal dangerous goods vehicles next to the loco (or at least in the fitted head) in a partially fitted train.
2. Thou shalt not marshal piped only vehicles in the last three of a fully fitted train (a train not conveying a brake van as the rearmost vehicle).
3. Thou shalt not marshal Class A dangerous goods tanks (pale grey with a red solebar) in the same train as Chlorine tanks (white barrel with a horizontal orange stripe).
4. Thou shalt not marshal wagons with a load capable of moving and puncturing a tank wagon in such a position e.g. steel sections on a flat wagon next to a class A tank.
5. Thou shalt not marshal toxic gas tanks e.g. chlorine, next to the loco or brakevan but have at least three short wheelbase vehicles as barrier protection between said tanks and either the loco or brakevan.
6. Trains conveying chlorine tanks must convey a brakevan in rear of the tanks (don't forget the barrier protection).
7. A fully fitted freight cannot have any unfitted vehicles in the train or piped only vehicles within the last three, and a brakevan is not required.
8. Thou shalt learn to recognise whether a vehicle is fitted/unfitted or piped only simply by looking at the buffer beam of said vehicle, a white end to a vacuum or air pipe indicates a piped only vehicle, similarly red denotes a fitted vehicle and no pipe indicates an unfitted vehicle.
9. Thou shalt not mix braking systems, e.g. an air braked portion must be unfitted if there is a vacuum fitted vehicle or vehicles between it and the loco, piped only vehicles can be useful in this situation but the pipe needs to be for the correct system.
10. Thou shalt learn to recognise whether a vehicle is vacuum braked or air braked simply by looking at its buffer beam i.e. the thinner/smooth brake hose is an air pipe whereas the larger diameter ribbed hose is the vacuum brake pipe.

The potential for "Mostyn" to be a Premier league layout with superb freight stock, operated as per the B.R. Rule Book, is an obvious ambition; however, this cannot happen if its freight operators are in the 'Vauxhall Conference' league."

[Letter from Simon Caldwell of Dewsbury]

"Thank you for continuing to send me the 'Barrowmore Model Railway Journal', which I have greatly enjoyed reading, as always. On checking my records I see that yet again I have fallen into arrears with my subscription, so I enclose a cheque to the value of £6.00 to cover the most recent edition of the Journal (No.18) plus the next three issues.

Since we last corresponded, **Pennine Wagons** has entered into a joint venture with one of our local model shops, 'Going Loco' of Wakefield, to commission limited-edition N Gauge wagons from Dapol. They take one-third of each batch to sell in their shop or from their stand at exhibitions, leaving us with the remaining two-thirds to sell to our customers by mail order. We are hopeful that this arrangement will allow us to reach our financial break-even point more quickly, and so commission new liveries on a more frequent basis. The first wagon we produced under this scheme was in the livery of Ackton Hall Colliery of Featherstone, so we were particularly interested to see the article on Ackton Hall by Norman Lee in the last BMRJ. Your inclusion of information on our wagon, along with our contact details, was very much appreciated. With best wishes, Simon".

[E-mail forwarded from Dave Greenly]

"Had this sad e-mail from Les Bevis-Smith today. Thought you would like to know.

Dave:

----- Forwarded Message -----

From: LESLIE BEVIS-SMITH <leslie.bevissmith@btinternet.com>

To: HMRS Members List <hmrs-members@yahoogroups.com>; merg@yahoogroups.com

Sent: Tuesday, 19 May, 2009 19:33:35

Subject: [hmrs] Cyril Freezer

To advise that I have just received an email originating from Nick Freezer, giving the sad news that **Cyril Freezer** has passed away in his sleep today.

LBS".

[E-mail from the Editor to Dave Millward,]

"Talking to Alisdair MacDonald at Merseyside M.R.S. last night, he mentioned seeing a single (Safeway?) **container** on an intermodal flat at Wick Station a few years back: he wonders how they are unloaded in the absence of a gantry on site? Can you (or anyone else) elucidate?

Regards – David.

..... and his reply:

Hello David, All that is required at remote/simple installations is a concrete hardstand and a large/developed version of the stacker truck. See the attached picture. Cheers - Dave."



The first commercial 'Piggyback' services are due to start in June between Deanside, Glasgow and Willesden, London. During the official launch on May 15, the loading of lorry trailers onto 'Eurospine' wagons was demonstrated. The wagons can also carry standard containers, and one is already loaded on the right. HOWARD JOHNSTON.

Photograph from *RAIL* no.332 (June 3 – June 16 1998).

Editor's page

Group members may know that the **railway bridge** over the Holyhead Line at Saltney Ferry (adjacent to the former Mold Junction engine shed, and not far from the Chester Model Railway Club's clubhouse) was closed for repairs from 2 March 2009. The bridge was originally built by the London & North Western Railway in the 1870s,

replacing a level crossing; it has recently had weight restrictions put on it, by restricting traffic to a one-way flow by traffic lights. A temporary pedestrian footway was in place during the closure to vehicular traffic. The bridge re-opened on 4 June 2009.

My recent trip to the Republic of **Ireland** in May this year saw a start with a Dublin to Waterford journey to see my Dominican priest friend and fellow railway enthusiast Fr. Richard Walsh. While in the Waterford area, I managed to photograph the stations at Thomastown (a place named after a Welsh mercenary of Norman times!) and Muine Bheag – also known as Bagenalstown (so-called after the Bagenal family who had extensive estates in Ireland, dating from Elizabethan times, both in Ulster and Carlow.) This Dublin-Waterford route used to be the province of locomotive-haulage, latterly powered by 201 class diesels; now it is 6-cars of class 22xxx Hyundai-Rotem DMUs, which are now to be found on many services. I have to say that they are very comfortable, and they are timetabled to make the trip in a time just very slightly less than when hauled by a diesel locomotive – about 2h 25min. These

Rotem DMU set no. 22325 in Heuston station, ready to make the Dublin-Waterford trip on 7 May 2009.



DMU sets were first used on the Dublin-Sligo route, and this was the next segment of my journeying – to Carrick-on-Shannon. This is a little town a short distance before the terminus of the line in Sligo. It was never a big railway centre, but passenger traffic is still important, and the station itself still stands – much as it has for the last 150 years or so. You have to realise that Carrick-on-Shannon is about the same size as Saughall (which has had no station for over sixty years!) although it must be admitted that Carrick is more of a tourist attraction!



Carrick-on-Shannon station on 10 May 2009, photographed from the footbridge.

When I eventually got to my youngest son's home in Drogheda (the ostensible aim of my trip), we had a day out in Dublin (about 30 miles away) and investigated **the Bull and Castle pub**, directly opposite Christchurch Cathedral. This well-known tourist attraction is just a short walk from Pearse railway station, and well worth a visit from anyone who likes a better pint than is available in the majority of Dublin's hostelryes. They serve both draft and bottled beers from all over Ireland (and the world); we sampled several brews over lunch, including 'Galway Hooker' and 'Aran Mor' which were particularly to our taste. And walking back from here to catch the Luas tram on the other side of the Liffey, you pass that other famous Dublin watering hole, the Porter House. Unfortunately, by that time we were running out of time and were unable to call in.

Recent books:

Gazetteer of the railways of Wales: a photographic record of the British Rail network at privatisation by John Hillmer. Silver Link, 2008. ISBN 978 1 85794 303 0. £25.

Ellesmere Port, by Pat O'Brien. Tempus, 1994 reprinted 2005. (Images of England series). ISBN 0 7524 3005 X.

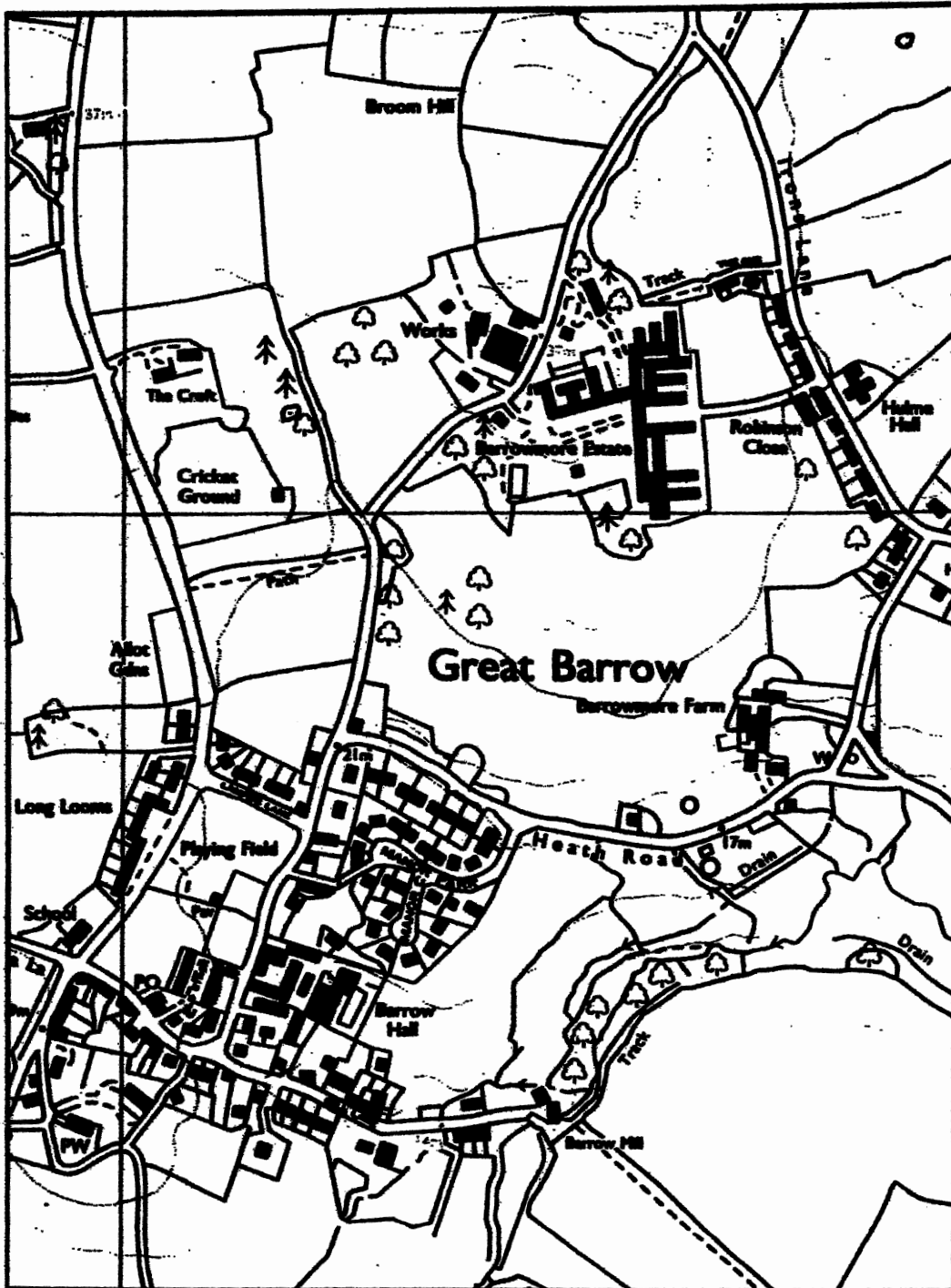
Private owner wagons in colour, for the modeller and historian by David Ratcliffe. Ian Allan, 2009. £14.99p. ISBN 978 0 7110 3365 8. (PO wagons in the last quarter of the 20th century).

The murder of crows by Stephen Done, Hastings Press, 2008. £8.99p. ISBN 1 904109 19 5. (Detective story with a railway background, set in 1947 in the Woodford Halse area).

The Burry Port & Gwendreath Valley Railway and its antecedent canals, vol.2: The railway and dock by R.W.Miller. Oakwood Press, 2009. £19.95p. ISBN 978 0 85361 685 6.

Apologies are due for the late appearance of this issue: largely caused by the slow introduction of different optical character recognition software. This has proved to be an overall improvement, but not as much of an improvement as hoped!

Barrow, about 1981



An extract from the Ordnance Survey 6in=1mile map. Scale above is about 9ins=1mile.

New station at Chester, etc,

These paragraphs were noticed in the Chester Chronicle newspaper of 4 June 1847.
 "Friday last" was 28 May 1847; "Monday evening" was 31 May 1847.

... was preached on Sunday morning last, when the sum of £11. 3s. 9d. was collected in aid of their funds.

CHESTER STATION.—The contract for the erection of the magnificent Railway Station at Chester, was let on Friday last to Mr. Brassey, whose acknowledged skill and energy are a guarantee for the completeness of the works. It is to be finished within nine months after its commencement. The total cost will be about £90,000.

THE FLINT, GREENFIELD, AND RHYL STATIONS.—Our respected fellow-citizens, Messrs. Hoyle and Son, we understand, have been chosen to erect the stations on the Holyhead Railway at the above places.

and the next paragraph refers to the 1847 equivalent of 'bustitution'!

... next.

NARROW ESCAPE FROM ACCIDENT.—On Monday evening an omnibus in connection with the railway was returning from the Saltney Station, heavily loaded with passengers. After it had been drawn over Grosvenor Bridge a bit brake in one of the horses' mouths. All controul of the animal was instantly lost. The pole was run up against the side of the bridge. The vehicle was fortunately stopped before any accident occurred; the passengers alighted, and walked to their respective destinations.

CHESTER CITY MUSEUM.—The annual meeting of this ex-

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