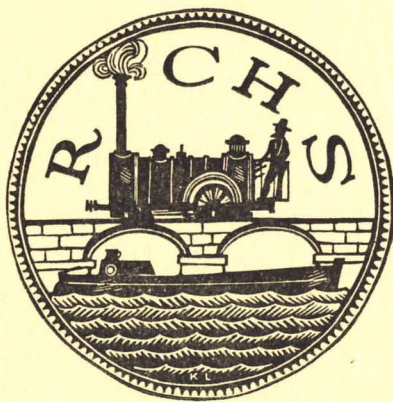


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HUGH AYMER VALLANCE, 1902-1967

RAILWAY historians throughout the world will join with our own members in expressing profound regret at the death on 28 October 1967 of H. A. Vallance, an original member of the Society, and later a Vice-President and Chairman of the London Group. He was widely known as a writer and lecturer on railway subjects, but, even more than for his own contributions, serious students will long remember his helpfulness and invariable willingness to take trouble in giving the benefit of his wealth of knowledge to all who shared his enthusiasm for railways. He had ample opportunities for exercising this kindliness, both as an officer of the Railway Club for nearly 40 years and also during his 17-year association with the editorial department of *The Railway Magazine*. His correspondence was extensive and never perfunctory.

Hugh Aymer Vallance was born on 13 March 1902, the son of the late Dr Hugh Vallance. He was educated at Epsom College, Surrey, and then for two years was in the Faculty of Engineering, Kings College, London, before serving a three-year pupilage in the Engineer's Department of the Great Western Railway under J. C. Lloyd. Subsequently he worked in the Engineer's Department of the Southern Railway, London (East) Division, and then joined the Ministry of Transport. Here he spent upwards of three years in the Roads Survey and Traffic Engineer's Departments at headquarters. For four years he served with Associated Road Operators as Meetings and Committees Secretary. During the war he was for more than four years with the Central Ordnance Depot at Didcot in the Traffic Shipping Department. He joined the editorial staff of *The Railway Magazine* on 17 July 1945 and latterly became Deputy Editor, a position from which ill-health caused his early retirement in 1962.

To the Railway Club, which he joined on 8 August 1921, Vallance gave long and faithful service. Latterly he took pride in the fact that he had read nearly forty papers to the Club, an achievement facilitated by beginning early. The present writer first met Vallance at the Club some 42 years ago, and heard the majority of his papers delivered. One on the Canterbury & Whitstable Railway given on 17 January 1927 attracted widespread interest. Our members will recall his continued interest in that line when the Society paid a visit in 1961; he had travelled on the last goods train to traverse the line. Another early paper was one on the London & Greenwich Railway which he gave to the Railway Club on 14 November 1927. A revised version of this was given to the Society as its first paper in January 1955. He became a member of the Executive Committee of the Railway Club in November 1928; served as Honorary Secretary from February 1931 to February 1950; became Honorary Steward in 1953; a Vice-President in 1958; a Trustee in 1959; and was elected President in February 1965, an office which he held until his death.

His first book, *The History of the Highland Railway*, was published in 1938. The second edition appeared 25 years later, after his retirement, and was followed by *The Great North of Scotland Railway* and other railway volumes. Also he wrote two books on travel in Scandinavia.

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avia, a part of the world for which he had great affection and where he spent numerous holidays. By reason of Scottish ancestry, he also felt at home on his many visits to Scotland in connexion with his writings. The present writer pays tribute to Vallance as a faithful colleague and a true friend.

CHARLES E. LEE

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LABOUR SUPPLY AND THE CONSTRUCTION OF THE LONDON & BIRMINGHAM RAILWAY LINE

By P. S. Richards

THE BUILDING of the railways was one of the great achievements of the nineteenth century. The London & Birmingham Railway was the first of the trunk lines to provide communication with London and thus came in for much early comment; it was even described as the 'eighth wonder of the world'.¹ While the railways were being built they required large quantities of manual labour. Although the physiography of south-eastern England is such that there are no really serious obstacles to railway construction, nevertheless, in order to have fairly easy gradients, which was essential in view of the limited tractive power of the locomotives of the day, many cuttings and embankments had to be made. Most of these earthworks were fashioned in the days before mechanical excavators were invented.² Manual labour had to be used and the men who did the work were nicknamed 'navvies', a term originally used to describe the inland navigator engaged on digging canals.³

Where did this large supply of labour come from? In the 1820s the Government and the landlords were much concerned with the mass of unemployed agricultural labourers in the southern counties and the poor rate rose rapidly between 1815 and 1834.⁴ After the Napoleonic Wars many soldiers were demobilized and many munition workers became redundant and these men were unable to return to agriculture. In 1830 there were disturbances in the agricultural areas of this country due to low wages and a surplus of labourers.⁵ It was this agricultural unrest that heralded in the Poor Law Amendment Act of 1834.⁶ The healthy unemployed man and his family were faced with entering the workhouse (nicknamed 'Bastilles') and being segregated if they wanted relief. No outdoor relief was available for the able-bodied poor after 1834. The workhouses were made as unattractive as possible and very few people entered them. The Poor Law Commissioners found that this surplus of labour no longer existed. Doubtless the previous existence of this surplus of labour was the result of poor relief being readily obtained and after 1834 many of the redundant labourers began to find work in the locality in which they lived, probably because of favourable seasons which aided agriculture. Industrial activity also absorbed some of these labourers.⁷

At this time the only large-scale industrial activity in south-east England was railway construction. Factories and mines in the north of England provided other outlets for surplus labour.⁸ The London & Birmingham Railway received its Act of Sanction in 1833 and was completed by 1838 and was built by this surplus labour, which was

mainly English and agricultural in its origin, but also contained a few Irish migrants.⁹

Just prior to the request for Parliamentary Sanction, the Directors of the London & Birmingham Railway published a circular in which they said that they thought the moment to be propitious for building the railway. It was an effort by the Directors to persuade Parliament to come over to their side. They felt that the benefit of a work of which manual labour formed such a very large proportion of the cost could not, in the existing conditions of the labouring classes (outlined above) be viewed with indifference by any who were interested in the tranquillity and welfare of the country.¹⁰

Contemporary opinion argued this employment of labourers would only be temporary. It was contended that unemployment would result; grooms and others would be out work. Advocates of the railway stated that railways would cheapen the cost of production of goods and result in an increased demand for consumer goods.¹¹ This view, put forward by the supporters of the railway, was strengthened by the opinion of Mr Badger, a Dudley magistrate, who told the House of Lords Committee, who were hearing the evidence on the Bill for the Promotion of the London & Birmingham Railway, that the depression of works was so great as to cause men to be sent to Ireland; he was of the opinion that many of these unemployed persons could be found work on the railroad.¹²

At this time Britain, in common with the Continent of Europe, was suffering much working-class unrest. While elsewhere this unrest gave rise to revolutions, the demand for labour for railway construction in this country was probably one of the causes which prevented the unrest from reaching the revolutionary stage here.

At the same time as providing employment for labourers, the construction of a railway stimulated employment in many other industries. The Minutes of the Board of Directors and the Minutes of the Committee of the London & Birmingham Railway contain constant reference to the purchase of rails and other goods made of iron (engines, wheels and carriage frames). Also, because of the large quantities of coal required the railways must have increased the prosperity of the coalmines.

Most of the work of construction was put out to contractors who employed large numbers of labourers. Sometimes the railway company had to undertake or take over the building of certain works themselves, as they did with the Kilsby Tunnel. When a railway was being built through an agricultural district, as was the case of the London & Birmingham Railway at the time of its construction, large quantities of local labour were recruited.

Unlike the canals, which had been built by migratory labour (large labour gangs travelled across the country as their work progressed and made themselves thoroughly unpopular because of their unseemly conduct), most of the London & Birmingham was built by labour drawn from the surrounding population and working close to where they lived.¹³ There was a reason for this: many contractors were employed on the work of construction at the same time and there was very little need for men to travel over long distance; the average length of a contract was, perhaps, ten to fifteen miles, and the labourers would not have to walk much farther than that away from their homes.

However, the navvies on the London & Birmingham were very often little better behaved than the navvies who had been engaged on the construction of canals. Until about fifty years ago stocks existed on the road between Bilton and Warwick near Rugby, and were used to confine men who were engaged on building this railway line and whose behaviour merited such treatment.¹⁴ Altogether some 20,000 men were employed for over three years and the sum of £4,000,000 was expended on labour. This reduced pauperism and kept down the poor rates by providing employment for the surplus of agricultural labour. There may not have been as much labour available as the contractors would have liked¹⁵ but the Minutes of the various committees of the London & Birmingham have no reference to a shortage of labour holding up the work.

Some of the contractors were not as efficient as the company would have liked, but the inefficiency always appears to result from lack of effort on the part of foremen and not from a shortage of labourers. The manual labourer was paid between 18/- and 24/- per week¹⁶ and in 1846 (some years later than the time of the building of the London & Birmingham, but probably a true picture of the railway labourer wherever he was found during the era of the Railway Mania) he is described by Smiles as being dressed in 'white felt hat . . . velveteen . . . square tailed coat, scarlet plush waistcoat with little black spots, and . . . corduroy breeches'¹⁷ and at the same time 'drinking whisky by the tumbler and calling it white beer'.¹⁸ He was certainly well paid by the standards of the time. The pure air and hard earth work made them models of physique. They were utterly fearless, very fond of an occasional fight—otherwise they were simple and honest fellows.¹⁹

The London & Birmingham was very fortunate in that their railway line was built when it was. In 1846 the Corn Laws were repealed and despite all forebodings to the contrary British agriculture continued to flourish.²⁰ Since it no longer depended upon a monopoly, it once more took to improved methods as in the eighteenth century. Corn was indeed being poured into the land from overseas, but prices and rents kept up fairly for there were more people than ever to feed and as they were drawing better wages they were eating more food. This had the effect of requiring labour for farming, and the railway companies that were building their lines after 1846 had to compete with agriculture for their manual workers. In their reports to the Midland Extension Committee (1853-6), building the Leicester to Hitchin line, and the South Extension Committee (1864-8), building the railway line between Bedford and London, the contractors often report that their labour had been attracted away to the harvest field and thus the work of construction was held up. In February 1856, when harvesting was well over, the Engineer reported shortages of labour, and in October 1856 the Engineer reported that attendance of labour at fairs and feasts was still holding up progress.²¹

In later years when the Census returns record temporary increases in population because of the presence of labourers engaged on railway construction it is evident that railways were being built by migratory labour. This may have been true for the London & Birmingham but since no census was taken at the time of its construction no exact information can be given; in view of what has been said earlier in this paper, it would appear that very little migratory labour was used in the

building of the London & Birmingham Railway.

There is one entry in the Census records that refers to a place on the London & Birmingham; in 1851 the Census Commissioners recorded that at Bugbrooke, in Northamptonshire, there was a decrease in population between 1841 and 1851 from 953 persons to 860 due to the removal of railway labourers temporarily employed there in 1841 and also to emigration. This is an unusual record because no reason is given for the increase in population since 1831 when the population was only 865. Elsewhere complementary notes of population increase and decrease are the general practice.

In the neighbourhood of Bugbrooke the railway company had much trouble with 'slips' where the embankments had subsided. The railway company sent labourers there to deal with the situation; because the subsidence was so great the company consulted Robert Stephenson, their engineer-in-chief, who wrote to Richard Creed²², the secretary of the London & Birmingham, regretting his inability to visit Bugbrooke because his wife was on the point of dying. Stephenson requested Mr Dockray, the company's resident Engineer, to visit him and bring him a section of the slip. Since Stephenson knew the exact place well, he was confident of being able to give his advice on the matter.

Stephenson describes his completed work of constructing the London & Birmingham thus: 'There has sprung into existence in a few years a piece of human workmanship of the most stupendous kind, which, when considered in respect of its scientific character, magnitude, utility, its harmony of arrangement and mechanical contriving eclipses all former works of art'.²³

Contemporary writers spoke in glowing terms of the construction of the railway. One stated that it needed one and one-third times as much labour as the construction of the Great Pyramid of Cheops. The excavations necessitated the removal of as much material as would encompass the earth more than three times with a band one foot high and three feet broad.²⁴

The conclusions that have been arrived at as a result of these researches are substantiated by the findings of the Lords Committee on the state of agriculture in 1836: 'From the great call there is for labour on the railways and other undertakings, we have, at present, no overplus of labour as we used to have, from that cause and (because of) the introduction of the Poor Law'.²⁵

Whether the comments of contemporary writers were an exaggeration of the magnitude of the task or not matters little; what is true is that the construction of this railway line was a great undertaking and by its employment of so many people was of great benefit to the country.

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I am indebted to the Archivist, British Railways Board, for permission to quote from documents in their charge. This article is adapted from a thesis presented for the degree of M.A. of the University of London. I am grateful to Professor W. G. East of the University of London and Professor A. E. Moodie of the College of Liberal Arts, North Western University, Illinois, for help in writing this paper.

* * *

BRADFORD—BY BARGE TO BRISTOL

W. NORRIS, Barge Inn, Bradford-on-Avon, begs to inform his friends and the trading community generally that he has STARTED CANAL BOATS to ply between Bradford-on-Avon and Bristol as follows:

The Boats will leave Bradford for Bath and Bristol on Mondays and Thursdays, returning from Bristol, calling at Bath, on Tuesdays and Fridays. All kinds of goods will be carried with care at moderate terms.

For the convenience of those who may favour W.N. with their patronage he has made a special arrangement with Mr J. Haines, 21 Welsh Back, Bristol, to act as his Bristol agent.

In soliciting the favour of the Trading Community, W.N. promises that nothing shall be wanting on his part to punctually fulfil all orders entrusted to him.—From *Wiltshire Times*, 11 March 1867.

THE RAILWAY ACTS OF PARLIAMENT OF 1867

By Geoffrey Webb

THE RAILWAY Acts of Parliament of 1867 clearly reflect the financial crisis of 1866. The number which received the Royal Assent was 95 compared with 210 in 1866 and 276 in 1865. The number which authorized new lines was 42 compared with 152 in 1866 and the mileage of new lines was 90 compared with 1,062, according to Bradshaw's *Railway Shareholder's Manual*.

In such a bleak year the palm for the most interesting Act must be awarded to the directors of the Easton & Church Hope Railway, who enjoyed the privilege, unique so far as I know since 1846, of building their line to any gauge they thought fit.

An extreme example of legal caution occurs in caps. 142 and 144 in which reciprocal running powers are repeated almost verbatim. I have omitted the repetition, but I have included all Acts which incorporated new companies or granted important or interesting new powers to old ones. All companies whose names appear in block capitals should have the word 'Railway' added except those marked with an asterisk.* Local and Personal Acts are numbered in small romans, but arabics are used here for convenience. Those up to cap 38 are 30 Vict., the remainder being 30 and 31 Vict.

I have used freely the initials of the well-known railway companies, and when it is necessary to mention a lesser company twice in the same Act I have used initials on the second and subsequent occasions. Other abbreviations used are:

inc	-	incorporation of company
cons	-	powers to construct line
rps	-	running powers
rly	-	railway

MANCHESTER, SHEFFIELD & LINCOLNSHIRE cons line near Darnell station and coal tramway at Barnsley. May abandon line authorized in 1861. May subscribe to Trent Ancholme & Grimsby Rly. (cap 4. Apr 5)

NORTHUMBERLAND CENTRAL may abandon, north of Rothbury, line authorized in 1863. (cap 9. Apr 12)

MIDLAND may purchase Derby Gaslight & Coke Co. (cap 27. May 31)

GREAT EASTERN may work steamboats between Harwich and Harlingen and between Harwich and Geestmünde. (cap 52. May 31)

RYDE PIER* cons from Ryde Pier tramway to railway of Ryde Station Co. (cap 59. May 31)

CALEDONIAN cons 'Haywood & Addiewell Branch' from Lower Haywood (jcn Wilsonstown branch) to Burngrange (jcn line authorized in 1865); 'Lawhead & Cleuch Branch' from Lower Haywood to Cleuch House; branch to Tarbrax Oil Works at Carnwath; and from Greenfield House (jcn Tarbrax branch) to South Greenfield. (cap 60. May 31)

NORTH LONDON may enlarge Camden Road station; cons at Bow (jcn LTSR) and widen part of City branch. (cap 78. June 17)

METROPOLITAN cons at Baker Street (jcn Metropolitan & St John's Wood Rly). Rlys authorized, but not yet open, may be broad, narrow or mixed gauge. (cap 85. June 17)

LONDON & NORTH WESTERN } Ashby & Nuneaton lines authorized
MIDLAND } to MR in 1866 vested jointly in both companies. LNWR rps to all collieries on Burton & Leicester line and from Tamworth to Derby. (cap 94. June 17)

FLEETWOOD PRESTON & WEST RIDING JUNCTION vested in LNWR and LYR jointly from date of Act. (cap 95. June 17)

SWANSEA VALE cons from Upper Bank stn to north of Glais stn with branch across Swansea Canal at Llangelach. (cap 98. June 17)

FURNESS cons from Beetham (jcn FR) to Hincaster (jcn Lancaster & Carlisle Rly). Furness & Lancaster & Carlisle Rly Co may be dissolved. Severed portions of Morecambe Bay to be filled up. Weir to be built across river Beela in order to hide rly from Dallam Tower Estate, and part of line to

be on arches in order that view may be obstructed as little as possible. Stn for passengers and goods to be built nearby, and at least one train daily shall call there. LNWR rps over line. (cap 104. June 20)

FORTH & CLYDE NAVIGATION* absorbed by Caledonian Rly from date of Act. Proprietors of FCN incorporated as 'The FCN Guaranteed Co'. (cap 106. June 20)

GREAT EASTERN Rlys authorized by 27 & 28 Vict caps 95 and 313, 28 & 29 Vict cap 123, 29 & 30 Vict caps 140 and 187 may form separate undertaking called 'The GE Metropolitan Undertaking'. (cap 109. July 15)

LONDON & NORTH WESTERN cons at Abergavenny from jcn Merthyr Tredegar & Abergavenny Rly to jcn GWR; also 'Dowlais Extension Rly' from Llangynider (jcn authorized Rhymney Rly) to Merthyr Tydfil (jcn authorized 'Dowlais Junction Rly' of Brecon & Merthyr Rly). Rps over DJR. Rhymney Rly rps over D.E.R. (cap 113. July 15)

LLYNVI & OGMORE may make working agreement with South Wales Mineral Rly Co. (cap 115. July 15)

SOLWAY JUNCTION cons jcn Carlisle & Silloth Bay Rly. Rps to Abbey stn. May dispense with opening bridge. Caledonian Rly may subscribe capital. LNWR may work line. (cap 116. July 15)

NEATH & BRECON may purchase or lease Oystermouth Rly or Tramroad and that part of Brecon Forest Tramway from foot of incline on east side of river Tawe to Capel Coelbren (jcn N & BR). (cap 122. July 15)

WENSUM VALLEY shall be abandoned. (cap 124. July 15)

DEVON & CORNWALL. Bude and Torrington Extensions to be four separate undertakings, called 'Hatherleigh Section', 'Holsworthy Section', 'Bude Section', and 'Torrington Section'. (cap 125. July 15)

BRISTOL & EXETER cons at Puriton branch to bank of river Parret. Shall purchase Chard Canal from Chard Rly Co and may close it as a navigation. (cap 130. July 15)

GREAT NORTHERN shall absorb Edgware Highgate & London Rly and Watford & Edgware Rly from date of Act. (cap 131. July 15)

TYNE IMPROVEMENT COMMISSIONERS* cons at Chirton. (cap 135. July 15)

LANCASHIRE & YORKSHIRE cons Padiham to Rosegrove. (cap 136. July 15)

NORTH STAFFORDSHIRE cons Stretton to Horninglow. LNWR rps over NSR and shall work each weekday (except Christmas Day and Good Friday) via Colwich or Stafford and Macclesfield, two fast passenger trains each way between London and Manchester and two through goods trains each way between Manchester and London or Birmingham. NSR rps over present and future LNWR lines to Manchester, Liverpool, Wolverhampton, Birmingham and South Staffordshire including the SS and Cannock lines. (cap 142. July 15)

LONDON & NORTH WESTERN cons additional docks at Garston. Rps over Sirhowy Extension Railway to Tredegar, provided that SR Co obtain rps over LNWR 'Dowlais Extension Rly' and 'Joint Line' authorized by LNWR (New Lines) Act 1867 and over any future extension of LNWR towards Merthyr, Dowlais or Brecon & Merthyr Tydfil Junction Rly. May subscribe to Lancaster Union Rlys, Harbourne Rly, Central Wales Rly and Central Wales Extension Rly. May appoint directors to Harbourne Rly. Shall absorb Warrington & Stockport Rly, Hampstead Junction Rly and Conway & Llanrwst Rly and may absorb Vale of Clwyd Rly, Stour Valley Rly, SSR, South Leicestershire Rly and Bangor & Carnarvon Rly. May supply water to Earlestown. (cap 144. July 15)

DEVON & SOMERSET cons at Morebath (jcn authorized Tiverton & North Devon Rly). Broad gauge. (cap 147. July 15)

GREAT WESTERN cons jointly with Rhymney Rly from Taff Vale Extension of Newport Abergavenny & Hereford Rly at a point $35\frac{1}{4}$ miles from Swansea to south end of Colly line of Dowlais Iron Co in Bargoed Valley, and thence to Dowlais Iron Works and Cwm Canol Street, Dowlais. DI Co

may make or maintain these lines if rly cos fail to do so, and rly cos shall pay costs. GWR or Taff Vale Rly or both cos jointly cons at Merthyr Tydfil GWR stn. Shall abandon Bargoed Branch Rly authorized by West Midland Rly Act 1863. Part of line authorized in 1865 may be joint with LNWR. Rps over Cambrian Rlys from Bullington (jcn Shrewsbury & Welshpool Rly) to Welshpool and over TVR from Quakers Yard to Merthyr Tydfil. TVR rps over all and Brecon & Merthyr Tydfil Junction Rly rps over part of lines authorized by this Act. Hammersmith & City Rly dissolved from date of Act. (cap 150. July 15)

MOLD & DENBIGH JUNCTION rps over Vale of Clwyd Rly to Denbigh, Ruthin & Corwen Rly and over Wrexham, Mold & Connah's Quay Rly to Hope stn. (cap 164. July 25)

EASTON & CHURCH HOPE Inc cons as title with pier. Any gauge or gauges. (cap 167. July 25)

MIDLAND cons at Tevershall and Burton-on-Trent and from Ilkeston to Mapperley. Rps over South Staffordshire Rly, over LNWR between Bescot and over Walsall & Wolverhampton Rly. LNWR rps over authorized line at Burton-on-Trent. Shall absorb Midland & South Western Junction Rly from date of opening. (cap 170. Aug 12)

RHYMNEY may adapt Low Level line at Bute Docks for passenger traffic. Cons at Llanfabon (jcn GWR). When Carnarvon & Caerphilly Rly is opened, rps over parts of GWR and rps shall cease over parts of Taff Vale Rly. GWR rps to Cardiff. (cap 171. Aug 12)

BROXBURN Inc cons Broomhouse stn to Uphall. (cap 175. Aug 12)

IDLE & SHIPLEY Inc cons as title. Rps over Bradford, Eccleshill & Idle Rly and over GNR to Laister Dyke stn. (cap 179. Aug 12)

BARNOLDSWICK Inc cons Barnoldswick to Sough Bridge. MR to work line. (cap 181. Aug 12)

DEVON & SOMERSET cons at Barnstaple. Broad gauge. (cap 182. Aug 12)

MIDLAND rps into Kings Lynn stn if GER agrees. Following agreements confirmed: Line to be made at Stamford from jcn MR to jcn Stamford & Essendine Rly. GNR and MR rps over S & ER. MR rps Essendine to Bourne and into Spalding stn, and may use Peterborough GN stn. GN rps to Stamford MR stn. (cap 185. Aug 12)

RHONDDA VALLEY & HIRWAIN JUNCTION Inc cons Ystradyfodwg (jcn TVR) to Aberdare (jcn Hirwain Common Rly) and thence to jcn Vale of Neath Rly. (cap 188. Aug 12)

HAYLING ISLAND RAILWAYS* Passenger and goods stn to be erected about 60 yds south of viaduct over Langstone Harbour. (cap 189. Aug 12)

BANFFSHIRE absorbed by GNSR from 31 July 1867. Buckie extension abandoned. (cap 190. Aug 12)

BOURTON ON THE WATER may abandon extension to Cheltenham. (cap 193. Aug 12)

SOUTHSEA Inc cons from jens LSWR and LBSCR Joint Line to East Southsea. LSWR and LBSCR rps over line. (cap 194. Aug 12)

BLYTH & TYNE cons from Tynemouth to North Shields, from West Sleekburn to Camboise, from South Gosforth to Butterlaw, from Bothel Demesne to Newbiggin-by-the-Sea, from Tynemouth to dock to be made by Tyne Improvement Commissioners and from North Seaton stn to Warksworth Harbour. (cap 203. Aug 15)

BRISTOL PORT RAILWAY & PIER* cons from Westbury-on-Trym to parish of St Philip and Jacob (jcn Bristol & South Wales Union Rly) and in parish of St George from jcn BSWUR to jcn MR. Rps over BSWUR to Bristol. BSWUR rps over BPR. GWR and MR may work line jointly or separately. (cap 204. Aug 15)

CHESHIRE LINES COMMITTEE united into a Corporation. (cap 207. Aug 15)

THE OPENING OF RAILWAYS : CENTENARIES IN 1968

Compiled by M. D. Greville

Date	Railway	Section Opened	Miles	Notes
1 Jan.	LONDON, BRIGHTON & SOUTH COAST	Central Croydon Branch	1½	A
13 Jan.	NORTH EASTERN	Langley to Catton Road	4½	B
3 Feb.	SOUTH EASTERN	Chislehurst to Tonbridge	18½	C
*Feb. 28	TORBAY & BRIXHAM	Brixham Road to Brixham	2	D
1 Mar.	MANCHESTER, SHEFFIELD & LINCOLNSHIRE	New Mills to Hayfield	2½	
2 Mar.	NORTH BRITISH	Pierhill Jc to Trinity Jc	3½	
		{ Abbeyhill Jc to Easter Road Jc		
		{ Bonnington: South to East Jc and North to East Jc		
2 Mar.	NORTH EASTERN	Crook to Tow Law deviation	4½	E
2 Mar.	NORTH EASTERN	Gateshead to Durham (Newton Hall Jc)	12½	F
16 Mar.	LONDON & SOUTH WESTERN	Colyton Jc to Seaton	4½	
1 Apr.	CALEDONIAN	Ferniegar to Motherwell (Lesmahagow Jc)	2½	
1 Apr.	GREAT WESTERN	Llandrillo to Bala	6½	G
1 Apr.	NORTH EASTERN	Nunthorpe Jc to Ingleby	5½	
1 Apr.	NORTH STAFFORDSHIRE	Burton: Stretton Jc to Hawkins Lane Jc (Goods only)	1	
6 Apr.	LONDON & NORTH WESTERN	Llanrwst to Bettws-y-Coed	3½	E
13 Apr.	SUTHERLAND	Bonar Bridge to Golspie	26½	
13 Apr.	METROPOLITAN & ST JOHN'S WOOD	Baker Street to Swiss Cottage	2	H
1 May	GLASGOW & PAISLEY JOINT	Ibrox to Govan	1	
1 May	GREAT NORTHERN	Firsby to Spilsby	4½	
4 May	MIDLAND	Redditch to Alcester	7½	
13 May	NORTH EASTERN	Tees Valley Jc to Middleton	7½	
18 May	CALEDONIAN	Mildcalder to Adiewell and West Calder Oilworks	9	A
25 May	FOREST OF DEAN CENTRAL	Awre Jc to New Fancy Colliery (Goods only)	4½	
*May 30	FESTINIOG & BLAENAU	Duffws to Festiniog	3½	J
1 June	LONDON & NORTH WESTERN	Llanwrtyd to Llandovery	11½	
1 June	NORTH BRITISH	Dalmeny to South Queensferry	1½	
1 June	PEMBROKE & TENBY	Carmarthen Loop	½	K
*June 5	NORTH EASTERN	Hownes Gill Jc to Lancaster Jc	9	E
1 June	LONDON & NORTH WESTERN	Sandbach to Northwich	50	L
13 July	MIDLAND	Bedford to King's Cross (Met)	3½	M
15 July	LANCASHIRE & YORKSHIRE	Red Moss Jc to Crow Nest Jc	1½	N
15 July	LANCASHIRE & YORKSHIRE	Blackrod to Horwich	1½	

July 21 TOTTENHAM & HAMPSTEAD
 *July 31 WEST RIDING & GRIMSBY
 Aug. 1 BRECON & MERTHYR

Aug. 1 MANCHESTER, SHEFFIELD & LINCOLNSHIRE
 Aug. 3 CALEDONIAN
 Aug. 3 LONDON, BRIGHTON & SOUTH COAST
 Aug. 4 GREAT WESTERN
 Aug. 31 CALEDONIAN
 Sept. 1 BRECON & MERTHYR

Sept. 1 CALEDONIAN
 Sept. 1 MIDLAND
 Sept. 23 AYLESBURY & BUCKINGHAM
 Oct. 1 LONDON, BRIGHTON & SOUTH COAST
 Oct. 1 LONDON, BRIGHTON & SOUTH COAST

Oct. 1 METROPOLITAN
 Oct. 1 MIDLAND
 Oct. 1 MIDLAND
 Oct. 1 TOOTING, MERTON & WIMBLEDON

Nov. 2 SIRHOWY
 Dec. 24 METROPOLITAN
 Dec. 24 METROPOLITAN DISTRICT

Highgate Road to Tottenham
 Oakenshaw Jc to Sandal (WR & G)
 Cefn to Merthyr (Rhydycear Jc)
 { Rhydycear to Ynsfach Jc (Goods only)
 Ynsfach Jc to Taff Vale Jc (Goods only)
 Tinsley to Rotherham
 Newtyle (Old) to Meigle
 Groombridge to Uckfield
 Bala to Dolgelly
 Pitnappie - Newtyle deviation
 { Dowlais Top to Deri Jc
 Bargoed South Jc to Aberbargoed Jc
 Busby to East Kilbride
 Derby (Melbourne Jc) to Melbourne
 Aylesbury to Verney Jc
 Hamsey - Lewes deviation
 { Peckham Rye to Sutton
 Streatham: North Jc to South Jc
 Praed Street Jc to Brompton (Gloucester Rd)
 Camden Road to St Pancras
 Brent Jc to Acton Wells Jc
 { Streatham South Jc to Wimbledon
 Tooting Jc to Merton Park
 Sirhowy to Nantybwlch
 Brompton (Gloucester Rd) to South Kensington
 South Kensington to Westminster Bridge

4 1/2
 3
 2 1/2
 1 1/2
 12 1/2
 18 1/2
 1 1/2
 6 1/2
 4
 5 1/2
 12 1/2
 3 1/2
 11
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L O

NOTES

A Goods: for passengers in 1869. B Goods: for passengers, Chislehurst to Sevenoaks 3 March; Sevenoaks to Tonbridge 1 May. C Passengers: for goods *1 May. D Passengers: for coal 1870; for goods 1872. E Passengers: for goods in 1867. F Goods: for passengers 1 Dec. G Passengers: for goods in 1864. H Goods: for passengers 2 Dec. J Goods: for passengers 8 June. K Goods: for passengers *1 Oct. L Passengers: for goods, Bedford to St Pancras 1867. M Goods: for passengers 14 Sept. N Goods: for passengers in 1870. O Goods: for passengers in 1875. * From best available sources: no contemporary information.

As usual, I have received a great deal of valuable help (for which I wish to express my gratitude) from Messrs H. V. Borley, R. M. Hogg, K. Hoole, J. Marshall and J. R. Whittle. I shall be grateful to hear of any omissions or errors. Should anyone be tempted to point out that the Cambrian opening from Penmaenpool to Dolgelly should have been included, on the strength of the entry on p.165 of the recent history of the Cambrian Railways, by Messrs Christiansen and Miller, the authors have agreed with me that this should be 1869, and have asked me to publicize this correction.—M.D.G.

THE AYLESBURY BRANCH OF THE GRAND JUNCTION CANAL

By Alan H. Faulkner

THE Grand Junction Canal Company in its early days was anxious to connect as many towns as possible to its waterway by means of branch canals. At the company's first meeting held on 1 June 1793 at the Crown & Anchor Tavern in the Strand, James Barnes, one of the engineers, was instructed to carry out surveys for several proposed branches. These surveys had all been completed by 5 September when the General Committee met to consider the plans. Some of the branches were not proceeded with, but amongst those that it was decided to construct was a canal to Aylesbury.

At the time Aylesbury was an important market town and it held out the promise of considerable traffic to and from the main line of the Grand Junction. But it was to be many years before the inhabitants of the town were afforded the benefits of a water communication.

On 16 September 1793, William Jessop, the company's chief engineer, reported to the General Committee that he had inspected Mr Barnes's plans and on the same day the shareholders at their General Assembly resolved that application be made to Parliament for leave to bring in a Bill. The Act (34 Geo III. Chap 24) authorizing the Aylesbury and other branches received the Royal Assent on 28 March 1794.

No action was taken immediately, for it was not until early in 1800 that the main canal was open from the Thames to Marsworth, where the branch was to start. At a Committee Meeting on 19 August, William Praed, the Grand Junction's chairman, reported he had received a letter from certain people at Aylesbury saying that a subscription had been opened and that enough money had been raised to cover the estimated cost of a 'cast-iron Rail-way' from Marsworth to the town and asking the Grand Junction to go ahead with the work. This offer followed a resolution passed by the company at a General Assembly on 7 June 1796:

'That such of the Collateral Cuts as the Committee may approve be proceeded upon Provided that persons can be found who will advance Money for the Execution thereof upon the bonds of the Company bearing Five Pounds per Cent interest to be continued for a term of years and that no part of the Company's present stock be applied towards it except the sum of Five Thousand Pounds to be applied towards the deep cutting and embankment upon the Paddington line near the River Brent.'

Following Mr Praed's report, the Committee agreed that it would be to the advantage of the company to substitute a railroad for the proposed branch canal and instructions were given to proceed with the railroad scheme, the Clerks being told to contract with the various landowners.

At their meeting on 3 November 1800, however, the Committee ordered Mr Barnes to use the rails that had been bought for the railroad at the deep cutting at Wolverton until they were needed for the Aylesbury line. Probably the reason for the delay was that at about this time suggestions for extending the Aylesbury branch canal to Abingdon were being made. Acting on behalf of a group of subscribers headed by the Wilts & Berks Canal Company, Mr Whitworth had

carried out a survey and an approach was made to the Grand Junction by Mr Crowdy, Clerk to the Wilts & Berks. The Grand Junction replied non-committally saying it would have to consult with other canal companies before supporting the venture.

It is probable that the main reason for their lukewarm interest was because they were to be expected to find the water for the new canal. As the main line of the Grand Junction was none too well supplied itself at the time, which probably was why the company were so keen to adopt a railroad to Aylesbury, it would have been impossible to satisfy the heavy demand for water from the proposed new canal.

In April 1802, Mr Barnes was ordered to make a further estimate of the expense for making the railroad to Aylesbury and of the probable time it would take to complete. On 15 May, Mr Holland, one of the surveyors, was ordered to start work on the railroad line between Aylesbury and Broughton Mill. Little work was done, for early in 1803 William Jessop laid a report before the Committee and on 17 March it was decided that it would be better to have a branch canal after all. A supply of rails had been purchased and these were lying at Marsworth and in March 1804 it was decided to allow the contractors working on the Wolverton Aqueduct and Embankment to have the use of them.

Mr John Barker, another of the company's surveyors, was instructed to re-survey the canal line and to consider any deviation that would decrease the number of locks or lead to a saving of water. On 4 June Mr Barnes, Mr Holland and Mr Barker were ordered to make a complete plan and estimate for the branch, and Mr Barker was authorized to contract for the purchase of land. Ten days later Mr Barker was ordered to meet the engineer of the Wilts & Berks Canal in order to join in the proposed survey for a waterway from that canal to Thame or to Aylesbury.

Still nothing was done and the inhabitants of Aylesbury were becoming restless at this lack of action. Early in 1805 an approach was made to the Grand Junction and on 15 February the Committee resolved:

'That a communication with Aylesbury from the Main Line be made either by a Canal or Railway as soon after the completion of the Main Line as circumstances may permit Provided that Persons be found who will advance such Sums of Money (in addition to the Sums already subscribed) as may be deemed sufficient by the Committee to justify the Company in undertaking the said Communication.'

This did not satisfy Aylesbury and in November a group of subscribers to the original fund raised in 1800 for the railroad wrote to the chairman threatening to take the company to law to compel them to complete the Collateral Communication. The company were unmoved by the threat, but the people of Aylesbury were not deterred and in the autumn of 1806 preparations were going forward to introduce an Act to force the Grand Junction to make the branch and to restrain them from paying any dividends until they had applied the sum of £20,256 towards the execution of the branch as they had engaged to do. If this sum was insufficient then the Act provided that the money raised by the people of Aylesbury and paid over to the company some years ago was to be used. However the Act did not succeed.

In 1808 the Marquis of Buckingham proposed a canal to run from Seabrook, near Cheddington, on the Grand Junction to Thame, and on

16 August the Grand Junction Committee decided to support the project, agreeing to make a loan of £15,000 spread over three years. Various conditions were imposed, particularly with regard to the all-important question of water supply, but the Marquis, on learning of these conditions, decided not to proceed with the scheme. In October 1809 the matter of a link with the Wilts & Berks Canal came up again, following a visit by a deputation from that company, and it was decided to set up a Sub-Committee to look into the proposal and to report back. This project became known as the Western Junction Canal.

The antagonism between the people of Aylesbury and the Grand Junction could not go on for ever and matters came to a head with the Grand Union Canal Bill. The Marquis of Buckingham and several people in Aylesbury petitioned against the Bill and they only agreed to withdraw their opposition for an undertaking by the Grand Junction to build the branch to Aylesbury.

Agreement was finally reached in March 1810. If both the Grand Union and the Western Junction Bills were passed the Grand Junction would consent to the new company making the canal to Aylesbury as part of the line to Abingdon. If the Grand Union Bill passed but the Western Junction Bill did not pass on or before 1 August 1812, the Grand Junction agreed that, on receiving six months' notice from the Marquis of Buckingham and certain people at Aylesbury, they would make the canal to Aylesbury within two years of the notice being given. If neither of the Bills passed, the Grand Junction would make an Iron Railway from Marsworth to Aylesbury unless a subsequent agreement could be made with the Marquis of Buckingham to complete a canal to Thame.

Following this agreement, the Grand Junction got down to serious study of the Western Junction proposal and a meeting was held on 17 March at which an agreement with the Wilts & Berks Company was reached. The line, as surveyed by Messrs Barker, Whitworth and H. Provis, was approved, the estimate being £220,000, of which £20,000 was reserved for the landowners through whose property the canal was to pass. £70,000 each was reserved for the shareholders of the Grand Junction and the Wilts & Berks Companies, whilst a Committee was set up to raise the remaining £60,000 from the public. It was also agreed that a compensation toll of 5s 5d per ton should be paid to the Grand Junction on all coal passing in an easterly direction, a bar to be fixed at the fifth lock from Aylesbury, presumably to protect the established trade from the Midlands.

Water was still a crucial factor and it was decided that no lock between Marsworth and Aylesbury should have a fall exceeding six feet, whilst the engineers were ordered to report on water resources in general and to calculate the cost of pumping water back to the Grand Junction. Further, the branch to Aylesbury was to be completed within two years of the passing of the Act. These agreements were approved by the Grand Junction Committee on 22 March.

As planned the line was to run from Marsworth to Aylesbury and then through Hartwell, Stone, Cuddington, Chearsley, Haddenham, Long Crendon, Ickford, Wheatley, Cuddesden, Denton and Culham to Suttonwick near Abingdon where it would join the Wilts & Berks

Canal. The line was some 36½ miles long, with an aqueduct over the Thames at Abingdon. Originally it had been decided to make an 187-acre reservoir at Haddenham but in October 1810 it was decided to try and purchase the Mills on the River Thame instead, to stop complaints from millers and to use the water for the canal.

Of the £70,000 allotted to Grand Junction shareholders, £58,950 had been raised by the end of April and on 8 May the Committee transferred the right of subscribing for the remaining £11,050 to the Commissioners of the Sinking Fund.

Opposition to the scheme came mainly from the Kennet & Avon Canal Company who stood to lose much traffic and who were proposing a line from near Maidenhead to the Grand Junction at Cowley. Oxford University also petitioned against the Bill and it was rejected by the House of Commons at the second reading. The Oxford Canal Company and the Thames Commissioners also opposed the Bill in Parliament.

This meant that Aylesbury was still no nearer getting their branch built, although the Grand Union Bill received the Royal Assent on 24 May 1810, and on 7 March 1811 a private meeting was held between the Marquis of Buckingham and others interested in the Western Junction and some of the Committee of the Grand Junction. At this meeting it was proposed that the Grand Junction should start the Aylesbury Branch at once, financing the work by calls on the subscribers of the Western Junction Canal. The money so advanced was to be regarded as a loan, which would be converted into Western Junction shares should Parliament authorize the Bill. In that case, also, the branch to Aylesbury would be handed over to the new company. A limit of £20,000 was set on the money to be raised in this way and the agreement was to cease in August 1812, by which date the Grand Junction were themselves liable to build the branch as agreed in March 1810.

The Grand Junction agreed to these proposals and on 10 August 1811 Mr Thomas Tindall, a solicitor at Aylesbury who had been very active in trying to get the branch built, wrote to say that £1,300 had been paid into the bank of Messrs Rickford & Son at Aylesbury as the first instalment of the Loan. On 13 August the Grand Junction Committee ordered work to start, Mr Henry Provis being placed in charge. In May 1812 the Committee fixed Mr Provis's remuneration at £500 in all, the bulk of which was not to be paid until the work was finished. In December 1812, following representations by Provis, the sum was increased to £1,000, but to include the services of a Clerk. Mr Barker, the Surveyor, was allowed £650 for his services on the branch.

(To be concluded)

From minutes of the LB & SC Railway, 23 September 1846:

24. A selection of old sleepers now taken up on the Croydon line likely to be useful to be kept and remainder sold by auction.

62. Report that fire this morning had destroyed the [West] Croydon carriage shed (atmospheric), about 10 carriages and several casks of keys. Booking Office and Shed stood and traffic would go on as usual. Loss about £1,570 on Buildings.

BARGAIN TRAVEL IN 1850

By Philip A. Stevens

(Continued from October issue)

Many shops in Harborough took the afternoon off (it was a Friday) and a further 250 people went to Rockingham on the afternoon train. So that the excursionists found Rockingham already pretty full when they arrived. The inevitable band went along with the train, and its services were no doubt welcome, for Rockingham Castle is a mile or so from its station, with a stiff climb at the end, and the band led the multitude to the Castle in high spirits. *En route* they passed the village school, where a hundred pupils were lined up as a sort of guard of honour, the elder pupils bearing banners, devices regrettably unrecorded.

Once in the castle grounds, the trippers wandered around, and danced on the spacious lawns, while a copper containing 300 gallons of boiling water supplied them with tea. At 7 p.m. the National Anthem was sung, three cheers were given for the Hon. R. Watson, and the visitors trooped back to the station behind the band. On arriving there, however, they met the customary hitch. In this case, it took the form of shortage of accommodation on the train. Those who had come by the earlier trains had enjoyed their visit so much that many had stayed for the return excursion; the result being that 35 carriages were all too few for the numbers clamouring for places. Great exertions on the part of the station staff succeeded in cramming ('to suffocation', says the report) all but 'upwards of a hundred' of the trippers into the carriages; the staff then commandeered a number of cattle trucks ('just returned from Smithfield', it is invitingly said) and piled the luckless remnant into these. All doors were then locked throughout the train, and everything was ready for off. Unfortunately, the train had now grown to such proportions as to put it beyond the capacity of one engine, and the incarcerated passengers had no alternative but to sit in their temporary prisons until aid should come—which, in fairness to them, it must be said that they did with great good humour, singing glees, and 'determined to make the best of it'. After a delay of no less than two hours, the down train arrived with two engines, which duly helped in the task of the 'monster train' back to Harborough—with no little difficulty, it was said. It arrived at about 11 p.m.

So ended a memorable day in this quiet little market town—one which 'many were heard to say was the pleasantest day they had ever spent in their lives'. And all for 8d return, second class (1s 0d first class). The Committee wrote a 'thank-you' letter to Watson, whose reply shows that he was understandably away from home on the day, and more surprisingly that no damage whatever was done to his estate by the trippers. Standards evidently have declined since those early days.

These are very small affairs indeed. At this very time Cook was building up the foundations of his great travel empire—indeed, in this month alone he organized trips from Leicester to Chatsworth, Hull and Dublin, and in October was offering '350 miles of train travel for 6s). But they are very revealing: visitors from the county town, 15 miles away, might be from outer space; a trip to a country seat a few miles distant arouses more excitement than a world cruise today. The good

folk of Ashby and Harborough in 1850 did not inhabit the same mental universe as we present-day sophisticates, and the railway has perhaps done more than any other single factor to bring about the intellectual metamorphosis which separates us from these bargain travellers of a century ago.

* * *

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ARTICLE

Some geographical aspects of the modernization of British Railways, by J. H. Appleton. (*In* 'Geography', No. 237, Vol. 52 part 4, November 1967, pp. 357-373.)

* These items are in the Society's library.

† This Index is of little use without the annual 'Lists of accessions to repositories', which are available as follows: 1954, 1955, 1956, gratis from the Registrar, National Registrar of Archives, Quality House, Quality Court, Chancery Lane, London, W.C.2; 1957 (3s) and 1958 (3s 6d), plus 6d postage, from H.M. Stationery Office.

BOOK REVIEWS

YORKSHIRE PORTS AND HARBOURS, by B. F. Duckham
Dalesman Publishing Company Ltd, Clapham (via Lancaster), Yorks
36pp, illus, price 3s 6d

Although the author calls this booklet a short historical guide, its modest size and price belie the considerable amount of information he has compressed into a small space. The length of the Yorkshire coastline from Middlesbrough to Hull is covered, plus the river and canal ports of Selby and Goole. The accounts of the forgotten Holderness ports of Hedon and Patrington are particularly intriguing. Both places are now well inland, following silting and shifts in the shore of the Humber estuary. The story of the displacement of Yarm by Middlesbrough, and the decline of small places like Redcar, Staithes, Flamborough and the rest, many well known to the holidaymaker but unsuspected as one-time ports, will doubtless surprise many readers, while the rapidly disappearing remains of Port Mulgrave, at the end of its mile-long narrow-gauge railway tunnel running down from the Cleveland Hills, are a reminder

of the extensive ironstone industry which flourished in these parts not so many years ago. Your reviewer admits to a little disappointment, however, at the single short paragraph devoted to this fascinating place, but this personal criticism apart, the author and publishers deserve commending for their further excursion into little known aspects of Yorkshire history.

G. J. BIDDLE

LOCOMOTIVES OF THE L. & S.W.R. Part 2: D. L. Bradley

Railway Correspondence & Travel Society

211pp text, 145 plates. 25s post free from the Hon Publications Officer (Dept R), 5 The Friary, Lichfield, Staffs.

With the British steam locomotive nearing extinction, one is apt to recall the times, not long ago, when some survivors from pre-grouping railways were still very active. Memories of some L&SWR engines remain vivid: a journey from Plymouth behind a 'T9' ('Greyhound') in 1958, the sight of an Adams 4—4—2 tank at work in 1960, and a Urie 4—6—0 working a 'cross London' trip as recently as 1963.

Readers seeking a colourful history of such locomotives as these will be pleased with this R.C.T.S. survey. Mr Bradley has dealt ably with an interesting period which began with the appointment of William Adams as Mechanical Engineer in 1878 and continued under the rule of Drummond and Urie until the end of 1922. Three of Urie's 4—6—0 designs were perpetuated in a modified form by Maunsell after the amalgamation; there were 79 engines in all and the last of them came into service at the end of 1936. These engines come within the survey.

At the time of the amalgamation 912 L & SWR locomotives passed into the hands of the Southern, and a remarkable assortment they were, including all Adams 0—4—2 'Jubilees', all his later 4—4—0s and most of the 4—4—2 tanks. All six of Drummond's 4—2—2—0s were still at work and so, of course, were his ponderous 4—6—0s. Each class of locomotive is discussed at length and much of the material has come from official sources. Accounts of the work performed, incidents in which particular engines were concerned, and so on, set these engines against an active background of train working with the result that some almost-forgotten details of the L & SWR find a place in this attractive book. At 25s it is excellent value, and Part 1 is still available at the same price.

G. O. HOLT

CHANNEL TUNNEL 1802-1967, by A. S. Travis

Signal Transport Papers (Peter R. Davis, 62 Billet Lane, Hornchurch, Essex). 6½ x 8 in, 108pp, 38 diagrams and illus and a brief index; 12s

Books and articles about the Channel Tunnel are legion; its possible or probable physical and engineering characteristics, its history, its role as a political power, and its traffic prospects have been dealt with by authors of all calibres, from the frivolous to the solemn secretaries of committees, until one cries 'Enough'. So, looking at its striking yet repellent cover, we picked up Mr Travis's book with a mixture of boredom and misgiving. We are happy to say that this love-hate relationship soon gave place to pure interest as we skipped his text and got on to the pictures which are bunched at the back of the book.

Out of duty we dipped into Travis's succinct account of the Channel

Tunnel's history over the past 165 years, thinking that he could only go over well-trodden ground by the same paths. Duty was in a matter of seconds replaced by keen attention. Here is an author who has evidently read deeply about his chosen subject and mastered its intricacies in that he is able to give us a simple narrative, beginning with the geological facts about the rift between England and France which the tunnel is intended to conquer and going on to a well-designed story of the historical facts plus what people thought and said and did at the material times, such as the sharp words about it between Lord Palmerston and the Prince Consort in 1859.

The author maintains his capacity to clarify the confused right through the complicated period from 1865 to the trial borings of 1877 and the still more exciting time that led to Watkin's work, the famous underground luncheon party and the sapping countermoves by James Staats Forbes who probably aroused military ire against the project through his belief that Sir Edward Watkin was plotting on behalf of his South Eastern shareholders to keep the London Chatham & Dover Railway from participation in the tunnel traffic. This is but the prelude to a splendid chapter—'The Tunnel is Stillborn'.

There follows a really excellent summary of the revival of interest since the 1939-45 war, of the arguments and negotiations and of the recent much-more-complete-than-ever geological survey. With an up-to-date account of schemes for its financing brought forward to the spring of 1967 we have to put this slim volume down, having read it with deeper interest as we became further involved with the drama of it.

But it will be looked at again and again to use as a handy guide to fact or to consult the array of illustrations—even if here the printing method has left the half-tones only half visible.

C. F. KLAPPER

SCOTTISH RAILWAY HISTORY IN PICTURES, by John Thomas

Nearly 180 illus, including 5 col plates

Published by David & Charles, 35s

An interesting book and worth 35s for collectors of Scottish railway history. Many of the photographs are unusual or little known, and while some of them are not particularly good, a note in the introduction explains that the originals showed their age and 'careful darkroom work was required to make them presentable'. But this is preferable to a collection of perfect modern photographs which could have been rather boring and without character. On the whole the balance between the different aspects of railway working and scene has been relatively well maintained: locomotives, signals, bridges, stations (including women in funny hats) and, of course, the inevitable posed groups of railwaymen (elbows on running-plates). The reviewer feels, however, that something better could have been found for the centre-spread, rather than that awful picture of the Chinese delegation piled up in front of M & GN loco 59 at Hyde Park works in 1896.

J. G. SPENCE

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From a recent legacy, I have set aside £50 to try to fill gaps in my collection of Airey's Maps. Any map at any price considered, but especially wanted : Manchester, Durham & Northumberland, Gloucester & Oxford, East of England. **D. Garnett, Little Somerford, Chippenham, Wilts.**

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A SHORT HISTORY OF THE LIVERPOOL & MANCHESTER RAILWAY, by G. O. Holt. (Revised edition.) 7s 6d (6s 3d to publication fund subscribers).

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