



Journal
of the
Railway and Canal
Historical Society

THE RAILWAY & CANAL HISTORICAL SOCIETY

Founded 1954 Incorporated 1967

PRESIDENT: Prof. T. C. Barker

VICE-PRESIDENTS: 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

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.*)

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

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—Miss. M. 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. 3

No. 137

NOVEMBER 1987

Contents

THE SHROPSHIRE UNION CANAL AND THE PEATSWOOD

ESTATE AT TYRLEY *Edwin A. Shearing* 121

ROAD AND RAIL COMPETITION BETWEEN THE WARS

M. R. Bonavia 139

LOCKS AND WATER LEVELS ON THE GLOUCESTER AND

BERKELEY CANAL *Alan Richardson* 144

BOOK REVIEWS 150

CORRESPONDENCE 160

The Shropshire Union Canal and the Peatswood Estate at Tyrley

EDWIN A. SHEARING

Peatswood and the Twemlows

Most of the first two miles of the Shropshire Union Canal main line (Birmingham and Liverpool Junction Canal) south of Market Drayton lies through the former Peatswood Estate.¹ Twemlow family papers recording the taking of the land for the construction of the canal and the problems the waterway caused over the years, covering albeit unevenly the period 1825-1950, are deposited in the Staffordshire Record Office and these documents are particularly valuable as they present a landowner's view, complementing the picture presented by the Company minutes.

The estate as purchased by Thomas Twemlow in 1808 for £28,000 had been built up since 1776 by a Market Drayton banker, Thomas Dicken. It comprised Peatswood House with a small park on the east and the much greater area of Tyrley Castle and Upper Castle (now Tyrley) Farms on the west of a little valley down which flows a brook from the south, through two pools (only the upper, larger one from the 1880s until a few years ago, when the lower, 'Clerk's Pool' was reinstated) and thence on to join the Coal Brook just upstream from the canal aqueduct. An unusual feature was a private canal nearly three quarters of a mile long which had probably been made shortly before Dicken bought the Tyrley Castle land from Hugo Meynell in 1791. It ran from a marl pit near Stonyford (just east of Tyrley Wharf) along a level close to the present Tyrley Locks Nos. 3-5, swinging away east and then back again across the line taken for the B&LJC, around a dingle to finish in a field at a point nearly a quarter of a mile north of the bottom lock. This watercourse, fed at its southern extremity by the brook, served a dual purpose, facilitating transport of marl to improve the sandy and gravelly soil in that area, and irrigating the grassland. It is shown on the plans deposited in November 1825 for the proposed railway from Birkenhead (Rock Ferry) to Birmingham² and on those for the B&LJC,³ both of which followed very similar lines between Market Drayton and Park Heath, Cheswardine. Most of the little watercourse was filled in when the main canal was built but a short length is shown between Lock 3 and Stonyford Lane on the 1st edition OS 6-inch sheet Staffs XXVIII NW, surveyed in 1879. There seems no evidence of this now, although there may be possible traces of a channel in the rough ground on the south side of Stonyford Lane, east of the Wharf Bridge.

The Twemlow family had lived for generations around Sandbach, Cheshire, although they probably had origins in Twemlow, near Holmes Chapel. Thomas's father, also a Thomas Twemlow (1738-1801), and his brother George had been successful potters in Stoke on Trent; it may be noted that they invested in the Trent & Mersey Canal in 1766-70. Thomas junior, born 1782, graduated at Brasenose College, Oxford, in 1804 and, moving into Peatswood in 1809, made farming a business rather than a hobby. He also showed an interest in canals — in fact he took up a few shares in the B&LJC — and later on invested in railways. He married in 1829 and after his death in 1872 at the age of 89, his widow stayed on at Peatswood to outlive by six months his nephew Francis Cradock Twemlow of Betley Court who had inherited the property. It was the latter's son, Francis Randle Twemlow, who became the next owner in 1880 and he, too,

was much concerned with running the estate and expanding it. Educated at Winchester and Christ Church, he became a Barrister of the Inner Temple, served in the Army and retired as Colonel Twemlow, DSO, in 1908. He was a keen local historian, writing about his family and their estates, and the Manor of Tyrley.⁴ He died in 1927; his only daughter Evelyn Dorothy married Paul V. Emrys-Evans in 1928. Evelyn died in 1962 and Paul in 1967; the estate was sold as a whole the following year but has been dispersed by subsequent sales. Peatswood House itself, of no special architectural merit, was demolished in the summer of 1979, but a fine brick stable block dated 1891 remains, together with the Home farmhouse which incorporates part of a black and white, timber framed ancestral house of the Twemlows, removed from near Hassell Green, Sandbach.

The Coming of the Canal

Thomas Twemlow recorded (6 February 1828) that when the original survey for the B&LJC was being made (most probably in 1825, but preceded by the 'railroaders' in 1824) he had expressed a wish that it should not pass through his estate on the score of the injury the property would suffer.⁵ A different line was apparently surveyed along the Coal Brook Valley but was deemed impracticable. He therefore petitioned Parliament against parts of the Bill⁶ with the result that the Act⁷ gave him certain protection. Clause 12 prohibited the Company, except with his prior written consent, from:—

1. Making any reservoir on his land (one was shown in the valley east of the eventual site of Tyrley Wharf in the initial Deposited Plan³ of November 1825 but omitted from the revised Plan⁸ of June 1826).
2. Diverting or taking any water from the watercourse that flowed through his lands to join the Coal Brook.
3. Making a towing path on the east side of the canal — the side nearer his house.
4. Building locks, warehouses etc., digging and carrying away stone or clay for bricks except between fields 17 and 24 on the Plan (approx. 500 yards on either side of Tyrley Road Bridge No. 60).

Clause 13 laid a similar restriction on the Company planting trees or shrubs on any of the lands taken for the canal that had belonged to him, although he could do so himself. Twemlow was also granted the right to require the Company to plant and maintain forest trees on the banks of the canal to be made in field 34. This field, between the Coal Brook and the road passing under the Tern embankment at 40 Steps Bridge, was at that time Corbet property but the eastern part was purchased by Twemlow in 1836. The right was not exercised until 1899, and then in a modified way. Further, Clause 14 required the Company to fill in the private canal on the estate and to make a replacement watercourse for carrying water at a level not lower than the existing channel as far as field 29 (c. 400 yards north of the bottom Tyrley Lock). Twemlow could also use the Company's canal banks as embankments for any irrigation reservoirs he might make (Clause 15).

The first meeting of the B&LJC Committee was held at the Lion Inn, Newport, on 22 July 1826, when Telford's proposal to resurvey and mark out the line was approved.⁹ At that time the work was to be divided into three Lots — Nantwich to Tyrley, thence to Church Eaton, and on to Autherley. However, at the next meeting on 21 October, he reported that the line had been accurately surveyed, under the personal inspection of W. A. Provis, only as far as Norbury, terminating there to afford time for making 'sundry variations proposed by Lord Anson and others'. A bland understatement of a situation that was to lead to much trouble.

The line as far as Norbury was now to be divided into three Lots:— 1. From Nantwich to the top Audlem Lock. 2. Thence to 'the middle of the deep cutting at Drayton'. 3. On to the High Offley — Loynton road at Grub Street Bridge (41). This change in significance of the Lots was unfortunately overlooked by Rolt when describing the construction of the canal in his biography *Thomas Telford*, and on the basis of the initial division of the entire canal into three Lots, he ascribed the Woodseaves work to Provis, an error compounded by several subsequent authors.

Meanwhile in September, Twemlow had seen the way the line of the canal, as marked out, cut across the course of the brook in its higher reaches and was evidently troubled as to what means could be adopted to preserve the stream to his estate and the water supply to his replacement watercourse. He wrote (21 September 1826) to Provis, who replied suggesting there were various options best decided by discussion between the parties. Provis concluded with a conventional assurance of his every attention to Twemlow's wishes if he should be engaged in the execution of the canal. In the outcome, John Wilson's tender for all three Lots was accepted by the Committee on 2 December 1826. By now, Twemlow had examined the plans of the resident engineer, Alexander Easton, and realised the full extent of the embankment across the Tern and Coal Brook valleys. On 4 December he wrote to Lord Clive, the B&LJC Chairman, suggesting that an iron or a brick aqueduct should be built rather than 'an embankment formed by bringing down the adjoining banks into the valley, whereby the whole face of the country will be altered, certainly not for the better . . . It is by no means my wish to ask for any thing which should be thought unreasonable.' He went on to say he had recently expended a considerable sum in improving his house and grounds and was afraid they would be deteriorated in value as property, and comfort in residence, by the embankment. 'Mr Telford, I presume, will have no objection to embellishing his undertaking with a little of the ornamental, a character such works are in general, so greatly deficient in . . . I shall be altogether guided by your Lordship's advice.' Clive replied (11 December) regretting that the matter had been raised so late, when Wilson's contract had already been accepted; he would, however, mention the matter to Telford if he so wished. Twemlow came back (14 December) suggesting that Wilson would be indifferent as to whether an embankment or aqueduct were to be built — 'the only point in question will then be, whether the canal company are to be at some additional expence, or my property and comforts are to be sacrificed.' His Lordship's influence with Telford was sought and it was hinted that the subject be brought to the notice of the Committee in January. If it was, the minutes do not record it. An agreement for the sale of the requisite land on Twemlow's estate at £80 per acre was formally agreed in a pro-forma Memorandum signed on 30 December 1826.

Thomas Twemlow was not happy. Noting that Clause 45 of the Act required complaints of damages to be made to the Company within six months of the injury being sustained (or the doing of it ceased), he employed a surveyor, Samuel Bell, to assess the damage his estate would suffer from the making of the canal. On 10 May 1827, Bell enumerated six circumstances reducing the value of the estate:—

1. A high embankment some 500 yards long, cutting off a picturesque view from the mansion.
2. The canal coming within yards of a fine ornamental lake, well stocked with fish and surrounded by plantations sheltering game.

3. The oblong estate being cut through the centre from end to end, dividing fields from farm buildings and requiring more land for occupation roads.
4. The sporting value of the property spoilt by the canal being a barrier to the pursuit of game.
5. Young plantations cut up and the beauty and utility of the property destroyed.
6. Five locks close together in the middle of the estate would 'retard the progress of conveyance' and cause a greater nuisance than elsewhere. Bell estimated the damages at £1500, independent of tenants' damages by putting their fields out of tillage. Notice of the claim was delivered the next day.

In about November 1827, Easton applied to Twemlow for the relaxation of the statutory protecting clauses in respect of a change in the situation of the locks (the lowest lock was subsequently built about 150 yards north of the limit laid down) and giving up the watercourse the Company was bound to make in lieu of the old watercourse or canal now covered by the main canal, 'and the water of the same'. Twemlow said he was at all times desirous of meeting the wishes of the Company and suggested his claim of May 1827 should be adjusted at the same time. The matter was referred to the Committee meeting at Wolverhampton in January 1828 when Twemlow agreed to arbitration on both the specific damages and the equivalent for relinquishing the proposed new watercourse and 'stream of water'. George Tollet and Joseph Lee in their award dated 1 March 1828 stated that 'In view of the great difficulty and expense which would attend the carrying into effect of the Clause of the said Act . . .'. Twemlow was to give up his claim to the stream of water, 'the Company making and keeping three good and sufficient watering places at the points marked upon the Map signed by Mr Telford, for the use of the cattle of Twemlow and his tenants'. In compensation for giving up 'the use of the said stream of water', the damages sustained by the making of the Canal, severing the lands and all other matters, Twemlow was awarded £2600. Spoil banks and damage to the tenants were not considered in making the award, which was to be paid in two equal parts, one at six months and the other at nine months after date. The arbitrators and Twemlow were probably quite clear that the words watercourse and stream of water related to the replacement for the private canal referred to in Clause 14 of the Act and the water it carried. The Company minutes of 19 July recorded that Twemlow was releasing the Company from various clauses in the Act, giving them a 'valuable stream of water'. There seems already a hint of possible confusion between the former private canal with its water and the natural stream flowing through the estate, reserved to Twemlow under Clause 12 of the Act, the two headwaters of which were being intercepted by the main canal near Hollings Farm, and which had also supplied the private canal.

Meanwhile, construction work was under way. By the end of the first year, the Committee minutes of 19 January 1828 show that the masonry aqueducts to carry the embankment over the two branches of the Tern and the public road nearby (40 Steps Bridge) had been completed. The Coal Brook aqueduct had been finished by the time of the July meeting. The stone employed was probably from the quarry just upstream on the north bank of the Tern, then Corbet property. An award of £325 for the use of a stone quarry was made to the Corbet Trustees by Tollet and Lee, (Com. 23 May 1829). Building the embankment, up to 50 feet high, was facilitated by boating spoil from a cutting north of Market Drayton along part of the canal already in water. The work was complete by July 1830 with water at full depth of 4 - 5 feet. The top lock (No. 1) at Tyley was the first of the flight to be started; it had been completed by July 1828 and above it there was c. 4 feet of water affording a boating channel from

THE PEATSWOOD ESTATE

TYRLEY

c. 1909

MARKET
DRAYTON

St. Mary's Church

Tyrley Castle Farm

Bridge 61

PEATSWOOD

Lock Keeper's House
Tyrley Road Bridge 60

Chapel

Four Alls

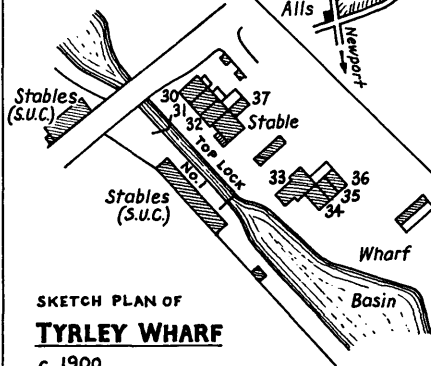
Upper Castle Farm
(Tyrley)

Bridge 59

Old Springs

Tyrley Wharf

Hollings Farm



SKETCH PLAN OF

TYRLEY WHARF

c. 1900

Newcastle under Lyme
Bridge 62

Hinsley Mill

40 Steps Bridge

Landing Stage

Coal Brook

Chipnall

N

0 1/4
MILES

- B & L J Canal
- 'Private Canal' (approx.)
- Rivers
- Roads
- Estate Roads
- Estate boundary

the deep Woodseaves cutting to the south. Spoil bound for the Tern embankment must have been carried overland while the other four locks were building — they were complete by January 1830; all five locks were originally built entirely of stone from Woodseaves. The report of the completion of Lock 1 happens to mention it was fitted with two pairs of gates, a reminder that as built, all the locks on the B&LJC main line had twin upper as well as lower mitre gates, in conformity with the drawings published in Telford's *Atlas*.¹⁰ This arrangement proved unsatisfactory; Cubitt reported (Com. 15 July 1841) 'one other defect which has caused some extra expense — the upper gates of the main line being made double instead of with a single gate as on the Newport Branch'. Easton was instructed to replace the twin by single leaf upper gates as the old ones required renewal and this process was already under way at Audlem and Adderley in 1843. The canal line through the Peatswood estate was substantially complete, as indeed was the whole of Lot 2, by January 1830 and in the July it was reported that boats with gravel for the towing path had been passing through the locks, water being supplied by adjacent streams.

In January 1832, Telford undertook to select the locations and prepare plans for lock-keepers' houses; a four-room bungalow design was proposed generally, but in view of the Company's financial problems a single room was thought adequate in two cases at Audlem where local housing was available (these were enlarged by 1836). William Hazledine and Alexander Easton, reporting in September 1832, concluded that the remotely situated Tyrley locks justified a four roomed 'house' for the keeper and his family. John Wilson's sons, who had continued contracting after their father's death in January 1831, undertook the eight 'houses' on the main line and that at Tyrley was being built in July 1833.

Although Twemlow had agreed to sell the land required at £80 per acre, that rate was only for land actually occupied by the canal — water, towing path and banks. Other land had been taken for dumping spoil and in 1836-7 he disputed Easton's offer of half price for such ground; this was put to arbitration¹¹ and the award was for two thirds of the full price. A memo of 14 February 1853 from the 'Shropshire Union Railways and Canal Co., late Birmingham & Liverpool Junction Canal Co.' records the final settlement:—¹²

	£
Land occupied by canal: 16 acres 1 rood 39 perch @ £80/acre	1319.10.0
Land occupied by spoil: 9 acres 0 rood 5 perch @ £53.6.8/acre	481.13.4
	1801. 3.4
1851, Jan 24 to cash £1600	
To calls due £ 50	1650. 0.0
	Balance due: 151. 3.4

There is no mention of any interest.

Tyrley Wharf

When the canal was opened for trade on 2 March 1835 there were no local wharfage facilities at Tyrley. The 1826 Act (Clauses 140, 141) stipulated that Lords of Manors and owners might erect wharves etc. on their own lands, or if they refused when required by the Company, the latter might do so. An official form dated 30 April 1832 had notified Twemlow that a site on the east side of the canal just south of Tyrley top lock was considered 'necessary and proper to be used . . . for the purpose of erecting and making wharfs'.¹³ Twemlow wished

to build a wharf in the pound between the two upper locks, but this was unacceptable to the Company (Sub-Com. 14 September 1836) and in January 1837 he was offered £25 if he built at the site above the top lock, apparently an allowance towards the expense of removing spoil that had been laid down there. In the July it was minuted that he was constructing the wharf at the top of the locks. The Tithe map of c. 1838 shows the first Wharf building, a part of the block that bears the datestone '1837', and Twemlow is recorded as owner and occupier.¹⁴

Initially there appear to have been only two dwellings, and these were let in September 1838.¹⁵ One went, together with the wharf, for £25 p.a. to the Oak Farm Iron & Coal Co., formed in 1836 by Sir Stephen Glynne of Hawarden to exploit the minerals of his Oak Farm estate in Kingswinford. The Stourbridge Extension Canal which later served the Works was not opened until mid 1840 and lack of this facility may have been partly responsible for the tenancy being dropped after only two years. William Evans, described as a coaldealer in the 1841 Census, took the wharf from September 1840. Andrew Brasenell, a shoemaker, was tenant of the other house, with a shop and brewhouse at £20 p.a. and a stable at £10 p.a. He discontinued renting the stable after a year and finally quitted in 1843, when Evans extended his tenancy to include 'the beerhouse, three small crofts, garden etc.' at £60 p.a. from 29 September. Brasenell had evidently put the brewhouse to good use and there was now something of a public house at Tyrley Wharf.

A Committee minute of February 1842 discloses that Twemlow had applied through Easton for the Company to remove the mud from the basin. He might well have said 'I told you so' when reminding the Committee that he had wanted his wharf below the top lock because he was convinced that mud carried down from the upper 26 miles of canal would deposit above the lock. This argument was, however, refuted and he had to pay. Meanwhile he had built another group of cottages, dated 1840, stables etc. on the site. Stables were let to the Company (Com. December 1843) for horses kept there to haul boats through the locks when working the steam tug-boat trains then being introduced. The Shropshire Union Railway conversion plan of 1845 lists five dwellings, stables, warehouse, outbuildings and yard, with wharf and basin.¹⁶ Records of the planning and construction of the buildings and of the business conducted at the wharf do not appear to have survived.

William Evans seems to have required some persuasion to quit in May 1848, when Thomas Benton became tenant, although the resident 'publican and coaldealer' of the 1851 Census was Stephen Sheldon, aged 20. John Herbert was the next tenant of the 'Coal Wharf, Beerhouse etc.' in September 1854; the 1861 Census records 'Castle Inn', John Herbert (71) wharfinger etc., but a rating list for 1863 includes 'Widow Herbert — wharfhouse and land' and in December 1863 William Bishton took over. Bishton was the contractor for horse haulage to what had now become the Shropshire Union Railways and Canal Co. and doubtless he installed his own wharfinger. However, after many changes of intent, the SU finally took over its own haulage from March 1866 and on 25 March Twemlow made an agreement with the Company for the lease of 'Wharf, granary, cottage, public house, weighing machine, three stables and three plots of land' at £50 p.a.¹³ reduced to £35 p.a. in 1869. Trade at the wharf could not have developed satisfactorily, maybe affected by the opening of the railways to Market Drayton from Nantwich (1863) and Wellington (1867), for the Company terminated the lease in 1872, retaining the tenancy of one cottage.¹⁷ In the 1871 Census there was still a beerhouse keeper, George Blakeman, but no inn name is mentioned and in 1881 the enumerator's area schedule refers to 'the old beerhouse'. It had

lost its licence perhaps about 1872 according to Francis Twemlow, or about 1869 if it had operated under a two guinea licence of the 1830 Beerhouse Act.

Four private tenants of the wharf followed with rentals diminishing from £25 to £15 p.a. over the years, until March 1899, when Francis Twemlow pressed the Company, who had continued to rent a cottage and garden for a horsekeeper at £4.10s. p.a., to take on the wharf and basin again since SU steamers were using them for coaling, ash heaving and turning round, seven days a week.¹⁸ Agreement was reached in July 1899; the rental was £5 p.a., Twemlow reserving the right for himself and his tenants to free use of the wharf for estate purposes. The SU sublet part of the wharf in 1907 to 'Mr Thomas of Tipton, coal and timber merchant' and when this trader withdrew at the end of 1915 and no other sub-tenant was forthcoming, the Company said the tenancy would have to be terminated unless the rent was reduced. Twemlow pointed out that the wharf was still much used, especially for milk traffic conveyed daily to a factory near Norbury (Cadbury Bros Knighton Works, opened in 1911), while Company boats tied up and turned round there. Moreover, the SU horsekeeper's cottage, upon which he had spent a considerable sum for improvements, was still being rented for only £4.10s. p.a. (January 1916).¹³ A few months later, Cadburys wrote expressing interest in renting the wharf for the receipt of milk from farmers in the district, and suggesting there would be no objection to farmers continuing to use it for receiving fertilisers, feeding cake etc. The SU was ready to relinquish the tenancy and Cadburys agreed to take a 7 - 9 year lease of the wharf at £12 p.a. and a cottage with garden at £5 p.a. from October 1916. William Skitt, coal merchant of Market Drayton, had also approached Col. Twemlow with an offer for the wharf and he was referred to Cadburys with the suggestion that there was nothing to prevent him coming to an agreement with them 'provided of course that nothing is done to cause annoyance or inconvenience to my cottage tenants there'.¹³ An earlier complaint (May 1908) that Thomas had made a quagmire of the lane to the cottages had not been forgotten.¹⁸ Skitt's coal business at Market Drayton wharf continued until the 1940s, but it is not known whether he shared at Tyrley. As for Cadburys, the last of the deposited correspondence (14 October 1916) was to ask whether it would be in order to erect a small wooden stable on wharf land for the use of Mr F. W. Cope of Goldstone Farm who was doing some hauling work 'in connection with our boats on the canal'. Two miles along the canal towards Knighton, Cadburys leased a site from the SU on the south side of Goldstone Bridge (No. 55), where a timber staging was erected in 1916 to facilitate transfer of milk churns to boats.¹⁹ In September 1925 the Norbury Inspector was instructed to have this staging extended, evidence that business was then brisk.²⁰ A daughter of Mr Cope's, who lived nearby, has recollections of churns being handled there around 1930; Mr George Lloyd, a retired BWB Area Engineer, remembers milk boats passing through Norbury Junction (admittedly on the far side of Knighton), where he was living, in the early 1930s. No firm date can be given to the conclusion of the milk traffic at Tyrley wharf, but it does seem that as late as 1930-2 is possible, although most of Cadburys' own boats had been disposed of in 1928.

Apart from Tyrley wharf, there is a landing stage just north of Bridge 61, the nearest accessible point to Peatswood House and to which it is said the coal supplies for the house were delivered. This is not shown on the first edition of the OS 6-inch map, surveyed in 1879, but Francis Twemlow records that the dam of the lower pool was raised to improve the gradient of the access track in his time, i.e. after 1880; the landing stage was reported 'renewed' in 1904.²¹ It was not until 1890 that Col. Twemlow obtained possession of the land to the east of the brook between the home part and the wharf, enabling him to make a

new drive across the fields in 1903, thereby reducing the cartage distance from Tyrley wharf to the house by about a mile.¹

People at Tyrley Lock and Wharf Cottages

Census returns, minutes, rent books and other records enable some picture to be built up of the community around Tyrley Top Lock, more particularly during the nineteenth century. The first keeper at the Lock Cottage was to take up residence in September 1834 — Thomas Lafford, a Scot who had worked for Wilson on the Caledonian Canal, the Menai Bridge and as a foreman of earth-works on the B&LJC. His job was to look after 'the five locks south of Drayton and the stream falling into the deep Woodseaves cutting'. The pay was 13/- per week, with house, and it was noted that he had one son, capable of being made useful (1 and 17 July 1834).⁹ The Tithe Map of c. 1838 shows Thomas Lafford to have occupied a croft across the canal from the lock house; a Twemlow rent book records that in March 1841 about 5 acres of land and a cow house were let and that from 1842 until 1846 'James Lafford and Isabella' were the tenants. However, in the 1841 Census the lock keeper, Thomas Lafford, was only 20 years old and was assisted by Robert Lafford, aged 15, both born in Scotland.²² By 1851, Thomas, now aged 30, with his wife Emma from L. Drayton and three children, had his widowed mother Elizabeth (76) living with them in the lock cottage. The 1845 Railway Plan shows the five Wharf cottages to be occupied by James Lafford, William Blandford, Thomas Johnson, Joseph Mackenzie and William Evans. The last we have met already at the wharf, while the other four seem likely to have been canal employees since Easton paid Twemlow rents of £5 p.a. each for four cottages at Tyrley Locks from March 1842 to March 1846 and possibly to 1847. Johnson and Mackenzie remain unknowns but William Blanford (sic) was described as a lock keeper of Drayton when he was married at St. Mary's, Market Drayton, on 26 December 1843. James Lafford rented a cottage himself from 1847 through to 1865-6. The 1851 Census records him as aged 35, born in Scotland and 'Foreman on the Canal'; his wife, Mary, was born at Market Drayton. The keeper at the lock house in 1861 was John Williams (30), probably the son of a lock keeper of the same name at Adderley during 1845-51. By 1871, the Census locates James Lafford (56) at Tyrley lock house but a Committee minute of July 1872 reveals that he was then to be pensioned off as incapacitated and was to give up the house. A Mrs Lafford rented the cottage (now No. 37) behind the lockside stable from about June 1874 until the end of 1880, when the association of the family with Tyrley came to an end. Unfortunately it has not been possible to establish the relationships between the Laffords through local sources.

In 1861, another Wharf inhabitant was Edward Thomas (40), born at St. Martin's, Salop; he and his son Peter (14) were described as horsekeepers, doubtless looking after the canal horses. By 1871, Peter had a wife Isabella, almost certainly a daughter of James Lafford, and children, and lived in another cottage. It was he who succeeded Lafford at the lock house while his father Edward continued as horsekeeper, but they exchanged jobs and houses in 1881, Edward becoming lock keeper until 1885 when he was transferred to Norbury, replacing the smith there, who had been sacked for poaching. Peter Thomas was horsekeeper until 1902 when he once more resumed lock keeping.

The Laffords and the Thomases appear to have been fairly well settled at Tyrley, even if their jobs were changed from time to time. Most of the tenancies were relatively short term, however, held by labourers seemingly not dependent on the canal for employment. There was usually a second lock keeper posted at Tyrley and he, or perhaps a banktender, sometimes rented a cottage. Otherwise there were e.g. the occasional boatman, an engine fitter and even a Telegraph

Superintendent. Peatswood Estate workers had cottages nominally rent free in the 1880s and 90s and maybe at other times.

A Rating List of 1863 confirms that there were only five dwellings on the Wharf;²³ there were possibly six in 1871 (Census) and rent books show that by 1880 there were eight; when and how the increase was effected has not been discovered. There are no indications of any substantial trade at the wharf – the SU Company was reluctant to rent it again in 1899 and seems to have been relieved when Cadburys took it on for their milk traffic. Most boats just passed by and Tyrley was but a rural halt. Enumerators' returns show six boats there on Census night in 1851 while there were at least two boats, one laden with iron ore and the other with timber tied up in 1861, and four boats, cargoes not specified, in 1871. Twemlow's comment in 1899 about the activities of steamers at his wharf is interesting. The Company never seemed convinced for long that narrow gauge steam tugs or 'cargo tug boats' were more economical than horses for haulage but was prepared to give them a trial from time to time. Engineering Dept employed them on maintenance work and they were used, especially between Tyrley and Atherley, when it was desired to rest horses suffering from sore shoulders.²⁴

Francis Twemlow was keenly interested in his inheritance, as shown by his family book.¹ In 1903 he built a small Church of England chapel along the road to the 'Four Alls' as a thanksgiving for his safe return from the Boer War. He and his wife, daughter and son-in-law were buried in the adjoining graveyard which appears to have been intended primarily for the family, their tenantry and workers on the estate. Twemlow made available the upper room of the lock-side stable block as a parish club room, where social events and a Sunday School were run; it was used as a Polling Station until the 1960s. The last deposited rent book concludes at Michaelmas 1919 when the Wharf property was transferred to Evelyn Twemlow and very little more recent documentation has been located. In the 1930s one inhabitant, Arthur Newbrook, ran a road haulage business and it is possible that he may have operated the last milk boat service between Tyrley and Knighton. BWB, appointed in 1963, became the successor to the tenancy of cottage No. 31, the middle one on the lockside, that had been continuously in Canal Company hands since the horsekeepers' days of the SUC; it was the only cottage to have an indoor piped water supply. With the death of the son-in-law, Paul Emrys-Evans, in 1967 and the subsequent sale of the estate, the family ownership of the Wharf came to an end. Meanwhile, occupation of the cottages was gradually running down, two tenants remaining when the Wharf was resold in 1976. Now, the only personal connexion with the past is that of Mr and Mrs William Morris who live in cottage No. 37, where Mrs Morris, née Doris Bragger, was born and which has been lived in by members of the Bragger family ever since her grandfather, Thomas Bragger, entered it in March 1899.

Water

Water – too little or too much – was a continuing cause of problems for the estate. In March 1836, Thomas Twemlow complained⁹ (Sub-Com. 29 March 1836) that one of the three cattle watering places ordered by the 1828 Award had not been completed, the nature of the ground being an obstacle to its formation. After conferring with Easton on the spot, on Tyrley Castle farm land, i.e. north of Lock 4 on the west side of the canal, Twemlow was offered £100 to dispense with this point (Sub-Com. 23 February 1838). It seems that he accepted the £100 in the July but came back with a request for water at another

site where Easton had estimated it would cost about £15, saying that was no more than interest on the compensation value of the third site for which his tenant had had to wait so long (Sub-Com. 18 July 1838; 20 April, 2 Oct 1839). The outcome of this claim is not recorded but the site of a watering place some 330 yards north of Lock 5 on Castle Farm land is clearly recognisable. Of the original watering places, one was on the towing path side just above Lock 3, only discontinued and filled in about 1970, while the other is a few yards south on the opposite side and the right of the estate to its maintenance was upheld as recently as 1950 (6, 13 April; 14 June).¹⁸

The intercepted brook caused most worry. In June 1881, Francis Twemlow complained to the Engineer, G. R. Jebb, that he had discovered preparations being made to let off the water from the Woodseaves length of the canal by way of a cut through the bank to the brook;¹⁸ a satisfactory interview with Jebb followed. Over the years, correspondence between the two men suggests a good relationship even if their views sometimes differed. In May 1908, Twemlow was upset by the flooding of the brook that resulted in the water-wheel and pumping machinery for supplying the house being under water. Apparently the banktender had found it necessary to raise the let-off paddle at the overflow weir above Bridge 59, owing to heavy rainfall. Twemlow subsequently sent Jebb a memo on the history of the brook and irrigation canal,²⁵ and when replying, Jebb wrote:

I am fishing at Buntingsdale on Tuesday next and shall be at Market Drayton Wednesday morning. I will make myself acquainted as far as possible with the facts relating to the water question . . . P.S. I intend going on to Adderley by the noon train on Wednesday to see Mr Corbet; if I should have time, may I try to catch one of your trout?

A note a few days later acknowledged:

I picked up three nice trout, one about 1½ lb, above the Mill before I went on to Adderley . . .

However, a few years on, another problem arose.²⁶ Writing to Jebb, 29 January 1916, Twemlow complained:

The new weir above Tyrley Wharf is . . . a capital piece of work, but I much regret the sill has been made so high. Not a drop of water will ever come over or through it now and I fear that this will cause me serious injury. Not only will my pool become stagnant from having no stream through it, but I am afraid that my waterwheel, which supplies the house with water, will stop for want of pressure and cause serious inconvenience.

Jebb replied (10 February) that the new weir was the same height as the old one, although the crest of the latter was worn in places and there was leakage through the body, now stopped. Twemlow next wrote (4 April) to the LNWR Chairman, Sir G. H. Claughton:

A small brook runs through the Peatswood property and is essential to its proper enjoyment. It affords drinking places for cattle, supplies a large fishpond, irrigates meadows and works a pumping plant required for estate purposes. There has been a fishpond on this brook since the reign of Edward III. Since installation of a new weir normally no water comes over and the brook is now quite dry . . .

At the Executive Committee in April²⁷ Jebb suggested that to settle the matter a pipe should be laid below the weir level to pass a limited quantity of water. He wrote to Twemlow (15 April)²⁶ saying that the present and past Section

Inspectors all agreed that the weir had not been raised — it was admittedly $2\frac{1}{8}$ inches higher than that at Goldstone in order to avoid waste of water from south-bound boats pushing through the narrow Woodseaves cutting. Potts, the Company's solicitors, advised that Col. Twemlow's predecessor gave up rights to watercourses diverted to the canal and was paid full compensation for doing so; the proposal to lay a pipe through the weir was put forward 'without prejudice'. In June it was reported to the Committee that a 3-in. pipe had been laid for a 12-month trial. A year later, Twemlow was still not happy with the outcome, for in a memo of 20 June he recorded:²⁶

went in the Directors' barge with Sir Gilbert Claughton, G. Macpherson, — Lyon, Mr Jebb, Mr Massey and other officials, from Norbury to Tyrley and viewed the weir. I rubbed it in that we claim to have a good flow of water down the brook — the present trickle not being sufficient, and hope it may do good . . . I showed the maps and explained that the water course given up under the award was not the present brook course.

Hand & Co. solicitors of Stafford, having been through the papers (21 July 1917) found the position 'not at all clear' and after consulting the correspondence felt it best to compromise by agreement. Twemlow promptly came back to Jebb with the request (24 July) for more water than produced by the initial arrangement and eventually Jebb intimated (7 November) that the small circular weir in front of the 3-in. pipe had been lowered one inch, making the crest of this weir $3\frac{1}{2}$ inches below the crest of the main weir. With that, the deposited papers and notice in the minutes cease, so perhaps an acceptable situation had been established, but one is left wondering what had been happening over the years since the Award was made. It must be admitted that the terms are not unambiguous without careful reading in conjunction with the clauses of the Act, as well as familiarity with the site itself.

For many years, water for Peatswood House came from a spring and reservoir near Tyrley Farm, the supply pipe crossing the canal over Bridge 59 where in severe weather it sometimes froze at the crown of the arch.²⁸ The well water at Tyrley lock cottage was condemned as unfit for drinking in 1903 and a supply was piped from a spring on Company's land near Bridge 59, serving horse troughs there and at Bridge 60 as well. Twemlow made an agreement with the Company to extend the supply by a pipe under the canal at Bridge 60 to a point across the road from the 1840 building, for the use of the Wharf cottages.²⁹

Sporting and other Estate Matters

It is perhaps surprising that there appear to be no records of complaints concerning alleged nefarious activities of the boat people around Tyrley Locks, although Twemlow recorded (11 March 1844) expenses of £3.10.9d over a prosecution for stealing from a boat coming from Manchester.¹⁵ However, Francis Twemlow did address one letter to Jebb in 1899 concerning maintenance men:

I should like to mention another trifling matter, at the risk of being troublesome. The large gang of men repairing the locks has no provision whatever for purposes of nature. Consequently they are scattered all over the country looking for snug corners (like the Israelites searching for stubble instead of straw). This annoys my keeper, whose pheasants are nesting, and me too, for I am always putting my foot in it. Surely every gang ought to have a portable screen, so that a trench can be dug and a latrine formed on the Canal Company's land, when required.³⁰

Jebb replied the very next day, saying he would give instructions about the nuisance.

There had been telegraph wires along the main line since 1861 when a wayleave agreement was made with the UK Telegraph Co., so it seems rather late in the day for Twemlow to request, 14 July 1899, that 'bird guards' be placed on the wires. 'It is the partridges that suffer most and for their protection it would be necessary to put guards from the point where the canal leaves the deep Woodseaves cutting up to the aqueduct over the road near Market Drayton'.¹⁸ A little earlier (19 April 1899), Jebb had suggested Twemlow might consider leasing his fishing rights on the canal, with reservations to himself and guests, to the Company, who would restrict fishing to approved ticket holders, thereby controlling trespass. Twemlow thought fishing in the canal caused no trouble — he understood the Company forbade fishing from the towing path and was determined to prevent trespass from the other bank.¹⁸ One senses a different view over fishing in the Tern when Twemlow wrote to Jebb, 22 October 1917:

It has been reported to me, rightly or wrongly, that Wardle, the landlord of the Talbot Inn at Market Drayton Wharf is applying to your department for a grant of sporting rights over the canal embankment in the Tern valley. If this is so, I hope he will receive no encouragement as he does not deserve any and as his object can only be to have opportunities for poaching.²⁶

There were various agreements between the Twemlows and the Company regarding the planting of trees on the canal banks but it was not until 1899 that Francis invoked clause 13 of the 1826 Act concerning the planting of trees on the embankment in field 34, referred to earlier. Twemlow now wrote to Jebb (28 February 1899) saying he would prefer to plant and manage trees there himself rather than calling upon the Company to do so, hoping the Company would adopt the hedge he would plant.¹⁸ This was agreed; Jebb's comment is interesting — that firs should be planted rather than deciduous trees on account of the leaves filling up the canal, while trees interfered with the light at night, especially in cuttings, making it difficult for the boatmen to see their way.¹⁷

On 28 February 1927, the LMSR — SUC Section Engineer at Chester addressed a letter to Col. Twemlow:

I am informed you have planted five spruce trees on the Company's land on the offside of the canal between No. 5 Lock and No. 61 Bridge, Tyrley. Probably you are not aware of this encroachment and I should be glad to hear . . .

Doubtless Mr Turnbull was quite unaware that the Colonel had died on 21 January. But daughter Evelyn was fully equal to the occasion and replied briefly on 5 March that the spruces were replacements and the owners of the property had the right to plant. This letter was acknowledged without comment.¹⁸

Presenting an overall view in 1910, Francis Twemlow wrote:

The cutting of the SU canal, 1826-30, affected the property a good deal, as it went through the middle of it, cutting it in halves. The canal actually took 16 acres and spoiled another 9 acres with heaps of debris. It must have been felt a great convenience, for before it was made, coal had to be carted ten miles or so over hilly roads from the Madeley pits. The canal was an advantage to Peatswood, bringing coal, bricks and other heavy goods almost to the door. At times an unwelcome neighbour, especially the case when under construction . . . great complaints were made of interference with the brooks and other irrigation rights and also of danger to the pool dams through the escape of excessive quantities of water. In time these matters settled themselves and the honeymoon tour in 1829 of my great aunt and uncle afforded them welcome escape from the nuisance.¹

The Canal Scene Today

Starting southwards from Newcastle Road Bridge (No. 62) on the eastern outskirts of Market Drayton, the playing fields of The Grove School (Shropshire County Council) adjoin the towing path on the western side of the canal. The Grove itself, a small country mansion of brick dating from about 1770, was occupied by Lady Sarah Markham, a sister of Lord Clive of India, after she left Peatswood in 1787; later, it passed to her Clive nephews and was eventually purchased in 1830 by John Wilson the canal contractor.³¹ After his untimely death in January 1831, his son John Edwards Wilson lived there, to be followed by members of the family until 1953 when the house and some of the land was purchased by the County Council. The house is now the school's Sixth Form Centre.

The canal soon takes to a high embankment as it projects itself off the steep northern slopes of the Tern valley, with an 1892 addition to the Peatswood estate on the east; there is an overflow weir and drain paddle here, on the off side. The two branches of the river — mill and weir streams — run through masonry tunnels (170 feet long, 15 foot span) below the massive earthwork (19 January 1828).⁹ Adjoining the embankment upstream is an old quarry site and a little further away is Hinsley Mill, once the manorial corn mill. The canal next crosses an aqueduct with semicircular arch of the V-jointed masonry Telford favoured, about 80 feet long (to the road) and 20 feet wide with 15ft 3in. vehicular headroom, over the public road from Market Drayton to Peatswood and Chipnall. This is known locally as 40 Steps Bridge, those steps giving access to the towing path from the road. The high embankment carries a full width waterway throughout and is well screened with trees on both sides although affording views in either direction, Market Drayton church tower being prominent to the west. Next, the tributary Coal Brook is crossed, running through another tunnel like those for the Tern, and the canal now enters Thomas Twemlow's original estate.

Gradually narrowing as the 300-foot contour is approached and with the land ahead rising, the canal soon takes to a cutting of varying depth. The route follows the western side of the little valley down through which runs the brook feeding the Peatswood pools. About 100 yards short of Tyrley Castle Bridge (61) there is a length of bull-nosed brick headed walling with hard standing behind on the offside of the canal, once a private landing stage for Peatswood; Col. Twemlow and the SU Co. shared the cost of renewing this in 1904.²¹ The typical accommodation bridge is of local sandstone, the keystones are prominent and that on the south side bears the date 1829, one of the very few dates to be found on B&LJC structures. Some 220 yards on is one of the standard cast iron distance posts recording 'Autherley Junction 26 miles, Nantwich 13 miles, Norbury Junction 10½ miles'. These posts are not dated but the accounts show them to have been purchased before 31 March 1836.³² The canal is soon in a narrow secluded rock cutting overhung with vegetation, as Tyrley Locks are approached. A short dip in the rock face, down to canal level, with a low stone wall protecting the towing path, marks the site of the third watering place now being gradually filled in. There are fascinating geological exposures of Bunter Pebble Beds and Lower Mottled (Dune) Sandstone. The two lowest locks, Nos. 5 and 4, are so arched over with trees that when they are in leaf it is not surprising de Maré fancied he saw a 'dark tunnel entrance', looking north from the bottom lock, in one of his superb photographs illustrating *The Canals of England*.³³

Above Lock 4, the cutting becomes shallower and Locks 3 and 2 are in the open. Between Lock 2 and Tyrley Road Bridge (60), on the towing path side, is the

lock keeper's cottage, set in a cultivated garden. It is a bungalow of dark bluish-red brick, cruciform on plan and reminiscent of Telford's designs for turnpike toll cottages, with a large bay window fronting the canal and blank arches in the end walls north and south; the disproportionately tall chimney stack looks to have been extended at some time. A water trough in the bank below the bridge, now walled up, is a reminder that horses provided most of the motive power during the canal's working life. On the roadside above the bridge is the base of a stable with stalls for seven horses, a loose box and a feed store, demolished about 1960. To the south of the sandstone minor road bridge is the top lock. The five Tyrley locks (often referred to in early documents as the Drayton locks) are no longer completely of stone, much brickwork having been incorporated in the course of maintenance over the years; they raise the canal by 33 feet to the 333-foot level pound of 17½ miles to Wheaton Aston. The main range of stables here, which has long disappeared, was on the towpath side of the top lock; a wooden building that was planned in 1972 was to have 22 stalls, reusing materials from older ones at Autherley.³⁴ At the south end of its site is a store built of black painted corrugated iron with cast iron window frames. A small brick building with a chimney is most probably the hut that was to be built in 1893 for the use of lock keepers in bad weather and for drying horses' collars.³⁵ There is also a modern sanitary station.

The three cottages (Nos. 30-32) along the off-side of the lock now form a single dwelling with a Craft Shop; they are of red brick with stone window surrounds, moulded stone copings to the gable ends and brackets to the eaves. On the north wall, by the road, is a date stone 'AD 1840' and a wooden First World War Memorial. There are brick vaulted cellars beneath Nos. 30 and 31. At the south end of the block is the former stable, of earlier build as evidenced by the plinth which continues inside the adjoining house (32); there are outside steps to the upper floor, now adapted as a flat, while there is yet another small cottage (No. 37) hidden behind. A little removed to the south is the earliest building with more cottages in a similar style but at right angles to the canal; separate label stones identify 'Tyrley Wharf', 'AD 1837'. At one time four dwellings (Nos. 33-36), these too have recently been modified, to give three dwellings. The initial building of 1837 was extended and other alterations were made many years ago; the precise location of the beerhouse is now uncertain, but No. 34 cottage bearing the label stones has a substantial cellar beneath, with exterior access, and seems the likeliest site. No. 33 appears to be mainly a northwestern addition to the original block shown on the tithe map. It has a bricked up ground floor west window which might have been that of the 'shop' that George Jones, 'maltster and wharfinger' rented in 1880-7, i.e. after the beerhouse had closed. The obtuse V shaped canal basin completes Twemlow's Wharf ensemble, the whole most attractively restored in recent years (1976-84).

A straight stretch of about 300 yards brings one to Tyrley Farm Bridge (59), a stone accommodation bridge with a spring-fed drinking trough for horses in the bank adjoining. In another 100 yards is the next mile post, 'Autherley Junction 25 miles' etc. and opposite, a long overflow weir with sluice paddle. Here, water is still supplied to the brook flowing through Peatswood, the natural channel of which was interrupted by the canal excavation in the length ahead. The canal curves gradually to a more southerly direction as the cutting deepens and the boundary of the Peatswood estate is crossed some 570 yards beyond Bridge 59; there is no evidence of this or the smaller brook inlet at towpath level. 220 yards further on is one of the high bridges that characterises the B&LJC deep cuttings, Hollings Bridge (58), named after the lately demolished Hollin(g)s Farm nearby. Major works have recently been required to stabilise the steep banks of the cut-

ting here and to repair the abutments and parapet of the bridge. Another 180 yards on, if one listens carefully the sound of falling water may be heard. High above, on the top of the cliff-like bank opposite, may be glimpsed some wooden railings protecting a 'well' down which falls the larger brook coming from the east and shown on the tithe map as 'The Swallow'.¹⁴ With ample water from the Wolverhampton (Severn-Trent Barnhurst Water Reclamation Works) this supply is probably no longer the 'valuable stream of water' to the canal Company, but the equivalent is still very necessary for the pools of Peatswood.

REFERENCES

- 1 F. R. Twemlow. *The Twemlows, their Wives and their Homes*. Wolverhampton, 1910. (Shrewsbury Local Studies Library; Stafford — William Salt Library)
- 2 Shropshire Record Office. Deposited Plan 303. Birmingham to the Mersey: Plan of intended Railway. George Rennie, Josias Jessop. 29 November 1825
- 3 Shropshire RO. DP 304a. Birmingham & Liverpool Junction Canal. 1825
- 4 F. R. Twemlow. *The Manor of Tyrley, Co Staffs down to 1914*. Staffordshire Record Society Volume for 1945-6, published 1948
- 5 Staffordshire Record Office. D 952/2/4/2 contains the dated correspondence noted in this section, except where another specific reference is made. The map showing the three watering places was apparently not deposited.
- 6 *Journal of the House of Commons*. Vol. 81, 7 March 1826
- 7 7 Geo. IV c.95. (Clauses 12-15, 21-23, relate to Peatswood)
- 8 Shropshire RO. DP 304c. Birmingham & Liverpool Junction Canal. Plan signed by the Speaker, 1 June 1826.
- 9 References made directly or by inference to minutes of Committee meetings of the B&LJC Co. are to be found in the Public Record Office, Kew, under RAIL 808/1 (for 1826-40), RAIL 808/2 (for 1841-5); Sub-Committee RAIL 808/3
- 10 J. Rickman (ed.) *Atlas to the Life of Thomas Telford*. London 1838. Plate XXX
- 11 PRO RAIL 808/3, 29 March 1836; RAIL 808/1, 19 Jan 1837
- 12 Staffs RO. D 952/2/4/7. There is also a tracing plan of the B&LJC showing land taken for canal and spoil banks through the estate in D 952/2/4/5.
- 13 Staffs RO. D 952/2/4/8
- 14 Shropshire RO. Drayton in Staffordshire. Tithe Map 2885/4-5
- 15 Staffs RO. D 952/2/3/21-26. Rent Ledgers 21-23 record rents from Twemlow properties over periods including 1838-79 while ledgers 25 and 26 cover the years 1880-1919. Houses are rarely identified and the entries in the earlier books are often confused.
- 16 Shropshire RO. DP 326. Shropshire Union Railways & Canal Co. Railway from the Chester & Crewe Rly . . . to Wolverhampton. Cubitt, Stephenson, Provis. Deposited 29 Nov 1845
- 17 Staffs RO. D 952/2/4/13. c.f. also PRO RAIL 625/16, June 1872. Min. 8845
- 18 D 952/2/4/9
- 19 PRO RAIL 626/27. December 1916, June 1917
- 20 British Waterways Museum, Stoke Bruerne. Cadbury Plans and Correspondence
- 21 PRO RAIL 623/25. April 1904. Min. 22224

- 22 Census enumerators' returns for Drayton in Hales, 1841-81, are available on microfilm at Staffs. RO; returns for 1851-81 are also available at Shrewsbury Local Studies Library, where the 1851 copy includes the Wharf area not found at Stafford
- 23 Staffs RO. D 952/6/7
- 24 PRO RAIL 623/23. June 1893. Min. 19357
- 25 Staffs. RO. D 952/2/4/10. 4, 9, 30 May; 2, 11 June 1908
- 26 D 952/2/4/12. Correspondence etc. of the dates quoted in the text
- 27 PRO RAIL 623/27
- 28 Staffs RO. D 952/2/4/9. 30 October, 8 November 1886; D 952/2/4/13. March 1899
- 29 PRO RAIL 623/25. June 1903. Min. 22017; October 1903. Min. 22087. Also Staffs RO. D 952/2/4/9 July to September 1903 and D 952/2/4/8 November 1903
- 30 D 952/2/4/9. 14 April 1899. The allusion is to Exodus V. 12
- 31 D 952/5/1/16
- 32 W. Cubitt. *Second Report on the Financial State of the B&LJC*. Appx. D. No. 2. July 1836. (In Staffs. RO. D 590/591)
- 33 E. de Maré. *The Canals of England* 1950. Plate 43 and Frontispiece
- 34 PRO RAIL 623/16. July 1872
- 35 PRO RAIL 623/47. Engineering Conference. 11 May 1893

Grateful acknowledgement is made for the facilities afforded by the Waterways Museum, Stoke Bruerne; the PRO Kew; the Shropshire and the Staffordshire Record Offices and the Shrewsbury Local Studies and Stafford William Salt Libraries. Thanks are due to the many individuals who have been so helpful, especially Mr and Mrs Fair, Mr and Mrs Greenhalgh and Mrs Hewitt for their hospitality and interest, and my wife who has aided and abetted every effort.

Correction

The Legislative History of River Navigation and Canals, 1275-1603, by Grahame Boyes

Page 68 (July *Journal*) lines 31-2 should read:

'all enactments of 21 Rich. II were repealed by I Hen. IV c.3'

Road and Rail Competition between the Wars

M. R. BONA VIA

The two important articles by the Society's President in the July and November 1986 issues of the *Journal* covered a period that deserves more analytical study than it has received from transport historians who have often generalised about the broad effects of road and rail competition and the discussions on 'co-ordination' that characterised the 1920s and 1930s. Some further comments may now be appropriate, if only to stimulate argument. We need to know more about just where, when, and how far road transport made the impact upon the railways that is so often described in general terms. The volume of literature on the railway side is large, but it is not balanced by that on the road side; Professor Barker's articles, as well as his detailed study of a haulage firm, *The Transport Contractors of Rye*, should therefore help to correct the balance.

He has depicted the 1920s and 1930s as largely a contest between an attacking force — road transport — and a defending one — railways, with emphasis upon the nature of the attack. So, perhaps some observations on the tactics and situation on the 'defending' side can be added.

It has often been argued — not least by the railways themselves — that their charging system for freight traffic was their major handicap in meeting road competition. That system certainly had its roots in the nineteenth century¹ and it had been made more, rather than less cumbersome after 1 January 1928, when the new system of charging, based on the 1921 Railways Act, came into force, substituting for the former maximum rates the concept of 'standard rates' designed to yield 'standard revenues'. Any excess over 'standard revenue' had to be returned — though only to the extent of 80 per cent, be it remembered — to transport users through reduction of charges. How on earth such fine tuning of a complex charging system could have been obtained with any degree of accuracy whatever is a mystery. It was of course never needed or attempted.

But how valid was the railways' argument that they were experiencing 'unfair' competition? Their basic case was that they were required to apply differential 'standard' rates in the 21 Classes — plus the 'basement' rate for 'coal, coke & patent fuel' — of the General Railway Classification, largely related to the value of the commodity to be carried, whereas road hauliers were free to charge what they liked. The railways maintained that, in consequence, their traditional practice of assisting heavy industry — coal, iron and steel, minerals, and agriculture — by low rates was being undermined, because it could no longer be cross-subsidised by the higher rates charged upon general merchandise, manufactures, and articles for retailing. They even persuaded the Ministry of Transport's Advisory Council which had been established in 1933, to issue a report in 1937² proposing that a statutory basis of charging ought to be applied to road haulage as well as to railways. How this could be enforced in an industry as individualistic and as fragmented as road haulage (average number of vehicles per owner being between 2 and 3) is another mystery!

Gilbert Walker's study³ showed that out of the total number of hauliers holding 'A' (public carrier's) licences in 1936, almost one-half owned only between 1 and 4 vehicles. The number of firms with more than 24 vehicles was not more than one-fifth of the total. The average 'B' licence operator (providing both 'own

account' and 'commercial' carriage) was even smaller — half were owner-drivers with one vehicle.

But were the railways so 'cribbed, cabin'd and confined' by the GRC? The 1921 Act certainly had intended that 'standard' rates should be just what the name implied; published tariffs universally (or nearly universally) applied. But — as had been the case for many years — most railway freight continued to be carried under commercially negotiated 'exceptional' rates. A test in March 1935 showed that, of all freight traffic, no less than 83.6 per cent by tonnage and 68.4 per cent by gross receipts was carried at 'exceptional' rates⁴ — admittedly, after 1 January 1928 needing the authority of the Railway Rates Tribunal apart from 'grandfather rights' from the earlier period. Over and above this, 'agreed charges' — flat rates per ton carried, irrespective of destination or distance — were steadily growing in importance⁵ ever since they were legalised in 1933.

Secondly, how valid was the argument that there was cross-subsidisation of the traffics of low value per ton and therefore virtually tied to rail — coal, iron and steel, minerals etc — from the higher rates charged upon articles of greater value per ton, e.g. manufactured and retail products?

In 1938, the gross receipts per net ton per mile for coal and coke were 1.075 pence (d); for minerals, etc, in Classes 1–6 of the GRC, 0.96 pence (d); and for merchandise and livestock (Classes 7–21), 2.004 pence (d). But, as the average wagon load at starting point was 10.37 tons for coal, and 9.87 tons for minerals, but only 2.99 tons for general merchandise in Classes 7–21,⁶ the *earnings per wagon mile* achieved by the types of traffic tied to rail, in general, were about three times those from the type of traffic vulnerable to road competition. Net receipts cannot be calculated in the absence of costings; but it is highly unlikely that they would turn the comparison upside down, taking into account the huge number of terminals (well over 6,000) handling freight. The handling and transshipment costs and the volume of administrative work involved in the merchandise traffic were vast even when set against the extra haulage costs of the more heavily loaded wagons, often in train loads to and from private sidings. There must be a strong presumption that the lower-rated traffics in general were *more*, not less profitable than the higher-rated traffics, though many individual traffic movements would no doubt show exceptions to this overall conclusion. (When costing was finally adopted on a large scale after nationalisation and the Beeching studies, the general merchandise wagon-load traffic began to be discarded — possibly even in too indiscriminating a way).

Another idea that needs more study is that road haulage was highly profitable, even to small men, because it offered a new type of door-to-door service not previously available. But the really profitable road haulage work lay in specialisation. Pickfords (whose history stretches back almost to the pack-horse era) engaged in *no* general haulage; one of its managers once said that there was 'no money in general haulage'. Concentration on one type of commodity (e.g. meat); one type of vehicle (e.g. tankers); or one busy route (e.g. London — Birmingham), was the way to make money — not to try to imitate the railways by offering an almost universal door-to-door service.

Railway freight fell into three categories: PS to PS (private siding to private siding); S to S (station to station); and C and D (collected and delivered). (These were not necessarily mutually exclusive, of course.) PS traffic obviously was 'door to door' — coal from collieries to gasworks, coke-ovens, large factories etc. being the most obvious example. It could also be an integral part of a manufacturing process — for instance, taking pig iron from blast furnaces to steel works. S to S traffic included much traffic brought and fetched by traders in their own

vehicles, as well as by cartage firms with railway connections such as Carter Paterson who might undertake 'groupage', of the kind widely practised by 'spediteurs' (forwarding agents) on the Continent where the railways did not as a rule maintain road collection and delivery fleets. In the cities, goods stations might and often did have large associated warehouses;⁷ many merchants used these as wholesale stores from which to arrange retail deliveries. Equally, many other goods stations had sidings — often called 'mileage yards' — where coal merchants and other (for example, builders' merchants) might find it convenient to own or rent their own premises.

Lastly, C and D. Originally, as has often been remarked, the sites of stations with freight facilities tended to be spaced in relation to the effective radius of horse and cart operation — as a rule, not much more than four or five miles. The railway could offer thereby a comprehensive door-to-door coverage, though obviously it could not include all the remoter areas such as the Scottish Highlands. The arrival of the motor lorry made irrelevant this spacing of railway stations based on the radius of horse and cart delivery. But simply replacing the horse by the motor was not an answer; an experienced haulier remarked to this author that *no* motor lorry owner could operate profitably with the limited daily ton-mile output of railway-station-based vehicles.

The railways have been criticised for failing to diversify properly into road freight motor transport.⁸ But they had tried, and had been rebuffed, well before 1928. In 1921 a Ministry of Transport Committee⁹ made no less than three (conflicting) reports, which led to an attempt to include railway powers to carry by road, not as a part of rail journeys, in the 1921 Railway Act. It was defeated in Parliament. In 1922 attempts were made by three constituent companies of the future LMS¹⁰ to obtain independent road haulage powers, again rejected, this time through the intervention of the Minister.

The eventual success of the four grouped companies in obtaining road powers in 1928¹¹ was however reduced by serious restraints¹² imposed by Parliament which put railways at a marked disadvantage compared with road haulage in using their own vehicles and induced them instead to utilise their new powers to invest in road haulage undertakings. Even so, the LNER, for instance, introduced a wide network of rural freight services including road horsebox transport; complete farm removals as well as house removals were performed by all the railways — the latter being a joint operation with Pickfords. The GWR was prominent in instituting 'Zonal Collection and Delivery' services which exploited the daily mileage capacity of motor vehicles by reducing the number of railheads, increasing the radius served, and, where desirable, instituting trunk motor services between zonal centres despite the legal handicaps imposed by the GWR's 1928 Act.

The last and perhaps most important aspect of railway door-to-door facilities was the nation-wide coverage, stemming from the legal obligation first imposed in 1854¹³ to afford 'reasonable facilities'. How could road haulage, an industry mainly composed of small firms, and many owner-drivers, guarantee to serve every destination as well or better than the railways?

The large, reputable haulage firms tended to specialise in 'trunking' over certain routes (e.g. London — Manchester) overnight and to make up full loads as required in their depots where transshipment, rather on 'railway' principles, could be effected. Their 'trunking' drivers would usually operate at night and the 'shunt' drivers would do collection and delivery work at either end of the route during the daytime.

Some firms of course developed a new type of 'door-to-door' service by means of contracting to meet all the transport needs of a firm that preferred not to operate its own road vehicles — the type of work designated as requiring 'A Contract' licences after 1933.

The smaller firms and especially owner-drivers were more inclined to engage in 'tramping' (i.e., jumping in and out of the market), and often depended on clearing houses for work and above all for return loads.

But even protagonists of the motor industry agree that the clearing houses were of very different kinds. Some were reputable and established for the benefit of traders, such as those run by Chambers of Commerce.¹⁴ But others were managed by individuals only interested in a quick commission and who 'squeezed' small hauliers desperate to secure a return load at almost any price to get back home.¹⁵

Is there not another myth to be exploded, and perhaps Professor Barker's studies in the development of road haulage will provide the definitive answers. It is, that whereas railways charged largely according to the theoretical value of the service, the road operators charged according to knowledge of their costs. The latter was no doubt true of the minority of large operators with relatively sophisticated business methods: but the majority were small men engaged in tramping. Their technique would seem to have been, first to offer a discount on the railway rate sufficient to secure the outwards load; and then to trust to luck, or a clearing house, to get a return load — hoping that taken together the 'out' and 'home' receipts would yield a profit over outgoings. One man's outward load might be someone else's return load! 'Triangular' working was common, often involving drivers in sleeping overnight in their cabs.¹⁶ Some clearing houses, knowing the precarious position of small hauliers, were unscrupulous in the pressures they exerted to exact a commission even if the haulier's rate was cut to the bone. That was scarcely rational cost-pricing!

The less reputable clearing houses were blamed for (indirectly) causing excessive driving hours, overloading, and low wages — with a certain number of consequential bankruptcies. These certainly were some of the reasons, — not just the partisan arguments of the railways, — which led to Parliament passing the 1933 Road and Rail Traffic Act and the 1938 Road Haulage Wages Act.

These rather disjointed comments on the road and rail situation between the Wars will have served their purpose if they provoke some observations from other students of the period. I do suggest that more research could usefully be done in several aspects of the subject, e.g. the extent to which pricing was related to cost in the railway rate structure, covering haulage (both in Company's wagons and in private owners' wagons); terminals; and collection and delivery charges. This should deal not merely with the Class rates but also major exceptional rates. (It must not be forgotten that rates by law had, at the request of a consignor, to be 'disintegrated' into these elements. That even applied to exceptional rates.) Then, studies of the wide variation in handling costs per ton at railway terminals could well be made. Lastly, the effect of the clearing houses in determining the actual level of rates obtained by their customers, the hauliers, needs more study. This might produce a closer picture of what was happening in the critical years that led to the still unsolved 'railway problem'.

REFERENCES

- 1 Essentially, by the Railway and Canal Traffic Act, 1888 and the Railway and Canal Traffic Act, 1894.
 - 2 Transport Advisory Council: *Report on Service and Rates*, 1937 pp. 3-8
 - 3 Gilbert Walker, *Road and Rail*, pp. 20-21
 - 4 *Ibid.*, p. 63
 - 5 They had been first applied, and disallowed, by the Tribunal, in the 'Robinson' case of 1931
 - 6 *Railway Returns* for 1938
 - 7 e.g. Manchester Deansgate. (More research could well be done on the importance of railway warehousing facilities and receipts.)
 - 8 e.g. D. H. Aldcroft, *British Railways in Transition*, p. 86
 - 9 Committee on Road Conveyance of Goods by Railway Companies
 - 10 The Caledonian, Glasgow and South Western, and Highland Railways
 - 11 The Metropolitan Railway also promoted a Bill for road powers, which was unsuccessful
 - 12 S.6 of the Act required published notice of the proposed withdrawal of a service; S.8(2) required publication of rates; S.13 gave the Minister control over the exercise of the powers conferred by the Act — all of course inapplicable to competitive road operators.
 - 13 Railway and Canal Traffic Act, 1854
 - 14 E.g., that managed by the Nottingham Chamber of Commerce — one of the best-run
 - 15 C. T. Brunner *The Problem of Motor Transport*, pp. 43-44 (Brunner was a strong advocate of motor transport and later a senior manager of Shell-Mex and BP.)
 - 16 G. W. Quick Smith, *Road Haulage Saga*, unpublished. (Quick Smith was Secretary of the Road Haulage Association before nationalisation.)
-

The Chester Courant, 24 April 1832: On Tuesday last (13 April 1832) in boats, passed along the (Montgomery) canal at Maesbury, near Oswestry, from different parts of Montgomeryshire, 174 persons on their way to America. (*From Hugh Compton*)

A Railway Visit in Early Days

From the *Worcester Herald*, Saturday 18 June 1864

The Malvern Field Club had a field day on Wednesday, and from Ashchurch it had been arranged that the excursionists should go on the new line (not yet opened) to Evesham, and Mr S. Ballard, the contractor for the line, kindly placed an engine and trucks at the disposal of the party, besides being himself present.

Locks and Water Levels on the Gloucester and Berkeley Canal

ALAN RICHARDSON

The first Act of the Gloucester & Berkeley Canal Company was passed in 1793, and authorised the construction of a ship canal at least 15 feet deep from Gloucester to Berkeley. It was proposed to cross the existing Stroudwater Canal on the level immediately above the latter's Whitminster Lock. The top water level of the G&B was thus fixed as the same as the Whitminster Lock to Bristol Road pound of the Stroudwater. The Whitminster Weir referred to in the various G&B Acts is a weir on the Stroudwater Canal at grid ref. SO 764 085 which controlled the level of this pound (this weir and the adjoining length of canal were destroyed in the mid-1970s as part of a river improvement scheme).¹

Work commenced at the Gloucester end of the canal in 1794. It would seem that, from the very beginning, the canal was built to a depth of 18 feet rather than the 15 feet mentioned in the Act. The earliest Drawing of Gloucester Locks is one headed 'Mr Mylns Locks at Gloucester 1793'.² This drawing indicates quay walls with footings at 16 feet, a water depth of 13 feet adjacent to the quays, and a depth of 18 feet in the basin.

The Gloucester Locks, connecting the dock basin and the river Severn, are shown as a staircase pair. Dimensions are 24' 0" wide at canal water level and 23' 0" at the upper cill, to take a trow of maximum overall length 87' 2" or a 'narrow' boat of 95' 0". A draught of 10 feet was provided on the upper and middle gate cills, with falls of 6 feet in the upper chamber and 7 feet (varying with river level) in the lower chamber. The outline of two trows is superimposed on the upper chamber. These are:

The Putty 114 Ton draws 10 feet, 18-foot beam by 72 feet long.

The Largest Trow, Worcester 140 Ton draws 7 feet, 22-foot beam by 84 feet long (not including rudder).

The drawing shows various river levels as follows:

Flood 1770 – 4' 7" above Custom house pavement

Custom ho: Pavemt. about 19' 6" above cill

Stroud com: water – about 19 feet on cill

26 January 1793, Spring tide & flood – about 16' 3" on cill

13 February 1793 highest spring no Flood – about 15' 3" on cill

29 January 2 o'clock about 11' on cill

21 September 1793 8' 0" on cill

April 1784 Whit. Low water – about 5' on cill

Lowest water & then not navigable – 4' 3" on outer cill

The outer cill was set to the same level as the bottom of the river opposite the Custom House.

Later, but undated, drawings of Gloucester Locks show them to have been constructed basically to Mr Myln's design. A notable exception was the siting of the stop gates (to prevent high river levels from flooding into the canal) between the upper and lower lock chambers, rather than at the basin end of the locks. However by 1879 the stop gates had been resited at their present location on the river side of the locks.

The next alterations at Gloucester Locks were due to the efforts of the Severn Commission. In 1871 the completion of weirs across the River Severn at Llanthony and Maisemore increased the river level at low flows, and provided a 7' 8" minimum draught on the outer cill of Gloucester Locks.

In 1892 the Severn Commissioners paid for the reconstruction of Gloucester Locks. The cill of the lower chamber was lowered by 1' 10" to 9' 6" below Llanthony weir. Together with other improvements this gave a draught of 10 feet as far upstream as Worcester. In addition the cill of the middle gates was removed and part of the upper lock chamber deepened, so that longer boats could use what was now a single lock. The effective length of the lock chamber was thus increased from about 90 feet to about 140 feet. This corresponded to the length available on the river locks up to Worcester, but the canal lock remained only 22 feet wide compared with 30 feet on the river. In spite of several proposals to build a wider duplicate lock this width restriction remains.

As early as 1797 the G&B Company obtained powers to deviate from their original line in the vicinity of the Stroudwater Canal. The new junction was to be at Saul, on the lowest pound of the Stroudwater, and where the latter was 4 feet lower than the G&B. It was therefore proposed to replace the Stroudwater's Whitminster Lock by a new lock (Junction Lock) immediately below the point of junction, and to raise the intervening length of Stroudwater Canal by 4 feet.

A temporary junction was made in February 1820 by lowering the G&B water level to 14 feet, and through traffic started. This reduced level was more than sufficient for trows and narrow boats so details of the Junction Lock and stop gates were not prepared until late in 1824. With the canal nearing completion for ships, the works at the Stroudwater junction were carried out in the summer of 1826.

The original locks on the Stroudwater Canal were built to take trows of about 16-foot beam by 68-foot maximum length. Although capable of passing a single narrow boat, these locks could not pass a pair of boats—the width was sufficient but the length was not. A single boat was passed by opening one bottom gate, entering the lock, then swinging the stern of the boat sideways behind the closed gate before the second gate could be closed. The new Junction Lock was built longer, 81' 6" between gates, so as to be capable of passing a pair of narrow boats. This ability of a short wide lock to pass a long narrow boat was obviously known at an early date (referred to on Mr Mylne's drawing of 1793, see above). However this fact needs wider circulation among canal authors.

Reference to published 'maximum boat dimensions' for the Stroudwater (or lower Thames and Severn) illustrates the unreliability of the different sources.

Boat Size length	width	Source
70'	15' 6"	Royal Commission (from 1905 Canal Returns)
70'	15' 6"	<i>Inland Waterways of Great Britain</i> —L. A. Edwards 1950 edition
70'	15' 6"	<i>Bradshaw's Canals & Navigable Rivers</i> —H. R. De Salis 1904
72'	15' 6"	<i>Canal & River Navigations</i> —E. W. Paget-Tomlinson 1978
72'	17' 6"	<i>Canals of Southern England</i> —C. Hadfield 1955
72'	15' 6"	<i>Canals of South & South East England</i> —C. Hadfield 1969

Lock Size

68' to 69' long, later 74½' to 75½'	} <i>Thames & Severn Canal</i> —H. Household 1969 edition
16' 1" or 16' 2" wide	
68' to 69' long, 16' 1" or 16' 2" wide	} <i>Thames & Severn Canal</i> —H. Household 1983 edition
70' long 16' 2" wide	
— <i>Stroudwater & Thames and Severn Canal Towpath Guide</i> — M. Handford & D. Viner 1984	

In fact the maximum length of boat capable of working through the locks is dependant on the boat width. H. Household puts the record straight in the second edition of his book.

At first glance it appears impossible that vessels 70-72 feet long could pass the 68-foot locks below The Bourn, but there is nothing in the minutes to suggest that lengthening was over thought necessary, much less that it was done to seven locks, interrupting navigation for a long period which could not have failed to find mention. As it is the inward opening of the lower gates which limits the length of a vessel of full width, the length of a lock is measured from the upper sill to the recess in the lock wall filled by those gates when open. But these locks were wide and the boats narrow, so that by manoeuvring the vessel sideways in the lock, it was possible to open—or close—first one gate and then the other.

This illustration shows how a Stroudwater canal lock can pass a narrow boat of up to 74 feet long in a 68-foot lock. In fact a typical narrow boat is only 72 feet long (excluding rudder).

Some restored locks on the River Kennet Navigation have been reconstructed to similar dimensions (for reasons of economy) and, although wide, are unable to pass a pair of full length narrow boats.

I would suggest that, in the light of this, several lock and boat sizes quoted in reference books should be viewed with suspicion. For example the Huddersfield Narrow Canal would take narrow boats of 72' by 7'. The connecting Sir John Ramsden's Canal took wide boats of about 57½' by 14'. In *Canals of North West England*, page 330, it is stated that modified narrow boats of 57½' by 7' were used for through journeys. However it would have been possible for boats of up to 62' by 7' to pass through both canals. So how long were the shortened boats? Similarly, can a 68-foot long narrow boat pass through the 62-foot locks of the Leeds and Liverpool Canal? Measurements which I have taken on the L&L Canal locks confirm that this is indeed the case.

The original supply of water to the G&B was the River Cam and its tributaries the Daniels Brook and the Wicksters Brook. The banks of these were raised as far back as the Bristol Road, the Cam being made navigable to a wharf at Cambridge. This supply soon proved insufficient for the traffic.

The original 1793 Act specifically prohibited the G&B from taking water from the Stroud Water Canal, or the Stroud Water River, nor from any other River, Stream, or Streams, Watercourses, Brooks, Ponds, or Pools leading to, or which do by any Ways or Means communicate with or contribute to supply Water for the Use of any Mill or Mills whatsoever, or the said Stroud Water Canal, or any Stream or Streams leading into such Canal.

In spite of this prohibition, in 1832 and 1833 five methods of obtaining a supply from the River Frome (the Stroud Water River) were being considered.⁹ These were:

1. Pumping from the Frome where it passes under the G&B Canal.
2. A gravity feed from above Whitminster Mill using pressure pipes.
3. A gravity feed via an aqueduct alongside the Stroudwater Canal.
4. A gravity feed using the Stroudwater Canal as an aqueduct between the intake and the G&B.
5. A variation on 4 with different intake arrangements between the Frome and the Stroudwater Canal.

In 1834 a new Act was obtained which, subject to safeguards for the Stroudwater Canal, allowed the G&B to take the Frome waters. The method finally adopted was to use the Stroudwater Canal for a gravity supply.

The Act received the Royal Assent on 16 June 1834 and authorised the purchase of three water mills. In fact the mills at Framilode (SO 752 102) where the western branch of the Frome joins the Severn, and Baldwins Mill (SO 756 104) on the eastern (Baldwins River) branch of the Frome had already been made over to the G&B by an Article of Agreement dated 16 May 1834 for a perpetual annuity of £100 per annum.¹⁰ These mills were sold in June 1853, but without milling rights.

Whitminster Mill (SO 761 088) was acquired on 19 July 1834 from G. A. Cambridge Esq. for a perpetual annuity of £300.¹¹ This mill remains in canal company ownership as it controls the waste sluices to divert Frome flood waters away from the canal. The annuity payments were finally bought out in 1962. The intake works were staked out on 31 October 1834 by Mr W. Clegham (G&B Co. Engineer) in the presence of P. H. Fisher and G. A. Cambridge Esq.¹²

The Frome intake next attracted attention in 1867 when plans were made of the existing structures, with a view to improvement.¹³ Sharpness Docks were being planned, and the expected increase in traffic, and larger size of entrance locks, necessitated all available water. In fact one lockful of water at Sharpness new entrance amounts to about 2 million gallons, and to fill the tidal basin needs some 10 to 15 million gallons (depending on tide levels). This can be compared with 25,000 gallons for a typical narrow canal lock, and 110,000 gallons for the original Gloucester locks.

The 1870 G&B Act, which authorised the construction of Sharpness Dock, also cleared up the company's powers to abstract water from the River Severn (by pumping at Gloucester) and from the River Frome. Water was to be taken to keep the G&B at a height of 17' 6", 'and from that height to the height of eighteen feet, when and whilst the same can be done or effected without prejudice or injury to the said Stroudwater Navigation'. In 1874 a further Act was passed, which modified the Frome supply arrangements. The weirs at Whitminster were raised and lengthened, the waste weir being raised from 18' 6" to 18' 10" and lengthened from 23' 3" to 70', while the weir supplying the canal was increased to 90' long. The object of these works was to maintain the canal at a height of 18' 6". This meant that the waste weirs for passing surplus water out of the G&B had also to be raised.

Prior to 1820, when the canal was opened to a junction with the Stroudwater and to the River Cam water supplies, the G&B presumably did not have (or need) waste weirs. The first weir to be built was in the vicinity of the River Cam feeder. This discharged surplus water across Newgrounds into the Severn at

Frampton Pill. An early but undated drawing¹⁴ shows a standard design for an overflow weir with a crest length of 33 feet. The crest was at a level of 17 feet but with provision for a 12-inch plank to raise the level to 18 feet. It is assumed that the Frampton weir was built to this design. The 1832 G&B Act contains a clause—Section 35—as follows:

And whereas the weir now existing at or near to a certain Place called Frampton Pill, in the Parish of Frampton-upon-Severn in the County of Gloucester, is very injurious to the Proprietor of certain Grounds called the New Grounds, in the Parish of Slimbridge in the said County; be it therefore enacted, That the said Gloucester and Berkeley Canal Company shall, within Six Months from and after the Passing of this Act, at their own proper Costs and Charges, in a proper and sufficient Manner, remove or close up the said Weir so as that no Water shall thenceforth be discharged at or run through, over, or under such Weir; and in default thereof the said Company shall for every Week's Delay from and after the Expiration of the said Six Months forfeit and pay to the Owner or Proprietor for the Time being of the said Grounds called the New Grounds the Sum of One hundred Pounds by way of liquidated Damages.

This prohibition on a weir at this site was repeated in all subsequent G&B Canal Acts.

By 1832 the canal had been in use to Sharpness since 1827. The main waste weir on the canal has always been at Purton, about 1 mile short of Sharpness. Here the canal is immediately adjacent to the Severn Estuary, and Purton weir discharges directly into the sea. This weir also appears to have started as a standard design 33-foot weir. However it was lengthened by removing the 12" planks and constructing a new and longer crest built out into the canal. The crest was then 79 feet long.¹⁵ The crest was further lengthened to 130 feet, certainly by 1874 as the Act of that year compelled the Canal Company 'to maintain the weir at Purton of a minimum length of 130ft'.

Notwithstanding this obligation the Purton weir was shortened to its original 33-foot length on 18 October 1909.¹⁶ This shortening was not legalised until the Sharpness Docks and G&B Navigation Act, 1935 which repealed the relevant clause of the earlier Act.

The Acts of 1874 and 1935 also mention a waste weir at the Junction. It would seem likely that this weir was built when the River Frome supplies were obtained in 1834. This weir appears to have been built to the standard design, but is referred to in the 1874 Act as having a crest length of 77 feet. This longer crest was provided, as at Purton, by a timber structure built out into the canal. When I visited the site in 1970 the remains of this timber crest were still visible just below water level adjacent to, and underneath, the rowing club landing stage. The top of the crest was hinged to facilitate the release of floodwaters. Today this weir has a 33-foot crest length, presumably shortened and raised at the same time as the Purton weir.

Why were the weirs shortened? The answer probably lies in efforts to get bigger ships up the canal to Gloucester by pumping from the Severn to temporarily raise the canal level. This could only be done by temporarily raising the weir crests which could only be done if the crests were short.

The G&B Canal was built to 'admit Vessels of 300 tons burthen and upwards'.¹⁷ These were sailing ships and thus had a keel. The 18-foot depth was needed to accommodate the keel, but the bottom width of the canal was only 13 feet whereas the bridges provided 35-foot width at water level. By 1823, when the

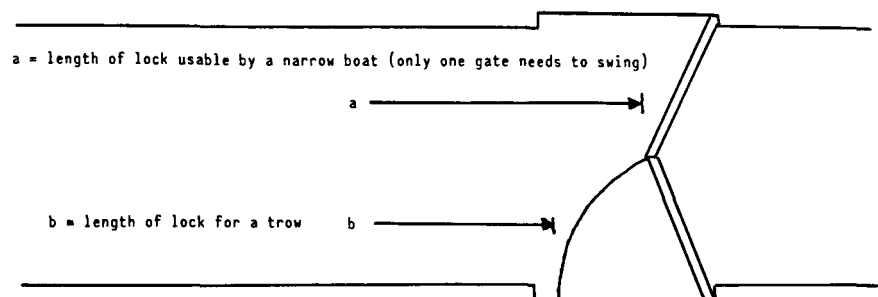
extension to Sharpness Point was in hand, the need for a greater bottom width must have become apparent as a 50-foot bottom width was provided for the first 9½ chains from Sharpness locks and 30-foot width thereafter.¹⁸

This restricted bottom width over most of the canal has meant that modern ships of nearly rectangular cross-section and with no keel are restricted to preferably 12 feet and certainly no more than 14 feet. This explains the recent (1983) proposals to deepen the canal to 5 metres (only 16' 6").¹⁹ The proposals were to widen the canal to take ships of 14.5 metres (47' 6") beam. The 5-metre draught would be provided over the full 14.5 metres. It is not only lock sizes that can mislead!

REFERENCES

- 1 M. Handford & D. Viner. *Stroudwater and Thames and Severn Canal Towpath Guide*. Alan Sutton, Gloucester 1984
- 2 Engineers Dept. BWB Gloucester. Drawing No. not known
- 3 Ibid. Drawings No. 8D6, 8D7, 8D10
- 4 Ibid. Drawing No. 8D1
- 5 For the background to this and to the 1892 improvements see C. Hadfield. *The Canals of the West Midlands*. David & Charles, Newton Abbot 1966
- 6 Engineers Dept. BWB Gloucester. Drawings No. 8D11 to 8D17
- 7 H. Household. *The Thames and Severn Canal*. Second edition. Alan Sutton, Gloucester 1983
- 8 Ibid.
- 9 Engineers Dept. BWB Gloucester. Drawings No. 18E1, 18E2, 18E3
- 10 Estates Dept. BWB Gloucester. Deedroom, Envelope 28
- 11 Ibid. Envelope 28
- 12 Engineers Dept. BWB Gloucester. Drawing No. 18A11
- 13 Ibid. Drawing No. 18A9
- 14 Ibid. Drawing No. 18A1
- 15 Ibid. Drawing No. 18C1
- 16 Ibid. Drawing No. 18C3
- 17 G&B Canal Act 1793
- 18 Engineers Dept. BWB Gloucester. Drawing No. 15A13. This is a printed plan of a survey by H. Sutherland dated 1826.
- 19 'The Severn Corridor' supplement to *Waterways News* No. 129 March 1983

TYPICAL WIDE LOCK



Book Reviews

THE NATIONALISATION OF BRITISH TRANSPORT. THE EARLY HISTORY OF THE BRITISH TRANSPORT COMMISSION, 1948-53, Michael R. Bonavia, xii+192 pp, Boards, Macmillan Press Ltd, 1987. ISBN 0-333-41900-6. £27.50.

This is the first general account we have had of the working of the British Transport Commission, looking at the whole range of its responsibilities. Dr Gourvish's recent study deals with the Commission's treatment of the railways. But though the railways formed the largest part of its holdings, providing the Commission with about two-thirds of its gross revenue, the nationalising Act of 1947 required that they should be managed as part of the integrated transport system. Dr Bonavia's study is limited to the first phase of the Commission's life, ending with the passage of the Transport Act of 1953, the first milestone on the road towards dissolving its empire. It is lucid, fair, compelling in much of its argument, and within the limits of its length comprehensive.

The original concept, of a unified system of internal transport, was a bold and brave one, which has perhaps not been appreciated as it should be. It seemed specially appropriate in its application to a country so small as Great Britain, where the means of public transport were uniquely abundant. But the Labour government of 1945 had not the leisure, immediately at the close of the second war, to frame the legislation with sufficient care or foresight. Equally important, it was not prepared to undertake the very large injection of new capital that was urgently demanded for repair and re-equipment, particularly by the railways and the ports. Moreover, when the Commission and its Executives were set up in 1947-8, the government fixed the salaries to be paid to their chief officers at a level too low to attract those who might have been expected to fill them best.

All this forms part of the foundations of the judgment Dr Bonavia offers us on the Commission's shortcomings. He sees them partly in terms of persons. Alfred Barnes, the Minister responsible for putting the nationalisation Bill through Parliament, comes out of his scrutiny quite well, though he was not a leader nor a man of ideas, and he lacked all experience in handling his difficult assignment. Sir Cyril Hurcomb, whom he selected as Chairman of the Commission — apparently without the least consideration of any other candidate — had indeed long experience of the dealings of government with transport, and he was a civil servant of notable ability. But no civil servant could have been an ideal choice for this post. What it called for, in Dr Bonavia's words, was 'an industrial leader of quite exceptional personality and experience'. Hurcomb never became, or wished to become, a public man. He was already sixty-five, and he showed the rigidities of age at the very time when he had to undertake large new responsibilities, different from those he had shouldered in the past.

It has been generally agreed that the Act of 1947 created an unworkable relationship between the Commission and its Executives. That is spelt out here very plainly. The attitudes that the Commission and the Railways Executive took up to one another were a misfortune for the whole enterprise. The Road Haulage and the Docks Executives (under abler direction than that given to the railways by Sir Eustace Missenden) had good achievements to show. So had the London Transport Executive, though Dr Bonavia clearly wishes that London transport had been left under the Board established in 1933.

His book has perhaps two deficiencies. It makes scarcely any reference to the work that was going on, in somewhat similar conditions, on the Continent. Neither the Commission nor — in particular — the Railways Executive seems to

have paid any attention to it. The continuance of this ancient insularity should surely be counted here among their mistakes. And very oddly, Dr Bonavia reserves one of the most important matters in the whole story for a single sentence, in a strong concluding paragraph. The Commission's failure, he says there, arose above all from 'the huge shift in transport usage away from the public sector . . . Railways, urban transit systems, bus networks, waterways: practically none can cope unassisted with the burden of carrying merely those traffics that are discarded by uncontrolled private transport'. Just so: yet the motor car does not even figure in the index to his book. JACK SIMMONS

THE SHELL BOOK OF INLAND WATERWAYS, Hugh McKnight, 493 pp, many line drawings and photographs, 24 in colour, 4 maps, boards. David & Charles, Newton Abbot, 2nd edn 1981, 2nd impression 1987. ISBN 0-7153-8239X. £12.95.

Nearly half of this book is an outline account of inland waterways in Great Britain and Ireland, their history, engineering and architectural features, operation and maintenance, working craft, pleasure cruising, natural history, relevant museums, national and local societies, and a brief bibliography. The rest is a substantial gazetteer of navigable routes with a guide to observables along the way. Well illustrated, it forms a pleasantly-readable introductory work for the boater, walker, or armchair traveller.

The last six years have seen many changes which could have been noted in a new edition, e.g. the decline in fortunes of the Manchester Ship Canal, the withdrawal of BWB from carrying, concern over the future of the Anderton Lift, etc. A gazetteer is inevitably out of date when published, but there are mistakes and invalid assumptions, too. To quote a few examples from the Shropshire Union section:— Stretton Aqueduct crosses the A5 but not Telford's Holyhead Road, which passed through Wolverhampton. It was Shelmore Bank near Norbury rather than Shebdon that delayed completion of the B&LJC, as correctly observed in Chapter 2. At Audlem, Kingbur Mill houses the Craft Shop while the Shroppie Fly Restaurant occupies the old warehouse buildings; the lock-keeper's 'bungalow' nearby has long since had a second storey. Beeston Iron Lock is built of rectangular plates and the joints are not diagonal. Beeston Castle hill is about 500 feet high, rather than 740 feet. Chester's remarkable Lead Shot Tower of 1800 escapes mention. The Chester & Birkenhead Rly viaduct at Mollington has no canal number, as with other railway bridges on the Main Line — Bdg 132 was an accommodation bridge demolished in 1906 although the evidence of narrows remains. A change of emphasis in describing Ellesmere Port is now richly deserved, but does the lighthouse really date from 1795? SUC minutes suggest a rebuild in 1881.

The book merits careful revision for a 3rd edition. EDWIN SHEARING

THE LMS PACIFICS, J. W. P. Rowledge, 96 pp, 250 x 170mm, 62 photographs, 22 diagrams, index, boards. David & Charles, 1987. ISBN 0-7153-8776-6. £9.95.

It is strange that we have had to wait so long for an authoritative book about Britain's largest express passenger locomotives, but this is a book which has been worth waiting for. The author served an apprenticeship at Crewe works and was

in BR for 33 years, in the course of which he gained first-hand knowledge of the construction, technical details, and operation of these locomotives. Occasionally, perhaps, the technicalities may be too much for some readers. For example, will they all understand what is a 'ratchet inching device', on p. 39? In mentioning four-cylinder locomotives on the LMS on p. 24 it is curious that the author omits the Horwich 4-6-0s and 4-6-4 tanks. Although he mentions the dimensional similarity between the 'The Princess Royal' type and the 'Kings', the reason for the change in bogie design is not explained. With the bogie wheelbase reduced from 7ft 8in. on the 'King' to 7ft 6in. on the Pacific, the reader may well be left wondering. The diagrams are helpful, but two, on pp. 25 and 47, cannot be compared properly because some dimensions in the one do not appear in the other. On p. 36 the Ljungström turbine loco is wrongly described as a turbo-electric. In the opinion of the reviewer the second chapter, on numbers, names, dimensions, and liveries, would have been better placed after Chapter 7. The book is well written, apart from the occasional 'prior to' and 'subsequent to' which the reviewer finds objectionable but which are so common now. These, however, are minor shortcomings or quibbles in a book which is factual, totally without nostalgia, and thankfully free of the irritating sentimental practice of referring to locomotives as 'she'.

There is an index, but of the 96 pages only 55 are numbered, a common fault nowadays in this publisher's books and one over which the author has no control. Also several photographs are spread across the centre of the book, another common fault of recent books which could easily be avoided.

JOHH MARSHALL

FORGOTTEN RAILWAYS: VOLUME 6: SOUTH-EAST ENGLAND,

H. P. White, Second edition, 192 pp, 32 photos, 6 maps in text, folding map in endpapers, boards, David St. John Thomas, ISBN 0-946537-37-2, £10.95.

Since the visual evidence of closed lines deteriorates with the passage of time, this familiar series requires occasional updating. Such deterioration is most apparent in areas of high land-values such as south-east England, where as the author records here, some are becoming very difficult to trace and, for a few, the note 'walking impossible' appears (surely a challenge for some brave souls!).

After an introductory survey, the losses in the area south of the Thames and east of the Portsmouth Direct Line (excepting Greater London) are dealt with in thematic or geographical chapter groups containing a concise treatment of their basic history, services and traffics. At the end is the usual detailed gazetteer, particularly useful for its summary of what remains on the ground at the time of writing (1985).

Many of these lines have received more or at any rate equally detailed treatment elsewhere, but it is helpful to gather the data in one book, under a tutored eye; the author makes a number of powerful points, not least that Beeching and his aides were often wrong in their assumptions about future developments. Had some of the lines been retained, they would have been no less socially valuable than many which survive.

The commendably clear maps are unchanged from those used in the £3.95 1976 edition, as are all but one of the photographs, although the reproduction of these

seems brighter. The text of this second edition is substantially that of the first, apart from the odd correction and the necessary updating, including reference to Tunbridge Wells — Eridge, though this is surely not yet truly 'forgotten'.

There are some minor blemishes, especially on the maps. That of the Margate area on page 113 is misleading as to the location of junctions and in its key, and there are some curiosities on the folding map such as the statement that the New Guildford line serves Esher and in the naming of the four stations in the Dorking area, which were not contemporaneous in the forms shown. Several minor lines such as the Volk's Railways, Manston Airfield and Lydd Military are omitted, nor do they appear in the index. In the text there is an unamended statement implying that the (half-forgotten?) Dorking—Horsham line still has one train an hour.

ALAN A. JACKSON

SOUTH COAST RAILWAYS: HASTINGS TO ASHFORD AND THE NEW ROMNEY BRANCH, Vic Mitchell and Keith Smith, 96 pp, 24 maps, plans and diagrams, 120 photographs, boards. Middleton Press, Easebourne Lane, Midhurst, GU 29 9AZ, ISBN 0906520371, £6.95.

This is the latest of a popular series of photographic and cartographic surveys of main, secondary, and branch lines in south east England which represents a commendable attempt to provide something better than the usual steam train nostalgia picture book for boys of all ages. Those who have seen the sister publications will know the formula: minimal text, mainly in the form of captions, a wide selection of photographs reproduced reasonably well (but not superbly), relevant bits of old six- and 25-inch scale Ordnance Survey plans, and any odd corners left over filled up with reproductions of selected local tickets, timetables and advertising.

In this case the book opens with five short paragraphs on the 'geographical setting', five more on the 'passenger services', and six on the 'historical background'. The captions, which are on the whole helpful, do however leave some questions answered (when was the modern signalbox at Appledore installed and why?) and annoyingly, no attempt is made to provide even an intelligent guess at the date of some of the photographs, even when they are the work of eminent photographers still living. The large OS plans, which are reproduced with the cardinal arrow pointing in different directions, are sometimes confusing, since the exact location is not immediately obvious to those unfamiliar with the area. For the Lydd Military Railway, which is illustrated with some most interesting photographs, we are given a plan of a short length and left in the dark as to exactly where this section is located.

There is no index or page numbering, but it is easy to find one's way around. An indication of where to look for further information would have been useful.

Although it can be consumed in a short half an hour, this book is likely to serve as a useful source of reference, particularly for those who lack adequate photographic and plan coverage of these lines in their own collections.

ALAN A. JACKSON

SOUTHERN MAIN LINES: VICTORIA TO EAST CROYDON, Vic Mitchell and Keith Smith, 96 pp, 240 x 170 mm, 120 photo illustrations, 24 maps, plans and diagrams, boards. Middleton Press, Easebourne Lane, Midhurst, GU29 9AZ, 1987. ISBN 0 906520 40 1, £6.95.

This addition to the attractively-presented Middleton series of photographic and cartographic surveys covers the LBSCR route via Balham and Thornton Heath. After the usual skimpy notes on the 'geographical and historical setting' and 'passenger services' (here restricted to 'a few notes on unusual services') the purchaser gets a generous selection of quite well-reproduced and generally-rewarding photographs, by no means all old friends. The captions are far too brief and sometimes provocative (e.g. in alleging an architectural similarity between East Croydon and Tunbridge Wells SECR). The photographs are supplemented by sections of large-scale OS plans of strategic areas (exhibiting the familiar OS 25-inch obscurity as to platform configuration) and a few reproductions of old advertisements and tickets.

Although it is surely essential background for any appreciation of this complicated section there is no summary of the various costly widenings with their dates. More disappointing in a publication of this type is the quality of the picture research, with its attributions of commercial postcards and official photographs to 'Lens of Sutton' and 'XXX Collection' and in some cases lack of any attempt at dating. Whilst we can forgive the omission of an index in a book of this character those whose interest is stimulated surely deserve a list of further reading and the authors' sources. ALAN A. JACKSON

SOUTH COAST RAILWAYS — SOUTHAMPTON TO BOURNEMOUTH, Vic Mitchell and Keith Smith, 96 pp 240 x 172mm, 120 pictures, 27 maps and plans, boards. Middleton Press, Easebourne Lane, Midhurst, W. Sussex, 1987, ISBN 0 906520 42 8, £6.95.

This is one of the latest of a series of albums on Southern lines which has expanded rapidly in recent years to some 30 titles covering routes extending from Ashford to Swanage. The Southampton to Bournemouth volume keeps strictly between the stations of its title — Southampton West to Bournemouth Central as they were once known — and includes the Fawley and the Lymington branches, but not the now closed 'old main line' from Brockenhurst to Wimborne and beyond and its branch from Ringwood to Christchurch.

As in previous volumes, after a very short historical introduction the book consists of pictures of all the stations — as they were and as they are now — with informative captions and in some cases reproductions from large scale OS maps. The Eling Tramway, a ½-mile freight branch from Totton, gets a mention, as does the Hythe Pier Tramway, a 2-foot-gauge line taking passengers along the 600-yard pier from which the Southampton ferry sails.

It is interesting to see how much the line has in places been altered by widening and rebuilding of stations by the Southern Railway, and the pictures of Bournemouth show that it was originally a handsome station in a massive style, but is now sadly spoilt by the removal of part of the glazed end-screens and the roof over the central tracks, now themselves removed. H. C. L. TRICKETT

THE KINVER LIGHT RAILWAY, S. L. Swingle and K. Turner, 2nd edition, 52 pp, 28 photo illustrations, 5 maps and plans, reproductions of notices, advertisements, etc. card covers. Oakwood Press, 1987, ISBN 0 85361 333 8, £3.95.

This is the second edition of a book which first appeared in 1974. The text has been expanded and updated, and many more illustrations have been included. The first edition had nine photos and none of the maps and reproduced notices which are to be found in the present publication.

The Kinver Light Railway was part railway and part tramway, effectively a branch of the Dudley, Stourbridge and District Electric Traction Co. running from a junction with the afore-named system at Amblecote, Stourbridge to Kinver, a little over four miles distant. It opened for public traffic in 1901 and closed completely in 1930.

The authors have produced a very comprehensive account of the birth, life and death of this small but interesting line, together with a description of the route. Appendices give details of passenger stock, five timetables for various years during the life of the line and a list of excursion fares from various points in the Black Country. Reference is also made to surviving traces of the line, little now except for the trackbed of the rural section.

The photographs have been well chosen and reproduction of them is good. This is a book which should be on the shelves of all who are interested in rail transport in the west Midlands. NEIL PITTS

THE CARDIFF RAILWAY, Eric Mountford, 176 pp, approx. 130 photo illustrations, 7 maps and plans, 9 locomotive drawings, reproduction of timetables, seals, notices, etc. boards. Oakwood Press, ISBN 0 85361 347 8, £10.50.

The railways of the South Wales valleys, notwithstanding the proliferation of companies, have not been extensively written up. Here we now have a comprehensive work on what was geographically the smallest of the constituent (as opposed to absorbed) companies of the enlarged GWR. The Cardiff Railway grew out of the Bute Docks Company, which itself had started off as the Marquis of Bute's brainchild, the Bute Dock, the first dock in Cardiff, later to become the Bute West Dock. The company aspired to build about 25 route miles of line, mainly to tap the great coalfield in the Rhondda valley. However the powerful opposition of the well established Taff Vale Railway was effective in preventing all but 11½ miles being completed and even this short length proved to be of very limited value, traffic-wise.

Mr Mountford is an acknowledged expert on the railways of South Wales and he describes in great detail the history of Bute Docks, their connections with the Taff Vale and Rhymney Railways and the development of the dock system as a whole, which culminated in the formation of the Cardiff Railway Company. His account of the near amalgamation of the Taff Vale, Rhymney and Cardiff Railways in the years just before the first World War is of particular interest. The story is continued through GWR and BR days to the present period of re-vitalisation of the Coryton branch. A further chapter (Part 3) contains an excellent chronicle of locomotives, rolling stock and operations. Finally there are appendices listing locomotives owned, a chronology of the Bute Docks and a table of the tonnages of coal exports handled at Bute Docks from 1839 to 1964.

The book is printed on art paper throughout, complete with dust jacket. The photographs are well selected and their reproduction is highly satisfactory. It would be carping indeed to criticise a book of this standard of scholarship and quality of production, but the inclusion of an index would have been of great value. This is a first class publication highly recommended to anyone interested in that fascinating group of railways which served the South Wales coalfield.

NEIL PITTS

PADDY WADDELL'S RAILWAY, R. F. Moore, 56 pp, 10 photographs, 10 drawings, 5 maps, soft covers. North York Moors National Park, Helmsley, 1986. ISBN 0 907480 12 8, £2.50.

This is the second and enlarged edition of a book by the late R. F. Moore first published by the Whitby Literary and Philosophical Society in 1973. Paddy Waddell's Railway, officially the Cleveland Extension Mineral Railway, was noteworthy in that it perhaps obtained more Acts of Parliament — no fewer than seven — than any other unopened railway. It was planned to run from the Esk Valley to connect with the railways of Cleveland, to carry iron ore from a known but undeveloped field to the furnaces of Teesside and the ironworks at Glaisdale. The book gives a graphic account of the Parliamentary and legal procedures extending from 1898. Construction of the line started and there is an excellent description, brought up to date in chapter 5, of the relics which remain to be seen. Appendix II of this edition lists further works which have recently been discovered. The sketch maps are clear and helpful.

There are additional interesting and well reproduced photographs, many by the well-known nineteenth century Whitby photographer Frank M. Sutcliffe. However the majority of these have no direct relationship to the Extension Railway; the same remark applies to the line drawings. In spite of this the book is recommended to anyone interested in the railways of the North East and it is essential reading for any railway historian planning a holiday in this beautiful and fascinating part of the country. A. L. BARNETT

EAST ANGLIA'S FIRST RAILWAYS, Hugh Moffat, 228 pp, 139 illustrations, boards. Terence Dalton Ltd 1987. ISBN 0-86138-038-X, £14.95.

This is a rare book indeed, for it is a well-researched and excellently produced work of genuine railway history, a refreshing change from the plethora of inflated photo-books. What makes it all the more unusual is that it deals exclusively with the history of a short-lived Victorian company, the Eastern Union, with the final chapters drawing a line at 1854.

An advantage of this is that Hugh Moffat is able to detail the life of a provincial company in absorbing detail, having time for personalities such as Peter Bruff, the Ipswich-based engineer. The author is himself an Ipswich engineer, hence the interesting perspective. There are some fascinating descriptions of how railways were actually built, and relations with the Eastern Counties Railway are dealt with extensively. It makes a fascinating story.

More or less concluding in 1854 does, however, give a false impression. At that point Bruff was about to embark on the most interesting phase of his career when he became engineer to the Eastern Counties itself, later resigning amidst

recrimination and chaos; this is dealt with only briefly in an 'epilogue', and Bruff's involvement with a property scandal whilst promoting the Tendring Hundred Railway is ignored altogether. Thus Bruff tends to emerge as a somewhat heroic figure, when one wonders if he too had his weaknesses.

The author has made good use of the sources and is aware of the limitations of Hilton's writing in this field. It would have been useful to see a full list of the primary sources, however. There are many illustrations, some excellent, and overall this book can be heartily recommended as an excellent contribution to railway history. ADRIAN GRAY

SHORTER REVIEWS

SHEFFIELD'S SEWAGE WORKS RAILWAYS, A. J. Booth, 40 pp, 32 photos, 11 maps & drawings, soft covers. Industrial Railway Society, 2 Garrick Gardens, Sholing, Southampton, 1986, £1.50 inc. p&p.

This special issue of the IRS journal 'Industrial Railway Record' is a history of Sheffield Corporation's industrial railway systems at three sewage works and two tipping sites, and the 'main line' movement of sewage waste between them over GCR/LNER/BR lines. It is produced to the Society's usual high standard.

MAIN LINE TO HAWICK, ed. Bill Peacock, 41 pp+4 pp photos. Cheviot Publications, P.O. Box 22, Hawick TD9 8AA, 1986, £2.26 inc. p&p.

This fifth booklet from this editor and publisher about the railways of the Border Country concentrates on the Waverley route and contains eleven items of reminiscences and reflections about this lost railway. For the historian the most interesting contributions are from the editor himself: a chapter of incidents culled from local newspapers, and a description of the isolated village community at Riccarton Junction.

UNDERGROUND NUMBER 15: STANDARD TUBE STOCK, B. Hardy, 80 pp, profusely illustrated, card covers. The London Underground Railway Society, 26, Fishery Road, Hemel Hempstead, Herts, HP1 1ND. £4+30p p&p.

Part 2 of the photographic history of which *Underground* No. 14, recently reviewed in these pages was Part 1. This second part brings the story of the Standard Stock up to date. Photographs show vehicles in service, in works, awaiting scrapping, and of particular interest is a selection of pictures of some of this stock in the Isle of Wight. The book maintains the high standard displayed in its predecessor and is equally recommended.

FOR TO DO THE COUNTRY GOOD, David Roberts, 96 pp, many photo illustrations and reproductions of old prints, etc. Card covers, Strathkelvin District Libraries, 170 Kirntilloch Road, Bishopbriggs, Glasgow G64 2LX, £3.60.

Sub-titled 'The Working Horse in West Central Scotland' this is another informative production from Strathkelvin Libraries. It deals with all aspects of the work performed by horses in the area concerned, from farm work to police mounts. Of particular interest to our members are the sections on canal boat haulage and horse drawn trams and buses. An interesting and useful publication which will appeal to a wider readership than simply the horse-lover.

BRANCH LINES TO LONGMOOR, Vic Mitchell and Keith Smith, 96 pp, 120 photo illus, 6 maps & plans, gradient profile, boards. Middleton Press. £6.95.

The Longmoor Military Railway is not so well known as most of the other railways that have existed in the south of England and the present work consists of a pictorial record of the line from its early days as the Woolmer Instructional Military Railway through to its closure in 1969. Many of the pictures are of post-war open days but a number were taken during the war years. The illustrations cover all aspects of the railway and are well captioned. In addition there are reproductions of notices, tickets, etc. An informative and well produced publication about a railway that has not been extensively written up.

THE NORTHERN LINE, M. A. C. Horne, 48 pp, 18 photo illus, 3 line drawings, 2 maps, soft covers. Published by Douglas Rose, 35 Summers Lane, North Finchley, London N12 0PE. £2.95.

The Northern Line of London Regional Transport came into being by the amalgamation of the City and South London Railway and the Charing Cross, Euston and Hampstead Railway. Thus it is of more than usual interest and the present work traces its history from the commencement of construction in the 1880's down to the present day. The only previous history of the Northern Line was that written by Charles E. Lee before the Victoria Line was open. The subject of this review records the developments of the last twenty years as well as the earlier history. Recommended to all interested in LRT railways.

BACK TRACK, Quarterly journal published by Atlantic Transport Publishers, Chough House, River Street, Truro, Cornwall TR1 2SJ. £1.50.

This is a new venture, a journal which specialises in the railway history of Britain. It is intended to cover the period 1825-1975, no preservation, no modern image and nothing overseas. Each issue will feature an article on each of the big four companies or their BR successors, and also a branch line article. A substantial proportion of the illustrations are to be in colour. The first two issues are to hand, the first published in 1986 being described as 'Special Introductory Issue' and the second as Volume 1, No. 1, Spring 1987. Subject matter is wide spread. An admirable concept, very well produced. One looks forward to future issues.

LOCOMOTIVES & ROLLING STOCK OF IRISH RAIL and NORTHERN IRELAND RAILWAYS, 3rd edition, 96 pp, numerous photo illus, card covers. Signal Press, 17 Millview Court, Malahide, Co. Dublin, Ireland 1987. IR£2.95+ 36p p&p.

This is the third edition of this useful publication, the name of which is self-explanatory. The slight change in the title reflects the division of the operating sections of CIE into Irish Rail, Irish Bus, and Dublin Bus as from 2/2/87. The major changes in content from the previous edition is the inclusion of the DART emu's. The book is up to date as at 21/2/87.

SOUTH WALES RAILWAYS AT THE GROUPING, B. J. Miller, 96 pp, 71 photo illus. 9 maps, boards. D. Brown & Sons Ltd. Cowbridge, S. Glamorgan, 1986, £6.95.

A most interesting selection of views taken during the period 1921-1923 in the Cardiff-Barry-Merthyr area. Most are of stations and junctions, many including trains, but none solely of locomotives. Extended captions are provided in most cases. A very informative pictorial publication.

STEAM AT MALLOW NO. 2 1986/7, 32 pp, published by Great Southern Railway Preservation Society and obtainable from D. Parks, Edermine, Kingsmill Road, Bray, Co. Wicklow, Ireland. IR£1 (free to members).

This is the second issue of the GSRPS yearbook and contains articles on Allman's Distillery at Bandon, Memories of the Tralee & Dingle Light Railway, 1951, reminiscences of railway folk at Mallow and a short account of the Tralee to Fenit line, which the society is actively engaged in preserving.

AGAINST THE GRAIN: THE MANCHESTER AND SOUTHAMPTON RAILWAY DREAM, L. Popplewell, (ed), 44 pp, maps, soft covers. Melledgen Press, 71 Thornbury Road, Southbourne, Bournemouth. £3.80 inc. p&p.

This book is compiled and edited by the author of the series of Gazetteers of Contractors and Engineers by the same publisher and follows a similar format.

It examines the proposals for a direct railway route from Southampton to the North of England and shows how the deeply entrenched GWR and LSWR were able to prevent such a through route being constructed, and how the project eventually gave rise to the MSWJR and DNSR. The railway politics of the nineteenth century form a significant portion of the history of the attempts to create this potentially valuable cross country railway. Information has been culled largely from contemporary newspapers. A most interesting publication.

OLD PANNIER TRACKS, B. Breakell, 16 pp, photo illus, line drawings & diagrams, card covers. North York Moors National Park Authority, The Old Vicarage, Bondgate, Helmsley, York YO6 5EP, 75p.

This interesting booklet describes the paved causeways which are such a feature of the North Yorkshire Moors. They linked the early monastic settlements, farms, villages, markets, industrial sites, etc and were constructed over a considerable period of time. The booklet is well illustrated and deals with the traffic conveyed by the packhorses as well as the causeways themselves.

THE BORDON LIGHT RAILWAY, Peter A. Harding, 32 pp, profusely illustrated, card covers. Published by the author at 'Mossgiel', Bagshot Road, Knaphill, Woking, Surrey GU21 2SG. £1.75+25p p&p.

A further well-researched monograph by Mr Harding. It traces the history of the former LSWR Bordon branch from its inception at the beginning of the century right up to final closure in 1966. It was built to serve the army camp at Bordon and soon after its opening the Woolmer Instructional Military Railway was constructed and joined to it at Bordon. Illustrations extend from early days on the line to railtours after withdrawal of passenger services and a few views following dismantling.

Correspondence

Railways to Stourbridge

Sir, — Since the above article was published (March 1987) I have received a letter from Mr John Norris pointing out errors in the dates on the maps on pages 13 and 15. On both pages Kidderminster — Stourbridge should be 3.5.1852, and Stourbridge — Dudley 16.11.1852 (G) and 20.12.1852 (P). On p.13 Dudley — Tipton Junction with LNWR should be 1.12.1853, and Tipton — Wolverhampton LL 1.7.1854. On p. 14, second complete paragraph, line 2, delete 'temporary' as the junction was in use for over 12 years. The remainder of the paragraph should read: 'This section, opened to passengers as far as Dudley on 20 December 1852 and thence to the junction with the Stour Valley line on 1 December 1853, enabled OWW trains to reach the High Level (Queen Street) station at Wolverhampton. Completion of the OWW line from Tipton via Priestfield brought that company's passenger trains to the Low Level station as from 1 July 1854.'

Concerning the third paragraph on p. 14, Mr Norris points out that through carriages were introduced on a regular basis between Birmingham and Kidderminster by way of Dudley (SSR), serving Stourbridge on the way, on 1 December 1854, although excursion workings had taken place on three days in the preceeding June.

I am exceedingly grateful to Mr Norris for this information.

JOHN MARSHALL

Harrogate

Sir, — Most of the answers to Mr Paar's questions may be obtained from three articles in the *North Eastern Express*, No. 68, August 1977, 'New Light on Brunswick Station and Harrogate's First Engine Shed' by James Rogers, No. 87, May 1982, 'The Railways of Harrogate' by Ron Pratley and No. 88, August 1982 'Additional Notes' (this is not of major importance).

Back numbers of the *Express*, if available, are obtainable from Mrs P. Los, 'Peran', 30 Plaxton Bridge, Woodmansy, Beverley, HU17 0RT, at 75p each including postage. A. L. BARNETT

Railway Acts of Parliament

Sir, — Through the courtesy of Mr E. R. Warren, of Sittingbourne, the following errors and omissions have been found in 'The Railway Acts of Parliament of One Hundred Years Ago'. I regret the necessity for these corrections.

1884

- P. 114 line 12. Read 'abd' for 'and'.
- P. 115 line 28. Add 'Inc.' after 'c. 167'.
- P. 116 line 3. Read 'DORE AND CHINLEY' for 'DORE AND TOTLEY'.
line 19. Add 'EXTN.' after 'CLEVELAND'.
- P. 117 line 8. Read 'c. 242' for 'c. 142'.
line 16. Read '7 AUGUST 1884' for '7 JULY 1884'.

1885

- P. 162 line 6. Add 'abd.' at end.
 line 7. Delete 'abd', commence line 'LC&D (Capital)'.
- line 10. Read 'ELHAM VALLEY LIGHT'.
- P. 163 line 39. Read '22 JULY 1885' for '16 JULY 1885'.

1886

- P. 275 line 17. Read 'c. 11' for 'c. 9'.
- line 23. Delete 'LB&SC (VP) . . . East London'.
- P. 276 line 32. Read 'Wimbledon and West Metropolitan Jn R.' for 'Wimbledon R.'.
- P. 277 line 16. Read 'MIDLAND & SOUTH-WESTERN JN.'.

1887

- P. 27 line 18. Read 'REGENT'S CANAL, CITY & DOCKS'.
- line 36. Read 'HULL, BARNSLEY & WEST RIDING JN R. & DOCK'.
- line 49. Insert '50/1 VIC 5 JULY 1887' at end of GNR section.
- P. 28 line 5. Read 'c. 108' for 'c. 180'
- line 10. Add 'c. 116'.
- line 45. Read 'TEES CONSERVANCY*'
- P. 29 lines 17/20 Insert '50/1 VIC 8 AUGUST 1887' at end of PONTYPRIDD,
 CAERPHILLY & NEWPORT section and delete after
 DIDCOT, NEWBURY & SOUTHAMPTON.

Add: LINCOLN, HORNCastle, SPILSBY & SKEGNESS. c. 201. Inc.
 Cons. Stixwould (GNR) to Thornton (Horncastle & Kirkstead Jn R.)
 1¹/₈ m.

Thornton (H&KJnR) to Spilsby (Spilsby & Firsby Jn R.) 10¹/₄ m.

Great Steeping (S&FJnR) to Firsby (GNR) ¹/₂ m.

WA with GNR and A with S&FJnR for use of Spilsby station.

50/1 VIC 16 SEPTEMBER 1887

A. L. BARNETT

Shaftesbury — A Town the Railway Age Forgot

Sir, — After reading Mr Paar's article in the *July Journal*, I came, quite by chance, across an article in the *Railway Magazine* for February 1916: 'The London and South Western in North Dorset', by 'Wessex'. Like Mr Paar, the author comments on the by-passing of Shaftesbury by the railway; he expresses surprise that none of the various branches projected was ever built; but what is most interesting is that he describes the strenuous efforts originally made to bring the main line nearer the town.

Various schemes were projected and almost succeeded in partly attaining this object . . . The route that came most nearly to fruition was to follow its present course as far as Semley station, then to creep round the tableland gradually rising on its western slopes to within one mile or so of the town, and then bend towards the west again. This would have been better for Shaftesbury, but would not have made a good through main line, as it would have increased the distance to the west by about two miles, and would have had a big curve at Semley and a bad elbow curve in the offshoot from the high ground again.

'Wessex' attributes the expansion of Gillingham to the fact that that village had a convenient station, which Shaftesbury had not, owing entirely to the way the line was laid out. G. MARTIN SMITH

Elan Valley Railway bridge demolished

Sir,—The Elan Valley Railway, also known as the Birmingham Waterworks Railway, was built in 1894-6 to convey materials for the construction of the Birmingham Corporation dams and reservoirs at Caban-coch, Carreg-ddu, Penygarneg and Craig Goch. The main line of the railway, single track throughout, ran about nine miles to Craig Goch from a junction with the Cambrian Railways half a mile south of Rhyader. After the construction of the reservoirs it was intended to continue to use the railway for their maintenance, so the main line was engineered and built as a permanent railway rather than a contractor's line. There were also various branches and sidings of a more temporary nature. After the dams were completed in 1906, use of the railway for maintenance lasted for only a few years and all but a short stub at the junction was formally abandoned in 1916 and the track lifted.

One of the engineering features of the railway was a stone bridge over a minor road at Dolafallen (grid reference SN954668) about half a mile from the junction with the Cambrian and sandwiched between the Afon Elan and the Rhyader-Elan Village road (now the B4518). On visiting this spot in May 1987 I found that the minor road was closed temporarily, with the road bridges over the Elan and under the former railway both demolished. The former is being replaced by a new bridge, and the latter has been dismantled after 71 years of disuse in order to widen the road junction with the B4518 and to remove a height restriction. According to a road-closure notice at the site the work began in January 1987 and was expected to last until September or October 1987. The photographs show the railway bridge as it was on 4 September 1983 and after demolition on 22 May 1987.

In spite of the loss of this bridge there is still much of interest to be seen of the Elan Valley Railway's trackbed and structures. Especially worth a visit is the upper section from the Penygarneg dam to the terminus at Craig Goch; this is now a public footpath and includes a substantial stone and brick bridge over a stream as well as a deep, curved rock cutting. TIM EDMONDS

RCH Map of Scotland

Sir, — Referring to the letter from Eric Lomax in No. 135 regarding the colouring of the 1920 RCH map of Scotland.

I suggest the yellow represents a 'rural' and the green an 'intermediate' rate of pay. The red might then be 'industrial' and a higher rate still. These terms were used by the GWR in the 1930s for permanent way 'lengthmen' (the equivalent of Scottish 'undermen'?). D. J. WROE



Overbridge of the Elan Valley Railway near Rhyader. This structure was demolished in 1987 in connection with road bridge reconstruction. (Tim Edmonds)



Remains of the Elan Valley Railway overbridge at Dolafallen near Rhyader, recently demolished in connection with rebuilding of the road bridge over the River Elan. (Tim Edmonds)

Railway History

Sir, — Dr White's profound and admirable contribution in the July issue of the *Journal* on the subjects of Contemporary History, Company Histories and British Rail prompts me to add emphasis to his comments on the value of contemporary history in historical studies.

An important but really quite obvious factor is often overlooked by those engaged in presenting the history of a subject. Perhaps it is the very word 'history' which is their stumbling block, but the plain fact is that past, present, and future are continuous. That's a trite enough observation to make but undoubtedly it needs to be said, perhaps with more emphasis than seemed appropriate to Dr White! There are not even any rail joints to mark the change from past to present; it is all one long continuous welded rail!

If one were to think back ten years from ten years ahead, and from that position in time find that an historical work published today suddenly stops at a date chosen as a convenient breaking-off point, such as 'until the end of the nineteenth century' it would be like crossing the Atlantic when half-way over the passengers are told 'Sorry, this is as far as we go!'

For practical reasons, however, the handling of a large work on a general subject has to have limitations imposed upon it, and in such cases, the cut-off date, rather than being 'until the end of the nineteenth century' would be better carried on to a date which has meaning within the context of the subject's historical development. I am thinking of Professor Jack Simmons's nascent work *The Railway in England and Wales, 1830-1914*. These dates have meaning in British railway history and the point here is that the author has stated in the title of his work, what his self-set limits are, geographically and period-wise. What Dr White is complaining about is the presentation of a subject as a history when it is in fact only a partial history. GEORGE OTTLEY

All copy for the March *Journal* should be with the Editor by 1 December 1987 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.