

ISSN 1745-9842

Barrowmore Model Railway Journal



Number 24

September 2010

Published on behalf of Barrowmore Model Railway Group by the Honorary Editor:
David Goodwin, "Cromer", Church Road, Saughall, Chester CH1 6EN; tel. 01244
880018. E-mail: david@goodwinrail.co.uk

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 December 2010, and contributions should get to the Editor as soon as possible, but at least before 1 November 2010.

+++++

Copies of this magazine are also available to non-members: a cheque for £8 (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.

+++++

The **cover illustration** for this issue is of 'Sole' DB982197, built in 1950 to Diagr. 1/565, as part of Lot 2264, by Fairfields; wooden body on a steel underframe with drop-sides and ends. There were 200 wagons in this Lot; together with 150 built in 1949, these 12 ton ballast wagons were built to an L.M.S. design. They were a bit of 'stop-gap' as a solution to British Railways' requirements were concerned: they were overtaken numerically by the more useful 'Grampus' and other designs.

Forthcoming events

(2010)

11/12 Sept. 2010: ExpoEM North, Slaithwaite.

25/26 Sep. 2010: Scaleforum, Leatherhead

2/3 Oct. 2010: Manchester show at the **Armitage Centre, Fallowfield** (new venue).

9 Oct. 2010: 7mm running track, Llanbedr (see Editor for details).

29/30/31 Oct. 2010: Merseyside show (Pacific Road, Birkenhead).

30 Oct. 2010: 7mm running track (American), Llanbedr (see Editor for details).

20 Nov. 2010: 7mm running track, Llanbedr (see Editor for details).

20/21 Nov. 2010: Warley show (NEC).

26/27/28 Nov. 2010: Wakefield show.

4 Dec. 2010: 7mm running track (American), Llanbedr (see Editor for details).

11/12 Dec. 2010: Wigan show.

(2011)

May 2011: ExpoEM, Bracknell ("Mostyn" is appearing).

11/12 June 2011: Chatham show ("Johnstown Road" is appearing).

(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)

Great Western Way

Book review by Dave Greenly

I found it very difficult to write this review. Examining GWW and looking for bad as well as good points from a pro-Great Western point of view was rather like a Jehovah's Witness being asked to do the same thing for the Bible! We GW people have grown up treating GWW like the Bible, seeking for the truth and treating those who found fault within as rather odd, even if they had actually found a mistake.

The GWW edition of 1978 (reprinted in 1979 and 1985) has now been completely revised and extended and has turned into a true coffee-table book, A4 landscape in layout, over an inch thick and weighing in at 4 pounds. As such, I found the book rather difficult to use. I have always seen GWW as a handbook as well as a work of reference. My copy lived on the workbench, ready to hand, but the sheer size of the new edition makes this impossible, let alone the fact that your copy could have cost you £37.50! Not a book to spill paint on!

So, treating it as a coffee-table book, what is it like? There is no doubt about the amount of work that has gone into it. As well as dealing with the GWR, it also covers the Absorbed Companies, both pre- and post-grouping and goes into a lot of very fine detail. I suppose you could say that if it isn't in GWW then it probably isn't known about! Having said that, there are already four pages of addenda on the internet with no doubt more to come.

I found the Indexation difficult to use, but was very happy to see that the colour swatches have been expanded in size, and also now usefully refer to Humbrol and Precision Paint colour references.

In my first scan of the book I have mainly been concentrating on the Cambrian and South Wales Companies and found them to be covered very extensively and, as ever, learned a few new things! I was a bit disappointed not to get confirmation of the initial letters used on the Swansea Harbour Investment Trust wagons but you can't have everything!

So, summing up, I probably won't be buying a copy of the new GWW but acknowledge that it is an historic addition to the GWR library.

(Great Western Way, HMRS, 2009. ISBN 978-0-902835-27-6. £37.50)

Letters to the Editor

E-mail from **KEVIN BAYS** [mailto:kevinbays@btinternet.com] organiser of the **Chatham exhibition**: "Richard - I hope you all had a safe journey home. On behalf of the Chatham & District MRC I would like to thank you for bringing 'Mostyn' to our show (apologies for the dust). We know it got a great many comments, all positive of course.

I would especially like to thank you for giving me the opportunity to operate the layout and for your fellow modellers making me feel welcome. 'Mostyn' is a model that I greatly admired when I first saw it back in 2002. I hope that I can return the opportunity when I get 'St. Ives' up and running in the future. Many thanks, Regards, Kevin"

Letter from **Emlyn Davies** of Bromborough, who grew up in Wrexham: ".... The article on the **railways in the Wrexham area** brought back many memories of train spotting in the late 1940s/early 1950s.

From Bersham Road bridge where my friends and I watched the trains, we could just see the junction for the Rhos branch in the distance. During the football season when Wrexham F.C. were playing at home on their ground, the 'Racecourse', a rather strange little working would take place. In the early afternoon a pannier tank pulling four coaches would go up the Rhos branch; about ten minutes later another pannier pulling four coaches would follow.

Some twenty or twenty-five later a train would come back off the branch, consisting of one pannier tank pulling eight coaches of football supporters, but we never did see a pannier coming off the branch 'light engine', and often speculated where the other engine had gone.

One locomotive could easily bring eight coaches back, as it is down hill all the way. We never did find out how the return working operates, for by that time we had all gone home for our teas. Oh, those days of innocent enjoyment!
Best wishes – Emlyn”.

E-mail from **Tony Robinson** of Whitchurch (some readers will remember that his father was Shed Master at Mold Junction until its closure in the 1960s):

“Hi David, Oakwood Press have just announced that they will be launching my book "DAD HAD AN ENGINE SHED" at the Warley-NEC show this coming November. I will be on hand to sign copies during the Saturday afternoon of the 20th on their stand.

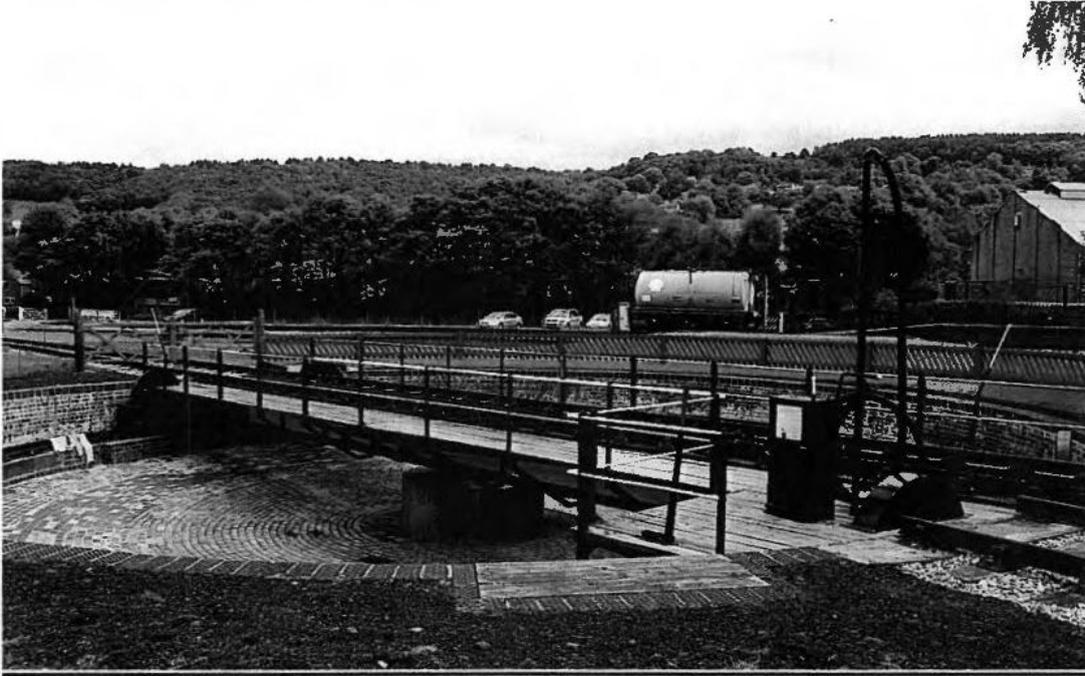
Trust this will be of interest to readers.

In the meantime here's another snippet to whet the appetite of the BMRJ readership!”



A fitting reminder that at least one piece of Mold Junction Shed will continue to give service for generations to come: by 1979, thirteen years after the shed had closed, the old 60ft turntable still stood at the western end of the yard (Kline photo).

By 2010 the entire structure had been expertly and beautifully restored to fully operational order and re-sited at Rowley Shed yard at the Peak Rail headquarters in Derbyshire (R.Carvell photo).



.....

Excerpts from a letter from **Peter York** (retired engine driver at Chester):

"... **sulphur workings from Mostyn to Amlwch**: I have been doing some research and with some help from colleagues from 6G Llandudno Junction [shed] have come up with the following information for you, 1977 is such a long time ago, this info will have to be taken a year or two either way.

The sulphur traffic was running from Mostyn back in the 1960s ... and this was transported in 16T mineral wagons to Amlwch via (no doubt) one of the several trip workings to Mold Junction, then on to Menai Bridge Yard, and worked on to Amlwch by a local goods worked by Bangor train crews; when Bangor closed to steam the goods workings were transferred to Llandudno Junction and worked by 6G men only.

I am unable to find out when the hopper wagons started to run on the trains but have a feeling it would have been in the early 1970s; whether these wagons were vacuum fitted from the start I do not know - they were later on, as around 1975 the trains were running as fully fitted freight trains. The question of times is a bit 'iffy' as they never ran as timetable working only ran as required, i.e. when a sulphur boat came in from France, therefore they would appear in the special traffic notices. Sulphur was a very messy cargo to deal with and some of it went by road to Courtaulds (Greenfield).

The 6G men would book on duty at approx 10.28am, and go E.B.V. [engine and brake van] to Mostyn and leave around dinner time, work through to Amlwch and return to the Junction with any empty wagons, and the following day work from the Junction with empties to Mostyn and return with the loads. A serious incident occurred in the early 1970s when a loaded sulphur train left Mostyn on a very windy day, and on arrival at [Llandudno] Junction the brake van was half full of sulphur . . . the guard's eyes [were also affected and] . . . he had to be taken to hospital for treatment; after that a ruling came out that all trains must run sheeted. A signalman friend states that when he started in the goods department he was often sent to the sidings to retie the sheets as the train had been stopped from running; and remarks that when he became a signalman down the coast - "Its a good job they were not running under the wires", the times he sent 'stop and examine' to his 'oppo' in the next box. The trains always ran with a van which was used to carry the sheets from Amlwch to Mostyn, the load was about 20 to 24 Hoppers and on those that did not have a van, the guard would ride in the back cab of the loco. The locos used on these workings were Class 24/25/31/40 and 47s whatever was available in the Chester area at the time. The Signal Box opened at 10am, the signalman coming on at 9am and his first duties would be to go round the yard and collect all the wagon numbers in the yard and send the information to T.O.P.S. at Chester before opening the box for normal duties. The box switched out at 17.00. Sulphur traffic ceased to be transported by rail in late 1988, and it went by road going as Liquid Sulphur. The hours of the box changed 4am to noon and it was opened for the acetic acid tanks for Warwick International (I think it came from Immingham). When the tanks finished, (dates not known) the box was open from 4am till 10.54am, and was switched in for the steel trains that came from the Sheffield area for export to Ireland; the train was marked to leave Mostyn at 6.30am and once it cleared Holywell Junction 5 minutes later the box could switch out if there was no more traffic for the docks. The two locos that used to shunt the docks etc came to the Mostyn steel works to replace two old steam locos. They were made by the Yorkshire Engine Co. No.1 came in 1957 and was a 200HP Diesel-electric, No.2 came in 1960 and was 220HP. . . . The signalbox is at present closed and is mothballed and opens once in a while for S and T work. . . . Regards - P.E.York

.....



Northgate Reflections part 3:

The 8.44 am

by Eric Gent

[Editor's note: Eric Gent is Librarian of the Historical Model Railway Society, and author of the definitive book on *British Railways brakevans & ballast ploughs* (HMRS, 1999. ISBN 0 902835 16 5); this book proved very useful to us when modelling B.R. standard 20 ton brakes and 'Shark' ballast

ploughs for our "Mostyn" layout. Eric was born in Blacon in 1939, and it was his home until 1966 – he still regularly visits his sister there.]

From the autumn of 1951 when I moved to a secondary school in Chester and cycled in each day, I found at some stage that if I left home 10 minutes earlier it was possible to detour via Northgate Station. From the wall by the scrap-yard it was possible to see the locos on the depot and also there was a Manchester Central bound train awaiting departure at 8.44. Compared to my earlier occasional visits at 7.30 am there was very little variety on the 8.44, it being a D10 'Director' from Trafford Park (or very rarely Northwich's sole D10). Once in a while an LMS Compound (see photograph below of 41094 in Northgate) was at the head of the train. Thus until late 1953 the interest was mainly for what was on the depot. On the 26 November 1953 interest was awakened quite dramatically as the 8.44 was headed by a class 73000. Nor was it an ordinary member of the class, but Westinghouse brake fitted 73030 of Derby. This started an interesting period in the haulage of the 8.44 over the next 4 years. All the visitors were tender engines as was the normal practice for Trafford Park depot. Compiled below are some of the various loco types to appear and depots of visiting locos. Unfortunately looking back through my books I did not always record the locomotive if I had seen it before. For example quite a few 'Jubilees' appeared over time but they could be seen at Crewe Works or on the 6.30 running in turn from Chester to Rhyl. What I can recall is that they came from several Midland area depots. 45509 was easier to remember: LMS 'Patriot' class "Derbyshire Yeomanry". Who would have thought of seeing main line LMS locos in Northgate!



'Black Five' 45327 at Northgate, photographed by Syd Wainwright in summer 1966, having just arrived from Manchester Central.

Loco type; examples

MR 4-4-0 2Ps: 40416

MR 0-6-0 3F: 43294

MR 0-6-0 4F: 43846/79

LMS 4-4-0 2P: 40682

LMS 4P Compounds: 40927, 41140/43

LMS 2-6-0 Crabs: 42763, 42872/97

LMS 0-6-0 4F: 44277

LMS Black Fives: 44661, 44809/18/48/51/56/59, 45262/63 17A, 17B, 19B, 21A

LMS Patriot: 45509

LMS Jubilees:

BR 5MT: 73001/30/31/47/54/68

BR 4MT: 2-6-0: 76087-89

Depots

17A, 17B, 21B

17A, 17B

17A, 17B

17A

15D, 16A, 17A, 19B, 21A

17A, 17B

17A, 17B, 21A

17A, 17B, 19B, 21A

17A

14B, 15C, 17A, 22A

17A, 71G

9E

From the above can be seen the wide range of locos that turned up on this working. At times Trafford Park still turned out its own Directors (later becoming D11s), Compounds, 2-6-4Ts or Black Fives, but one could never be sure what would haul the service. As most of the locos were Derby allocated, it would seem to be that Trafford Park was using locos that had worked in from Derby on a "fill in" turn prior to working back to Derby. However as they included LMS class 3F and 4F 0-6-0s, and 2P 4-4-0s it would also seem to have been a lighter working. Of particular note were



Fairburn 2-6-4T 42065 at Northgate on 7 August 1958 (Syd Wainwright photo)

Derby's one and only Patriot, and 73047 from Bath S&D depot - I don't remember seeing a SR allocated loco in busier and better linked General Station. Though the line originated with the CLC with its ex GCR and MR support, it was only the ex GCR locos that had figured in working the Chester Northgate to Manchester Central services, so it was interesting in a historical context that in the latter years of steam that ex MR locos appeared in Northgate.

For anyone modelling the scene on the Chester - Manchester CLC route in early BR days it proves that a much greater variety of locomotives could be found on the line than those allocated to Northgate, Trafford Park and Northwich. (Remember from part one, the B17s and B1).

(To be continued ...)

Max Dunn's tips for locomotive shed managers

During my tenure of office at Bangor Shed I had endeavoured, with I am pleased to say a good deal of success, to inoculate a spirit of enthusiasm among all sections of the staff and in doing so I issued to the foreman written 'Hints on the handling of Staff at a Running Shed'.

As these may possibly be of interest I give them herewith:-

1. Bear in mind that a Running Shed is not like a factory where work can be kept up at a steady pace for the full turn of duty. There are 'rush' periods and 'slack' periods.
2. Cultivate the art of being 'Boss' without making everybody aware of the fact.
3. Always say 'please' and 'thank you' especially when dealing with subordinates. The lower down the ladder the person addressed, the more polite one should be.

4. If you have asked any members of the staff to be 'on their mettle' for any particular occasion and things have gone off well, don't forget to be as careful to thank each one of them as you were to ask for their co-operation.
5. Be friendly without being familiar and do not allow anyone to take liberties. Learn how to 'freeze' if necessary.
6. Do not pass jocular remarks unless you are prepared to accept something similar in return.
7. When giving an instruction always start off with "Will you.....? in preference to "Go and do so and so."
8. Never give an instruction that anyone can legitimately refuse to carry-out. It can easily result in what a Chinaman calls 'loss of face' or, in plain English, loss of prestige which is to be avoided at all costs.
9. If you want something done which is not in strict accordance with Rules and Regulations put the request to the party concerned in a very discreet way.
10. If you have an engine to dispose of and re-prepare or any other job that has to be done in a hurry by all means grace the proceedings with your presence – it will do all the good in the world – BUT
 - (a) Hold your tongue.
 - (b) Do not interfere.
 - (c) Resist all temptation to do some of the work yourself.
11. Remember that the MORE you know, the LESS you know.
12. Learn the value of a 'blind eye' and how to use it.
13. Remember there is no virtue in work for work's sake.
14. Do not find fault unnecessarily. If you must, remember that a 'ticking-off' administered in a semi jocular manner can be very effective and often more so than a stern 'telling-off'.

I do not suppose the foregoing would meet with the approval of the modernizers, work-studiers (who work-studies the work-studiers?!) and efficiency-mongers but they paid in the days when railwaymen felt it was a privilege to belong to a deep-rooted organisation on which the public depended with almost as much confidence as they did on the sunshine and the rain.

Max Dunn was a professional railwayman, railway enthusiast and author. Readers may recall his article on the preservation of ex-L.N.W.R coal tank no.1054 in our issue no.22. The brief resume of his career, printed below together with a photograph taken in Bangor in 1958, were provided by Tony Robinson:

John Maxwell Dunn - Born in 1898 and spent his childhood in Woodgreen, North London.

- Only son of a furrier and was educated at the "Central Foundation Boy's School" London.
- Started apprenticeship at Willesden workshops of LNWR in Nov 1913.
- Was elected to A.M.I.Loco.E. after giving a paper on the design of locomotive blast pipes at Caxton Hall in 1917.
- On completion of apprenticeship served in the R.F.C. in France until end of hostilities.
- Abergavenny shed Nov 1919 as a fitter, subsequently worked at Tredegar and Blaenavon sheds until 1935.
- Started at Llandudno Jct shed Feb 1935 as Foreman Fitter.
- Moved to Nuneaton shed in April 1939 as RSF.
- Moved on to Coventry shed in Dec 1939 (experienced worst of blitz there!).
- Promoted to Shedmaster at Bangor in Sept 1944 where he stayed until his early retirement (aged 60) in Oct 1958.
- Moved to Battle, E.Sussex for a couple of years and finally to Walberton in W.Sussex where he wrote "Reflections on a Railway Career", published by Ian Allan in 1966.
- Also prior to retirement wrote the following Oakwood publications:-
 "The Chester & Holyhead Railway" (1948), "The Stratford on Avon & Midland Junction Railway" (1952), "The Wrexham, Mold & Connahs Quay Railway" (1957).

- Perhaps most famous for the rescue and subsequent cosmetic restoration of the ex LNWR 0-6-2T Coal Tank 1054 which he then had displayed at Penrhyn Castle.
 - Died suddenly in March 1969 and was interred at Yapton Churchyard near his home.
 Regards, Tony.





Chester United Gas Co. coal wagon no.24, delivered by the Gloucester Co. in 1912. Base colour grey.

COAL WAGON
 15'6" x 7'4" x 4'2"
 Painted Lead Iron
 Letters White
 Shaded Black

GLoucester RAILWAY
 CARRIAGE & WAGON
 COMPANY LIMITED
 May 1912 1/100000

This free to enter show is organised by Birkenhead, Wallasey, Ellesmere Port and Liverpool Lions Clubs, in partnership with Wirral Model Boat Club and Wirral Transport Museum. Arriva, Avon Buses, Cappuccinos, Merseyrail, Merseytravel, Showtime Ice Cream, Stagecoach and Wirral Borough Council generously support the show.

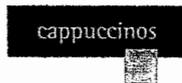
Should you be interested in the halcyon days of transport and nostalgically look back to the heyday of the British motoring industry, this is the event for you. You can exhibit your car, motorbike or commercial vehicle free of charge, whilst sharing a weekend with like-minded individuals.

Other attractions include all the fun of a Victorian steam fair, complete with magnificent gallopers, a spectacular daily parade of steam vehicles, including a 1909 Stanley steam car. Last year, we even had a large steam boat on the lake, amongst the many other floating attractions.

Due to the success of our previous festivals, the two-day event is now a firmly established tourism event, attracting some 30,000 visitors.

Bookings for our third annual show have already exceeded expectations. With your support, this event will continue to go from strength to strength.

Ken Fretwell
Chairman
Birkenhead Park Festival of Transport Committee

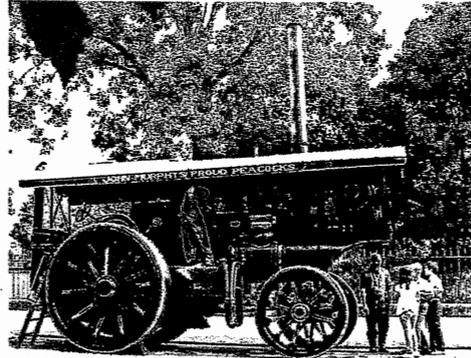


Merseytravel



Birkenhead Park Festival of Transport

FREE
TO ENTER



Sat 18th and Sun 19th
September 2010



For more information, see the website: www.bheadtransportfest.com

ACCIDENTS

Regular readers could be excused for thinking that the Editor has a fixation on railway accidents! This is true to an extent: there exists a formalised system for the reporting and eventual publication of the details of major accidents – mainly (but not exclusively) those involving serious injury or loss of life; this has hidden value for railway enthusiasts and modellers. The reports very often provide a ‘snapshot’ of the railway infrastructure at a particular place at the time of the incident, with details of the rolling stock involved, train formations, the signalling regime, etc. Sometimes a report will have a plan of the site, and since a lot of accidents occur at stations and modellers are frequently pre-occupied with a station as a focal point for their models, this factor adds value to a report. The following accident, which happened in 1937 at Liverpool Central station on the Cheshire Lines railway did not involve a death, but I found it interesting as an illustration of the sort of damage a de-railed train could do to itself and to whatever got in its way!

CHESHIRE LINES COMMITTEE.

Ministry of Transport, Metropole Buildings,
Northumberland Avenue, London, W.C.2
16th December, 1937.

SIR,

I have the honour to report for the information of the Minister of Transport in accordance with the Order of 8th October, 1937, the result of my Inquiry into the circumstances of the accident which occurred about 2.41 p.m. on October 4th at Liverpool Central Station, the Liverpool terminus of the Cheshire Lines Committee.

The 7.25 a.m. express passenger train, Harwich to Liverpool, was entering No. 1 platform on a sharp left-handed curve when the engine struck the coping at the platform ramp, and for a length of about 60 yds, the coping and some of the adjacent paving was demolished or displaced, portions of the stones being flung violently for a considerable distance, while other fragments were piled up on the leading end of the engine and at the side of the engine and coaches. The surface of the whole width of the platform, averaging about 20 ft across, was displaced laterally to such an extent that for about 20 yds., the coping of No. 2 platform was moved outwards and fouled No. 2 track.

For about 25 yds. from the platform ramp the track was undamaged, but thereafter, up to the point where the engine came to rest, the track was wrecked. Casualties were fortunately trifling, being limited to two of the station staff who were slightly injured by flying stones, the driver, who was thrown down by the impact and slightly injured, and one passenger who complained of shock.

The right-hand side of the engine was considerably damaged, see Appendix, and all wheels of engine and tender were derailed except the leading pair of coupled wheels and the left-hand driving wheel; damage to the coaches consisted mainly of severe scraping along the right-hand side of the five leading bodies; all wheels of the first four coaches, and the leading bogie of the fifth, were derailed. The left-hand leading end of the leading coach was considerably damaged by contact with a buttress of the station wall which it struck after derailment and immediately before coming to rest.

The weather was fine and the rail was dry.

The accident is attributed to excessive speed.

Description of Train and Site.

The train consisted of seven coaches, all 8-wheeled bogies, with the vacuum brake on all wheels; all were electrically lit and all had Buckeye couplers.

It was drawn by engine No. 3817, Class K.3, type 2-6-0, with 6-wheeled tender, weighing 125 tons in working order, and fitted with vacuum brake on coupled and tender wheels.

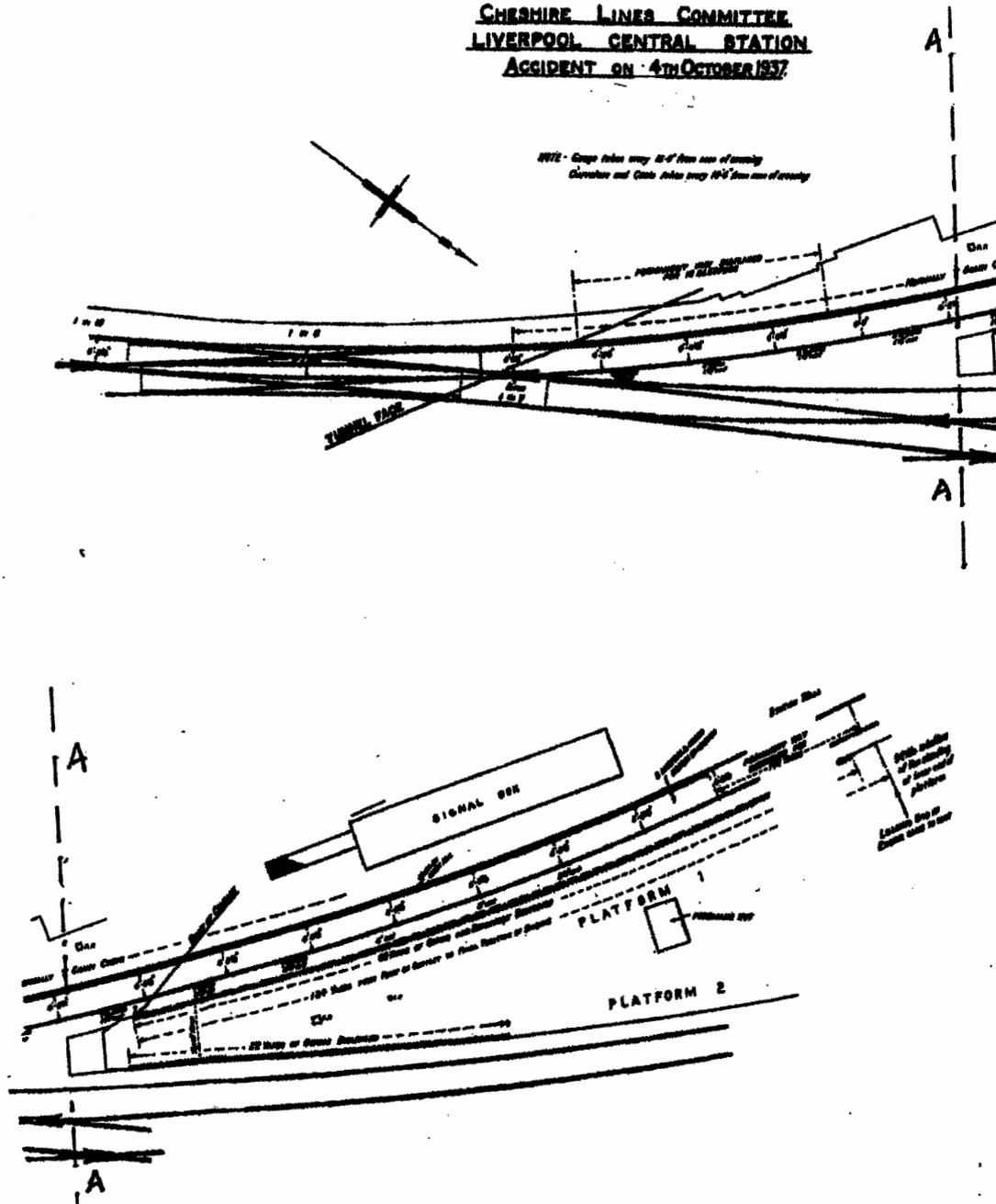
The total weight of engine and train was 355 tons, overall length 491 ft., and percentage of brake power 66 per cent.

The approach to Liverpool Central Station is through a series of tunnels; at 1¾ miles from the terminus a train emerges from Dingle Tunnel (1,057 yds. falling at 1 in 200) on to the Brunswick curve, right-handed, 20 chains radius, where for a distance of 700 yds. there is a speed restriction of 25 m.p.h., the signal cabin being about the middle of the curve.

The gradient then rises for 1,270 yds. at 1 in 348 through four short tunnels to the site of St. James Station, now closed; the track is level for 130 yds. through this

station, which is in open cutting, and the Central Station outer home signal No. 88, 4-aspect colour-light, is near the end of the old platform.

**CHESHIRE LINES COMMITTEE
LIVERPOOL CENTRAL STATION
ACCIDENT ON 4th OCTOBER 1937**



Thereafter the line re-enters tunnel for the remainder of the distance, and continues to rise at 1 in 150 for 530 yds. to the point where it crosses above the Wapping Tunnel of the L.M.S. line, the passage over this being distinctly noticeable on the footplate; from the point the line falls at 1 in 96 for 400 yds. to a short length of 80 yds. level in the open at the end of the tunnel, and 250 yds. rising at 1 in 300 to the buffer stops.

The line through the tunnel is straight up to the inner home signal No. 87, about 200 yds. from the Liverpool end, where it curves left-handed at 15 chains radius, sharpening to 7 chains radius at the entry to No. 1 platform. There is slight reverse

curvature shortly after entering No. 1 platform, but this does not commence until well beyond the point of derailment and does not appear to have any bearing on the cause of this accident, though it may have slightly extended the length of damage to the platform coping. There is a speed limit of 10 m.p.h. for all trains when entering Central Station.

There are three tracks through the tunnels, the middle road being used for stabling empty passenger trains. Electric lamps are fixed on both tunnel walls at 12 yds. intervals, for a distance of about 200 yds. from the Central Station end of the tunnel. Vision in the tunnel is apt to be obscured by smoke and steam, and the length of advance view of the inner home signal. No. 87 (3-aspect colour-light), is therefore variable, but it appears that there is never any risk of actually passing this signal without observing it

The home, or Platform Directing, signal is a semaphore with route indicator mounted on a gantry immediately outside the tunnel mouth, and in daylight is first seen against the sky; this also is liable to obscuration by smoke and steam drifting out of the tunnel mouth.

To avoid stopping a train in the tunnel, instructions are in force, and interlocking is provided, to ensure that a train will not be allowed to pass the down outer home signal, No. 88, i.e., the train will be held in the open cutting at St James Station until it can be given a clear path into the Central Station. If a platform road is partially occupied, as on this occasion, there being a parcels van at the buffer stops, the signalman is instructed to show a single yellow aspect in No. 87 home signal, and consequently a double yellow in No. 88 outer home.

No. 1 platform road is on the left-hand side of the station for an arriving train, and has the south-west wall of the station on the left hand and No. 1 platform on the right hand. It is generally used for this and other express train arrivals, and on the day in question there had been 10 such trains into this platform between 9.0 a.m. and 2.40 p.m.; engines of the K.3 Class frequently work into it.

The Central Station signal box is an elevated box alongside the south-west wall of the station, immediately to the left of No. 1 platform road and opposite the south-east end of the platform.

Distances from Buffer Stops, Liverpool Central Station,

North end of Dingle Tunnel.....	1¾ miles	South
Brunswick Signal Box	1½ "	" "
South end of four short Tunnels	1¼ "	" "
Central Station outer home signal, on		
platform of St. James Station	1,290 yards	" "
South end of Tunnel	1,270 "	" "
Second Air Shaft in Tunnel... ..	820 "	" "
Gradient Summit (in Tunnel) over L.M.S.		
Wapping Tunnel	770 "	" "
Central Station Inner Home Signal	470 "	" "
North end of Tunnel, Platform Directing		
Signal, and 1 in 7 crossing referred to		
below	270 "	" "
End of No. 1 platform ramp	240 "	" "
Signal Box	224 "	" "
Point at which leading end of engine came		
to rest.....	110 "	" "

At the entrance to No. 1 platform the permanent way was 95 lb. Standard and the right-hand rail, together with the left-hand check rail, had been renewed six years ago; the left-hand rail and the sleepers were 14 years old. The chairs were secured by two screws and two spikes. The sleepers were considerably side-cut by the chairs, some

of which had also sunk deep into the timber, but the fastenings generally did not appear to be loose.

The ash ballast was muddy, and, generally speaking, the condition of the track was suitable only for the low speeds which may be anticipated at a terminal station, and are in this case prescribed by regulation at 10 m.p.h. The permanent-way staff said that they had no trouble in maintenance beyond what might normally be expected on such a curve, and that drainage was satisfactory.

The platform surface consisted of ordinary stone paving, edged with a York Stone coping in slabs 4½ ins. thick, 4 ft. wide, and about 4 ft 6 ins. in length; the top surface of the coping was 2 ft 10½ ins. above rail level of the near (and higher) rail, and it overhung the supporting brick dwarf wall by about 9 ins.

The paving and coping stones were continued down the ramp, and damage to the coping commenced at a point where it was 1 ft. 8 ins. above the near rail, but I think it is probable that the first actual point of contact was beyond this and higher up the ramp.

Particulars of the track at the entrance to No. 1 platform as measured after the accident are indicated on the plan attached. It will be noted that gauge was slack throughout, to the extent of ⅞-in. as a maximum, and it was clear that the check rail was taking most of the lateral thrust and was in consequence a good deal worn. Check rail clearance varied between 2 ins. and 2½ ins.

No damage or defects were observed through the whole length of the tunnel up to the 1 in 7 crossing at the tunnel mouth. Immediately beyond the nose of the crossing the track was found to have been displaced bodily to the right, or outside, of the curve, for a distance of 18 sleepers, to a maximum of ⅞-in. Beyond this length, and past the platform ramp almost to the end of the check rail, about 190 ft. from the nose, there were no definite marks of derailment nor of track displacement. There were two very faint marks on bolt heads on the right-hand side of the right-hand rail, and one faint mark on the left-hand check rail, indicated on the plan, but no marks whatever on the sleepers, and I find it difficult to think that actual derailment could have occurred in this length without more defined marks.

Just before the end of the check rail the chairs and sleepers were broken or heavily marked, and the last sleeper had heavy flange marks on the right-hand side of both rails. Beyond this point for 300 ft the rails were completely spread, all sleepers being broken and the left-hand rail pushed out to almost double gauge.

After the accident it was found that the engine regulator was closed, with the reversing gear in full forward position, the vacuum brake handle "on" and the tender handbrake off; the left-hand leading and driving wheel sanding equipment appeared to be in good order, but the sand pipes to both right-hand wheels had been torn off, apparently as a result of the accident.

The leading vacuum flexible pipe was broken and the vacuum standpipe in rear of the tender was broken, both as results of the accident. The vacuum pipes throughout the coaches were unbroken and were tested to maintain 20 ins. vacuum and to operate the brakes satisfactorily.

The engine is a comparatively new one, having run only 23,000 miles; when it was dismantled no defects were found which might have led to derailment, all wheels being of good profile and true to gauge, clearances of axleboxes normal, springs in good order, and weights on wheels reasonably correct having regard to the effect of derailment. The pony wheels have coiled springs, the rate of which was found correct, and the pony truck supports the front of the engine by a double linkage which allows a maximum lateral displacement of 4½ ins. The leading end of the engine is raised

when the pony wheels are displaced laterally; this provides the necessary centralising effect. The general arrangement is well proved by experience on engines of this and other classes. It is not considered possible for the pony wheels to be carried, clear of the track, after derailment.

The right-hand leading step bracket of the engine was bent back along the longitudinal line of the engine to about 45 degrees from the vertical, two of its supporting rivets having fractured, and the upper step was flattened out and neatly folded up against the original vertical face of the bracket. The lower step was substantially undamaged. The designed height of the underside of the upper step is 2 ft 9 ins. and of the lower step 1 ft 3 ins. above rail level. A short distance in rear of the step, and at a point practically level with the normal position of the upper step, was the mark of a heavy blow on the cylinder cover, about 8 o'clock, which had fractured the cover itself.

Apart from these two items, there were no marks of violent impact at a level where an engine while still on the rails could have struck the platform, forward of the trailing buffer beam under the footplate, and the leading and trailing buffer beams of the tender, all of which were broken and bent back in a manner showing signs of violent blows. The lower portions of these might have been in contact with the coping while the engine was still on the rails.

There was a considerable amount of damage at a higher level, in particular the end of the leading buffer beam was deeply grooved with evident signs of great heat but there can be little doubt that this and other similar damage was caused by bearing along the platform coping after derailment as the levels would then be substantially in correspondence.

I think that the nature of the damage to the leading step and its location make it clear that the underside of the upper step struck and started to ride up the slope of the platform ramp, and the step was then forced up into the position described; the coping of the platform ramp sloped up from about 12 ins. above rail level to the final level of the platform, 2 ft 10½ ins., and allowing for a heavy lurch outwards, the full compression of the springs, and some give on the permanent way, the relative levels would appear to support this assumption. It is quite possible that the downward pressure of this step on the overhanging edge of the ramp may have tipped up one of the coping slabs into a position where further contact would be even more certain.

Thereafter it would appear that the cylinder cover also struck the platform coping a violent blow which, apart from immediately local damage, started to displace the coping stones well ahead. The result of such an impact might break them up or cause them to move in any direction, but the probable direction of most movement would be towards the platform edge, where they were unsupported in both vertical and horizontal planes; experiments with models are illuminating in this respect. Some portions of stone might be thrown up ahead of the engine and others possibly jammed between the platform edge and the engine and coaches, thus causing the damage further back and at higher levels on the engine and coaches.

It is reasonable to assume that final derailment was either due to such stones falling on the permanent way ahead of the engine, it being noted that some large portions of stone were found lying on the engine ahead of the smoke box, or, alternatively, possibly due to the lateral pressure of some displaced large stones which might have jammed between the platform wall and the engine side frames.

Report.

The train is booked to leave Manchester Central at 2.0 p.m. and to run to Liverpool Central (34 miles) in 43 minutes with one stop at Warrington.

Driver Duckworth stated that he was well acquainted with the road, being in a link which worked into Liverpool Central five weeks in 18, and worked this train one week in 18; also that he was accustomed to this type of engine. Actually the last time he had worked into Liverpool Central was 4th July, three months previous to the date of the accident; the last occasion on which he had signed for knowledge of the road was 1st July.

He had taken over the engine at Guide Bridge and ran light to Manchester Central where he picked up the train and left on time. The brake was tested before departure, and it was working correctly for the 30 m.p.h. speed restriction at Padgate Junction, and the stop at Warrington. Engine and train were running normally, and he left Warrington, and passed Halewood, about 8 miles from Liverpool, on time.

He closed the regulator and applied the brake to observe the 25 m.p.h. restriction round the Brunswick curve, and thereafter reopened the regulator and estimated he was travelling at 30 m.p.h. through St James Station where he observed the outer home signal showing double yellow. He stated that he then closed the regulator and was coasting up the rising gradient (530 yards at 1 in 150) through the last tunnel to the summit at the crossing over Wapping Tunnel. The second air shaft, which is some 50 yards before reaching Wapping Tunnel, was his usual mark for checking a train, and he reckoned that from about this point he could usually see the inner home signal 350 yards ahead, if the tunnel was fairly clear, and he did see it on this occasion.

Duckworth stated that he made a moderate brake application at this point and felt the front of the engine lift and formed the impression that the leading pony truck wheels were off the rails. He released the brake while passing over Wapping Tunnel, and after a short interval felt the engine running smoothly again.

By this time he was past the inner home signal, and he made another brake application, destroying about 10 ins. of vacuum, when, about 15 yds. from the end of the tunnel, the engine started to ride roughly again and he thought that the pony truck had again come off the rails at the crossing. He again released and re-applied the brake, destroying about 5 ins. of vacuum, and estimated that by the time he emerged from the tunnel he was travelling at about 12 m.p.h., the engine was still riding roughly, but the first violent shock was when the train struck the platform, at a speed which he estimated at 10 m.p.h., which threw him off the seat, and he had to pick himself up before he could make a full brake application.

Duckworth stated that he had called to the fireman for sand on the first occasion when he felt the pitching movement about Wapping Tunnel, but did not do so again on emerging from the tunnel. On engines of this class the steam sanding control (for the driving wheels) is on the driver's side, but on some of them the dry sand for the leading coupled wheels is on the fireman's side, and Duckworth did not realise until after the accident that on this engine the dry sand control for these wheels was also on the driver's side.

He had not noticed any defect in running earlier on this trip, and said that passing through Halewood he had been thinking what a comfortable engine this was.

Fireman Ellison, who is a passed cleaner with 10 years' firing experience; had not worked with Driver Duckworth before and had only occasionally worked into Liverpool Central, the last time being about a month previously; he was not well acquainted with the signals, but remembered seeing the outer home signal showing double yellow on this occasion and the inner home single yellow.

He stated that he was aware of the 25 m.p.h. restriction on the Brunswick curve and that his driver obeyed this, and subsequently made a brake application to check the train at the outer home signal; thereafter he thought the speed of the train was normal for the locality as they passed the inner home, but as they came out of the tunnel he felt a lurch to the right and the driver shouted to him for sand; he had no time to apply sand before they struck the platform. He stated that he was under the impression that they were not entering the station faster than the normal speed, and he was not really certain whether the lurch was at the end of the tunnel or at the end of the platform. He did not realise anything was wrong until the driver called for sand.

Guard Brookes was riding in the rear brake van, which was at the trailing end of the sixth coach. He had been working into Liverpool Central about six times a week for the last ten months. He stated that the brake was tested at Manchester Central after engine No. 3817 had been attached, and it was showing 20 ins. in the rear brake van, and that the train made a normal stop at Warrington, leaving there ½-minute late. Coming round the Brunswick curve he felt the usual brake application and saw the gauge fall to 10 or 12 ins., the brake being released again later and the gauge rising to about 20 ins. He considered that the speed round the Brunswick curve was about normal and in accordance with the regular restriction.

Brookes stated that he saw the double yellow of the outer home signal when approaching St James's, at which time speed was normal, but when passing over the Wapping Tunnel he thought speed was rather too high and he applied two turns of the handbrake. This had no effect and he was going to the vacuum brake handle when he felt the impact and was thrown back on to his handbrake wheel. He did not think that the vacuum brake was applied immediately after passing over Wapping Tunnel, but said that it was applied slightly and that he could feel the braking effect before he moved towards the vacuum handle; he could not say, however, what was indicated on the vacuum gauge at that time.

The arrival of the train was witnessed by the signalmen and certain members of the station staff.

Signalman Burrows was standing towards the tunnel end of the box, and saw the chimney of the engine give a lurch towards the box when it was about level with the platform ramp; he thought the train was coming in rather faster than usual, but did not realise that the engine had struck the platform or that there was anything wrong.

Signalman Bailey gave similar evidence as to the lurch towards the box, but thought that the speed entering the station was much higher than normal and, in fact, higher than he had ever seen at this station.

Yard Foreman Blease was in his cabin at the outer end of No. 1 platform when he saw the train coming in and noticed that it gave a lurch towards the platform, probably before it reached the platform ramp. He had seen other engines lurch there but never so badly; he thought it might have righted itself, but he then saw the engine strike the platform and he ducked down in his cabin to avoid the flying debris which broke all his windows and some panels.

Station Foreman Macdonald, who had 15 years' service in that capacity, was waiting about halfway down No. 2 platform, and did not see the train until it had entered the platform and was ploughing its way along the coping; he thought the train was going much faster along the platform than he had ever seen any train travel there before, and estimated its speed at not less than 35 m.p.h.

Porter Rimmer, who was standing near the end of No. 1 platform, saw the engine give a jump about opposite the signal box and crash sideways into the platform; he thought the speed was faster than trains usually come into the station, and similar

evidence was given by Porter Benson, who said that the engine gave him the impression of a motor car coming round a corner on two wheels, and that it was running much faster than usual. These two men had respectively 18 and 14 years' service at the Central Station.

The signal box timings, for what they are worth over a short distance when allowance is made for the necessary ½-minute tolerances, indicate that the train passed Halewood East Junction right time at 2.32 p.m. and came to a stand in the Central Station at 2.41 p.m., two minutes early, taking nine minutes pass to stop for a distance of 8¼ miles, in the course of which there was a 25 m.p.h. restriction for 700 yards. The signalman at Brunswick box did not recollect anything unusual about the passage of the train, which would appear to be an indication that its speed at that point was not materially higher than this 25 m.p.h. restriction.

Conclusion.

There are a number of inconsistencies and improbabilities in the statements of Driver Duckworth. Some allowance must be made for the fact that he was suffering from shock and could not attend my Inquiry until five weeks after the accident, but, despite his strongly expressed opinion, I do not believe that the leading pony truck left the rails and re-railed itself, twice, for no discoverable reason, and without leaving any marks on the permanent way, which was examined throughout the tunnel within a couple of hours of the accident

On the other hand, there is a considerable volume of evidence, apart from the material evidence of damage done and distance to stop, with the powerful retarding effect of scraping along the platform, which indicates that speed entering the station was much in excess of his estimate or the 10 m.p.h. prescribed. In addition, there is the evidence of the guard that he considered the speed when passing over Wapping Tunnel was unduly high, and this is supported by statements of a driver and fireman who were travelling as passengers and noticed the speed at the same point as being higher than they would care to run.

I do not think that there is any doubt that the accident is attributable to excessive speed approaching and entering the station, and Driver Duckworth must be held primarily responsible for this. I feel there are some grounds for suspecting that while passing through the last tunnel he lost his location, or did not realise the proximity of the station. He is 56 years of age, with 34 years service with the Company and 18 years as driver: he has a fairly good record.

I think that some share of responsibility should also be attributed to Guard Brookes for neglect to take action as prescribed in Rule 148 (a); he was well acquainted with the approach to Liverpool Central and he admitted that speed was rather high when they passed over Wapping Tunnel; if he had immediately looked at the vacuum gauge and seen that the brake was not applied, he would have had plenty of time to make a moderate application, which in all probability would have prevented the accident

Brookes is 53 years of age, with 31 years' railway service; he was passed as a Passenger Guard three years ago and has been employed as such for about one year. He has a clear record.

The remarkable feature of this case is the fact that there are no marks of derailment on the track for a considerable distance beyond the point where the damage to the platform coping commenced; and it would appear that the engine must have been still on the rails for about half the distance over which the coping was destroyed.

It is clear from a comparison of the damage and marks on engine and tender, and on the coaches respectively, that the displacement of the coping must have been caused almost entirely by the engine and tender; the scrapes along the coach bodies are such as would easily have been caused by loose stones already displaced and possibly roughly jammed in a fouling position.

From the evidence and probabilities generally, including the fact that substantial portions of the debris were carried forward on the front of the locomotive, I think it may be assumed that the initial point of contact was near the leading end of the engine, and, as noted above, that the final derailment was probably due to stones thrown on to the track in front of the engine or jammed between the platform edge and engine frame.

Detailed measurements of position of rails, platform coping, and engine dimensions appear to indicate that, with the maximum possible lateral translation of the pony truck, and allowance for wear in axleboxes, etc, there should still have been a clearance of about 2½ inches between the leading step, or the front cylinder cover, and the coping.

After careful consideration of all the evidence, however, I feel little doubt that the leading step must have struck and ridden up the coping, approaching it at an angle so that the lower step got underneath the coping, and that the cylinder head cover, which projects the same distance and at the same level as the upper step, but immediately in rear of it, also struck the end of a stone of the coping near the top of the ramp, possibly after the stone had been tipped up by the step.

It appears equally clear that at this point of contact, and for some 25 yards further, none of the engine wheels was derailed. The conclusion would appear to be that about the top of the ramp this calculated clearance of 2½ inches must have been reduced to a negative figure, leading to contact, owing to one of, or more probably a combination of, several possible factors.

Some of these are: —

(a) Movement of track, lateral and vertical, under the violent pressure caused by excessive speed of a heavy engine round this sharp curve. As noted above, the track was not suitable for high speed, and both rails and sleepers may have moved to some extent and sprung back prior to measurement. The track was definitely moved outwards a few yards further back, and this movement was noticed, but near the platform ramp the sleeper ends are under timbers and movement might not have been observed. There are also possibilities of inaccuracy in measurement conditions as compared with conditions immediately prior to the accident as it was not possible to take these measurements until the coaches had been removed.

(b) Some irregularity of alignment of the edge of the coping on the ramp.

(c) Possibly some minor displacement due to a previous blow on the engine step, which, to the extent of half an inch or an inch, might not be noticed in routine running inspection. Enquiries were made as to the possibility of the step having been displaced outwards by striking some fixed object earlier on this journey, but without result.

When it is remembered that the total distance to be accounted for is of the order of three inches, I think that these possibilities, especially (a), provide a reasonable explanation of the inadequacy of clearance, and that after this initial impact the sequence of damage continued on the lines indicated earlier in this Report.

Recommendations.

The approach to this terminal station, through a long tunnel liable to obscuration with smoke and steam, is not an easy one, but similar, and more difficult, conditions

prevail elsewhere; in this case there can be no risk of missing the indication of the outer and inner home signals, and the sensation of passage over Wapping Tunnel provides an unusual location mark at a convenient intermediate distance. Moreover, as noted above, once a driver has seen a proceed indication at the conspicuous outer home signal, in the open, in St. James Station, he knows he has a clear run right through the tunnel into the station.

I do not consider that the circumstances of this accident indicate any need for alteration of the existing signalling or lighting in the tunnel.

I think that, despite the low speed restriction, the track at the entrance to No. 1 platform requires strengthening in view of the sharp curvature, and I understand that it is being renewed. There is no real reason why the coping of the platform ramp and immediately adjacent thereto should not be set back further from the rail and, in view of the circumstances of this accident, I think this would be advantageous. Except for these two points, I have no recommendations to make.

I have the honour to be,

Sir,

Your obedient Servant,

A. C. TRENCH, *Colonel.*

The Secretary,
Ministry of Transport.

APPENDIX.

DETAILS OF DAMAGE TO ENGINE NO. 3817 AND TENDER.

Engine, Frames, Cylinders, Under-Gear, etc.

Front iron train pipe bent.
Front brake hose perforated.
R.L. life guard bent.
R.L. buffer scarred.
Leading buffer plate scarred.
Right platform plates and angles torn off.
Right platform angle iron broken 2 ft. 6 ins. from front.
Right leading footstep bent back and rivets broken.
Connecting link from right valve spindle to 2 to 1 lever bent and scarred.
2 to 1 lever bent downward.
R.H. cylinder front mud cock scarred and loose,
Both right-hand cylinder mud cock pipes broken.
R.H. mud cock gear bent.
R.H. cylinder and clothing scarred.
R.H. cylinder front cover broken.
R.H. cylinder front cover clothing crushed.
R.H. slide bar bracket scarred and bent.
R.H. radius link bent.
R.H. arm of reversing shaft bent.
Right driving brake block broken.
R. leading sand pipe flattened and bent to wheel.
R. driving sand pipe and clip broken.
Both right-hand sand boxes broken.
Both mechanical lubricators and gear pipes therefrom demolished-
R. trailing support of platform broken.
Left and right injector overflow pipe crushed.
Right trailing footstep scarred and bent.
Trailing buffer beam bent backwards.
Cab twisted.
Cab angles, hand-rails bent and broken.
Seven cab windows broken.
Right main steam pipe cast iron section broken and torn out of steel flange.
Both slide bar and piston rod lubricators torn off.

Boiler.

Right trailing inspection joint displaced. Four panels of boiler doming damaged-Smoke-box front indented. Smoke-box door indented.

Wheels, etc.

Both pony wheel tyres badly scarred.
Right leading coupled wheel tyres badly scarred.
Right driving coupled wheel tyre badly scarred.
Right trailing coupled wheel tyre slightly scarred.
Left leading coupled wheel tyre slightly scarred.
Left driving coupled wheel tyre slightly scarred.
Left trailing coupled wheel tyre slightly scarred.
Right leading pony spring links bent.
Both pony truck life guards torn off.
Left leading pony axle box oil collar broken.
Right leading pony splasher bent
Right driving spring plates knocked back.

Right trailing spring buckle knocked back.

Left driving axle box top lid bent and displaced.

Leading brake cross beam bent.

Footplate .Footplate extension angle iron bent. Footboards displaced.

Tender No.3817.

Intermediate buffer casting broken.
Lap plate bent.
Leading buffer beam bent backward and split—many rivets sheared.
Leading footstep bent.
All right-hand axleboxes and horns scarred.
Right leading axlebox front and oil collar broken.
Right trailing spring torn off.
Right trailing spring hangers bent.
Right trailing footstep bent.
Trailing buffer beam bent.
Carriage warming pipe broken.
Tank scarred, indented, and perforated, and rivets sheared.
Iron train pipe broken.
Platform and angles torn and scarred.
Handrails broken.
Water pick-up and gear broken.
All tender wheels slightly scarred.
Both leading brake hangers bent.
Both leading brake pull rods bent.

**Extract from the 1963 edition of the Chester Rural District
Council *Official guide*:**

“South of Dunham and north of the main road A.51, is a large parish—Barrow. The name, recorded in 958 A.D., signifies a grove or wood. In medieval times the parish embraced two manors, Great Barrow and Little Barrow, and these names still survive.

The Old Rectory dates from about 1740 and many of the farms are interesting old buildings. St. Bartholomew's church has a list of rectors dating back to 1313 but the oldest parts of the present building are fifteenth-century work.

A rain-water head on the tower bears the date of its rebuilding. 1744, and the neo-classical style of Wren is evident. The font is dated 1713 and the one bell, 1767, is probably from the famous Rudhall foundry at Gloucester. Two windows are by Kemp. The church chest is early Georgian, but the registers date from 1572. Modern additions are the altar cross by Anthony Hawkesley and the carved oak communion rails.

Between Great Barrow and Little Barrow are the important chest hospital and the tuberculosis settlement,

Rehabilitation and after-care still continue on a voluntary basis through grants, donations and subscriptions helped by the sale of portable buildings, greenhouses, garden frames, fencing etc., which are the main products of the Barrowmore industries.

Barrow is excellent for residence and the Rural District Council have built 48 houses here, including the post-war Long Looms Estate.”

'Castles', 'Kings' and 'The Great Bear'

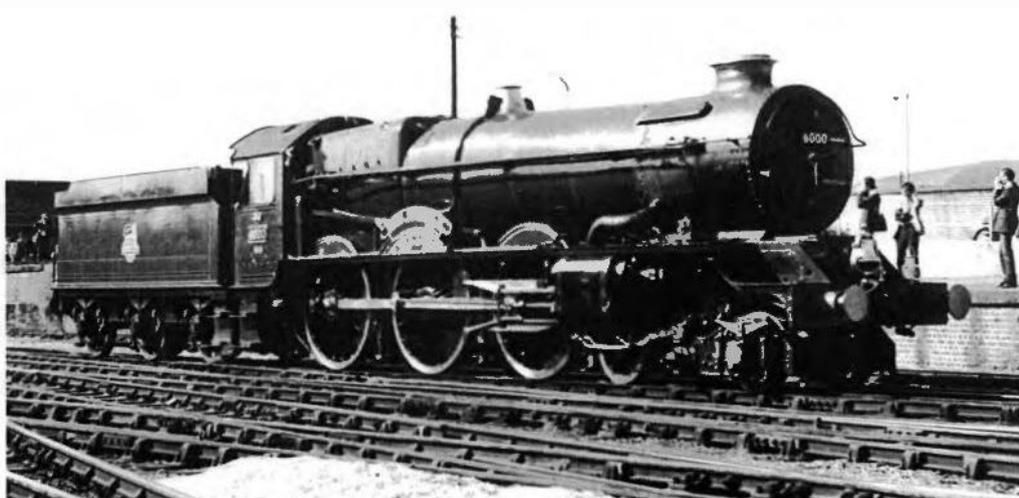
by Syd Wainwright (photographs by the author).

Towards the end of his excellent article "The railway industry in the Wrexham area" (*BMRJ* no.23), the author refers to 'Castles' and 'Kings' roaring up Gresford bank at



Castle class no.5072 "Hurricane" with empty stock, Gresford Bank, 6 August 1959.

the head of express passenger trains from Birkenhead to Paddington.



'King' class no.6000 "King George V" at Chester, after preservation.

It might be worth mentioning that mainly due to weight and clearance restrictions, 'King' class locomotives did not work north of Shrewsbury until the preservation era (1962, I think). It has been recorded that the restrictions were lifted in 1950 following a survey of the Shrewsbury-Chester line by British Railways civil engineers the previous year; however, it would seem that the operating staff never took advantage of this.

Talking of engine restrictions on this line leads me to the following: the Great Western Railway's only 'Pacific' locomotive, no.111 'The Great Bear', was supposed to be confined to working between Paddington and Bristol, due to its length, etc. My father, who worked at Balderton [between Wrexham and Chester] for a few months prior to starting his apprenticeship (see "Memories of Balderton and the Eaton Railway" in *BMRJ* no.15), always said that he saw this loco at the head of a stopping train at Balderton at that time – 1915. Despite the engine's official restrictions, there are records of it being seen at Newton Abbot (Devon) and Stafford Road, Wolverhampton; could this latter sighting have been during clearance tests to Chester? Many years later (about 1975) I mentioned this to an elderly ex-G.W. driver, and he said he had seen the engine about the same time – 1915 – at Chester when he was a young cleaner there. Are there any more records of this event? Remember that 'The Great Bear' was built in 1908 and converted into the 'Castle' class 4-6-0 renamed 'Viscount Churchill' in 1924, but with the same number, 111.

As regards G.W. locomotive sound effects, top of the charts for me would be a 'County' class 4-6-0, as built with a single chimney, and 280lbs per square inch boiler



'County' class no.1022 "County of Northampton" descending past Gresford station in 1955.

pressure. The sight and sound of one of these engines setting off from Wrexham General station with the 12.45pm London train was something to be marvelled at. Certainly the loudest blast I ever heard from a G.W.R. engine anywhere: no slipping and fierce acceleration. Witnessing this event was usually the highlight of my lunch time stroll on Wednesdays during the winter of 1946/47, while on a day-release course at the Technical College on Bradley Road. Sixty-three years ago – it doesn't seem it!

Editor's page

Recent books (and CDs/DVDs):

Rhymney Railway drawings, by Nigel Nicholson, Trevor Jones & Mike Morton Lloyd (Welsh railway records, vol.1). Lightmoor Press/Welsh Railway Records Circle, 2010. ISBN 978 1 899889 47 1. £18.

Narrow gauge rolling stock: an Irish railway pictorial, by Desmond Coakham. Ian Allan, 2007. ISBN 978 0 7110 3149 0. £14.99p.

Locomotive compendium Ireland, by Colin Boocock. Ian Allan, 2009. ISBN 978 0 7110 3360 3. £19.99p.

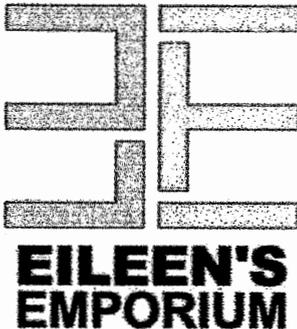
From CIÉ to IR: the changing face of Ireland's railways, by Mark Darby, Neil Higson and Paul Quinlan. Ian Allan, 2010. ISBN 978 0 7110 3476 1. £22.50p.

*Materials and Tools for
Discerning Model Makers*

Derek Russan

01531 828009
sales@eileensemporium.com
www.eileensemporium.com

Unit 19.12 Highnam Business Centre,
Newent Road, Gloucester, GL2 8DN



Richard Oldfield and the Editor visited **Scalefour North** at Wakefield recently. This event is more of a social get-together than a formal exhibition; but meeting old friends can be useful – the ‘original’ Eileen of Eileen’s Emporium fame was present (as usual) and pointed us at the stand of the new ‘Eileen’ – according to her, a friendly new trader: Derek Russan is apparently taking over the marketing of several of Bill Bedford’s items.

We also took the opportunity to purchase several items on our ‘wants’ list, including some self adhesive model slates and plastic door kits (for our new L.N.W.R.-built cottages on “Mostyn”): the slates are reminiscent of the design that was used several years ago by Studiolith/Exactoscale, and save a lot of time when compared with manually cutting rows of ‘slate’ from paper, gluing them on, and then painting the resulting roof. But trial runs in application are recommended. The doors (several designs so far available) are made up by gluing a number of precision cut layers together, and it may suit your prototype to paint different layers in appropriate colours before gluing them.

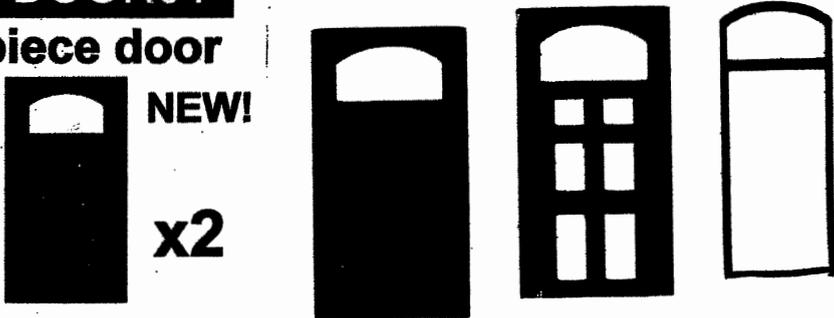
York Modelmaking Laser cut details
4mm (00 scale)

00-DOOR01

3 piece door

NEW!

x2



01904 400358
www.yorkmodelmaking.com

The doors demonstrate excellent visual relief – always difficult to achieve. The company web-site where illustrations of their products are shown, is given on the photo-copy printed above.

Chatham exhibition: a (sort of) report of ‘Mostyn’s appearance

by Richard Oldfield

This was the operating team at Chatham [in June 2010]:-

Richard Oldfield - experienced

David Faulkner - experienced

Gavin Liddiard - experienced

Dave Millward - experienced

Edward Oldfield - 1 previous exhibition

Colin Calveley - debut

Mike Anson - debut

Kevin Bays - debut

On the Thursday night, Gavin, Eddie and myself loaded the lorry to allow David F. to continue wiring. Gavin and I travelled overnight Thursday, finally arriving in Chatham at 4.30am before grabbing a few hours sleep in the lorry and then unloading the layout before the car travellers arrived. We could see it was going to be a challenge so we recruited Kevin Bays to the team. All through Friday afternoon/evening we erected the layout whilst David F. did further wiring. Despite the thousands of new soldered joints that David F., Gavin and myself had done in a ten day marathon (to wire ten new boards, 45 Tortoise point motors, build a new panel including revisions to the existing fiddle yard), the layout powered up and worked. A critical Tortoise wouldn't work and we cured that. There were a few diodes to replace and adjustments to the wiring and we got over that. There was a huge unevenness in the floor that required a lengthy levelling process including getting even more shims -

Gavin and Edward sorted that out. By the end of Friday the layout was running and the prospects were good.

Nobody could have foreseen the dust problem on Friday - our main concern was bringing the second fiddle yard into partial operation. It was only during Saturday, when the spectators arrived and the dust got airborne that the extent of the problems became apparent. The dust caused the locos to respond unreliably after a period of time and this shook up some rakes, the act of cleaning the trackwork repeatedly left hardboard deposits which caused some derailments at turnouts and repeated cleaning also misaligned the toes of some switch rails causing further issues. It was hard work but we kept the service going. Chatham helped by keeping us regularly supplied with drinks and enabling us to have lunch at the layout.

On Sunday it was much the same. It was physically impossible to clean stock at the rate it was getting dirty but we kept a decent service going - slower than we planned but remarkable under the circumstances. To add to the frustration we then discovered that some of the plain flextrack in the second fiddle yard was causing derailments (apparently under gauge but needs more investigation) so the second fiddle yard is basically still untested but known to be electrically sound.

Both Mike Anson and Kevin Bays want to be involved with Mostyn at Scaleforum [since postponed] so we certainly made them feel welcome. I'm very tired after this exhibition, I'm frustrated that we did not achieve everything that we wanted to **BUT** I think it was a magnificent effort by a scratch team under difficult conditions.

You can judge Chatham's reaction to our contribution by the fact that I already have a written invitation to take Johnstown Road to Chatham in 2011.

Enough said.

Cheers – Richard.



Capstan for working wagons at Mouldsworth water works, about 1960 (Norman Jones photo).

The Dee Bridge accident, 1847: part 6

by David Goodwin

(This sixth instalment in the story of the Dee Bridge is, again, somewhat of a 'stop-gap', for the same reasons as the last issue).

Soon after we started publishing this series of articles about the Dee Bridge, I was contacted by one of the workers at the Cheshire Record Office who was herself researching one aspect of the Bridge: Sue Chambers had seen the start of the series in copies of *BMRJ* shown to her by subscriber John Dixon who works there as a volunteer. Along with others in a group belonging to the Crewe & District Local History Association, Sue was investigating the provenance of the four cast iron eagles that decorate three sites in the town.

When I sent a message via John Dixon, asking if she could write a short article on the eagles' history, for *BMRJ*, she replied that when they had reached a conclusion, this would be possible. Since then, another member of the group – Paul Blurton – has offered to provide a short 'progress' article for the *L&NWR Society Journal* and *BMRJ*. This is printed below:

'CREWE'S EAGLES'

One of the cast iron eagles at the Crewe Heritage Centre; the wing span looks to be over five feet



The very short story – of where the ‘Eagles’ that once adorned the ‘Eagle Bridge’ within Crewe railway works came from.

Research has shown that Robert Stephenson’s Dee Bridge on the Chester to Holyhead Railway at the Roodee in Chester, is the original location of the ‘Eagles’. This can be shown in the 1847 engraving of the collapsed ‘Dee Bridge’ by John Romney, (re the original engraved plates in Chester Record Office) and also the John Romney engraving, 1853, of the repaired bridge. Also, ‘Eagles’ were mentioned three times in the report of the coroner’s inquest into the Dee Bridge failure.

The eagles that adorned the ‘Dee Bridge’ would have been sent to Crewe, along with other scrap metal, when the bridge was rebuilt during 1870-71. The Eagles were salvaged and used as ornaments on the bridge that spanned the Chester line, between the locomotive works and the carriage works, all within Crewe railway works. This bridge, the ‘Eagle Bridge’, was only yards from where the Eagle Bridge Health and Wellbeing centre on Dunwoody Way is now situated.

There are four Eagles in Crewe, two are at the Heritage Centre, one at the entrance to the Electric Depot opposite Stewart Street and of course one at the Eagle Bridge Health & Wellbeing Centre on Dunwoody Way.

(Researched by:- Sue Chambers (zen21980@zen.co.uk), Harry Jones, Paul Blurton (paulblurton@tiscali.co.uk), who can also be contacted through the Crewe and District Local History Association).

On a recent visit to the **Flintshire Record Office** at Hawarden, I found a collection of old newspaper, etc., cuttings of local history interest; among them was an article by C.R.Irving entitled "Steam restored Chester's commercial status" which was printed in the *Chester Chronicle* for 16 October 1946, and part is reprinted here:

"... The first railway to be constructed in the vicinity of Chester was the mineral line, which conveyed goods and coal from Ruabon and Wrexham to the Quay at Saltney for shipment to various ports, and it was roughly computed that Chester alone saved more than £10,000 in the cost of coal by the construction of this railway. The Shrewsbury and Chester Railway Act, June 30th, 1845, gave authority for it to be used for passenger as well as goods traffic.

STEPHENSON'S PLANS.

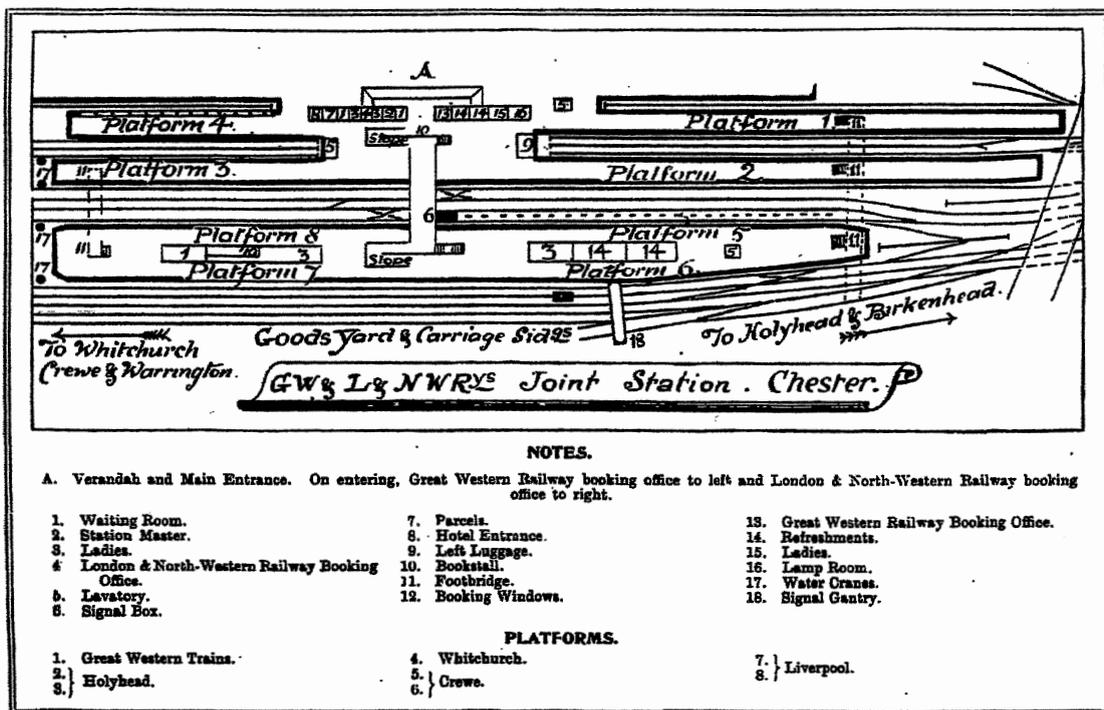
In 1824-25 George Stephenson made a survey and scheme for a railway from Chester through Hooton to Grange-lane at Birkenhead, but it was not until 1837 that an Act of Parliament was passed authorising the construction. Work was commenced in June, 1838, and the Chester and Birkenhead Railway was opened for traffic on December 30, 1840. The Chester terminus was on the south side of the Chester and Warrington roadway, known locally as Brook-street, which was crossed on the level and from which road access was made to the Station and goods accommodation. The lines of the first station and buildings are now used by the L.M.S. Railway as a wagon repair depot. George Stephenson, also promoted a railway from Chester to join the grand junction line at Crewe, and powers for its construction were granted by the Act of Parliament dated June 30, 1837. This line was completed in 1842, and Chester then became the north-west premier railway centre.

FORWARD TO HOLYHEAD.

Stephenson urged his directors to carry the railway forward to Holyhead, and on July 4, 1844, the Chester and Holyhead Railway Act was passed, and the need for a central station for all the lines meeting at Chester became evident. The plans for the station and buildings were made by Mr. Thompson, architect, London, and the iron roof covering was designed by Mr. Wylde. The cost was over £200,000 and was borne by the London and North-Western, the Chester and Holyhead, the Shrewsbury and Chester, the Chester and Birkenhead, and the Cheshire Junction Railway Companies. The contract for the construction of the station was given to Mr. Brassey, and it entailed the building of the imposing two-storey block 1,000 feet long and 25 feet wide, with a tower 40 feet high at each end. The ground floor of this building provided accommodation and facilities for the passengers, whilst the upper floor was used for offices and store-rooms.

STILL IN USE.

Also in the contract were the 250 feet long double-platform bay lines on both flanks, those at the western end for trains arriving from and departing to Birkenhead and

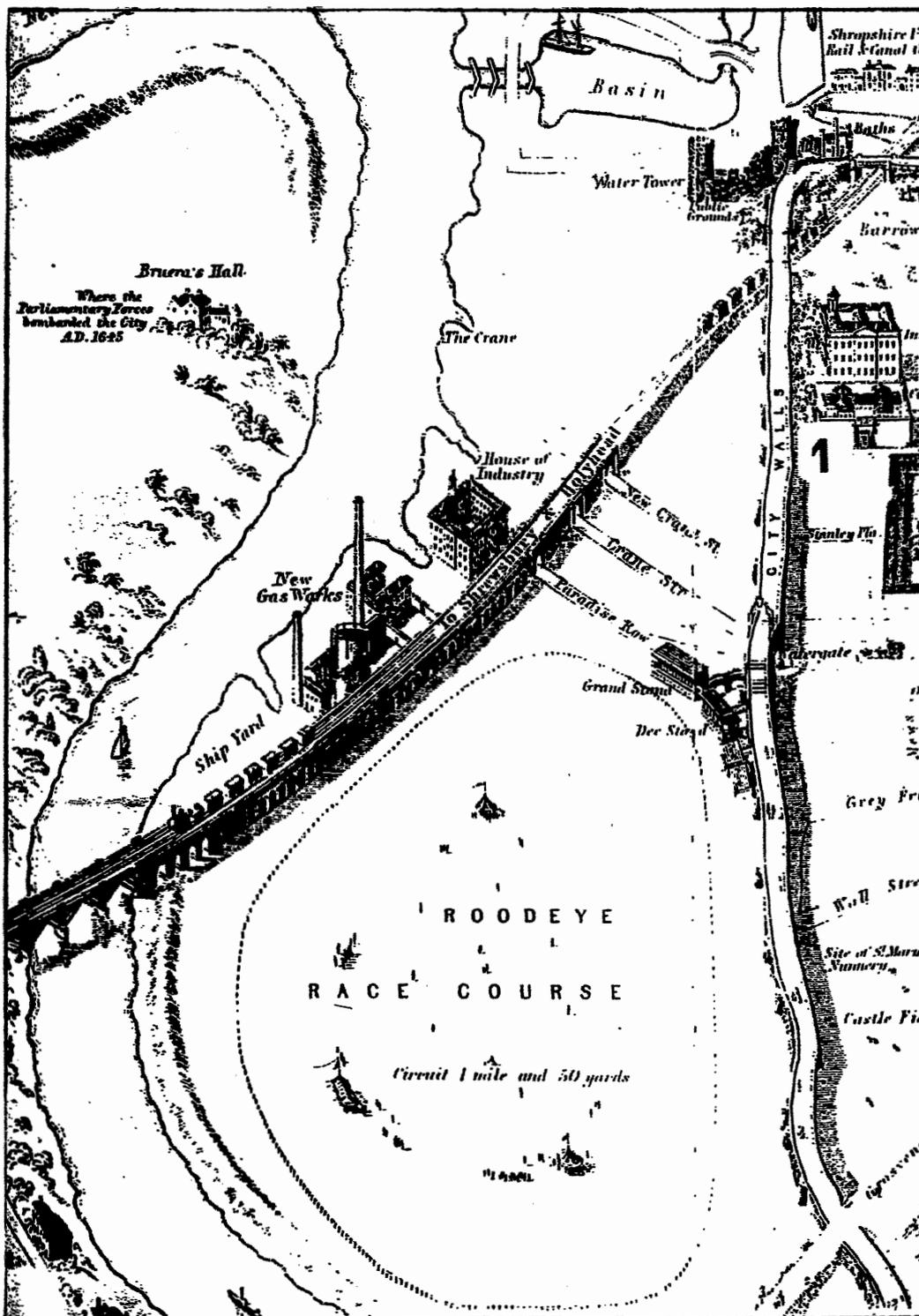


Plan of Chester General station, reprinted from the Railway magazine, 1906; City Road is opposite the entrance 'A'.

Ruabon, while trains from and to Crewe used those at the eastern end. The main platform was reserved for London and Holyhead through trains in both directions, and was over 700 feet long and 29 feet wide. The whole platform area was covered with roofing and at each end roofed arcades were made for road vehicles. Substantially this accommodation is still in use up to and including the platforms, now numbered four and five, but all the original platforms were extended in 1890, when the whole of the up line accommodation was added. Access to the Station forecourt was from Brook-

street, described as a squalid ill-paved street leading to the city some distance away and passing through pasture fields.

Portion of Cathrall & Prichard's pictorial 'map' of Chester, about 1850. It shows both the re-enforcement repairs under the bridge girders that was done soon after the accident, and the short length of the line that was inside the City walls



ROODEE VIADUCT.

The total length of the Chester and Holyhead Railway is 84½ miles, and this was divided into 14 sections, and a separate contract made for each section, which enabled the construction of the whole line to proceed simultaneously in each section. At the

Chester end of the line the contract extended to Connahs Quay, a length of eight miles, and entailed the cutting of two double-line tunnels through the sandstone for a total length of 405 yards at a cost of £8,935, the bridging over the canal, £9,606, the construction of the Roodee viaduct consisting 47 elliptical arches each with a rise of 7 feet but with varying spans of 28, 33 and 38 feet, the construction of the bridge over the River Dee at a cost of £28,000 and the making of a deep cutting through Brewer's Hill. The work was pressed forward with utmost speed, and 100 years ago the line from Saltney - with the Junction towards Ruabon - together with the new Station at Chester, were opened for traffic on November 4th, 1846.

WITHIN CITY WALLS.

For a length of only 175 feet the Chester and Holyhead Railway passes across the northwest corner of the city enclosed within the ancient Walls. The original railway bridge over the River Dee was 321 feet long with masonry abutments and two masonry piers, all founded on timber sheet piling driven into the bed of the river. The bridge superstructure consisted of four cast-iron main girders each 107 feet long and four feet deep, with timber cross beams resting on the bottom of the main girders, a longitudinal timber baulk deck being laid on the cross beams. The middle third of each main girder was supported and strengthened by struts sitting in cast-iron shoes built into the masonry of the abutments and piers. These main girders were probably the longest girders ever cast and unfortunately, due to a flaw in the massive casting, one girder fractured under the load of a train on May 24th 1847, and four people were killed and a number injured. Afterwards the whole superstructure was rebuilt and wrought-iron lattice main girders with a plated floor were substituted.

CITY ROAD.

Thereafter the Shrewsbury and Chester Company paid a wayleave for trains running over the Chester and Holyhead Railway from Saltney to Chester, and the Chester and Holyhead Railway Company paid a tonnage toll for every ton of goods passing over the Roodee Viaduct to the Grosvenor Bridge Trustees, who had a right to charge toll for goods passing over the River Dee. In a short time the Railway Companies constructed at their own cost the 60-foot wide "City-road," through the fields all the way from the Station forecourt to the Tarvin turnpike, including a bridge over the canal, and in the meantime, the rights to the Grosvenor Bridge tolls were acquired by Chester Corporation. An arrangement was then made whereby the Railway Companies were relieved of payment of the Roodee Viaduct tonnage toll and whereby the Corporation acquired the Railway Companies private City-road, which was transferred to the Corporation for the use of the public.

TOOK PENNANT SIX DAYS.

One hundred years ago the railway journey between Chester and London took five hours as compared with the former mode of road travel by stage coach as described by Pennant, who said he got from Chester to Whitchurch on the first day, the "Welsh Harp" on the second, the third to Coventry, the fourth to Northampton, the fifth to Dunstable, and by a wondrous effort to London on the sixth day. Between Chester and Mold Junction an up and a down line were originally made, but in 1903 an additional line for traffic in both directions was provided."

[Editor's note: I wouldn't completely agree with everything stated in this article, but it does add extra information].

(To be continued ...)

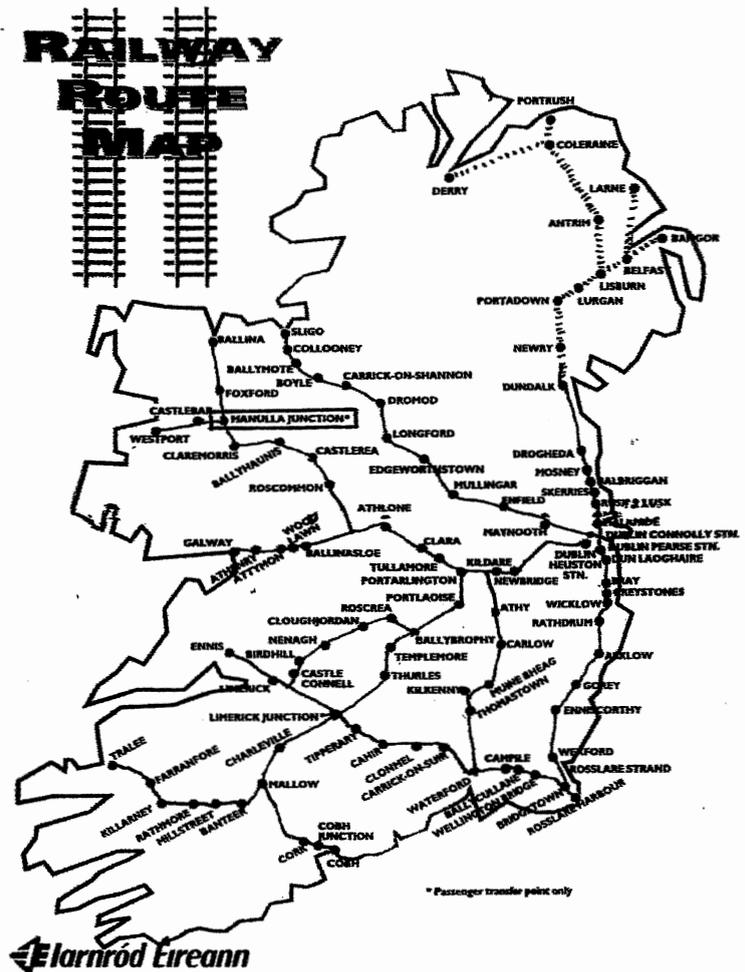
Manulla Junction is on the line from Dublin to Westport where a track to Ballina branches off to the north, in the north-west of the Republic. To some extent this is very similar to places in the U.K. like Dovey junction—not serving any local community, but acting purely as an interchange for passengers. This short article first appeared anonymously in "Irish Railfans' News", vol.6 no.3, July 1960. It describes possibly the second-best known Junction (after Limerick Junction) in Ireland. Like the much larger Limerick Junction, it is an interchange—there are few dwellings or commercial establishments in the vicinity. The Editor stayed in Ballina several times during the 1990s, but the time available for photography when changing trains at the Junction was very restricted, and by the time of the first visit the original layout had been much changed: the station building had been replaced by a Portakabin, and the footbridge, water tank, signal cabin and turntable all demolished.

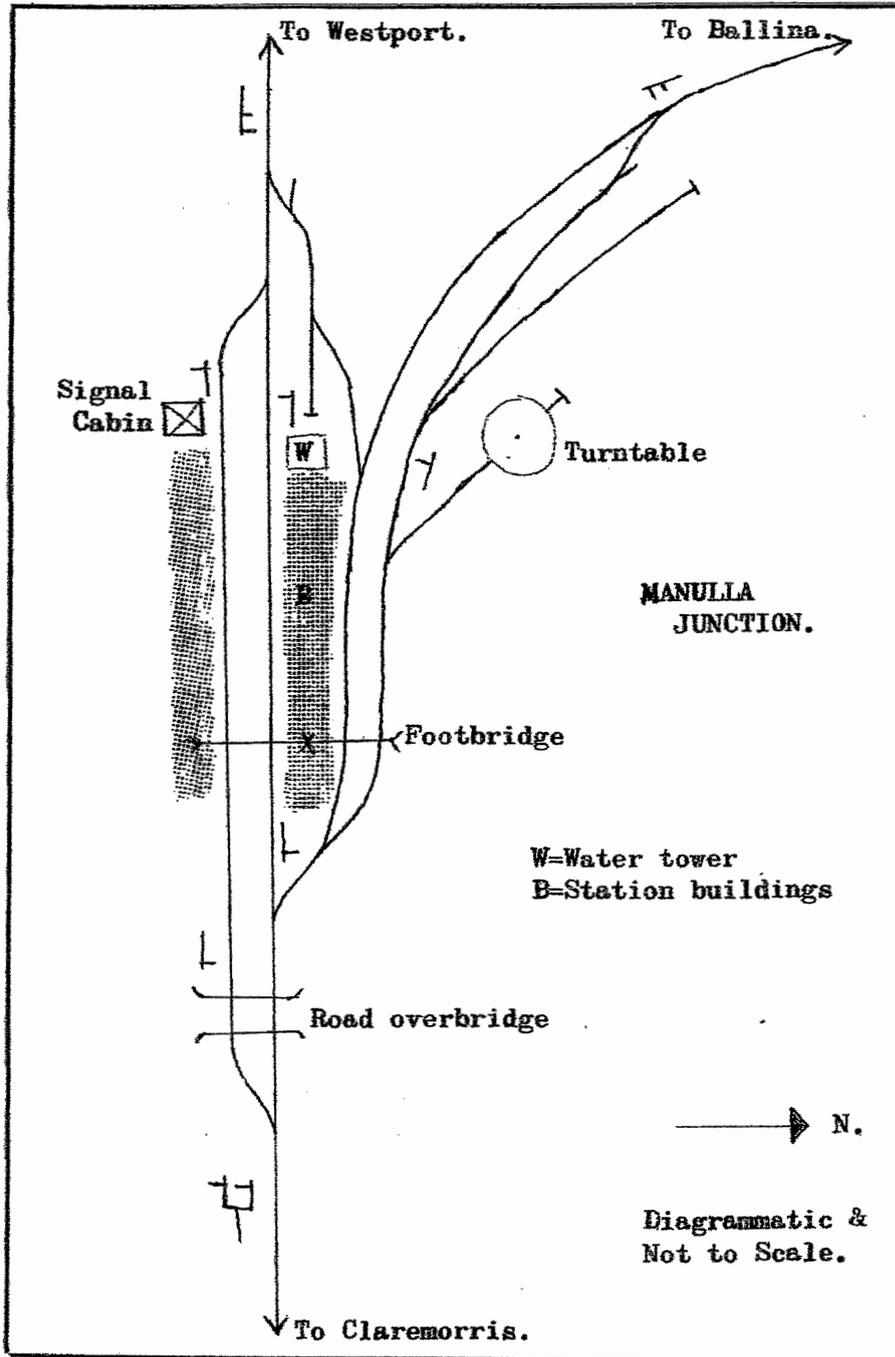
MANULLA JUNCTION - 1960.

Although the Ballina line is technically the branch, both lines beyond Manulla Junction are of almost equal importance. The Athlone–Westport line was opened in stages in the 1860s and reached Castlebar from Claremorris on 17th December 1862. It was not, however until the first section of the Ballina branch to Foxford was opened in 1870 that Manulla Junction came into being. In 1873 the branch was extended from Foxford to Ballina and ultimately thence to Killala on January 2nd 1893. The Ballina–Killala section was closed to passenger traffic on and from 1st October 1931 and to goods since 2nd July 1934. It has since been lifted although for most of its course it is still easily discernible. The remainder of the branch not only remains, but flourishes.

The junction at Manulla is quite compact with a platform on either side of the main line loop. The branch trains are accommodated at the back of the up island platform where a run round loop is provided. The passenger-entrance to the station is by means of a footbridge which spans the station at its Eastern end. But little traffic originates at Manulla; interchange of passengers and parcels is its primary function. The station buildings are on the up platform and at the West end of this platform is a water column while opposite, at the end of the down platform, is the 29 lever signal cabin.

Manulla has no less than 13 passenger train arrivals and a similar number of departures every weekday as Ballina branch connections are made with all Westport line trains except the down Night Mail. The branch requires two locos – since May 1957 invariably C class diesels – to maintain its service and those are interworked with the two goods trains, one of which at 18.45 ex Ballina (Mondays – Fridays) runs through to Claremorris without stopping at Manulla. This train also passes through Manulla in the reverse direction but, in addition, the 08.45 from the junction to Ballina is mixed. Manulla is a traditional crossing place of main line trains as thus the one branch train serves passengers from both Westport and Claremorris directions. This convocation of trains occurs twice daily, between 13.48 and 14.10 and again between 18.46 and 19.20. At the first of these gatherings it is usual for a Ballina van to be detached from the down





train and the shunting of this is facilitated by the link between the Westport and Ballina lines at the West end of the island platform. Although the junction possesses a turntable, there is no loco. depot as, in common with almost all ex M.G.W.R. branches, working commences at the terminus - in this case at either Ballina or Westport.

Irish Rail no.182 with a short train of Cravens coaches (1541TL, 1540TL, 3183TLA) at Manulla Junction after arrival from Ballina on 13 May 1997. The passengers await the arrival of the Westport to Dublin train. The sparse facilities for passengers date from a re-building in the 1980s.



Contents: (No.24, September 2010)

Next issue; Cover illustration	2
Forthcoming events	2/3
Book review by Dave Greenly: <i>Great Western way</i>	3
Letters to the Editor (Bays, Davies, Robinson, York)	4/6
“Northgate reflections, pt. 3” by Eric Gent	7/9
Max Dunn’s tips for locomotive shed managers	9/11
Chester United Gas Company wagon no.24	11
Birkenhead Festival of Transport	12
“Accidents ...”	12
“Cheshire Lines accident, 1937”	13/23
Chester RDC <i>Official guide</i> , 1963, extract	23
“Castles, Kings and The Great Bear” by Syd Wainwright	24/25
Editor’s page	25/27
Chatham exhibition	27/28
Mouldsworth capstan	28
“Dee Bridge accident, part 6”	29/33
“Manulla Junction -1960”	34/36