

PLATFORM 14



THE JOURNAL
OF THE
**Lancashire & Yorkshire
Railway Society**

Platform 14 is the Summer 1984 edition of the Lancashire & Yorkshire Railway Society Journal which is published three times a year with the occasional booklet about L. & Y. Branchlines. A regular newsletter is also produced and monthly meetings are held at members' homes. For further details, please contact the Honorary Secretary: Mr T. Wray, 17 Chale Drive, Middleton, Manchester.

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COVER PHOTO

From the end of the platform at Liverpool Exchange station could be seen the electrically powered turntable. Most engines using the station turned on it and there were pits nearby for the ashpans to be raked out. It was common for a selection of the Aspinall and Barton Wright designs to be posed in this location and many such photographs are available. This view is one of several by S. G. Joscelyne that recently became available although his name is new to me. The leading question is what else did he take as the Liverpool views are of consistent good quality?

This view was taken on the 9th of April 1912, at 10-30 in the morning. The loco is an Aspinall 6 ft 4-4-0 which was a development of Barton Wright's earlier design. The far engine is a 2-4-2T No. 1338 which arrived earlier on a stopping train from central Lancashire. Both are resplendent in the clean and polished appearance of engines before the start of the Great War. The turntable had a cable stretched around the pulley on the frame above the tracks, from which the electric current was collected but the wire is too thin to show on this exposure. In the background is the first of two large signal boxes that controlled the area of the station. Compare this view with the one on page 24 to appreciate the complexity of the trackwork at this very busy terminal station.

B.C.L.

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Photo courtesy N.R.M. No. F496

Memories of the L. & Y.R. at Preston

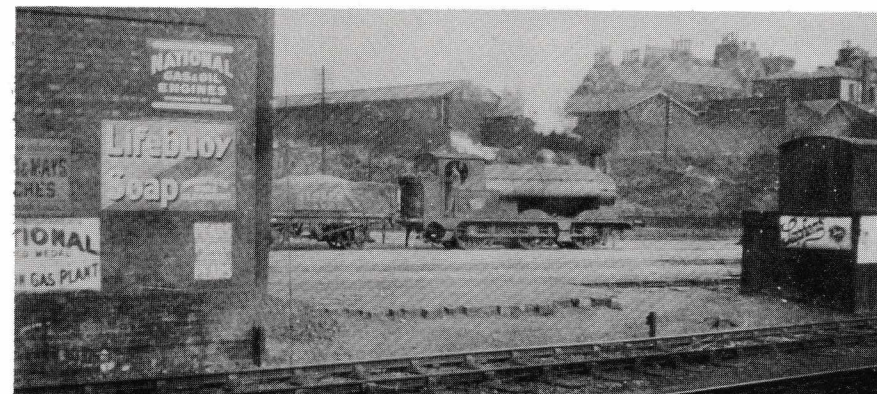
GEOFF PEMBER

When in 1919 my father obtained a post in India my mother took my sister and me to live temporarily with her brother in Preston. My uncle was the Secretary of the Royal Lancashire Agricultural Society and his residence was in the same building as the Society's office in Winckley Square. At that time the working agreement between the L. & Y.R. and the L. & N.W.R., which preceded Grouping, had not come into force, so that Preston station was worked in two distinct parts, with separate entrances and staffs, although the platforms were numbered consecutively and joined by both a footbridge and a subway. The L. & N.W. side of the station was always known as the North Union after the railway opened between Wigan and Preston in 1838, while the other was known as the East Lancashire Side. These names survived Grouping and a B.R. Working Timetable in 1954 still showed them separately as Preston N.U. and Preston E.L.S. There was some overlapping as the L. & Y. trains between Manchester and Blackpool used Platforms 1 and 2 on the N.U. side. Those not stopping would run through on the lines beyond Platform 1, outside the frosted glass wind-screens which were a prominent feature of the larger L. & N.W. stations in those days. On the L. & Y. side there was a large notice pointing towards Platforms 9 and 10 and the East Lancashire bays. To a schoolboy who knew that the Irish Sea was on the West Coast this was rather a puzzle until it was realised that a railway bay contains no water and can be situated at any inland station!

In September I started attending Hutton Grammar School and travelled daily on the Southport line to Hutton and Howick—later renamed New Longton and Hutton—which was the nearest station to the school. Buses were unknown and the trams went no further than the River Ribble at the bottom of Fishergate Hill. Our motive power was always an Aspinall 2-4-2T, those with extended smokeboxes creating the impression of greater power than the others. They always worked chimney first and I cannot recall ever seeing one hauling a train, either then or in later days, bunker first. The only turntable at Preston was at the L. & N.W. shed, on the West side of the line North of the station, and very inconveniently situated for the Southport and E. Lancashire engines, even if they had been given permission to use it. But that did not matter as there was the Whitehouse triangle just beyond the bridge over the Ribble and I often saw engines being turned on it. Unlike the G.E.R. "Jazz" service, with which I became familiar in later years, there was plenty of time between trains for this to be done. Two sides of the triangle were the diverging Southport and East Lancashire branches, while the third side which connected them allowed through running without a reversal at Preston. Apart from summer specials taking holiday-makers to and from the seaside there were not many through trains but they ran as semi-fast, passing some of the stations on the Southport line while the local service from Preston was an all-stations affair. The three-coach non-corridor sets on the Southport line comprised a 1st/3rd compo sandwiched between two brake thirds; they were often strengthened by an all-third at the Southport end. This was favoured by my friends and I as the last compartment was nearly always empty on the train coming home and we could hang out of the window and enjoy the sensation of speed as the track seemed to move away from us.

From where I lived in Winckley Square there was a short-cut to the station which could be reached by going down East Cliff, a road which ended at the prestigious Park Hotel, owned by the L. & N.W.R. The hotel was so-called because it overlooked Miller and Avenham Parks, side-by-side on the banks of the Ribble and separated by the embankment of the L. & Y. carrying the Southport and East Lancashire trains. From outside the hotel a covered way led directly to the main platforms 5 and 6 and it was intended, of course, for L. & N.W. passengers staying at the hotel. At the foot of the steps leading down to the platforms was a small ticket collector's office. The man there could only issue tickets to North Western stations, the more popular destinations having ready-printed ones while others had to be hand-written. I found this out the hard way as when I first tried to book a "Half Return to Hutton" I was told in no uncertain terms that I couldn't book to L. & Y. stations from there, although the Southport trains were literally only a stone's throw from where we were standing. I had to go all the way back and try again at the E.L.S. entrance in Butler Street, more than half-a-mile away. Nor could I use the short-cut on my way home as by no stretch of imagination could a small schoolboy with a satchel on his back be accepted by the ticket collector as having booked a room at the Park Hotel! Incidentally, the third class fare in those days was a penny a mile, so my ticket for the three miles each way was three pence, or slightly more than 1p. in today's currency. I occasionally used the covered way for train spotting, as although its windows had frosted glass there were usually some with holes through which one could get a good view of the platforms.

On the way to the Park Hotel, East Cliff went over a bridge and from this one could get an excellent view of the L. & Y. goods yard and sheds. It was a scene of



almost constant movement and noise as the 0-6-0 saddle tank shunted to and fro, with much banging of buffers. The scene was repeated on the other side of the station where from a park bench just below the hotel and on a level with the track I could watch a North-Western saddle tank doing a similar job and see main line trains rumbling over the Ribble bridge. I still have the diary in which I recorded the names of the engines.

In the summer of 1920 the Agricultural Society held its first post-War Show. As it had no permanent Show Ground a field was rented on the outskirts of a different large town each year, and preferably near a railway station. That year a site was found near Bolton, just off the main road to Horwich, and close to Lostock Junction station. At the East end of this, not far from the water troughs, the L. & Y. built a temporary station. Before and after the Show the platforms were used for conveying and taking away materials, implements and livestock, while during the Show they were used for special trains taking visitors to the Show Ground. Road traffic on the present-day scale was unknown. Steam traction engines were used to haul the heavier items, like threshing machines, to the Ground, while the rest was horse-drawn, so the L. & Y. had a virtual monopoly of the traffic.

When the Show Ground was being prepared it was the school summer holidays so my uncle used to send me there with messages for the staff as I could travel at half-price. I went by train to Bolton Trinity Street and thence by tram along the road to Horwich. My usual train was from Blackpool to Manchester, leaving Preston at 9.01 and due at Bolton at 9.31. Although not so prestigious as the Blackpool Club train, which didn't stop at Preston, it had some fine centre-corridor stock, with tables round which were seated business men on their way to Manchester playing Auction Bridge or Solo Whist and I used to get some rather supercilious looks from them. They weren't used to seeing a lone schoolboy travelling in such august company at that time of day. The motive power was, of course, very exciting. This was no job for a tank engine and a rebuilt 4-4-0, with its extended smokebox and large driving wheels giving an impression of power and speed, was usually rostered. But on one or two occasions we had an Atlantic and this was a thrill indeed as it came into Preston, towering above me on the platform and looking every inch the express engine. On my way home I used to get a slow train at Lostock Junction and this was always a 2-4-2T job.

On one occasion I had to wait some time for the next train so I went up to a place where I could see the track at the approach to the station. Soon I heard a train approaching and into view came an Atlantic with a Manchester express. Its speed down the 1 in 622 must have been nearer 70 than 60 miles an hour, and as it went past I got its number, 1407. I had never seen an engine move so fast before and to me it was a "Highflier" indeed.

Aspinall's were fine engines, and built to last. Years later, in 1944, when I went to live in Preston again I was able to photograph his 2-4-2Ts still working the trains to Southport and still running chimney first.

From the Minute Book 25th July 1900:

Mr Aspinall reported that owing to the action of the Midland Railway, G.C.R. and G.E.R. companies, he had agreed to increase the free allowance of passengers' luggage to 150 lbs. 1st class, 120 lbs. 2nd class and 100 lbs. 3rd class. The L. & N.W.R. Co. strongly objected to the increase in the allowance but they had been forced to adopt the same scale. The subject had been before the Railway Clearing House in consequence of the L. & N.W.R. complaining that the Midland Co. had agreed to the weights without the sanction of the Clearing House according to regulations and the North Western Co. had intimated that they would not allow any of their officers to attend the R.C.H. meetings in the future and the G.W.R. had taken the same action.

At a meeting of the Clearing House held on the 24th instant at which the subject had been discussed and the irregular action of the Midland Co. pointed out to them, it had been agreed to request the North Western and Great Western Cos. to reconsider their decisions.

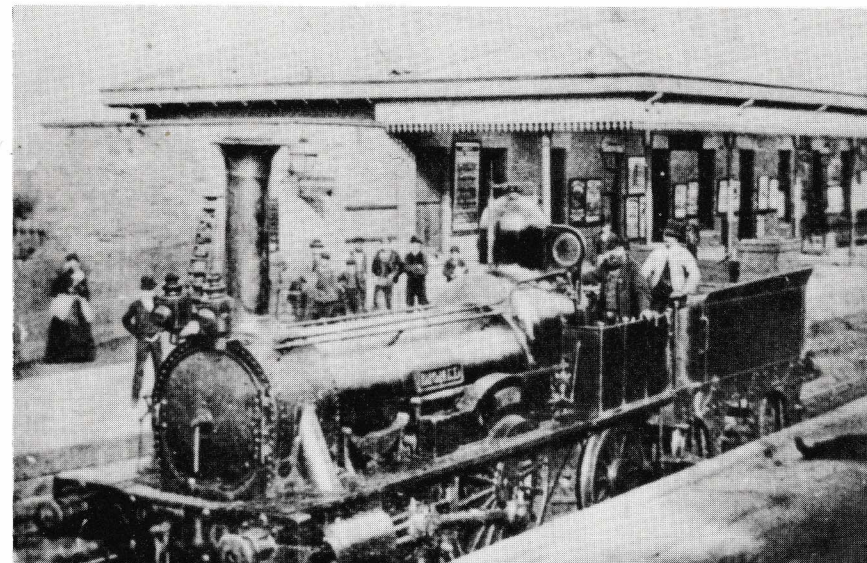
Platform 13 Cover

B. C. LANE

My caption to the cover photograph of the last journal, Platform 13 proved to be incorrect and yet was written after extracting dates and details from other published sources which must also be incorrect.

The main bone of contention is that the loco is supposed to be at Burnley (Manchester Road) station before 1853. As Manchester Road station only opened in 1867, the dates are a little 'out' to say the least! I mentioned in the caption that another photograph exists showing the very same scene but with another loco. This photograph is reproduced here that everyone might compare them together. Notice that the posters and signs are identical on both which suggests that the views were taken at the same period and indeed, it has been said that they were taken on the opening day of the station.

'Diomed' in the picture printed here is actually the second 'Diomed'. It was a Hawkshaw single which was exchanged in 1862 for the E.L.R. Sharp engine of that name, which became L.Y.R. No.90. The 2-2-2 thus carried the name and number previously carried by the E.L.R. engine and could well have been around Burnley in 1867. Incidentally, the first 'Diomed' was not rebuilt as a 2-4-0 tank loco as stated in my caption. Only No.1 'Medusa' was rebuilt in that way and a request to Walkers to rebuild the others of which 'Diomed' was one, is believed to have not been carried out.



The various sources of information, Ahrons, Marshall, Rush and others do not always agree on facts and dates which makes the writing of accurate information somewhat difficult. I therefore leave the subject to you to form your own beliefs about engines in the 'dark old days'. It is notable that not one member contacted me to query the details I printed . . . so perhaps interest in the older times is not great amongst our members.

The locos illustrated are No.15 'Aeolus' on the last cover and No.10 'Diomed' on this page. Marshall shows the loco as being rebuilt to a 2-4-0 in 1866 but as we can date the view as 1867, Ahrons must be right in stating that it was rebuilt in 1868. I am indebted to R. W. Rush for helping me when I despaired of sorting out the tangle of dates which were obviously wrong in view of the station opening date.

LANCASHIRE & YORKSHIRE RY.

No. 179
CARTED LUGGAGE

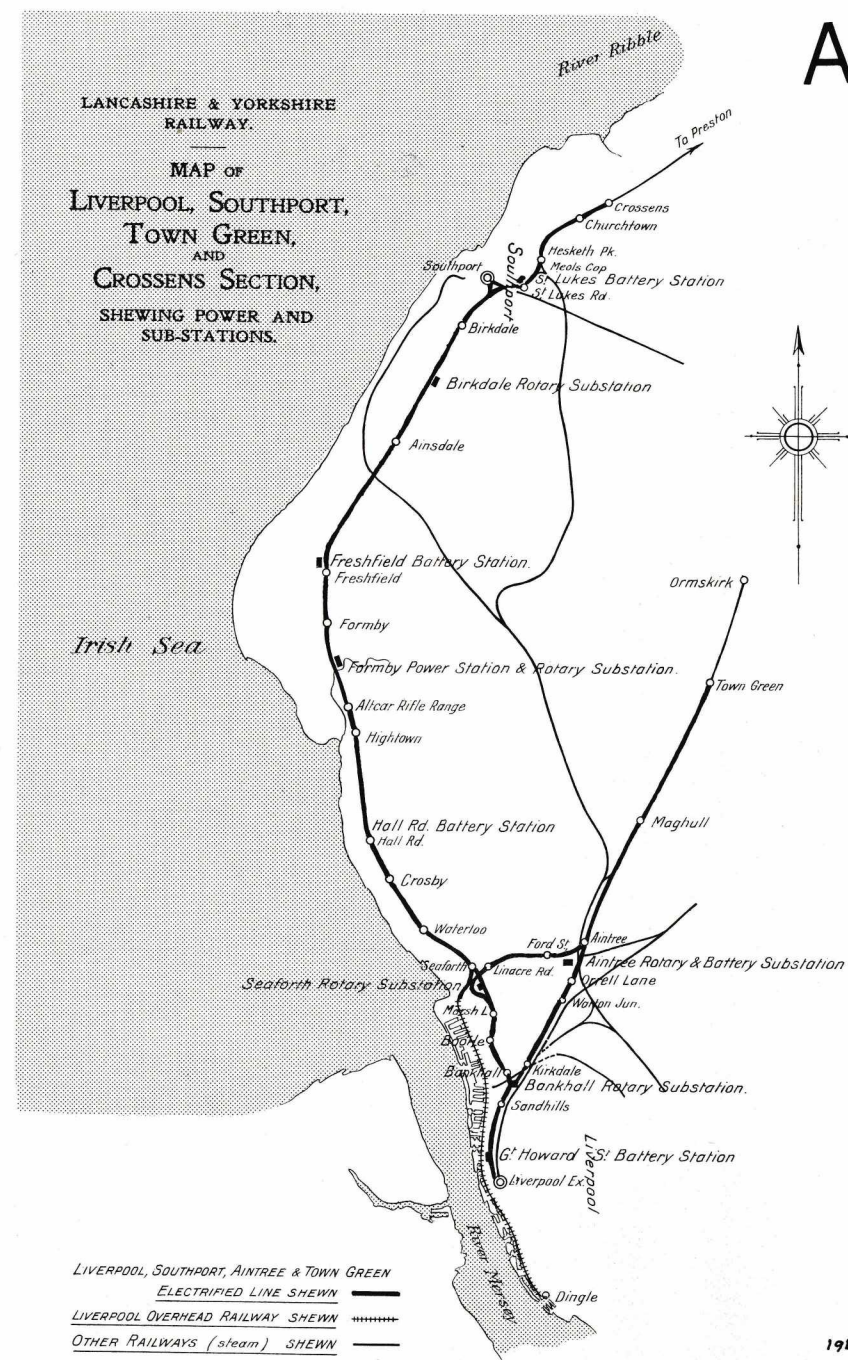
(This portion to be given to the Passenger.)

The following article is adapted from a booklet published by the L. & Y. Rly. Co. in March 1911. The Liverpool to Southport electrification made history as the first main line to be converted from steam power. An average of 20 trains in service were soon running no less than 4,900 miles per day and the success of this line led to later conversion of passenger services in the Manchester district. We are indebted to PETER GIBB for providing the booklet for publication in our journal.



THAT portion of the Lancashire & Yorkshire Railway which had converted from steam to electric traction was about 37 miles in length and consisted of the main line between Liverpool and Southport, an extension in the direction of Preston to a suburb of Southport, called Crossens, and to Town Green Station, near Ormskirk, via Walton Junction and Marsh Lane. There was an addition, a connection with the Liverpool Overhead Line at Seaforth.

IN 1903 the traffic between Liverpool and Southport was of such a magnitude that it was imperative either to increase the platform accommodation at the terminal stations, or to adopt some easier method of working the trains in and out of these stations. It was also desirable to provide an accelerated service between Liverpool and the popular residential district that extends northwards from that town towards Southport. As an increase of terminal facilities meant the expenditure of a large sum of money on acquiring expensive land in the towns of Liverpool and Southport, and as a considerably accelerated steam service presented many difficulties, the Directors decided to adopt electric traction.



THE system decided upon was one that had been well tried elsewhere for heavy tramway and interurban services, but had never up till then been tried for heavy trains for main line work.

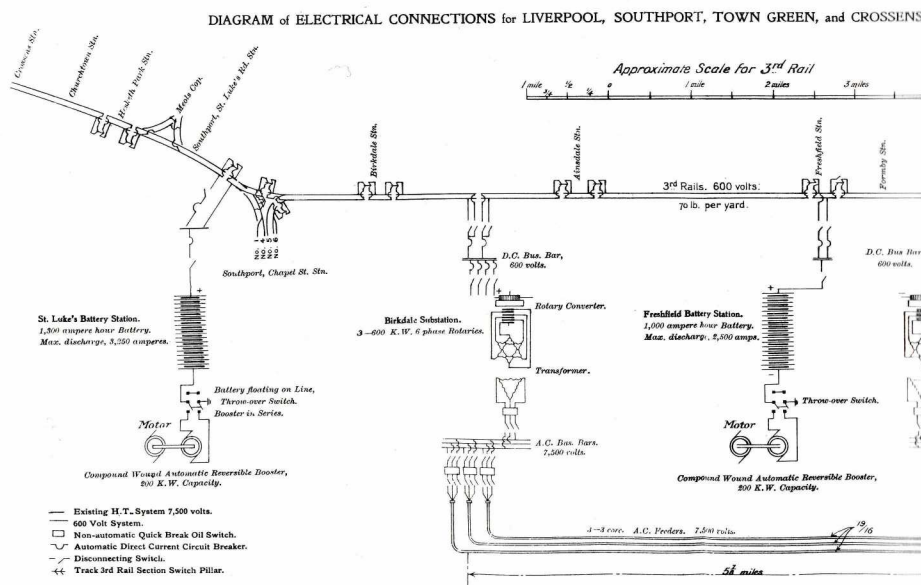
From the Diagram "B" it will be seen that electricity was generated at 7,500 volts A.C., three-phase, at a point midway between Liverpool and Southport, and delivered by underground and overhead cables to five sub-stations. In the sub-stations it was transformed and then converted by rotary converters to direct current at 620-630 volts, at which pressure it was fed to the trains by means of an insulated rail.



THE whole of the work in connection with the Contract for the Liverpool, Southport, and Crossens Line was let to Messrs. Dick, Kerr, & Co., Ltd., of London, Preston, and Kilmarnock, with the exception of the construction of the rolling stock, which was built at the Railway Company's own works at Horwich and Newton Heath.

The work of conversion from steam to electric traction was commenced in April, 1903. The first electric train ran its trials in December, 1903, the line being formally opened for electric traffic in March, 1904, and the full service of electric trains was introduced in October, 1904.

The electric service put into operation in October, 1904, gave a largely increased accommodation, as will be seen from the following table.



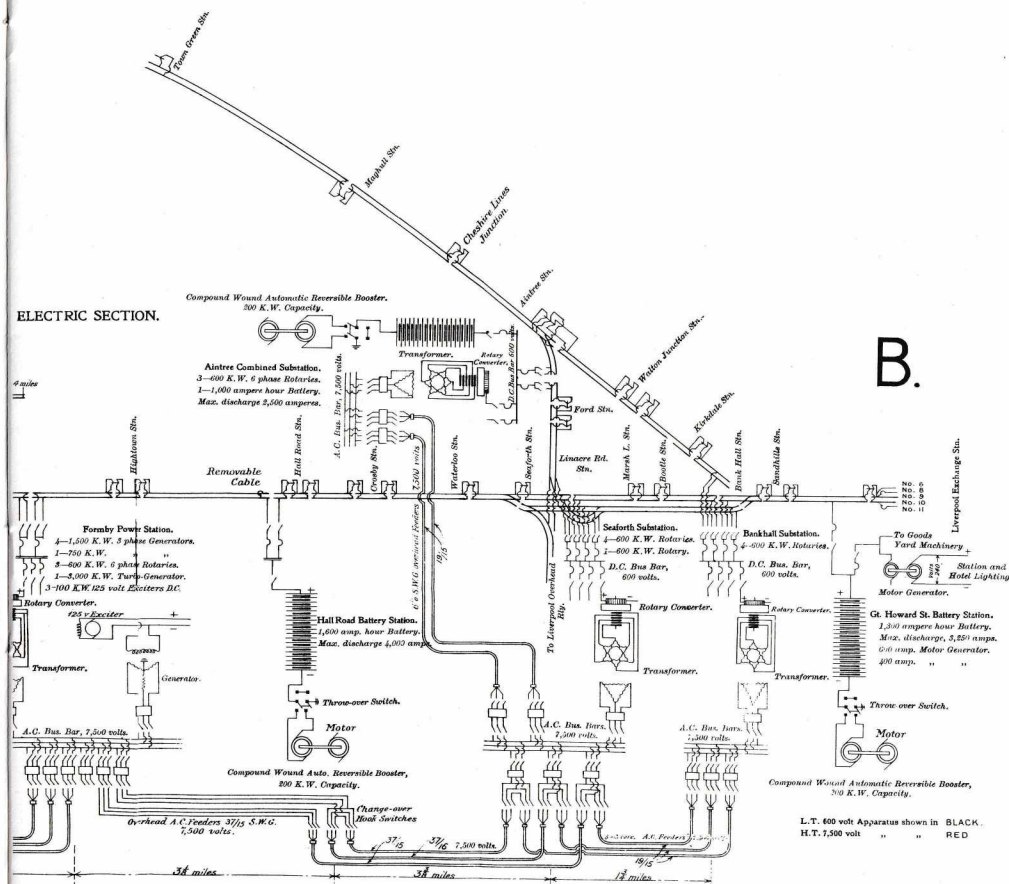
DURING 1905 the standard four-car trains were increased to five-car trains at the rush hours of the day, and a number of additional trains were introduced. In July, 1905, a connection was made with the Liverpool Overhead Railway, and in January, 1906, a through service of trains between Dingle on the Liverpool Overhead Railway, and Southport, was instituted.

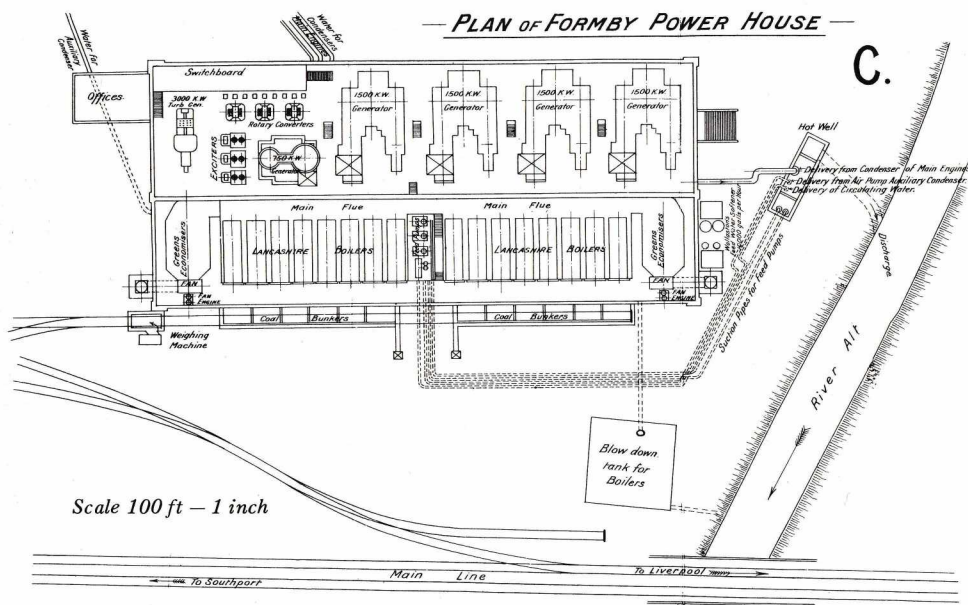
In the autumn of 1905 four large battery stations were installed (see Diagram "B," also map in Diagram "A") for the purpose of giving an improved load factor at the Generating Station, an improved and steadier voltage at the trains, an increase in the number of spare engines at the Generating Station, and a stand-by in case of partial failure of the supply of current.

In 1906 the lines to Aintree via Seaforth and via Kirkdale were electrified, and also a second pair of lines between Sandhills and Seaforth.

To meet these extensions, a combined rotary converter and battery sub-station was constructed at Aintree.

In October, 1909, the electric lines were extended from Aintree to Maghull, and in March, 1911, from Maghull to Town Green, near Ormskirk.





FORMBY Power Station (see Diagram "C") was situated about half-way between Liverpool and Southport, close to the River Alt, thus ensuring a cheap and abundant supply of water for condensing purposes. Coal brought from the Collieries about 20 miles away was delivered by gravity from hopper wagons on to a bucket conveyer, by which it was delivered to overhead bunkers. From the bunkers, which held about 130 tons, the coal was fed into the boilers by mechanical stokers. The bucket conveyer was also used for the disposal of ashes.

The boiler room was 280 feet long, and 56 feet wide, and contained 16 Lancashire boilers, each boiler 32 ft. 6 in. long, 8 ft. 6 in. diameter, and 1,200 square feet heating surface, normal evaporation 12,000 lbs. per hour.

The products of combustion on leaving each boiler passed through a superheater of 35 tubes. The draught was induced by two fans (114 inches in diameter), one placed at each end of the main flue. The products of combustion on their way to each fan also passed through "Green's" economisers, one being placed at each end of the flue—each economiser consisting of 720 tubes, 9 ft long.

Steam was generated at a pressure of 160 lbs. per square inch.

ENGINE ROOM

The Engine Room contained:— Four 1,500 K.W. three-phase 7,500 volt, 25 cycle Generators, driven by horizontal compound engines.

One 750 K.W. Generator, driven by a vertical compound engine.

A 4,000 K.W. Turbo Alternator, 750 R.P.M. reaction type.

Three 100 K.W. 125-volt D.C. Generators, driven by Willans' single-acting compound vertical engines for exciting the main generators, and for light and power in the Generating Station.

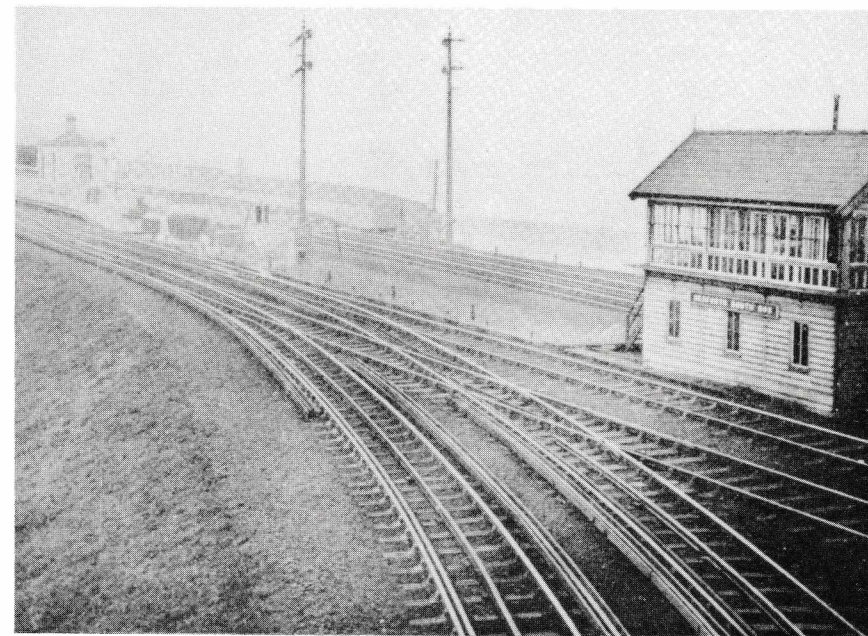
IN the north-east corner of the engine room was the Formby Sub-station and the main Switchboard. The high pressure alternating current was controlled by oil switches, operated by hand. There were no overload or reverse current relays, the switchboard operator opening the circuit, should any fault occur, but overload relays without time limit were fitted to the feeders to the sub-stations.

From the switchboard the current at 7,500 volts was distributed to five sub-stations equipped with air-cooled transformers and rotary converters.

From the sub-stations the third rail was fed through short connecting cables, with current at 620-630 volts. On each of these cables an automatic circuit breaker was fixed (see Diagram "B").

THE Third Rail weighed 70 lbs. per yard, had a conductivity equal to one square inch of copper, and was supported at intervals of about 16 feet on porcelain insulators.

The current returning from the motors passed through the train wheels into the running rails which were not bonded together, but were each cross-bonded to a fourth rail or return conductor weighing 70 lbs. per yard which was laid between the running rails. On the later extensions the fourth rail was dispensed with, and the running rails were bonded at the joints.



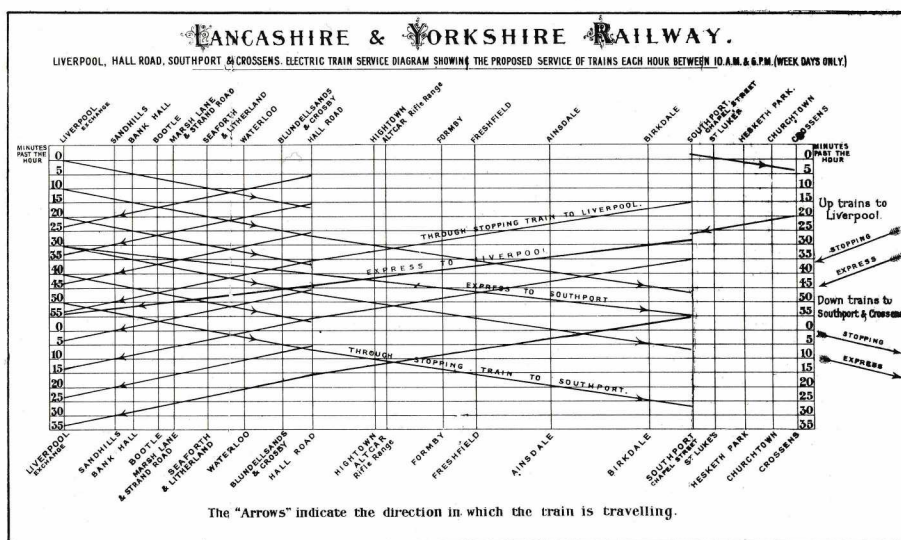
The junction at Seaforth South Box soon after installation of the electrified rails. The wooden shielding of the live outside rail is clearly seen. It should be noticed that while the nearby track has the live contact rail overlapping each other at the approach to the pointwork, there is a long gap between the live rail on the other line.

TABLE SHOWING COMPARISON BETWEEN STEAM
AND ELECTRIC SERVICE.

Class of Train.	From	To	Distance between Terminal Stations Miles	No. of Stops	Average distance between Stations Miles	STEAM			ELECTRIC		
						No. of Trains daily	Average frequency of service per hour	Schedule speed per hour Miles	No. of Trains daily	Average frequency of service per hour	Schedule speed per hour Miles
Stopping..	Liverpool...	Hall Road...	7 $\frac{1}{8}$	8	'89	38	4	17'0	58	6	25'0
" "	Hall Road...	Liverpool ...	7 $\frac{1}{8}$	8	'89	38	4	17'0	56	6	25'0
" "	Liverpool ...	Southport...	18 $\frac{1}{2}$	14	1'32	34	2	20'0	50	3	30'0
" "	Southport...	Liverpool ...	18 $\frac{1}{2}$	14	1'32	34	2	20'0	50	3	30'0
Express..	Liverpool ...	Southport...	18 $\frac{1}{2}$	1 stop outside Southport		4	3	44'5	10	1	44'5
" "	Southport...	Liverpool ...	18 $\frac{1}{2}$			4	3	44'5	12	1	44'5
Stopping..	Liverpool ...	Aintree	5	5	1'0	...	...	...	58	3	23'0
" "	Aintree	Liverpool ...	5	5	1'0	...	...	...	58	3	23'0
" "	Aintree	Town Green	5 $\frac{1}{4}$	2	2'625	...	...	...	17	1	35'0
" "	Town Green	Aintree	5 $\frac{1}{4}$	2	2'625	...	...	...	17	1	35'0

THE Rolling Stock consisted of 38 standard motor cars, 2 baggage cars, 12 multiple unit motor cars of smaller type, 59 trailer cars, and 12 multiple unit cars of the standard type.

THE trains, normally were composed of 3, 4, 5 cars, with 2 motor cars in each case to suit the traffic requirements.



LIVERPOOL, SOUTHPORT,
TOWN GREEN, & CROSSENS
ELECTRIC SECTION.

Great Howard Street Goods

8th August 1913

CENTRE PAGE PHOTOGRAPH COURTESY OF LIVERPOOL PUBLIC LIBRARIES

NEG.No.12H/3

Great Howard Street Goods yard was close to Exchange station. The elevated signal box on the main line in the background can just be seen in the distance on the illustration on page 24. Great Howard Street ran in a northward direction, like the railway and soon passed by the other large goods yard owned by the Lancashire & Yorkshire Railway, known as North Docks goods yard and featured in the centre pages of 'Platform Two'. The extensive dock land and waterfront is out of view to the left of this photograph.

From Sandhills, the main line followed a raised path to Exchange. The goods yards were all at the lower level, necessitating some steep but short gradients to join the two.

The photograph shows a mass of Diag.3 Covered Goods Vans with over twenty of them visible in this view. There are quite as many Diag.1 Low Goods Wagons too, many of them still loaded but with others empty except for the folded tarpaulin wagon sheets. There are a couple of the larger 21'6" half-box wagons (diagrams indeterminate) and a fraction of a Diag.72 Fish Van while the curved siding by the loading platform has a Diag.15 Dropside and Diag.12 'Pitch' wagon but not one wagon has an identifiable number. The greatest value to the historian is the predominance of certain types in a goods yard in 1913. There are few vehicles from other companies. One of these is the high-roofed van to the right of centre, which appears to have either dual brake piping or steam heating and vacuum pipes. On the inclined line, a L.&N.W.R. wagon is easily identified with its clean wagon sheet. Pride of place must go to the Diag.4 High-sided Open Wagon with rounded ends in the middle of the rake on the incline. In the centre foreground, is a heavily chalked 5-plank wagon that could be mistaken for a private owner but is in fact an L.&Y. type.

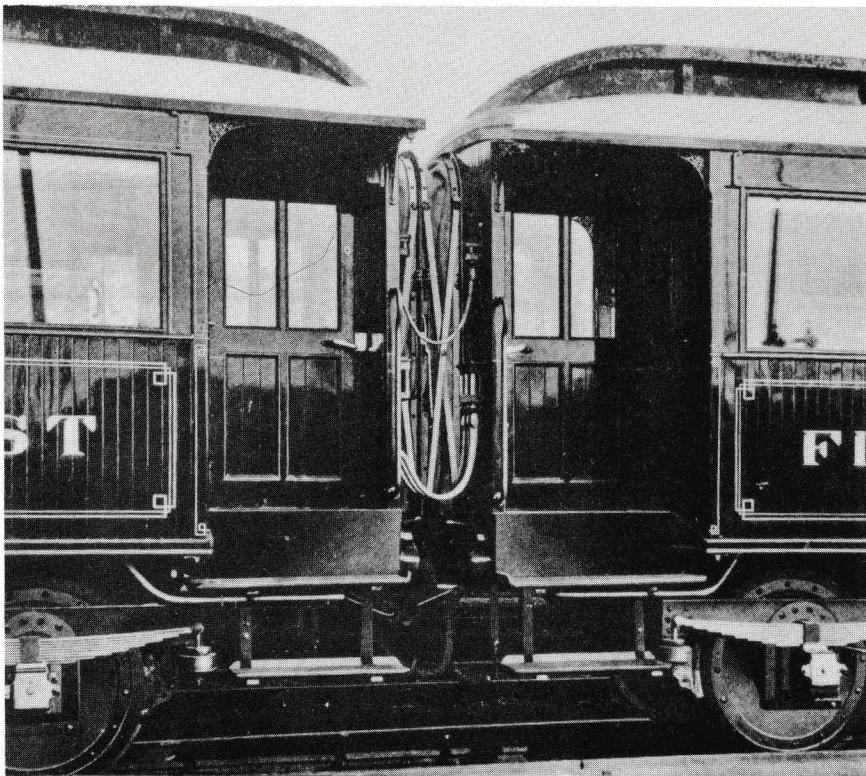
For the modeller, there is a great deal to be taken in; the loading of the wagons, variable with the varying loads; the organisation of a goods yard having stock at right angles to the main sidings; wagon turntables, capstans, lamps, bothies and the placing of the yard cranes. There is a steam crane too that has a track to itself, nearly, but the line of vans are blocking its passage. Notice too the coal platform for the crane, with the nearby gas lamp conveniently placed for working after dark. The most surprising thing is how much produce from the wagons is stacked in the open with sheets to cover it from the rain. Finally, there is the general appearance of the wagon stock, most of it appearing somewhat timeworn. The greatest bonus though is that this view shows exactly how the roof rollbacks and their attendant stripwood guard pieces were fitted to the vast majority of Diag.3 Covered Goods Wagons.

And there's not a Break Van in sight.

B. C. Lane and N. G. Coates.

A man has been convicted at the Liverpool Police Court in the penalty of 5 shillings and costs for travelling without payment of fare. He held a privilege ticket which had been transferred to him by an Engine Cleaner formerly in the service of the Company, who likewise was fined 5 shillings for aiding and abetting in the committing of the fraud.





Liverpool-Southport Electric Stock

K. D. WESTALL

In this article I hope to shed further light into the structural side of the original stock built at Horwich and Newton Heath for the opening of the newly-electrified Liverpool-Southport line in 1904. Several figures given in the article will conflict with those given in Marshall Vol.2 but the information is abstracted from a contemporary booklet jointly produced by the L.& Y.R. and Dick, Kerr & Co. Ltd.

The standard train consisted of 2 first and 2 third-class cars, the 3rd-class cars being at either end and equipped with two motor bogies, each bogie carrying two 150hp motors, giving eight motors per train. Empty weights were: 46-tons for a motor car and 26-tons for a trailer car, giving 144-tons for a standard four-coach set although the number of trailers could be varied—three-car, 118-tons; and five-car, 170-tons. Two baggage cars built for the line weighed 32-tons each, having only one motor bogie, and were used for dealing with luggage, goods, produce, fish, etc. that couldn't be handled during the 15-second station stops.

The motor cars and trailers were both 60 ft long and 10 ft wide, the widest stock in the country at the time of building, and had 8 ft wheelbase bogies at 40 ft-6 in centres on steel underframes. There was a monitor or clerestory roof, 6 ft-2 in wide, the full height above rail level being 12 ft-7 5/8 in. Vehicles were painted in the company's standard colours of 'brown and crimson lake'. (sic)

The motor cars were divided into two main compartments with a luggage and motor compartment, access being gained through entrance doors which were set back from the sides at either end so that the doors would not project beyond the 10 ft width when fully open. Immediately inside the compartment the seats were placed longitudinally against the sides of the car allowing ample space for the influx and efflux of passengers. In the rest of the compartment the seats were fitted in the normal crosswise manner. These seats had reversible backs and were placed two seats on either side of the passageway in the 1st class, giving a total of 66 seats per trailer, and three on one side with two on the other in the 3rd class giving a total of 69 seats per motor coach; a total of 270 seats per 4-coach train.

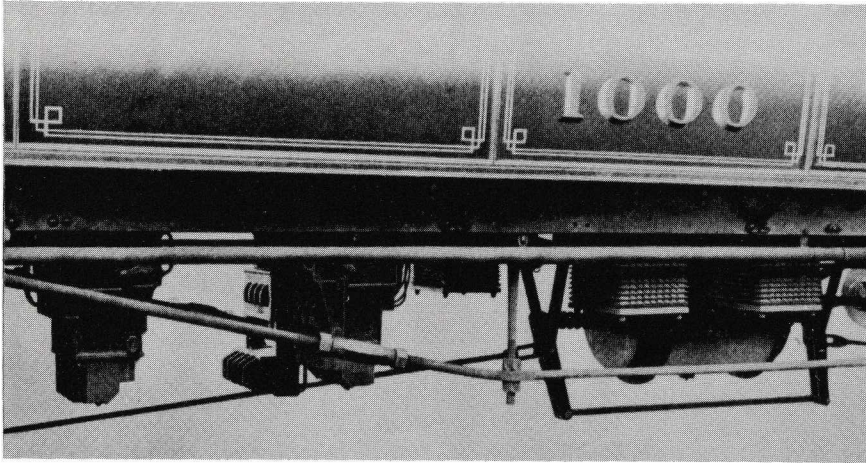
Large fixed side-lights gave passengers an excellent view, ventilation being provided through hinged lights in the clerestory roof and through extractors. All cars were vestibule gangway connected. The 3rd-class motor coaches were finished in polished wainscot oak, all seats being covered with rattan canework to match. Side-lights and general fittings were similar to those in the 1st class. At



Train No.3 at Seaforth & Litherland station on a through service to Southport. The L.& Y.R. initiated a wide loading gauge on this line which allowed up to 10 ft, the widest in the country. Narrow-bodied, lighter-weight carriages, without the monitor roof were built for the through service from this station on the Liverpool Overhead Railway system.

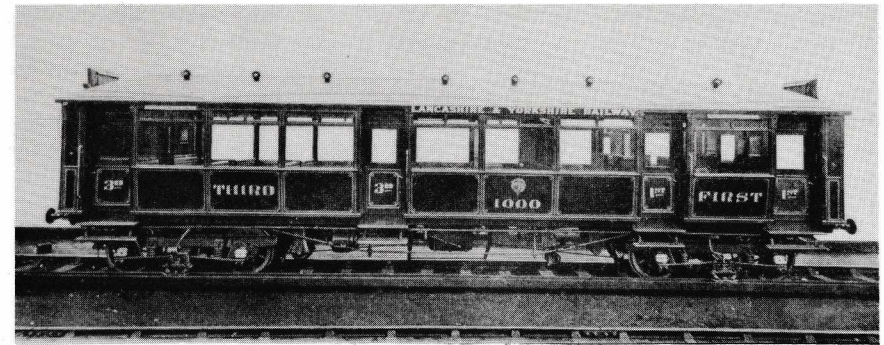
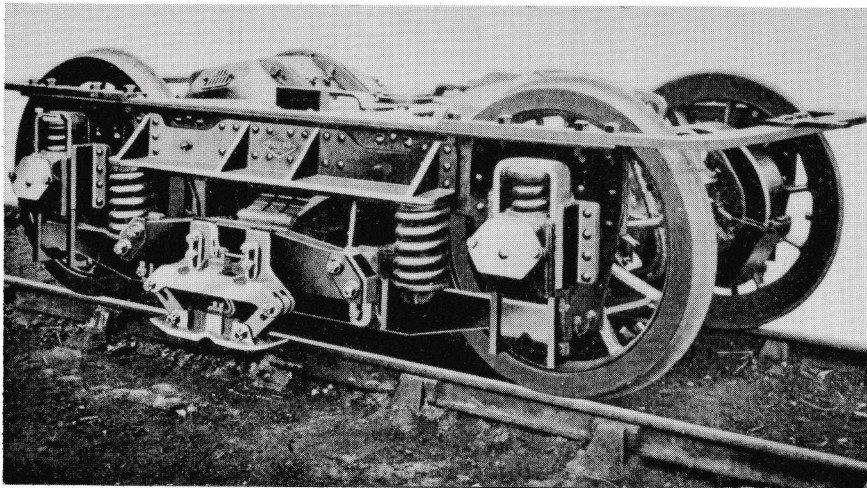
B. C. Lane collection

the driving end of the coach a baggage compartment was built for light luggage, an oak shutter on either side rolled up or down blind-fashion to facilitate speeding up of the guard's work. All cars were electrically lit and heated, the necessary switches were placed in the vestibules, the contactors and grid resistances being mounted under the coach floor.



These two photographs are of great interest because they show constructional and livery details that are not normally seen to advantage on other views. The carriage lining was unlike anything used before, other than on the ceiling of locomotive cabs. The gold numbers shaded in cream and red with black outlines had been used before on the 1904 dining car.

The bogie is a derivation of the normal 8 ft-type with transverse centre springs but with coil springs over the axleboxes. Only the driving bogies were of this design with spoked wheels and steel fabricated construction. The design was to achieve high strength and accessibility at the minimum weight.



Original 'lightweight' carriage No.1000, one of 12 cars supplied by Dick, Kerr of Preston in 1906 for through services over the L.O.R. and L.& Y.R.

Current was picked up by cast steel 'slippers', which weighed 64 lbs each when new, on each side of the motor bogies—four shoes on a 4-coach train collecting at any one time. The 625v d.c. was picked up from the third-rail with fourth-rail return between the running rails. From these slippers (which were suspended by forged, slotted links from a wooden beam carried on extensions off the bogies), a flexible cable carried the current to a fixed terminal from where the mains cables passed to the controller in the motorman's cab and then down to the motors; the cables were fitted in troughs which were lined with uralite, a fire-proof material, the whole of the floors over the motors being covered with uralite as well as thin steel plates. The whole of the motorman's compartment was lined with uralite except for the roof which was also covered in thin steel plate.

The motors, which drove onto the axles via a single 1.95:1 reduction gear, were of the Dick, Kerr 4-A railway type, rated to develop 150 bhp at an armature speed of 470 rpm. With one revolution of the armature giving a track speed of 0.0638 mph the train was capable of a theoretical 58.4727 mph at the motor rating. The weight of the complete motor was 6,050 lbs of which 1,920 lbs was the armature, and the gear wheels and housing 500 lbs.

The motor controller, which in itself was similar to the metallic shield tram-type, comprised of two power cylinders geared together and operated by one handle; one cylinder controlled the four motors of the leading car, the second cylinder controlled the four motors of the rear car. Each power cylinder of the controller was self-contained and fully enclosed so that if one power cylinder was disabled or disconnected it didn't affect the operation of the other cylinder. Alongside the main controller was a small reversing cylinder, the handle of which had three positions—'ahead', 'reverse', and 'off'. The train was electrically connected throughout its length by three cables, the controllers being connected in parallel with identical connections to each side of the controller, passing through a main switch and circuit-breaker to the controller notches. At the side of each controller was an ammeter so that the driver or motorman could see the current taken by both the front and rear coaches. As the two controllers were geared together, whatever happened on the controller for the front coach had its exact counterpart on the rear motors, the necessary current being carried

to various parts of the controller which, although inoperative, maintained permanent connection with the rear motors—this being effected by the reversing cylinder being set to its 'OFF' position, no contactors or reversers being used.

For driving the train the reversing handle was placed in the 'Ahead' position and on operating the power cylinder, current was supplied to all eight motors in the train. The reversing cylinder in the rear end of the train was left in the 'OFF' position and so connected the two sides of the controller together and fed to the rear motors. If it was necessary to reverse the train the reversing handle would be placed in 'REVERSE' but this disconnected the reverse coach motors, the backing of the train being done only by the front coach motors. On arrival at the terminus, the reversing cylinder handle was placed in the 'OFF' position, in which the handle was reversed, this operation therefore connected the motors so that when driving from the other end of the train all eight motors were connected.



Train No.11 (all stations to Southport) pauses at Formby. The trains drew up adjacent to the signs on the platform, 3rd class smoking/1st class smoking/1st class non-smoking/3rd class non-smoking. The train is however a three-car set of original design with motor cars weighing 45½-tons each.

J. B. Hodgson collection

A Foreman Ticket Collector, formerly in the employ of the Company at Sandhills Station has been sentenced at the Liverpool City Police Court to one month's imprisonment with hard labour for stealing collected tickets and disposing of them to the public for use a second time.

Two Painters, formerly employed in the Engineering Dept. at Liverpool have each been convicted at Liverpool in a penalty of 10 shillings and costs, the one for transferring a privilege ticket and the other for aiding and abetting, the person using the tickets being fined 15 shillings and costs; whilst four other painters who were cognisant of the irregularity have been dismissed from service.

Time Remembered

G. F. ATHERTON

As a very young traveller on the Ormskirk to Liverpool Exchange line going to school in 1919 from Aughton Park (locally known as "The Halt") to Town Green & Aughton, I was deposited in a 3rd-class coach of the L.& Y.R. Electric stock which served this growing commuter line from 1913 to 1927.

These 10ft-wide coaches with heavy end doors—not all that easy for a boy of six to open—were the open type with central gangway divided by a partition with a swing door into smoking and non-smoking sections. The seats, which had swing backs so one could "face the engine" if one wished, were covered in a woven basket-type of material known as rattan which, mercifully for a small boy in shorts, were far more comfortable than the horse hair upholstery on the seats of the Attock arc-roof thirds used on the steam trains from Preston via Ormskirk to Liverpool on which I occasionally travelled in subsequent years.

On the Ormskirk line the electric stock ran in 5-coach sets; a driving third, a trailer third, a first in the centre followed by another trailer third and a driving third. On the Southport line there were two first-class coaches in the centre indicating that a greater number of cotton barons, shipping magnates and leaders of commerce resided along the Lancashire coastal belt!

At Aughton Park I was always fascinated by the workings of Joseph Crook's Red Sand Quarry which was situated on the down side just beyond the Ormskirk end of the station and clearly visible from the up platform. This quarry closed many years ago, but in its hey day was served by the pick-up goods from Ormskirk about 11 a.m. each working day with the empties—some half dozen of Joseph Crook's own wagons, a model of which I still have, given to me when I



Even in 1925, the railway photographer was a part of the scene. At 4-33pm on 26th September 0-6-0 No.152 and 0-8-0 No.392 leave Aintree sorting sidings, past the coal platform of the loco shed, with an express goods to Healey Mills.

was nine. The loco rostered for this duty was an Aspinall 0-6-0 which I believe was at that time shedded at the small Ormskirk loco depot. In the afternoon this same loco would return and collect the half-dozen or so full wagons of red moulding sand which were set ready on the quarry siding.

At Town Green & Aughton the main interest was in the small goods yard used by the two coal merchants and the farmers of the area. I remember seeing many farm wagons in the yard loaded with cabbages, cauliflowers and potatoes awaiting transfer of their loads to railway wagons or vans.

By 1930, having left school and started the life of a very junior clerk in a Liverpool office I was able to take in quite a lot more and by then the new LMS electric compartment stock was in service.

Maghull, the next station on the line, had a larger goods yard than Town Green as it had to serve a very big agricultural area covering Melling and Bickerstaffe on one side and Lydiate on the other. For months on end in that goods yard on the down side there stood, what was to me in those days, a most fascinating vehicle. In actual fact it was a Tools & Stores Van of the Telegraph Department, Liverpool. It had been converted from a L.& Y.R. 6-wheel Passenger Brake with the raised look-out (Bird Cage). Each day I made a few quick notes or sketches in my pocket note book as time allowed on the morning trip and again in the evenings when the light permitted. From these I made a 7mm drawing which I still have and later, subject to confirmation of the basic measurements I hope to make a model, which was my intention some 53 years ago!

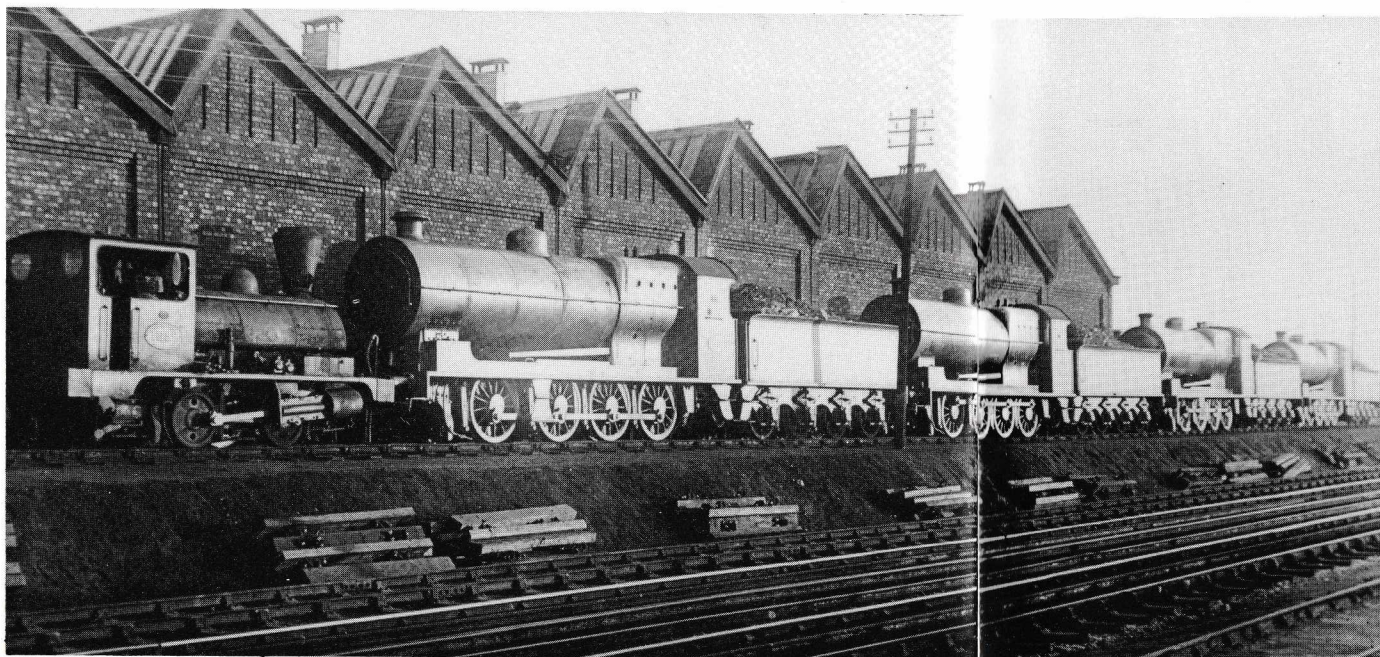
Then on to Aintree—there was no Old Roan station in those days. That followed when the new housing estates on the north side of Aintree were built and which provided many commuters to the city.

From approximately where Old Roan station now stands the Cheshire Lines from Lord Street, Southport (nowadays a Bus Station) converged with the former L.& Y. (now LMS) and they ran parallel into Aintree. The drivers of the electric stock always seemed to relish giving any of the old LNER steam locos and ancient teak coaches a run for their money over the last mile or so. The CLC station was separate from, and at a slightly lower level than, the LMS (ex-L.& Y.) station—Sefton Arms—which, of course, was designed to cope with the large crowds attending the race meetings.

Glimpses of the goods yard at Aintree situated on the up line were somewhat obstructed by the high wooden fencing at the back of the platform, but on leaving the station one was rewarded with a quick view of the big Aintree loco depot. Here one might see the odd large-boilered ex-L.& Y. 0-8-0 goods until these were replaced by the Fowler 0-8-0s which did not last long. Pugs, 0-6-0 goods, 2-4-2Ts and 0-6-0STs were there too of course.

Next was the line from Fazakerley to the Aintree Sorting Sidings—a vast complex in those days—which crossed over the Ormskirk to Liverpool line. There was plenty to see up on that embankment, especially for those interested in goods rolling-stock. Before Orrell Park the CLC line to Liverpool was crossed, but there never seemed to be much doing down there!

From Orrell Park, which in those days had timber-built shelters similar to those at Aughton Park, it was only a stone's throw to Walton Junction where one saw the Manchester/Liverpool line through Preston Road station converging and running parallel through the two sets of double tunnels (Kirkdale No.1 and No.2), thence to Kirkdale station; no platforms on the Manchester line. From now on the journey was full of interest—the Kirkdale carriage sidings on the



Aintree shed was a 'goods' shed, all the passenger locos being based at Sandhills nearer to Liverpool. This view is typical of the allocation of shunting and heavy freight locos based there. Although it was taken on the 8th August 1924 by H.A.White, nothing has changed in the first 20 months of LMS rule. The locos are 'Pug' 1289 with spark arrester smokestack, and 0-8-0s Nos. 720 and 626 with two more identical 'Teddy Bears' at the end.

In 1921, the shed had an allocation of no less than 108 engines. The bulk of the Liverpool dock shunting was done from Sandhills shed but 5 'Pugs' were kept at Aintree. The large sorting sidings, on the other side of the shed from this view, kept thirteen 0-6-0 saddle tanks and two 0-6-0 side tanks fully employed. All the rest of the locos were 0-6-0 and 0-8-0 types, the latter numbering 46! Grand National day was the only time when passenger locos visited Aintree loco shed.

up-side of the four-track main line, and on the down-side the Bank Hall loco sheds with the new concrete coaling hoist and the ash disposal unit. By now, of course, the LMS/Fowler influence was making itself felt but in my early days of travel into Liverpool on the old L. & Y. electrics I saw High Flyers, an occasional Aspinall 4-4-0, 2-4-2Ts, Pugs and goods locos, both 0-8-0 and 0-6-0 types.

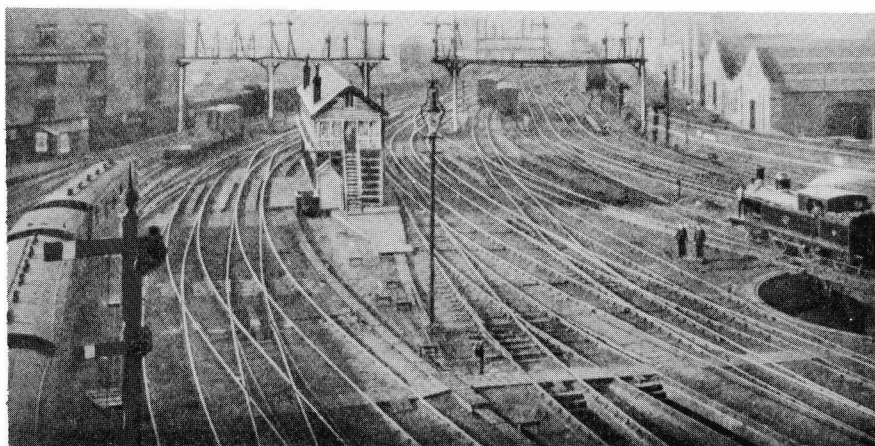
Passing under Stanley Road bridge the coal wagon sidings situated on the down side on the Liverpool/Southport line came into view with their graceful curves which did permit one to spot many P.O. wagons for only a few seconds. Having in those days nothing more sophisticated than a No.2 box Brownie camera I realised that any attempt at photography from a moving train was quite out of the question. Oh, for today's marvels of the photographic world—and in colour, too!

On the up-side before entering Sandhills station I remember there was a stout timber structure under which there were some 3-box coal wagons as detailed by A.J. Watts in his most interesting series in past copies of Platform. I am a bit hazy in my recollections but they may have been Blundells. The boxes were lifted off the wagon chassis by a gantry crane up to street level from where the coal was presumably bagged by coal merchants for domestic delivery; unfortunately I never saw that side of the operation and now the whole unit has gone.

To the left, and down below, there was a splendid view of the Huskisson goods depot of the C.L.C. The motive power there was a couple or perhaps three LNER 0-6-2s. But what an array of goods vehicles! Plenty of prototypes for the keen modeller including an occasional continental van of the train ferry service from France or Belgium.

Finally Liverpool Exchange loomed up with its two splendid L. & Y. signal boxes and most intricate track-work, also the turntable at the ends of platforms 2 and 3, if I remember correctly. On this, in my early travel days, I have seen a High Flyer after a run from Leeds, Bradford and Manchester, later in LMS days to be replaced by Fowler Compounds, and then Jubilees or Class fives.

And all that has now gone for ever How sad!



Liverpool Exchange station from the platform end. Great Howard Street goods yard can be seen in the upper left. The two lines on the far left were the only electrified roads at this period. Locos could be turned and partially serviced on the centre roads.



The L. & Y. and Coal

by J. B. Hodgson

In the annual reports for several years around the turn of the century (1896-1902) there is given an analysis of traffic in 'wagon mileage'—and it is quite a revelation to find that Private Owner Wagon mileage is about 40% of the total; whilst in the financial figures the earnings from carriage of coal were in the region of 35%.

This article is an attempt to explain how the railway dealt with this enormous percentage of its traffic—and is dealt with under three headings:—

THE COMMERCIAL SIDE
THE TRAFFIC SIDE
THE CONSUMERS' SIDE.

1. THE COMMERCIAL SIDE OF COAL

The L. & Y. was a very advanced railway in many ways—but nowhere more-so than in its development and use of a Commercial Department—many years before any other railway company.

It was this Commercial Department who made the managers of local goods depots into 'Goods Agents' and educated, instructed and drove them out to visit each and every source of traffic in their area. It was in the years around the turn of the century that their combined efforts showed to advantage.

The L. & Y. was prepared to assist and advise people on both sides of a contract, in order that traffic could be obtained for the railway, even to the extent of items normally outside a railway company's sphere.

Besides the railway company's Goods Agent, many of the larger collieries—or groups of smaller collieries—employed agents in the larger towns or areas to sell their coal. In the smaller towns a similar position would probably be held by one of the local coal merchants. These people generally worked in close collaboration with the railway's goods agent when tendering for local contracts.

The Commercial Department at Hunts Bank was responsible for major contract negotiations—one that illustrates this well was the contract for the Cunard Steamship Line—then based at Liverpool. The order for the fuel for the whole fleet (both passenger and cargo) was negotiated by the L. & Y. on behalf of two collieries in the Barnsley area. The railway company even went so far as to assist the collieries with a modernisation scheme involving the erection of larger washeries and screens to accommodate 20T wagons—which the railway built specially for the traffic, also going to the extent of creating special paths in the Working Timetable to allow “12-hour call” on the coal. This contract ran for many years, dwindling as more ships became oil-fired, and finally terminating with the transfer of Cunard ships to Southampton.

Another similar contract in which the L. & Y. was involved was the supply of Gas Coal to the London Gas Co.—coal from the South Lancashire Coalfield was shipped out through Goole L. & Y. to London.

The smaller contracts, such as supplies to individual mills, were generally negotiated by the colliery agents—but with the knowledge or co-operation of the goods agent. These contracts built up to quite an amount, when it is considered that a medium-sized mill would consume between 30 and 80 tons of coal a week, and that a town such as Blackburn would have a weekly coal traffic amounting to over 4,000 tons in Contract Coal, together with almost a further thousand tons of other coal sales (Domestic etc). A little simple arithmetic means 500 ten-ton wagon-loads ‘in’ with the same number of empties ‘out’, or six trains ‘each way’.

It must not be forgotten that the railway was itself a great user of coal, and here again the Commercial Department became involved; improvements to collieries were made and the well-known 20T Loco Coals were introduced.

2. THE TRAFFIC SIDE OF COAL

In order to understand how all this amount of coal was supplied to the individual grate several points must first be cleared.

Firstly, the working timetables seem particularly devoid of coal trains with the exception of the company's own ‘loco coal’ specials. This can be explained as follows: Coal traffic was worked “As the Traffic will Allow”; basically this means that should a certain train in the timetable not be required to run, its place would be taken by a ‘coal’—provided of course “time could be kept”. Again, because a gap is shown in the W.T.T., it does not mean ‘no train’, but a path that is available for working a ‘coal’. At busy times the ‘slow lines’ would often be full of trains—standing nose to tail—this was called ‘permissive block working’ and as a train was allowed out onto the ‘main’ to leapfrog to the next loop—so all the others would move up to allow another in behind them.

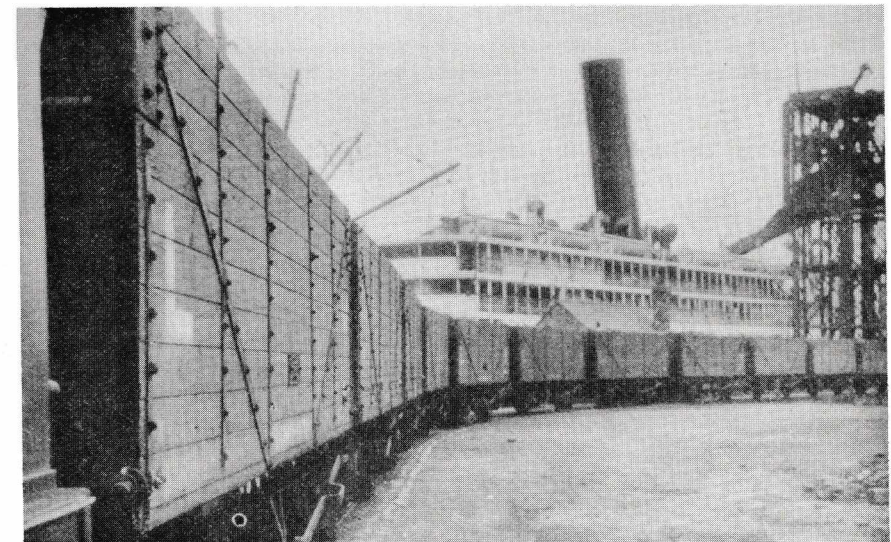
Because of such situations the size of coal trains was strictly controlled, generally to 34 wagons and brake (in the ‘Up’ direction in Yorkshire) whilst empties returning on the ‘Down’ could load to 50. The traffic had certain paths to which the railway working was geared, these were as follows:—

(a) SHIPPING COAL—YORKSHIRE

Both fuel and cargoes. Mainly from the Yorkshire Coalfield which was served by the South Yorkshire Joint. This fed out via Wakefield and Doncaster and was carried to both Goole and Hull over both the H. & B. and the L.Y.R. These were mainly ‘set’ trains from one colliery—running with the end-doors all at the front for ease of entry to the wagon tipplers. These trains would either be kept at the collieries or in the major store-yards near Wakefield and Doncaster—and would be called forward as required, controlled of course by the arrival of the ships and tides.

(b) SHIPPING COAL—LANCASHIRE

Both fuel and cargoes. Mainly from the Wigan area, passing through the Aintree yard in set trains again. Because of the short distances, trains were generally worked direct from the collieries ‘on-call’ in and out of the docks; the loco workings would be such that a loaded train would be brought in, and an empty one taken out—to provide accommodation for the next full one in.



The 20-ton end-door wagons travelled from Yorkshire to Liverpool with coal for the Cunard shipping contract. They were fully vacuum brake fitted and ran as set trains from colliery to the docks. For further details of these wagons, see Noel Coates's article that appeared in 'Platform 9.'

(c) INDUSTRIAL COAL—EAST LANCASHIRE

This area was generally served from the Barnsley and Wakefield areas of the Yorkshire Coalfield with trains running via the Calder Valley, Todmorden and Rose Grove.

(d) INDUSTRIAL COAL—MANCHESTER AND SOUTH LANCASHIRE

Mainly from the South Lancashire coalfield, to Salford for dispersal.

(c) INDUSTRIAL COAL—WEST YORKSHIRE

No clear routes due to the proximity of pits and industry.

(f) COKE AND COKING COALS

The best coking coals were found in the Yorkshire coalfield around the Barnsley area, where there were large coking ovens also. Therefore there was quite a large traffic of both coke and coking coal from this area to both the West Riding and Lancashire. There was no bulk movement however—the coke traffic tending to be mixed in with the traffic in the next section.

(g) GENERAL COAL TRAFFIC AND SMALL CONTRACTS

These generally moved in single or multiple wagon lots and often moved in three or more consecutive traffic movements during delivery—so there were no set routes and flow could be spasmodic.

To cater for these flow lines meant much shunting and sorting of traffic—and the L. & Y. had to do this in small yards. However, they planned better things, which were put back by the approach of the Great War. It was not until 1919 that the Calder Valley line got an 'Up' yard at Mytholmroyd to enable traffic for the East Lancashire area to be separated from the Manchester traffic and thus relieving Todmorden yard from overcrowding. The East Lancashire traffic could then move on to Rose Grove for further sorting and consolidation.

Similarly, the 'Down' yard dealing with "empties" was sited at Healey Mills and again was not brought into use until 1922, relieving Wakefield of much of the sorting for the Barnsley and South Yorkshire area.

Similar yards existed along the flow lines mentioned above, and it is with the decline of coal traffic that many of the yards that have vanished in the last few years were originally utilised.

3. THE PRODUCERS/CONSUMERS' SIDE OF COAL TRAFFIC

The first item here is the charges by the railway for allowing privately-owned wagons to run in their trains. The mileage covered by individual wagons was monitored by the Railway Clearing House from information supplied by their own inspectors (known to fellow railwaymen as 'Number-Snatchers'), and from returns by goods agents and stationmasters.

Because many of the P.O. Wagons were fairly old and equipped with grease axleboxes (fat boxes), the standard practice for trains containing such wagons was for them to be stopped frequently (25 miles maximum) where the railway company's Carriage & Wagon Inspectors would examine them for hot boxes or any other reason why they were unsafe.

Any wagon with a defect was taken out of the train and put in a special siding—generally called 'the Cripples Siding'. The local stationmaster (via the goods agent) was responsible for a daily return to the Railway Control Office of all railway stock at his station, together with a list of P.O. wagons including 'cripples'. The owners of such wagons would then be informed by the railway company—probably by railway telegram^{*}—sent to the local station and delivered by 'a company servant', possibly a 'boy' porter. If no action was taken by the owner within 48 hours, he would be charged 'demurrage' or rent for the siding space until it was moved to a wagon repairer or repaired in the 'cripple' siding and the railway company informed that it was now safe to proceed to its destination. So a wagon was monitored at most every 25 miles of its journey and its

destination would return a record of its period of inactivity, which if on railway property could not exceed 48 hours without incurring charges. All this was monitored, recorded and charged to the owner, and advised to the individual railway companies by the Railway Clearing House, the costs of which were shared amongst all the railway companies.

The wagon inspection facilities and the R.C.H. 'number-snatchers' were generally located at the same point, and these were along the main traffic flows, generally placed at, or shortly before, major junctions or where other traffic facilities were placed: for instance Sowerby Bridge—on the 'Up' side, was one area, and this was the point at which engines or engine crews would change.

In station yards or goods yards, companies or coal merchants could rent staithes, coal drops or simply 'standings' (a wagon-length of siding). This rent would include shunting facilities, provided by the railway company, and if additional space was required this would be arranged with the goods agent on a day-to-day basis. It was all part of the agent's job to give a daily return of all wagons and to whom they were delivered, whilst the commercial department would see that the requisite bills were rendered.

Similarly, the colliery wagons were charged demurrage after 48 hours in a merchant's hands—this, though, was part of the colliery agent's job.

All this checking was one of the reasons why empty wagon traffic was always heavy on Friday and Saturday; the weekend still counted for costing purposes.

The reduced amount of weekend railway traffic, particularly passenger trains, gave the traffic department a golden opportunity to work 'coals' to their destinations and empty wagons back to the collieries, so much so that major yards and colliery sidings were often chock-a-block on Monday mornings.

Station yards were very busy places with horse-drawn block carts leading 'steam coal' to mills, probably from coal drops, whilst house coal would be bagged from the wagon and placed on the four-wheel coal carts for casual sale in the town. Larger customers such as mills would often have private sidings and their own wagons to avoid demurrage charges.

* see back cover

L. & Y. Ry. EXCESS FARE RECEIPT. S 3779

Page 11 of 12. No. MAGHULL L & Y.

Collecting Station: MAGHULL

Train: 20th July 1911

Cause of Excess	Class	Single	Double	No.	Period	Amount Collected
Without ticket	31				2 1/2	

From: Andrew Maghull

L. & Y. Ry. EXCESS FARE RECEIPT. S 3779

Page 12 of 12. No. LIVERPOOL

Collecting Station: LIVERPOOL

Date: 18th July 1911

Cause of Excess	Class	Single	Double	No.	Period	Amount Collected
Without ticket	31				2 1/2	

From: Andrew Maghull

A receipt must be given to the Passenger in exchange.

(M200) LANCASHIRE & YORKSHIRE RAILWAY.

Car & Wagon Department,
Sandhills Station,

Nov 9th 1897

Reference

A

to your letter

In your reply please

give this reference

Your

No 1

Wagon No.

is stopped at Marsh Lane
Station, being unfit to travel in conse-
quence of having one draw
bar broke at screw, through
iron & rubber being defective
If you wish this Company to repair
the truck at your cost, please forward
immediately to that Station Carriage Paid
one draw bar complete length
5^{ft} 11ⁱⁿ to screw pin hole, also rubber

Yours truly, with instruction

J. H. Blundell J. F. ASPINALL,
Freshfield *per*