



Journal
of the
Railway and Canal
Historical Society

THE RAILWAY & CANAL HISTORICAL SOCIETY

Founded 1954 Incorporated 1967

PRESIDENT: Alan A. Jackson

VICE-PRESIDENTS: Prof. T. C. Barker, Dr A. L. Barnett, H. V. Borley,
R. A. Cook, Charles Hadfield, P. G. Rattenbury, Jeffery Spence, D. H. Tew

CHAIRMAN: (Managing Committee): Grahame Boyes

HON. SECRETARY: R. E. Kilsby, Banestree, Jacobs Well Road, Guildford,
Surrey GU4 7PA

HON. TREASURER: Peter R. Davis, 103 North Street, Hornchurch, Essex
RM11 1ST

MEMBERSHIP SECRETARY: R. J. Taylor, 64 Grove Avenue, Hanwell, London
W7 3ES

HON. EDITOR: J. V. Gough, 12 Victoria Gardens, 195 London Road, Leicester
LE2 1ZH

BOOK REVIEWS EDITOR: N. T. Pitts, 4 Siskin Road, Pedmore, Stourbridge,
West Midlands DY9 7HU (*To whom all items for review should be sent.*)

DISTRIBUTION OFFICER: J. R. Searson, 23 Bank Croft, Longton, Preston
PR4 5AL (*To whom notification of non-delivery or defective copies of the Journal or Bulletin
should be sent.*)

LOCAL GROUP SECRETARIES:

London—R. Graham, 4 Sudbury Croft, Wembley, Middlesex HA0 2QW

North Western—E. R. Ll. Davies, Fron Fawnog, Hafod Road, Gwernymynydd,
Mold, Clwyd CH7 5JS

North Eastern—D. B. Slater, 8 Granger Avenue, Acomb, York YO2 5LF

West Midlands—Meriel Cooling, 9 Berberry Close, Birmingham B30 1TB

East Midlands—G. H. Gwatkin, 17 Clumber Crescent North, The Park, Nottingham
NG7 1EY

JOURNAL OF THE RAILWAY & CANAL HISTORICAL SOCIETY

VOLUME XXIX Pt. 7

No. 141

MARCH 1989

Contents

OBITUARY: JOHN ELLIOT	338
SOME THOUGHTS ON THE RAILWAYS' COMPETITORS IN GENERAL AND ROAD COMPETITION IN PARTICULAR	
<i>Theo Barker</i>	339
REFLECTIONS ON WATER <i>ed. H. P. White</i>	343
THE RAILWAYS ACTS OF PARLIAMENT OF 1889 <i>A. L. Barnett</i>	352
AN EARLY FRENCH RAILWAY <i>Peter S. Richards</i>	358
BOOK REVIEWS	360
CORRESPONDENCE	371

Obituary: John Elliot (1898–1988)

Michael Robbins writes:

John Elliot was a man of unusual quality and achievement. He rose to the highest positions on British Railways and London Transport without the orthodox training and background of his professionally-orientated colleagues; and yet he had as much success in the harsh world of public transport in the mid-twentieth century as any man could have had.

The great figures of the preceding era, among whom he specially revered Sir Herbert Walker, had been railwaymen first, last, and all the time; but Elliot was cavalry officer, journalist, public relations man, Essex countryman with a passion for cricket, and a keen student of history as well as being a railwayman and a transport man—‘so various he’.

The facts of his career are in *Who's Who* and the obituaries, and they are striking. What was it that carried him, an outsider if ever there was one, up through the professional hierarchy of solid railwaymen to the top? The Southern when he joined it in 1925 was a rather old-fashioned concern (see his article ‘The Early Days of the Southern Railway’, *Journal of Transport History* 4 (1960), 197), and he was inevitably suspect to many of its officers. Yet in time he overcame this handicap. He was quick to apprehend, and willing to respect, the ‘culture of the railway’, as it is now called. He had unbounded energy and enthusiasm, and complete loyalty to the organization he was serving (if he was a hundred per cent Southern man, we at London Transport found him a hundred and twenty per cent for LT). He trusted his colleagues without trying to double-guess their professional advice. He had no strong grasp of statistics—indeed, he often surprised and sometimes alarmed his staff by the casual use he made of figures in his speeches; but he had a shrewd hunch for the essence of a financial or technical matter outside his own range. He got on easily with staff of all grades. He had a good ear for the public, the press, and Parliament, and he tried to persuade them, by meeting them half-way if it could possibly be done.

Above all he was continually observant and very cheerful. His company was as exhilarating in his ninth decade as in earlier years, and his stories seemed to improve every time one heard them. He could tell tales about the Fifth Army in 1918, experiences in the USA and Australia (where he was offered the chairmanship of the Victorian Railways), the naming of the ‘King Arthur’ class and other ‘battles of Waterloo’, and how he sneaked away from the office one day to watch Essex play at Lord’s where he was spotted by his general manager—Walker was a Middlesex supporter.

He was a full man, with interests ranging widely, from cricket and shooting to French Revolutionary Paris, Napoleon’s marshals, and the battlefields of the First World War. He had a passion for the poems of Tennyson and Rupert Brooke. He wrote the notice of Frank Pick of the Underground for the *Dictionary of National Biography*. His own memories came out in 1982 under the characteristic title *On and off the Rails*. He was a rare and highly individual man; railways and transport were lucky to have him.

Some Thoughts on the Railways' Competitors in General and Road-Competition in Particular

THEO BARKER

Part III Since 1945

In two previous articles in this *Journal* (July and November 1986), I argued that the history of any one transport mode—road, rail, water and (more recently) air—needed to be written with an eye upon the traffic carried by the others. I tried to illustrate this argument by indicating how a knowledge of growing road transport competition shed light upon railway history. Very soon after the coming of the electric tram and the motor vehicle, railways began to lose their share of the growing volume of traffic. To some extent they were able, before 1914, to fight back by electrifying some of their suburban lines and competing with the electric trams; but motor buses proved a greater threat, for they were able to operate on routes beyond town boundaries. Motor coach tours started and motor lorries were also gaining traffic over medium distances. Between the war these trends were accentuated. The railways bought into the bus industry and managed to acquire a few large road hauliers. Most of the road haulage firms, however, were one-man businesses, or a little larger, and could not be taken over. These thousands of small and resourceful operators gained more and more of the railways' traffic. The four main-line companies' attempts to diversify in order to share road transport's growing gains did not really succeed. The 'square deal' campaign looked like being more successful; but then came the Second World War.

Nationalisation after the war gave the Labour government a golden opportunity to bring about the transport integration which the private railway companies had sought to achieve by commercial means. The state missed its chance to reduce duplication of facilities and to concentrate upon the transport mode best suited for each particular type of traffic. On the contrary, the Transport Act, 1947, set up separate functional Executives which British Transport Commission instructed to compete with each other and at the same time, to be financially viable: the mixture as before, only more so.

Mr A. A. Harrison, described by Stewart Joy as 'the greatest expert' of his day in the field of transport economics,¹ has very kindly supplied me with a manuscript which shows that, despite these handicaps, some serious attempts at integration were, in fact, made, for, as he points out, 'integration under an enlightened publicly-owned monopoly was not just a dogma of left-wing intellectuals opposed to capitalist competition, but seemed to make sense in the economic conditions of the country'.² As is well known, the BTC published in 1950 a document entitled 'Integration of Freight Services by Road and Rail' and sent it as a directive to the Railway and Road Haulage Executives, indicating the types of traffic best suited to the two transport modes.

In 1949 East Anglia had already been chosen for a survey of integration possibilities and a local experiment in Norfolk and Suffolk was proposed. BR's District Goods Manager at Norwich was appointed Area Freight Superintendent. He also became a BRS officer responsible to the BR Commercial Superintendent and the BRS Divisional Manager. His duty was to 'sell to customers in the area the kind of integrated service described in the Commission's Policy Statement. In particular, there was to be no competitive rate-cutting by the agents of the Executives'.³

Unfortunately, little progress was made before the Executives were abolished in 1953.

A second scheme was also explored; but it, too, came to nothing. Carter Paterson had sent small consignments from London to Glasgow by rail before nationalisation. It was suggested that all RHE traffic might be trunk-hauled by rail, thus yielding more net revenue to the Commission. Two senior officers of the two Executives, asked to examine the proposition in consultation with the operators and cost accountants concerned, reported that the Commission would be £1M better off if the RHE confined its activities to collection and delivery, leaving BR in charge of the trunk haul. According to A. A. Harrison, however, the Chairman of the RHE, General G. N. Russell, who had been known in the army as 'Cyclone Charlie' threatened to resign if the scheme was proceeded with. Sir Cyril Hurcomb, Chairman of the BTC, backed away.⁴

The transport unions had, by September 1952, reached agreement providing for common employment on road or rail, with equal rates of pay for comparable work and common conditions of service. This would have greatly helped moves towards integration had the Executives not been abolished in the following year.⁵

There were also some moves towards the integration of passenger services. Here the BTC had a much clearer directive; but it was no more successful. It started with a considerable advantage, for it inherited 12,305 of the 68,277 buses operated outside London purchased from Tilling, Scottish Motor Traction, and the Red & White Group, plus its 49% or 50% stake in a score of companies inherited with the railways. Moreover, Section 63 of the Transport Act directed it to arrange in each area for 'the co-ordination of the passenger transport services serving the area, whether it was by road or rail, and the provision of adequate, suitable and efficient passenger road services to meet the needs of the area'.⁶ Here, however, there were fatal delays. The Road Passenger Executive was not hived off from the Road Transport Executive until July 1949.

Four area schemes were contemplated but only one was seriously pursued. In October 1949 local authorities in the East Midlands and East Anglia were told that a scheme was being considered for their areas and their opinions sought. In the light of these it was decided to create three areas, East Anglia, South East Midlands, and Essex. East Anglia was to have priority. Local authority opinion was again canvassed, in October 1950. Progress was slow, however, and the BTC turned to local authorities in the South West and sought their views on schemes for that area. All these snail-like negotiations were overtaken by events: the return of a Conservative government opposed to any such ideas.⁷

The fourth scheme, which did get as far as the Minister, concerned Northumberland, Durham, and part of the North Riding of Yorkshire. Here there were many local Labour councils and it was hoped that they would be more co-operative.⁸ They were not, for the last thing they wanted was to lose the worthwhile contribution in support of the rates which was then coming in from their still most profitable municipal transport undertakings.

These valuable opportunities, once lost, were not to recur, for by the time the Wilson government came to power, road transport competition had become much more severe, as we shall see. Far from helping the publicly-owned railways by directing certain traffics on to their lines, the Attlee government had shackled them, as Gourvish has described in his admirable business history of British Railways.⁹ The Railway Executive was prevented, for political reasons, from raising fares to keep pace with rising costs and vital capital investment was postponed. Moreover, because the road hauliers were well compensated when their businesses were acquired—some of which compensation was used to support the Conservative Party's

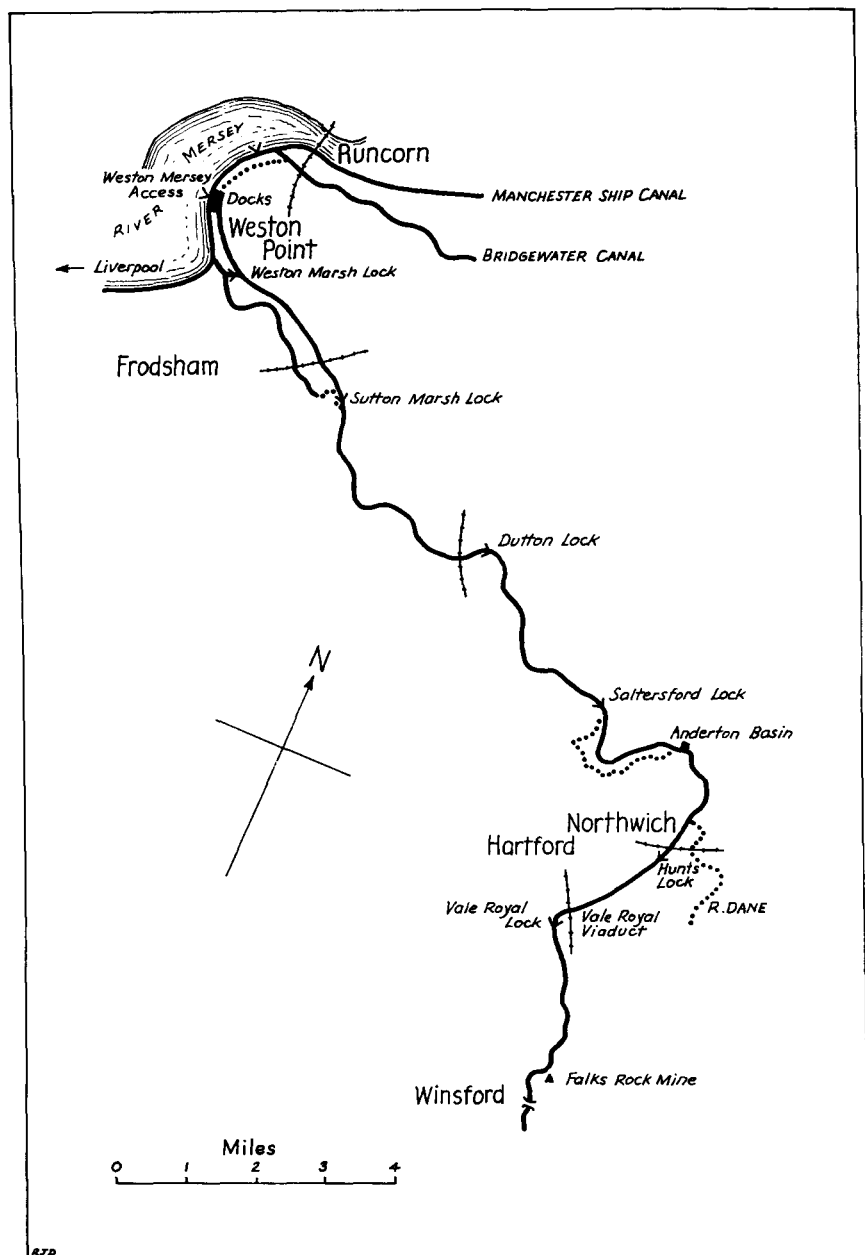
road haulage privatisation campaign—they found themselves at a considerable advantage when a grateful Conservative government allowed them to buy back vehicles and depots at preferential rates. Not only that: those hauliers who had become BRS depot managers got to know new customers over a wider area. These contacts were very useful to them when they became private operators once more, usually possessing more vehicles than they had parted with after nationalisation.¹⁰

The Conservative government's plans to invest in major road improvements, especially motorways, on the one hand, and the beginnings of railway modernisation, on the other, were bound to help tip the scales in favour of road rather than rail, for road transport technology had much more commercial scope than did the electrification or dieselisation of railways. True, the fine new Midland Region line out of the perhaps not quite so fine new Euston station to Birmingham, Manchester, and Liverpool—and then to Glasgow—provided an altogether faster and more attractive service. But the pace of change on the railways was relatively slow compared with that on the improved roads. The 38-ton lorry which eventually pounded along the motorways at a steady 70mph was a far greater advance on the old 3-ton lorry, often limited to a maximum speed of 20mph struggling along the largely unimproved, winding old roads in the early 1950s than the 125s were on the older steam trains. Having lost the political chances of the immediate postwar years, most of the freight traffic over longer and longer distances passed to the road hauliers. The railways were much more successful in holding on to passenger traffic; but they failed to gain much of the huge increase in passenger travel. That went in private cars, only 2M of them in 1950 and now over 15M. With the deregulation of longer distance bus services more recently, the extraordinarily fast coaches which speed along the motorways are giving an increasingly good account of themselves often at some astonishingly low fares.

But at what cost? In accidents? In road congestion especially when road vehicles come off the motorways into towns; and increasingly on the motorways themselves, breaking up under the constant pounding and in frequent need of repair? The cost of further road building is huge even in open country. In towns it is prohibitive both in terms of money and in terms of the destruction of the very towns themselves. Was the postwar course of events inevitable? Is it too late to save the community great costs of all sorts by diverting some of this traffic from the over-used roads to the underused railroads? Can there not be some general consensus on this? Should it really be a party political issue?

REFERENCES

- 1 Stewart Joy, *The Train That Ran Away*, Ian Allan 1973, p. 58
- 2 A. A. Harrison, 'A Fresh Look at Road-Rail Freight "Integration"', MS in the author's possession, p. 1
- 3 *Ibid.*, p. 5
- 4 *Ibid.*, p. 6
- 5 *Ibid.*, p. 6
- 6 Michael R. Bonavia, *The Nationalisation of British Transport. The Early History of the British Transport Commission, 1948-53*, Macmillan, in association with The London School of Economics, 1987, p. 100
- 7 *Ibid.*, p. 102
- 8 *Ibid.*, p. 101. Information from Miss Corinne Mulley, who is completing a doctoral thesis on public control of road transport.
- 9 T. R. Gourvish, *British Railways, 1948-73. A Business History*, Cambridge 1986
- 10 Theo Barker, *The Transport Contractors of Rye*, Athlone Press 1982



Reflections on Water—Reminiscences of Frank Rogerson, one-time Waterman on the Weaver Navigation

Edited by H. P. WHITE

The Weaver is a left-bank tributary of the Mersey, rising near Market Drayton (Shropshire) and draining the central part of the Cheshire Plain as it flows northward. It traverses the Cheshire salt-field, which has been exploited at least since Roman times. Transport of salt was the chief reason for improving the river. The Navigation was created under an Act of 1721. By 1732 boats with a capacity of 45 tons could reach Northwich and of 38 tons the head of navigation at Winsford. An Act of 1860 set up Trustees who controlled the Navigation until nationalisation under the 1947 Transport Act. In 1807 the difficult navigation of the lower river was avoided by a cut from Sutton Marsh Lock to Weston Point, where docks were built. Originally there were 11 sets of locks on the 23 miles between Winsford and Weston Point. After a series of improvements, by 1870 steam vessels of up to 300 tons capacity could be accommodated. The locks had been reduced to eight pairs, capable of taking a steamer and three barges, with a capacity totalling 1,000 tons. Further reductions have meant there are now six sets. In the same year the Anderton Lift was opened, connecting the Weaver with the Trent & Mersey Canal, 50ft 4ins. above.

By 1880 1.2 million tons of salt were being carried down, together with coal in the up direction. Traffic had fallen by the 1930s, but still remained considerable.¹ Currently the output of rock salt from Winsford is despatched by rail and road, and salt from the Northwich plants by road. But alkali from the ICI Winnington and Wallerscote plants is despatched from Winnington Wharf and Anderton Basin and some general cargo is received at the latter. Weston Point Docks flourish.

The Salt Union maintained a fleet of ships and barges (ICI still operates some vessels and independently-owned coasters still reach Anderton). Frank Rogerson's grandfather was skipper on Weaver salt boats, his father an engineer and his brother was also a waterman. He himself served an apprenticeship and later became a mate on the Salt Union vessels between 1928 and 1945. A few years ago he began to set down his reminiscences, but felt unable to continue. They seemed to be such a valuable picture of life on the Weaver he was persuaded to be interviewed and recorded on tape. This account therefore falls into two parts, the first written by Frank Rogerson himself. The second part, though necessarily edited, has used his own words as far as possible.

Part One

On 16 August 1928 I reported to the captain of the *City of London* to begin my apprenticeship as a Weaver waterman. The vessel was a cargo steamer owned by the Salt Union Ltd, one of their fleet of about fifty craft carrying salt from Winsford and Northwich down the River Weaver to Weston Point and thence to Liverpool and Manchester. She carried, when loaded to 10 feet draft, 220 tons and was driven by a double expansion steam engine, the high pressure cylinder of 12-inch bore and the low pressure of 18 inches, both having a 12-inch stroke. The boiler pressure was 100 lbs per square inch.

The captain was Jacob (Jake) Abraham. He had been on waterways since leaving school at twelve, to become cabin boy on a sailing barge plying round the coasts. Tom Smith was the mate and the fireman-engineer Cyril (Cis) Hichenson.

Before starting work I had to meet my father at the office to sign my indentures. At that date I was not quite seventeen. I had set out to become a plumber but had found I was affected by contact with lead. The indentures bound me to the age of twenty-one to 'learn the trade and mysteries of navigation and craft management on the Rivers Weaver and Mersey and the Manchester Ship Canal'. The wage was 17/6 per week with annual increments of 5/-.

Coming back to the boat, I was taken in hand by the mate, who showed me where to stow my gear, some of which I had brought with me from home; the rest would await me at the lock on the way down. I heard we were expecting to leave for Liverpool as soon as we had finished loading. We were loading only a part cargo (90 tons) and were due alongside a ship in dock at Liverpool at 8.0am next day.

Most of that day was spent getting to know where everything was stowed, tidying the cabin, helping to move hatches for the loading gang, etc. But by 5.0pm the loaders were finished and by six o'clock we were ready to cast off. I was about to start my first trip down the river.

We loaded at the 'Birkenhead Works', the first SU plant below Winsford Bridge, which is head of navigation, so on my first trip I travelled the full length. In those days both banks of the river were lined with salt works,² mostly 'open pan'. Brine was run into large, shallow pans with coal fires underneath. The water evaporated, leaving the salt behind. The temperature or rate of evaporation governed the grain-size of the salt, Fierce, rapid boiling produced fine salt, slow simmer the coarse fishery salt, with all variations between. I estimate there were at least a hundred open pans working at the time.³

Leaving the Birkenhead Works, we rounded the point and on the port side the dockyard, offices, fitting shop, and boiler shop, and in the dockyard our own floating drydock. On the starboard side were the Uplaut Works. This and a number of other works produced 'Lagos Salt', fine salt made in blocks, dried and ground for the African trade. We rounded Meadow Point with Cheshire Works on the port side producing common salt. On the starboard side was the railway siding where wagons were loading with salt brought from other works. We then came to National Works (Common⁴ and Lagos salt), round National Bight (curves in the river are Points and Bights), past National Cut to West Works Vacuum Plant. Here the brine was purified to 99.9 per cent, then fed into closed pans and boiled in a partial vacuum. Rapid boiling at low temperature produces fine salt for table and dairy purposes.⁵

Carrying on down we came to the Falk Rock Mine, then not working, but being prepared for re-opening.⁶ Then past Factory Works (Lagos salt) and on to Newbridge, a hand powered swing-bridge. Below was the last of the Winsford plants, Newbridge Works (Fishery salt—Note 3).

Leaving industry behind we travelled between green fields to Vale Royal Locks. Here was a drop of 12 feet and I got my first practice in flicking a rope off a bollard 12 feet above me. I managed it eventually. Fortunately we had plenty of time to catch the tide. The mate took the wheel from the captain.

Leaving the lock, we approached the viaduct which carries the ex-LNW line from Crewe to Carlisle. We lowered the mast to pass under Hartford Stone Bridge. This was very low, only giving bare clearance to light or unladen craft, and all masts and boiler funnels had to be lowered.⁷ Continuing on our way, still through countryside, we passed Pimblott's boatbuilding yard on the port side to reach the site of Hartford Lock, eliminated in the early 1900s, when the river was deepened and the locks reduced from 8 to 6, and on to Hunts Lock. Here the rest of my gear

awaited me and a supply of food to last me until the weekend, the day being Thursday.

Below Hunts Lock we passed Yarwood's boat-building yard; under the viaduct carrying the Cheshire Lines railway from Manchester to Chester; the Weaver Navigation Trustees' yards and workshops; and to the first of the powered swing bridges, Hayhurst Bridge. Like those at Northwich Town, Acton and Sutton, it is electrically powered. Between Hayhurst and Town Bridge, 300 yards downstream, the River Dane, a right-bank tributary, joins.

Beyond, on the starboard side were warehouses and on the port a green hill hiding whatever was round the next bend. Then through the 'Furies', a narrow, twisting section. When the river is 'in flood' it is tricky to navigate, but there was no trouble that night, it was August and the river was in a benevolent mood. We then saw Brunner Mond's chemical works⁸ on the port side and Anderton Basin and Lift on the starboard. Then we passed through Winnington swing bridge (the scene of a bitter battle in the Civil War). This is on the site of one of the old locks, and being on a lesser road is not as big as the other power bridges.

Below Winnington we passed Wallerscote Works and Wharf. The works became notable when the first polythene was produced. Now we left industry behind for a while and passed through a completely pastoral scene. It was nine o'clock on a summer evening and we were enjoying the balmy breezes. I got my first chance to steer and found it trickier than I expected, even on a straight length.

Saltersford Lock was next. It was then time to put up the mast-head lamp and 'stern chaser'.⁹ Then came Acton Bridge and Dutton Locks, Sutton Weaver Swing Bridge and Sutton Level Locks, which were used only when there was a high tide in the Mersey, which raises the level in the Ship Canal above the Weaver level.¹⁰ Then we came to Weston Marsh Lock. Here the navigation continues as the Weston Canal to Weston Point Docks. But we locked down into the Manchester Ship Canal. Now we needed sidelights, red on the port side, green on the starboard, so erected and screened that they were only visible on their respective sides.

It was now after ten o'clock, getting darker and I could see moving lights in the distance. They turned out to be a Manchester Liner on its way from Montreal to Manchester. It was my first sighting of a seagoing vessel. As it approached it seemed to be drawing us to itself, then, when it drew alongside, it pushed us away. I could see the mate at the wheel was having a hard time keeping us on a steady course. We were soon past, he up towards Manchester, we towards Eastham and the Mersey. We passed Stanlow, the oil storage and processing installation; Ellesmere Port Wharves and Docks; and we were soon at Eastham Locks.

Here we had two hours to wait for the tide to come in and allow us to lock down into the Mersey. So we tied up and went into the cabin for a welcome cup of tea and a snack. It seemed no time before we made a move, to see that everything was stowed away in the cabin; all locker-doors locked; movable things lashed; lights checked and then we were all ready. While we had been doing this, the engineer was attending his engines and firing the boiler to have a full head of steam.

We entered the lock with several other craft, mostly coasters larger than ours. Soon we were in the Mersey and now I realised the reason for all that lashing and stowing. Though it was blowing fairly strongly since we entered the Ship Canal, the water was smooth. The Mersey was different, a tideway and also much wider. We proceeded down the Cheshire side for a start. Going against the tide, progress was quite slow, but steady.

After two hours we were almost at Birkenhead and it was time to cross over to the Liverpool side. There was quite a bit of sea and with only a part-cargo, the propeller

was hardly covered, so that when the bow dropped into the trough, the stern rose and the propellor came out clear of the water. This made the engine race and the exhaust threw sparks up the funnel, quite frightening at first until one realised what it was.

We were battling ahead against the tide and wind, making for Collingwood entrance. This was sometimes called 'Tower' on account of the six-face clock tower on the pierhead. When we got there, we had to wait a while until the tide reached the same height as that in the dock, when the gates opened. As we rounded up and approached the dock entrance, which appeared very narrow to me, our craft rolled and wallowed, so I was certain the masthead would hit the quayside. However it did not and we were soon in calm water, through one or two bridges and into Bramley-Moore Dock.

It was 6.0am, I unshipped the lamps and stowed them away. 'Well Frank', said the mate, 'How do you like life on the ocean wave?'. 'A bit scary at times', I replied. 'You'll be all right', he said, 'one thing I am sure of—you will never be plagued with sea sickness. But come on now, get some breakfast—we have to be alongside ready for the unloading gang at eight o'clock'.

While I was pulling myself together, thinking about a nap, someone had been stirring the fire and putting the kettle on. Soon we are all enjoying a good hot drink of tea. Each in turn we cooked our breakfast, not on a frying pan, but in a dutch oven on a hanger in front of the firebars. I do not know of a better way of cooking bacon.

By 7.30am the captain had reported to the stevedore. We were ordered to number three hatch of the ship for 8.0am. The sea-going vessel was registered at Stockholm, the destination of our cargo, 90 tons of common salt in 50 kg bags. I found my way aboard while the others manoeuvred alongside. I caught the lines thrown up to me and hung them on the bollards. Then, when I looked overside and saw the Jacob's ladder, I was no longer disappointed the ship was no giant. However I was soon down on our own deck. Hatches were taken off and all was ready for the dockers to start before eight o'clock.

The day passed fairly quickly moving the boat and changing hatches over, as although we have only a part-cargo, it had had to be spread fairly evenly to save strain on the hull. The lamps had to be cleaned and filled ready for the next time they would be required. Also the cabin had to be cleaned and brass hearthplate knobs and rails, copper kettle and brass plates at the foot of the companion all polished every morning, except when under way in the Mersey.

And so the day went on until about four o'clock the dockers finished unloading. We could now get the hatches on, find a berth alongside the quay and tie up for the night. It was now five o'clock and Jake, the captain, said 'There—you can go ashore if you like, but remember we leave at six o'clock in the morning'. Needless to say I did not stir far and was soon in bed. So ended my first 'day' as an apprentice.

NOTES ON PART ONE

- 1 The best source for the history of the Weaver Navigation remains Charles Hadfield, *The Canals of North West England*, David & Charles.
- 2 There are now none at Winsford.
- 3 One working open-pan plant, the Lion at Marston, where the B5075 crosses the Trent & Mersey Canal, survived until 1986. It was sold to Vale Royal District Council and it is hoped it will re-open as a working museum together with transfer of the Salt Museum from Northwich.

- 4 Common salt: medium grain, similar to or slightly coarser than household cooking salt. Fishery salt: very large grain.
- 5 The vacuum process is the present method.
- 6 The only mine in the country. Elsewhere salt is won by letting water down to dissolve it and pumping out the brine. Worked by ICI, it produces rock salt for use on roads.
- 7 Later replaced by a high-level bridge on the A556 Northwich bypass.
- 8 Now ICI Winnington Works.
- 9 The light on the stern. Only bow and stern lights were carried on the Weaver, but port and starboard lights on the Ship Canal and Mersey.
- 10 One mile below is the Dutton Viaduct by which the ex-LNW main line is again carried over the Weaver.

PART TWO

My father must have started on the Weaver about 1900 and my grandfather about twenty years before that. When I joined he was captain of the *Dolphin*. My father was engineer on the *Arabia*. He was an excellent engineer and had the reputation of being able and willing to nurse along ships in poor condition. When he died they told me they had tended to give him the ships with engines in bad condition. And my eldest brother was also serving as an engineer at that time. But my apprenticeship was as deckhand.

There were quite a number of families like ours. Winsford was the base, but many men lived at Northwich or Runcorn. The skipper of my first boat, Jake Abraham, was from Runcorn. He was getting on for retiring age and in his young days had served before the mast on sailing vessels going down the coast.

The Weaver Navigation Trustees controlled the river from Winsford Bridge to Weston Point Docks. Then of course from Weston Point we went down to the Ship Canal, either to Eastham and across the Mersey to Liverpool or up the canal to Manchester. Sometimes we loaded to Weston Point, where coasters from the northern British ports, France, and Belgium used to come in to take common salt in bulk for fishery purposes.

During my time I went into every dock in Liverpool, from Herculanum to Gladstone. The Gladstone Extension and the Seaforth complex were after my time. As for Manchester, we did go to Pomona Docks sometimes, but usually we went to the Manchester Liners' berth in No.9 Dock. Their ships used to take salt to Montreal. One of their skippers told me the first cargo vessel to dock at Montreal after the winter freeze got a top hat and a walking stick. He got presented with these three times, each time with a cargo of salt.

Our steamers carried 150-200 tons generally, though one of them could take up to 300 tons. They also towed up to three dummy barges. The latter had capacities of 150-250 tons. We also had two tugs. The steamers were crewed by captain, mate, and engineer, with an apprentice, the barges by captain and mate, the larger ones also having an apprentice.

The apprentice was general dogsbody and also was learning the trade, it was as simple as that. One thing that annoyed me, a complaint shared with most of the apprentices, was that they never got paid overtime. They were not supposed to work overtime, but when the boat was moving the apprentice had to be on board, they just could not go home at five o'clock. And how could he learn his job of navigating, a lot of which was done in the dark at night, without working overtime?

When we were away from home we could live on board. Each man had a bed and we catered and cooked for ourselves, generally speaking. But when I was serving as apprentice on the *Westmoreland*, Terry Molineux was skipper and his son the mate. Terry catered and I did the cooking, more or less living with them.

When I came out of my time, I got £3 a week plus overtime and tonnage money. We got so much per hundred tons we had carried during the week. If you were away on Friday, your wife could collect your standing wage from either the Winsford or Northwich office. But we drew our tonnage money ourselves.

As the captains did not go beyond the Mersey Bar, they were not required to hold a pilot's licence. But of course they were recognised as trained for the Mersey. We did navigate in the fog sometimes, you could get caught unawares when it came down suddenly. If it was really foggy you would not leave Liverpool. But sometimes a fog would catch you after leaving dock. Then you had to find your way.

At night you had to find your way along the Weaver. There was very little within the built-up area, though there were the lights of individual farms, and we knew where we were as we passed under bridges. Down the Mersey you had certain points and lights you worked by. From Eastham Lock the first light we steered for was the old *Indefatigable* which was anchored just outside. We went on the inside and down the Birkenhead side until we were just approaching Birkenhead. Then depending on which part of Liverpool we were for, we would choose which way we would go across. That was difficult because we had to gauge the flow of the tide. Cutting across the tide drove you up or downstream and steering was quite a task. Of course an apprentice did not attempt this for some years.

When the war started, it was amazing the difference the blackout made. Vessels had no lights other than navigation ones. These were just oil lamps at the masthead and stern on the Weaver and port and starboard lights on the canal and Mersey. There were no street or house lights, and with the towns no longer lit up, even the countryside was darker. But we got used to it.

If you had a good run, it would take about eight hours from Winsford to Liverpool. But there were always so many variations. You might spend a long time waiting for locks, somebody else coming up and you wanting to go down. The wind might be bad, and you might have to wait at Eastham for the tide. You could only get out of Eastham at certain states of the tide and the earliest you could get into the docks at Liverpool was half-tide, about three hours before high water.

Our normal route was via Eastham. When the Ship Canal was built, the Act stipulated salt travelled free down the canal, because building the canal made it more difficult for Weaver traffic to get into the Mersey. But the Salt Union also owned the Mersey, Weaver and Ship Canal Carrying Company, and we would sometimes bring general cargo from Liverpool up to Northwich and Winsford. Then we had to come up the Mersey to what we called the Weston Mersey Access opposite Weston Point Docks.

That meant us coming straight up past Garston. Above is a very wide expanse with plenty of shoals. There is deep water only in certain channels and those alter frequently. If we were coming that way, the skipper had to try and find out where they were. So the previous day we would go to Garston and when the tide was out, see where the deep water was. Also the Bridgewater Company had tugs which came down to Liverpool every tide to pick up barges, to bring them up to the Bridgewater Canal at Weston Point. If we could, we tailed on behind them. Sometimes they had gone before we started. If we were on our own and if the captain had been unable to spy out the land, we had to sound.

We had a long sounding-pole. You let it drop to the bottom and then, when you came abreast of it, you noted how far up the pole the water was. You knew the measurements from the top of the pole so could work out the depth of water. Sometimes we had to do that all the way from about Garston to Weston Point. We went aground occasionally, but I do not think any of us ever got properly stuck. If it was a barge, the steamer could usually pull him off. If the steamer stuck, he could generally reverse out. I think in the seventeen years I was on the water, only twice did a boat have to stay out a full tide. I always thought it lucky there were not more incidents as it was very tricky going up there.

As for going to Manchester, we went out into the canal from Weston Marsh Lock just the same. The mast had to be stepped, pulled down to deck level. There were only two (both opening of course) bridges we could not go under with our mast down, but keeping it stepped saved the cost of opening other bridges. The Ship Canal locks would take four craft in the big locks and two craft in line in the small locks alongside. We did not often go into the big locks. They would let us in alone without waiting for the lock to fill. But sometimes the lock was the wrong way and we would have to wait for something to come the other way. But generally speaking they did not delay us much. It also took about eight hours to get to Manchester. But we did not have to wait for tides.

At Winsford the salt works were built up on the bank and the warehouses were at the foot. So the salt was tipped right from the pans to the warehouses, where it was bagged. When the bags had been sewn, they were sent down a chute into the hold of the ship. There would be two men down in the hold and a man at the end of the chute. As the bags came down he would guide it to drop where wanted—very clever. The top man could build up a tier of bags below. The two bottom men were just there to straighten the bags.

The cargo had to be distributed to keep the vessel balanced and not have too much weight in one part. To make up a full cargo, you might have a number of different consignments of different grades of salt for different ships or for different ports where the same ship would call. So they had to be kept separate. Of course the skipper would decide where he wanted the consignments and tell the loaders whereabouts to put the bags.

Lagos Salt was packed in small 40 lb bags of white cotton, with very intricate designs in red and blue printed on them. I understand they were in demand by the Africans for making shorts.¹ You had to be very careful with these and with the 100 kg bags of vacuum salt for Denmark. We used to carry straw to line the bottom and sides of the boat.

Sometimes we got a rat aboard and of course it would get among the straw, so there was nothing we could do until we were 'light', with no cargo aboard. Then, if there were any other of our craft around we would pass the message—'Rat hunt', We all gathered in the hold with brooms or any other weapon to hand. One man had to move the straw to the other end of the hold. As the last bundle was shifted, the rat would run to the pile that had been moved and we had to try and catch and kill it. Sometimes one of us got it the first time, but not often. But if it got away we had to try again. The hunt sometimes went on for an hour or two, but it was great fun while it lasted.

Sometimes we took bulk salt. When the mine was reopened in 1931 or 1932, I was with the *Westmoreland*, and we carried the first cargo from there. We had awful trouble with the conveyor belt from the mine down to the river. It was a very long one and it took them weeks to get it adjusted. But that did not go on for long. Later they sent most of the stuff in bags.

At Liverpool we might be wanted to go alongside the sea-going ship immediately, or we might not be wanted until next day. In those days we reckoned the rate of unloading to be 100 tons a day, though a good gang would move more. In later years it got worse, they had more men on the job and did not work as hard. During the war my father's boat had been to Manchester and mine to Liverpool. After we had both got home to Winsford, father was reading the paper. He laughed derisively. I said, 'What Dad?'. 'The Liverpool dockers are working like hell to beat Hitler!'

Father said they had worked all day in Manchester and had moved 20 tons. I said, 'I can beat that, Dad'. At that time my skipper was off and I was in charge. We were working all night and at Liverpool the unloading gang were supposed to come at 8 o'clock. Two men came when there should have been six (four in the hold, one on deck and one to give the others a rest), and one of those was drunk and was making such a nuisance of himself in the hold, I refused to let him stay there because he was not safe. I sent him up and I had to put his feet on the rope ladder. At nine o'clock two more men came down and the other man in the hold left at once. At ten o'clock those two went and the last two came. By eight o'clock the next morning they had done 15 tons.²

When we were in Liverpool and it would take two or three days to unload, if we were not on overtime we could go ashore. I was in the fortunate position my mother was a Liverpoolian. Her brothers and her sisters lived there and her elder brother had two boys a little younger than me. So I had people to go to and I spent quite a lot of time with them. Otherwise most of the men went to a pub. You rarely went back home from Liverpool for the night unless there was some special reason. But normally we did not work Sundays, and if we were in Liverpool we would take it in turns to come home on Saturday night. We would get the train to Hartford and thence to Northwich (from Greenbank). If you went home overnight and got back to Liverpool before 9am the fare was 1/-.

Of course during the war it was forbidden to leave the boat unmanned, someone had to be there. In fact one man got sacked because his boat was sunk in an air raid and he was not on board. He would have been killed if he had been. But because the boat was laden and sunk he got the sack. It was a matter of insurance.

I had seventeen years on the Weaver and left in 1945. We were a reserved occupation and although several men volunteered, they would not take them for the forces. I left as soon as the war was over because I got frostbite. The winter of 1942-3 was very bad and it was bitterly cold. I was the sole crew on a boat (barge) used internally at Winsford. I got instructions on the Saturday to go to National Works for loading on Monday morning. Normally a steamer would tow me from one works to another. But on this occasion none was available. So I had to manhandle it with a windlass and heaving line. After breaking the ice round the boat, I had to run ahead with the line, then heave it in on the windlass with the iron handles. I did this about 15 times, travelling about 2½ miles. It was the constant contact with the cold iron which caused the frostbite.

I got to National Works about three o'clock. Then I got on my bike and went home. During the weekend I could not go near the fire. Every time my fingers got warm they ached. When I got to work on Monday morning, I said to one of the captains, 'I must have burned my fingers on the kettle on Saturday morning. They ached like mad all weekend and I daren't go near the fire', 'Let me have a look', he said and I showed him, 'Get across to that dressing station—NOW!' 'Why?', I said, 'You've got frostbite, my lad, get across there'.

So I went across and the nurse looked at my hands, got on the phone to the doctor and he came and looked at them. 'Get off home and take that to your doctor' he said, handing me a note. I went to my Doctor. 'Trauma be b....d', was his

comment, 'does he think I don't know frostbite when I see it. Young man you're going to have bad fingers'. Every finger peeled, nails off and everything.

I was off work for six weeks. They did gradually heal up, but every winter I was suffering with them. And when the war was finished I was married with a baby. The doctor had told me, 'If you get frostbite again, don't come back to me because I could do nothing for you'. So I went back to him and he had no hesitation in giving me a note to support my application for release.

After I left, I had to think of something to do. And that was when we took a little grocery business in Flint. But my wife always wanted to get back to Colwyn Bay, so we went there from Flint, and we still live there.

I was in the water three times, although I never learned to swim. My first boat was the *City of London* and I had not been with her long. We had been in dry dock for repairs and we were pulling out. I was pushing with a boathook on some piling. Jake, the skipper, being concerned about me said, 'Is that hook safe?' I said, 'Yes', and started pushing again. But while I had turned round the boat had moved. I pushed against nothing and fell in head first. I heard somebody say, 'Can you swim?' 'NO', I yelled. 'Leave the b....r there—will teach him to learn'. But anyhow they got me out.

The next time was in Anderton Basin, where we were discharging a cargo for the MW&SC Carrying Co. The skipper was on deck guiding the hoist lifting the cargo out of the hold. I got my bicycle out of the hold, where, if there was room, I kept it when we were 'under weigh'.³ Most of us kept cycles on board to carry us home when we were not too far away. I was passing behind the skipper, walking on the 'gunwhale'.⁴ The next thing I knew I was in the water, bike and all, while the skipper had a boathook into my clothing. They soon had me out, I took no harm, but it ruined the bike. It was all coated with lime sludge from the works across the way. I had to buy a new one and it cost me £5, a lot of money in those days.

The third time was at Frodsham Mill.⁵ My father's boat, the *Arabia*, was discharging. My boat, the *Arabia*, was at the open quayside waiting our turn. I wanted to visit Dad, so rather than go fifty yards to the gate in the fence, I decided to step from our rudderhead to the *Arabia's* bow. Unfortunately I had not noticed our skipper had just tarred the rudderhead. I slipped and fell on the outside of the *Arabia's* bow just missing our rudder. There was quite a 'fresh'⁶ running. Somehow I managed to get to the little boat astern.⁷ I scrambled ashore and went round, via the gate, to strip on the footplate of the *Arabia's* engine room, where it was warm. That was the only time I heard my father swear and it shocked me more than the ducking. I was informed I no longer need fear drowning as Davey Jones only tries three times. I still cannot swim.

NOTES ON PART TWO

- 1 When the editor lived in West Africa, shorts made from Liverpool's flour bags were commonly worn.
- 2 Editor: Liverpool's reputation is of long standing!
- 3 On the move
- 4 The raised edge round the deck
- 5 Located under the Frodsham railway viaduct and on the river below Sutton Marsh Locks where the Navigation leaves the river.
- 6 A more rapid flow in the river after rain.
- 7 All barges towed a small boat astern, the steamers carried one on their hatches except when loading or unloading, when it was lifted into the water and tied astern.

The Railway Acts of Parliament of 1889

A. L. BARNETT

The following is a summary of the Acts of Parliament relating to railways in Great Britain passed one hundred years ago. Wherever possible, modern names of junctions and locations are used; parliamentary descriptions by parishes can be very misleading. It has not been possible to consult Deposited Plans for the proposed railways and, if mistakes have been made, the author would be grateful if they are pointed out. Apart from this, no additional information which does not appear in the Act has been included. Approximate mileages are given to help the reader to appreciate the extent of the project. To avoid repetition, the date of Royal Assent is given at the end of the appropriate section. The Chapter number of Local and Personal Acts is given in Roman figures, but for convenience Arabic numerals are used in this article.

Except where an asterisk (*) is used, the word Railway(s) should be added to the words in capitals to complete the company's title. To save space well-known railways are referred to by initials, and initials are generally used in subsequent reference to the companies. The Acts were consulted at West Yorkshire Archives Service in Wakefield and thanks are due to the Archivist, Mr R. Frost, and his staff.

ABBREVIATIONS

A.	Agreement
Abd.	Abandon
Amalg.	Amalgamation
A.P.	Additional Powers
Auth.	Authorised
Br(s)	Branch(es)
c.	chapter
Conn.	connection or connecting
Cons.	May construct
Devn.	Deviation
Divn.	Diversion
Extn.	Extension
F.P.	Further Powers
Inc.	Co. incorporated
Jn(s)	Junction(s)
Jt.	Joint
m.	Miles
m.l.	Main line
R.P.	Running Power(s)
R(s)	Railway(s) or River
Sdgs.	Sidings
Stn.	Station
V.P.	Various Powers
W(T)A	Working(Traffic) Arrangements

CATHCART DISTRICT. c. 4. Caledonian R. may subscribe £109,000

CALEDONIAN. c. 12. Cons. from Ingliston br. to m.l. near Plean	5½m.
Cons. from Denny br. to Kilsyth & Bonnybridge R.	½m.
Widening of Denny br.	4½m.
Widening of m.l. at Larbert	⅝m.
Widening of m.l. and station improvement in Edinburgh	⅜m.

Railway, already constructed, from Coalburn to Galawhistle coal pit 5m.
Moffat R. Co. dissolved and vested in CR from 11 November 1889.
Glasgow Central R. Co. dissolved and vested in CR.
Annan Waterfoot Dock & R. vested in CR.

METROPOLITAN DISTRICT. c. 20. Extn time for Acton Jn. and West Brompton
Rs. to 4 July 1891 and 27 June 1891 respectively.

52 VIC. 31 May 1889.

LC&D (F.P.). c. 27. May acquire lands in London and in Rochester.
May abd. Maidstone & Faversham Jn R. (auth. 1881).

BRIGHTON, ROTTINGDEAN & NEWHAVEN DIRECT. c. 29. (Inc. 1886)
Extn. time to 25 June 1893.

WEST SOMERSET. c. 30. (Inc. 1857). New Preference shares to be issued to
existing holders. May raise further £10,000 and borrow £3,300 and issue Debenture
stock.

AIRE & CALDER NAVIGATION*. c. 32. Cons from Wakefield,
Pontefract & Goole R. to north end of Aldam Dock, Goole. The old Aire
street passenger lines to be abd. $\frac{7}{8}$ m.

GWR and LLANELLY R. & DOCK COS. AMALG. c. 33. The two Cos. to be
amalg. from 1 July 1889.

GWR and CORNWALL R. COS. AMALG. c. 38. Amalg. from 1 July 1889 and
Cornwall Co. dissolved.

MIDLAND. c. 39. Linacre br. Cons. from Bootle br. to Leeds &
Liverpool Canal $\frac{1}{2}$ m.

Blackwell br. extn. Cons. from Blackwell br. to Mansfield & Nottingham
R. 3m.

Saxby curve. Divn. at Saxby. May abd. existing r. $1\frac{1}{4}$ m.

Cottesmere and Bourn deviations. Cons. from Saxby to m.l. of GNR at
Little Bytham (devn. of line auth. Eastern & Midlands R. Act 1888) $14\frac{7}{8}$ m.

Chinley South curve. Divn. at Chinley $\frac{3}{8}$ m.

Bow branches. Cons. from m.l. of GER, near Stratford, to the East
London Waterworks $\frac{1}{4}$ m.

Rs. auth. by Eastern & Midlands R. Act, 1888, are transferred to MR
and GNR from 1 January 1889.

52/53 VIC. 24 June 1889.

METROPOLITAN. c. 53. Chesham br., auth 1881, may be extended $\frac{7}{8}$ m.
Aylesbury br. may be made a separate undertaking.

NORTH EASTERN. c. 60. Cons. from Durham, Elvet, to Broomside $1\frac{3}{4}$ m.
Cons. Castleford to Messrs. Hunt Bros' works $\frac{3}{8}$ m.

Whitby, Redcar & Middlesbrough Union R. vested in NER

Part of Blyth & Tyne R. at Tynemouth to be abd.

52/53 VIC. 5 July 1889.

SOUTHPORT & CHESHIRE LINES EXTN. c. 70. Co., inc. 1881, may issue
guaranteed Debenture stock up £200,000. As. with the Liverpool, Southport &
Preston, West Lancashire, CLC, MS&L, GN and Mid R. Cos. confirmed.

CAMBRIAN RS. (STEAMBOATS). c. 71. Co. may sail steamboats from Aberdo-
vey, Aberystwyth, Portmadoc and/or Pwllheli to ports in Ireland. May raise further
capital by Debenture stock.

SELBY & MID-YORKSHIRE UNION (WISTOW to DRAX) ABD. c. 73. Co. to abd. r., auth. 1882 from Wistow to the H&BR at DRAX.

LANCASHIRE & YORKSHIRE. c. 74. Widenings at Cherry Tree, at Manchester, at Oldham Road goods station, at Kirkdale and at Ashton. Diversion of Cherry Tree to Chorley Jt. line.

STRATFORD UPON AVON, TOWCESTER & MIDLAND JN. c. 76. Extn. time to 15 August 1890. May abd. certain rs. auth. 1879.

52/53 Vic. 9 July 1889

KING'S LYNN DOCKS & R. (F.P.). c. 80. Co., inc. 1865, may purchase additional lands and create Debenture stock.

OSWESTRY & LLANGYNOG (ABD.). c. 81. R. to be abd. and Co., inc. 1882, wound up.

CHESHIRE LINES*. c. 84. May widen line into Manchester Central stn.

MANCHESTER, SHEFFIELD & LINCOLNSHIRE (STEAMBOATS). c. 85. May run steamboats from Grimsby to certain European ports. May raise further £100,000.

BARRY DOCKS & RS. c. 86. Co., inc 1884, may raise further £300,000 and borrow £100,000. May appoint three directors to the Barry Pilotage Board. May issue Debentures.

GLASGOW & SOUTH-WESTERN. c. 89. Cons. Monkton to Annbank 3½m.

Cons. from Barrassie to Lochgreen Jn. (Troon Loop Line) 2½m.

Cons. from Troon Harbour to Troon ¾m.

Cons. from St. John's Jn. to Bridgeton Cross South Jn ¼m.

R.P. over Bridgeton Cross Extn. of N.B.R.

Provate r., or waggon road, at Ayr Harbour to be purchased.

NORTH BRITISH. c. 90. Cons. Clackmannan to Kincardine 4m.

Cons. Pier at Kincardine.

Cons. Touch North to South Jns., Dunfermline ½m.

Cons. Roughcastle Br., Falkirk 1½m.

The following railways were authorised for the carriage of goods and minerals only:

Railway No. 6. Cons. from Caldercruix to Railway No. 8 7½m.

Railway No. 7. Cons. conn. from Nos. 8 and 9 to Nos. 12 and 13 near Drumbow ½m.

These goods and mineral lines, already constructed by the Co., were legalised:

Railway No. 8. From Logriggend, Slamannan Railway, to Messrs. Nimmo's Pit No. 11 1¾m.

Railway No. 9. From Nos. 7 and 8 to Eastfield Pit ¾m.

Railway No. 10 From Longrigg, Slamannan Railway, to Lochend Pit, No. 4, near Black Loch 1½m.

Railway No. 11. From No. 10 to Lochend Pit, No. 2 99yds.

Railway No. 12. From No. 8, near Drumbow, to Nos 10 and 11 1¼m.

Railway No. 13. From Nos. 7 and 12, near Drumbow, to Auchingray Pit ¾m.

ST. HELENS & WIGAN JN. c. 91. (Inc. 1885). Named changed to Liverpool, St. Helens & South Lancashire R. Extn. time to 25 September 1894. MS&LR to work for 50 per cent of gross receipts.

GREAT NORTHERN. c. 94. Cons. Gas Works Tunnel, West Side ¾m.

Widening at Woodhall Spa ¼m.

Widening at Black Carr ¼m.

Cons. conn. line to East & West Yorkshire Union Rs. at Lofthouse	$\frac{1}{2}$ m.
Devn. Tingley, East Jn, to Beeston Jn. May abd, parts of r. auth. 1881	$\frac{7}{8}$ m.
Widening Wortley Jn to Bramley	$\frac{1}{2}$ m.
Cons. from Halifax & Ovenden R. to Halifax High Level R., to be part of H&O Jt. Ctee	$\frac{1}{8}$ m.
Kirkstead Ferry to be abolished when bridge over R. Witham is completed.	
LNWR c. 98. Devn. near Eamont Bridge, near Penrith. NER to have R.P.	$\frac{5}{8}$ m.
CR to have R.P. to Lancaster, Morecambe, Ingleton and Windermere.	
N. Union R. between Parkside Jn and Euxton Jn to be vested in LNWR and between Bolton and Euxton in L&YR.	
TEES COSERVANCY. *c. 101. Devn of R., auth. 1875, and abd. parts. Extn time to 26 July 1899	2 $\frac{1}{4}$ m.
DIDCOT, NEWBURY & SOUTHAMPTON. c. 102. Co., inc 1873, may abd. certain rs auth. 1882. Extn time for Aldermaston br. auth. 1882, to 10 August 1892. May raise further capital.	
MS&L C. 103. Cons. Beighton to Chesterfield	10 $\frac{1}{2}$ m.
Cons. Waleswood Jn to Killamarsh Jn	1 $\frac{1}{2}$ m.
Cons. br. to Holbrook Colliery	$\frac{7}{8}$ m.
Cons. br. to Renishaw Ironworks	$\frac{1}{4}$ m.
Cons. br. to Renishaw Park Colliery	$\frac{1}{2}$ m.
Cons. conn. to MR Sheepbridge Ironworks br.	$\frac{1}{8}$ m.
Cons. Markham colliery br.	2m.
Cons. Staveley to Annesley, and jn with GNR	16 $\frac{1}{2}$ m.
Cons. Holmwood Colliery br.	$\frac{1}{2}$ m.
Cons. Pilsley Colliery br.	$\frac{3}{8}$ m.
Cons. br. to New Hucknall Colliery	$\frac{1}{8}$ m.
Cons. Tibshelf Colliery br.	$\frac{3}{8}$ m.
Widening of m.l. at Ardwick and Openshaw.	
R.P. over GNR from Annesley to Nottingham.	
May subscribe £100,000 to Blackpool R. and make W.A.	
DUNDEE SUBURBAN. c. 104. (Inc. 1884). Extn time to 28 July 1892.	
EASTBOURNE, SEAFORD & NEWHAVEN. c. 105. (Inc. 1886) Cons. substituted r. from Seaford to Wilmington, jn with LB&SCR., Brighton and Hastings br.	5 $\frac{1}{2}$ m.
May abd. certain rs auth. 1886.	
EAST & WEST YORKSHIRE UNION RAILWAYS. c. 121. Co., inc. 1883, may abd. short length in Leeds. Capital reduced to £900,000.	
PLYMOUTH, DEVONPORT & SOUTH WESTERN JN. c. 125. (Inc. 1883) Cons. from Turnchapel Br. Jn. of L&SWR to near Friary goods shed of L&SWR to be known as the Plymouth section and to be a separate undertaking with a capital of £30,000. May raise additional £105,000.	$\frac{3}{8}$ m.
SHORTLANDS & NUNHEAD. c. 126. Inc.: capital £320,000. Cons. from Shortlands to Nunhead Jn. W.As with LC&DR.	4 $\frac{1}{2}$ m.
All bridges over roads to be of ornamental description.	
WIRRAL R. TRANSFER. c. 133. (Co. inc. 1883 by certificate of the Board of Trade) MS&L and Wrexham, Mold & Connah's Quay R. Cos to purchase certain rs auth. 1883, 1884, 1885 and 1888.	
WEST HIGHLAND. c. 134. Inc.: capital £540,000. Cons. from Craigen-doran to Fort William	100 $\frac{3}{8}$ m.

Conn. to Callender & Oban R. at Crianlarich ¾m.
 Certain stns. to be built, including Portincaple, Ballhennan and at or
 near Corroun, with deer fence at latter.

WELSH RAILWAYS THROUGH TRAFFIC. c. 135. To auth. As between the
 Barry, Alexandra (Newport & South Wales) Docks and R., Brecon & Merthyr,
 Neath & Brecon, Pontypridd, Caerphilly & Newport, Swansea & Mumbles, Cambrian,
 Wrexham & Ellesmere, Wrexham, Mold & Connah's Quay, MS&L, CLC,
 Wirral, Seacombe, Hoylake & Deeside, Mersey, Liverpool, Southport & Preston
 Jn., Southport & CLC Extn., West Lancashire, and Blackpool R. Cos for the
 purpose of through traffic and to authorise the appointment of Joint Committees.
 Cos may make W.As.

WISBECH CORPORATION* c. 137. GER may cons. Harbour br. ½m.

GREAT WESTERN. c. 139. Cons. Lipson Jn. to Mount Gould Jn.,
 Plymouth ½m.
 Cons. Mount Gould Jn. to Cattewater Jn ¾m.
 Cons. Bird-in-Hand—Pontllanfraith ¼m.
 Cons. Hengoed Jn.—Ystrad Mynach North Jn ¾m.

MERSEY DOCKS & HARBOUR BOARD*. c. 140. Divn. Wapping
 Dock to Hill Street, Liverpool ½m.

COWBRIDGE & ABERTHAW. c. 141. Inc.: capital £90,000. Cons.
 Cowbridge to Aberthaw 6½m.

RHYMNEY (CAPITAL). c. 145. Existing Preference stock, except six per cent
 1861 Preference stock, is extinguished from 1 August 1889, and new stock at four
 per cent issued up to £927,750.

MERSEY. c. 146. Extn. time for rs auth. 1887, to 23 August 1894. Rs, auth. in
 1887, in Birkenhead, to be abd. W.As. with MS&L WM&CQ and GNR Cos.
 Central stations in Liverpool to be connected by steps.

NEWPORT, GODSHILL & St. LAWRENCE. c. 151. (Inc. as Shanklin & Chale
 R., 1885). Cons. from Merstone, jn with Isle of Wight Central R., to St. Lawrence.
 May abd. rs auth. 1885 and 1887. Name changed to NG&StLR

BURRY PORT & NORTH WESTERN JN R. (ABD.). c. 153. Co. to abd. rs
 auth. 1876 and 1881 and be wound up.

HULL, BARNSELY & WEST RIDING JN R. & DOCK. c. 154. May create first
 and second Debenture stock of £1,500,000 and £2,000,000 respectively.

SOUTH EASTERN. c. 159. Devn. in Maidstone ¾m.
 Widening of Charing Cross R.
 Cons. dock in River Medway.
 Elham Valley Light R. may purchase additional land.
 Loose Valley R. Co transferred to SER Co.

BLACKPOOL. c. 162. (Inc. 1884) Ext. time to 27 August 1892. West Lancashire
 and Liverpool, Southport & Preston Jn R Cos may subscribe.

MIDLAND & SOUTH-WESTERN JN. c. 163. Extn. time to 23 June 1892. May
 raise further £21,000. R.P. over Banbury & Cheltenham R. to Cheltenham. Not to
 oppose East Gloucestershire R. Co's proposed r. from Fairford to Cirencester; EGR
 may use MSWR station at Cirencester.

52/53 VIC. 12 August 1889.

FRESHWATER, YARMOUTH & NEWPORT. c. 185. Cons. Fresh-water to Totland Bay. Not to obstruct guns of Warden Point Battery. May purchase Totland Bay Pier & Hotel Co. Ltd.	1 $\frac{3}{8}$ m.
VALE OF GLAMORGAN. c. 188. Inc.: capital £360,000. Cons. Coity Jn to Barry Cons. Cowbridge Road Jn to Bridgend station Conns, to South Wales R. at Bridgend	19 $\frac{3}{4}$ m. $\frac{1}{2}$ m. $\frac{1}{4}$ m.
SHEFFIELD & SOUTH YORKSHIRE NAVIGATION*. Inc.: capital Sufficient to purchase Canals from MS&LR Co. and an additional £1,500,000. Divn of MS&LR from Keadby Jn to Keadby station; MS&LR Co. may construct.	$\frac{1}{4}$ m.
TAFF VALE (AMALG. AND CAPITAL). c. 193. Llantrissant & T.VJn, Cowbridge, Dare Valley, Rhondda Valley & Hirwain Jn, Cardiff, Penarth & Barry Jn, and Treferig R. Cos dissolved and amalg. with TVR Co. TVR may issue Debenture stock and Preference shares sufficient for these purchases.	
MUMBLES R. & PIER. c. 194. Inc.: capital £81,000. Cons, from Oystermouth R. to Swansea Bay. Cons. pier and pier-head with rails thereon	1 $\frac{1}{4}$ m.
GOLDEN VALLEY EXTN. c. 195. Cons. Pontrilas, GWR, to Monmouth GWR Conn. at Monmouth W.As. with Severn & Wye and Severn Bridge R. Cos.	13m. $\frac{1}{4}$ m.
PAINSWICK. c. 197. Inc.. capital £33,000. Cons. Stroud, GWR, to Painswick	3 $\frac{1}{2}$ m.
SOUTH HAMPSHIRE R. & PIER. c. 198. (inc. 1882). Extn time to 10 August 1892. Extn time for Swindon, Marlborough & Andover R. to 16 July 1890. May raise further £72,000.	
TOWCESTER & BUCKINGHAM. c. 201. Inc.: capital £180,000. Cons. Towcester to Banbury (Northampton & Banbury Jn R.). W.As with N&B Jn. R.	10 $\frac{1}{4}$ m.
BREAN DOWN HARBOUR & R. c. 204. Inc.: capital £345,000. Cons. pier at Brean Down and r. from pier to GWR W.As with GWR.	4 $\frac{1}{2}$ m.
	52/52 VIC. 26 August 1889.
FILEY PIER & TRAMROAD. Inc.: capital £45,000. Cons. pier and tramroad to NER at Filey. Gauge to be 4' 8 $\frac{1}{2}$ ".	$\frac{3}{4}$ m.
BEVERLEY & EAST RIDING. c. 213. Inc.: capital £111,000. Cons. Beverley to Ingholms Bridge, Beeford	13m.
	52/53 VIC. 30 August 1889.

An Early French Railway: The Paris—St Germain Line

PETER S. RICHARDS

Railway construction in France was sluggish, to say the least, while the government considered a plan of radial lines focusing on Paris.¹ Thus railways developed slowly because of discouragement from above. When the line from Paris to St Germain was projected, Thiers, the noted French politician, declared it might be worth constructing as an amusement for the Parisians and the scientist, Arago, an astronomer, warned against the menace to human health involved in travelling by rail. The government was also unwilling to put up the necessary capital to pay for the railway being built.²

St Germain-en-Laye is a small town situated on a steep hill, overlooking the river Seine, thirteen miles west of Paris. The chateau was a favourite royal residence until Louis XIV removed the court to Versailles. It became well-known when a treaty was signed there between the Allied Powers and Austria in 1919 as part of the post-war peace settlement.³

The law authorising the formation of a company to build a railway line between St Germain and Paris, the French capital, also on the Seine, was passed on 9 July 1835. The line was opened to traffic on 26 April 1837. It is $11\frac{1}{2}$ miles long; the distance by river, because of the meanders, is 33 miles. Before the railway was opened heavy goods traffic went by river—a circuitous, extremely difficult, and often almost impossible journey. Initially, ten trains ran daily in each direction—for a short while much of the line was single track.

The promoters of the line surveyed the number of passengers travelling between Paris and St Germain by road, by both private and public transport, and estimated there were 900,000 passengers by year or 1100 per day. It was anticipated with the coming of the railway the number of passengers would increase. Potential goods traffic, from that going by river, was investigated.

Once the railway was opened the journey between the two towns took 25 to 30 minutes. The woods at St Germain were popular with the Parisians in the evenings and on Sundays and the number of passengers using this line grew for many years. Milk and vegetables were brought to Paris; the market gardeners and dairy farmers near to the City could not meet the growing demand for food, to meet the needs of the rising population in the Capital. The railway enabled perishable food stuffs to be transported for longer distances than by road and still remain fresh. Warehouses were built near Paris to receive this merchandise.

Construction costs were kept low by the fact that local quarries provided much of the stone used for the construction of the railway and associated buildings. The rails were solid, 60 lbs per lineal yard compared with 30 lbs per lineal yard for the Liverpool & Manchester Railway.

The gauge was one and a half metres (somewhat wider than the British standard gauge). Between the termini were two tunnels, and three large bridges to cross the meanders of the river Seine. One of these bridges had three arches each of 150 metres. Fifteen more bridges had to be built to cross roads and streets. Cuttings 17 metres deep and embankments 10–20 metres high were required to avoid severe gradients. Even so, some severe curves on the route restricted the potential speed of trains.

The initial rolling stock consisted of 12 locomotives (equivalent to a motive force of 360 horses); carriages of various types accommodated 4070 persons at any one time.

This line was not without its critics, as noted earlier. This (and other) railway, it was claimed, would increase the centralization of Paris and give the capital a greater hold on the rest of the country. Others, however, thought the extension of the railway to one province or another would tend to equalize rather than centralize influence and wealth, both politically and commercially.

This short line was one of the first of many to be built in France; not without justification the French referred to it as the *triomphe merveilleuse*.

REFERENCES

- 1 O'DELL, Andrew C. & RICHARDS, Peter S., *Railways and Geography*, 1971, p.112
- 2 COBBAN, Alfred, *A History of Modern France Vol 2. From the First Empire to the Fourth Republic 1799-1945*, 1961, pp121-2
- 3 ROBERTS, J. M., *A General History of Europe: Europe 1880-1945*, 1970, p.306, 310-11

BIBLIOGRAPHY

The Times, 26 August 1837

Mechanics' Magazine 1837 pp373-4, 426-30



Noah the First Bargee

Speaking in Leeds on Monday, Sir John Eaglesome praised the work of the bargees of the country in the war. They had, he said, braved the perils of the deep from the Murman coast to the Mediterranean, and laboured in the inland waterways of Mesopotamia and Africa. In Asia they had visited the home of the first and greatest bargee, Noah, and their lighters had been seen in the lands of the Pharaohs, and had been moored by the city whence Sinbad the Sailor set out on his adventures. (Contributed by Alan P. Voce) (*Devon & Somerset News*, 3 April 1919)

Book Reviews

THE LSWR IN THE TWENTIETH CENTURY, J. N. Faulkner & R. A. Williams, 224 pp, 30 photo. illus, 15 plans and diagrams, boards. David & Charles, ISBN 07153 89270, £14.95.

The first volume of Mr Williams's history of the LSWR was published in 1968 and when the next appeared in 1973 we were told that 'this second of three volumes takes the London and South Western story to the twentieth century'. The first two volumes were so well researched that the promised third volume was missed and eagerly awaited. At last it has appeared, not as Volume Three, but fulfilling the same role. Now we have two authors instead of one, and although joint authorship is a perilous venture, in this case it seems to have worked very well. Also apparent is the hand of the publisher, who, not surprisingly, has evidently insisted on a degree of commercial viability. This is reflected in the quality of the paper used for the photographs, a somewhat inexplicable arrangement of chapters—for instance information on the track appears in the chapter on 'Managing the railway'—and also in unfortunate pruning of the index. However, the book is so good that perhaps we should feel grateful that it has appeared at all.

It is based on extensive research. This shows particularly clearly in such chapters as that on the period of the First World War, which includes details such as the supporting of the platforms of the ephemeral Crow Park Halt with ammunition boxes. The few infelicities are mostly in the marine section—for instance the ceremony on 12 October 1898 celebrated the 60th anniversary of the laying of the foundation stone of Southampton Docks; the vessels of the Inman Line had been transferred to the American Line before they came to Southampton, and the *Carrier* merely towed barges and carried passengers. Proof reading seems admirable—Appendix 11 quoted as 10 is a rare lapse.

This is an important contribution to the history of the LSWR, based on primary sources and therefore of particular value to transport historians. Despite the constraints of commercial publication, the authors have produced a worthy successor to the previous two volumes. EDWIN COURSE

THE MIDLAND RAILWAY: A NEW HISTORY, Roy Williams, 192 pp, 5 maps, 36 illus., 3 diagrams, boards, David & Charles 1988, ISBN 0 7153 8750 2, £13.95.

This book is not in the same class as earlier company histories published by David & Charles. It is a limited, though lively, survey of Midland history and of the fate of the Midland system under LMS and BR management—certainly not the business or system history of the Midland company that has long been needed. It will not serve as a reference work on the Midland; regrettably, even within its limited coverage a significant number of errors can be found. To a reviewer who has little interest in such matters himself, it seemed that the strongest chapter is the one entitled 'Locomotives and Carriages'.

There are, unfortunately, no acknowledgements, but reading the book gives the impression that little if any use can have been made of the rich primary materials available for the study of this company. The brief critical bibliography appears to confirm this view and also suggests that a rather limited use of secondary materials has been made. For example, although Peter Baughan's definitive *Midland Railway North of Leeds* is advertised on the dust-jacket of this book, it is not one of the works on the Settle & Carlisle line recommended in the bibliography. There is a one-page index.

This can only be seen as a book aimed at the general reader. The serious historian will continue to use the works by F. S. Williams, Stretton, and Barnes, whilst awaiting their modern successor. JOHN GOUGH

PHANTOMS OF THE RAILWAYS, W. B. Herbert, 128 pp, no illus. David & Charles 1988 0-7153-9184-4, £8.95.

To appreciate this book it must be noted that it is not a collection of ghost *stories*. It is mostly a catalogue of incidents and places where something has been reported that defies logical explanation. The writer has a gentle and simple style suggestive of earlier times. This will be enjoyed by some readers, while others may feel they are being talked down to and wish that an editor had demanded a tightening of the prose to make it more convincing. But there is more here than wispy manifestations of long-departed platelayers in dank cuttings. We recall, for instance, the mystery of the two unclaimed child victims of the Charfield disaster—and is there really a modern sleeping King Arthur-like secret store under a Welsh mountain of steam locomotives, to be awakened when the oil supply runs out? Food for thought!

JOHN DENTON

THE ROMNEY, HYTHE AND DYMCHURCH RAILWAY, W. J. K. Davies, 218 pp, 36 photos, 42 maps, plans, gradient diagrams, line drawings of locomotives and reproductions of tickets and timetables, boards. David & Charles 1988, ISBN 0 7153 9309 X, £9.95.

This is a revised and updated edition of the official history of this remarkable railway, first published in 1975 but apparently not submitted to this *Journal* for review at that time. The new material mainly consists of short additions to the historical, locomotive and rolling stock chapters, a new appendix updating the coaching stock list behind 1971, and a six-and-a-half-page appendix with two pages of plans which surveys the main events and developments between 1975 and 1988.

As we might expect from an author well known for his long-lasting infatuation with all types of light railway, there is a sympathetic and thorough historical account of what is probably the world's longest line of its type, this filling about half the book in readable, concise style. It is a tribute to the author's perseverance when one considers the paucity of surviving records at New Romney (the sort of people who launched and operated this enterprise in the relatively red-tape-free between-wars period, as much for their own amusement as public benefit, were not the kind to pause to note what they had done at the end of each day, or to retain such written documents as they had beyond their period of immediate usefulness). Personalities played an important part in the early days and due emphasis is given to the roles of Howey, Greenly and others. Mr Davies is also very helpful on geographical matters, but he and the publisher's editor get only one out of ten for the several references to a mis-spelt and mythical 'Dungeness peninsular'.

The rest of the book is given over to surveys of motive power, rolling stock, track and fittings, timetables and train working, whilst appendices cover finances, tickets, loco trials on the Eskdale line and locos never built, all in considerable detail, although the table of surpluses and losses from 1928 takes no account of the substantial drop in the value of the pound over the subsequent forty or so years and ceases in 1972. No details are given of passenger traffic in any year other than 1972, though several annual tonnages for freight appear. Nor is much said about the type of passenger traffic handled over the years outside the now heavily shrunken holiday

influx and the school specials. (A recent visit to the line indicated a modest usage by possibly car-less local residents, elderly and otherwise).

A skimpy one-page index, not even comprehensive in what it purports to cover, does no credit to a work of this value. It is excused on the specious grounds that the book's arrangement groups together information on specific aspects.

Howey's original proposal, we learn, was to take over the Ravenglass & Eskdale and extend it to Ambleside. It has to be said that this would have given us a far more scenic and interesting operation than the featureless rattle over the dull Romney Marsh and Dungeness shingle bank. But Mr Davies does his best for it, with some lyrical description on page 85 and he gives us hope of an undoubtedly more alluring extension to Sandling Junction.

Certainly this is a book to possess for all who know and have enjoyed the line. Once again the publishers deserve credit for making sure a competently-done railway history is kept up to date. ALAN A JACKSON.

WEST COAST STEAM, Antony M. S. Darnborough, 112 pp, 300 x 220 mm, 140 monochrome photographs and 8 pages of colour, maps and plans, hard covers. Ian Allan 1988, ISBN 0 7110 1791 3, £13.95.

This is mainly a highly personalised account of the Lancaster-Carlisle section of the West Coast main line in the 1950s, which the author frequently visited using a much-valued walking permit.

The coffee-table format and art paper combine to give good reproduction to an interesting and varied collection, although backgrounds are sometimes rather grey. The hard steaming of several classes of locomotive is, however, well caught by the camera.

The title, something of an 'umbrella,' is misleading in a sense because the author's obvious enthusiasm and enjoyment of photographing trains is not confined to the West Coast main line. The steam yacht *Gondola* is here; so, too, a Windermere steamer as companion to scenes on the Lakeside & Haverthwaite Railway; and the Settle & Carlisle and Cumbrian coast lines.

The author's pictures are supplemented by eight pages of colour prints and the work of a number of other photographers including Derek Cross, H. C. Casserley and W. H. Whitworth, and the chapters have short introductions, evocative and informative.

None of the author's photographs has been published before and they form something more than just another collection of the twilight days of steam. Your reviewer is delighted that they have now reached a wide public. REX CHRISTIANSEN.

GWR JUNCTION STATIONS, Adrian Vaughan, 112 pp, 242x176mm, 147 photo illus., 26 maps and plans, boards. Ian Allan, 1988, ISBN 07110 1790 5, £10.00.

Ten stations are described, mainly in terms of train working, and emphasising the idiosyncrasies enforced by inconvenient and cramped layouts. Castle Cary and Honeybourne had junction status thrust upon them by new main lines, Yeovil and Wellington each connected with the lines of another company, Kingham was a junction but was also by-passed, the status of Whitland has changed with the times, Kemble and Leominster served two branch lines, while Hatton and Kidlington (yet again!) demonstrated wide differences between single junctions.

Station buildings receive less emphasis than in the (longer and less expensive) companion volumes on country stations, so that features such as the refreshment room seen built into the footbridge at Kingham receive no comment.

In most cases statistical summaries are given of traffic and receipts between 1913 and 1938. No explanation is given of the enormous increase in tonnage at Coates (Kemble goods) in 1938, and the author does not appear to realise that many junctions are primarily for interchange rather than the commencement of a journey, a point that the inclusion of Dovey Junction would have emphasised.

Many of the photographs and much of the text are of considerable interest, but the choice of stations is somewhat arbitrary, and a longer introduction would have pulled the contents together. DENNIS HADLEY

SOUTHERN EXPRESS LOCOMOTIVES, Ed. Brian Stephenson, 128 pp, boards, 213 photographs, 2 diagrams, Ian Allan, ISBN 7110 1798 0, £9.95.

Five issues of the occasional publication 'Locomotives Illustrated' have dealt with the principal SR express classes—the King Arthurs, the Lord Nelsons, the Schools and the two types of Bulleid Pacifics. Now most of the photographs from these booklets have been combined in a hard-cover volume under the editorship of Brian Stephenson. The editor has drawn on his own collection (which includes work by some of the best inter-war cameramen) as well as the resources of the Ian Allan library to provide a comprehensive coverage of the activities of these locomotives on the SR and elsewhere. Most of the photographs are of first-rate quality and the captions draw attention to livery variations and the peculiarities of individual locomotives. The book concludes with summarised history of the 270 engines in these classes, including details of preservation of the 36 survivors. The book provides a very attractive pictorial history of the SR's principal steam motive power designs. J. N. FAULKNER

THE BLUEBELL RAILWAY, *Railway World* editors, 56 pp, 3 maps, 93 photographs, soft cover, Ian Allan, ISBN 0 7110 1793 X £4.95.

The latest in the *Railway World Special* series deals with the Bluebell Railway, which although only 4½ miles long, has the distinction of being one of the oldest of the preserved lines. In its historical introduction, the booklet describes the peculiar provisions of the Lewes & East Grinstead Railway Act which compelled BR to reopen the line between 1956 and 1958. During these years the success of narrow gauge preservation had been demonstrated in Wales, encouraging a small band of enthusiasts to do the same on the standard gauge. The book describes how from very modest beginnings in 1959 these volunteers confounded the sceptics and after reopening in 1960 set the Bluebell on a steady course of successful development. As a pioneer in the preservation field the Bluebell was able to acquire a wide variety of motive power and (especially) rolling stock, mainly of Southern origin, here fully illustrated in colour and black and white. Now with the backing of a successful £460,000 share issue and a ministerial launch, the Bluebell's plan to reopen from Horsted Keynes to East Grinstead and restore its link with the BR network is the subject of the concluding sections of the book. J. N. FAULKNER

LNER 4-6-0s AT WORK, Geoffrey Hughes, 128 pp 300 x 220mm, 180 photographs, 11 drawings, end-paper and title-page photographs, index, boards. Ian Allan 1988, ISBN 0 7110 1712 3, £13.95.

This is a further volume in the 'Locomotives at Work' series. The text is informative and particularly interesting where it concerns the building costs of locomotives from various makers and where different designs are compared. Without disrespect for the author, one of the most interesting parts of the book is the foreword by Richard Hardy who writes with practical experience of firing, driving and managing almost all the 19 classes in their various forms. Attention is given to the development of different designs and comparisons are made with equivalent designs on the GWR, LMS, and SR.

The reader may dispute certain statements; for example that Churchward kept his ideas on boilers and valves secret. He discussed them openly after a paper on 'American Locomotive Practice' given before the Institution of Civil Engineers in 1903, and at a meeting of the Mechanicals in 1906. Only Hughes of the L&Y appeared to take notice; others including, surprisingly, Churchward's old colleague J. G. Robinson, carried on with the old flat valves, and even when they adopted piston valves retained a short travel. Churchward can be forgiven for keeping quiet when no-one would listen. The author appears to have overlooked the fact that the two compound 4-4-2s on the NER were Smith's design, not Worsdell's, and that the French compounds on the GWR were given Swindon boilers.

The publisher's share in the book leaves a good deal to be desired. The format is too large for comfort and for convenient shelving. Five photographs are spread across the centre so that they can be taken in as a whole only beyond arm's length, and the picture is broken in the middle. This is a deplorable practice, unfortunately too common. One of the most interesting photographs, of 2800 *Sandringham* with the nameplate on the leading splasher, is broken in this way. The captions of the end papers are transposed. Although there is an index, 37 pages are un-numbered.

One matter for which the reviewer was thankful: the book is free from the irritating practice of referring to locomotives as 'she' or 'her'. Photographs have been well selected and are of great interest. JOHN MARSHALL.

BR DIARY 1969-1977, Chris Heaps, 128 pp, 173 photo. illus. and two diagrams, boards. Ian Allan 1988, ISBN 0 7110 1611 9, £9.95.

This book is one of a series which aims to record the history of British Railways from 1948. Publication has not been in chronological order as '1978-1985' was the first to appear. 'British Railways Diary 1968-1977' might have been more appropriate title as the author gives adequate coverage to London Transport railways and to the preserved lines. The decade is covered, naturally, in ten chapters, although the author does not use that description, each consisting of from four to six sections, high-lighting the most important event of the year.

The photographs are well chosen and well produced. Many of them are nostalgic. It is now hard to imagine that the picture of the imposing array of semaphore signals at Black Carr, on the East Coast main line, was taken less than twelve years ago. Unfortunately the captions do not reach the high standard of the rest of the book. The 1200-volt-DC third-rail system was not introduced in 1913. Electrical experimentation started then but the collection was overhead. The third-rail system between Manchester and Bury did not commence until 1916 (p.9). The word 'rare' is hardly appropriate to the appearance of Victoria Line stock at Northumberland Park depot where it goes regularly for servicing (p.13). It should be made clear that

'Duke Street Junction' is a provision for the future rather than a connection of today and 'the final stage of the Merseyrail loop and link system' was surely its extension to Hough Green and not to Garston (pp 114/115)? A. L. BARNETT

CELEBRATING 150 YEARS OF THE LSWR, Roger Hardingham (ed.) 52 pp, 1 map, 99 photographs/illustrations, soft cover. Kingfisher Railway Productions 1988, ISBN 0-946184-40-2, £3.95.

Among the books which have been published to mark the 150th anniversary of the opening of the London & Southampton is this collection of essays by a team of authors, each dealing with a different aspect of the LSWR—particularly informative are those covering corridor coach development and South Western architecture. The numerous illustrations range from broad gauge at Barnstaple in 1860 to the new class 442 Wessex electrics and the compilers have succeeded in finding many unpublished pictures. However, for the record, the photograph of Waterloo on p.4 actually shows the construction in 1918 of the staff block alongside platform 15. The colour jacket is from an original painting by Chris Woods depicting an express leaving Waterloo in 1900. The inner cover features the verses hurriedly composed in memory of the company staff killed in the Salisbury disaster and sold at 1d in aid of their dependents. At a modest price this book succeeds in distilling the essence of the LSWR. J. N. FAULKNER

STEAMING THROUGH THE ISLE OF WIGHT, Peter Hay, 96 pp, ISBN 0-906520-56-8, £7.95.

This is the third book dealing with the Isle of Wight published by the Middleton Press to their established and successful pattern. The two previous volumes described in detail the lines and stations in the island, but this book concentrates on the trains—all steam (as implied in the title) except for the Ryde Pier tramway. Brief introductions to the island's railways and to the individual routes, with a map showing dates of opening, precede the collection of photographs. These have been reproduced to the publisher's usual high standard, with informative captions, and illustrate trains at or near every station in the island. Inevitably most of the pictures date from the BR period, but there is a good selection of photographs from pre-grouping and SR days. This book will delight the many lovers of the unique railway system of the Isle of Wight. J. N. FAULKNER

THE RAILWAY WORKSHOPS OF BRITAIN 1823-1986, Edgar J. Larkin and John G. Larkin, 286 pp 240x160mm, plus 32 pp b/w photos, many tables and diagrams in text, two plans, boards. Macmillan 1988, ISBN 0-333-39431-3, £25.

This book is likely to be of more interest to those concerned with engineering workshop management and organisation than to the historian. The authors have attempted to give a brief history of the main British railway locomotive, carriage and wagon workshops, but it is clear that history is not their strongest interest. The reviewer, for example, could not fail to notice that sections on Newton Heath carriage and wagon works and on Horwich locomotive works were lifted directly out of the second volume of his history of the Lancashire & Yorkshire Railway. The wording is almost identical. Other authors may recognise portions of their work; indeed, the diligent reader could find that he has 'read this bit before'. Minor works, such as Worcester, Melton Constable, Highbridge, Oswestry, and Inverness are not

mentioned anywhere. There are no source-references but there is a bibliography of secondary sources.

The material on the works is arranged in historical order of opening on the four post-grouping companies: GWR, LMS, LNER, and SR. The reviewer read in the preface, with some surprise, that 'Design aspects have been largely omitted because design was not an integrated workshop function until 1984.' Surely the drawing office was as much an integral part of the works as the erecting shop.

There are some careless mistakes which could have been corrected at proof stage: on p.4 the LNWR 'joined with the London & Yorkshire'; on p.66 Sir Alliot Verdon Roe created the 'Aero' aeroplanes; on p.70 Hackworth's *Globe* becomes *Glove* (or was *Globe* simply an early English spelling?). A section on Bow works which should have been on p.52 has found its way into the section on Stoke works on pp. 59-60. These errors may be blamed on the printer but not incorrect details about Thomas Kirtley on p.42. Also we are told that the first locomotive works in Britain was Robert Stephenson & Co in 1823. Actually Fenton, Murray & Wood were building locomotives in Leeds in 1812-13. The authors could have presumed more knowledge in their readers and spared them sketchy details of locomotives. The index commits the accursed crime of including every reference, however minor, in formidable blocks of page numbers. Crewe, for example, has over 50. Who on earth is going to look up all those? Indexes should give only principal references; larger entries should be sub-indexed.

Once the (presumably) senior author, Edgar J. Larkin, comes onto the subject of works organisation and administration he is obviously on secure ground and he writes with enthusiasm and knowledge based on over 50 years of experience. This section of the book is thoroughly sound. The final chapters deal with war production, training of staff, industrial relations, financial control, and a look ahead towards AD2000. The author makes wise comments on road transport, though the reader may question what this, and the appendix on road accidents, has to do with the workshops. There are nearly 40 pages of appendixes giving a wide range of information on the works and on railway traffic. The illustrations contain many interesting views inside the works, though the dates on the Swindon photographs numbered 2a, 2c, and 2d are clearly incorrect. While this book is a valuable addition in a neglected area of railway literature, a better book could have been expected for the price. JOHN MARSHALL

SHILDON WAGON WORKS: A WORKING MAN'S LIFE, Ron Spedding, 83pp, 19 photo. illus, soft covers, spiral plastic binding. Durham County Council 1988, ISBN 0 902178 19 9, £2.95.

This is an unusual, interesting, well-written and, at times, amusing book. It is partly an account of the Shildon wagon works, 'the Shops', from promotion by the Stockton & Darlington Railway to British Railways Engineering Ltd and to its final closure in 1984. It is also partly an autobiography. Your reviewer, however, would have welcomed a little more personal detail; was the author married and a family man?

Spedding was born in the middle twenties and entered the works as a fourteen-year old school leaver in the early days of the war. He was quickly marked for promotion, becoming a boy welder, then apprentice fitter, and a fitter by the age of twenty-one. He was finally made a plant millwright, one of the elite of the workforce. 'Millwright' is an old term retained at Shildon. These men were responsible for the maintenance and repair of all the machinery and even the design and construction of new or otherwise unobtainable machines. He took redundancy after 42 years

service in 1982, due to ill-health brought on, no doubt, by the now constant threat of closure of the works.

The author gives a graphic account of the works, his workmates, the animals and the birds which, many uninvited, shared the premises with the men, and of the accidents which sometimes befell the two-legged and four-legged inhabitants. He repeats the old story that Shildon and 1825 saw the first steam-hauled passenger train, quoting the brass plate which stood outside the main office block.

The book, which contains four topical poems, is in typescript form, printed by photo-litho process which gives a clear text but does less than justice to the photographs. The author's philosophy of life may be summed up in his own words 'it also paid me wages which were never magnificent but sufficient to allow me to do most of the things I really wanted to do'. A. L. BARNETT

THE LONDON UNDERGROUND SURFACE STOCK PLANBOOK 1863-1959, Ian Huntley, 65 pp, 90 photo. illus, 30 sets of scale line drawings. Ian Allan in association with the London Transport Museum 1988, ISBN 0 7110 1721, £6.95.

Any new book about Underground locomotives and rolling stock joins such a throng of existing works that to succeed it must offer something the others lack. This one, as well as providing a rehash of familiar information and well-used photographs, attempts to fill what its author sees as a gap—the lack of detailed engineering drawings to a modern standard in any earlier works. This, he feels, is necessary to provide a three dimensional impression of vehicles long since scrapped. His material is based on notes and drawings compiled by three generations of his family and checked against other sources. It should be said at once that his measured drawings, which are the strength of this book, are totally professional and highly informative, though the publishers have done him no service by reproducing them too small, despite the large page size, and printing on a grey base which does nothing to assist clarity. Each set shows a frontal or end view and a side elevation of the stock under review and one cannot help regretting the absence of matching plans of the interiors of the passenger stock and the electric locomotives. This would have been a more valuable use of space than the reproduction of so many hackneyed photographs.

Thirty types of Metropolitan and District steam and electric locomotives, steam trailers and electric passenger vehicles are covered in chronological sequence, from Gooch's 2-4-0T of 1862 for the Metropolitan to the London Transport O, P, Q, and R stock of 1937-1940. Appendices deal with the four-rail system, illustrated by a measured drawing, and liveries.

The textual matter for each item begins with a brief general sketch which occasionally reveals some uncertainty about historical matters (it is stated, for example, that the GCR operated Pullman cars and the author somewhat disconcertingly refers to the Metropolitan Amalgamated Railway Carriage & Wagon Co. Ltd (established in 1902) as 'Met-Cam' when talking of stock built before 1929 when the name of these suppliers did become 'Metropolitan Cammell C & W Ltd).

The price asked for a slim card-covered magazine format publication, featuring a publisher's advertisement inside the cover, may deter those already well furnished with books on its subject matter, but keen modellers and collectors of detailed information on rolling stock could well find it a worthwhile purchase. Indeed it would seem that it is intended largely for the former group, since details are given of the authentic paints available for modellers, including one which enjoys the label 'underframe dirt'. ALAN A. JACKSON

WAS YOUR GRANDFATHER A RAILWAYMAN? Tom Richards, 40 pp, 210 x 148 mm, card covers. ISBN 0 907099 80 7. Obtainable from the author at 1 Apsley Road, Clifton Bristol BS8 2SH, £1.95 plus 25p p&p.

Sub-titled 'A Directory of Railway Archive Sources for Family Historians' this book defines and locates the major, and many minor, sources which give particulars of railway employees, principally those of the UK but also including Eire, Australia, New Zealand, Canada and India. The great majority of such records are in the Public Record Office, the Scottish Record Office and the Public Record Office of Northern Ireland, but valuable records in certain other Record Offices and County Libraries are also listed.

The introduction provides many useful pointers for family historians working in railway records. The main part of the book lists the records under the names of the various railway companies, arranged alphabetically, followed by sections on Northern Ireland and Trade Union records. The references vary from runs of staff registers down to individual certificates and photographs of staff. The GWR records fill nearly three pages, while the North London Railway achieves five entries, all at the PRO and ranging in dates from 1854 to 1920. Home railways dealt with total 121 and include all the major pre-group companies with the exception of the LC&DR. There is a two-page section listing staff magazines with locations and an address list for the various offices and libraries to which reference is made.

The author, himself a former railwayman and a user of the Clinker Collection at Brunel University, realised the potential of such records for family historians, identified a general need and has met it economically and efficiently, for nothing in his book is superfluous and all that is essential is there, although there will certainly be substantial additions, not least from our own Index which is still being augmented from County Record Office returns. It is hoped that as this book becomes more widely known it will remove some of the weight of family history type enquiries from the shoulders of the Research Officer.

Since this book has been published the author has discovered some staff records of the LC&DR and substantial additions to the records of the GCR and LBSCR. A supplement with the details will be sent upon receipt of a s.a.e. HARRY PAAR

SHORTER REVIEWS

DORKING'S RAILWAYS, Alan A. Jackson, 64 pp, 24 photo. illus, 4 maps & plans, card covers. Dorking Local History Group 1988, obtainable from The Museum, West Street, Dorking, Surrey, £3.50 + 50p p&p.

A very detailed history of the railways of Dorking from the first railway in the town right up to the present time. The successive lines and stations are fully covered, together with developments such as electrification and the use of Deepdene as the wartime HQ of the SR. The history of the railways is described against the background of the development of the town as such. A useful appendix includes the industrial railways of the area. Comprehensive notes and sources are given and there is a full index. Truly a model of local railway history.

THE BEMBRIDGE BRANCH LINE, Peter A. Harding, 32 pp, 38 photo. illus, 5 maps & plans, gradient profile, card covers. Obtainable from the author at Mossgiel, Bagshot Road, Knaphill, Working, Surrey GU21 2SG, £1.75.

Here is another account of a small but interesting branch line by Mr Harding. It carries the history through to the present day, the line having closed in 1953. The route is described and details are given of motive power and rolling stock, and operation and there is a section entitled 'Life on the Bembridge Branch' which helps to bring the story to life. A very useful contribution to branch line history.

SLATES FROM BLAENAU FFESTINIOG, J. G. Isherwood, 48 pp, profusely illustrated, card covers. Obtainable from AB Publishing, Communications House, 33 Cannock St Leicester LE4 7HR, £3.95.

Largely a selection of illustrations of slate quarrying in Blaenau Ffestiniog, in colour and black and white with background text. Many of the illustrations are of the Oakeley and Votty quarries but a number of other quarries are also displayed, numerous photographs being not otherwise available in print. There are also explanatory plans and diagrams. A most informative publication.

THE WITHERED ARM, Peter Semmens, 48 pp, profusely illustrated, card covers. Ian Allan, £5.95.

An account of the SR lines west of Exeter which have largely disappeared in recent years. The book describes the routes, the SR in its heyday, an account of post war steam and the Beeching axe, with a few pages devoted to the present day position. An appendix lists opening and closing dates of principal routes.

THE CORNISH RIVIERA, Chris Leigh, 56 pp, profusely illustrated, card covers. Ian Allan, 1988, £5.95.

A Railway World Special, it covers the whole history of the famous 'Limited' from its introduction in 1904 then running via Bristol, up to the present time when it has become an almost anonymous HST working. The chapters include details of the route, the service in GWR and BR days and the summer Saturday service to St Ives, this last being a particularly important feature of the working and traffic aspect of this famous train.

BRITISH RAILWAYS IN COLOUR 1948-1968, C. Boocock, 112 pp profusely illustrated entirely in colour, boards. Ian Allan, £8.95.

Sub-titled 'A Period of Transition' this book describes and illustrates latter-day steam, diesel and electric motive power throughout the period of the title. There are twelve chapters each covering one aspect of the motive power situation, 'Pilot Diesels', 'Electrification Progress', 'Western Revolution', 'Southern Swansong' etc. appropriate illustrations following each chapter. At the end are appendices detailing non steam prototypes and livery styles, again followed by suitable illustrations. Accounts are given of long journeys behind steam in the early 1950s and by comparison in 1968 behind diesel power.

THE VICTORIA LINE—A SHORT HISTORY, M. A. C. Horne, 56pp, 25 photo. illus, 3 maps. Obtainable from Nebulous Books, 12, Raven Square, Alton, Hants GU34 2LL, £3.45 + 45p p&p.

This is the third book by Mr Horne on one of the lines of London Transport. It follows the history of the line from its earliest concept in the 1930s through the ups and downs of the post war years to the eventual go-ahead and ultimate construction. The engineering aspect is described in considerable detail and the development of traffic in the twenty years of operation is explained at the end of the book. A most informative work.

PASSENGER STEAMERS OF THE RIVER FAL, A. Kitteridge, 120 pp, profusely illustrated, card covers. Twelveheads Press, Chy Mengleth, Twelveheads, Truro, Cornwall TR4 8SN, £6.95.

This is very informative and well illustrated book covering in great detail the history of passenger steamships on the Fal estuary and its tributaries. A brief history of the relative waterways is followed by chapters on the individual shipping companies, continuing with coastal excursions and post war motor vessels. Appendices include fleet lists, waterline drawings of Cox & Co/Silley Cox built passenger steamers, some examples of the Register of Shipping and Seamen and excursion programmes for 1913. There is finally an index of passenger vessels. Highly recommended.

THE MUTE SWAN, J. Kear, 24pp, 21 photo. illus both black and white and colour, card covers. Shire Publications, Cromwell House, Church Street, Princes Risborough, Bucks. £1.25.

The well known Shire Publications have introduced a series entitled 'Shire Natural History' each of which is devoted to a particular category of animal, bird, fish, insect, or plant life. The book on the Mute Swan, so frequently found on our canals, is informative and well produced, giving a full account of living, breeding, feeding habits, etc. A list of establishments at which wildfowl are conserved is included and also a useful bibliography.



Correspondence

The Lynn & Hunstanton Railway

Sir,—I was both surprised and disturbed by the comments included in a recent review of my book *The Lynn & Hunstanton Railway* and would like to put the record straight. Your reviewer, Adrian Gray, was so critical of my work that it is hard to know where to begin, but taking his comments in order, I would refute the assertion that ‘most of the information provided is about locomotives, royal trains and passenger services’—the book has 140 pages of text and only 13 of those pages deal with motive power, while royal trains are covered in just 5½ pages. There are, on the other hand, no less than 26 pages devoted to architecture and what might be termed ‘modeller’s details’, but these sections of the book were simply ignored by Mr Gray (suggesting that he did not read them).

If there is bias in favour of passenger operation, I would argue that it is entirely right and proper that substantial sections of the text should be devoted to passenger operation because the Hunstanton branch carried relatively little freight traffic, and the Lynn & Hunstanton Railway Company could not have paid its consistently high dividends without passenger traffic. Having said that, it would be wrong to suggest that my book ignores freight traffic, and there are numerous references to the carriage of coal, flax and other agricultural goods throughout the ‘route’ section of the book.

I was particularly disturbed by the disingenuous way in which Mr Gray argued that ‘the life of the branch’ was ‘barely dealt’ with because I had used *Bradshaw’s Shareholders Manual* as a prime source; the reference in my bibliography relates to the Railway Mania of 1845, and *not* to the Lynn & Hunstanton Railway which was formed a generation later—or does Mr Gray think that the Railway Mania took place in 1861? Similarly, Mr Gray’s statement to the effect that ‘*The Railway Times* appears to have been used only for a train crash’ is demonstrably untrue, and would not stand scrutiny in a court of law; *The Railway Times* is quoted throughout my book, and a lengthy extract is actually produced as a facsimile on page 21.

Sadly, it is uneconomic to footnote every source in a book which, though a serious history, is aimed primarily at the enthusiast market; it follows that, without footnotes, a reviewer cannot possibly know which sources are used for a given book—though I would suggest that when material is presented in the form of substantial quotes the potential reviewer *should* have a good idea where that material came from. The fact that Adrian Gray did not recognise information that can only have come from BoT reports, *The Railway Times*, the GER Way & Works Committee, and other contemporary sources suggests to me that he did not undertake the painstaking work necessary to produce a competent—let alone an unbiased—book review.

STANLEY C. JENKINS

Adrian Gray replies:

Mr Jenkins seems to be unaware of the main purposes of the *Journal’s* reviews, which I assume he has not often read. The R&CHS is a society of academically-inclined railway historians and books are reviewed with this readership in mind. Thus 26 pages of modelling information is largely of secondary interest to this Society’s members. Similarly, the *Journal* is virtually alone in providing critical reviews rather than mere summaries of railway books. My review of his book was mild compared to some I have seen, and I did have some complimentary things to say also.

Mr Jenkins' confusion over my comments about Bradshaw seems to be due to his ignoring the fact that my review had moved on to a new paragraph. He cannot accuse the reviewer of being unfair if his quotes from *The Railway Times* appear in the book without any reference to the source (as on p. 21, labelled 'a contemporary press report'). Although I well understand the problems with commercial publishers and footnotes, having experienced similar problems myself, a reference in the text is often a help.

But I must refer Mr Jenkins to his own list of sources. This contains no direct reference to company Minute Books, the GER Zeppelin records, or to any local newspaper—if he was worried about criticism of his sources he could have inserted details of these materials in the four pages of Bibliography he has included.

I have no reason whatsoever to be biased against Mr Jenkins. A recent review I did of another East Anglian book was glowing—why should I favour one author and not the other?

This issue is now closed.—Ed.

Accident in Canonbury Tunnel 10 December 1881

Sir,—Details of this accident are given in *The History of the Great Northern Railway* (Grinling) and in the *North London Railway* (Robbins). I have been asked from time to time to explain how this confusion arose and I think it should be put on record.

At that time it was the practice of a North London signalman at a junction, if not in a position to accept a train owing to another train fouling the junction, to return seven beats. This was shown in the NL Code as 'Obstruction—permissive block', meaning temporary obstruction with permission. This was entirely different from the Code used by the Great Northern which, on certain lines where authorized, permitted the forwarding of a goods train without waiting for 'line clear'.

The GN instructions plainly stated 'Stop and Caution'. The GN man at Finsbury Park No. 1 when he received seven beats should have held the train until he got 'line clear' but as he confused the NL special code with the GN code he should have stopped the train and verbally warned the driver and shown a green flag. As he merely showed a green flag he was clearly in the wrong. He repeated this for three trains and nearly for a fourth. If the NL drivers saw the flag they probably took it as 'all right.' The distant signal was probably 'off' owing to the wire being tightened by derailed vehicles.

The NL promptly changed the wording of the code to 'Temporary obstruction' and adopted the RCH Code from Sunday 3 October 1884 with a few additions to help junction signalmen. The NL did not adopt 'Section clear, station or junction blocked' as the sections were very short and the men were authorized to give out of section when the train with tail-lamp complete had passed the Home signal.

The correct number of passengers killed was four and a guard. H. V. BORLEY

Baldock and other GN stations

Sir—Reference Journal Vol. XXIX November 1988 page 334:

When the GNR was opened passengers crossed from one platform to another on the level. Foot-bridges were gradually installed, the first being at Hornsey, New Southgate, New Barnet, Potters Bar, and Hatfield in 1859. Wood Green 1862, Hitchin 1860, and Stevenage 1882. H. V. BORLEY

Widening of the Great Northern Railway, London to Hitchin

Sir,—About five years after the opening of the line from London it was realized that additional tracks would be necessary and between 1855 and 1870 some relief lines were brought into use between King's Cross and Wood Green.

This list is compiled mainly from Engineers and Surveyors Reports of the GNR and is to be read in conjunction with the *Chronology of London Railways* and Supplement thereto.

G = Goods including empty stock. P = Passenger.

1 April 1871 Enfield branch opened

Island platforms at Finsbury Park 1867; Hornsey 1870; Wood Green 1868.

By 1 April 1871 there were additional down tracks from Holloway to the south end of Tottenham (or Wood Green) tunnel.

1871-1872 there were additional up tracks between the same points.

Additional tunnels were brought into use:

4 March 1878 Maiden Lane (or Gas Works) East, Up slow line

April 1878 Maiden Lane (or Gas Works) East, Up main line (original tunnel down trains only)

20 June 1886 Copenhagen tunnel

24 April 1892 Maiden Lane West; G. P 16 May 1892

From 1878 there were four tracks from King's Cross to the south end of Wood Green tunnel, except through Copenhagen tunnel.

4 August 1877 Copenhagen Goods line tunnel, double track, with bridge over passenger lines for Up trains, 1876

25 March 1888 Wood Green Up tunnel opened G, August 1888 P, with additional line from south end of Barnet tunnel

April 1890 Wood Green Down tunnel opened with line to south end of Barnet tunnel, New Southgate station rebuilding completed

1876 Greenwood to Oakleigh Park Up line G

15 October 1890 Barnet Up tunnel; P from Greenwood

13 June 1892 Barnet Down line tunnel, G Barnet station; to Greenwood 1897 G; Barnet station platform main line only

22 January 1896 Barnet station rebuilding completed (additional Up platform 1876)

1893 Goods fly-over Harringay opened as double line, reconstructed and altered 1960 to single, two-way

December 1872 Hatfield to Potters Bar (exclusive) G, 1 October 1879 P

14 March 1887 Potters Bar to Hatfield completed G

19 July 1926 Potters Bar to Red Hall P, Brookmans Park station opened

5 October 1941 Red Hall to Hatfield P

Hatfield and Stevenage stations: See *Journal* XX, 13

27 September 1896 Hatfield to 20th Mile G, Digswell 1897

1 July 1901 Hatfield to 20th Mile P

October 1882 Digswell to Hatfield Up G, points resited 1885

20 September 1926 Digswell to Welwyn Garden City Up P

20 September 1926 Welwyn Garden City to Hatfield, Sundays Up P, daily 17 September 1944

20 September 1926 Welwyn Garden City station opened

27 April 1975 Fly-over Down side to Up, Welwyn Garden City

1 February 1884 Knebworth station opened

7 May 1894 Woolmer Green—Knebworth Down

18 January 1897 Knebworth—Stevenage (south) G, June 1905 P

28 March 1898 additional down line G, 1919 P, Stevenage

17 January 1898 Stevenage—Hitchin G

Four tracks through Hitchin and to Cambridge Junction from opening of railway.

Hitchin station footbridge 1860; station rebuilding commenced August 1910 completed June 1911 with subway; footbridge removed
 1876 Hitchin—Cadwell Down
 1871 Hitchin—Stevenage (north) completed G, 1945 P
 1898 Stevenage station additional Up line
 16 May 1887 Stevenage—Knebworth
 1869 Knebworth—Woolmer Green, later removed unsafe
 1877 Knebworth—Woolmer Green reconstructed G
 20 November 1955 Potters Bar: Four tracks through station
 27 April 1959 Greenwood—Potters Bar: Four tracks completed and brought into use
 22 August 1867 Finsbury Park—Edgware opened
 Constructed as Double Line to West end of west tunnels, also Dollis viaduct; opened as double line to site of Park Junction with passing place at Finchley; double line extended to East Finchley station (west) 1 December 1867; to Finchley 1 November 1869

It is sometimes difficult when studying reports to connect a particular item to a particular line. If I have erred and extracted incorrectly in one or two cases I ask forgiveness. H. V. BORLEY

Arlesey Station

Sir,—A footnote to H. V. Borley's letter on Great Northern stations in the November *Journal*. Arlesey Station (at the overbridge of the A507 referred to) re-opened on Monday, 3 October 1988, with platforms on the up and down slow lines. As part of a promotional exercise, trains called on Saturday, 1 October. The 0750 Peterborough-Kings's Cross picked up over 100 passengers and the 1635 from King's Cross set down about the same number. The sponsoring local authorities are Bedfordshire County Council, North Bedfordshire District Council, and Arlesey Town Council. H. P. WHITE

WONDER versus RAILWAY

Sir,—The item from the *Derby Mercury* of 18 January 1838 quoted by John Sheldon in the last issue (p.335) is a classic example of the authoritative misinformation published by the anti-railway lobby in the middle of the last century. I do not for one moment suggest that the statement is untrue—most propaganda is true in the right context—but just look at the date; in January 1838 the London & Birmingham Railway was open only as far as Tring, where passengers transferred to coaches for the remaining two-thirds of the journey.

The *Wonder* did not race against a train from London to Birmingham. Using Watling Street and the Holyhead Road throughout, it reached Birmingham twenty minutes ahead of the first coach from Tring. The latter had met what amounted to a semi-fast train and after taking aboard its passengers could not begin to match the *Wonder's* pace until it had travelled several miles across country to reach the first available posting station on Watling Street. I suspect that it was a prearranged attempt at a final record for the journey by road, with teams of picked horses held ready at every stage to ensure the quickest possible changes. If this be true, the *Wonder* may in fact have achieved its 'victory' by overtaking the L&B coaches on the road north of Dunstable!

The economics of working fast coach services are revealed in a pamphlet published by William Mann in 1830. Contemporary coaches required four horses and could maintain an average speed of ten miles per hour on a good road. Because of the

effort involved, a team of horses was not expected to cover more than about eight miles at this pace and in general worked only one trip per day—about fifty minutes work. The average life of horses on this duty was just two years, whereas that of an omnibus horse was only eighteen months. A good horse cost £20 and 3/- per day to keep, so at eight miles per horse per day the cost of propelling a stage coach was roughly 2/- per mile. Don't get too sentimental about the stage coach: it was slow, uncomfortable, inefficient, and extremely cruel.

Regarding those stoneroads constructed between Weedon and Towcester, this section of Watling Street was the site of an earlier experiment in road construction by the County Surveyor of Northamptonshire in the 1780s. Realising that a cambered road surface would drain properly, he had several sections of road rebuilt with a metallised surface that sloped downwards towards the centre—the reverse of normal practice. This much I gleaned from contemporary newspaper references, which begs the question of drainage from the centre of the road. One obvious explanation is that this technique was applied only on hills with the object of preventing wholesale erosion of the road surface, water being channelled down the centre of the road to a single drain at the bottom of the hill.

My earliest recollection of 'Tram Hill'—in the early 1950s—is that the uphill side had a pronounced reverse camber towards the centre of the road, which I later associated with the experiment just mentioned. The experimental roads cannot have been much different from the later stoneroads, which poses an obvious question: were the latter a development of the former?

About the same time as the Northamptonshire experiment there occurred a dreadful accident on Meriden Hill when two speeding horsemen collided head on and both were killed. This provoked criticism of the existing road—which near Yardley had been so badly eroded by heavy waggons that it ran through a muddy cutting so deep that all but the highest loads were hidden from view! One remarkably prophetic suggestion to arise from this debate was the construction of an entirely new, paved road between London and Birmingham for the exclusive use of wheeled traffic and provided with separate carriageways for each direction. RODNEY WEAVER

Welton station

Sir,—It is no criticism of Edward Bury's much-maligned locomotives that the train which ran over a dog outside Kilsby Tunnel on the night of 17 November 1838 was delayed for half an hour or so. The carcass of a dog rolled upwards between the driving wheel and the side of the firebox would foul the relatively light rodging that controlled the gab gear. In pitch darkness relieved only by the light of one or two primitive oil lamps the train crew would have been faced with the far from pleasant job firstly of removing the mangled remains of the dog and then of removing, straightening, and refitting the bent control rods using only the tools carried on the locomotive. In addition, a prudent driver would check that derangement of the controls had not caused further damage to the valve gear itself. All this was achieved in little more than half an hour, which suggests to me that the damage was relatively minor.

Regarding the building *K* on the plan on p.314, might not this have been a block of stables? Horses must surely have been used for shunting, if only to work down to the canal wharf, even if the railway did not operate a local delivery service.

RODNEY WEAVER

The Euston Propylaeum

Sir—Peter Richards is right to refer to Pevsner's correct use of Philip Hardwick's gateway to Birmingham as a *propylaeum*. No other definition would be correct. The common usage of *Euston Arch* has come about, I suspect, through our familiarity with Roman triumphal arches, but an arch is vaulted and cannot be applied in this case.

A further usage has been Portico which although suitable to describe the architectural form has a Latin derivation and should not apply to a structure as Grecian as this.

If one requires further justification for the use of propylaeum, then the actual organisation of the structure provides it. It will be remembered that the intercolumniation was large enough for an entrance way; this along with the monumentality of the edifice provides exactly the function of a propylaeum. As if to reinforce this aspect, Hardwick also employed a detail from the Propylaea of Mnesikles on the Athenian Acropolis (437–432 BC). Here in the same way the intercolumniation was increased, in this case to accommodate the Sacred Way. Over the extra space created Mnesikles placed three metopes in the frieze rather than the usual two, a precedent which Philip Hardwick followed.

Can this Society therefore lead the way and from now on stick to the Euston Propylaeum? JOHN van LAUN

A correction

Sir,—I regret that a typographical error appeared in the article written by Philip Bagwell and myself in the July 1988 edition. On page 218, two lines from the top, many of your readers will have appreciated that the Amalgamated Society of Railway Servants was founded rather earlier than 1972. The date should have been 1872. My apologies if anyone was led astray by this mistake. JOHN ARMSTRONG



All copy for the July *Journal* should be with the Editor by 3 April 1989 and must conform to the style-sheet published in the November 1981 issue. The top copy should be sent, not a carbon or a photocopy.

Whilst copyright in the journal as a whole is vested in the Railway & Canal Historical Society, copyright in the individual articles belongs to their respective authors, and no article may be reproduced in whole or in part without the express permission in writing of both author and publisher. Views expressed in any article, review, or item of correspondence in the *Journal of the Railway & Canal Historical Society* are not necessarily those of the Editor or of the Society.

Published by the Railway & Canal Historical Society at 12 Victoria Gardens, 195 London Road, Leicester LE2 1ZH, and printed by Hobbs the Printers of Southampton.