ISSN 0143 - 8875

PLATFORM 15

THE JOURNAL
OF THE
Lancashire & Yorkshire
Railway Society

Platform 15 is the Autumn 1984 edition Journal of the Lancashire & Yorkshire Railway Society which is published three times a year with an additional booklet in our 'Branchline' series. A regular newsletter is also produced and monthly meetings are held in members' homes. For further details of the Society, please contact the Honorary Secretary: Mr T. Wray, 17 Chale Drive, Middleton, Manchester M24 2BZ.

CONTENTS

COVER PHOTOGRAPH:

Railmotor No.10 at Lytham in September 1912. The group have gathered because this was the first trip of the new service from Blackpool Central. The driver and fireman stand proudly by for the photograph. Compare the front end of this loco with the other photograph for the detail alterations. Some of the locos may have never received the heavy duty (Hoy/Hughes) buffers so this loco represents the final condition of some of the class. The gentlemen looking-on are (left to right), Forshaw (signals inspector); Sutton (Engineers' dept.); Not known and Ernie Hope (shed foreman) while between the engine crew is the District loco superintendent, Walter Paterson. The photograph was taken by Eric Mason.

ISSN 0143 - 8875

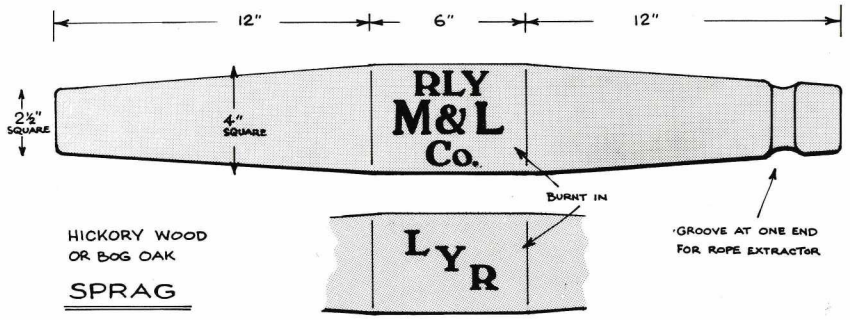
Published on behalf of the Lancashire & Yorkshire Railway Society by the Editor, Barry C. Lane, 26 The Hawthorns, Sutton-in-Craven, Nr Keighley, West Yorkshire BD20 8BP.

Wagon Breaks

J. B. HODGSON

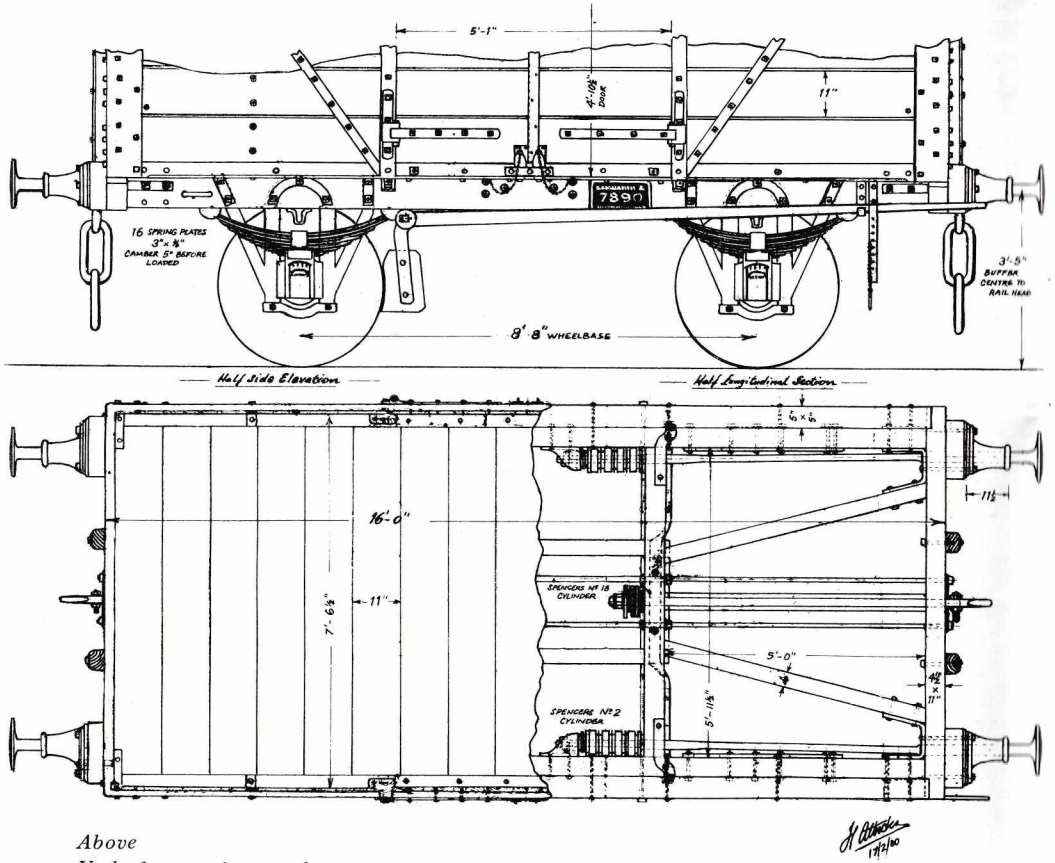
Drawings by the Editor.

WAGONS built before c.1860 were generally devoid of brakes, and, to prevent the wagon moving once it was in the correct position, each wagon was supplied with a 'sprag' on delivery (see sketch). These were inserted through the W-irons and between the wheel-spokes. To extract the sprag it was often necessary to attach a rope to wrench it free!

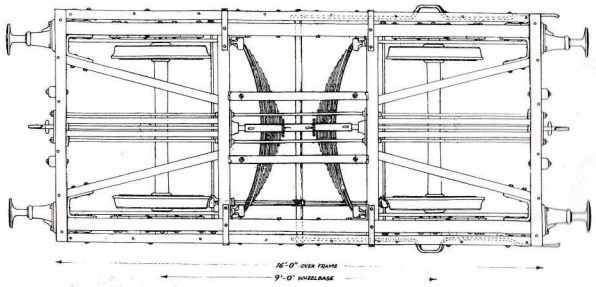


During the period 1871-74 there was a drive to fit all unbraked stock with brakes—a single shoe (generally wooden) acting on one wheel and fitted to one side of the wagon only. These were fitted out on the road by "a wagon-builder, a lad, and a labourer (local)." It is assumed that the builder and lad, (both of whom travelled around) together with tools and a wagon full of brake parts would arrive at (say) Halifax, Salford or Skelmanthorpe and would fit brakes to all 'unbraked' L & Y wagons in the yard—before moving on to another station. Presumably a local labourer (either on the station staff or possibly hired by the Goods-agent) was appointed to make up the gang, but who paid the wage is unknown and probably never be!

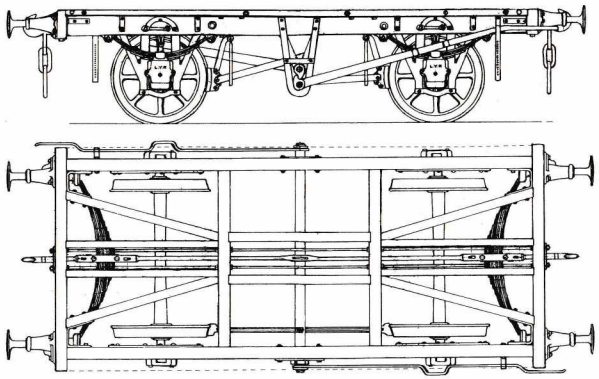
Another problem of the early (pre-1860)-wagons was that they were fitted with coupling hooks attached only to their immediate headstock. As train weights grew, the switchback routes of the L & Y resulted in many trains 'parting'—due to the headstocks being pulled out of wagons. The answer was to provide a bar or rod to which both coupling hooks were fastened and allowing this to 'float' in the wagon underframe. This was known as 'continuous' drawgear and was sprung, together with the buffers, by various means—firstly by "India Rubber" blocks and later by means of semi-elliptical leaf springs mounted around the drawbar. (See Illustrations).



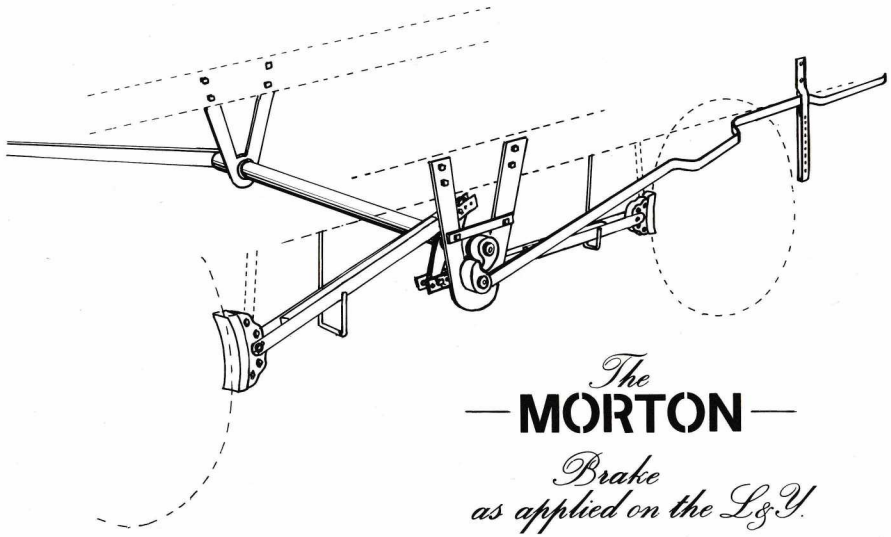
Above
Underframe of an early van with 8'-8" wheelbase and single wooden brake block. The source for this drawing is a Newton Heath original signed by Attock and dated 17.2.1880 which is unsuitable for reproduction. India Rubber springs for buffers and drawbar, Attocks grease axleboxes and buffers mounted on shaped blocks of timber.
Scale—7mm



Later arrangement after adoption of 9'-0" wheelbase. Central leaf springs have replaced the rubber springs. Brakegear on one side only has a second lever on the other side, giving both levers at the same end of the vehicle.
Scale—4mm



Taken from a 1909 drawing of a 'standard' chassis with Morton brake. This arrangement allowed levers to work at both ends of the wagon. Axleboxes are final pattern oil on a 9'-0" wheelbase.
4mm scale.



The —MORTON— *Brake as applied on the L&Y.*

A few years prior to the opening of Newton Heath C & W works (c.1873), it became accepted practice to fit stock with Either side brakes (ESB), but both brake levers were at one end of the wagon—this both simplified the operation of the brakes and of course cheapened the cost.

However, after many accidents (not only on the L & Y), the Government legislated "that all wagons must be fitted with either-side brakes, the operating levers to be diagonally placed and trailing." This necessitated a much more complicated braking mechanism. (see sketch).

This was supposed to be implemented over a ten-year period from 1904, but many wagons were running in the late 20's with 'same-end' brake-gear, coming from most pre-grouping companies.

The First Casualty?

T. BECKETT

DURING recent work in the church yard of St.John's Church, Farnworth with Kearsley, Bolton, an interesting tombstone has been uncovered amongst the vegetation. The inscription tells of the death of William Rowlinson who left a widow and nine children, seven of whom were under the age of nine. It would seem that he was the first individual to lose his life in the service of the Manchester & Bolton Railway after its opening to passenger traffic. The following is an extract from the local newspaper relating the accident:—

Bolton Chronicle, Saturday, 19th October 1839

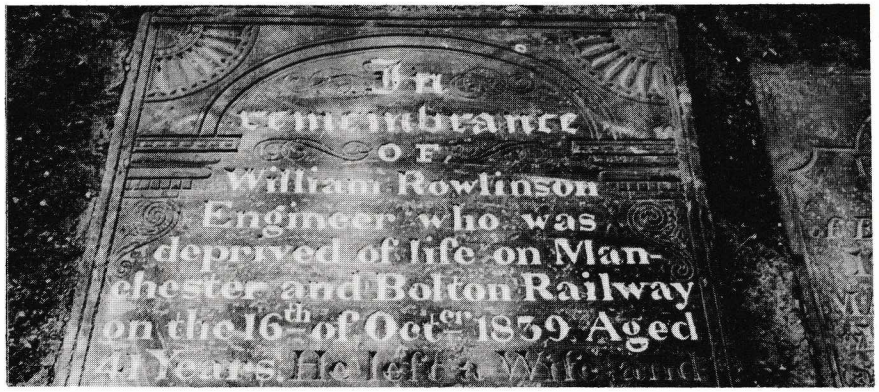
FATAL ACCIDENT ON THE RAILWAY

On Wednesday evening last as the six-o'clock train was on the way to Manchester, on arriving at Windsor Bridge the engineer, William Bolton, was missed by the fireman from the train. An examination ensued, as it was expected some accident had happened and the engineer was found near Windsor Bridge, having by accident fallen from the carriages, and the wheels of the train had passed over him. He has left a widow and nine children, seven of whom are under nine years of age.

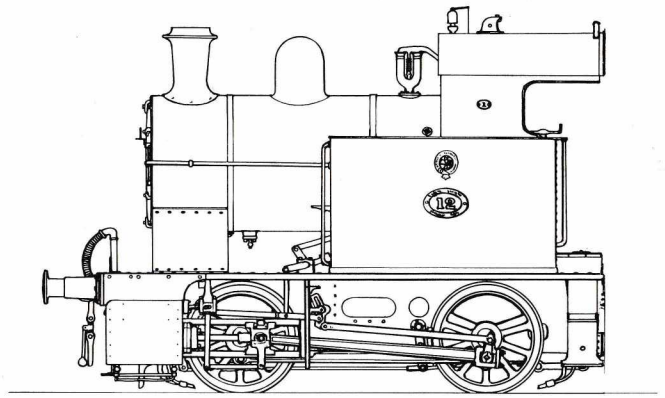
The newspaper seems to be mistaken in the name of the driver, unless the fireman was called 'Bolton' but I can't see two men having the same number of children.

Of interest too is another accident I found in the Bolton Chronicle while tracing the details of Rowlinson's death. The paper was a weekly edition and so three different passages appear which all deal with the incident as a news feature, an accident report and also as the report of the inquest. The unfortunate in this case was Evan Evans but as the accident happened before the official opening of the railway, it might not properly be accepted as the first fatality of a constituent of the L. & Y.R.

See also page 26.



Part of the gravestone with the relevant parts whitened for clarity, with permission from the authority in charge. *Photograph—Tom Beckett*



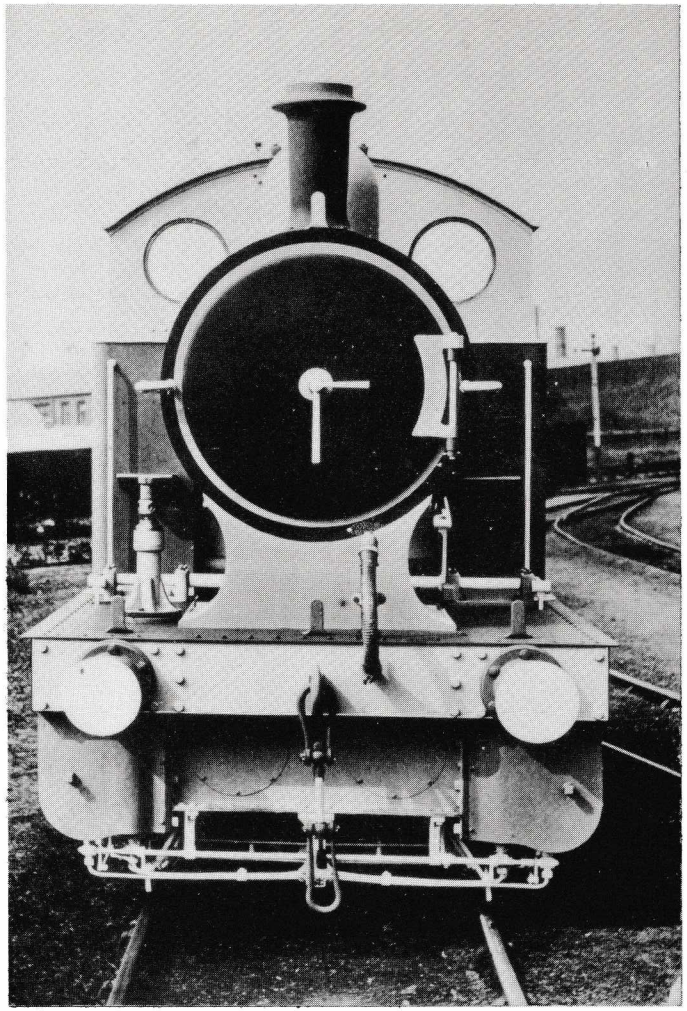
The Hughes Steam Railmotors

The following article is the story of the standard railmotor units as built by the L.& Y.R. to the design of the Chief Mechanical Engineer, George Hughes. Two railmotors had been acquired already to the design of T.Hurry Riches who held the C.M.E. position on the Taff Vale Railway and was a great enthusiast of the railmotor principle.

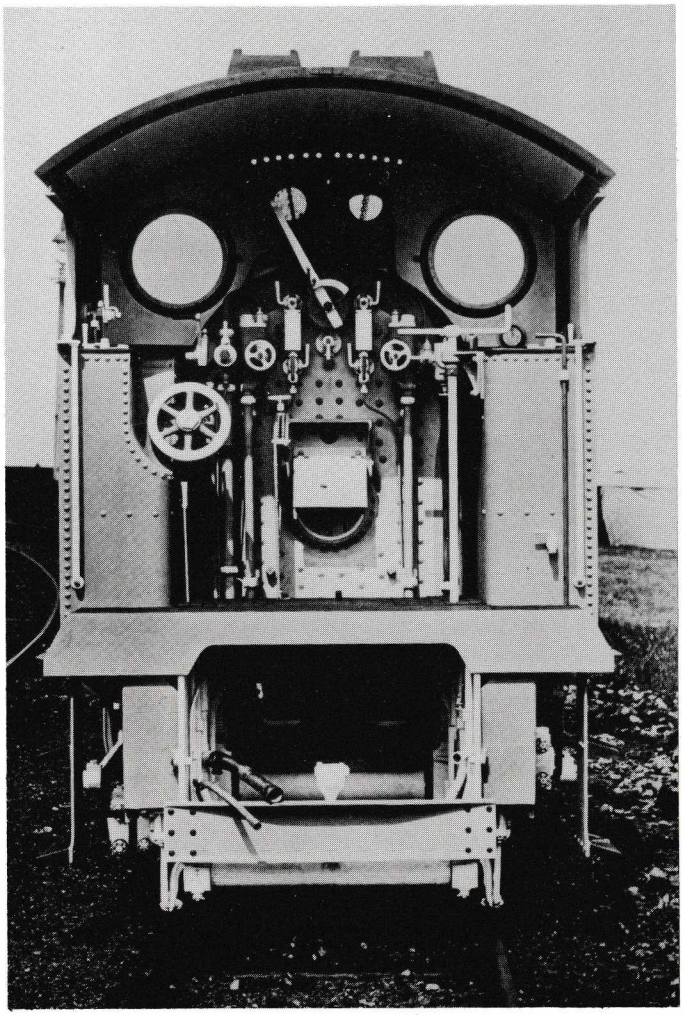
B. C. LANE

The Lancashire & Yorkshire Railway had already had some experience with steam railmotors when George Hughes set about the design of his own units. The principle of a unit with its own steam power was fashionable in 1905 and many railways produced or acquired railmotors at that period. Many of them were to prove to be underpowered and inflexible and therefore, short lived. The first two railmotors on the L.& Y.R. had been built by Kerr Stuart and Company to the design of T. Hurry Riches and were a good case of the above. Hughes could do better than them and before the year was out, plans were being formulated for a 'Horwich' version.

It is not always realised that in most cases, the Chief Mechanical Engineer did not produce a design entirely by himself. The Chief might make an outline specification; sometime more and sometime less, but the Chief Draughtsman and his staff in the drawing office did the most of the work while the C.M.E. would follow the project as it progressed. Zachariah Tetlow had been in charge of the drawing office at Horwich for nearly two decades when the railmotor design was started. His staff worked well on the parts of the design allocated to them and the scheme progressed very quickly. It has been said that Sam Drinkwater produced the whole design in one week but this tale has become something of a fable; perhaps he did the general arrangement drawing.



The front of the first Hughes railmotor locos. Only the first six had the single step support for the cylinder drain cock pipes . . . just visible behind the coupling. After 1918, No.8 and others were altered to the double step fitting. The smokebox door is the double skin type introduced by Hughes and later changed to the flatter type with 6 'dog' fastening. From 1912 the top lamp bracket was lowered to the door (on both types). The original chimney was altered to a wider type after draughting experiments on a series of other classes and the change-over was completed between 1911 and 1916. The cover plate between the frames differed on all later lots built.



The cab of the loco was laid out like all the other Horwich products up to that time. Please refer to the key to the controls on page 14/15 of Platform Seven for exact descriptions. The loop of chain can just be seen, passing around the drum on the regulator shaft but the whistle chain is not as clear. All are connected to cables along the roof. Due to the limited space, the left-hand tank was cut away to accommodate the reversing wheel. The area under the loco was very clear without the usual inside motion but would be filled with the carriage beams which rested on a bearing plate between the axles.

Photograph taken in Horwich Works yard.

May 1906.

George Hughes had been the Chief Mechanical Engineer of the L.& Y.R. for just over two years when the railmotors were built. His work in the locomotive department had so far been in the improvements of the established designs. He applied the Belpaire firebox and Hoy's pop safety valves to the 2-4-2 tanks and fitted superheaters to two of the standard 0-6-0s. The railmotor was his first 'new' design.

The railmotor was the first 'all new' design under the Hughes regime and it departed from the previous examples of the type, on the G.W.R. and L.& S.W.R., in that the engine was conventional in design and strong enough to haul itself, plus a little more, and to be readily interchangeable with parts of other units as required. That was obviously the reason that the Hughes units survived long after others had proved unsuitable.

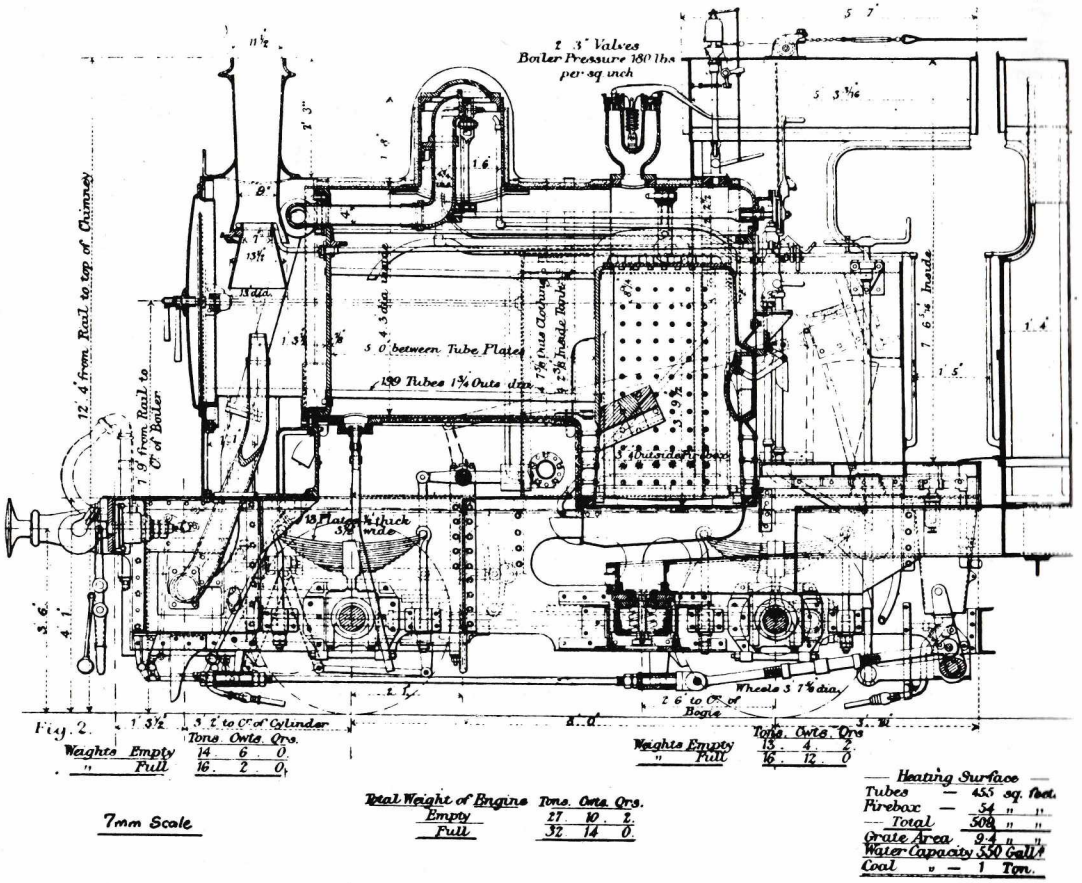
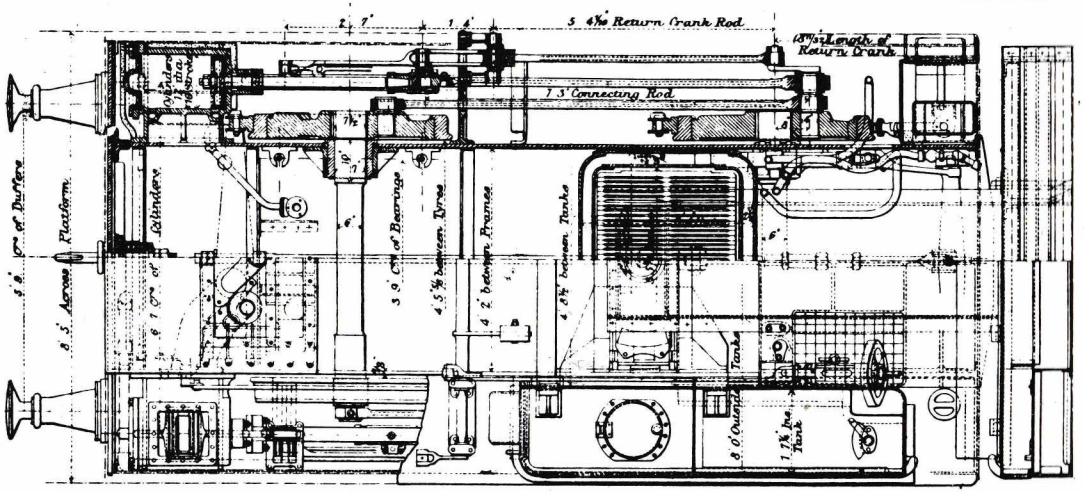
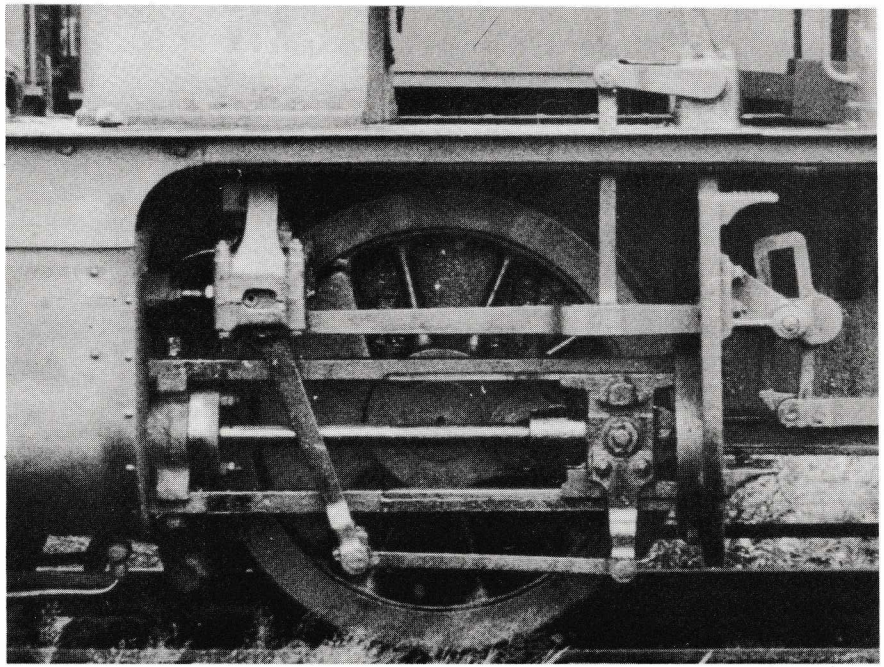


Fig. 2.

7mm Scale

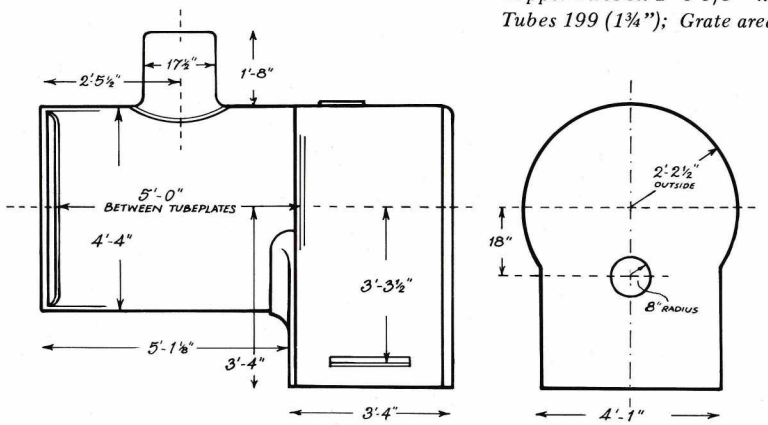




A close-up view of the Walschaert valve gear which should help all modellers faced with this feature. The view shows the balance weights on the driving wheel clearly and such small details as the steps up the back of the motion bracket.

The design of the railmotor was not as new as might at first be expected. The basic chassis was very similar to the Kerr Stuart units. The loco section was a much reduced version of the standard loco built by Horwich up to that date. The boiler was in fact the same diameter as the popular 'A' class 0-6-0s and the flange plates were easily produced without recourse to new plant. The boiler was of course, much shorter than others of that diameter and was classified as 'P' . . . . . the 'A' boiler having lent its name to the 0-6-0s of course. The boiler mountings and fittings were nearly all well-tried standard designs although 1906 was a time when many parts were redesigned or due to be improved. The smoke-box door was new at that time, being a heavier version of the previous Aspinall type that was now giving so much trouble with air leakage. The hinge and dart fastening was the same as before however. At the other end, the wash-out plugs were still the Aspinall-type made of Gun Metal and which screwed into the 5" holes in the boiler.[1] The reader should refer to the photograph of the 4-4-2 on the centre page of 'Platform 11' for a decent view of these. It is believed that this was the last design of loco to be given these plugs; the more familiar type were introduced soon after the introduction of the railmotors and applied to the 'P' boilers as they came through the works in the years up to 1914. The safety valve was not new, having been used on the 'Rapid' shunters and on the 'Pugs'.

Copper Firebox 2'-5 5/8" x 4'-3¼". Tubes 199 (1¾"); Grate area 9·4 sq.ft.



CLASS P BOILER

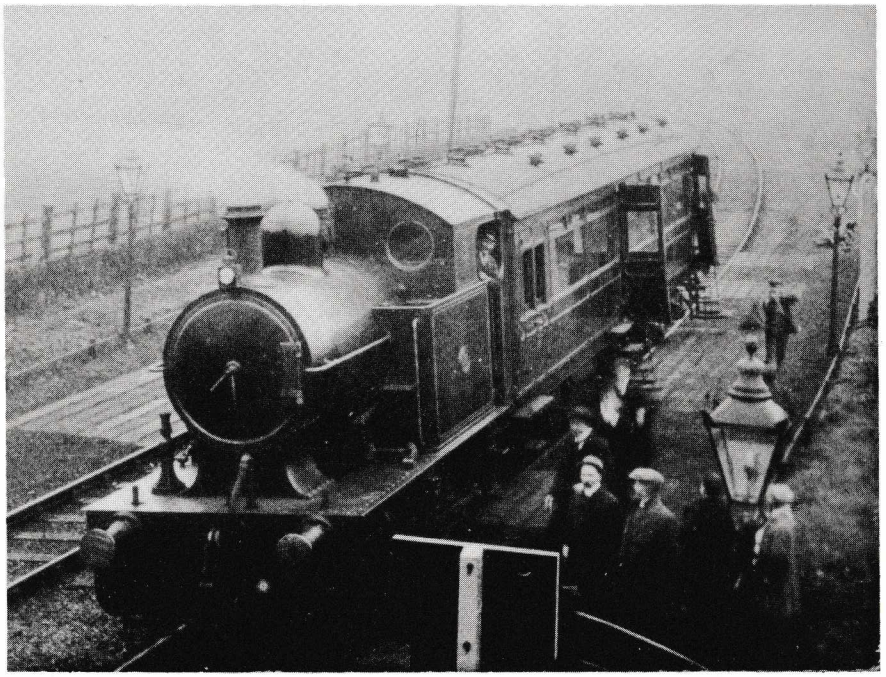
LANCASHIRE & YORKSHIRE RLY. HORWICH WORKS

The whole design of the loco was a good example of the use of standard parts. In the past, the valve gear had always been between the frames but the supporting pad from which the carriage section was pivoted was between the axles and the valve gear had to be located outside. The L.& Y. was ever alert to new developments, especially from overseas and the use of Walschaerts valve gear amounted to just one more modern innovation of the period. It necessarily attracted a good deal of attention at the time and was frequently completely stripped down and inspected. The outside cylinders, however, stayed true to tradition with slide valves located above the cylinders. Piston valves were in use already on the biggest engines but were not altogether successful due to problems with the lubrication that still had to be conquered at that date.

The locomotive might have appeared tiny in comparison with a normal engine but weighed in at nearly 26 tons and soon proved powerful enough to haul a trailer carriage as well as its own vehicle. Thus the Horwich unit had a flexibility rarely found on other such railmotors. The side tanks held just 550 gallons of water but the journeys were usually quite short and supply was always to hand. The bunker held 1-ton of coal and was arranged across the back of the carriage. A curved top was hinged over the top of the bunker and folded forward to fill it . . . with baskets of coal carried into the cab. The curved top was soon removed by the engine crews because it wouldn't close properly if the bunker was well filled and it rattled when the level of coal had fallen! On occasions, the loco would run to Horwich works without its attendant carriage and a safety rail was bolted across the open rear of the cab for the enginemens' safety.[2] On such journeys, the coal supply was carried in baskets on the floor. Unfortunately, no photographs are known (by this writer) of a loco running without a carriage but as they sometime would leave their carriage at Newton Heath C.& W. works before running to Horwich, they must have passed through the busy Manchester

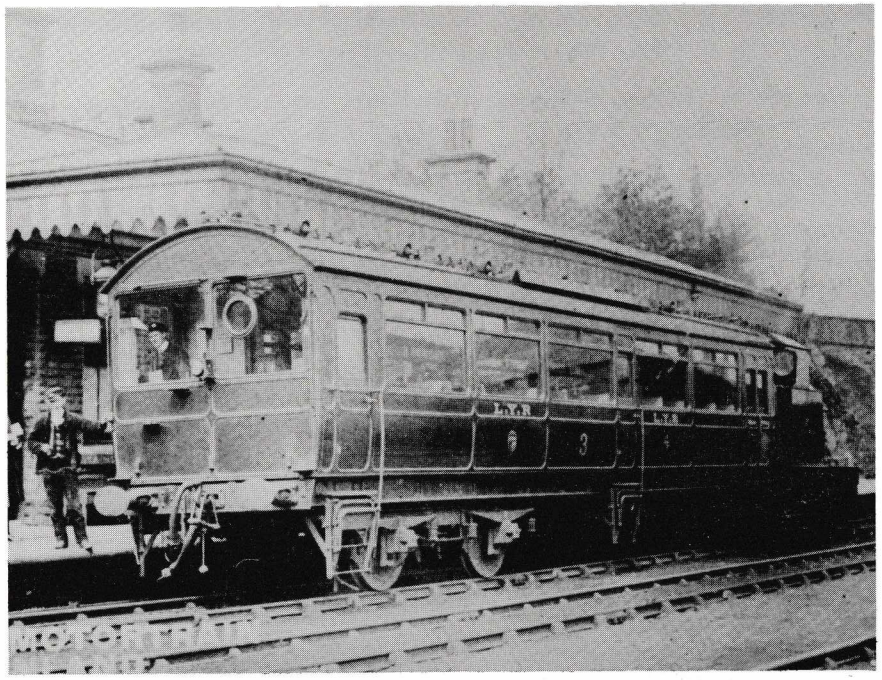
Victoria station many times. One imagines that they looked rather like the products that emanated from Binns Road, Liverpool and pleased so many of us in childhood.

The carriage section, as already stated was a variation of the previous Kerr Stuart railmotors. Other authors have written that the original carriages were built by the Bristol Carriage & Wagon Co. but in fact the chassis only was supplied by them. The body was built at Newton Heath and was pure L.& Y. The design was a continuation of the early '1900' design saloons with inset doorways. The chassis was narrow and utilised triangular brackets to support the standard width body . . . . a feature of the saloon stock that was also used on the railmotor. Had the small windows been arranged in sets of three then the likeness might have been more obvious. The original two carriages were built to order No.E22 and the general arrangement drawing was No.5665. A further 29 drawings dealt with the detail parts. It might well be that because they were 'home'-built, they lasted another 18 years after the Kerr Stuart engines had gone.



One of the first series (Nos. 3 - 8) of the railmotors pauses at Poulton Curve Halt with a Fleetwood to Blackpool (North) service about 1913. The locomotive cannot be identified but is in original condition. Several of the engine units were never altered apart from the chimney until the LMS period. The carriage has been altered and has received the lower type of gas lamps giving us the anomaly of an unaltered engine and a final condition carriage!

The view is one of the few known photographs showing the steps in the extended position. A long hand-rail swung out with the steps while a shorter one was fixed on the inside of the door.



The carriage end of the first Horwich railmotor in original condition. The picture must have been taken in the first few years of service as the roof-boards are in the very high position adopted at the first. The circular device on the driver's window is a marine-type window wiper. The original type of bogie and the 'slotted' 4-bolt buffers are well shown in this view.

The Hughes railmotors had a better designed carriage. Although almost all L.& Y. carriage stock was smooth-sided, the '1900' saloon stock had been panelled and the characteristic body styling was retained but with large windows. A new Directors' saloon was built at the same time as the railmotors and the style is very much the same. Happily, this vehicle still exists at Sheringham on the preserved *North Norfolk Railway*, though in an unrestored condition at the moment. A year or two later, new corridor stock was built for the Blackpool and Southport residential services and the same panelled style with large windows was used on them too. Generally, the majority of coaches built in the new elliptical roof style remained smooth-sided and the panelled vehicles represent a minority of the total carriage stock.

Another oddity about the railmotor carriages is that the official Horwich G.A. drawings show pieces of panelling in the lower quarters of the body, adjacent to the driver's door and guard's doors, which were never put onto the vehicles as built. The L.M.S. official drawings show the same error which has been perpetuated on all modellers' drawings to the present day and unhappily copied on models, whether scratch or kit-built. Recourse to decent photographs will soon show the differences. The drawings accompanying this article are possibly the first correct ones published.

The two carriages for the Kerr Stuart units had been fitted with electric lighting,[3] as were many normal carriages at that period but the practicalities of the system were more than the equipment was up to. It was found at the time that in order to keep the batteries 'topped-up', stock had to go on a longer run at least once a week and the railmotors were unable to do this. The 'original' two-carriage units were soon converted to gas lighting. The new carriage units for the Hughes railmotors were fitted with Coligny lamps as used on first-class stock although they were entirely third-class. These consumed a little more gas than the usual type of Popes lamps but gave a candle power of 18 against 9.7 with the latter type.[4] Although all the carriages built in the first batches had the Coligny lamps, the last three, numbers 15, 16 and 17 were built with the lower type of gas lamp being fitted to the new elliptical stock of 1909. Conversion of the earlier ones to the lower lamps started soon afterwards and carriage number 13 has been photographed with the lower lamps as early as 1914.

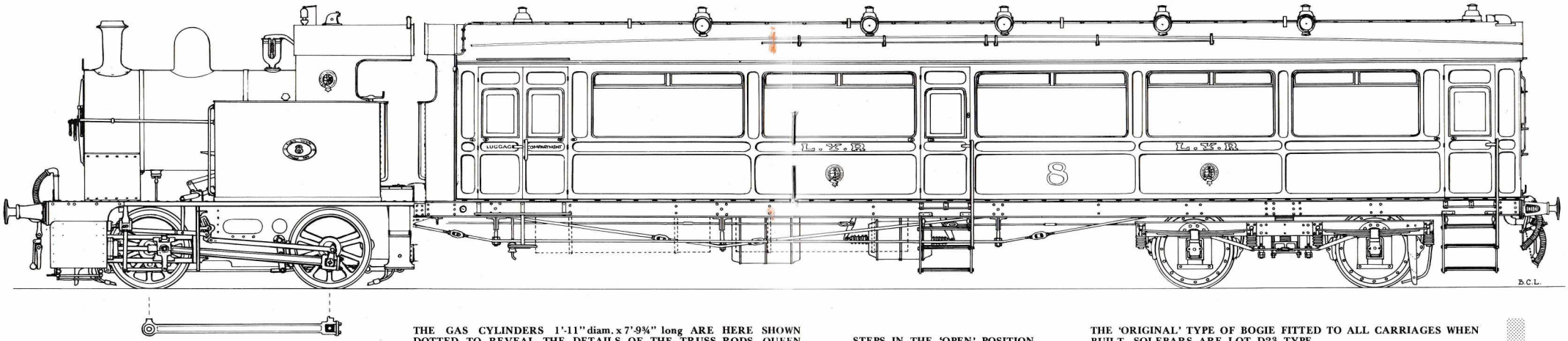
The original carriage bogie was an 8 ft. wheelbase 'inverted U' pattern-type as used on the previous '1900' saloons. In 1909, a new pattern of bogie in which the springs were placed within the frames to give bearing surfaces for the axle-box journals wider apart from the centres, was introduced to normal stock. In later years, these bogies were interchanged with previous ones of the same size. Because of this interchange, bogies had the top of each end ground off in a taper to ensure clearance on all stock and some of the railmotors received these. After viewing all L.& Y. period photographs found available, I have only found carriages 13 and 14 to have the 'wide-bearing' bogies in L.& Y. livery condition. One of the views (No.13) can be dated as 1914 and the other as 1919. All L.M.S.-liveried railmotors have the 'wide-bearing' bogie.

The first carriages for the railmotor units had steps that were lowered by the driver or guard mechanically. A lever and linkage worked each side. The system was also applied to some electric stock at the period. The collapsible steps (to use the L.& Y.'s own terminology) were altered to vacuum power with the introduction of the trailer carriages so that they could be worked by one control. A valve was also provided which prevented the train brakes being taken off while the steps were in the open/lowered position. The underframe too was quickly altered as the truss rods and queen posts were found to be insufficient to brace the length of the body. The truss rods on the Kerr Stuart sets braced a shorter body length but the extra 3 ft. of the Hughes units gave concern and so the queen post at the engine end was moved to a position under the luggage compartment. The long gap between queen posts was further braced with another set of rods and posts inside the main ones. How many of the first batch had to be altered and how many were built to this modified arrangement is unknown but the change took place certainly within the first year or two of the first ones entering service. The final assembly included no less than eight turnbuckles with which to tighten the truss rods against the strain of the body! It would appear that the chassis had been constructed too lightly from the beginning, thus requiring the excessive truss rodding, as the L.M.S. found it necessary to strengthen the solebars with steel plate in 1927. Vehicle No.14687 (L.Y.R. No.5) was the first to be treated in June of that year.

RAILMOTOR AS BUILT IN 1906

COLIGNY LAMPS AS ORIGINALLY FITTED.

ROOF CONTROL CABLES NOT SHOWN FOR CLARITY.



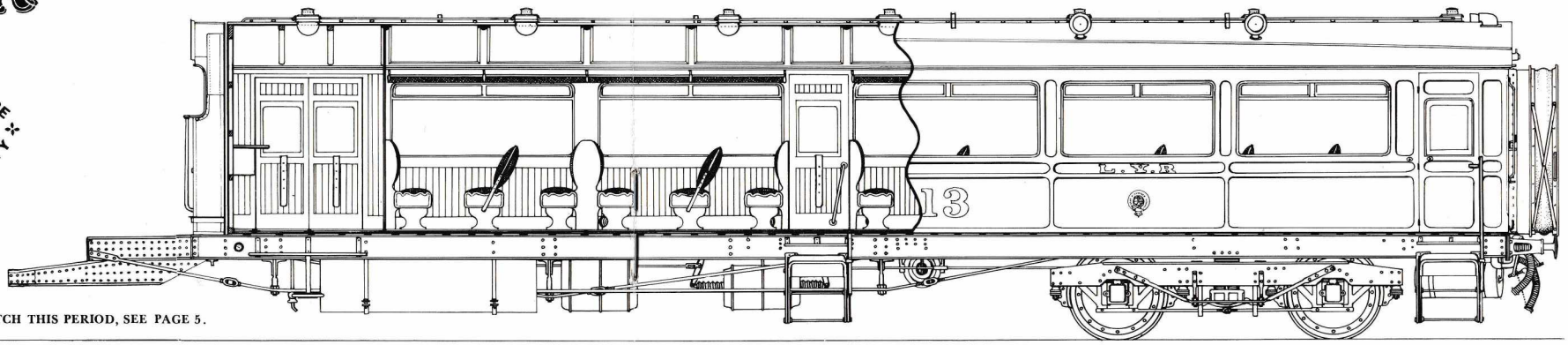
THE GAS CYLINDERS 1'-11" diam. x 7'-9¾" long ARE HERE SHOWN DOTTED TO REVEAL THE DETAILS OF THE TRUSS RODS, QUEEN POSTS & TURN BUCKLES.

STEPS IN THE 'OPEN' POSITION

THE 'ORIGINAL' TYPE OF BOGIE FITTED TO ALL CARRIAGES WHEN BUILT. SOLEBARS ARE LOT D23 TYPE.

L & Y. R

LANCASHIRE & YORKSHIRE RAILWAY SOCIETY
DRAWING
Barry C. Lane
COPYRIGHT



FOR LOCOMOTIVE TO MATCH THIS PERIOD, SEE PAGE 5.

MANY CARRIAGES ALTERED TO SINGLE, LARGER GAS TANKS.

'WIDE BEARING' BOGIE AS LATER FITTED TO ALL RAILMOTOR CARRIAGES.

LOWER DRAWING SHOWS LATER CONDITION OF CARRIAGES AND SUSPENSION BEAM.

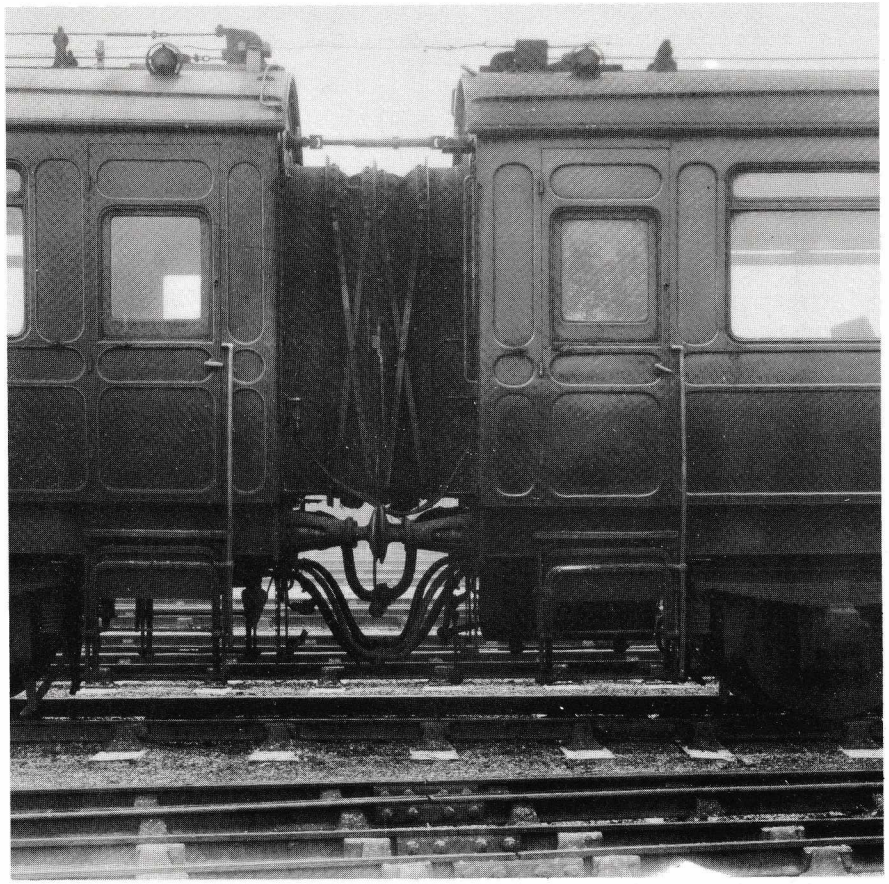
STEPS SHOWN IN 'RAISED' POSITION. SOLEBARS ARE LOT No.E23 TYPE.

The first six carriages built were delivered from Newton Heath in May and June of 1906 .... just 11 months after the Kerr Stuarts had arrived. Like the latter, the end of the carriage was fully glazed for the driver's compartment. The driver could operate the unit from that end with the regulator, whistle and brake controls provided. These were connected by cables along the roof to the loco.

The railcars were ordered on 4th January 1906 (order No.D23) and the first one (No.3) entered service on 3rd May. By the 22nd of August, all the order of six were complete and proving successful so it is no surprise to find that another six were ordered on the 31st August. Although these were built to the same specification as the earlier batch, modifications to the originals were implemented, most notably in the provision of a corridor in the end of the carriage. One trailer carriage was ordered on the 7th November which was charged, like the second six railmotors, to the Capital account. The trailer car proved to be within the hauling capability of the railmotor. Weighing 26 tons-3 cwt., it was in fact a double-ended version of the railmotor carriage without the centre door. Four more trailers were ordered on the 4th April 1907. Although the railmotors were numbered in a separate series to all other locos and carriages, the trailer cars were numbered 3200-3211 in the ordinary carriage stock list.

It will be realised that cables along the roof were possibly acceptable on the single unit railmotors but the use of a trailer carriage introduced further problems in linking the regulator on the engine to the driver who was positioned at the other end of a secondary vehicle. The answer was to link the regulator control drum in the railmotor carriage end direct to the equivalent drum in the trailer. The trailers had driving positions at either end and these were linked to each other by roof cables. In both vehicles, the roof cables were continuous and entered the roof to pass around a drum from which hung the regulator handle. The photograph of the loco cab on page 6 shows the similar arrangement of cable and drum as fitted to the carriage ends. The centre shaft was extended through the end, centrally over the vestibule connection, and joined by a tubular connection to the end of the shaft on the other vehicle. The tubular nature of the connector allowed a modicum of forward and backward movement to match the drawbar springs even though the regulations stipulated that the two vehicles should be coupled together with 1½" of compression on the buffers. By a slotted end engaging on the shafts, a certain amount of flexibility was allowed for. The whistle cable was simply joined across from one roof to the next with a piece of stiff wire. Numbers 3-8 could not work with a trailer car as built with the fully glazed end but were soon altered to have a vestibule end and the extension rod from the regulator was added at the same time. Even the first two carriage units built to run with the Kerr Stuart engines were given the new end to the carriages.

The system lasted well into the L.M.S. period but by the 1930s, the use of the trailer carriages was not as necessary due to declining traffic. At least two of the remaining railmotors were converted to vacuum operated 'push-pull' control gear and the roof cables, although still in position, were not required. A similar conversion on the trailer cars made them ideal for 'push & pull' train operation though they were also compatible with the railmotors that were so fitted. There are still a few old drivers around who tell how the cable-operated control was so unreliable that the fireman often had to work the engine from signals on the whistle from the driver.



Trailer carriage on the left and railmotor on the right showing the control linkage over the corridor connection. Notice the wire which works the whistle and the slotted buffers. The pipes between the vehicles are the vacuum brake, steam heating and two for working the folding steps— one for each side.

Photo courtesy N.R.M. No.F2193

The buffers on the carriage end of the railmotors and trailers were different too. All carriage stock since the earlier six-wheelers had a standard buffer fastened by three bolts and this type was fitted to the trailer cars too. The railmotor carriage had a four-bolt fixing with slots in the sides of the casting to reveal the self-contained spring. At the same date, this buffer was applied to some new electric stock but has not been found on any other rolling-stock.

Up to this date, two lots of locos had been built in two batches of six and seven but the two lots of carriages totalled twelve. Loco No.15 entered service in March 1907 and was intended as a spare loco but the requirements of a spare at that time were not great and so carriage No.15 was ordered to 'even things up' on 11th April 1907.

LOCOMOTIVES						
LYR No.	Date Built	LMS No.	Works No.	Order No.		Withdrawn
1	Kerr Stuart 6/05	—	KS904		Cost £1,857 (approx. total loco + carriage)	1909
2	6/05	—	KS905		-do-	1909
3	5/06	10600	951	54		6/47
4	5/06	10601	952	,,	* Original smokebox door still in use in 1924	2/34
5	5/06	10602	953	,,		8/27
6	6/06	10603	954	,,		5/27
7	6/06	10604	955	,,		9/29
8	6/06	10605	956	,,		6/29
9	1/07	10606	977	57	◆	11/43
10	1/07	10607	978	,,	*◆ Known to have 'dogged' smokebox door by 1912	11/34
11	2/07	10608	979	57		11/35
12	2/07	10609	980	,,	* Fitted L.M.S. Push/Pull Gear—late '30s	6/37
13	3/07	10610	981	,,	◆	8/37
14	3/07	10611	982	,,	◆	10/31
15	3/07	10612	983	,,		12/34
1	12/09	10613	1069	63	◆	12/31
2	12/09	10614	1070	,,	*	6/37
16	12/09	(10615)	1071	,,	◆ L.M.S. No.never carried	9/28
17	12/11	10616	1172	69		11/33
18	12/11	10617	1173	,,	*◆ Fitted L.M.S. Push/Pull Gear	3/48

* Known to have still carried 'Aspinall'-type buffers in early L.M.S. period.

◆ These locos are known to have had the 'dogged' smokebox door in L.Y.R. period.

In 1909 the two Kerr Stuart locos were withdrawn and replacements were ordered to the Horwich design. In actual fact, the need for a spare loco had re-arisen so three locos were built, these taking the numbers 1 and 2 from the withdrawn units and 16 for the spare loco. The two original carriages remained in service[5] until 1927 when they were withdrawn together with locos 5 and 6. A further five trailer cars were ordered in 1910 for the intensification of existing services, for no new routes were allocated to railmotors between 1908 and 1912. The combined units provided 128 seats . . . . all third-class.

Finally, in July 1911, orders were placed for two more locos from Horwich and two more carriage sections from Newton Heath. The completed railmotors entered service in December and bore the numbers 17 and 18 on the locos and 16 and 17 on the carriages. No carriage was ever built as number 18 and there remained one spare engine in pregrouping days. As the spare engine floated about, the pairing of loco and carriage became quite random and it was exceptionally rare to find a pair bearing the same numbers.

CARRIAGES								
LYR No.	Date Built	LMS No. 1923	LMS No. 1933	LYR Diag. No.	Order/ /Lot No.	A/c		Withdrawn
1	6/05	14683	—	72	E22	?	cost £737-16-8 Length 45 ft.	1927
2	6/05	14684	—	72	E22	?	-do-	1927
3	5/06	14685	29989	79	D23	R	Cost £861-5-1 Length 47 ft-6 ins.	1933
4	5/06	14686	—	,,	,,	R	-do-	1929
5	5/06	14687	—	,,	,,	R	-do-	1929
6	6/06	14688	29990	,,	,,	R	-do-	1937
7	6/06	14689	29991	,,	,,	R	-do-	1947
8	6/06	14690	29992	,,	,,	R	-do-	1934
9	1/07	14691	—	82	E23	C	Cost £897-9-3	1931
10	1/07	14692	29993	,,	,,	C	-do-	1943
11	2/07	14693	29994	,,	,,	C	-do-	1934
12	2/07	14694	29995	,,	,,	C	-do-	1935
13	3/07	14695	29996	,,	,,	C	W.B. Bogies by 1914	1937
14	3/07	14696	—	,,	,,	C	W.B. Bogies by 1919	1931
15	12/09	14697	29997	,,	C24	R	Cost £911-16-6	1937
16	12/11	14698	29998	,,	M27	R	Cost £827-10-8	1937
17	12/11	14699	29999	,,	,,	R	-do-	1948

Notes
1. Carriages Nos. 4 & 5 (14686/7) fitted with bogies at the leading end to become open thirds in 1929. Numbered 14387/8. Scrapped 1933.
2. Six carriages ordered June 18th 1914 (M29) to diagram 82. Order cancelled, 8th August 1914.
3. Diagrams 72 & 79 built with glazed ends. Corridors fitted to all between 1909 and 1921.

My notes in the 07 kits (Keith Dales) Railmotor kit stated that the interior of the carriage was painted green. This was based on seemingly reliable information and of course, some electric stock was finished in green too. I have never been too happy about it though. The original Horwich G.A. drawing has some very small print on it stating "to be finished in light oak throughout" which I find easier to believe. Other locomotive-hauled stock had natural wood finish in a variety of shades through this period. Perhaps my source recalls the railmotors clearer in their later period by which time some of the interiors might have been refinished in green.

B.C.L.

The story does not end there for six more railmotors were ordered on 18th June 1914. Whether the outbreak of war at the beginning of August had anything to do with the situation is not known but the order was cancelled on the 8th presumably before much work had been done.[6] Who can tell what the final situation might have been?

Eventually the total of trailer cars numbered twelve. As traffic declined in the late 1920s, the trailers became used for general push and pull services and proved to be ideal for this purpose. All except one were taken into stock by British Railways in 1948 and continued to run into the 1950s when any pregrouping stock was becoming rare as scrapping continued.

In L.M.S. days, the railmotor carriages were renumbered to the carriage series of numbers and ceased to match the loco numbering. Nos1 to 17 became 14683 to 99 in 1923 and the remaining vehicles in 1932 were renumbered consecutively as 29989 to 99. The carriage units (previously 4 & 5) 14686/7 were fitted with bogies at the leading end in 1929 and ran as open thirds until being scrapped in 1933 as 14387/8.

The spare loco was normally kept at Bolton. The shed had three locos but had only one railmotor turn, the Horwich branch. Up to 1921, the Bolton - Radcliffe line was the stamping ground of the last remaining Barton Wright 0-4-4T (No.14). After this was withdrawn, the railmotor service was rearranged and Eric Mason suggested that one railmotor worked both branches, more or less running through between Horwich and Radcliffe.

In researching the history of the railmotors, I am amazed that every previous writer on the subject has stated that there were 18 railmotor units on the L.& Y. when the true facts have been available to anyone delving into official records. One can only accept that some account was printed in the railway press of the day which has been repeated until it became 'fact' . . . . this example being just one item stumbled on in recent times. The opportunity to personally record just how many sets existed was out of the question with the continual swapping about of locos and carriages.

Space prevents fuller details of the variations and alterations to the railmotors but it is hoped to publish complete details in book form in the not too distant future. Much of the above was researched to augment the article written by Bernard Fielding for Platform Nine. Fuller details of services run by the railmotors and copies from my official diagrams of the original 1 & 2 and the Horwich replacement 1 & 2 will be found there.

The writer wishes to acknowledge the help of J.B. Hodgson, Peter Priestley, Ron Priestley, R. W. Rush, D. Jenkinson and the staff of the National Railway Museum library, York.

References

1. *Aspinall washout plugs, see illustration of 4-4-2, Platform 11 page 15*
2. *See also illustration Platform 2, page 8*
3. *Electric lighting of original carriages 1 & 2, Newton Heath drawing No.5688*
4. *Railway Carriage Lighting paper by C.H.Montgomery A.M.I.Mech.E. read to the Horwich Mechanics' Institute 'Engineering & Scientific Club' 1907*
5. *Illustrations cover of 'Rishworth Branch', Mason's 'LYR in the 20th Century' and author's collection.*
6. *L.& Y.R. Carriage Order Book, Volume 2.*

This photograph was taken at Southport (St.Lukes) 3.11.1920 following an accident. Modellers will delight in the detail revealed in this view of loco No.9 and carriage No.13 which it will be seen has the wide bearing bogie. The side frames are much wider than the solebars. Also seen to advantage is the rounding of the edge of the carriage body (2" radius) which was done on all four corners. The angle of the view also reveals how much the body has sagged, try a straight edge along the windows! The shabby condition of the carriage is highlighted by the newly repainted loco. While at the works, the loco has had the class plate 1 added to the upper side sheets and the crest previously carried there now appears above the numberplate.

Photo courtesy N.R.M. No.F3043

A workman employed in the Carriage and Wagon Department of the Company has been dismissed from the Company's service for improperly inducing a youth to obtain for him a privilege ticket from Newton Heath to Leeds, and transferring it to another person not in the service of the Company.

********** Catching Up With **********

An Early Railway Photographer

****

N. G. COATES

FROM THE commencement of my researches into railways in the Burnley area I became aware of the series of locomotive portraits of former East Lancashire Railway engines and was overjoyed that these had managed to survive because they were clearly very old indeed. It wasn't until much later that I realised that these early photographs showed the 'normal' three-quarter front view of a locomotive and not the then usual side view, but it did cross my mind to wonder who had taken them and were there any more?

Over the years it became possible to attribute one or two other items to this photographer by the linking factor of the Manchester Road area of Burnley, the point at which the Lancashire & Yorkshire and E.L.R. lines joined. With most sources examined there only seemed to remain the problem of identifying who posed the photographs and the theory gradually formed that some doctor or interested wealthy personage dabbled in photography and railways (both symbols of the new expansions made by man) so producing the pictures. Some of the photographs were used in L&Y Album, some in L&Y Miscellany and still others in different publications (a list appears below) and a few moments study will display the style used by the photographer. Another factor in the mystery was that many of the pictures seemed to show the same driver—Jim Redford—a well-known railwayman locally; coincidence and notoriety seemed the reasons for this.

However, like a great many mysteries, often with many complex theories of explanation, the actual answer was to turn out to be elegantly simple, or at least I feel so. A chance remark to the Reference Librarian about some photographs in an exhibition revealed the single piece of the puzzle I had long been seeking. The lady had been going through the obituaries of local characters for possible newspaper articles and had recently looked through Redford's.

"Do you know, I'd really like to find out who took these, is there any record of doctors or the gentry in the district who were using a camera early on, the 1860s or so soon after photography became practicable?"

"Not that I know of, but did you know Redford dabbled in photography?"

"NO! Tell me more."

And there it was, in the obituary columns of the Burnley Gazette of 30th November 1887 " . . . he brought photography to Burnley and was often called upon by local people to make their likeness."

He was a man of immense character, as I will reveal, so surely he'd take photographs of the engines he worked on, wouldn't he?

The obituary notice is very full and it gives the chance to show the career of one early L&Y railwayman. Redford was born in Manchester in 1820 and from his own descriptions of his life he was uneducated but trained himself to be a reasonable draughtsman as well as gaining an interest in science. At the age of 17 he was helping a stationary steam engine tenter and built a model of the device. He began work with locomotives on the Manchester and Bolton Railway in 1840, rapidly progressing to the status of driver. Redford seems to have used his self-tutelage to create detailed drawings of engine parts when replacement items needed to be produced; this facet seems to have endeared him to Sir John Hawkshaw for he later followed him on to the Manchester & Leeds. Between these appointments, Redford had periods on the Lancaster and Preston and the Blackburn and Preston lines, both times employed as a driver. The latter railway opened on 30th May 1846 and was amalgamated with the ELR from 3rd August of that year. Jim had little confidence in the ELR management, he resigned after four weeks and went to work for the M&L, driving along the main line to Leeds. He claimed to be the driver of the first train into Goole but that was a three-engine 50-carriage event on 29th March 1848, perhaps his was the first public passenger train on 1st April. Then he was offered, and accepted, the job of driving on the new Burnley Branch of the L&Y from Todmorden late in 1849. Judging from the plan of the timetable of 1851, for the majority of the day only one engine was working at any one time, mostly on passenger trains. There were only two drivers on the branch—one for the passenger trains and one for the

luggage trains (i.e. goods) and shunting. For Jim Redford this meant seven working days per week, the trains ran from about 6.30 in the morning to about 8 o'clock at night but there were only three each way on Sundays. From his words Jim seemed very happy with the responsibility and this was to be his final move as he worked in and around Burnley until 1880.

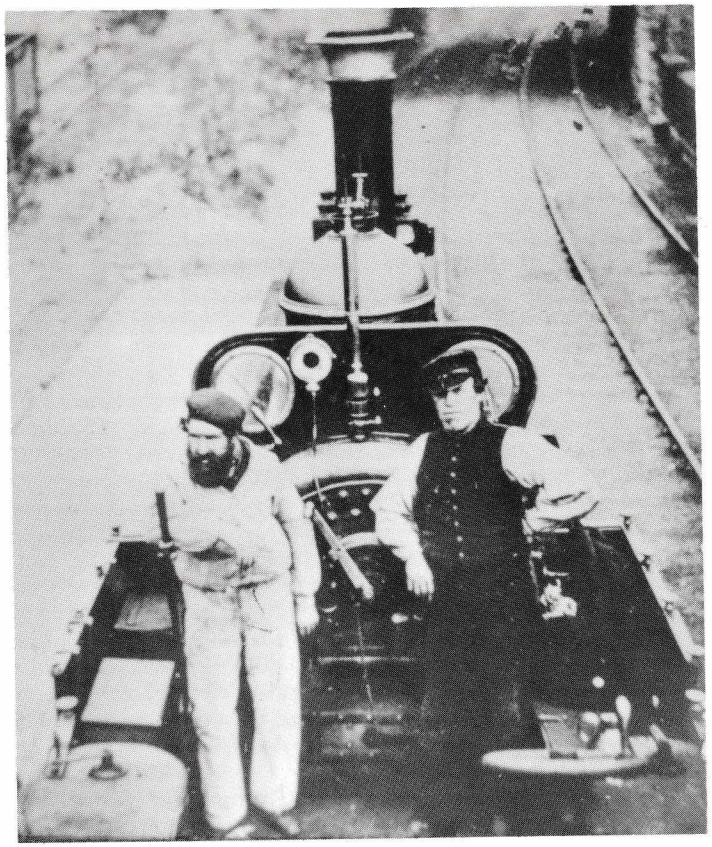
So, on 12th November 1849, his birthday, Jim Redford drove the first train into the Manchester Road terminus at Burnley. He decided to make his home in Burnley and built a house in Sacville (now Sackville) Street which still exists, about 100 yards west of the terminus. Since the first train on the branch in the morning left Burnley it seems reasonable to assume that the timetable was built round him. When Jim asked to be connected to the town's water supply he was refused on the grounds that his house was surrounded by fields and it was uneconomical to lay the pipes! (O tempora, o mores) His reputation spread locally, especially after deeds such as this. Approaching Portsmouth station one afternoon Jim spied some loose waggons from a luggage train descending the gradient towards him. He stopped quickly and reversed his train so the impact would be lessened, nevertheless a buffer on the engine was destroyed and the plated wooden buffer beam split. Having got everything back on the rails and in spite of minor injuries to himself he slowly reversed to Todmorden bringing down the loose waggons. The injured were treated at the station, the other passengers cheered and took up a collection for Jim for his gallantry. Then, after repairs to all and sundry, they set off for Burnley once more. Exploits like this led to poems being written about him, of which this is but one part:—

In winter's cold or summer's heat,
I sit at ease with thee
Mazeppa's throbbing voice is sweet,
'Tis always dear to me.

I've not the slightest dread, indeed,
With thee I've nought to fear.
The welcome to thy puffing steed,
Old Jim the engineer.

With a hey ho chivey,
Hark forward, hark forward, tantivy.
Then here's to Jim, make way for him
And keep the main line clear.

As improvements were made locally, Jim's driving territory expanded. The connection with the ELR was made in 1850; the amalgamation of the L&Y and East Lancs in 1859 caused their more powerful 2-4-0s to become available for the Copy Pit route and Jim became associated with No.33 (L&Y No.633) Mazeppa. In 1866 the old terminus was rebuilt as a through station on the west side of Manchester Road (and closer to Jim's house) opening as Burnley Thorneybank; it later became known as Burnley L&Y before reverting to Burnley Manchester Road, curiously the goods services were always known as Manchester Road. When the North Lancashire Loop opened in September 1877 Jim was again the driver of the first train and it was probably after a trip over that line to Blackburn that Jim's career ended for he was on the footplate of his engine 'Vesuvius' (No.682) when it was struck by the express from Manchester (see Platform One pp. 1 & 2 for a full account). The force of the impact broke Jim's



leg badly, he was in hospital for two months and never worked a train again. In recognition of his services the L&Y granted him a gratuity. He was in his 68th year when he died (28/11/1887) leaving a wife, Isabella, a son and four daughters.

The following is a list of the photographs which, I believe, *were made* by Jim Redford and have been published. The views in which J.R. appears are marked with an asterisk:

Platform 13, L&Y Society 1984; Front Cover, No.15—*Aeolus*—at Thorneybank.
Platform 14, L&Y Society 1984; page 5, No.10—*Diomed*—at Thorneybank.*
L&Y Album, Ian Allan 1971;
p.10, No.622—*Atlas*—at Manchester Road.
p.10, No.682—*Vesuvius*—at Manchester Road.
Railways Around East Lancashire, Wyvern 1983;
p.2, No.10—*Diomed* (same picture as Platform 14)
p.60, No.622—*Atlas* (same picture as L&Y Album)
p.61, No.33—*Mazeppa*—at Manchester Road.*
p.12, Burnley Bank Top.
L&Y Miscellany, OPC 1983;
plate 30, No.10—*Diomed*—at Manchester Road. *
plate 31, No.140 at Manchester Road.
plate 32, Cab view of 0-4-2 at Manchester Road. *

The following is a list of pictures which *might have been* the work of Jim Redford, mostly because they are in his style or of his era or he seems to make an appearance yet again* :—

Platform Two, L&Y Society 1980; p.2, ELR No. 62 *Memnon.*
L&Y Album, Ian Allan 1971;
p.11, No.543 *
p.93, Elland Station (is he leaning on the post?)
Railways Around East Lancashire, Wyvern 1983; p.69, Clitheroe.
L&Y Miscellany, OPC 1983;
plate 33, *Holme* (the unusualness of the view makes me think it's one of his)
plate 36, *Milo.*
plate 50, Eastwood.

and there may be others.

Why did Jim take up photography anyway, especially since there was no-one else locally to help or advise him? The answer to this probably lies in his scientific approach and interests, the new fangled chemicals would be worth dabbling with, and his ebullient character. Jim wanted some permanent record of his life, he was used to taking portraits and he enjoyed driving engines so why not combine the two, moreover I doubt if his reading, writing or drawing could have coped in the way he would have liked but photography gave him the outlet. His presence comes through the photographs he took and his style is one of carefully posed typical views. They nearly always include people and he tries to show as much of the engines as possible, even from different angles to the norm. His early photographs are not blessed with a great depth of field but improvements do take place later. From the evidence of the photographs of *Diomed, Mazeppa* and *Aeolus* Jim seems to have started about 1865 or 66, Thorneybank station is completed—*Diomed* has not yet gone for rebuilding. Since he appears in several pictures it is clear that he must have had knowledgeable help, probably from his son Robert who was 18 in 1866 and could be trusted with the camera. Having recorded his immediate working surroundings the conjectural ones probably suggest his movements further afield along with another burst of interest in the late 1870s.

So, here's to Jim with many thanks for your interest in recording your way of life. I wonder what happened to the negatives . . . . !

****

Bolton Chronicle, Saturday, 2nd June 1839

An accident occurred on the line on Monday evening which we regret to state terminated fatally. It was wholly the result of indiscrete careless conduct on the part of the unfortunate individual who has lost his life. It seems that a train had brought up a number of persons from Manchester and among them some joiners who had been working on the line. When near Bolton the engine was stopped for some purpose, and during the stoppage the deceased and some of his shopmates commenced hustling and jostling each other in fun. This play ended in the deceased being precipitated off the lurry on which the men were frolicking. He fell on the road and was so severely injured that he died almost immediately.

The manager at the Bolton end held an inquiry of the Engineers, Guards, and other servants of the company and the result was that there was no negligence attributable to them.

****

L. & Y.R.
Lamp Room & Signal Fitters Hut

****

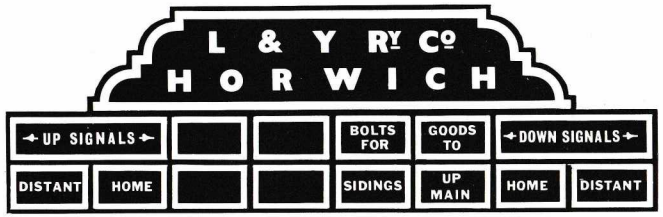
P. A. MILLARD

The drawing reproduced is a tracing taken from a rather faded original drawing produced by the L.& Y.R. The original is tinted as was the practice to show the timber in various shades of tan and brown while the metal parts (both hinges) are in blue. It is a pity that the original is not suitable for reproduction and that we cannot print colour in our journal.

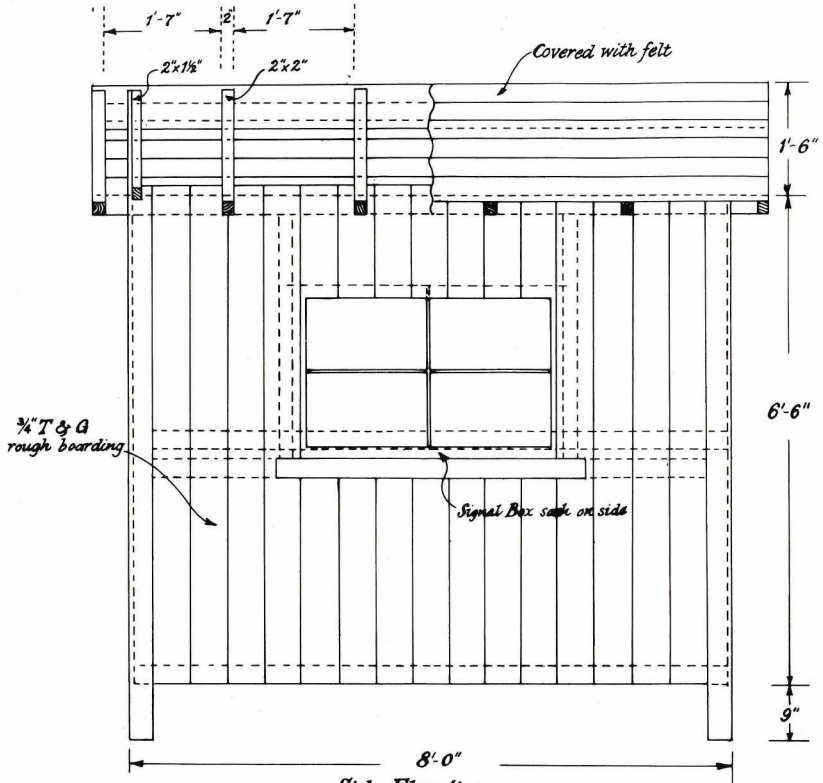
The drawing is the usual 1" to the scale and initialled 'H.J.H.'. There is no date but the sheet is numbered 'Signal Drawing 675'. Small lettering states: *TO BE DEMANDED IN SIZES, 8'-0" x 6'-0", 10'-0" x 6'-0", 12'-0" x 6'-0".*

As with all old drawings, there is rubber stamping showing the original user. This one is stamped at the top *'C.M.E. DEPT COPY'* in the characteristic letter style used in pregrouping days. At the bottom it is stamped *'L.M.& S. RLY.— ENGINEER'S OFFICE, SIGNAL DEPT. MANCHESTER, 3rd FEB. 1925'* and again *'JOINERS SHOP—FEB. 6th. 1925'.*

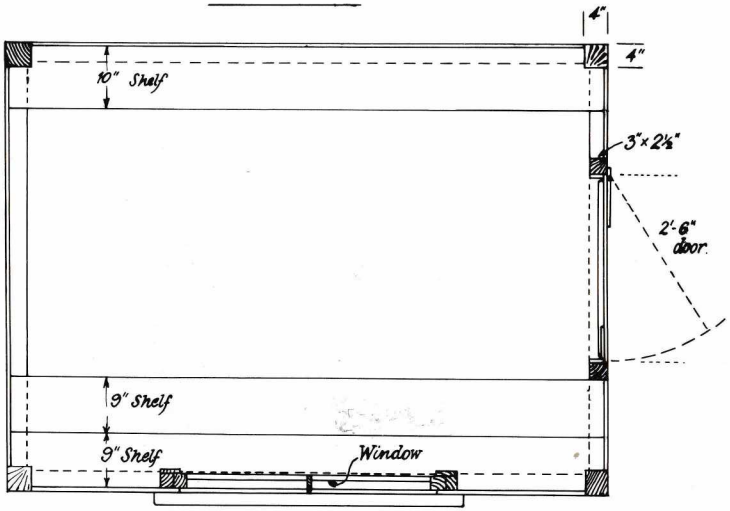
The L.& Y. had many huts of this design or similar. The larger ones which were used for other purposes had a stove and a brick chimney stack built on to the end of the building. A slated roof was supplied when a stove or fire was used. One such hut which bears a close relationship to this one is shown in the bottom right of the photograph of Great Howard Street Goods Yard which appeared on the centre pages of Platform 14. This picture is also helpful in showing the painting of the huts. The upper parts were painted tan which would appear to be somewhat lighter than the carriage colour and more properly a deep cream shade, sometimes referred to as 'stone'. The lower part, level with the bottom of the window was a medium brown, again lighter than the lower shade of carriage stock and probably falling somewhere between the tan colour applied to the upper section of carriages (so accurately matched on the dust jacket of O.P.C's 'LYR Miscellany') and a darker shade of chocolate brown.



L.Y.R. Standard Signal Fittings — Part No. A99



Side Elevation.

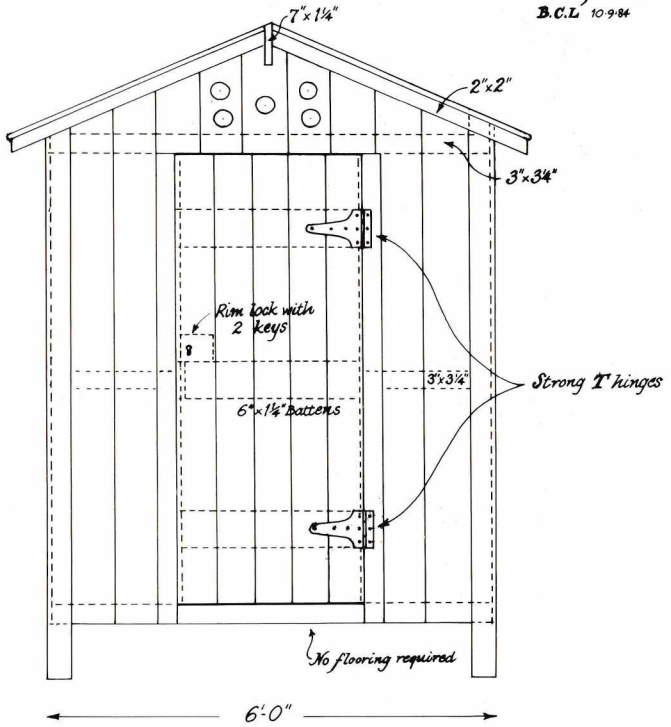


Sectional Plan.

Section Through Window

Scale 10mm = 1 foot

B.C.L 10·9·84



End Elevation

L. & Y. Rʏ. Cº

Part No. S29

—*From the 1869 Rule Book*

8.— No servant is allowed to receive any gratuity from the public, on pain of dismissal.

A.D. 122.

Typeset and Printed by
TRIANGLE PRINTING SERVICES
385 Bury & Rochdale Old Road, Heywood, Lancashire.
Telephone: Heywood 68843