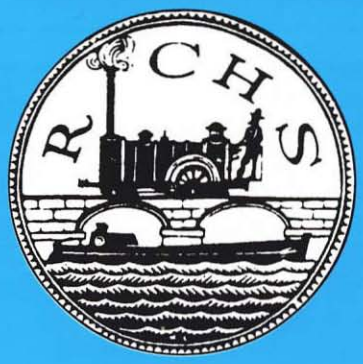

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Contents

The New River Ancholme

By Pat Jones

The river Ancholme rises near Market Rasen in Lincolnshire and flows for 24 miles through Bishopbridge (where it becomes navigable) and Brigg, to enter the Humber at Ferriby Sluice. The village of South Ferriby, three quarters of a mile to the east, probably owes it origins to its naturally advantageous situation at the original mouth of the river, which evidently served as a haven for early craft operating in the Humber. The importance of the river for drainage is not less than its importance for navigation; the floodplain of the Ancholme Valley varies from one to three miles in width, and contains some 50,000 acres, most of which now lie below the level of high spring tides in the Humber. About 100,000 acres of the higher ground to the east and 50,000 or so acres of higher ground to the west also drain into the river. This latter higher ground carried the 1st century Roman road Ermine Street (now the A15/B1207) from Lincoln to the Humber at Winteringham, 3½ miles to the west of South Ferriby. The Humber coastline hereabouts has been much eroded during the ensuing years, tidal levels are higher now, and a low tide recently revealed the remains of Ermine Street at the water's edge.[1]

The consolidation phase of the Roman occupation consumed large quantities of building stone, much of it quarried at some distance from construction sites and transported there by water. It is possible that the Ancholme may have been used for this purpose; lower tidal levels at that time may have resulted in the valley being relatively dry, allowing access to outcrops of oolitic limestone to the west of the river, which would certainly have been navigable on the tide. There are quite a number of very degraded old quarries on these outcrops, although none of them are of known Roman date.[2]

In medieval times the Ancholme valley had many monasteries and recluse cells, and it is thought the name was derived from the numerous 'anchorites' (hermits) who lived there. Eilert Ekwall in *English River Names* showed that the names *Ancolna* or *Ancolne* were in use in the 12th century, and had become *Ancholm* or *Ankolme* by the 13th century.[3] Two monasteries were established there in the 12th century, but Ekwall considered the first element of the name probably related to old words for 'water' and 'fen'.[3]

The river's earliest known records date from the 13th century. In 1287 a patent was granted to improve the Ancholme to Bishopbridge so that 'ships and boats laden with corn and other things might then more commodiously pass from the river Humber into the parts of Lindsey than they at that time could do and as they had done formerly'. The following year Edward I directed a writ to the sheriff of the county, to enquire whether it would be beneficial to him or to others, 'if the course of the Ancholme from the Bishop's Bridge to the Humber were re-opened and cleaned to allow the water to flow'. As a result commissioners were appointed, who in 1290 and again in 1295 ordered the Ancholme to be scoured out. Further scourings were carried out at varying intervals during the following two centuries. This was a period of rising sea levels, which adversely affected the ability of the natural river to drain the adjoining land; in 1356 it was claimed that the Humber tides flooded four feet higher than formerly.[4]

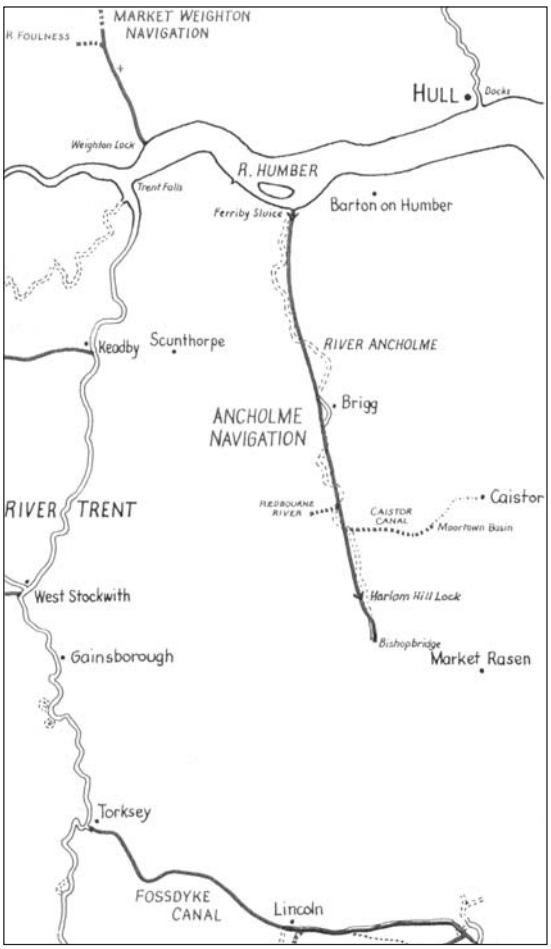
Parts of the valley floor must have still been habitable in the first half of the 15th century however. Thornholm Priory was surrendered soon after the inundation of 1534. Thornton Abbey was surrendered in in 1539, becoming a College 'for the ministration of the sacraments, the observance of good manners, the care of the aged and those who had spent their lives in the service of the realm, and for the instruction of the young'. (Thornton College was suppressed in 1547 by Edward VI.) The monks would have drained and cultivated their land to the utmost extent; after their departure drainage became so bad that the land was scarcely tenable, and it relapsed into an unprofitable waste. No improvements appear to have been attempted until the reign of Elizabeth I.

The 'Inquisition', 1573

The measures ordered following an 'Inquisition' by Commissioners of Sewers at Louth in 1573 were probably in response to the great flood of 1571, which had inundated considerable areas of land from the Humber to the Wash. A 'clowe' was to be built in South Ferriby for the 'better dreyning of the Ryver

of Ancholm and all the lands adjacent to the same'. It was to be 'strong and defensible against the Salt water ... of such Wydnesse that botes of the burthen of sixe tunne may passe safely' and sited 'at a place called Craynes House otherwise called Crayne Sause'. A 'land lawre' of 3d per acre was to be levied to pay for it; local men were appointed to supervise its construction, and it was to be completed 'by midsomer next' [1574].[5]

The term 'clowe' — now usually spelled clough — is used in the north to describe the mechanism which controls the passage of water into or out of a drain or lock. It would seem that in the 16th century the term described a guillotine-gated navigable sluice. There is no later mention of the scheme — it seems likely that the 'clowe' was never built — if it was built it certainly did not solve the problem of flooding in the Ancholme valley. In 1586 the villagers petitioned Queen Elizabeth to allow collections to be made to repair the effects of the depredations of the Humber, which 'had for thirty or forty years past impoverished the villagers'.



The reference to 'Craynes House' or 'Crayne Sause' is of particular interest; it implies that there had long ceased to be any recognizable feature above ground at that place. In the 17th century a 'sasse' was a pound-lock (probably with at least one guillotine gate) intended to exclude the tide and enable the level upstream to be run down in high flow conditions, while permitting vessels to pen through in normal conditions. It is believed that the term was derived from the Dutch *sas* (of obscure origin) and it appears to have been reintroduced into England by Vermuyden. There are established Flemish connections with South Humberside that go back to late Saxon times when tidal levels were lower than in the 4th and 14th centuries. A crayne sause or sasse at South Ferriby suggests a Flemish settlement with land drained and the hinterland served by a river from which the tides were successfully excluded by some form of guillotine-gated sluice similar, perhaps, to that proposed in 1573.

Sir John Monson

In 1635 Sir John Monson undertook to drain the valley. He was a member of an old and distinguished Lincolnshire landowning family, MP for Lincoln and Lord of the Manor of South Carlton. His father, Sir Thomas, had been born there in 1564, was created baronet on 29 June 1611, and died on 29 May 1641. Sir John's date of birth is not recorded, but it was probably around 1590–1600; he died in 1683 and was succeeded by his grandson, Sir Henry, who was also an MP for Lincoln.[6]

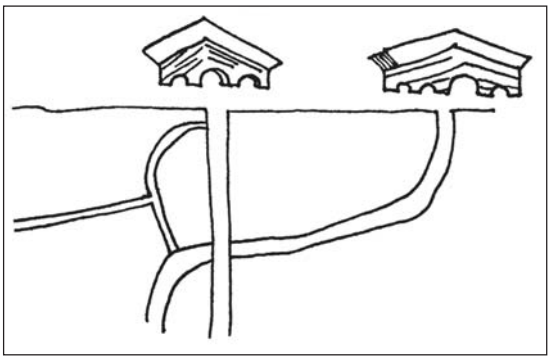
Sir John obtained the authority of Charles I to cut an entirely new river (primarily for drainage but also for navigation) from Brigg to the Humber, with a sluice at its outfall, and he offered shares in the undertaking to any person willing to join him. It was decreed that if Sir John completed the draining of the district within six years he should be given 5,827 acres free of all taxes and charges from the time the land was drained, but if he neglected the drainage and the land again became badly drained the owners of the land should be allowed to re-enter 2,000 acres of it until it was drained again. The owners were allowed the same fishing rights in the new river as they had in the old, and any land cut off by the new river was to be made accessible. The work was completed on 24 February 1639, and the

following year Letters Patent bearing the King's seal were granted to Sir John Monson. However, the loss of the fishing and wild-fowling which followed the drying of the marshland caused local resentment, and some villagers resisted its draining, involving Monson in much fruitless litigation. According to Dugdale, during the troubled years of civil war that soon followed 'divers of the freeholders and commoners re-entered upon these lands, whereof the works became neglected and the sluices decayed'.

The decayed sluice was described by the diarist Abraham de la Pryme (1671–1704):[7]

> The great sluice that they built at Ferriby cost above £3,000 had twenty-four doors, each of which was able to [load] a cart [drawn by] eight horses, by reason of their great thickness and weight, and the great quantity of iron that was therein. The sluice is said to have two or three [floors], and it is added that twenty nine wagon load of the best timber that could be found in those woods went into the piling and the laying of the foundations of that sluice. This I had from several old men.

His statement that the sluice is said to have *two or three* floors implies that he had not personally examined the structure, and it seems certain that in some respects his informants were either mistaken or misunderstood.



A copy by Raymond Carey of South Ferriby of part of an undated map drawn by John Foster of 'Wraby', which was a revised version of a 1640 Map of the Level Lying upon the River Ancholme by Francis Wilkinson and John Fotherbye (Lincoln Record Office, Trent papers)

The 1640 map shows that the new river initially supplemented the old river, and did not replace it.[8] There were two outfalls; therefore a second sluice would have been necessary, and two similar sluices are indeed shown on the revised version of the 1640 map (above).[9] On that map the old river's sluice has a fourth arch, which seems to be a later addition. In 1697 de la Pryme recorded that the sluice at the outfall of the new river that had been either neglected or deliberately damaged during the Civil War 'is now coming down'.[10]

Stukeley's sketch, 1724

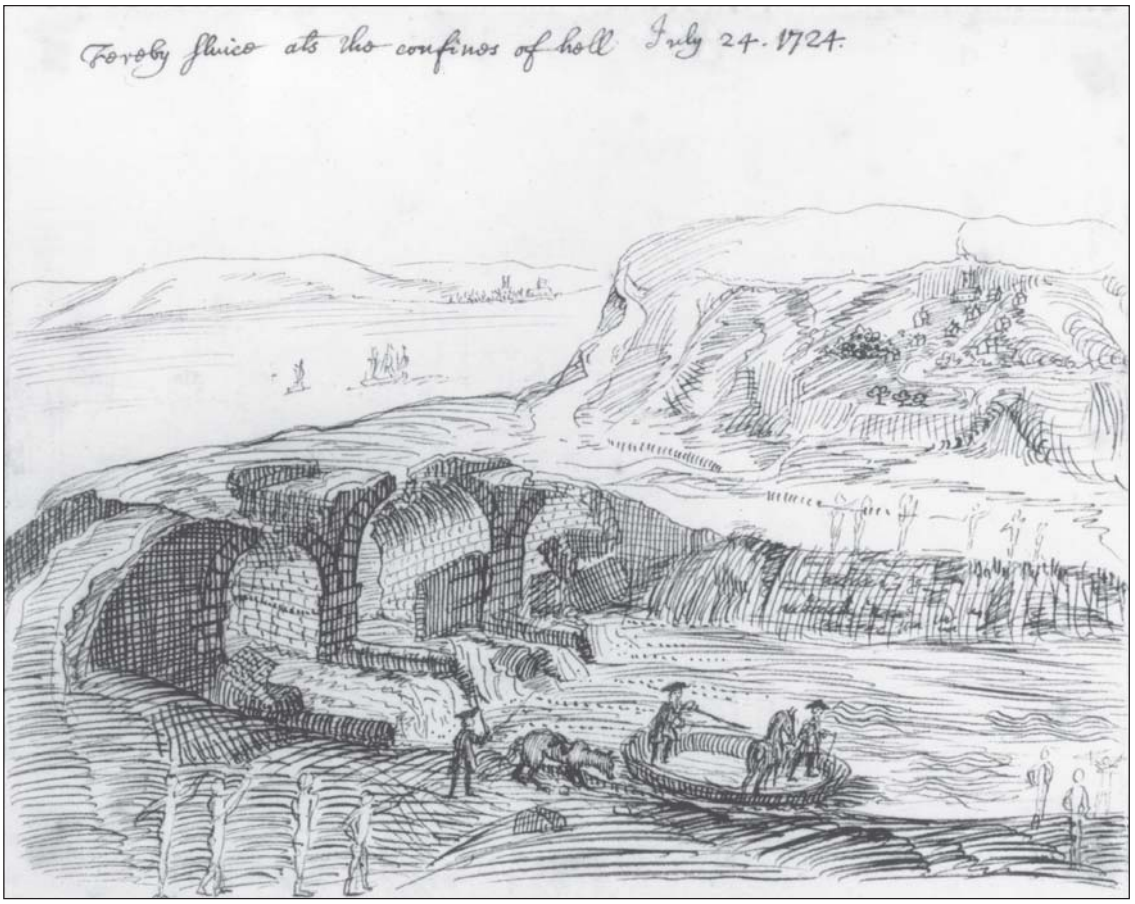
On 24 July 1724 Dr William Stukeley passed through Ferriby, and paused to sketch

> a stately bridge of three arches with sluices ... now broken down and lying dismally in ruins by negligence of the undertakers. ... [Travellers] are obliged to pass the river in a paltry short boat commanded by a little old deaf fellow with a long beard. Into this boat you descend by the steep of the river through a deep mirey clay full of stones and stakes nor is the ascent on the other side any better — both dangerous and difficult. This is with the hideous ruins of the bridge like a picture of hell gates in Milton, and the terrible roar of the water passing through it fitly represents Virgil's description of Charons ferry. Nor would a poet wish for a better scene to heighten his fancy were he to paint out the horrors of the confines of hell.'[11]

[Hence the phantom riverbank figures and caption.]

Stukeley's sketch (reproduced opposite) provides a glimpse of drainage and inland navigation works on the Humber and its tributaries in the 17th century. Only one land-gate had survived; hung directly from the masonry of the central arch on iron strap hinges, it was clearly one of a pair which had originally pointed upstream to hold-up the river to a navigable level. Since the floors beneath all three arches are at the same height, the side arches must have also been fitted with land-gates pointing upstream. The same number of tidal doors would have been needed on the other side of the structure, making twelve in all. It would seem that de la Pryme's informants described *two sluices each originally having three floors*, with a total of 24 gates.

The size of the navigation arch suggests that it had been designed for use by craft that were not materially larger than 'the botes of the burthen of sixe tunne' for which the 16th century sluice near the mouth of the old river was required to be suitable. Presumably a navigable arch in the new sluice at the outfall of the old river preserved the right of access to wharfage serving the village of South Ferriby. (If navigation upstream of the sluice had not been required six fewer doors would have sufficed.) Craft could have only passed through the sluices when the tide made a level; the doors and gates were probably self-acting,



Sketch of Ferriby sluice by Dr William Stukeley, 1724 (Bodleian Library)

although capstan winches could have provided a means of opening them manually. The implied presence of upstream-pointing doors in the side arches shows that the river's level could be run right down at low tide when high flow conditions were anticipated. The new river crossed the course of the old river in a number of places, and both versions of the 1640 map show the old river passing *under* the new river, presumably in culverts.

The Monson scheme had the merit of separating upland from lowland water; the combination in the same channel of upland with lowland water was the great defect of most drainage schemes of that era. Typically, heavy rain would cause upland water to fill the channel, preventing the lowland drains from discharging and thereby inundating low-lying land. By excluding upland water from the old river downstream of Brigg and carrying it directly to the Humber in a completely new channel, Monson improved lowland drainage *and* navigation upstream to Brigg and Bishopbridge. It is to be doubted whether craft drawing more than about eighteen inches of water could reach Bishopbridge; prior to the construction in the 19th century of a bridge at Brandy Wharf, the river there was crossed by means of a 'wath' or ford.[12]

Stukeley's sketch shows the level of the new Ancholme to be lower than that of the tide, which suggests that the tidal doors of the sluice were still at least partially effective. It is not clear when the old river ceased to have its own separate outfall, but the failure of de la Pryme to mention a second sluice suggests that it had gone by 1697. His informants may have correctly reported 29 wagon-loads of timber being used in the foundations of the sluices, but it seems likely that inadequate piling contributed to their decay. Stukeley's failure to mention a second

river crossing between the sluice and South Ferriby seems to confirm that by 1724 the old river's separate outfall had ceased to exist. He wrote: 'When we mounted the precipice again from the water and paid our haul to the inexorable ferryman we had several clayey lakes to ride over impassable in winter. Two roads lead to the town — a sorry ragged place where upon the stocks is wrote "Fear God Honour the King".'

Improvements

The condition of the river was described in a report by Thomas Yeoman, dated 17 September 1766. He considered that the Monson drainage had been well planned, but it is to be doubted whether he appreciated the merits of separating up-land water from low-land drainage. He wrote:

> Ferriby Sluice has decayed and the Humber water had gone up to Glanford [Brigg] leaving much silt. The New Drain 40 feet wide is reduced to 15 or 16 feet in some places, which is the chief cause of flooding. Above [Brigg] it is interrupted by Lug Beds, Woods and Sands and wholly silted up for the last 5 miles next to Bishopbridge.

This situation the landlords could tolerate no longer. On 26 January 1767 they petitioned Parliament for (and four months later obtained) 'An Act for the more effectual drainage of the lands in the Level of the Ancholme in the County of Lincoln and making the river Ancholme Navigable'. (7 Geo III c98) The Commissioners of the Ancho1me Drainage and Navigation were a committee of five looking after the level north of Brigg, with powers to levy rates on the lands for doing necessary works. They proposed to improve the river upwards through the valley to just short of Bishopbridge. A sluice was constructed at Ferriby consisting of three openings, the middle one 15 feet wide and the outside ones each 12 feet 6 inches wide. The piers were 7 feet thick and the cills were laid 8 feet above low water in the Humber. It was built of brick, faced with stone, the openings comprised arches with wooden draw-doors on the south side, and self acting doors on the Humber side. A lock 14 feet 9 inches wide and 70 feet long was added on the east side with its cill laid 18 inches above the cill of the sluice. The works were completed on 12 September 1769, but the height of the cill of the sluice prevented effective drainage during floods. The land was unfit for arable crops except during exceptionably fine seasons; even the hay crops were frequently gathered in from boats.

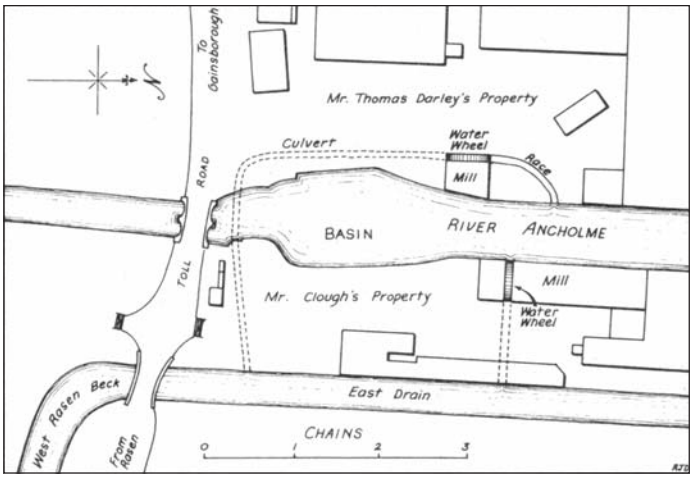
In 1778 the Commissioners ordered their engineer to build a lock at Harlem Hill, 17½ miles from Ferriby, which they hoped 'would greatly increase the revenue arising from the navigation', but the work was not put in hand. In an 1801 report primarily concerning drainage improvements, John Rennie suggested that two locks would be needed to improve navigation to Bishopbridge, and the second of two Acts of 1802 (42 Geo III c116) authorised the construction of a lock at Harlam Hill with a rise of 4 feet, and a further lock at Kingerby with a rise of 5 feet. It is not clear if the second lock was ever actually built, but a timber lock was built at Harlam Hill.

In his 1801 report on the state of the valley John Rennie had attributed its problems to the 'deficient capacity of the Ancholme and subsidiary drains to carry the floods that descended'. The cill was laid too high at Ferriby, and there were no 'catch-water drains' to prevent highland water flowing into the lower levels. His proposed remedy was to straighten, deepen, and enlarge the river's channel, raise its embankments, and cut 'catch-water drains' beside them to intercept all the brooks and drains in their course, with separate and independent sluices at their junction with the Humber. His scheme was only partially carried into effect, the east 'catch-water drain' was cut to Brigg, 8¾ miles from the Humber, where a new sluice 12 feet wide was constructed. Lack of funds prevented the work from being completed, drainage became inefficient and crops were lost to floods.

By 1824 the complaints about drainage were universal. The valley's principal landowners, the Duke of St Albans, the Lords Yarborough and Monson, Sir M Cholmondeby, Messrs Corbet, Wynn, Uppleby, Skipworth and others, applied to Sir John Rennie for reports, plans and estimates. He recommended that all the works proposed by his father should be carried out, and the river Ancholme should be widened, deepened and enlarged to double its capacity. A new sluice should be constructed at South Ferriby with its cill laid level with low water of spring tides in the Humber, and a new lock 80 feet long by 20 feet wide with an additional fall of 8 feet should be built beside it. The old wooden lock at Harlem Hill should be rebuilt with a rise of 8 feet, with a large overfall weir and an extensive reservoir beside it, to catch all the sand and mud brought down from the upper Rase and Ancholme. This could be cleaned-out at little expense. Similar structures were planned for all the minor streams entering the river. In the event, however, only the Ancholme was raised

by the new Harlem Hill Lock, while the Rase was carried to below the lock at a lower level, in a drainage channel cut beside the navigation channel. The difference in level was sufficient to operate two water-mills, but steam soon replaced water power, and by the 20th century the corn mills had become warehouses.

An Act of Parliament was obtained (6 Geo IV c165) and work commenced in 1825. There was a time limit on completion of the navigation work, which was designed to allow 60 ton craft to reach Bishopbridge,[13] and achieved by 18 June 1828, three days short of its expiry. But fortunately no time limit had been specified for the drainage works; construction of the new sluice and lock at Ferriby did not commence until March 1842, and the whole scheme was eventually completed on 22 May 1844.



The separation of drainage water from the navigation channel at Bishopbridge was the final development of the scheme that Monson had initiated, and was entirely in accordance with the basic principle of that scheme. Its utilisation of the difference in level to drive two corn mills is an interesting example of 19th century civil engineering ingenuity.

Thus 43 years after John Rennie's report, the work of drainage and navigation improvement was brought to a satisfactory conclusion; it had been skilfully directed by Sir John Rennie, ably assisted by Mr Adam Smith of Brigg as resident engineer.[14] Sir John Rennie's report listing the high points of the project was misleading, however, when it claimed the separation of high and low level water by catch-water drains was 'first practised by his father in 1801 in the Witham area'. His scheme did indeed separate the Upper Witham's water from the 'Delphs' draining the low land below Lincoln, but there had been earlier schemes. For example, a catch-water or 'Mother' drain had been proposed in 1773 by George Kelk as part of a scheme to drain land beside the river Idle. It was cut about 1788 by John Dyson working as both engineer and contractor, extended a decade later by William Jessop with John Dyson as resident engineer and Thomas Dyson as contractor,[15] and further extended following an 1804 recommendation by John Rennie.[16] And the separation of the Ancholme's high and low level water had been first achieved by Sir John Monson over two centuries previously!

Notes and references

I am grateful to Raymond Carey for bringing his unpublished 1987 paper 'South Ferriby Sluice and Stukeley', the 1573 'Inquisition', and Stukeley's 1724 sketch to my attention. Much of the early part of this account has been drawn from these sources. I am also grateful to Dr Geoff Gaunt, who read and commented upon the draft of this account.

A detailed history of the Ancholme navigation by John Boyes is to be found in *The Canals of Eastern England*, chapter XI. A short account is also contained in Edward Paget-Tomlinson's *Illustrated History of Canal & River Navigations*, 1993, page 96. Both authors briefly mention the work of Sir John Monson, but not the 1640 map nor the 1724 sketch.

Locally produced works consulted include the *History of the Ancholme Navigation*, by C J Page, Lincolnshire Local History Society, 1969, and an item in the Autumn 1982 Rase-Ancholme Navigation Trust's *News*, based on Sir John Rennie's *Report on the Ancholme levels*, 18 March 1845, to the Institute of Civil Engineers. Some of the latter part of this paper has been drawn from these two accounts. Sources cited by John Boyes have been excluded from the references listed hereunder.

The map is reproduced with permission from *Inland Navigation: An historical waterways map of England & Wales* by Richard Dean, 1993.

1. Personal communication, Raymond Carey.
2. G D Gaunt and P C Buckland, 'Sources of Building Material in Roman York' in *Aspects of Industry in Roman Yorkshire and the North*, editors Pete Wilson and Jennifer Price, 2002.
3. Eilert Ekwall, *English River Names*, 1928, 13.
4. *Calendar of Patent Rolls, 1354–1358* (1909), 400.
5. Stubbs papers; Lincoln Record Office. (A A Stubbs was the last Clerk to the River Ancholme Drainage and Navigation Commissioners, which was superseded by the River Ancholme and Winterton Beck Catchment Board from February 1933.)
6. *Burke's Peerage and Baronetage*, 1883.
7. *Diary of Abraham de la Pryme*, Surtees Society, Vol LIV (1870), 115. The de la Pryme family were landed gentry of Huguenot descent from Ypres, in Flanders, who purchased newly-drained land at Sandtoft in 1628, but retained their French links until their expulsion following the Revocation of the Edict of Nantes in 1683. Abraham was born on 15 January 1671 near Hatfield, brought up as an Englishman, educated at St Johns College, Cambridge, and ordained deacon in 1695. He was curate of Broughton near Brigg between 1695 and 1696, curate of Hatfield from 1696–8 and he took the divinity readership of Holy Trinity Church at Hull in 1698. He served as Vicar of Thorne from 1 September 1701 until his untimely death on 13 June 1704.
8. *Mapp of level lying upon the river Ankholme* by Francis Wilkinson and John Fotherbye, Surveyors, 1640; Lincoln Record Office, Monson papers.
9. Undated map by John Foster of 'Wraby' who 'maketh oath that this map is a true copy of the original map drawn by Francis Wilkinson and John Fotherbye', Lincoln Record Office, Trent papers.
10. *Diary of Abraham de la Pryme*, 131. De la Pryme attributed the failure of the Monson Sluice to Divine retribution. He wrote: 'the drainers that drained these levels ... fetched all the stone from [Thornton College] chapel that they built Ferry Sluce with, and by a just judgement of God upon them for applying that to profane uses that had been given to God, the drainers were all undone ...'. [The location of the chapel was evidently unreadable, and 'Thornton College' was inserted in square brackets. Thornholm Priory was, however, much closer to the river and nearer to the Sluice; the writer believes that the *Diary* editor may have been in error.]
11. Sketch by Dr William Stukeley, reproduced by courtesy of the Bodleian Library, University of Oxford, shelfmark and folio number MS Top Gen D14 fol 13. Stukeley (1687–1765) was the son of a Holbeach attorney. He was elected Fellow of the Society of Antiquaries in 1717 (Secretary l718–26), Fellow of the Royal Society 1718, Fellow of College of Physicians 1720, minister of All Saints' Stamford 1729–47, of St George's, Queen Square, London 1748–65, and a trustee of British Museum 1753.
12. *Bradshaw's Guide to Canals and Navigable Rivers*, 1928, listed 'Brandywath' (page 38).
13. 60 ton craft would have required a navigable depth approaching 5 feet. According to Bradshaw's *Guide*, by 1928 the navigable depth above Brandywath was only 4 feet — presumably as a result of siltation.
14. Adam Smith subsequently built Grimsby Dock, described as 'a major work of civil engineering' in 'Railway Administration and Management in the 1840s and 1850s: evidence from the MSLR', David Hodgkins, *Journal of the Railway & Canal Historical Society*, March 2003, 241–7.
15. Sir Alec Skempton (ed), *Biographical Dictionary of Civil Engineers, Vol 1: 1500–1830*, 2002, 200–3.
16. Charles Hadfield and A W Skempton, *William Jessop, Engineer*, 1979, 83.

Appendix : Levels

Present-day levels related to Ordnance Datum Newlyn

River Humber at Ferriby Sluice:	
Mean Low Water Springs	– 2.7m below OD
Mean Low Water Neaps	– 1.2m below OD
Mean High Water Neaps	– 1.9m above OD
Mean High Water Springs	– 4.0m above OD
River Ancholme:	
Ferriby Lock cill	– 2.4m below OD
Retained level – summer	– 1.2m above OD
Retained level – winter	– 0.9m above OD
Above Harlem Hill Lock	– 3.6m above OD

Past levels related to Ordnance Datum Newlyn

The cill of the present navigation lock is 8 feet (2.4m) lower that that of its predecessor, which would have corresponded to Ordnance Datum. The cill of that lock (built under the 1767 Act) was 9 feet 6 inches (2.9m) above low water of spring tides. Present-day tidal levels therefore appear to be only about 0.2m higher than they were in the late 18th century. The level at which the Ancholme was retained at that time has not, to the writer's knowledge, been recorded. Bradshaw's *Guide* implied that the nearby and contemporary Market Weighton Navigation was normally retained 5 feet (1.5m) above the cill of its entrance lock. It seems probable, therefore, that in the late 18th century the Ancholme was retained at a similar level — that is, at about a foot above its present summer level. Since small craft could reach Bishopbridge with the river retained at that level, it also seems probable that the level retained by the Monson sluice was not very different.

The Garrett Gang: Luggage Thefts in the 1840s

By Michael Quick

Accounts of robberies on trains tend to concentrate on the occasional and spectacular but to the ordinary passenger mundane matters like the loss of luggage are of far more direct importance. A number of not particularly clever small gangs seem to have recognised and exploited the opportunities made invitingly available by inexperienced, careless and indifferent railway management which sometimes added insult to injury by leaving it to individuals to take such action as was taken.

The bulk of the information for this article comes from *The Times*. The core is provided by reports of court proceedings against two particularly active rogues, Garrett and Maynard. The judicial procedures then differed from today's so that much evidence emerged piece by piece, unfortunately not in logical order, in a succession of preliminary proceedings before London Aldermen; furthermore, past misdeeds of an accused could be introduced at an early stage, and prosecutions generally had to be initiated by individuals rather than the authorities. More information is derived from a civil action which one of their associates, Wareham, had the nerve to bring against those seeking to bring his colleagues to justice; this was not heard until a year after the criminal proceedings had finished. Further details come from an appeal made to the Home Secretary by Nash, the most active in bringing the robbers to justice, for public indemnification of the personal losses he had suffered, and from the *Railway Record*.

Handling of luggage

There was some doubt amongst writers to *The Times* about the responsibilities of railway companies towards those who lost luggage. The companies had no doubt: the passenger should insure it. The doubts are understandable since the railways rarely made the position clear. Commonly time bills carried two apparently contradictory pieces of information: one said a certain amount of luggage would be carried free whilst the other disclaimed responsibility unless luggage was booked and paid for. Occasionally the latter would have 'according to value'; even less frequently would 'insurance' be clearly mentioned.

Considerable quantities of luggage were involved: the better-off Victorian traveller was notorious for the amount he or she took along, and from an early stage commercial travellers made considerable use of the railways, carting many samples with them, so there were plenty of pickings. As the number of passengers increased it became more difficult for an individual to keep track of his luggage, especially since it was not considered proper for the respectable to carry their own luggage and porters were employed to do this for them. Railways seem actually to have discouraged passengers from carrying their own bags — the Blackwall even charged porterage to one who carried his own hat box.[1]

Inevitably the methods of handling luggage varied between companies, but the general outline was the same. At first luggage was placed on the roof of the carriage its owner was riding in, which made it easy for him to know where his belongings were but created other difficulties, especially as the volume of traffic increased. At intermediate stations it led to delays as ladders were placed to enable the luggage to be taken up and tarpaulins and ropes adjusted to protect and secure it.[2] There was also the danger of fire if sparks from the locomotive lodged on the carriage roof. On 11 April 1840 cinders fell on the boot of the Bristol mail as it was completing its journey on a truck attached to the mail train; the luggage-guard tried vainly to alert the driver by shouting and blowing his horn but by the time they reached Twyford nearly everything in the boot had been burnt.[3] Soon after, on 'magazine night', 30 April, between Leighton Buzzard and Wolverton, sparks fell on the magazines and luggage on the roof of the North Union carriage included in the train; they stopped and put out the fire with water from a nearby stream but most of the items were destroyed.[4]

Increasingly companies switched to providing a special luggage van to cope with the baggage; this also met an increasingly insistent demand from the public that some sort of non-passenger vehicle should be put between the engine's tender and the first passenger carriage in order to act as a shock-absorber in case of accident. However, this made it more difficult to keep track of one's luggage; most just had to trust the porter who took it.

Railway guide-books and some early timetable

books gave pious instructions about labelling luggage and trying to be sure whereabouts on the train it was, but reality made the latter difficult to follow. In August 1845 'Philo-steam' described how his luggage was taken from him at Bristol and hoisted up through a trapdoor so that he could not see where it went. At the London end as fast as it was unloaded it was decanted into two pens, one labelled 'Cirencester and Cheltenham', the other unlabelled. The sides of the pens were covered with swarms of passengers trying to recognise their luggage and shouting against one another to attract a porter's attention when they recognised their own. He claimed it took him 30 minutes to claim his (from the wrong pen) and that unfortunates whose luggage was buried beneath that of other passengers were still there. He compared Paddington's methods unfavourably with Euston's, saying that they did not use pens at the latter so luggage could be reclaimed faster. He does not seem to have considered the security issue and luggage disappeared as easily from Euston, where it seems to have been dumped straight onto the platform, as from elsewhere.[5]

To begin with some protection would have been provided because access to platforms for non-travellers was often restricted, but this also seems to have been done far more to prevent fare-dodging than to keep luggage out of the wrong hands. This practice was gradually abandoned — the Great Western allowed friends and relatives to accompany passengers onto the platform from July 1842, giving discreet powers to superintendents to keep out 'mere idlers'.[6]

There was little alternative to trusting the luggage van with one's valuables. Small items could be taken into compartments but space available there was very limited, and that available was not always for passengers' use. Early in 1846 'An Old Subscriber' complained about lack of leg-room in Great Western second-class carriages since the space underneath the seats was often enclosed for parcels and dogs.[7] Even where there was space it could prove a mixed blessing: Mr Evans lost a leathern case containing engineering implements when he left it on the carriage seat while he went off to see to the loading of his portmanteau into the luggage-van.

In these circumstances it is hardly surprising that there were many complaints about lost and mislaid luggage (the complainants always insisting that theirs had been properly labelled); the wonder is that even more was not stolen.

From time to time, especially after the publicity given to the thefts about to be described, safer ways were suggested, based on practices readers had experienced in America and on the Continent; these were designed to ensure that the rightful person got the luggage, either involving the use of identically numbered metal tokens or paper counterfoils, one for the luggage, one given to the passenger. However, no immediate action seems to have resulted.

The thieves

Daniel Garrett or Garratt was the active member of the group. He was described on his first court appearance as a well-dressed man of about 40. He had been in the employ of several of the nobility, most recently Lord Falkland, and thus would have had no difficulty in dressing and acting the part of someone likely to patronise first-class compartments; his fellow servants referred to him as 'The Count d'Orsay' because of the airs he assumed. He specialised in hanging around London termini, looking for likely items to steal and, almost certainly, making contact with porters willing to earn a little extra by assisting him. In court he tried vainly to disguise himself by the shallow ploy of wearing spectacles: at least two witnesses identified him after he had been asked to remove them. In a letter written in Newgate on 30 October 1845 and read out in court at the time of his sentencing he blamed his troubles on drink. He claimed that he had not intended to make a career out of theft but found it so easy that he could not stop himself. He would also have had plenty of time on his hands because he was not in constant employment. Captain Culpepper, who gave evidence somewhat hesitantly identifying his handwriting on a letter central to the case, indicated the precarious nature of his occupation by saying he had employed him as butler just for the season of 1843.

Charles Maynard's role was that of intermediary between Garrett and those seeking to reclaim their property. At one point he was described as 'the old man' and Nash said that initially his 'manner of appearances were such as to defeat suspicion'. On his first court appearance *The Times* respectfully described him as 'Mr C Maynard, estate agent of 19 Howland-street'. He soon became Charles Maynard, alias Gregory, who had been sentenced to transportation in 1816, a sentence served in the hulks, acting as schoolmaster to other convicts. In April 1816 Charles Gregory, shopman to Mr James Pitt, hosier of Coventry Street, had been charged with robbing his master; 50 pawnbrokers testified to having

received silk stockings from him and a trunk-full of the latter and a key for the till were found in his lodgings.[8] It was also revealed at an early stage that ten days before his arrest in 1845 he had bigamously married a Miss Maxted (probably for her small savings), whilst a wife he had married in 1822 was still alive.[9] Later still he was said to have combined the trade of wine merchant with that of estate agent and in one of the letters he sent he gave both his Howland Street address and one at 3 Charrington Street, Somers Town, so that he was clearly a man of complex activities. He prepared himself thoroughly for his intermediary duties: when his house was searched they found the remains of a 'catechism' in which he had written down all the awkward questions he might be asked by those seeking to recover their property together with appropriate answers.

Wareham seems to have been one of network who passed stolen goods from one to another, to make it difficult for them to be tracked down; he was described in his action for damages as a plumber and glazier in humble circumstances, of previously unimpeached character – yet he employed four counsel in his action for 'trespass'. He and his wife lodged with Maynard, though some witnesses were unsure whether Maynard or Wareham was the landlord and some of the evidence would reflect this uncertainty.[10] Soon after Maynard's arrest they moved to a room over a nearby tavern.

Another in the organisation was Maynard's brother who had kept to the name of Gregory; he was reported to have left for America at an early stage.

The authorities at the time believed Garrett could not have operated without inside help and modern common-sense would surely agree with them. Efforts were made to discover those responsible but only one porter was brought to trial and he was acquitted.

The Garrett gang's nemesis: Charles Nash

Charles Nash was, and had been for ten years, chief manager to Maples, Pearse & Stevens, solicitors to the Great Western.[11] He seems to have had an unusually strong regard for justice rather than mere law. Railway matters seem to have been left to him and he had become something of a specialist in railway law. Ottley lists short works by him on *Railway carrying and carriers' law...* (1846) and *Railways and Shareholders...* (1849), describing the latter as 'A vigorous appeal for parliamentary investigation into alleged widespead corruption in railway management'.[12]

Thefts

Garrett had various ways of obtaining luggage belonging to other people and had lodgings, or at least the use of rooms, at a number of addresses so he was able to spread his captures around. It was stated at his first court appearance that a coach-load of apparel, allegedly stolen on various lines, had been taken from his last lodgings when he was arrested. Some items were identifiable so that the losers could be contacted and used as witnesses against him.

Dr Daniels of Bath had arrived at Paddington in the dark. There was much confusion as the luggage was unloaded, especially since many similar-looking items were involved. He saw a man he identified in court as Garrett call to a porter and claim a portmanteau. He believed it to be his and approached Garrett but the latter said it was his. Dr Daniels at first believed he himself had made a mistake but realised what had happened when his own portmanteau did not appear. By then it was too late since Garrett had jumped into a cab and driven off.

Mr Winter had lost his luggage on arrival from Barnstaple and various witnesses testified to having bought from Garrett goods now identified as his. Mr Bedingfield, a commercial traveller, lost his travelling case after coming from Gosport. One from Huddersfield had lost his after seeing it arrive safely at Euston and recognised Garrett as a man he had seen hanging about there, and another lost his luggage at Wolverton while he was booking for one train when it was grabbed by someone jumping into a second-class carriage as another train moved off. There were also references to thefts on the Brighton line and the South Eastern.

Garrett had various means of disposing of items and seems to have done so over a wide area. Much was sold to or pledged with pawnbrokers. Bedingfield's case was recovered from a pawnbroker, Mr Beattie of Notley & Beattie of Portman Street, who said he had known Garrett for about a year and had bought various items from him. Dr Daniels's portmanteau was recovered from Kennington Green. He also sold items to the floating population he encountered in his travels. Commercial travellers often used the same sort of lodgings or frequented the same inns as Garrett and some were ready to buy good quality clothes, even if they were second-hand, at cheap prices. Publicans often bought items either for their own use or for resale. The sort of story he used (even before it was strictly true) was that he was shortly going overseas and needed to dispose of a lot of his

possessions before leaving. Needless to say, all who gave evidence disclaimed any knowledge that the goods they bought had been stolen.

Extortion

His and Maynard's downfall was brought about by their attempt to use a more ambitious scheme, which had paid handsome dividends in the past. Only one earlier use of the scheme was detailed in court and the likelihood is that it was a piece of pure opportunism but there might have been others, losers making direct arrangements with the thieves. Most issues of *The Times* carried offers of rewards for the recovery of lost or stolen property and there was a fair sprinkling of cryptic messages which might have referred to arrangements with thieves or their agents. The reluctance to assist in prosecuting the thieves shown by solicitors and others who should have set a better example also suggests the possibility of past actions they did not want publicly examined. In particular there are hints that Sayer, legal adviser to Maynard and Wareham, had been involved with them in some shady dealings.

A Mr Hartley had lost his writing-case, containing railway shares and other papers of value (reputedly £40,000) to himself but of no use to anyone else, on the Birmingham line. His solicitors, Bush & Mullens, put an advertisement in *The Times* saying that measures had been taken to stop the use of the documents by anyone else and offering £100 reward if the property was returned within a week and a satisfactory explanation given.[13] The last condition seems to have been put in as a formality to cover the solicitors since there is no evidence that they tried to obtain any satisfaction on that point, though they did later claim that they and Hartley had employed a private investigator and asked for police help before giving in to blackmail. They received an anonymous letter which directed them to work via coded advertisements in *The Times*. One such, after Mr Bush had received a sample, appeared on 26 May:

> PASCEOLI — first instalment received, terms accepted and confidence may be given without reserve. None but principals will interfere. Address, marked private, B esq., only.

As a consequence they met Maynard who persuaded them to let him have another £50 for his part in the return; he claimed that he would receive none of the £100. Even if the £150 had had to be shared amongst several people, it represented a tidy sum — when income-tax had been 'temporarily' reintroduced in 1842 it was intended only as a tax to be paid by the better-off and the starting point for payment was an income of £150 per year.

Downfall

They came to grief when they tried the same trick on a more determined traveller. On 7 July 1845 Mr Vaughan Prance, a solicitor from Nether Stowey, between Bridgwater and Minehead, caught the night mail from Paddington. He wanted to keep his writing-case, containing bills of exchange to the value of £2,000, with him but was persuaded by a porter that it would be safe in the luggage van. When he arrived at Bridgwater early next morning it was missing. On 12 July he received an anonymous letter saying that his case was safe but he must give a liberal reward and contacts must be in code via the *Morning Post*. He handed this to Seymour Clarke, Superintendent of the Great Western, who left the matter to Nash. According to the latter, Clarke gave him a free hand: 'Whatever you promise we shall perform — we shall not put our conscience in our pocket', though this was before Hartley's case complicated matters.

After various exchanges, including threats to destroy the bills, a letter came from Maynard, now giving his name and addressed from 'Mr Paine's, farmer, Sandhurst, Kent, July 24'. This started: 'A stranger called at my office last week and represented that he had found a travelling case and contents, your property. He emphatically asserts that he did not obtain possession of the same dishonestly, for in fact he never received it all', and went on to state terms. Amongst these was that while the bills would be returned he could not expect to recover the sovereigns which had also been in the case. The thieves seem to have been desperate to gain some cash because their price was reduced several times and to have been overconfident, failing to back out when Prance refused to include an indemnity in the receipt he gave for the case, though, at Maynard's request when they met at the Guildhall coffee house on 5 August to conclude the deal, he did cross out a statement that it had been stolen. Maynard did not have the case with him but it only took him a few minutes to fetch it. When he refused to say for whom he was acting he was arrested by Superintendent Collard of the Great Western's police force, taken before a magistrate and remanded.

Further investigations

It was later established that Garrett and Wareham made visits to Maynard at the Giltspur Street compter soon after his arrest, Garrett using the alias of 'John Smith'.[14] Garrett let Maynard have some money for his prison expenses and it would presumably have been then that they discussed a writing-case owned by Maynard which included pieces of incriminating evidence such as tickets relating to stolen items which had been lodged with pawnbrokers. As a result Garrett entrusted the case to the landlord of the King & Queen Tavern, Foley Street, Fitzroy Square, and told him to hold onto it until he or Wareham asked for it. From time to time Wareham seems to have got the publican to let him have it for a while so that he could open it and boast about the valuable contents within as he showed them to other people. However, not all the evidence was cleared and when Maynard's house was searched partly-burnt scraps of paper in the grate referred to Hartley, and Nash was able to gather the details of this episode.

Garrett left the lodgings he then occupied, at 19 Queen Street, Edgware Road, on 12 August. The landlord's daughter would later give evidence that Maynard had visited him there several times, thus destroying his claim that he was acting as agent for someone he did not know. Two days later Wareham went to Paddington and told Clarke that Garrett was the real culprit. Clarke sent Wareham, with a messenger, to see Nash. Wareham's motives are not entirely clear but the likeliest possibility is that it was part of a scheme to help Maynard. The thieves seem to have been very confident that they would get away with their crimes, probably because the only victim apart from Prance who had been so far identified had compromised himself by buying back his property. They probably assumed that in any case Garrett would be able to go overseas before he could be found and without him Maynard could not be charged with any serious offence; so far he had only been charged with a misdemeanour and at worst would have received a short prison sentence.

George Chilman, an officer of the Great Western, was ordered to keep watch on Garrett and this was done for four or five weeks, his use of many addresses being established. It was not explained how he first found Garrett but there were so many doubtful characters involved that it would not have been difficult to find one prepared to sell information. Collard, 'the superintendent who wears plain-clothes' must also have been involved because it was later stated that he had actually been in Garrett's company on three occasions.

At first Paddington and Euston were both anxious to get to the bottom of the matter since it looked as though there was a well-organised gang operating on the railways, almost certainly with the collusion of servants of various companies, though the reality seems to have been several small gangs. Thus when, Maynard made another court appearance on 18 August it was stated that they wanted to add an extra charge, that involving Hartley's loss. Nash expected Bush & Mullens (Hartley's solicitors) to help but when he wrote to them they initially denied knowing anything about Maynard; worse obstruction would follow. Nash seems to have heard of the existence of Maynard's writing-case because on 20 August he organised a raid on the Warehams' room above the King & Queen Tavern, following counsel's advice that there was enough evidence to arrest Wareham. Ironically the most damning evidence was then safely in the keeping of the publican downstairs. The party comprised Nash, Collard, Oliver Vaughan Pugh (another clerk in Maples & Co's office) and an ordinary constable, who seems to have played no part in the proceedings and was left behind when they eventually took Wareham and his wife away.

Pugh's presence caused complications later since he bore sufficient resemblance to Prance for Wareham to make Prance one of the defendants in his action and for one of those who had been at the tavern at the time and later acted as a witness to identify Prance as having taken part in the arrest. Both Prance and Pugh were in the courtroom for that action and their similar appearances were remarked upon. Evidence was given by Colonel Luttrell, a Somerset magistrate, that Prance was carrying out his duties as clerk to the 'Willeden' [Williton] Petty Sessions on that day and would not have had time to reach London and act as he was accused of doing.

Wareham and his wife were taken to Paddington railway station, not to a police station, and kept there for the night; though they seem to have been reasonably treated, this irregularity was probably what cost Nash and Collard the farthing the civil jury would later award against them. Next morning they were taken to Maples & Co's office. A director of the Great Western, Mills, had already been there without any authority of any others connected with the company and made it plain that it would have nothing to do with any matters other than those concerning Prance. Mills, a banker, was a personal friend of

Bush and had been asked by him to block the case to save him from embarrassment; the lawyers' 'trade union' then seems to have taken over. Indeed, Maples now seemed to take the view that since Prance had recovered his property, there was no real point in going further. As a result Wareham and his wife had to be released, though it seems virtually certain that if more vigour had been shown now a lot more could have been done to detect and punish the culprits.

Prance was not pleased and a letter he had written was read out in court on 30 August:

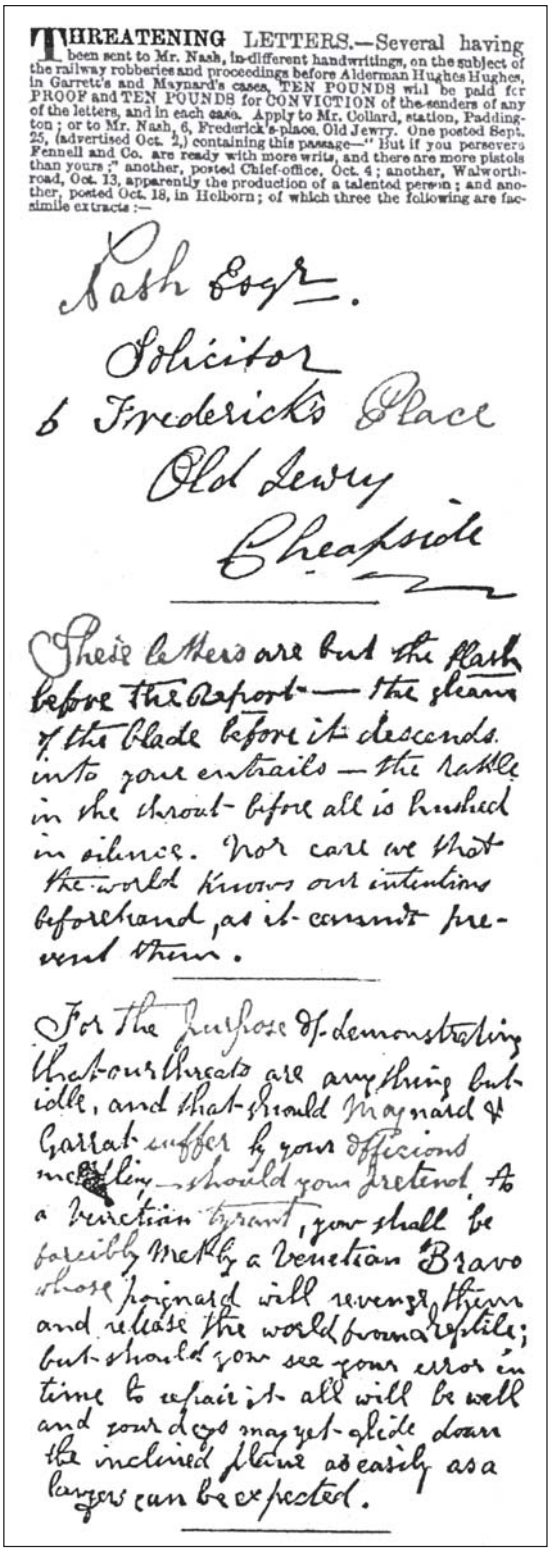
> Morley's Hotel, Trafalgar-square, Aug. 25
>
> Sir, — It perhaps has not escaped your attention that in the month of July last I had, under peculiar circumstances, a writing-case, containing a considerable amount, stolen from me, when a passenger on your line, and that an attempt was made by a regular thief's agent to procure a sum of money for the restoration of it, which ultimately led to the apprehension of this agent, who underwent an examination at Guildhall. At the last examination a remand was applied for by Mr. Clarkson, the counsel for your company, on the ground that certain intelligence had been obtained of a robbery in which this agent received 150*l*. for the restoration of a parcel stolen from the premises of the London and Birmingham Railway, and, under the advice of Mr. Clarkson, Messrs. —— [Bush] and —— [Mullens] are summoned to give evidence of their having compromised this Birmingham case for the payment to Maynard of 150*l*.
>
> To my astonishment I have received a letter from your solicitors, that, in consequence of Mr. Mills, one of your directors, having at the instance of Messrs. —— and ——, interposed to prevent the exposure of Messrs. ——, the Birmingham case is not to be proceeded with, and that therefore the present opportunity, of such importance to the public at large, of breaking up, as there is abundant evidence to prove, of an organised gang of systematic robbers of luggage upon railways, is to be utterly lost. Your solicitors have intimated to me that under existing circumstances it will hardly be worth while to proceed against Maynard.
>
> I perhaps may be allowed to mention, that, since the last remand another person [Wareham] has been apprehended upon satisfactory evidence, and under the advice of Mr. Clarkson, and whose arrest would necessarily have led to important disclosures. This person has, since the interposition of Messrs. ——, through Mr. Mills, been discharged; and he has brought, I find, an action against me and others for false imprisonment.
>
> I leave these facts to your superior judgement and should be glad to hear from you on Wednesday morning; but I may perhaps be allowed to suggest that the public will hardly be satisfied to allow this case to be so lightly passed over, merely to screen Messrs. —— from the consequences (if any) of their connection with Maynard.
>
> I have the honour, &c.
>
> Vaughan Prance
>
> To Charles Russell, Esq., Chairman of the Great Western Railway Company.[15]

If there was any reply, it was not read out in court. The magistrate clearly agreed with Prance and invited him to continue the prosecution. It looks as if the desire to avoid bad publicity caused a rapid change of mind by the Great Western's officials since that day they agreed to indemnify Prance if he would do this. He did but lost since he was unable to compel the attendance of Hartley and Bush. The railway companies then again took up the case, four of them eventually joining in the prosecution.

Nash's employers also put pressure on him to drop out of the case and he had received the first of a number of threatening anonymous letters. Some of these were sent also to his female relatives and to Collard. As a result, at this 30 August hearing he tried to withdraw from being a witness against Maynard arguing that the evidence was now strong enough without him, but the magistrate insisted he continue. He and Collard pressed on with their enquiries, which took on an aspect of self-defence once Wareham started his action for 'trespass' as the lawyers termed it. Nash received various offers if would compromise but he carried on, claiming that the Great Western's directors pressed him to continue with the case, disavowing Mills in the process.

Garrett was still being followed and was still thieving though no instances were mentioned by his watchers and it was only on 12 September that Collard was given permission to arrest him. Garrett took up fresh lodgings in North Street, Lisson Grove, on 13 September, calling himself Mr Winter (one of his victims, whose luggage was marked with 'W'). He was arrested there on 16 September, despite putting up considerable resistance. When that failed he offered Nash a substantial bribe to release him but he was brought before the magistrates next day. His downfall was helped by his greed since he was still realising his assets ready for flight whilst if he had been prepared to cut his 'profits' he would almost certainly have been away by now.

Searches of his premises resulted in the finding of many items which could not be identified as well as those already mentioned. Advertisements were put out to try and persuade those who had lost property to come forward. These did have some effect but as



THREATENING LETTERS.—Several having been sent to Mr. Nash, in different handwritings, on the subject of the railway robberies and proceedings before Alderman Hughes Hughes, in Garrett's and Maynard's cases, TEN POUNDS will be paid for PROOF and TEN POUNDS for CONVICTION of the senders of any of the letters, and in each case. Apply to Mr. Collard, station, Paddington; or to Mr. Nash, 6, Frederick's-place, Old Jewry. One posted Sept. 25, (advertised Oct. 2,) containing this passage—"But if you persevere Fennell and Co. are ready with more writs, and there are more pistols than yours;" another, posted Chief-office, Oct. 4; another, Walworth-road, Oct. 13, apparently the production of a talented person; and another, posted Oct. 18, in Holborn; of which three the following are facsimile extracts:—

Nash Esqr.
Solicitor
6 Frederick's Place
Old Jewry
Cheapside

These letters are but the flash before the Report — the gleam of the blade before it descends into your entrails — the rattle in the throat before all is hushed in silence. Nor care we that the world knows our intentions beforehand, as it cannot prevent them.

For the purpose of demonstrating that our threats are anything but idle, and that should Maynard & Garrat suffer by your officious meddling — should you pretend to a Venetian tyrant, you shall be forcibly met by a Venetian Bravo whose poignard will revenge them and release the world from a reptile; but should you see your error in time to repair it all will be well and your days may yet glide down the inclined plane as easily as a lawyers can be expected.

Be warned in time, these letters are but messengers of the coming storm, harbingers of a future revenge. If you are wise you will interpret them wisely

a trap is laid for you so look out keep your body back from my friend Garrett

Advertisement in The Times, *22 October 1845, including facsimilies of four threatening letters.*

late as 22 October they were still advertising, now in somewhat desperate terms, 'Justice will be defeated if the owner continues the same apathetic feeling evinced generally and will not take the trouble to come forward to identify his property.'

Also at about this time Wareham went to collect Maynard's writing desk. It was taken to the premises of Maynard's lawyer, Sayer (a clerk to Child, Fennell & Co); there it was broken open and many papers taken out and destroyed. Sayer seems to have been of doubtful honesty; he had acted as a reference for Maynard in some of his dealings and acted later for Wareham in instructing counsel for his action. There must have been an element of play-acting in this

because Wareham had shown its contents to others so he must have had a key. What was left appears to have been handed over to the authorities.

Even after the sentencing of the main culprits, enquiries continued. On 21 November at Marlborough Street Sabina Wareham was fined 10 shillings with costs for assaulting Collard: she had thrown a jug at him whilst he and Nash were searching 'Wareham's coach-house' (with his permission) for papers missing from Maynard's case.[16]

Porters on trial

Efforts were made to deal with other aspects of the case. Advertisements were placed in *The Times* to try to find those responsible for writing the threatening letters, those involved in the handling of stolen goods and porters who had been assisting in the thefts. They were particularly anxious to find information about 'James Moss, or Morse, late a porter on the Great Western Railway' who had been remanded in custody. Anyone with information was asked to contact Nash at the offices of Mr Charles Stevens, solicitor to the railway company, at Frederick's Place, Old Jewry (Maples & Co's address). Others were now lending some support. Her Majesty's Government was offering a reward for information and a free pardon to any accomplices who would provide it. Scotland Yard was offered as one of the addresses to which informants could go.[17]

The only outcome was that William Morse [sic] was charged with stealing a dressing case with silver fittings belonging to Mr Husband who had travelled from Beam Bridge in July 1843. In court on 23 October Morse claimed he had received it from Glazier, a porter at Bath.[18] The latter was then put on trial on 24 November but the jury threw the case out part way, saying that they could put no reliance in the evidence of either Morse or Williams, another who claimed innocently to have handled the case, which had been recovered from a pawnbroker in Lisson Grove. Morse had left his job soon after the robbery and was clearly an untrustworthy character whilst Glazier was given a good character and had still been working as a porter at the time of his arrest — the jury even went so far as to ask that he be given his job back. The trial generated enough interest for the superintendents of police of the London & Birmingham and London & Southampton to be present but they do not seem to have learnt anything of value.[19]

The outcome

Garrett received two consecutive sentences of transportation of 7 years each and was sent to Bermuda. Maynard received 14 years and was eventually sent to Australia to resume his schoolmastering.

Wareham was awarded a farthing in damages against Collard and Nash. (How did they split this?) This would suggest that the jury felt that those two had been technically in the wrong but that Wareham was not a worthy object of sympathy. Each side had to pay its own costs. Prance was exonerated because he had not been involved in the arrest, as has already been explained.

In January 1846 the police believed that they had sufficient evidence to prosecute for the threatening letters but it would have involved bringing witnesses from Birmingham and Edinburgh. The authorities were not prepared to bear the costs of this and Nash was by now in such straitened circumstances that he had to let the matter drop. The Great Western was free with praise but argued that most of the expenses he had incurred were not their legal liability. Nash's refusal to admit publicly that he was to blame for the escape of Wareham, thus exonerating Mills, seems to have been at the root of this. Indeed, it is almost as if they were out to sabotage him. The civil action was supposed to have been held on 6 November 1846. Nash had his witnesses ready for this and had co-operated with the railway defendant's counsel by giving them a list of his witnesses, but at the last moment, contrary to his express instructions to his own counsel, the railway counsel got the trial postponed without telling him (and there is no evidence that his own counsel, who did much railway work, sought to stop them). He could not afford to bring some of his best witnesses to London a second time and thus was not as able as he felt he could have been to show that Wareham should have been in the dock in a criminal court, not a plaintiff in a civil one.

Despite his shabby treatment he continued to work with the railway companies and others involved although had he parted from his original employers in January 1846. The only reason that this writer can guess for this is that he vainly hoped that virtue would eventually gain its just reward. As late as June 1847 he helped defeat an action against himself and others at a cost of £200 to himself. His overall loss was at least £800. He had had to borrow from friends and others and had been declared bankrupt as a result of his inability to pay some of it. Later he joined the

South Eastern to help it with its Parliamentary business.

Others were rewarded. Hartley was voted 100 guineas by the London & Birmingham for his part in the conviction of Garrett, even though he had only given evidence after he had received a subpoena. Collard had his expenses paid by the railway and in November was awarded a salary increase of £20 per year for his part in tracing more than 30 pieces of luggage lost on the railway in the previous six months. Maples & Co had their 'legitimate' expenses paid.

In September 1847, 'at the suggestion of some Gentlemen of high standing in the Railway World', an appeal was launched to raise compensation for Nash.[20] Those attesting to the facts stated as grounds for the appeal included Alderman Hughes Hughes (who had heard much of the preliminary evidence), Dr J Daniell, and V Prance. The main railway signatories were A Creed and Captain Huish of the 'North Western Railway'; Stevens, their solicitor, was the Great Western's only representative. Nash described this appeal as not successful financially but that it had called forth further unqualified praise. The money raised went straight to his creditors. In any case, Nash felt that it was wrong to rely on individual charity: he should have been reimbursed by the Great Western Railway or some public authority — thus his (fruitless) letter to the Home Secretary.

Exceptionally, Garrett and Maynard were examined after their convictions to see if anything could be learned from them (and Nash was able to use some of their information in his defence to Wareham's action). Garrett was reported to have left for the colonies by the end of April 1846[21] but only on 16 January 1847 did *The Times* report that Maynard had been sent to Portsmouth, ready for transportation. He was stated to have made some 'curious disclosures' but it would seem that these were far too late for any worthwhile action to result. He had been detained by the order of the Home Secretary at the request of Mr Nash 'whose exertions on behalf of all the railways, under great discouragement and loss in the prosecution, are generally acknowledged'.

Notes and references

Unless otherwise indicated, all references are to *The Times*.

The sources for the main story are (paper dates):

- preliminary appearances of Maynard: 6, 13, 18, 30 August and 20 September 1845;
- successful application for postponement of trial; 29 October 1845 — Mr Clarkson applied for this so that Maynard and Garrett would be tried together;
- preliminary appearances of Garrett: 18 September and 1, 2, 18, 25 October 1845;
- criminal trial: 31 October and 1, 4 November 1845;
- civil action, Wareham v Prance and others: begun and adjourned 13 June 1846; detailed account, 3 Dec 1846;
- article in the *Railway Record*, 5 December 1846, pages 1288–9, PRO Z PER 3/10;
- Nash's letter to Home Secretary, Sir G Grey, 13 March 1848, PRO HO 45/2370.

Specific references:

1. Letter from 'JH', 20 September 1844
2. Letter from 'A Correspondent', 5 January 1839
3. News item, 15 April 1840
4. News item, 4 May 1840
5. Letter, 19 August 1845
6. News item, 14 July 1842
7. Letter, 2 February 1846
8. News item, 12 April 1816
9. 1822 might have been a misprint; Gregory was sentenced to 7 years, which would have made 1822 impossible. However, he might have received some sort of remission and would have needed no travelling time since he had been only legally rather than physically transported.
10. The Warehams were normally described as husband and wife though the public appeal on Nash's behalf referred to 'cohabitation'.
11. Nash's description of firm for whom he worked. *The Times* variously called it Maples & Co, Swain & Co, Swain, Stevens & Co, Stevens & Co.
12. G Ottley, *A Bibliography of British Railway History*, second edition, 1983, items 3715 and 5264
13. The advertisement certainly appeared 22 and 23 May 1845; according to the report of Wareham's action also on 20 May 1845 — impossible, as it was a Sunday, though it was the date on the advertisement.
14. Some accounts said first visit same day, others next.
15. Double/single gaps as in original.
16. News item, 22 November 1845
17. Advertisements, 22 October and 20 November 1845
18. Report 24 October 1845
19. Committal for trial, 31 October 1845; trial, 25 November 1845
20. Text of appeal bound with PRO HO 45/2370
21. News item, 30 April 1846

The GNR and LNWR Joint Lines in Nottinghamshire and Leicestershire

By John Marshall

The sparsely populated country in east Leicestershire, despite large deposits of iron ore, remained devoid of railways for 30 years after surrounding lines were built, mainly because it was controlled by wealthy fox-hunting landlords. The most prominent was the Duke of Rutland, at Belvoir Castle, who strongly resisted attempts by railway promoters to penetrate the area. By about 1870 prospects of monetary gain were beginning to make railway proposals more acceptable and several were put forward to fill the space. One, the 'Market Harborough, Worksop & Nottingham Railway' (sic), surveyed by E Bruce for the Manchester, Sheffield & Lincolnshire Railway (MS&LR), was a projected line of nearly 63 miles from the MS&LR near Worksop to the London & North Western Railway (LNWR) Rugby–Stamford line near Market Harborough. The Bill was drawn up for the 1872 session by the solicitor William Harper but was not introduced in Parliament.

Another scheme, supported by the Great Northern Railway (GNR), was the 'Newark, Melton & Leicester Railway' surveyed by John Fraser and Richard E Clayton and prepared for the 1872 session. John Fraser (1819–81) was a senior civil engineer on the GNR under Richard Johnson. The Bill sought authority for a main line from Newark, to run almost due south, with connections to the Nottingham & Grantham Railway at Bottesford, to Melton Mowbray, and to a point east of Leicester near Tilton where it turned towards Leicester. A branch was to serve iron workings around Waltham on the Wold, and there would be connections to the Midland Railway (MR) at Melton and Leicester. The Bill was opposed by the MR which was promoting its Nottingham & Rushton Railway and branches to Waltham and Melton at the same time. The MR scheme was for a new main line from Nottingham to Saxby on the Syston–Peterborough line and from Manton to Glendon Junction near Rushton on the Leicester–Bedford line.

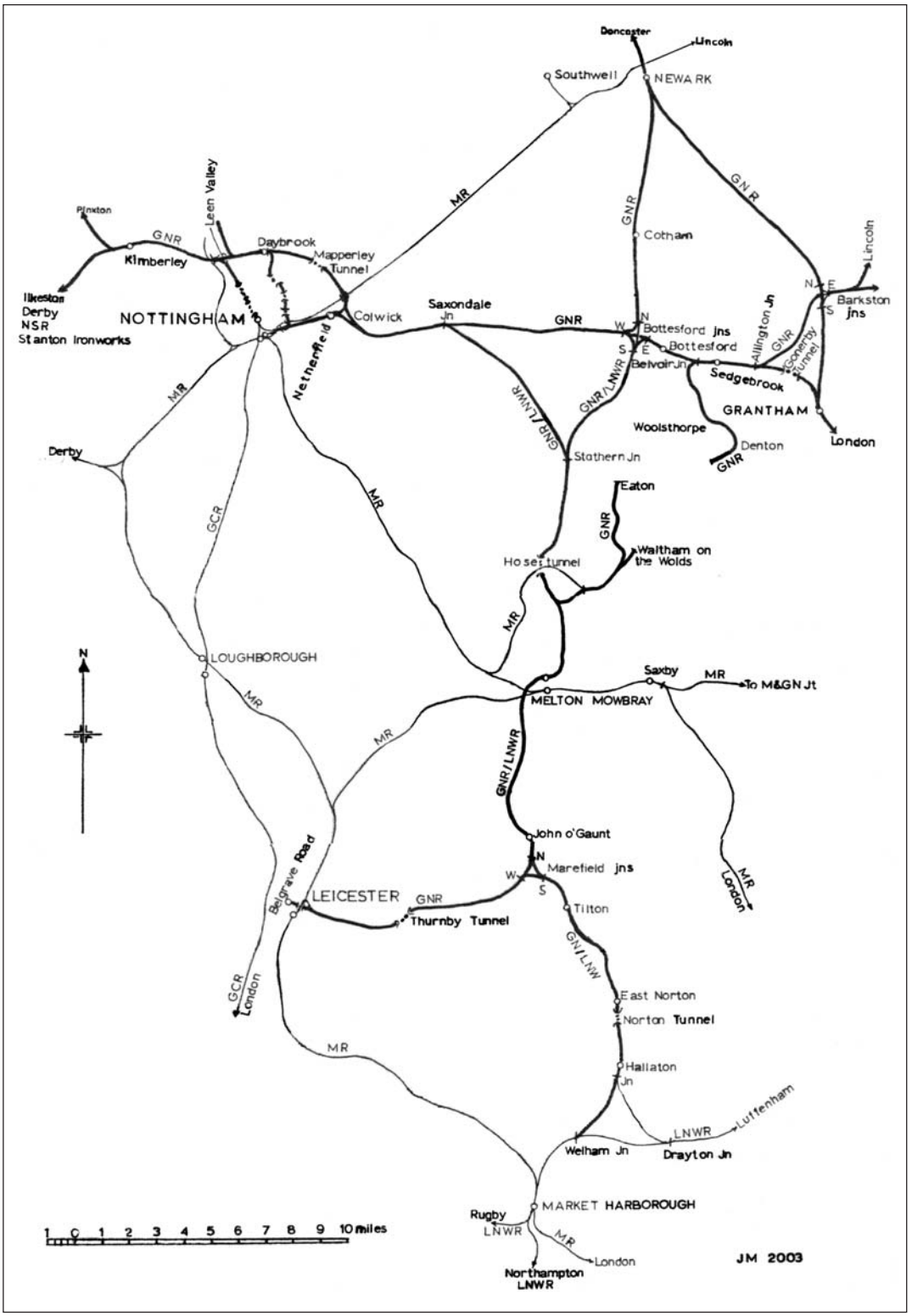
On 4 March 1872 the GNR board decided that it would be an advantage to secure the co-operation of the LNWR. It was proposed to offer that company running powers to Nottingham and Newark and over the Derbyshire lines, and to ask for GNR running powers to Northampton. From this it is clear that the idea of extending the Newark–Melton line to the LNWR near Market Harborough had already been considered.[1]

On 17 June 1872 the Newark, Melton & Leicester Bill was taken over by the GNR. It then passed to the Lords where it met opposition from the powerful fox-hunting landowners. The section from Melton to Leicester was dropped from the Bill on 18 July. Thus modified it received the Royal Assent on 6 August.[2] The Act authorised the line from Newark to Melton with west–north, west–south and south–east connections at Bottesford and a connection to the MR at Melton. Five years were granted for completion of the work and power was given to raise £400,000.

The MR Act[3] authorised only part of the line from Nottingham to Melton. The direct line to Saxby, passing north of Melton, and the Waltham branch were lost.

During the proceedings the GNR put in two further Bills for the 1873 session. One was for a connection of 3 miles 3.2 furlongs from the Nottingham–Grantham line at Allington Junction near Sedgebrook to a north-facing junction on the main line at Barkston, north of Grantham, to connect with the Sleaford line which was opened on 16 June 1857.[4] This would allow Derbyshire coal to reach the eastern counties without entering Grantham. Following a collision at Barkston Junction on 10 January 1874 the route was altered to pass under the main line and to join the Sleaford line at Barkston East Junction.[5] Joseph Firbank, at that time engaged on the Awsworth –Pinxton contract, undertook the construction. It was begun on 23 September 1874 and was opened for goods traffic on 29 October 1875.[6] Though hardly used by regular passenger trains, it became a well-used route for excursions to Skegness.

In its other Bill of 1872 the GNR sought the co-operation of the LNWR in extending the Newark–Melton line to Leicester and to a junction with the LNWR Market Harborough–Peterborough line at


Doncaster
Lincoln
Southwell
NEWARK
MR
GNR
GNR
Pinxton
Leen Valley
GNR
Kimberley
Daybrook
Mapperley Tunnel
Cotham
Lincoln
Ilkeston
Derby
NSR
Stanton Ironworks
NOTTINGHAM
Colwick
Saxondale Jn
GNR
Bottesford Jns
Bottesford
Allington Jn
GNR
Somerby Tunnel
Barkston Jns
Belvoir Jn
Sedgebrook
GRANTHAM
London
Netherfield
MR
GNR/LNWR
GNR/LNWR
Woolsthorpe
Denton
GNR
Derby
Stathern Jn
Eaton
GNR
Waltham on the Wolds
GCR
MR
Hose tunnel
MR
LOUGHBOROUGH
Saxby
MR
To M&GN Jt
MELTON MOWBRAY
MR
MR
GNR/LNWR
John o'Gaunt
Marefield jns
MR
London
Belgrave Road
LEICESTER
GNR
Thurnby Tunnel
Tilton
GCR
London
GN/LNW
East Norton
Norton Tunnel
MR
Hallaton Jn
LNWR
Luffenham
Welham Jn
Drayton Jn
MARKET HARBOROUGH
Rugby
LNWR
MR
London
Northampton
LNWR
1 0 1 2 3 4 5 6 7 8 9 10 miles
JM 2003

Welham. In return for extensive running powers over the GNR the LNWR agreed to share the cost of the Newark–Welham section and also a line from Stathern to Saxondale on the Nottingham–Grantham line to provide a shorter route to Colwick and Nottingham, this latter in exchange for the Marefield–Leicester section which would be GNR only.

The proposal for joint ownership was rejected by the Parliamentary Committee on 15 May 1873 and the Act[7] gave powers only for a line of 17¼ miles from Melton to a station on the south-east side of Belgrave Road in Leicester and, significantly, a 'branch' of 2 miles 1.3 furlongs (Railway No 2 in the Act) near Tilton with a south spur to form a triangular junction. This was to form the beginning of the extension to Market Harborough. Disappointing though this Act may have been to the GNR, at least the opposition of the hunting landlords had been overcome, and it had obtained powers for its original Newark–Leicester project.

The idea of joint ownership had not been discarded. In 1872 a new Bill was prepared by the GNR and LNWR: the Market Harborough, Melton Mowbray & Nottingham Railway, surveyed by William Baker, chief engineer of the LNWR, and John Fraser of the GNR. It comprised a railway from two junctions, at Welham and Drayton, on the LNWR Market Harborough–Peterborough line, to Melton Mowbray, and the line from Stathern on the Newark–Melton line to Saxondale on the Nottingham–Grantham line. The Parliamentary Committee decided the preamble was not proved and the Bill was thrown out on 16 May 1873. The Bill, slightly modified, was presented for the 1874 session and this time it succeeded.[8] The Act authorised construction of :

1 A railway of 9 miles 7.9 furlongs from Tilton, on the Melton–Leicester line authorised in the GNR 1875 Act, to Welham Junction near Market Harborough;

2 An eastern connection of 3 miles 4.35 furlongs to the LNWR from Hallaton Junction to Drayton Junction;

3 The 'Bingham branch', 7 miles 3.6 furlongs, from Saxondale Junction to Stathern.

Five years were allowed for construction. The section from Bottesford North Junction to Melton and Marefield North Junction was transferred from GNR to joint ownership. The Newark–Bottesford and Tilton–Leicester portions remained GNR only. Powers were given for the GNR to raise £250,000 by shares and to borrow £83,300, and for the LNWR £500,000 and £166,600.

The Joint Committee of three directors from each company had its first meeting on 29 July 1874, the day before the Act received the Royal Assent. William Baker, the LNWR engineer, became responsible for the construction of the southern portion up to Tilton, or Marefield. The remainder came under the GNR engineer John Fraser, assisted by his son Henry John Fraser (1848–89).

The joint line contracts were let first, on 22 October 1875: Bottesford–Tilton to Benton & Woodiwiss for £536,537 and Saxondale Junction–Stathern, and Tilton–Welham and Drayton Junctions, to Logan & Hemingway at a final price of £347,217. Signalling works at Bottesford West Junction were let to Saxby & Farmer for £1,029 on 17 March 1876. The contract for the GNR Newark–Bottesford line, about 9¼ miles, was let to Benton & Woodiwiss for £77,000 on 18 August 1876.

Apart from cuttings and embankments, various small bridges and viaducts, the major engineering work was Hose tunnel, 834 yards, on the Bottesford–Melton section. All the lines were double track. North of Tilton the signalling was GNR, south it was LNWR. The first section to be completed, Newark South Junction, was opened on 1 April 1878 for goods traffic before any signalling had been installed. The contract for signalling works was let to the Gloucester Wagon Co for £1,895 on 2 May 1878. After inspection by Major Marindin the line was opened for passengers on 1 July. The only intermediate station, Cotham, 5¼ miles from Newark, was opened on 14 April 1879. There were no engineering works of any significance. Passenger trains between Nottingham and Newark took about 45 minutes for the 23¼ miles, about the same time as the MR for 20 miles.

The first section of the joint line to be opened was Saxondale Junction to Melton Mowbray, on 30 June 1879 to goods and on 1 September for passengers. Passenger trains between Nottingham and Melton took 55 minutes for the 22¾ miles. On 2 February 1880 the MR opened its more direct route from Nottingham to Melton for passengers, 18¼ miles, for which the trains took 45 minutes. The remaining sections of the joint lines: Bottesford North Junction–Stathern; Melton Mowbray–Market Harborough (Welham Junction); and Hallaton Junction–Drayton Junction, were opened to all traffic on 15 December 1879.

The extra traffic brought into Nottingham by the

45238 with a RCTS railtour at Leicester Belgrave Road station, 18 May 1963
Above: reversing out of the station
Below: about to leave

joint lines made it necessary to extend the passenger station there and to provide new sidings, platforms and stables for the goods traffic. This was agreed to at the GNR half-yearly meeting on 10 August 1881.[9] At the following half-yearly meeting on 10 February 1882, possibly in response to complaints, the chairman, the Rt Hon Lord Colville of Culross, explained:

> The Leicestershire lines were forced upon the Company by a combination of two neighbouring companies to make a competing parallel line to the GNR from London to York. We were compelled to go into Parliament to retain our long connection with the northern traffic.

John Fraser, who had been the civil engineer responsible for most of the construction of the Newark–Melton–Leicester sections, died on 24 September 1881. The work was taken over by his son who was joined by his brother-in-law, W Beswick Myers, under the name of John Fraser & Sons.

During the excavation of the cutting just north of Tilton station a thick bed of iron ore was revealed. In 1885 a quarry was opened up by the West Yorkshire Iron & Coal Co Ltd but it was only when the Stanton Company took over in 1911 that extensive working began.[10] It was not until 16 January 1880 that tenders were opened for the Tilton – Leicester line and the branch to Waltham on the Wold. Both contracts were awarded to Benton & Woodiwiss; the Leicester line for £203,800 and the Waltham branch for £19,500. The only substantial engineering work was Thurnby tunnel, 516 yards, between Ingersby and Thurnby.

By 10 February 1882 work had proceeded far enough for the contract for stations on the Leicester line to be awarded to Wood & Son for £76,855. The stations were at Leicester, where a large terminus was provided with five platforms covered by twin arched roofs, and an imposing frontage on Belgrave Road, Humberstone 1¼ miles from Leicester, Thurnby 3¼ miles, Ingersby 6½ miles and Loseby 9¼ miles. Goods traffic began running to and from Leicester on 15 May 1882 and on 1 January 1883, before Leicester station was completed, the line was opened for passengers. Trains ran to Grantham and Peterborough, with connections for Nottingham and Newark, and there were through trains to Skegness and Mablethorpe.

Rounding the curve between Bottesford West and South Junctions on 18 May 1963, with Bottesford church on the right. The curve was disconnected between 1895 and 9 September 1962.

Entering the north end of East Norton Tunnel, 18 May 1863

The GNR branch from Scalford to Waltham on the Wold was opened for freight traffic on 5 April 1883. Although a passenger station was provided at Waltham, and the branch was shown in the public timetable to October 1883, it never had an advertised service, but it was used in connection with the nearby racecourse at Croxton Park.

The Stanton Company was now opening up ironstone quarries in the Vale of Belvoir around Woolsthorpe. To serve them the GNR planned a branch about 3 miles long from Belvoir Junction, 2 miles east of Bottesford. It was authorised, with the Stanton branch at Ilkeston and the Sedgebrook–Barkston line, by the GNR Act of 1882.[11] The tender of H Lovatt, £14,000, was accepted on 6 July and the branch came into use in July 1883. Under the 1885 Act[12] the branch was extended a further 2½ miles to serve quarries near Harston. The tender of H Lovatt, £12,352, was accepted on 5 December 1884, again before the Act was obtained. The extension opened in February 1886.

An extension of 3 miles from Waltham on the Wold to Eaton was authorised by the GNR Act of 2 August 1883 (c175). Again the contractor was Lovatt whose tender of £15,639 had already been accepted on 1 February 1883. Another extension, to Eastwell, in 1884 was little used and was later abandoned.

It will be remembered that the MR planned a branch to Waltham on the Wold as part of its Nottingham–Rushton scheme. In exchange for abandoning a proposed extension of its Holwell branch to Woolsthorpe the MR was allowed to connect with the GNR Waltham branch at Wycomb Junction. The MR branch, which passed over Hose tunnel, was opened on 18 April 1887; latterly most of the traffic from the Waltham branch left by this route to Holwell Sidings on the MR Nottingham–Melton line.

By its Act of 1884[13] the LNWR secured powers for a goods station beside Manvers Street, Nottingham, and a branch to it from Trent Lane Junction, for which the engineer's estimate was £53,000. On 18 August 1886 the tender of J Hartley, £45,987, was accepted. The work involved considerable excavation in hard sandstone for which the contractor had not allowed enough in his tender. A request for an extra allowance for this on 13 July 1887 was refused. The over-stretched contractor found the job took

longer than allowed for and at the completion date, 31 December 1887, it was still not ready. On 16 May 1888 it was reported that the warehouse was roofed, and the platform floor and basement could be brought into use on 11 June provided the GNR had the junction with its line ready. By the time the goods station was opened, on 1 July 1888, the contractor had been declared bankrupt, but he was able to complete the works. On 16 January1889 the LNWR agreed to release him from the residue of maintenance on the goods depot on deduction of £200 from his final account.

Under the Joint Powers Act of 1874[8] the GNR, by sharing the cost of the joint lines with the LNWR, reduced its own financial burden, but by granting running powers to the LNWR over its Derbyshire and Nottinghamshire lines with access to all the collieries, it paid a high price for joint ownership. Soon the LNWR had established locomotive depots at Colwick and Doncaster, and the goods depot at Nottingham. Another, at Sheffield (City) was reached over the Leen Valley line and the MS&LR to Woodburn Junction, Sheffield. Trainloads of coal were being taken from every colliery served by the GNR and hauled by the LNWR over the GNR lines to Colwick from where it was sent to places on the LNWR. This continued until the end of 1922.

At the grouping, since both the LNWR and the MR became part of the London Midland & Scottish Railway and since almost all the collieries were served by the MR, there was no need for the LMS to work the coal via Colwick. Except at Waltham on the Wold, to which the MR had access, the ironstone branches were wholly GNR, so it was this company which worked most of the ironstone direct to Stanton.

Passenger services continued until World War 2, and some into Nationalisation. First to go was Newark–Bottesford East and West Junctions on 11 September 1939, but goods traffic continued into the 1970s. Nottingham London Road Low Level closed to passengers on 22 May 1944 and the trains were transferred to Victoria station. Several passenger services ended on 7 December 1953: Grantham–Leicester Belgrave Road; Nottingham Victoria and Newark–Bottesford South Junction–Market Harborough; and Saxondale Junction–Stathern Junction. The last closed to all traffic on 9 September 1962. Excursion traffic to East Coast resorts from Leicester Belgrave Road continued well into the 1960s.

Goods traffic at Leicester ended on 14 December 1964. The LNWR goods depot at Manvers Street, Nottingham and its connection to Trent Lane Junction closed on 6 June 1966. Ironstone traffic from Woolsthorpe to Belvoir Junction ended on 14 June 1965, by which time most of the ironstone traffic, formerly handled by the GNR, had finished.

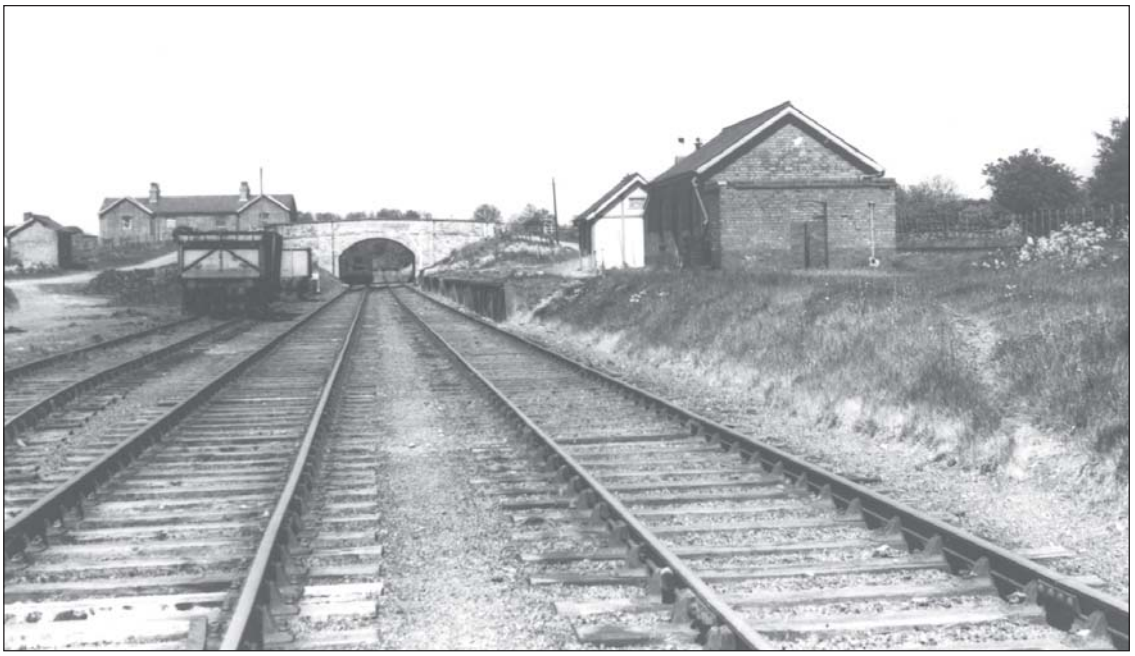
Notes and references

Alfred Henshaw's monumental four-volume work on the Great Northern Railway in the East Midlands was published by the Railway Correspondence & Travel Society in 1999–2003. By way of providing an introduction to each volume, I was asked to write a history of the various Great Northern lines extending from Stafford in the west to Grantham in the east, covering lines in the Derbyshire and Nottinghamshire coalfields, the connections to the North Staffordshire Railway and the GNR/LNWR Joint Lines in Nottinghamshire and Leicestershire. I prepared a history in four chapters but my material was not used in the order in which I prepared it. Instead, it appeared in a geographical order which, unfortunately, resulted in the fourth chapter dealing with the GNR/LNWR joint lines, the Newark–Bottesford and the Leicester Belgrave Road branch being overlooked.

As this involved a considerable amount of research I decided that, rather than let it be wasted, I should submit it as an article in the RCHS *Journal*.

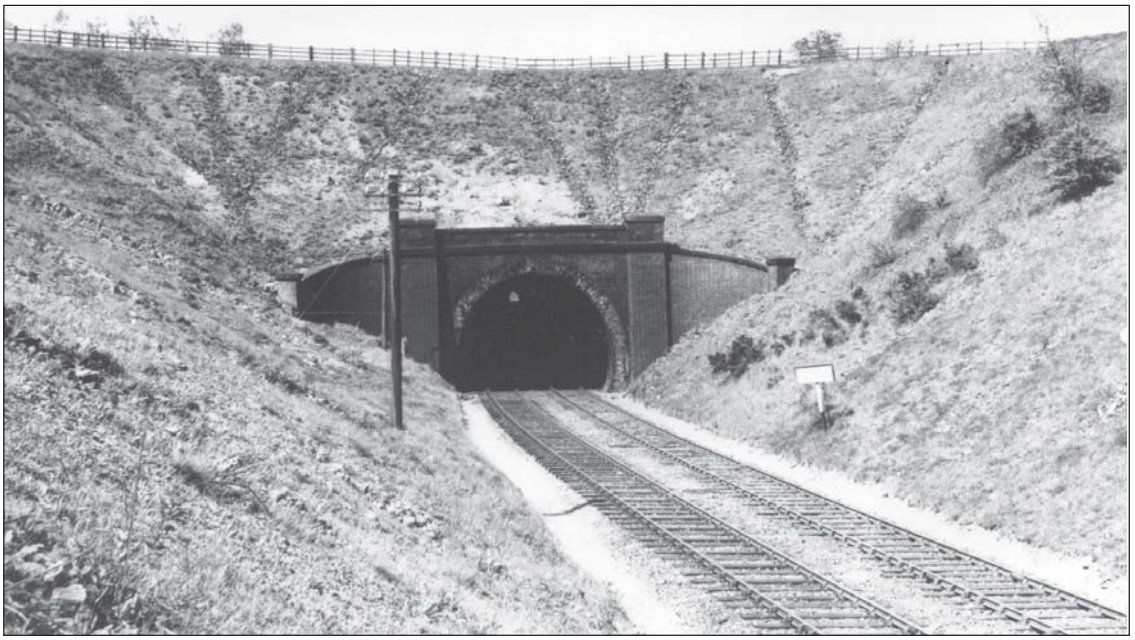
All the photographs are by the author.

1. PRO RAIL 236/310
2. GNR (Newark & Melton) Act 1872 c167, 6 August
3. MR (Nottingham & Saxby Lines) Act 1872 c118, 18 July
4. GNR (Additional Powers) Act 1873 c90, 7 July
5. GNR (Additional Powers) Act 1875 c110, 29 June
6 Date obtained from: Wrottesley, John, *The Great Northern Railway*, vol 2 (1979), 27, based on research by the late J R Whittle.
7. GNR (Melton to Leicester) Act 1873 c208, 28 July
8. GNR & LNWR Companies (Joint Powers and New Lines) Act 1874 c157, 30 July
9. *Railway Times*, 13 August 1881, 746
10. E S Tonks, *The Ironstone Railways and Tramways of the Midlands*, 1959
11. GNR Act 1882 c191, 10 August
12. GNR (Various Powers) Act 1885 c76, 16 July
13. LNWR Act 1884 c207, 28 July



Above: Waltham on the Wolds station, looking northeast, 2 June 1963

Below: South end of Hose Tunnel (834 yards), 4 June 1963



The Chesterfield Canal: Thorpe and Turnerwood Locks

By Christine Richardson

With 22 chambers in one mile, including four staircase sets, the Thorpe and Turnerwood lock flights on the Chesterfield Canal are the boldest planned by James Brindley. Furthermore, the configuration of two treble staircases, two double staircases, intermixed with twelve single locks is unique in the pioneering era of canal construction in this country. Geographically the locks allow the Chesterfield Canal to descend a watershed limestone ridge in South Yorkshire — thereby passing from the catchment of the river Ouse, to that of the Trent, the canal's destination being the latter at West Stockwith.

Derelict for almost 70 years the restoration of the Thorpe and Turnerwood flights culminated in an official re-opening on 26 June 2003, thereby allowing boats to return to the summit pound of the Chesterfield Canal.

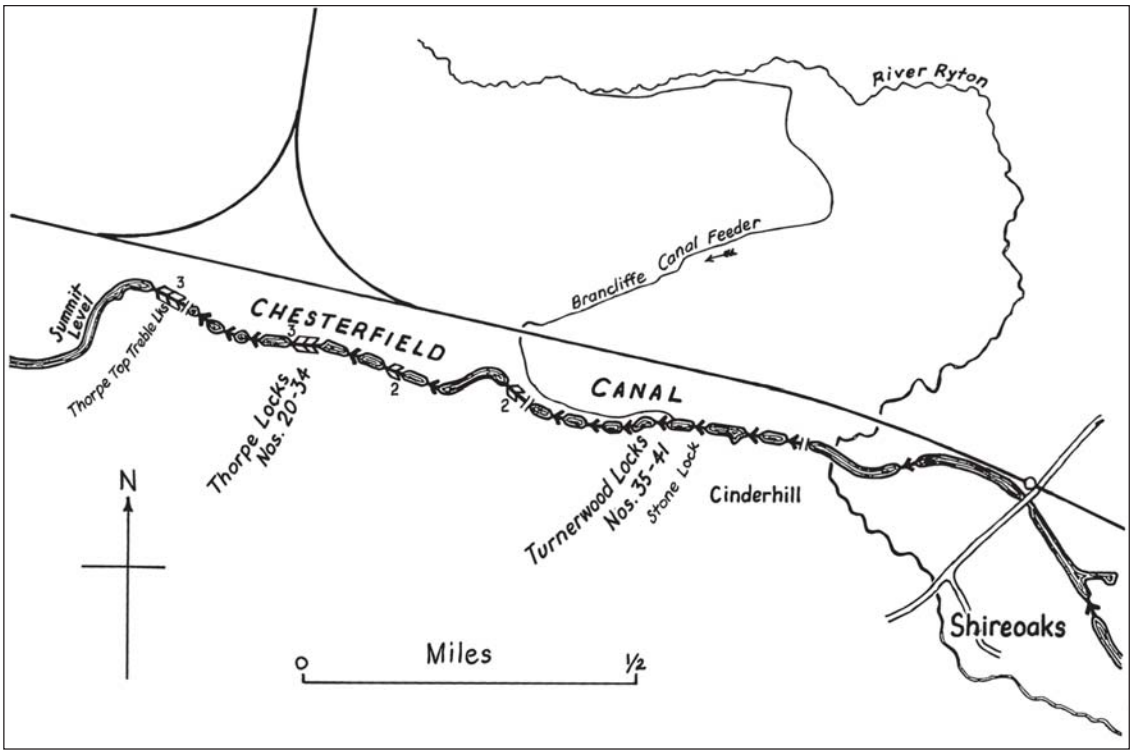
Although the locks were built after the death of James Brindley they were planned by him, with Thorpe Top Treble staircase defining the eastern end of the crucial summit pound, which Brindley made as long as possible to act as a water storage facility to bolster the reservoir in the hills above. To that end he made the crucial decisions regarding the level at which he would bore through the limestone ridge — redefining the length of Norwood tunnel a number of times until, coincidentally, its length of 2,880 yards would equal that of its contemporary, the still unfinished Harecastle tunnel on the Trent & Mersey Canal.[1]

Having defined the limits of the summit pound Brindley ordered work to start on the tunnel and, simultaneously, along the summit and downwards to the east. Therefore, the chambers of Thorpe Top Treble are the oldest locks on the Chesterfield Canal and, with Brindley's methods requiring the use of boats to deliver construction materials, the rest of the Thorpe and Turnerwood flights date soon afterwards. As a consequence all the bridges, locks, and milestones, on the canal between the eastern portal of Norwood tunnel and Shireoaks aqueduct have been classed as Grade II listed structures by the local authority, Rotherham Metropolitan Borough Council.

The history of the Thorpe Locks is first documented exactly 231 years before their re-opening, when Brindley, on 26 June 1772, attended a management committee of the Chesterfield Canal Company in the small village of Harthill, near the summit pound. He stated that the first lock of the descent to the Trent would 'be made in a Close belonging to his Grace the Duke of Leeds called Old Spring Close as soon as possible', and that the construction materials for a number of locks would be amassed during the course of the next winter.[2]

On the same day there was a meeting between the Canal Company and the agents of the Duke of Leeds, regarding the measurement of, and payments for, land damaged by footpaths, roads, timber yards, buildings, engines, sand pits, and clay extraction for bricks. A map shows that the areas of most concern were by the top of the Thorpe flight, with a substantial area allocated to brickmaking for the locks — and still bearing the scars today.[3]

In accordance with the usual practice during this pioneering phase the actual construction work on the locks was allocated to sub-contractors who supplied their own workforce. One such was John Platt, a mason-architect of Rotherham, who had no recorded experience of canal work but who, nevertheless, on 5 July 1773 agreed with Henry Ibbotson (also of no known expertise) 'to go partners at Building a stone lock on the Chesterfield Canal', sending five of his men to start work on the project one week later.[4] By this time Brindley's death had resulted in Hugh Henshall being appointed to inspect and survey the works, and less than a month later, on 2 August, Platt attended a meeting with Henshall in Worksop, probably not the only contractor to do so as Henshall was making his presence felt — at the next day's committee meeting setting a number of standards, both financial and constructional.[5] Platt's last mention of involvement in lock building was on 11 October. Prudently so, as on 17 November 1773 his partner Henry Ibbotson was given notice in writing that 'the Stone Lock built by him is defective', and that he was to repair and amend it as directed by Henshall or John Varley, Brindley's original on-site



assistant.[6]

The disorganised management of a large-scale canal construction scheme, not untypical of the time, is evident when Ibbotson has not taken the lock down by the following March, and receives a directive to erect another in the same place before 20 May, in the authorised manner.[7] Although not named, the site of Ibbotson's problems is probably the still aptly-named Stone Lock, in the Turnerwood flight.

The stringent directive to Ibbotson coincides with Henshall's appointment as Chief Engineer, on 2 March 1774, and marks the end of the small-time inexperienced sub-contractor in the construction of the Thorpe and Turnerwood locks. Now a typical contract is one such as agreed with the splendidly-named Fortunatus Lawrence — to obtain enough stone for four locks from the Pennyholme quarry, on the summit pound, to 'work and set' it at an agreed rate per foot, and to load it into boats. Another example is the contract with John Allin to 'work, saw, frame, set down and hang the Gates, and make all the other necessary Carpenters Work for ten locks', for a set sum, and by a set date.[8]

Overall, the design of the 22 locks of the two flights is noticeably different to those built later on the rest of the canal, where the narrow locks have an average rise/fall of 6 feet. However, on the Thorpe flight they range from the bottom chamber of the Top Treble, recorded in 1894 as only 3 feet 6 inches, to the 4 feet 6 inches of Milestone Lock. On the Turnerwood flight Feeder Lock was recorded as only 3 feet 3 inches.[9] Furthermore, the Brindley-influenced Thorpe flight has lower approach walls which slope steeply up from the towpath level, whereas those on the Henshall-influenced Turnerwood flight have approach walls which start with very large, square, stone blocks and, therefore, require only a slight slope beyond.

Through traffic commenced with the opening of Norwood tunnel in 1775, leading on to the completion of the whole 46-mile canal in 1777. Almost immediately it became apparent that the one reservoir, Pebley Pond, could not cope with the quantity of water needed to operate the lock flights down each flank of the limestone ridge, and further reservoirs were planned. The situation was not helped by the unique configuration of the Thorpe locks. The mixture of staircase and single chambers, with no side-ponds, meant they could not be used water-

efficiently: single locks saving water if boat traffic is in alternate directions, staircase sets saving water if used in one direction or the other for a substantial time. Mostly passage of the locks was ordained by the direction of traffic passing through the one-boat's-width Norwood tunnel, on both sides of which pubs for the waiting boat-crews developed on the flanking lock flights. On the Thorpe flight, by 1838, it was known as the Bug Trap and was little more than a house, whose residents also did a bit of brick-making and lime-burning.[10] This was by Thorpe Middle Lock and the house came to be known, confusingly, as 'Top Locks'. As the family home of various lengthsmen it survived until the 1970s but was originally only two rooms with alder lathes in the ceiling with a ladder to upstairs — the most noticeable sign of its presence now a lock-side stone worn down by countless feet over the centuries. By the towpath a stable for twelve horses used to serve the boats waiting for passage through Norwood tunnel. Various 19th century censuses show lock keepers, joiners, carpenters living by the Thorpe flight with their families but the later known history of the locks is sparse, as is usually the way once a canal settles into a steady working state.

The influence of Norwood tunnel manifested itself once again, but for the last time, on 18 October 1907, when it collapsed because of mining subsidence in the strata below. With traffic sparse the owning Great Central Railway decided that the cost of re-opening the tunnel could not be justified in the light of a lack of agreement with the colliery company working the seams. With no commercial reason to go to the summit boat traffic through the Thorpe and Turnerwood locks ceased. However, the canal remained navigable from Shireoaks colliery — just below the locks — to the Trent, therefore, the water supply and control aspects of the locks had to be maintained to provide a clear channel down from the reservoirs. To that end a horse-drawn, steam-powered dredger worked its way up to the summit, and back down again, in July 1924 and local people remember a similar exercise in the early 1930s.[11] After that navigation through the Thorpe and Turnerwood locks seems to have ceased.

The renewed interest in canals that flourished in the 1950s led various people to walk down the flights, noting what they saw. One such group was the Inland Waterways Protection Society in 1958–9, but they were pre-dated by Cyril Boucher, structural engineer and Brindley biographer, who left a detailed report after a visit in September 1956. He saw that most of the locks had adequate top gates for water-control purposes with many bearing the date 1930, but that none was in a navigable state with some chambers needing partial rebuilds. Also, a number of pounds were badly silted up, several were empty, and one had a fallen tree across it. He estimated the cost of restoring the 22 locks as £12,500, plus dredging.[12]

Further down the canal the Retford & Worksop Boat Club successfully fought for the remaining 26-mile navigable section from the river Trent to Worksop to be protected as a Cruiseway in 1960s legislation, and what is now the Chesterfield Canal Trust took up the baton of restoration of the remaining canal in the 1970s. Their successful campaign has now brought navigation back to the Thorpe and Turnerwood locks, and up to the eastern portal of Norwood tunnel, at a cost of £4.3 million, made up of Derelict Land Grants from English Partnerships and £1 million from the Heritage Lottery Fund, with 25 years of maintenance finance guaranteed by Rotherham Metropolitan Borough Council.

Because the locks are all Grade II listed structures the restoration was undertaken under the direct guidance of Rotherham's Conservation Officer, Chris Drage. He required that British Waterways have its contractor, Galliford, take each chamber down to a sound base by hand, and that the 18th century features be investigated and recorded by trained industrial archaeologists. This is important because many of the features found are now either under water — traces of the original by-weirs — or buried in the walls, such as the timber anchor system in place since the early 1770s. This was the most important feature of lock construction recorded — often consisting of vertical posts, approximately 6 feet apart, with a horizontal wailing beam parallel to the lock side, and horizontal tie beams at right angles to the lock. A wailing beam was usually a square-section of timber, with a staggered overlapping joint, one immediately above the other, with the joints centred on the vertical posts. The timbers appear to have been laid in wet mortar, immediately above the stone, low-water, rubbing course. The wailing beams did not appear to have been fixed to the other timbers, but simply clasped below the junction of the tie-beams and posts.

The archaeological report is due to be published in late 2003 or early 2004, and it will be interesting to see the differences and/or similarities of the original work undertaken by a number of contractors, with implied inferences for the management system that Brindley bequeathed to the early years of the

project.[13]

Further restoration is the target of the Chesterfield Canal Trust, with only nine of the 46 miles still to do. However, that includes Norwood tunnel, and the Norwood flight with thirteen locks in one-third of a mile descending the western flank of the ridge, both nationally significant features of the pioneering canal era. Be that as it may, the Thorpe and Turnerwood locks, the summit pound, and their beautiful surroundings are once again there to be cruised or walked. A laudable landmark in the on-going restoration of Brindley's Chesterfield Canal.[14]

Notes and References

1. Christine Richardson, 'Brindley's Norwood Tunnel (1771–1775): Twin of Harecastle', *Transactions, Newcomen Society*, vol 72 (2000–01), 163–178
2. Minutes of the Chesterfield Canal Company; Public Record Office, Kew (PRO), RAIL 817/1. This document is also available as a published, indexed, transcript, *Minutes of the Chesterfield Canal Company 1771–80*, Christine Richardson (ed), Derbyshire Record Society, 1996, ISBN 0 946324 20 4
3. Yorkshire Archaeological Society (Leeds), Duke of Leeds' papers, DD225, in Box 8. Map, in Box 11 of the same reference. The site is Ordnance Survey reference SK531816
4. Rotherham Library Archives, Microfilm, Vol.1 of the Platt letters, 'Journal of John Platt'. This source covers all of the references to Platt.
5. Minutes, 3 August 1773; PRO, RAIL 817/1,
6. Minutes, 17 November 1773; PRO, RAIL 817/1
7. Minutes, 2 March 1774; PRO, RAIL 817/1
8. Minutes, 2 March 1774; PRO, RAIL 817/1. It is also relevant to note that Bridgewater Canal site accounts show payments to John Allin for unspecified construction work on that waterway from 28 July 1759 onwards; Northampton Record Office, EB1459.
9. National Waterways Museum — Archives, Gloucester. Manchester, Sheffield & Lincolnshire Railway — Canals, Eastern District — Sections, &c, April 1894
10. *White's Directory*, West Riding of Yorkshire, vol 2, 1838
11. Dredger notebooks in private ownership. See David Dawson, 'Dredger Diaries', *Waterways World*, October 1996, 64–7
12. Cyril T G Boucher, 'The Chesterfield Canal. A Report and Estimate', September 1956. In the author's possession
13. It is planned for the archaeological report to subsequently be made available via the Local Studies section of Rotherham Central Library, and via the borough's web-site, www.rotherham.gov.uk, the pages for either the library or the museum in Clifton Park.
14. The railway stations at Shireoaks and Kiveton Park are canalside at either end of a splendid four miles. However, trains do not stop at Shireoaks on a Sunday, although Rotherham MBC is seeking to rectify that failing.

Blaming the Canals

'The Margravine [Elizabeth, 1750–1828, 6th Baroness Craven by her first marriage and Margravine of Anspach by her second] always maintains that it is to Canals that we owe our terrible fogs and the frosts that afflict us ... "Mr Beckford," said she, "I told you the atmosphere, owing entirely to the canals with which they are stripeing this wretched country, is so thick that no smoke can ascend."'

— William Beckford in a letter to his daughter Susan, dated 10 March 1814

Life at Fonthill: 1807–1822, from the correspondence of William Beckford, translated & edited by Boyd Alexander (1957)

Interpreting Railway Working Timetables: the LNER trans-Pennine route

By Murray Houchin Hughes

Much stress has been laid recently on the need to see and interpret railway history in terms of the environment in which railways operated.[1] It is proposed here to attempt to demonstrate, from a small sample, how it may be possible to recreate the operational rationale, assess what passenger and freight demand was being addressed and, rarely, calculate the hours worked by some of the train crews, from the evidence provided by working timetables. These timetables were instructions from management to drivers, signalmen, and staff working on the track.[2] In a general study of working timetables Jack Simmons has shown that they may be used to demonstrate patterns of goods transit which had not at that time been examined to any great extent; with regard to passenger traffic he considered that Bradshaw provided information for most purposes.[3] However he did not mention the complexity of tracing particular train movements which, as discussed below, applies equally to goods and passenger services.

Attempting to elucidate the routes and times of trains from London & North Eastern Railway (LNER) working timetables is a far from trivial exercise. A volume covered an operating district and an individual table referred to a specific line or route. Such a table may be contained on one page or may extend to over 20 pages listing several hundred trains. Trains are arranged chronologically based on the time of the first appearance on a particular table. A train may appear on several tables within one volume and is only cross-referenced between tables on the basis of the starting time and place. Still more difficult is relating trains between one operating district and the geographically adjoining one. A train may suddenly materialise or disappear at a junction, and it is only the geographical knowledge of the researcher that enables the story of that train's journey to be traced before and after the table in question. This, however, would not have been a problem for the railwaymen whose daily routine was governed by the contents of the timetable. Signalman or platelayers who were confined to a particular location would be required to know only when the trains passed their locale. On the other hand drivers and guards would be required to know the line before taking out a train so the geography of the timetable would already be familiar to them. It should also be said that the pattern of traffic varied little from year to year between the wars and to most railwaymen it would have been part and parcel of their working lives.

In considering the passenger demand which entailed the transfer of through coaches between trains it is necessary to refer to the public timetables where these services are shown, albeit none too obviously. This is explained in more detail in the section on Passenger Services below.

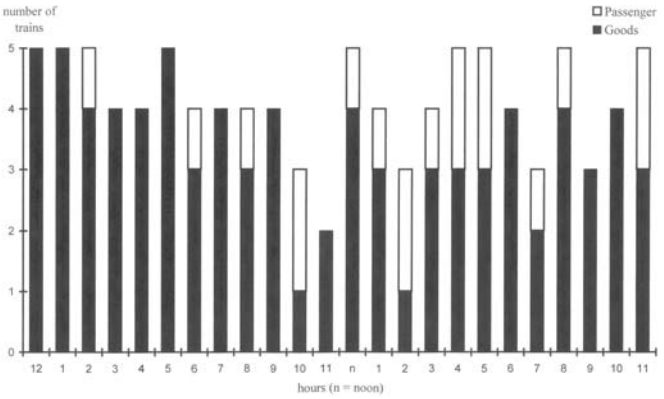
The example taken is the LNER route (originally Manchester, Sheffield & Lincolnshire, later Great Central Railway) between Manchester and Sheffield, a far from glamorous section of that company's lines and, for the mid-1930s, a period that has not been exhaustively examined apart from rolling stock studies. This route is particularly suited to this type of analysis as it accounts for all the LNER traffic between Lancashire and the east of England.

Woodhead Tunnels

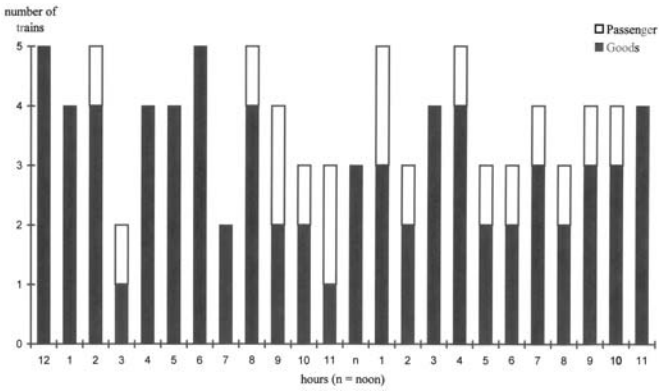
The LNER pierced the Pennine range in Derbyshire and Yorkshire by means of the Woodhead tunnels. These consisted of two single bore tunnels, the first of which opened in 1845 and the second in 1852, when they carried the up and down lines respectively.[4] During the LNER period the tunnels were worked as one signal block section in each direction (up from Manchester, down to Manchester). The block extended from Woodhead station at the west portals to Dunford No 1 signal box at the eastern entrances and is given as 3 miles 568 yards, obviously somewhat longer than the tunnel length. The time required by trains to traverse the block determined the running capacity of the whole line between Hadfield and Penistone, despite long refuge sidings on either side of the summit. The gradient in the tunnel was 1 in 201 against the eastbound trains. In each tunnel the minimum interval between the passing time at the exit block post and the next train being scheduled to

depart from the entrance post was two minutes. It would seem logical to assume this was to allow the smoke to clear somewhat.[5]

In order to understand the implementation of the management requirements of maximum capacity for the line and routine maintenance of each of the tunnel bores, the sequence of trains through the Woodhead–Dunford section must be constructed. Trains arriving at the commencement of the section will not be in the same order as given in the timetable because of the chronological construction of the timetable explained above. In order to appreciate the density of the traffic and length of time that each train occupied the crucial Woodhead block, timetables for the LNER trans-Pennine route between Manchester and Sheffield for Summer 1936 and Summer 1944 have been examined.[6]



1936 — up frequency (trains per hour):



1936 — down frequency (trains per hour):

Summer 1936

This, of course, would have been the peak of rail travel before the Second World War with many excursion trains running from the industrial cities of Lancashire and Cheshire to resorts on the east coast, as well as long distance goods traffic before the roads got too much of a hold over it.

On a weekday 99 up trains were scheduled, made up of 81 freight and 18 passenger. This required something over four trains an hour continuously for 24 hours to pass through the tunnel. Slightly fewer down trains, 91 in total, 73 freight and 18 passenger, were timetabled: nearly four an hour.

The accompanying charts show an analysis by hour of the traffic. The time on entering the block is used as the indicator. Up express passenger trains were allowed five to six minutes whereas the down trains allowance was four minutes. Heavy goods or coal trains were allowed between ten and twelve minutes in either direction. It is interesting to note the 'convoying' of passenger trains to take advantage of the faster times, especially on a Saturday with excursion traffic.

To give some idea of how this scheduling worked, details from 6.0am to 1.0pm weekday traffic are shown:

1936 Up

Description	*enter*	*exit*
Mineral	6.5am	6.17am
Passenger	6.23am	6.30am
Goods	6.34am	6.44am
Empties	6.48am	6.58am
Goods	7.3am	7.14am
Empties	7.18am	7.28am
Goods	7.30am	7.40am
Light Engine	7.44am	7.51am
Empties	8.1am	8.11am
Empties	8.13am	8.23am
Mineral	8.31am	8.43am
Express Passenger	8.58am	9.3am
Empties	9.5am	9.17am
Empties	9.19am	9.31am
Empties	9.33am	9.43am
Goods	9.56am	10.6am
Express Passenger	10.14am	10.19am
Express Passenger	10.38am	10.43am
Empties	10.45am	10.57am
Goods	11.30am	11.40am
Fruit Empties	11.42am	11.52am

Express Passenger	12.6pm	12.11pm
Empties	12.13pm	12.25pm
Empties	12.27pm	12.39pm
Empties	12.41pm	12.53pm
Mineral Empties	12.55pm	1.7pm

1936 Down

Description	*enter*	*exit*
Braked Goods	6.0am	6.5am
Mineral	6.7am	6.19am
Goods	6.23am	6.31am
Mineral	6.36am	6.46am
Mineral	6.57am	7.7am
Braked	7.36am	7.44am
Mineral	7.46am	7.56am
Passenger	8.7am	8.13am
Mineral	8.15am	8.27am
Goods	8.29am	8.39am
Mineral	8.43am	8.53am
Mineral	8.55am	9.5am
Express Passenger	9.16am	9.20am
Coal	9.22am	9.34am
Express Passenger	9.41am	9.45am
Mineral	9.56am	10.6am
Goods	10.8am	10.18am
Express Passenger	10.34am	10.38am
Mineral	10.40am	10.52am
Express Passenger	11.9am	11.13am
Express Passenger	11.32am	11.37am
Goods	11.53am	12.5pm
Mineral	12.7pm	12.17pm
Goods and Mineral	12.21pm	12.31pm
Coal	12.45pm	12.55pm

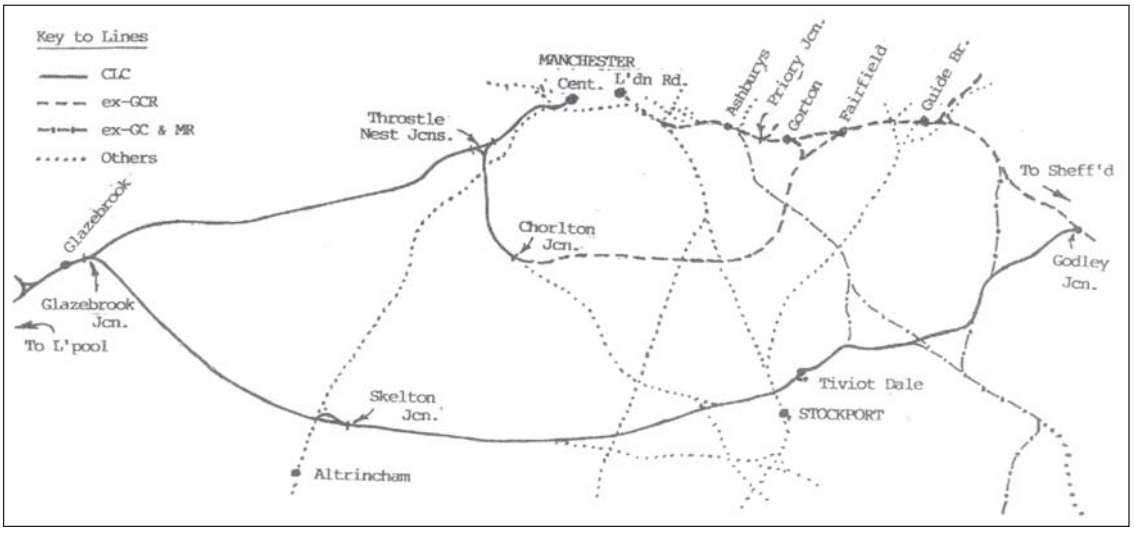
An example of the intricate timetable required to accommodate the excursion traffic is demonstrated by the Saturday morning up timetable:

1936 Saturday Up

Description	*enter*	*exit*
Mineral	6.5 am	6.17 am
Passenger	6.23 am	6.30 am
Goods	6.34 am	6.44 am
Empties	6.48 am	6.58 am
Goods	7.3 am	7.14 am
Empties	7.18 am	7.28 am
Empties	7.30 am	7.40 am
Light Engine	7.44 am	7.51 am
Express Passenger	8.58 am	9.3 am
Express Passenger	9.15 am	9.20 am
Express Passenger	9.35 am	9.40 am
Express Passenger	9.51 am	9.56 am
Goods	9.56 am	10.6 am
Express Passenger	10.6 am	10.11 am
Express Passenger	10.14 am	10.19 am
Express Passenger	10.23 am	10.28 am
Express Passenger	10.38 am	10.43 am
Express Passenger	11.10 am	11.15 am
Goods	11.30 am	11.40 am
Express Passenger	12.6 pm	12.11 pm
Empties	12.27 pm	12.39 pm
Express Passenger	12.44 pm	12.49 pm
Mineral Empties	12.55 pm	1.7 pm

It should be appreciated that in order to achieve the convoy effect through the up tunnel on a Saturday morning, the starting times from a number of different points of departure had to be co-ordinated:

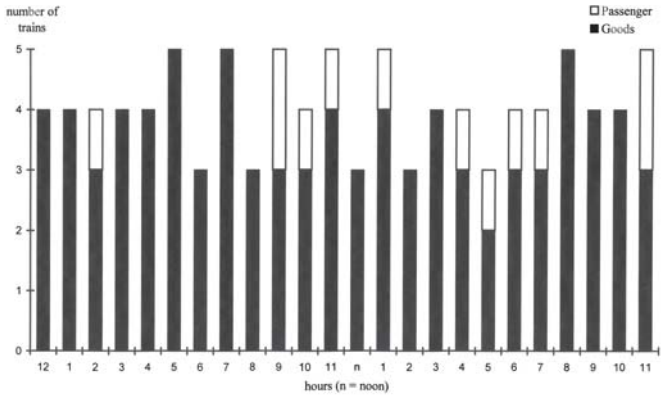
depart		*arrive Woodhead*
8.20am	ex London Road	8.58am
8.20am	ex Central	9.15am
8.42am	ex Central	9.35am
9.0am	ex London Road	9.51am
8.35am	ex Liverpool (via Stockport)	10.6am
8.30am	ex Liverpool (via Central)	10.14am



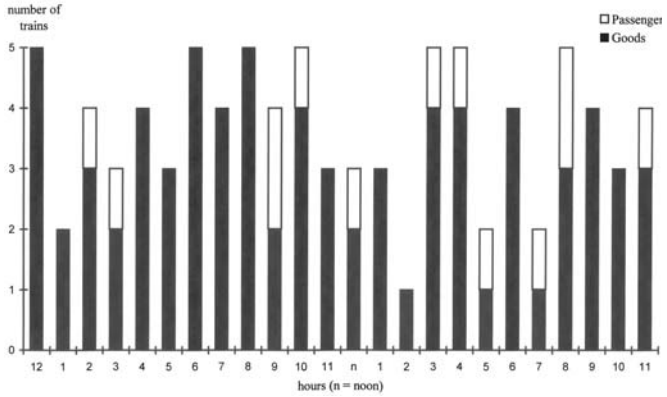
Routes around Manchester

9.33am	ex Central	10.23am
10.3am	ex London Road	10.38am
10.22am	ex Central	11.10am

Trains from Liverpool used two Cheshire Lines Committee (CLC) routes. Most passenger services ran to Manchester (Central) where there was a reversal. These trains and those starting from Manchester (Central) ran round the southern suburbs of Manchester to join the main Manchester (London Road) to Woodhead line at Fairfield Junction. The remaining passenger services and most goods services left the main CLC line at Glazebrook following the CLC line sweeping well to the south of Manchester via Stockport to join the LNER main line at Godley Junction.



1944 — up frequency (trains per hour):



1944 — down frequency (trains per hour):

Summer 1944

After five years of war and petrol rationing rail remained the primary means of transport of both passengers and freight. The up line through Woodhead was still running to capacity with 98 trains daily consisting of 86 freight and 12 passenger. The down traffic showed a slight decrease compared with the 1936 figures; a total of 88 trains was made up of 75 freight and 13 passenger. The most obvious change from 1936 was the reduction of passenger trains by one third. Of course, what cannot be determined from the sources available to the writer are the relative loads of the 1936 and 1944 trains is terms of carriages and passengers. It is more than likely that these numbers did not show such a large reduction. Running times were unchanged from 1936. The Saturday passenger service was the same as that for Monday to Friday.

1944 Up

Description	*enter*	*exit*
Petrol	6.10am	6.20am
Empties	6.22am	6.32am
Goods	6.36am	6.46am
Goods	7.1am	7.11am
Goods	7.16am	7.28am
Goods	7.30am	7.42am
Petrol	7.44am	7.54am
Petrol	7.56am	8.6am
Empties	8.11am	8.23am
Empties	8.25am	8.35am
Goods	8.37am	8.47am
Express Passenger	9.7am	9.12am
Goods	9.11am	9.23am
Empties	9.25am	9.37am
Goods	9.39am	9.51am
Passenger	9.54am	10.0am
Petrol	10.2am	10.14am
Express Passenger	10.24am	10.29am
Empties	10.36am	10.48am
Empties	10.50am	11.0am
Goods	11.4am	11.14am
Empties	11.18am	11.28am
Express Passenger	11.35am	11.40am
Goods	11.42am	11.54am
Goods	11.56am	12.8pm
Goods	12.20pm	12.32pm
Empties	12.34pm	12.46pm
Empties	12.48pm	1.0pm

1944 Down

Description	*enter*	*exit*
Braked Goods	6.0am	6.10am
Mineral	6.12am	6.22am
Mineral	6.24am	6.34am
Mineral	6.36am	6.46am
Mineral	6.54am	7.4am

Mineral	7.14am	7.24am
Braked Goods	7.31am	7.38am
Mineral	7.40am	7.52am
Goods	7.54am	8.4am
Braked Goods	8.9am	8.16am
Braked Goods	8.18am	8.25am
Goods	8.30am	8.40am
Goods	8.42am	8.52am
Mineral	8.54am	9.4am
Passenger	9.11am	9.18am
Mineral	9.22am	9.32am
Goods	9.34am	9.44am
Express Passenger	9.49am	9.54am
Coal	10.1am	10.13am
Goods	10.15am	10.25am ‡
Mineral	10.15am	10.25am ‡
Mineral	10.27am	10.37am
Express Passenger	10.39am	10.44am
Braked Goods	10.53am	11.0am
Goods	11.2am	11.12am
Braked Goods	11.14am	11.21am
Goods	11.52am	12.2pm
Express Passenger	12.22pm	12.27pm
Mineral	12.39pm	12.49pm †
Coal	12.50pm	1.0pm

‡ Possibly a misprint, may have been corrected in a subsequent notice.

† Printed as 1.2 pm, obviously an error as this would have allowed 23 minutes in the tunnel.

It should be noted that fewer trains ran east to west than the other way in both years under consideration, the imbalance being 8% in 1936 and 10% in 1944.

Changes in freight traffic between 1936 and 1944

It might be noted here, that amongst the westbound traffic were regular mineral and coal trains whereas many eastbound trains were empties. Some of the coal trains would have been providing bunkerage for ships at Liverpool and Birkenhead and especially in wartime for naval and civilian ships departing in convoy from Merseyside.

However the pre-war eastbound iron ore trains from Bidston to steel works at Scunthorpe and Stanton were no longer evident in 1944. This can be explained by the great expansion of iron ore working in the Midlands during the war years. Trains of loaded petrol tanks travelling eastward are noted in 1944 but no return working of empty tanks was timetabled. The war-time excess of eastbound traffic may possibly be explained by the fact that virtually all imports arrived at ports on the west coast for onward transmission by rail to the eastern counties, including petrol for the RAF bases.

Maintenance of Woodhead tunnels

A further aspect of Woodhead working needs to be addressed with the virtually unbroken occupation by traffic of the tunnels throughout the weekday 24 hours. Routine maintenance of the tunnels would have necessitated the closure in turn of each bore to traffic. A 1914 photograph of Woodhead station shows a facing crossover in place so single line working was a well-established and efficient practice. Little information is given in the 1927 Appendix and the only indication of any special arrangements for Sunday single line working in the 1936 working timetable is evidenced by the list of opening and closing times of signal boxes where it is recorded that Dunford No 2 Box was 'Closed 5.0am Sunday to 2.0 am Monday (except when Single Line working is in operation in either Up or Down tunnel).[7] The 1947 Appendix provides detailed instructions concerning single line working.

The question now arises as to whether the rather sparse Sunday traffic was so arranged so that no up and down trains were in the Woodhead signal block at the same time, allowing single line working be initiated without any disruption of the scheduled service. This proved to be so, and in 1936 for a continuous period of 24 hours a single line service could be maintained from 3.22am Sunday to 3.43am Monday. Again in 1944 a similar situation was in place with the 18 hours between 2.55am Sunday and 9.1pm Sunday with the minor adjustment of the odd minute here and there. However, with the retiming of two class B goods trains possession could be extended to 4.12am Monday, a total of 25 hours.

Sequence of trains Sunday/Monday 1936

		enter	*exit*	
		——Sunday——		
Coal	Down	3.22am	3.32am	
Goods	Down	3.34am	3.42am	
Coal	Down	3.51am	4.1am	
Coal	Down	4.3am	4.16am	
Coal	Down	4.20am	4.30am	
Coal	Down	4.32am	4.42am	
Goods	Down	4.55am	5.5am	
Coal	Down	5.10am	5.22am	
Goods	Down	5.38am	5.48am	
Goods	Down	5.58am	6.8am	
Passenger	Down	7.8am	7.16am	
Passenger	Down	7.27am	7.32am	
Passenger		7.57am	8.4am	Up
Goods	Down	9.13am	9.21am	
Goods	Down	9.48am	9.56am	
Passenger		10.21am	10.28am	Up
Goods	Down	10.34am	10.44am	

Passenger		10.59am	11.4am	Up
Passenger		1.0pm	1.5pm	Up
Passenger	Down	1.21pm	1.27pm	
Passenger	Down	3.37pm	3.41pm	
Braked Meat		4.23pm	4.31pm	Up
Passenger	Down	4.36pm	4.40pm	
Passenger		4.45pm	4.53pm	Up
Passenger		5.30pm	5.35pm	Up
Passenger		6.9pm	6.14pm	Up
Passenger	Down	8.8pm	8.12pm	
Passenger	Down	8.42pm	8.48pm	
Passenger	Down	9.35pm	9.39pm	
Passenger	Down	9.44pm	9.48pm	
Passenger		10.4pm	10.10pm	Up
		——Monday——		
Goods	Down	1.56am	2.3am	
Passenger		2.16am	2.21am	Up
Goods		2.23am	2.33am	Up
Cattle		2.45am	2.56am	Up
Goods		3.22am	3.32am	Up
Goods		3.34am	3.43am	Up

Passenger services 1936

The services now considered were operated between Liverpool (Central) or Manchester (London Road or Central) and Sheffield (Victoria) to onward destinations such as Cleethorpes, Harwich, Hull and stations on the London extension. A comparison of the winter and summer timetables shows that a number of services were provided throughout the year into which were interpolated a number of predominately Saturday only trains during the summer. In the following remarks Liverpool (Central) will be referred to as Liverpool and Manchester (London Road) and Manchester (Central) as London Road and Central respectively.

Most of the trains described were Express Passenger; any Ordinary Passenger (OP) trains are so identified. Sources in addition to those referred to above (see note 6) are the working timetables for Summer 1936, 1938 and Winter 1937, and passenger timetables for 1935 to 1937.[8] The working and passenger timetables are complimentary; whereas the working timetable provides evidence of routes used, the passenger timetable indicates through coaches, although to differentiate whether a station is served by the train in question or a connecting service is far from easy. A number of small discrepancies of times between timetables are ignored, as these may, or may not, be printing errors, also small differences of times between Saturday excepted (SX) and Saturday only (SO) times are ignored, as long as it is clear it is the same train in both cases.

Winter timetable

Seventeen trains were timetabled each way between Liverpool and Manchester and Sheffield. The services are considered by destination to the east of the Pennines.

Manchester and Cleethorpes

The Manchester, Sheffield & Lincolnshire Company considered this to be their main line. With the coming of the London Extension, Great Central timetables showed the Manchester and London route as a single unit. The LNER reverted to the MS&L concept with Manchester and Cleethorpes route Section No 1 'Manchester & Cleethorpes (Main Line)' and south of Sheffield to London as Section No 2.

The through Manchester to Cleethorpes service consisted of five trains which departed London Road at 1.40am, 5.25am (OP), 10.3am, 12.40pm and 5.0pm, arriving Cleethorpes at 6.6am, 10.27am, 1.27pm, 4.42pm and 8.14pm respectively. All these trains ran via Worksop, Retford, Gainsborough and Barnetby. The service from Cleethorpes to Manchester consisted of four trains daily. From Cleethorpes the 8.28am (arriving Central 12.17pm), and the 10.50am (OP), 2.20pm (OP) and 6.48pm (OP) arriving London Road at 3.17pm, 6.53pm and 11.4pm.

A further train which should be considered with this group is the 11.22am Central to Barnetby arriving at 2.29pm having run via Doncaster, Thorne Junction and Frodingham. This train conveyed through carriages Liverpool to Lowestoft and Ipswich which connected with a through train Sheffield to Ipswich and Colchester.

Manchester and London

This service consisted of four up trains leaving Manchester; from London Road at 8.20am, 2.20pm, 3.50pm and from Central at 10.30pm arriving Marylebone at 1.10pm, 6.38pm and 9.0pm and 4.20am next day. There were five down trains from London at 8.45am, 12.15pm, 3.20pm, 4.55pm and 10.5pm arriving in Manchester London Road at 1.34pm, 5.3pm, 7.45pm (Central) and 9.0pm and 3.35am (MX) next day.

Liverpool and Hull Paragon

This was a regular service of three trains a day each way. The route between Liverpool and Manchester varied between trains (see map). Those calling at Manchester ran from Liverpool to Manchester

Central over the CLC line. Reversal at Central took the train back to Throstle Nest Junction before running on to the LNER's own Fallowfield line at Chorlton Junction to join the main Pennine line at Fairfield Junction. The trains that avoided Manchester left the Liverpool–Manchester route at Glazebrook Junction and continued on the CLC line to Stockport (Tiviot Dale) to join the LNER main line at Godley Junction. Through coaches or a connection were provided to Manchester London Road off those westbound trains running via Tiviot Dale, the division taking place at Godley.

The 8.30am from Liverpool ran via Central (9.17am–9.25am) arriving Hull 12.27pm; however the 1.18pm by-passed Manchester arriving Hull at 4.45pm and the final eastbound train departed Liverpool at 4.0pm via Central (4.42pm–4.48pm) arriving Hull at 7.34pm. A westbound service left Hull at 8.55am arriving Liverpool via Tiviot Dale at 12.29pm (through coaches for Manchester were detached at Godley Junction and taken forward arriving London Road at 11.47am); the 2.45pm ex Hull arrived Liverpool via Tiviot Dale at 6.47pm (through carriages for Manchester were attached to a train ex Glossop at Godley Junction arriving London Road at 5.57pm). The third service of the day left Hull at 6.32pm arriving Liverpool at 10.53pm having reversed at Manchester Central (9.50pm–10.0pm).

Continental Restaurant Car Train

A further trans-Pennine service consisted of one train each way a day, leaving Liverpool at 2.20pm calling at Manchester Central 3.3pm–3.10pm, arriving Harwich at 9.29pm. This train conveyed a through coach from Liverpool for Cleethorpes which was transferred at Sheffield Victoria onto a Sheffield to Cleethorpes train. The westbound Boat Train left Harwich at 7.25am (the timetable noting that the train would not wait for delayed boats, passengers could travel via London!) calling at Central 1.55pm–2.0pm and arriving Liverpool at 2.43pm.

Miscellaneous

There were three further eastbound services from Manchester. They were the 6.31pm (OP) from London Road terminating Sheffield at 7.58pm, the 7.22pm from Central terminating Leicester at 10.47pm, and the 10.30pm from London Road terminating Sheffield at 11.49pm. The latter provided a connection at Guide Bridge, Penistone or Sheffield to the 10.30pm from Central to London (see above).

There were also four westbound services. Two started at Sheffield, the 7.10am (OP) and 8.40am arriving at 9.18am (London Road) and 9.57am (Central) and two commenced at Leicester at 7.22am and 8.2am arriving Central at 10.20am and 11.16am.

Summer Timetable

All the trains described in the winter timetable also ran more or less unchanged during the Spring and Summer timetables. The LNER however provided a number of Saturday only trains from Lancashire to east coast resorts and return and in addition two services which may have served passengers travelling from east to west for holidays. The majority of these commenced on the first Saturday (11 July) after the introduction of the Summer 1936 timetable. One of the features of these trains was the number of through carriages that were conveyed.

The carriage stock for four services appeared to be able to make the return trip in a day. That for Bridlington SO 11 July – 5 September left Liverpool at 8.35am running via Tiviot Dale arriving Bridlington at 12.51pm. This train picked up a through coach to Bridlington off the 9.0am London Road to Scarborough train at Sheffield. The return service departed Bridlington at 2.5pm reaching Liverpool at 6.35pm. The through coach to London Road was attached at Godley Junction to the 5.2pm (SO) from Hadfield arriving London Road at 5.48pm. The Skegness service SO 11 July – 29 August departed Central at 8.20am arriving Skegness at 12.46pm. The balancing service from Skegness departed at 3.46pm arriving London Road at 7.52pm.

There were two services from Manchester to Scarborough Londesborough Road but the stock of only one of these was able to complete the round trip in a day. This train, SO 11 July – 29 August, left London Road at 9.0am and arrived Scarborough at 12.50pm; it conveyed a through carriage from Stockport to Scarborough and another London Road to Bridlington. The return service departed Scarborough at 3.10pm arriving London Road at 7.5pm with a through carriage to Stockport. The second of these services is discussed below.

The remaining train making the return trip in a day is interesting in that it ran from Cambridge SO 27 July – 5 September. It departed Cambridge at 8.57am and arrived Central at 1.26pm. The train to Cambridge left Central at 2.53pm arriving Cambridge at 7.15pm.

It would appear reasonable to presume that the stock for the trains to Bridlington, Scarborough and Skegness would have been that of the Central section while the Cambridge train was East Anglian stock.

Four services provided a train in each direction on the same day but the times were such that it is apparent that two sets of stock were required. The eastbound Clacton SO 11 July – 12 September service departed Central at 9.33am arriving Clacton 5.10pm while the westbound service left Clacton at 10.45am arriving Central at 5.57pm. At the Manchester end the empty stock was worked to and from Ardwick. This suggests to the author that this may well have been East Anglian stock (dual fitted?) or possibly Tourist stock which was parked at Ardwick for the week. Recent evidence elsewhere has shown that passenger stock was parked for a week between Saturday trips.[9]

The second Manchester and Scarborough SO 11 July – 5 September service (mentioned above) also required two sets of stock. The eastbound service departed Central at 10.22am arriving Scarborough at 1.57pm and conveyed a through carriage Liverpool to Scarborough. The westbound service departed Scarborough at 12.40pm arriving Central at 4.14pm, again with a through carriage Scarborough to Liverpool.

Yarmouth was served by two services each way. That from Central at 8.42am arrived Yarmouth at 3.30pm running SO 11 July – 12 September. The balancing service departed Yarmouth at 10.55am arriving at Central at 5.31pm but operated one week later to 19 September.

The other Yarmouth service operated from Liverpool (Fridays and Saturdays only) 4 July – 12 September.[10] The train departed Liverpool at 11.5am arriving Yarmouth at 8.1pm running via Central (11.53am–12.0noon) conveying a through carriage Southport to Lowestoft. The return working departed Yarmouth at 12.10pm (Mondays and Saturdays only) 11 July – 14 September arriving Liverpool at 7.20pm via Central (6.12pm–6.30pm) with a through carriage Lowestoft to Southport. The significance of a Friday west to east service and a Monday east to west one escapes this author.

A number of other trains appeared in the Summer timetable.

The regular 11.22am ex Manchester Central arr Barnetby service was extended SO 11 July – 5 September to Cleethorpes. This train also conveyed a through carriage Liverpool to Cleethorpes (Fridays only) 11 July – 5 September and another Liverpool to Ipswich and Lowestoft (Fridays and Saturdays excepted) being transferred to a Sheffield to Lowestoft train. Return working SO 11 July to 27 September: departing Cleethorpes 3.45pm, arriving London Road 7.9pm.

Another Cleethorpes service ran (Mondays, Fridays and Saturdays only) 6 July – 27 September: Manchester Central departing 3.20pm arriving 6.31pm Cleethorpes. This train conveyed a through coach Liverpool to Cleethorpes.

One further train which appear only in the 1936 Summer timetable departed Sheffield at 3.10pm (Monday and Fridays only) arriving London Road at 4.10pm.

The question of which districts supplied the coaching stock is not easily answered from the working timetables. The author has made some suggestions regarding the out and back in a day services and also in the case of the Clacton service. However where two sets were required either to the North Eastern area or East Anglia, did each district provide one set?

What passenger needs were the LNER trying to fulfil?

Manchester and Sheffield weekday traffic

It is clear that no businessman was likely to use either the up or down service between Manchester and London for an out and back journey the same day. It would appear that with morning down trains from Leicester and Sheffield providing early arrival at Manchester and evening up trains from Manchester terminating at Sheffield or Leicester that there was a demand for a service which allowed travellers from South Yorkshire and East Midlands to undertake business in Manchester and possibly Liverpool. Trains arriving at, and departing from, Manchester Central frequently connected with a Cheshire Lines service between Manchester and Liverpool. There appears to have been less of a requirement for anything more than three trains from Manchester arriving at Sheffield before noon with a choice of four from 4 o'clock onwards to return, and still less further south. This pattern suggests to the writer that the East Midlands manufacturers might be seeking markets in the northwest conurbations and export routes through the Manchester Ship Canal and the Merseyside docks.

Summer holiday traffic

It would appear that with the early departures from Liverpool and Manchester, particularly in the case of out and back working the same day, that the traffic was primarily Lancastrians setting off for their holidays on the East Coast. Had the LNER posters proclaiming 'Skegness is so bracing', or 'The drier side' had any influence on their decision? The return workings carrying those who had completed their week or fortnight holiday. However one may wonder, in the case of the Clacton and Cambridge trains, whether holiday makers from the eastern counties may have been travelling northwest. It should be noted that these train terminated at Central where connecting Cheshire Lines services were easily available to Blackpool, Southport and Liverpool. In addition the Isle of Man ferries sailed from the Liverpool Pier Head for those who wanted to visit the island.

Train crews

In the study of working timetables the notes in small print are essential reading. Occasional notes concerning engines and crews from one train being required to take another following the completion of the first schedule are to be found. In the Manchester area the 7.16am goods from Mottram Yard to Ardwick Yard arriving at 8.36am was to be worked by the engine and men of the 2.20am Goods from Hexthorpe Top Yard (Doncaster) which had arrived at Mottram Yard at 5.35am. A total of 6hrs 16mins together with the time for booking on and off and normal engine duties comfortably fell within the normal 8hr shift. A further example may be given to illustrate an insight into the working hours of enginemen. The 6.30am mineral from Wath Yard (south Yorkshire) arrived at Mottram Yard at 10.15am. Then at 11.45am they took the Trafford Park Sidings mineral via Guide Bridge arriving at their destination at 1.42pm; a total of 7hrs 12mins. Whilst this information is far from definitive when considering railwaymen's hours it might prove useful when used with data with other sources on social and working conditions.

Conclusion

Working timetables can be used to provide evidence as to how management organised the traffic on a particularly difficult section of line to provide, not only for weekday passenger and goods services, but also to integrate additional summer passenger services on Saturdays. Maintenance of the Woodhead tunnels was accomplished by permitting single line working to be maintained by the scheduled timetable throughout Sunday.

The working timetables show that businessmen from the East Midlands and Sheffield were able to arrive in Manchester and Liverpool to conduct business and return within the day, an important consideration in the 1930s when communications were not as instantaneous as they are today and meeting face-to-face was the accepted standard.

Taken together working and public timetables provide a detailed picture of the movement of holiday traffic between Lancashire and the east of England.

The wartime pattern of freight traffic reflected the changing demands of manufacturing and military infrastructure compared with 1936.

The possible hours worked by footplatemen can also be extracted in a number of cases.

Jack Simmons wrote '[The] important elements in the running of a railway ... can be observed and analysed, and calculations made from them, only by recourse to the working timetables.'[11] The present writer has attempted to take this a stage further and use the information to examine the commercial basis for the management strategy.

Notes and references

Parts of this article appeared originally as 'Woodhead Tunnel Traffic', *LNER Study Group Journal*, No 15 (July 2001), 15/2–15/4, and 'LNER Passenger Services between Lancashire and Yorkshire 1936', *LNER Study Group Journal*, No.16 (October 2001), 16/6–16/8.

The working timetables cited in this article are in a private collection.

1. A K B Evans and J V Gough (eds), *The Impact of the Railway on Society in Britain*, 2003.
2. John Gough, 'A Note on Midland Railway Operating Documents', in *The Impact of the Railway on Society in Britain*, 2001, 61–76.
3. Jack Simmons, 'Working Timetables', in *The Express Train and Other Railway Studies*, 1994, 194–212.

4. George Dow, *Great Central, Vol 1: The Progenitors 1813-1863*, 1959, 62, 151.
5. Sectional Appendix to Working Time Tables (Southern Area) from 17 October 1927 until further notice; Sectional Appendix to Rules and Regulations and Working Time Tables (Southern Area) 1 November 1947.

   The 1927 LNER Appendix to the Rules and Regulations and Working Time Tables describes communication between trainmen in the tunnel and both Woodhead and Dunford No 1 boxes. This was by bell and two plungers labelled 'Up' and 'Down' in each of 25 refuge manholes. The plungers were in a glass case that had to be broken when needed and connected to both boxes. When used the plungers would cause the appropriate line instrument to ring and an indicator labelled 'Accident' to drop in both boxes. A complicated system of bell codes described the cause of the emergency and from which manhole the trainman was calling. Twenty years later the 1947 Appendix advised that communication was now by telephone. However the point is made that the signalman cannot recall the trainman by telephone! The manholes, which connected the two tunnels were about 200yds apart and numbered from the Woodhead end.
6. LNER (GC Section) Working Time Tables Passenger and Goods, No.1 Section (West to East), Manchester & Cleethorpes (Main Line), Monday 6 July 1936 until further notice; LNER (GC Section) Working Time Tables Freight, No 1 Section (West to East), Manchester & Grimsby (Main Line) Monday 22 May 1944 until Sunday 1 October 1944; LNER (GC Section) Passenger Working Time Tables, No 1 Section (West to East), Manchester & Cleethorpes (Main Line) Monday 22 May 1944 until further notice.
7. This is not an error for No 1; the extra precautions that would be in place with single line working would require a full complement operating blocks to manage the traffic.
8. Working Time Table summer 1936 — see ref 6; LNER (GC Section) Working Time Tables Passenger and Goods, No 1 Section (West to East), Manchester & Cleethorpes (Main Line), Monday 27 September 1937 until further notice; LNER (GC Section) Working Time Tables Passenger and Goods, No.1 Section (West to East), Manchester & Cleethorpes (Main Line), Monday 4 July to 25 September 1938; All Line Public Timetable 8 July 1935 – 5 July 1936 (Public Record Office (PRO) RAIL 943/23); LNER All Line Public Time Table 6 July 1936 to 4 July 1937 (PRO RAIL 943/25).
9. Personal communication, Peter Hall.
10. 4 July was the Saturday before the introduction of the Summer timetable; it apparently did not run on the Friday before.
11. Simmons, 'Working Timetables', in *The Express Train and Other Railway Studies*, 1994, 194.

'Small Profits on a Large Trade': James Morrison MP [part 2]

By Robert S Sephton

Part 1 was published in the November 2003 issue of the Journal

First report of the Committee

The Select Committee on Railway Acts Enactments, which came to be known as the 'Morrison Committee', met no fewer than 27 times in 1846, sitting two or three times a week, and on 7 August, Morrison presented the first report of the Committee entitled *Railway Acts: Insertion of Conditions to promote the interests of the Public without discouraging Legitimate enterprise* and, seconded by Joseph Hume, the radical MP for Montrose, moved that its proposals be accepted.[17]

But only the first of them was, and even that after opposition from Lord Granville of Somerset and others on the grounds that it would alter the whole system of railway administration in the country and

that, in any case, it was (once again!) too late in the session to introduce the necessary bill. The one proposal accepted was to set up a Department of the Executive Government for the 'Superintendence of railway business'.[18] (The rejected proposals will be described in connection with the second report of the Committee.)

The Government showed its willingness to act on the proposal when, two days later, the Chancellor of the Exchequer proposed appointing a Railway Board. The President of this Board was to be paid and there were to be two members from either house, one from each house being be paid. Clerks employed in the Railway Department of the Board of Trade (set up in 1840) would be transferred to it. Surprisingly, Morrison was not appointed to it; but he saw it as a step in the right direction. It seems that its duties would hardly differ from those exercised by the 'Five Kings' from 1844–5; while Morrison expressed the hope that it would have powers to inspect railway company papers and accounts.[19]

Second report of the Committee

The second report of Morrison's Committee[20] came a surprisingly short time after the first and followed a meeting of the committee summoned to meet on 25 August, just four days before Parliament was due to be prorogued. Only two members of the Committee (or only the chairman, according to one MP) were present. Even more surprisingly, the report included all Morrison's ideas, including the ones in the first report and not accepted by the House. There were six proposals which can be given (with some slight condensation) as:

1 All future lines, including branches of existing lines, should be run privately only for a specified number of years;

2 Full accounts, with receipts and expenditure, must be placed before Parliament;

3 As no unnecessary lines would be permitted in future, in return for the monopoly the existing lines would enjoy, they ought to submit to control with a view to the 'security of the public against extravagant fares and charges, and the adoption of uniformity in scale of charges';

4 There must be an end to the system of issuing more shares than needed to cover necessary outlays, in order to divide premiums among the proprietors and thereby swell the amount of stock beyond the actual outlay;

James Morris MP, c1842
sculpted by Francis Chantrey
(Ashmolean Museum, Oxford)

5 A Railway Commission would be appointed to superintend the running of the railways, with power to appoint inspectors and surveyors to decide which lines are necessary and to supply Parliament with any information needed when incorporating railways (replacing the existing judicial system of having select committees of both houses for each line);

6 The railways would be obliged to carry Post Office mails by passenger trains free of all charges and, where no passenger trains were available, at cost.

The fourth point aimed to prohibit a device used by Hudson to allow directors to increase their dividends by buying often unnecessary issues of premium shares at par. Sometimes company funds were used to pay the directors' deposits. These and other matters were described in a pamphlet *Railway morals and railway policy* published in 1855 by Herbert

Spencer, the sociologist. The fifth proposal would see the end of the expensive and slow judicial select committee system for authorising lines. The appointment of the Commission had been in the first report and was the only one agreed in the House. Some of the proposals had been ones that Gladstone had hoped to be included in his Act of 1844.[21]

The Times published the report in full in two instalments on 28 and 29 August as soon as it was presented, congratulating Morrison and describing it as 'perfect in all its parts and wants but life to make it a most important production'. But it predicted that nothing was likely to come of it because Parliament was nearing the end of an exhausting session and had probably heard enough about railways in the course of approving lines estimated to cost £150 million at the height of the second mania. The only proposal likely to be acted on was the one in the first report accepted by the House. This would involve transferring the power of the 'Five Kings' or Railway Commissioners to a new body and even then there must be doubts as to what actual powers it would have.

There was an unexpected development when *The Times* of 31 August contained a letter from Morrison saying that he was surprised to see his report in that paper, as it was only intended as a draft because he had not been able to discuss it with other members of the Committee. But *The Times* persisted in support:

> In our estimation the paper [report] loses nothing of its importance in losing the official stamp. The arguments remain the same: the information is not less valuable; the facts are equally true.

It continued by saying that Government surveillance would not check legitimate enterprise but would stifle many 'fraudulent and visionary enterprises. Subscribers would appreciate a tribunal to save them from bubble enterprises.' A reduction in charges would not reduce profits as more use would be made of the railways.

The status of the report was questioned in Parliament several months later by Lord Granville of Somerset who said that only the chairman had been present at the meeting on 25 August and that the report was no more than a sketch of his opinions. Hume agreed that this was the case and that not even he had been given the opportunity to approve the draft. He offered the unlikely explanation that what had happened was due to Morrison's lack of experience, while another MP put the blame on an inexperienced clerk having misunderstood Morrison's instructions.[22] A special committee of inquiry later found that 'this irregularity of the proceedings appears to have arisen purely in mistake' on the part of a clerk who had placed the draft with documents approved for publication.[23]

Following the one proposal in the first report accepted by Parliament to set up the new Department, a Bill was passed in the Lords but without enthusiasm on 27 August, Lord Clarendon, a former President of the Board of Trade, remarking that he 'hoped that no power would ever be given to a public department to put a veto on projected schemes or to prevent the investment of capital in railway undertakings'.

Supervision of the railways continued under the Commissioners, as they were called, and there were three reports from another Select Committee on Railway Bills 1847–8.[24] But the Commissioners were disbanded 1851–2 when they were found not to be serving any useful purpose, and responsibility went back to the Board of Trade. But by this time, with the subsiding of the second railway mania, the need for such a body was not so great: opportunities had been lost.

Later speeches

Before he left Parliament, Morrison made two other speeches on railways. On 23 March 1846 he supported a successful motion by J W Patten, MP for North Lancashire, for a select committee to be appointed to consider railway amalgamations. Morrison made the point that 'to a certain extent' amalgamations should be treated as new lines with Parliament laying down such conditions as it thought fit for their operation — presumably they would cover charges.[25]

The other occasion was on 14 May 1847 when he supported a motion by Hume prohibiting the practice of companies raising a second lot of capital for a line before the first had been spent. This was something which one of Morrison's proposals would have prohibited. Morrison again drew attention again to the folly of so much of the nation's floating capital going into railways and estimated that £28 million had been raised in the last few years for the purpose. There should be a restriction on railway dividends so that investing in them would be no more attractive than in other equally worthy enterprises.[26] But Hume's motion was withdrawn.

Not seeking re-election

Parliament was dissolved at the end of August and Morrison decided not to seek re-election. The reason he gave was on health grounds. But there may have been two other influences. One would be the embarrassment created by the unauthorised publication of the second report of his committee which, as we have seen, was to be the subject of an investigation, although he was to be cleared. He must also have despaired of any extension of state control over railways — and certainly not to the extent he advocated — being realised; and this had been his main, perhaps only, parliamentary interest. An additional and personal reason may have been that one of his sons, Alfred, was preparing to contest Wallingford constituency (which included Basildon Park, the family home) with every hope of success. The father perhaps saw the son as succeeding him in Parliament. But, in the event, Albert lost by a handful of votes in dubious circumstances in a fight against the sitting member, William Seymour Blackstone.

After leaving Parliament, he developed his ideas in *The influence of English railway legislation on trade and industry,* published in 1848, including as appendices his parliamentary speeches of 17 May 1836, 20 March 1845 and 19 March 1846, together with the draft of the second report of the Committee he had chaired and a reprint of an earlier pamphlet of 1847 entitled *Observations illustrative of the defects of the English system of railway legislation.*

Morrison's wealth was used to furnish the several residences he acquired, including Basildon Park (Berkshire), Fonthill House (Wiltshire) and Islay House (Scotland), with works of art. The last two are still private residences. The collection at Basildon was dispersed just before WWI and the House was suitably re-furnished by a later owner and is now owned by the National Trust.[27]

Assessment

Among other early writers who supported Morrison — but referring to him only by his position of Chairman of the Committee he headed — was James Troup in his *Railway reform and rights of shareholders and the public in the railway highways of the United Kingdom* (1846).

An early critic of Morrison, James Watson, in a speech delivered, and later published, in Glasgow in 1846, *A paper on the present railway crisis,* thought that the 10% maximum dividend as laid down in the Gladstone Act was sufficient: other controls would stifle the development of railways which owed their existence to private enterprise.

David Salamons, another contemporary of Morrison, questioned his conclusion that railway charges in this country were dearer than in France in *Railways in England and France...* (1847). He argued that the French government provided the land and guaranteed a 4% return to shareholders and that private ownership on lines was granted for 99 years. But he agreed that the British government had been negligent in not imposing tariffs more favourable to the public. Overall, he thought that Morrison had done a service in drawing the attention of the public to the need for state supervision of the railways.

In the Charles Clinker Memorial Lecture 1986, 'Railways and some politicians, 1845–1945', Michael R Bonavia traced some later attitudes, commencing with a reference to 'that remarkable character James Morrison who turned into an active politician with a special interest in railways'.[28]

It is difficult to make an assessment of Morrison's influence on the course of legislation on railways in the UK because it is impossible to assess the extent to which he influenced others in their attitude. But clearly his own ideas, in spite of his repeated efforts, were only practised in a limited way and only halfheartedly. It may have been that Gladstone and others, and even Peel, were influenced by them. Much state legislation came to been concerned with safety rather than tariffs; and the government was already exercising some control over the construction of new lines by means of the clumsy and expensive system of a select committee of each house for each railway bill. Nevertheless it was mainly a laissez faire attitude.

Even Morrison did not advocate the government planning a system from the start by defining the routes. State intervention in the shape of the groupings of 1923 were a result of the need to rationalise the railways and nationalisation itself resulted from a different philosophy. In any case things had changed in other ways. With improvements in road transport, the railways no longer had a monopoly of transport and their existence was threatened by the convenience of the motor car as much as by costs. One can only speculate how the development of railways would have been differed had his ideas been adopted when he first put them forward in 1836.

Notes and references

This article draws on a biography of Morrison by Richard Gatty, *Portrait of a merchant prince*, published privately in a small limited edition in 1977 and now out of print. It partly covers his parliamentary career and activities in support of state intervention in the running of railways.

17. Report of Select Committee, 1846, (590) xiv
18. Hansard, 18 August 1846
19. Hansard, 20 August 1846
20. Report of Select Committee, 1846 (687) xiv
21. J A Francis *A history of the English railway*, Book II, 99–103
22. Hansard, 15 March 1847; *The Times*, 16 March 1847
23. *Printing of a document purporting to be the report of the Select Committee on Railway Acts*, 1846, 1847 (236) xii
24. Report of Select Committee, 1847–8 (35), (165), (287) xvi
25. Hansard, 23 March 1847
26. Hansard, 14 May 1847
27. As a patron of the arts, Morrison has an entry in the *Grove Dictionary of Art*, edited by Jane Turner (1996), vol 23, pp147–8.
28. Reprinted in the *RCHS Journal*, March 1987, 3–9

From a Railway Historian's Notebook

By Rex Christiansen

The seventh in the occasional series

Just over half a century ago, every member of British Railways staff was sent an 8-page pamphlet in a dreary brown cover — possibly because of post-war paper shortages — entitled 'A Step Forward'. Issued by the Railway Executive, it had a more informative sub-title: 'Revision of Regional Boundaries'. They were to take place on 2 April 1950 to produce 'greater efficiency and economy made possible by the unification of the railways'.

Lines affected were those which penetrated regional boundaries created on Nationalisation, and also Joint lines and jointly owned stations which were placed under a single administration. The new changes were not as streamlined as perhaps the Executive would have wished for arrangements were modified on some 'important lines' with heavy traffic flows. It was considered it would have been too costly to alter control equipment and interfere with train and traffic working patterns based on long experience. Two examples were outlined: the former LMS Birmingham–Bristol main line, which continued to be operated by the London Midland Region, although falling within the revised boundary of the Western Region, and the former LNER (Great Central) main line from London (Marylebone) to Manchester (London Road). This stayed in Eastern Region control although part lay within the revised boundaries of the Western, London Midland and Eastern Regions. There were no alterations to the Scottish Region and some changes involved only individual stations.

The changes were seen as benefiting staff by reducing the extent to which they were obliged to move homes to get promotion. This was seen as 'a definite advantage in these days of acute housing difficulty'.

The pamphlet was issued by the thousand but how many copies remain? Passing years have proved my expenditure of 50 pence in Bournemouth on a sunny August day in 1976 was worthwhile — if only to enjoy the rallying call with which it ended: 'With good will and good work we shall take another step forward to that success which is the common aim of all who serve British Railways'.

Land Surveyors in the Canal Age : the Fairbank Family of Sheffield

by Adrian Padfield

While surveying of early British canals appears mainly to have been by engineers, who then supervised the construction, this was not always the case. In *The Canals of Yorkshire and North East England* (1972) Charles Hadfield linked 'William Fairbank' with several canals in the south Yorkshire area but did not distinguish between William Fairbank I, II and III. In his *Illustrated History of Canal & River Navigations* (1993) E Paget-Tomlinson attributes the surveying of the Dearne & Dove Canal to the river Don's engineer, John Thompson, assisted by William Fairbank, who is mentioned as a surveyor of the Greasborough Canal.

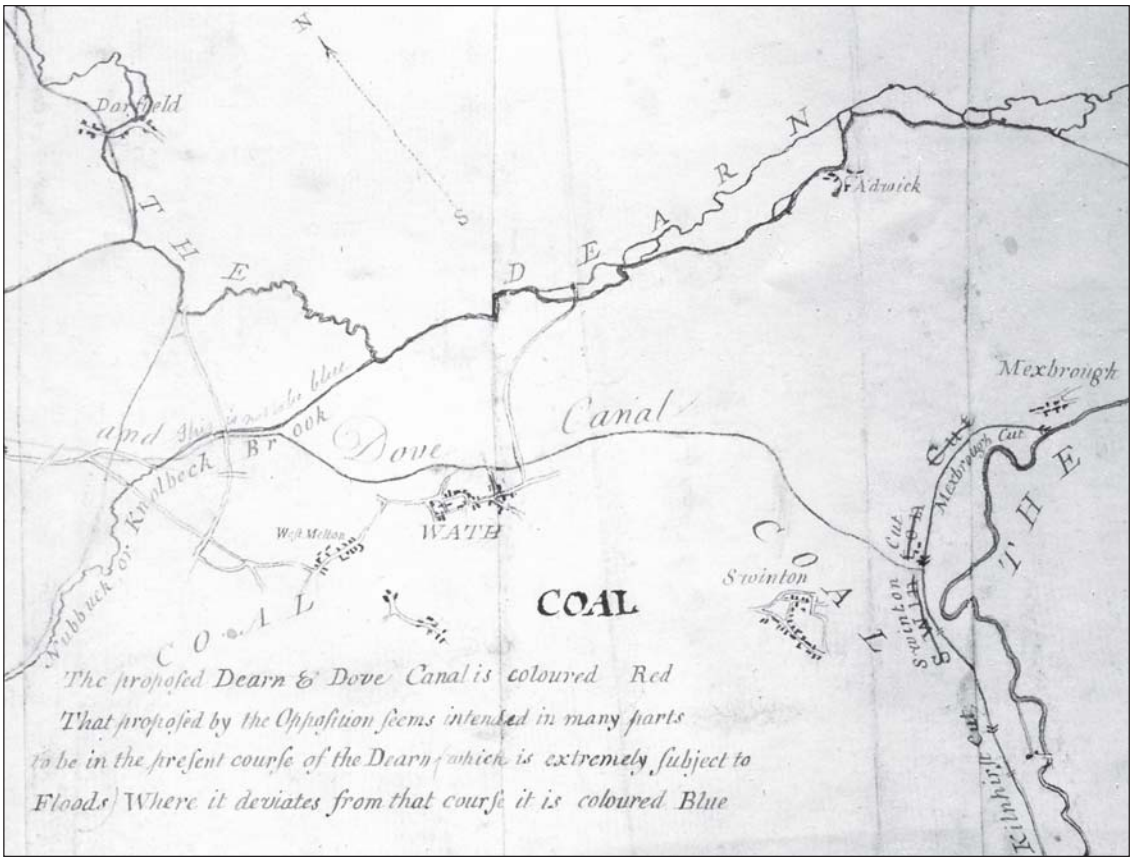
Four generations of the Fairbank family were land and property surveyors in and around Sheffield for over 100 years. Records survive from 1753 to 1848: the Sheffield City Archives hold a unique collection of Fairbank papers which have important details of agricultural improvements, coal mining, roads and buildings in Sheffield and around the North Midlands, and, latterly, railways. The Fairbank papers consist of 4,650 maps and plans, 1,026 surveyors' books (mainly Miscellaneous {MB} and Field {FB} Books) as well as notebooks {NB} & account books and nearly 8,000 letters and other papers {CP}. David Crossley reviewed these records in his 1995 Rolt Memorial Lecture.[1] The Fairbank Archives Group, of which the author is a member, has computer cross-referenced the collection but item numbers are not always consistent with dates.

At a meeting of the Group a few years ago, John Clayton read a paper on canals around Sheffield (principally the Dearne & Dove Canal) surveyed by William Fairbank II (1730–1801) and his sons William III (1771–1846) and Josiah Fairbank (1778–1844). He mentioned that many copies of a map of the Dearne & Dove were sent to possible subscribers but there were none in the Sheffield Archives. The author has been interested in canal maps for many years and knew of a *A Collection of 620 Plans, Profiles and Sections of various canals in England & Wales* previously in the Map Room of the British Museum but now in the Map Library of the British Library (BL). The contents of this BL *Collection* have never been entered into the BL Map Library CD-Rom but a vague memory prompted the author to look into it.[2] Several canal maps by members of the Fairbank family were found, the best example being the missing one of the Dearne & Dove Canal by William Fairbank II. This was particularly rewarding as the BL *Collection* holds the original manuscript map, annotated proof copy and a final fair copy.[3]

The Dearne & Dove Canal

The following details are taken from Fairbank Field Books (FB): 74, 75, 79, 81, 86, 87 and 171 when William Fairbank II was carrying out a survey for a canal 'From the Township of Barnsley to Swinton'. The second half of FB 74 shows details of land ownership on the line of what is called the 'Dove & Dearn Canal' but the year 1792 only appears in the index. FB 75 is almost entirely devoted to surveying the line for the Dearne & Dove around Barnsley starting on 18 September 1792 at Dayhouse. Fairbank travelled northwest through Barugh, Barugh Bridge to Barnby Bridge. On 20 September he moved south to Stairfoot and on to Wombwell, returning to Darton to survey a line north to Haigh Bridge, which was never built. He continued west from Barnby Bridge, past Barnby Furnace and Dam to Silkstone (the latter part of which became a waggonway). Returning south of Barnsley again, he surveyed Worsbrough Dale for a branch before moving nearer to Swinton past Wombwell and Brampton. Included among the small maps in the Fairbank Papers are plans of short lengths of the canal through Brampton, Wath and Wombwell and the Elsecar branch and reservoir (ECa 10, 11, 12 & 13). The work finishes on pages 62–64 of FB 75 with a survey on 23 September for a feed reservoir at Worsbrough Dale, west of the basin at the end of the branch.

Twenty miles of surveying was carried out in five days. Speed was essential; both the Aire & Calder and the River Dunn (Don) Navigations wished to get coal from the Barnsley area. Production had



Extract from ms map of the Dearn & Dove Canal
(By courtesy of the British Library: shelf mark 181.a. vol i, map 89)

increased but roads were so poor it was difficult to transport the coal to wharves on the Aire & Calder near Wakefield or the Dunn at Swinton.

The Aire & Calder Company instructed their manager in July 1792 to produce a plan for a canal from the 'Neighbourhood of Barnsley to Wakefield' which would run nearly due north; this became the Barnsley Canal. In August 1792 the Dunn Navigation Company proposed to make the River Dearne navigable to Barnsley but three weeks later decided to build a canal to become known as the Dearne & Dove. William Jessop, engineer, was involved in both projects but for the Aire & Calder, J Teal was the surveyor, the ground work being left to John Gott and Elias Wright. (The BL *Collection* has copies of this map.[4]) For the Dunn Navigation, William Fairbank was assisted by John Thompson, engineer. On 15 October 1792 the rivalry was resolved. It was agreed that the Barnsley Canal would be built from Heath near Wakefield to Barnsley (and west to Barnby Bridge as surveyed by Fairbank) and the Dunn Company would promote the line from Swinton to Barnsley. Acts for both were passed in June 1793. In FB 79, 16/17 November 1796, there are details of 'Ground taken for the Dearne & Dove Canal from the Estate of the Earl Fitzwilliam' and there is a sketch of 'The Swinton Cut belonging to the River Dun Company'. In FB 81 on 14/15 November there is another reference to land taken from Earl Fitzwilliam but for the 'Dove & Dearn' [sic] (as in map ECa 11S). Perhaps Fairbank made a slip with the title but the canal was being built at the time. Other FBs refer to reservoir construction and it is possible to work back from the maps to the Field Books.

As noted above, following Clayton's presentation, the author looked into the BL *Collection*. The manuscript map (extract reproduced above) of the

Dearn & Dove Canal is hand drawn without title and 'Dearn' without the 'e'. The second map is a proof copy with notes, entitled: 'A Plan of the Intended Dearn & Dove Canal, and of that Proposed by the Opposition thereto, drawn by Wm. Fairbank 1793'. A subscript (handwritten on the manuscript) says:

> The proposed Dearn & Dove Canal is coloured Red. That proposed by the Opposition seems intended in many parts to be the present course of the Dearn, (Which is extremely subject to Floods,) Where it deviates from that course, it is coloured Blue.

The third and probably final version is similar but doesn't include 'Opposition' and 'J. Thompson Engineer' and '1793' are added. All show Kilnhurst, Swinton and Mexborough Cuts on the River Dun or Don and a branch to Cobcar Ing alongside the Nubbuck or Knolbeck Brook [18th century tautology]. It is probable 'the opposition' was G W Wentworth and T R Beaumont backed by the Calder & Hebble against the Aire & Calder. The use of the Dearne would have benefited the estates of Wentworth and Beaumont. In Phillips' *Inland Navigation* (1805)[5], it is stated about the Dearne & Dove:

> The immense sum of £100,000 laid out on a useful and public undertaking, it is to be hoped will be crowned with success to the company, who certainly calculated their advantages, but I trust with better success than their surveyor, who, if not assisted and authorised by parliament, after laying out and expending £60,000 was minus £40,000 two thirds more than the original estimate.

Greasborough (Park Gate) Canal

In 1778 the Marquis of Rockingham employed William Fairbank II to survey a line for this short (1½ mile) but important coal canal. John Varley had already been commissioned by Lord Rockingham in 1769 to survey and estimate for a canal from the Don to Cinder Bridge (or Greasborough Ings) to serve his collieries. It would have had three locks, but no action was taken. It was resurveyed by John Smeaton in 1775 who proposed five shallower locks but again the plans were laid aside until Fairbank was employed. FB 52 supplement 2, pages 18–19, shows 'The course of the intended navigation Cutt in the Township of Greasborough for the Marquis of Rockingham'. There is no date but from adjacent entries in the book it seems to be between 12 October and 7 November 1778. His proposals were similar to Smeaton's. Work was begun by William Jessop in 1779.

Further Field Book entries (FB 52 supplement 3, FB 53 supplement, FB 54 & FB 59, dated 1779 to 1784) are surveys of land cut through and damaged by the canal and the costs. FB 56 on 8 May 1782 refers to 'the Marquis of Rockingham's Canal in the Township of Greasborough from the Cutt belonging to the River Dunn Company to Cinder Bridge'.

Stainforth & Keadby Canal

At the same time as the River Dunn Company proposed the Dearne & Dove Canal, it planned to improve the traffic on the Don by making a cut from Stainforth to Keadby on the Trent. In the mid 1700s the Don had been deepened and a cut made from Bramwith Lock to the lock at Stainforth where boats re-entered the River Don.

The idea of connecting the Don to the Trent was proposed in 1763, when Brindley was involved, and again at ten-yearly intervals. The BL *Collection* has a copy of a 1772 map of the Stainforth Cut by George Kelk[6] as well as two by Fairbank in 1793[7]. FB 73 has several entries between 8–13 October 1792 which include 'Sketches taken for the Canal from Stainforth Cut to the River Trent' and 'Sketches and Dimensions for the Canal from Stainforth to Kidby [sic] on the River Trent'. These entries are before Robert Mylne was asked to survey the line with John Thompson in November 1792, which they did in December, but Fairbank appeared with Thompson before the Parliamentary committee. October had been a busy month for Fairbank!

River Don

Between 1792 and 1801 William Fairbank II, who died in 1801, surveyed the River Don. There are three maps in the BL *Collection*, all 'A Plan of the Course of the River Dun from Sheffield to its confluence with the Ouse Shewing all the cuts made & intended to be made to facilitate the Navigation thereof drawn by W. Fairbank 1801'. One is larger and is manuscript.[8,9] This is similar to the sequence noted for the Dearne & Dove Canal. There are two copies of another map in the BL *Collection:* 'A Plan of the Alterations & Improvements intended to be made in the navigation of the River Dun by W[illiam III] & J[osiah] Fairbank Surveyors 1803'[10] — a continuation of William II's work by his sons which took a long time to be completed (described below).

A. & C. NAVIGATION
TRENT
RIVER
TRENT
CANAL
ROCHDALE CANAL
CALDER AND HEBBLE NAV.
HUDDERSFIELD NARROW CANAL
HUDDERSFIELD BROAD CANAL
BARNSLEY CANAL
STAINFORTH & KEADBY CANAL
DONCASTER
DON
ROTHERHAM
SHEFFIELD
SHEFFIELD CANAL
CHESTERFIELD CANAL
CROMFORD CANAL
PINXTON BRANCH
EREWASH CANAL
MACCLESFIELD CANAL
PEAK FOREST CANAL
ASHTON CANAL
MANCHESTER
STOCKPORT
MACCLESFIELD
WORKSOP
NEWARK
TORKSEY
FOSSDYKE CANAL
GOOLE
KEADBY
CROWLE
THORNE
WEST STOCKWITH
GAINSBOROUGH
BAWTRY
EAST RETFORD
KILLAMARSH
ECKINGTON
STAVELEY
CHESTERFIELD
MANSFIELD
PINXTON
MARLOCK
CROMFORD
BAKEWELL
TORLEY
HATHERSAGE
HASLEFORD
GRINDLEFORD
PADLEY
FROGGATT
CALVER
STONY MIDDLETON
HOPE
CASTLETON
EDALE
CHAPEL EN LE FRITH
BUXWORTH
WHALEY BRIDGE
MARPLE
STALYBRIDGE
HYDE
DIGGLE
MARSDEN
SLAITHWAITE
HUDDERSFIELD
MIRFIELD
DEWSBURY
KIRKBURTON
HAIGH
ROYSTON
BARNSLEY
BARNBY BASIN
SILKSTONE
WORSBROUGH
WOMBWELL
BRAMPLEY
ELSECAR
WATH
SWINTON
KILNHURST
CONISBROUGH
MEXBOROUGH
TRINSLEY
COLD HINDLEY
HEMSWORTH
STAINFORTH
KNOTTINGLEY
CASTLEFORD
POOLEY BRIDGE
WAKEFIELD
SOWERBY BRIDGE
BRIGHOUSE
TODMORDEN
LITTLEBOROUGH
ROCHDALE
HEYWOOD
OLDHAM
WOODHEAD
STANDEDGE TUNNEL
NORWOOD TUNNEL
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The Sheffield to Tinsley, and Tinsley to Eckington Canals

William Fairbank II surveyed the land for this canal with a branch to Eckington in August and September 1792 and 'Sketches of the Lands thro' which the Canal from Sheffield by Tinsley to Eckington is proposed to pass ...' are found in Miscellaneous Book (MB) 31. There is a map drawn by him dated 1792 (ECa 30L) showing the intended canal from Sheffield going to Brinsworth near Rotherham with a branch to Eckington. At the end of MB 31 is the statement that one Plan and Book of References were deposited with the Deputy Clerk of the Peace of the West Riding of York 1792 '11th Mo 8th'. There is another 'Plan of the Country between the Sheffield Canal at Tinsley & the Chesterfield Canal at Killamarsh 1824' (ECa 27L) but based on a map which 'describes the course of the proposed Canal as laid out in 1792', presumably ECa 30L cited above. The branch reappears as the Sheffield Junction Canal, proposed in August 1832 at a meeting at the Tontine [Hotel]. (See later.) Both maps are in poor condition and copied onto aperture cards (transparencies). The author has seen and photographed the originals but they reproduce poorly. There is an earlier (1782) untitled map by William Fairbank II (ECa 31L), which shows the Sheffield to Tinsley canal starting north of the Don, crossing and then recrossing it back to Tinsley. Though it would be possible for the Eckington connection to be made from this earlier plan, the later proposal of a canal from Padley to Tinsley always stayed north of the Don so hindering the branch to Eckington.

There are many references in the Field Books to William III & Josiah Fairbank's surveying of the Sheffield to Tinsley Canal, although from the notes there seems to have been an interval between 1804 and 1813 when the Fairbank brothers were not involved in work on it. Actually some of the notes refer to the Padley to Tinsley Canal (confusingly both were called the Sheffield Canal at times, which has led to some mis-filing). As will been seen later, Josiah was active in promoting this canal from the projected High Peak Junction Canal at Padley Mill in Derbyshire to Tinsley in 1810/11.

In FB 134, 135 & 139, towards the end of 1814, there are many entries concerning measurement of ground, sizes of locks, a very short branch from the summit level to the Greenland Engine (used for pumping water from the mines which then augmented the canal water) and the building of a proposed reservoir at Carbrook for the Sheffield to Tinsley Canal. Note Book (NB) 17, dated 15 November 1814 on the first page, assesses values of occupiers/landowners along the line of the canal and has a 'Table of estimated values' adding up to £7,709.17s.3d, signed and dated: 'Josiah Fairbank 23 Nov 1814'. Further on are the instructions of W Chapman at the Tontine [Hotel] 30 November 1814 to do with boring the ground on the line of the canal. In FB 136 during 1816–18 there are sketches of the Canal Basin with measurements for the Duke of Norfolk. Some of the delay in building the canal were due to protracted negotiations about the Duke's land. Some Fairbank letters of 1814/15 refer directly to the Sheffield to Tinsley Canal: CP-4: 46 dated 17 February 1814 is a notice of the proposed canal and 47 is a detailed report given at the Cutlers Hall on 15 July 1814 addressed to the 'Inhabitants of the Town of Sheffield & the Neighbourhood'; CP-4: 52 reminds Josiah that he must have maps, sections etc by 22 November 1814 and CP-4: 61 reminds him to stake out the land purchased from the Duke of Norfolk. He later writes (CP-4: 72) to 'T. Neale[sic], 352 Strand, London requesting an accurate engraving of an enclosed plan Required in 2 weeks.' The BL *Collection* has no copy of this, presumably because it is mainly James Wyld's old stock, but the author would be interested to see a copy. The canal finally opened in 1819.

High Peak Junction Canal 1810–13 & 1826–27 and Branch to Sheffield (Padley & Tinsley Canal 1813)

These interesting but never built projects in the Peak District are well documented in Fairbank papers. The levels and distances of the proposed High Peak Junction Canal (HPJC) throughout its length are detailed in CP-4: 18 (late 1810?); the distance covered is stated to be 38 miles, 1 furlong and 5 poles. CP-4: 21 (1811) refers to 'A Proposed Navigation joining Sheffield to Manchester–Liverpool–Birmingham–Bristol & London &c. A Canal from the Peak Forest Canal to Cromford — & to pass as near as possible to Sheffield (Hathersage – Grindleford Bridge) with a Branch to Tinsley.' In the BL *Collection* there is a large (4' x 8') manuscript map of the HPJC dated 1810 but without a surveyor's name.[11] There are two smaller printed versions.[12] Is it possible the manuscript map was drawn by Josiah Fairbank? It is similar to other maps in the Fairbank

Papers drawn by Josiah. In CP-4: 43 January 1825 he refers to 'the line of the *late* proposed HPJC laid out by Mr Rennie in 1810'. [Author's italics.]

FB 116 has several entries about HPJC reservoirs at Edale and Upper Edale. Page 83 refers to the 'Line of the Canal'; it is dated 1810, around 9 July from other entries. In the collected papers (CP-4: 17) is a letter from 'William Johnson of Bakewell 10 Mo 8th 1810 asking for his [Josiah's] account of charges for surveying' the HPJC. This followed by two letters both: 'References to the proposed' HPJC with distances, rises and falls. There is a small map ECa 20S headed: 'Sketch of the Country referred to in Mr Chapman's Report 1813. Drawn by W & J Fairbank, Sheffield.' It covers an area bounded by Manchester to the west, Barnsley north, Bawtry east and Alfreton, Cromford and Leek to the south. In the bottom lefthand corner is: 'Neele Sc. Strand'. It is a relief map and designates types of stone/minerals: limestone, gritstone and coal. Its principal interest is that it shows the Ashton Canal and Peak Forest Canal (PFC) from Manchester to Chapel en le Frith. From there a dashed line goes via Edale to Hathersage, Padley Mill, stopping at Calver / Stoney Middleton. Another dashed line goes from Chapel en le Frith via Castleton and Hope joining the first line at Hathersage. Curiously, no connection is shown from Padley Mill to Sheffield nor of a continuation to the Cromford Canal.

However, there are two larger maps, ECa 22 & 23L, in the Fairbank Archives, the first with no title or date and few details, possibly a preliminary study for the second, entitled: 'A plan of a Proposed Canal from the Intended High Peak Junction Canal at a place near Padley Mill to the River Dun Navigation at or near Tinsley. W & J Fairbank 1813.' Details of the 'Levels taken for the Proposed Sheffield Canal' [actually the Padley to Tinsley canal] are in FB 131. Dated 28 & 31 May 1813, it has sketches and columns of figures, followed by several pages of distances and levels. The dimensions of the lock and Totley tunnel are given and some estimates of cost. CP-4: 23 is a report of a survey on the HPJC from Padley to the Don Navigation at Tinsley via a tunnel at Totley, down the Sheaf valley, crossing the river Sheaf by an aqueduct and then by another aqueduct across the Don to follow the north side. With an estimated cost of £250,000, signed 'W & J Fairbank' and dated 2 August 1813, it is presumably based on the notes in FB 131. This project would have aroused considerable opposition from the owners and users of the mills on the River Sheaf. Later in FB 131: 'From the [west] Mouth of the Tunnel as Proposed to the Summit Level or to the level of their [HPJC] tunnel [Cowburn] is 175 feet rise, thence down to the Peak Forest Canal is 148 feet fall.' After this are figures for distance and lockage adding up to a 'Grand Total' of 29½ miles and 826' or 82 locks from Sheffield to the PFC (503' & 50 locks up and 323' & 32 locks down).

'Rates mentioned in the 1st Act of the Peak Forest Canal & Railway proposed 34 Geo III' are included in FB 138 (1815) and also detailed diagrams of inclined planes with angles and weights for the High Peak Rail Road. In FB 140 (1817) is written 'The Height of the Peak Forest Canal above the Mersey' but no figure is shown. It gives the fall from Huddersfield [sic] Tunnel via Coopers Bridge and Wakefield to low water at 'Hadallasay' [Haddlesey], and the rise from Runcorn to the Tunnel: 'NB This information from Jas. Meadows Manchester Agent for the Peak Forest & Ashton Canals.' FB 181 (1826/7) not only mentions a PFC reservoir but has details of lengths, rises and falls from the PFC at Chapel Milton (NW of Chapel en le Frith) via Cowburn Tunnel to Edale, Hazleford Bridge and Bakewell 'to the Southerly End of the intended Matlock Tunnel near Lea New Mill' and the Cromford Canal. It seems surprising that the HPJC was still being contemplated at this date when W & J Fairbank were surveying a more northerly connection from the PFC in 1824, described as the Sheffield to Manchester Canal.

Sheffield to Manchester Canal 1824

In the correspondence, CP-4: 40 has a newspaper notice: 'Mr Telford's Line of Communication by Canal between Sheffield and Manchester … Application to Parliament in ensuing session. Dated 6th November 1824.' However, things had not been going smoothly as letters from Telford to Josiah Fairbank show. CP-4: 37 dated 24 May 1824 states: 'Dissapointed at not receiving the Survey & hoping it would be ready by June 15th' and CP-4: 38, 17 October 1824, from Telford's office: 'Mr Telford is surley disconcerted at not receiving Plans.' CP-4: 43 is a copy letter dated 6 January 1825 about the 'Intended Canal between the Peak Forest and Sheffield also the connection to Manchester' and refers to a map sent to 'Thomas Telford Esq. Civil Engineer No. 24 Abingdon Street Westminster'; it mentions the line of the late proposed HPJC laid out by Mr Rennie in 1810. MB 30 (a stiff cover exercise

book) entitled: 'Book of Reference to a Map of the Intended Canal from the Peak Forest Canal ... to or near the Town of Sheffield. 24th November 1824 Thomas Telford Civil Engineer W & J Fairbank Surveyors' has six columns headed 'County, Borough, Township, Owner, No., Occupiers'. Starting with 'Chester, Stockport & Hyde' and names, it goes through 'Derby, Glossop & Padfield' to 'York, Sheffield & Brightside'. It probably refers to Map ECa 25R which is about 12' long and 4' wide at a scale 5" to 1 mile and clearly shows the course of the intended canal with a tunnel at Woodhead. Below the names of Telford and W & J Fairbank is handwritten: 'To keep this No. 1 correct JF'. As mentioned above, this project got as far as a Parliamentary Bill application and copies of the Fairbank survey and sections were deposited with the House of Lords and County offices. In FB 178 are found: 'Minutes in reference to the Sheffield & Manchester Canal 1825 12 mo 12'. It lists carriers and goods who might use the canal and queries what goods go by the Dearne & Dove Canal to Manchester plus 'An account of the goods forwarded to & from Manchester for 1 week by Ibberson & Co: 24/10/1825'.

Chesterfield to Froggatt Canal 1824

FB 169 (1824) is almost entirely devoted to this canal. MB 29 is entitled: 'Minutes on a Survey of the Proposed Canal from Chesterfield towards the River Derwent near Froggatt Bridge taken in the Spring & Summer of 1824.' MB 29 consists of 8 pages of foolscap enclosed by thin grey cardboard. Twelve sides in copperplate handwriting offer a lengthy description of the line rising 334'3" to two tunnels with the summit level ending at the turnpike road on Froggatt Edge, 161'5" above the River Derwent! A railway link was proposed to the lime works at Calver and Stoney Middleton below. There are references to 'the Plan: Explantation[sic] The Proposed Canal is distinguished by a Red Line, Tunnels by a broken Red Line. Table of Lengths &c.' The Minutes are signed: 'Josiah Fairbank August 14 1824 West Hill'. It seems a rather unlikely 'late in the day' project although there was commercial interest. Though neither were built, it was meant to tie in with the Grand Commercial Canal. A section of the canal is shown on Map ECa 7R which is 3½' x 15'. ECa 8L shows a reservoir at Bar Brooke and ECa 9S shows land ownership and a very faint line of canal; all 1824.

North Eastern Junction Canal (NEJC) 1811–32 and Grand Commercial Canal (GCC) 1824 & 1826

CP-4: 20 is a printed sheet: 'Observation on the intended North Eastern Junction Canal'. It gives notice of a meeting to be held: 'on 1st Thursday in March 1811 at the Crown & Anchor Tavern London', and advertised the commercial advantages of building the canal. It was intended to go from the Don at Rotherham, following the Rother to the Chesterfield Canal at Killamarsh and continue southwards to join a branch of the Cromford Canal at Pinxton (30 miles) 'to complete the line from Yorkshire to London'. The next item (21 — see HPJC) is undated, handwritten and headed: 'Proposed Navigation from Sheffield to Manchester & Liverpool Birmingham Bristol & London &c'. It criticises the proposed NEJC and states the advantages of goods brought from Liverpool and the USA to Sheffield via a branch from the HPJC through Hathersage and Grindleford (Padley Mill) to the River Don at Tinsley (above). (A later letter (CP-4: 84) refers to Josiah Fairbank as the anonymous writer of this criticism.) However, the next item (22), dated 7 October 1811, is a letter from James Meadows, Agent of the Ashton Canal Proprietors, replying to two letters of 4 & 30 September from Josiah Fairbank saying: 'but as that Scheme [HPJC] is for the present suspended ... premature to lay out money in your proposed surveys untill their [sic] is a prospect of the High Peak Junction being carried into effect'. CP-4: 5 is dated August 1832 and shows the estimated cost of the NEJC (from the Sheffield Canal to the Chesterfield Canal) as £46,204. It states that the route had been surveyed by Thomas Outram in 1799 and would be a 'Short & Direct Crossway linking 2 Main Outlets to the Sea'. It is probably included in the maps of the GCC below.

CP-4: 24 again undated (but probably late 1824 as 25–30 are November 1824), is headed: 'Extracts from the Section of the Proposed Grand Commercial Canal by James Dean'. It lists the rises and falls from Chesterfield to the Sheffield and states that Chesterfield basin is 68 feet higher than Sheffield basin. There are faint pencilled references to 'Ben Outram's Line' and 'Josiah Jessop's Line' both with tunnels under or near to Tinsley Park. It seems there were several versions of the GCC and a locally published map in the Fairbank Papers shows connections and sections (ECa 15S). It was surveyed by Charles Dean & John Thompson under the

direction of James Dean and dated October 1824. Faintly pencilled in, possibly by Josiah Fairbank, below the Chesterfield to Sheffield Canal Section: 'In all 12 miles and 2 furlongs with a rise from Sheffield to Chesterfield of 68 feet', which backs the dating above. A smaller and later (1826) map of the GCC (ECa 16S) shows three different lines: 'A proposed line by Thomas Bishop contrasted with Messrs Dean and Hazlehursts together with his variation line via Killamarsh and Chesterfield'. There is another version of this map with notes in Sheffield Reference Library, Local Studies. (There are none in the BL *Collection.*)

Sheffield Junction Canal 1832

On 9 August 1832 at a meeting at the Tontine [Hotel], John Shirley proposed a canal from the Greenland Engine branch of the Sheffield & Tinsley Canal to the Chesterfield Canal at Killamarsh. He estimated the cost at £46,190. Mr Burke thought the cost would be £54,276 but a round figure of £50,000 was agreed. An annual income of £4,650 was estimated; the meeting proposed shares of £100 but 'not to exceed £50,000' total. This comes from one entry in NB 29 of 'Josiah Fairbank & Son Sheffield 1829' and there is a note: 'Joseph Burke to take levels & I make a survey of the land.' The author has found no other references in the Fairbank archives except for two maps: ECa 30L showing the country between the Sheffield Canal at Tinsley and the Chesterfield Canal at Killamarsh dated 1792, and ECa 27L dated 1824, both mentioned earlier.

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It is interesting that in the course of surveys for various canals that were never built, the Cowburn, Totley and Woodhead tunnels were described. All three were later excavated for railways. Fairbank papers were bought from Josiah Fairbank's widow by Marcus Smith, another Sheffield surveyor, so it is likely the Fairbank surveys would have been used as a basis for railway surveys. The author is not very familiar with the history of the High Peak Railway but FB 138 (1815) may contain some information of interest.

This paper relates only to one small part of work done by the Fairbank family in and around Sheffield. Land surveyors in other towns and cities would have been involved in canal work but the unique Fairbank Archive allows insight into the family's previously unknown canal surveys.

Notes and references

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- Christine Ball, David Crossley and Joan Unwin for help, advice and encouragement.

The Fairbank Collection in Sheffield City Archives consists of:

Collected Papers	CP
Field Books	FB
Miscellaneous Books	MB
Note Books	NB
Maps (for Canals)	ECa

L = large, S = small, R = rolled

Also (but none used in this paper):

Account Books	AB
Building Books	BB
Engineering & Building Plans	EBu

1. D Crossley, 'The Rolt Memorial Lecture 1995: The Fairbanks of Sheffield: surveyors' records as a source for the study of regional economic development in the 18th and 19th centuries', *Industrial Archaeology Review,* XIX, 1997, 5–20
2. For further information about the Collection, see the *RCHS Bulletin* 384, July/August 2003, 7–8. All British Library map references below are Shelf Mark 181.a. vols i, ii or iii.
3. Vol i, maps 89 (ms) & 140 (corrected proof) and vol iii, map 113
4. Vol i, map 92 (ms) and Vol iii map 138
5. John Phillips, *Phillip's Inland Navigation*, 5th Edition, 1805, 441/2. Reprinted by David & Charles, 1970.
6. Vol ii, map 148
7. Vol ii, map 103 and vol iii, map 73
8. Vol iii, map 121 (ms)
9. Vol i, maps 132 & 161
10. Vol i, maps 84 & 105
11. Vol i, map no 81 (ms)
12. Vol iii, maps 1 & 13

Correspondence

Gilbert's railway song

(RCHS Journal, November 2003, pp370-1)

Many thanks indeed to Alan A Jackson for his article suggesting that W S Gilbert's delightful railway song of 1871 may have been inspired by the activities of the Third Duke of Sutherland. I think he is very likely to be correct, and that probably there was more to it than the Duke of Sutherland's Railway from Golspie to Helmsdale (not 'Holmesdale' as printed). This was far from the public eye and could be seen as a sensible, indeed highly desirable, investment in the transport infrastructure of the duke's vast estate in Sutherland. Even the duke's engine-driving activities may be seen as comparable to a tendency by some of today's rich and famous to pilot their own aircraft.

The duke's presence on the board of the London & North Western may well have been more relevant: he had been appointed, as the article points out, in 1852. He remained a director until his death in 1892. This was in the nature of a hereditary appointment. The third duke's grandfather, the Marquess of Stafford, had received the hereditary right to appoint three directors to the Liverpool & Manchester Railway, in return for putting up one fifth of the capital. With the amalgamations of the 1840s this right had been transmuted into one director of the LNWR, to which the third duke had been appointed by his own father. His training at Wolverton under McConnell should perhaps be viewed against this background.

At any rate, the LNWR was I believe at the period in question the most extensive railway in Britain, and might well have been transmogrified in Gilbert's verse into the 'North South East West Diddlesex Junction'. The duke's travels between Dunrobin Castle, Sutherland, and his southern residences — his Staffordshire seat at Trentham and his London house — would certainly have taken him regularly through Perth and Stirling, as in the song. It is tempting, in the context, to find a comparison between 'Trentham' and 'Tooting' though this may be stretching the point too far.

Financial failure was not, however, associated with the LNWR. But it was with another railway with which the third duke was closely identified. This was the Mont Cenis Railway of which he was president from formation early in 1866 until late in 1868. This British undertaking was much in the news at that period: a bold, heroic attempt to build a temporary Fell railway over the western Alps while the first tunnel through them was being bored beneath. Filling the last gap in the direct route for the Indian Mails, it could indeed be seen as a 'North South East West Diddlesex Junction'. Regrettably, too, investors may well have considered themselves diddled. There were long delays in completion, as a result of which the directors undoubtedly 'got it hot at the annual meetings'. Then the unforeseen invention of the pneumatic drill enabled the tunnel to be completed much earlier than predicted: it opened for traffic in October 1871 and the Mont Cenis Railway was closed, under the terms of its concessions, the following day. Its equipment was then sold off: it seems unlikely that ordinary shareholders saw any return on their investment. As a financial failure the company must have been notorious just at the time when *Thespis* was being prepared.

In all this, though, there is little evidence of what Gilbert evidently considered undue familiarity with the lower classes of railwaymen. It can be inferred, but during intermittent researches into the third duke's career I have found only one specific instance. This took place far away from both the LNWR and the MCR — in the Mid-West of the United States. In 1881 the duke made a coast-to-coast of inspection of American railroads by special train — no small undertaking, for the West was still Wild. Accompanying him was a party comprised mainly of other LNWR directors, but also including William Russell, who had come to prominence as war correspondent during the Crimean War, who published his account of the tour in his book *Hesperothen.* The duke, we learn, was much impressed, on the Atchison, Topeka & Santa Fe, by the distance run continuously by the locomotive — over 1,100 miles on both outwards and return journeys. This, wrote Russell, was 'brought to the front in our conversation by the engine-driver appearing at the door of the carriage to claim a dollar which he had won from the Duke in a bet that he could not do the distance without laying up the engine for repairs'.

The story of the navvy who considered the third duke to be 'a real dook ... a-driving of his own engine ...' appears in J Pendleton's *Our Railways: their origin, development, incident and romance* of 1894.

P J G Ransom

Was the North South East West Diddlesex Junction Railway the Mont Cenis Fell line, with which the Duke of Sutherland was associated? Certainly it went from North to South, linked East (India) and West (Britain) and probably diddled or jerked a lot. P J G Ransom wrote a very interesting history, *The Mont Cenis Fell Railway,* in 1999. The Diddlesex allusion may also a have been aimed at embarrassing any spinster ladies in the audience, who had been to Italy on a package tour. Contemporaries used to accuse single ladies of using package holidays to husband hunt, without interference from relatives or chaperons. After the Indian Mutiny fast communication with India was essential. Sunderland appears to have acted as a facilitator in an unacknowledged Imperial enterprise.

If so, this may not have been the only occasion when enthusiastic amateurs aided the British state. In 1908 the Oriental Carpet Manufacturing Company (OCM) took over the carpet side of the merchant business of Geo Baker of Constantinople. The aim was to make oriental carpets for direct sale to British tourists arriving by the Orient Express, eliminating undignified haggling. At that time a scare had been started in the London political journals that the Germans intended to undermine British India by means of the Berlin–Baghdad Railway. In fact the Germans had behaved with admirable impartiality and offered participation in the scheme. The people who were really threatened by a direct railway towards India were the passenger shipping companies. Shortly after OCM's arrival in Constantinople mayhem broke out in Turkish politics and the railway scheme was set back.

Some years ago I was told by an Indian Law Lecturer that OCM, which is now long extinct, and must have been 'blown' when Kim Philby went to Moscow in 1963, was in fact an arm of the British Secret Intelligence Service. It would be interesting to know whether anyone can comment further on the antics of this 'company'.

Robin Whittaker

There are most unfortunate errors in the 'Gilbert's railway song' article. The Scottish village of Helmsdale on the Far North Line is almost unrecognisable as'Holmesdale'. In addition Gartymore has been misrepresented as 'Gattymore'.

Once again I am impressed with the really useful annual bibliography produced by Grahame Boyes and his team. I am sure he will be disappointed to notice that item 755 should have been listed under the G&SWR heading rather than under the North British.

R J Adern

Alan Jackson makes an interesting speculation about W S Gilbert's song in *Thespis* that it could probably have been influenced by the Duke of Sutherland's private railway from Golspie to Helmsdale. Many are the speculations about the origins of Gilbert's writings which are well documented, so this one is very likely to be correct. I have had my own speculation from *Thespis* ever since first seeing it many years ago.

The railway quoted in the song entitled 'North South East West Diddlesex Junction' had always intrigued me. Willesden Junction had the oddly named — to the layman — North & South Western Junction Railway which ran to Kew, opening in 1853 and being vested in the London & North Western, Midland and North London jointly in 1871. Alan Jackson quotes that the railways were a topical subject on the 1860s and 1870s so there is a strong probability that Gilbert had heard of it. He was an expert at lampooning words and functions and I believe this title was the sort of thing that would have tickled his sense of humour; after all he only had to change 'Western' and enter the word 'East' to the existing title. And 'Diddlesex' was a misnomer for Middlesex.

Gilbert did not move to Grims Dyke, Harrow Weald, until 1890 and would have used Harrow & Wealdstone station to go to London (when he was not driven up), passing through Willesden Junction where the old title would have still lived on; I can see him having a quiet chuckle to himself.

Michael Cobb

Massey Bromley's Oxford degree

Massey Bromley, at one time Chief Mechanical Engineer of the Great Eastern Railway, who was killed in the Penistone railway accident in 1884, was almost unique among railway engineers in being an Oxford graduate. Can anyone say what he read at Oxford? If he read 'Greats' (that is, 'Classics') it would support the theory that a classical education fits one for anything. But I suspect that he read for a Pass degree, as was possible in those days.

David Tew

The Caen Hill Horse Railway

(*RCHS Journal*, November 2003, pp358–363)

Mr Crosbie-Hill states that the Caen Hill horse railway ran 'from the pound below the bridge which carries the Roade to Pottern road (Marsh Lane) at Upper Foxhangers to Devizes'. The *Bath Chronicle* reported 'On the lst inst [May 1801] the western district of the Kennet and Avon Canal extending from this city to Foxhangers Farm near Devizes was navigable for barges.'[1] This does not distinguish between the present Upper Foxhangers Farm by Marsh Lane and Lower Foxhangers at the bottom of the whole flight of locks.

It is, however, abundantly clear that the horse railway must have started at Lower Foxhangers. At that point there is a bridge or tunnel for the railway in the abutment of a bridge carrying a farm track over the tail of lock 22. This tunnel serves no purpose other than for the passage of the railway as the towpath changes sides here and a barge horse would not pass through the tunnel even with the tow-rope detached. The other three tunnels do, at least, allow a barge horse to proceed without crossing the road although the tow-rope must be detached; while this means of crossing the roads is of great advantage to today's walkers, as Mr Crosbie-Hill points out, it was of no consequence with 19th century traffic levels. It should be noted that no other lock-tail bridge on the canal has any means for the horse to pass under the road or track. Mr Crosbie-Hill points out that Marsh Lane bridge is built in two parts with the navigation arch added to the railway tunnel although he claims that both would have been needed when the railway was in use. At Lower Foxhangers there is a winding hole and possibly space for a wharf although the site is confused by the building of a railway across the canal in 1857. The supposed winding hole above Marsh Lane is surely a widening to provide adequate water storage between locks 28 and 29; these locks are quite close together although not as close as those in the straight part of the flight. There is no trace of a wharf below Marsh Lane nor any proper access to the area from the road. Finally, had the locks below Marsh Lane (22 to 27 in the present numbering) been built by 1802, they would have been unusable owing to the lack of a water supply until the whole flight was completed.

The above interpretation is confirmed by a surviving plan of the middle district of the canal showing the route of the canal up Caen Hill as originally proposed[2]: the straight line as built being suggested in 1802 by the company's superintendent, John Thomas. The plan shows the canal from Bath ending at Lower Foxhangers with a wharf more or less below the 1857 railway bridge.

Turning to the nature of the railway or tramway, in 1802 Rennie reported[3]:

> The railway from this place [Foxhangers Wharf] to Devizes is laid on wooden sleepers which are too short and and have not been laid on hard materials: they therefore sink and damage the road.
>
> The upper part of the railway next Devizes is single with passing places but the delay occasioned thereby is unreasonable and should be remidied.

It is thus clear that part of the railway, including the steep section, was always double track and it is likely that the remainder was so converted. It is, of course, clear that only a single track would be possible through each of the four short tunnels.

The remark about the sleepers being too short does not tell us much about the nature of the track. Modern practice is for the length of wooden sleepers to be about twice the gauge of the track; nine foot sleepers are used on the standard gauge. With the light loads that could be supported by cast iron plate rails, sleepers little longer than the track gauge would probably have sufficed if they were laid on a good base. It is possible that longitudinal sleepers were used, in which case the longer the sleepers and thus less joints or gaps would certainly better support the rails. The stone blocks of lines intended to be permanent do not get in the way of the horse path between the rails. Longitudinal wooden sleepers would likewise be out of the way of the horse. It is quite likely that transverse sleepers would have been removed when the railway was dismantled to avoid obstructing the towpath and there must have been some remains left when the ordnance survey was made.

The Caen Hill horse railway was unusual in that the main traffic was uphill. While one horse might haul a train of ten small wagons on a gently falling track and return with the empties, this is of little guide to the practice at Caen Hill. On the Lancaster Canal tramroad two or three horses were needed to haul four large (two ton) wagons or six small ones.[4] Going southward this involved 370 yards at 1 in 18½[5] but as there was much less southbound traffic (limestone) than northbound traffic (coal), probably only one wagon would then be loaded. The gradient at Caen Hill is less (1 in 27) but continues for over a mile and the strain on a horse would be comparable. It is therefore suggested that one horse could pull one wagon of

two tons or perhaps two of one ton each. We do not know whether two or more horses were used to pull longer trains.

It is difficult to estimate the amount of traffic on the line. No figures for toll receipts or tonnages carried appear to have survived from the relevant period except that for May 1809 to May 1812 receipts were £20,400[6]. This would correspond to about 45,000 tons per annum. For half this period the canal was fully open and one might guess that no more than 2,500 tons per annum were carried when the railway was in use. If a fifth of the tonnage used the railway, that is 5,000 tons per annum or less than twenty tons each working day. While this involves much guesswork, it implies that a barge would arrive only every four days or so. Traffic from the Somersetshire Coal Canal would be in narrowboats with perhaps one every other day on average.

A sixty ton barge might have been unloaded in one day. Unloading of a bulk cargo would have been by shovel — a practice that persisted at many canal wharves long after mechanical means were developed — but several men could have worked at once without getting in each other's way. With trains carrying only two tons in one or two wagons, this would imply thirty in a busy day or about one every twenty minutes. Two horse trains would, of course, be less frequent. It is thus difficult to see why Rennie considered a single line with passing places to be insufficient. **R S Chrystall**

1. *Bath Chronicle*, 18 May 1801, cited by K R Clew, *The Kennet & Avon Canal*, 1968, 63.
2. Wiltshire Record Office
3. Report to the committee cited by M Corfie1d, *The Butty*, 107, March 1985, 15
4. S Barritt, *The Old Tramroad*, 2000, 86
5. Ibid, 66
6. C Hadfield, *The Canals of South and South East England*, 1969, 251

Jack Simmons' most admired books

After the article by Gordon Biddle in the July 2003 *RCHS Journal* (page 327) referring to Jack Simmons' top railway books, I was disappointed to find in the latest issue of the *Journal* nobody had risen to the challenge in the naming of his top six (me included!). Therefore I would like to have a stab at naming them.

I think at the top of his list at number one would be *The Impact of Railways on Victorian Cities* by John R Kellett. As guest editor of *Back Track* October 1999 Simmons describes this book as 'a remarkable exemplification of what can be achieved by a single student', and again in *The Oxford Companion to British Railway History* page 246 'it is well written and richly documented, and stands high in the literature of British transport history'.

At number two would be *An Account of the Liverpool and Manchester Railway* by Henry Booth. I would suggest this as Simmons describes this as 'the first classic in the railways' own literature and easily readable still' in *The Oxford Companion to British Railway History* page 268. In *The Victorian Railway* I think he enjoyed the far sightedness of Booth where he quotes a paragraph from the book indicating the prophecy of Booth in relation to men's perception of time.

English Railways, Their Development and Their Relation to the State by Edward Cleveland-Stevens would be at number three; in an article entitled 'The Victorian Railway in Retrospect' this book is described by Simmons as 'his valuable book' and a true work of scholarship in *The Victorian Railway* page 214.

I would put Mowat's *The Golden Valley Railway* at number four, although Gordon Biddle described it as strange that it was included. I would put this here as, of my top four, I found this easily the most readable and enjoyable. Again in *The Oxford Companion to British Railway History*, page 182, Simmons describes this as 'perhaps the most satisfactory account we have of any small rural line in Britain'. In *The Railway in England and Wales* he describes this book as 'what is probably the most perfect history of a British railway company yet written', page 110 note 38.

Finally I would put H G Lewin's two books in places five and six, either way around, although I would say that *The Railway Mania and its Aftermath* was easier to read.

I have been prompted to write this letter by a short correspondence I have had with Gordon Biddle, regarding another subject, whereby he told me that you had not had much of a response to his challenge of naming the top six. I am a Jack Simmons 'fan' and have based my railway book collection on the notes and references given mainly in his *The Victorian Railway* followed by *The Railway in Town and Country* and *The Railway in England and Wales.* **Max Bartlett**

Engineers and railwaymen

(*RCHS Journal*, November 2003, p382)

In reviewing the latest edition of the *Biographical Dictionary of Railway Engineers*, Bob Miller rightly comments upon the liberal interpretation of the term 'engineer'. To those who, like myself, bought the dictionary expecting the term to have been more strictly defined that could be seen as a bonus.

However, carelessly applying the term 'engineer' to those who would never have so described themselves devalues it, misleads those who expect from the title a more limited application and gets up the noses of many of today's professionally qualified engineers. Of course, in the age of railway development formal qualifications were rare but it was and still is relatively easy to identify those who actually practised or at least described themselves as railway engineers.

That said, there is surely scope for a broader Biographical Dictionary of Railwaymen, of which engineers could fill one volume. The others in John Marshall's published dictionary would provide a nucleus for a second, more general volume. Mr Marshall's dictionary is a very valuable contribution to railway bibliography and I hope that he or someone else will take up this suggestion that he extend it. I for one would be willing to pay £20 for each volume. **Keith Noble**

Databases and Transport History

(*RCHS Journal*, November 2003, pp353–7)

I would like to make some comments on Nick Billingham's very interesting and stimulating article on 'Databases and Transport History' in the November 2003 issue of the *Journal.*

Databases are much older than Mr Billingham appears to suggest: to my personal knowledge the University of Kent produced a massive database on the people of Ashford in Kent in the early 1960s, when inputting had to be by Hollerith punched card, and I myself was using a database for research in 1980. Mr Billingham makes a plea for some sort of database warehouse: happily such a warehouse already exists, at the University of Essex, which maintains the United Kingdom Data Archive, which can be reached at

http://www.data-archive.ac.uk/orderingData/registering/regUserDetails.asp.

This is an archive of all sorts of data-based material, deposited there by students who having compiled a set of data are willing — probably anxious — for other students to be able to take advantage of their work. As far as I know, almost all the records at the Archive deal with historical information: I have no information as to how many data sets there may be on transport topics.

I would however enter one or two caveats. Computer hardware and software are alike changing whilst one watches. Twenty-five years ago the normal recording medium was the 5¼" floppy disk, at a time when a hard drive was a wildly expensive luxury. The replacement for the 5¼" floppy, the 3½", is itself now obsolescent, and is being replaced by the Zip drive, or the CD-RW which is itself under threat from some of the new and smaller media, similar to the cards used by digital cameras. Information recorded only on a 5¼" floppy may now be virtually beyond recall, as machines to read such disks are likely only to be found in museums — the sad story of the Sinclair QL with its little tape drives is a further illustration of the penalties of hardware progress.

The actual programs themselves are also changing all the time: an excellent database program called Cornerstone is now obsolete and thus unreadable. Computer programs are solitary beasts, and can not always be relied upon to talk to each other, and may not even recognise an earlier version of themselves.

These problems are of course well recognised in the world of computer records, but the only suggestion I have seen propounded is that all computer-based materials should be updated into the latest version of any given program on the latest equipment every five years or so in order to make sure that the information in question is not lost for ever. It seems terribly cumbersome, but to date, as far as I know, it is the only realistic solution to a problem which can only get worse as time passes.

It is a sad thought that whilst it is still easily possible to read Domesday Book, though that record is over 900 years old, computer records from just 20 years ago might as well be in Linear B for all most of us can make use of them.

Frank W G Andrews

The naming of canals

(*RCHS Journal*, November 2003, p377)

Boatmen always knew the Ellesmere Canal as the 'Welsh cut'. After the creation of the Grand Union Canal they continued to refer to the former Grand Junction Canal main line as 'the Junction'. These, and 'the Erewash' and 'the Regent's' were and are common usage but the name 'Llangollen Canal' was, I believe, invented by British Waterways for use in early pleasure boat brochures.

I expect people nowadays use the name 'Trent & Mersey' rather than 'Grand Trunk'. For many years this canal was commonly referred to as the 'North Stafford'. The cumbersomely named Birmingham & Warwick Junction Canal was known as the 'Saltley cut'.

Some of these common usage names were used in official correspondence: there are many early references to 'the Duke's', that is, the Bridgewater Canal.

An interesting boatman's common usage was in their reference to rivers, for example, 'Northwich river' and 'Oxford river'. **Tom Foxon**

The name 'Llangollen Canal' first seems to have been used officially as an aid to marketing it. In 1957 British Transport Waterways published *Cruising on the Llangollen Canal*, the first in their series of blue-covered cruising guides.

The term 'Montgomery Canal' gained formal recognition in the British Waterways Act 1987. Section 1(3) refers to 'The remainder waterway of the Board from Newtown to Frankton Junction (now commonly known as the Montgomery Canal ...)'.

Incidentally, the headline of an article in the *Newport Advertiser & Market Drayton Chronicle* dated 29 May 1869 referred to what is now generally called the 'Shropshire Union Main Line' as the 'Grand Junction Canal' — presumably this was how it was then known to local people.

Peter Brown

Dover stations

In his letter in the November 2003 *Journal* Dr Frank W G Andrews suggests that I may have mixed up Dover Town and Harbour stations. He was right. The stations were close together, and a contemporary illustration in Mead's *Guide* and *The Builder* shows the South Eastern Railway's Dover Town with a tall, elaborate tower. The remains of the London Chatham & Dover Railway's station close by possess a truncated tower. Hence my error.

Following correspondence, Dr Andrews has kindly undertaken some research in local newspapers of 1843–4, and has established that although Dover Town station was purpose-built, albeit probably in modified form, it had no tower. It appears to have been substantial, with a building 290ft long on the down side and 548ft on the up. But by 1857 George Gilbert Scott in his *Remarks on Secular and Domestic Architecture* described it as '... the most contemptible of railway sheds ...', which does not accord with earlier descriptions and illustrations. Consequently it must be assumed that they were based on drawings and sketches, without recourse to the completed and modified work, bearing out Edwin Course's suggestion that there was drastic cost-cutting.

Dover Harbour station tower originally was about one third higher than it is today, making it quite tall. Old photographs show that it had a small clock, rather out of scale. I wondered whether its purpose was to serve as a look-out for approaching shipping, but Dr Franks tells me that there was a separate Pilot Tower south east of the Town station. So the reason for the LCDR's tower remains obscure. It was unlike that company to indulge in flourishes, unless it was meant to complement the prominent clock tower across the Channel at Calais.

I am most grateful to Dr Andrews for his valuable assistance in clearing up a long-standing mystery. **Gordon Biddle**

Waterways in British Crime Fiction

(*RCHS Journal*, November 2003, pages 372–4)

Philip Scowcroft may be interested to know that Lord Frederic Hamilton set one of the 'Nine Holiday Adventures of Mr P J Davenant in the year 1915' (published in 1916) on the Arun Navigation. Mr Davenant playing the role of schoolboy detective thwarts an attempt by two German spies to blow up the royal train as it crosses over the canal tunnel at Hardham on its way from Victoria to Portsmouth. (See *London's Lost Route to the Sea*, fifth edition, 1996, p246)

P A L Vine

Reviews

Britain's Historic Railway Buildings: An Oxford Gazetteer of Structures and Sites — Gordon Biddle

759pp, 245x184mm, 11 maps, approx 1,100 b&w illustrations, hardback, Oxford University Press, 2003, ISBN 0 1986 6247 5, £60 (or £50 including p&p to *RCHS Journal* readers from Direct Sales Department, OUP, Saxon Way West, Corby, Northamptonshire NN18 9ES, quoting reference 10NPBHRJRCHS).

Gordon Biddle must surely have seen more historic railway buildings and structures in Britain than any man alive. Railway architecture and engineering embrace monuments of every size from the great London termini to handsome gabled town stations like Louth and the picturesque station house at Thorpe-on-the-Hill with a pretty verandah and a roof that cries out for thatch. Biddle's book brims with vast viaducts and heroic bridges as well as amazing tunnel entrances like that at Audley End, a harbinger of the buildings of Louis Sullivan in Chicago.

One big difference between railway stations and other significant buildings is that the populations of stations are so transient. There are centuries-long associations between families and country houses and also churches, where monuments and memorials record parishioners and rectors. Much less survives to tell us the human story of those who worked in stations, the stationmasters, porters and signalmen. The virtue of Biddle's encyclopaedic approach is that it allows him to make the human connections between the railway builders, their architects and engineers, shedding light on the links between groups of buildings on different lines.

With such a handsome number of illustrations it is the variety of railway architecture in Britain that stands out. Other countries, say Switzerland or Hungary, may retain large numbers of little changed country stations but very often they are all on a pattern. This happens in Britain too but with more individuality in stations along particular lines.

The book contains numerous delightful oddballs like the dummy Italianate facades in Leinster Gardens, Bayswater, concealing the railway behind, and the level crossing footbridge at Wokingham made with curved rails. The splendour of the interiors of the Midland Grand Hotel at St Pancras is evoked by a magnificent Waring & Gillow sideboard with an overhanging canopy like those of the choir stalls in a cathedral.

I have a soft spot for gingerbread stations such as Sandford & Banwell on the Cheddar Valley Line with ornamental bargeboards to the gable ends. My favourite for atmosphere and completeness is Kemble, complete with open-sided covered foot-bridge and large elevated iron water tank mounted on columns.

Rare and unusual bridges and viaducts include Meldon and Bennerley viaducts, the only wrought iron trestle viaducts left in Britain, the muscular 1916 bascule lift bridge over the Trent at Keadby, and the stone-turreted cast iron Gauxholme Bridge at Todmorden. This is not only a formidably well organised and essential work of reference but also the perfect ticket to hours of absorbing armchair travel. There are biographical sketches of the important architects and engineers, an illustrated glossary, a bibliography and a full index.

MARCUS BINNEY

Marcus Binney is the architectural correspondent of The Times.

railway.com : Parallels Between the Early British Railways and the ICT Revolution — Robert C B Miller

196pp, 198x127mm, 18 tables, 18 figures, paperback, Institute of Economic Affairs, 2 Lord North Street, London SW1P 3LB, 2003, ISBN 0 255 36534 9, £12.50

This novel and intriguing contribution to railway history by a financial journalist analyses the many close similarities between the early British railway (EBR) revolution of the 1830s/40s and the information-and-communications technology (ICT) revolution of the USA in the 1990s / early 2000s, which embraces the internet and mobile-phone networks. EBR and ICT share common characteristics. For example, they both provided two-way general-purpose communications networks, that is,

they allowed any two people with access to the network to communicate with each other (in contrast to, say, a TV network) and they fulfilled a wide variety of purposes for both businesses and the general public. It is intrinsic that the traffic on such networks initially grows much faster than the network itself. In both situations this high public visibility and rapid growth generated a popular feeling of entering a new era. The financial and economic climate in the respective countries at these two periods was also in many ways similar — low inflation, low interest rates, light government regulation, no state subsidies. The result in both cases was an investment mania and stock-market bubble.

The book brings out other interesting parallels — for example between the battle of the broad and standard gauges on the one hand and that of the Apple and PC system standards on the other. The strategies of the competing railway companies in defending their territories have their parallels in the browser war between Microsoft and Netscape. In 1845 the *Economist* responded to the EBR boom by introducing a supplement, the *Railway Monitor*; in 2000 it introduced the *Technology Quarterly* supplement, focusing primarily on ICT developments. Both bubbles ended in frauds.

All this is generally well argued (with one or two misunderstandings of railway history) in an easily-read style. The author goes on to argue that the EBR bubble was a beneficial process, bringing railway users a denser network of lines at a much earlier date than in continental countries and at no cost to the public purse. Investors who were drawn into the bubble get no sympathy. He quotes examples to show that government involvement in planning networks or laying down operating standards produces worse results. Some may be unconvinced by this conclusion, but, if they have lost money on ICT investments in recent years, they might perhaps consider how well they have understood the early history of British railways. GRAHAME BOYES

Thomas Telford's Holyhead Road: the A5 in North Wales — Jamie Quartermain, Barrie Trinder & Rick Turner

xx+182pp, A4, 91 photographs, drawings, maps & plans, paperback, Council for British Archaeology Research Report 135, York Publishing Services, 64 Hallfield Road, Layerthorpe, York YO31 7ZQ, 2003, ISBN 1 902771 34 6, £17.50 inc p&p

This book is printed on art paper throughout, to a standard that reflects the high quality of its contents. Additional contributions are by Jo Bell, Edward Holland and Richard Newman. Publication has received grant-aid from CADW: Welsh Historic Monuments.

The book's purpose is to document the achievement of Thomas Telford in building Britain's first national road, the Holyhead Road through North Wales in 1815–26, his Menai Bridge, and the associated coast road from Bangor to Conwy, including its shorter suspension bridge. The team of authors has consulted a broad range of primary and secondary sources and, not least, the entire 83 miles from Chirk to Holyhead and the 14 mile Conwy spur have been walked, photographing, measuring and recording all original features en route. A surprising number remain, such as milestones, toll houses, coaching inns, depots for roadstone; together with original bridges and lengths of old road which have been bypassed by the modern road, although much of the latter is still on Telford's course.

The book begins with an outline of the road's origins in the government's desire to improve communications with Ireland after the Act of Union in 1801. Following chapters cover the contemporary turnpike system and Telford's other works; the building of the road, physical features; a survey of the road today; the major embankments and bridges; coaching practice and the sea link to Howth; the decline of the road after the Chester & Holyhead Railway was completed in 1850 and its 20th century revival; and 'reflections' which set it into the context of the history of roads, travelling on it, the modern journey, and conservation.

Appendices contain a detailed biography, extracts from Parliamentary Reports, a list of contracts and contractors, valuable gazetteers of milestones and other remaining features, and a comprehensive index.

The book is a unique record of one of Britain's most important historic transport arteries. It would be nice to think that others might follow — starting with the Great North Road perhaps?

GORDON BIDDLE

The Britannia and Other Tubular Bridges — John Rapley

160pp, 247x167mm, 39 b&w photographs, 38 colour plates, drawings & diagrams, paperback, Tempus Publishing, The Mill, Brimscombe Port, Stroud, Gloucestershire GL5 2QG, 2003, ISBN 0 7524 2753 9, £16.99

The Britannia Tubular bridge carrying the Chester & Holyhead Railway over the Menai Strait to Anglesey was designed by Robert Stephenson and opened in 1850. The use of wrought iron rectangular tubes as the main girders was novel, the design only having been used previously over a shorter span in the prototype bridge carrying the same railway over the Conwy. Other designs for relatively long span bridges were volatile at the time, exemplified by the collapse of Stephenson's trussed cast iron bridge over the Dee at Chester in 1847.

The Britannia and Conwy bridges were successful and long-lived. Only a few bridges to the same basic design were built later — the longest and last being the Victoria Bridge over the St Lawrence at Montreal opened in 1860. Other notable engineers helped with the design of the Conwy and Britannia bridges and with the essential proving of the manufacturing and testing of the tubes. William Fairbairn deserved more credit than he got and Edwin Clark less.

John Rapley's book about all this is a model of effective history. It covers every aspect of the topic describing in detail the preceding and subsequent evolution of bridge design. The manufacture and erection technologies are described in detail as are the design methods of the day. All this is recounted in terms of the decisions made by the key players which makes it interesting as well as informative. Non-civil engineers will have to read the explanation of things like the continuity theory and its effect on the real safety factors at the Menai quite carefully. Although the book is technically comprehensive, Rapley also skilfully exposes the personalities of the main players. The amount of research which has gone into the book is awesome. There is a bibliography, a chronology and an index. An important and valuable work. MARTIN BARNES

Railway Stations from the Air

256pp, A4, 126 aerial photographs, 191 small photographs, 126 maps, hardback, Ian Allan Publishing, Riverdene Business Park, Hersham, Surrey KT12 4RG, 2003, ISBN 0 7110 2980 6, £35

Aerofilms was founded in 1919, making peaceful use of a skill practised by airmen in World War I. A library of over 1.5 million negatives now exists, prompting Ian Allan to publish since 1987 five volumes of prints with railway content.

The fifth presents 126 sites, scattered throughout Great Britain from Alloa to Wrexham, photographed at various dates from the 1920s to the early 1970s. Several are repeated from earlier volumes but most are new. Selection of subjects has been motivated by a desire to inspire modellers as well as provide a reference for historians.

Each view now gets a full double page spread but not all the negatives respond satisfactorily to the degree of enlargement required. For these, one page would have been adequate, producing a crisper result. A pity too that the factual text, maps and ground level photos supplied for each are now displayed in separate white boxes laid over the aerial view, obscuring 30% or more, a distracting design choice which reduces the impact and value of the originals.

ALAN A JACKSON

Witness to Change — Michael A Vanns

160pp, A4 landscape, 166 colour plates, hardback, Ian Allan, Riverdene Business Park, Molesey Road, Hersham, Surrey KT12 4RG, 2003, ISBN 0 7110 2953 9, £24.99

The subtitle of this book describes it accurately — 'A Record of the Industrial Revolution: The Elton Collection at the Ironbridge Gorge Museum'. Sir Arthur Elton (1906–73) had a life-long interest in the industrial revolution and his collection of pictures and artefacts from that period was comprehensive and well chosen. After his death, the collection was given to the nation and moved from his home, Clevedon Court, to Ironbridge. Although Elton was a documentary film maker and author of considerable stature, his collection is perhaps his most important legacy.

This book reproduces pictures from his collection with flawless printing and including an enlarged

detail of many of the pictures. Most of them are of early railway scenes but there are some of other industries, a few of canals, a series of the Great Exhibition and a small number of pictures of early ephemera. Only a few of the pictures are familiar. The J C Bourne pictures of the Great Western and London & Birmingham railways, for example, we have seen elsewhere — but his pencil and ink sketches at the scene are a delightful novelty. Many of the pictures are of people, bridges and stations, only a few of locomotives. It is impossible to describe the range of subjects included by giving examples — it is too wide.

There are introductory chapters about the man, his collection and how the collection came to Ironbridge. The pictures are divided into sections with historical introductions and there are brief but informative captions. This is an important and beautiful book for which Michael Vanns and the publishers are to be congratulated. But most of the credit must go to Arthur Elton and the artists whose work he collected.

MARTIN BARNES

Electric Railways 1880–1990 — Michael C Duffy

xxi+452pp, 235x153mm, 75 photographs, hardback, Institution of Electrical Engineers, Michael Faraday House, Six Hills Way, Stevenage SG1 2AY, 2003, ISBN 0 85296 805 1, £49

As no 31 in the IEE's History of Technology series, this is a history of the technology of electric railways, rather than the railways themselves, but written widely and in a lucid style that is aimed at the general reader. (There is not a single circuit diagram.) The author argues that the electric railway should be seen as an integrated 'machine-ensemble', encompassing power supply, signalling and control systems as well as electric traction and its associated mechanical developments, such as high-speed bogie technology. So the development of electric signalling is also covered. So also is the thermal-electric locomotive, which evolved into the diesel-electric locomotive, the 'agent of cheap electrification'.

The story is an international one, led at first by the USA and latterly by France, Germany and Japan, with several other European countries also playing a part at different periods. It is also very complex, with many competing systems until the 25kV AC industrial-frequency overhead system became generally accepted in the 1950s, leaving the low-voltage DC conductor-rail system for urban railways. Since then, the application of increasingly sophisticated control systems, using semi-conductor and computer technologies, have allowed greater power outputs and faster speeds. The amount of information that the author has been able to compress into these pages is remarkable, even though he often refers the reader to another book or article to avoid repeating information that is available elsewhere. Even so, the author regrets that he has had to concentrate on the heavy-duty electric railway, omitting rack railways, mine railways, street tramways and light railways, as well as experimental systems that failed to be adopted.

Although Britain was rarely in the forefront of developments in this field, the British aspects of the story are well covered. There is an extensive bibliography. Only the poor reproduction of the photographs mars this otherwise excellent book.

GRAHAME BOYES

The Mid-Wales Railway — R W Kidner

160pp, A5, 138 photographs, 21 maps & diagrams, paperback, Oakwood Press, P O Box 13, Usk, Monmouthshire NP15 1YS, second edition, 2003, ISBN 0 85361 606 X, £11.95

Today, use of the term 'Mid-Wales' sometimes leads to confusion with 'Central Wales'. The line in question ran from near Llanidloes through sparsely populated country to the south, following the river Wye for some distance before joining the Brecon & Merthyr Railway at Talyllyn Junction. The book describes its birth-pangs and struggle for survival, first independently, then under the Cambrian and Great Western Railways, followed by nationalisation and closure. Details of locomotives, rolling stock and operation are given. This second edition has a glossy cover with colour photographs on front and rear, plus 32 extra pages, which are devoted to photographs and an index. The text is substantially unchanged from the 1990 edition, so occasional errors present in the original remain uncorrected.

MICHAEL HALE

The Farranfore to Valencia Harbour Railway, Volume 1: Planning, Construction and an Outline of Operation — Patrick O'Sullivan

152pp, A5, 108 b&w photographs, 23 maps, plans & drawings, paperback, Oakwood Press, P O Box 13, Usk, Monmouthshire NP15 1YS, 2003, ISBN 0 5536 1604 3, £10.95.

The Farranfore to Valencia Harbour Railway, Volume 2: the Life of the Line: its Train Services, Locomotives and Personalities — Patrick O'Sullivan

152pp, A5, 97 photographs, 4 diagrams, paperback, Oakwood Press, P O Box 13, Usk, Monmouthshire NP15 1YS, 2003, ISBN 0 85361 610 8, £10.95.

This pair of books deal with the railway through the wild, sparsely populated country along the north side of the Kerry peninsula to the small town of Cahirciveen and terminating at the harbour opposite Valencia Island, the most westerly point reached by any railway in Europe. Besides the magnificent scenery with views across to the Dingle peninsula, the line had some spectacular viaducts and heavy earthworks.

The first volume contains five chapters of which the first outlines the background history of the failure of Valencia Harbour to obtain status as an important Atlantic port. This lead to the eventual construction of a railway linking Valencia Harbour with the Irish main-line system. Chapter 2 describes the construction of the railway, chapter 3 gives details of civil engineering and stations, while signalling, safety and accidents are dealt with in chapter 4. Chapter 5, headed 'Life (and death) in the 20th century', describes the part played by the railway in the emigration of thousands to America, and the struggles with famine and privation suffered by those who stayed behind, right through to the 1950s. The events leading up to the inevitable closure of the railway bring the book to a rather sad end. Besides maps there is a gradient profile which, regrettably, omits the gradients.

The second volume contains pp153–304, chapters 6–10, appendices, bibliography and index. Chapters 6 and 7 are concerned with timetables and tickets. Locomotives and rolling stock are dealt with in chapter 8, probably the most interesting part of the book. Steam locomotives, diesels and railcars are described, also coaches and wagons. The human aspect of the railway is dealt with in chapter 9 under the heading 'Personalities and the work of the staff'. The railway gave access to the wildest and most rugged scenery in Kerry. Hotels were opened and horse carriages connected them to the railway. Later came motor coaches. Tourism became a big industry as described in chapter 10. Appendix 1 is a chronology embracing the entire history of the railway. Appendix 2 is concerned with accounts in 1893–4; 3 lists level crossings; and 4 is a two-page account of Valencia slate quarry. A detailed bibliography is followed by an index covering both volumes.

Neither volume is complete in itself: each needs the other, but the book could have been cumbersome as one volume. The photographs throughout are fascinating. Altogether an interesting book and a valuable contribution to Irish railway history.

JOHN MARSHALL

London's New River — Robert Ward

248pp, 248x190 mm, 88 photographs, maps & drawings, hardback, Historical Publications, 32 Ellington Street, London N7 8PL, 2003, ISBN 0 9486 6784 2, £17.95

London barrister, Robert Ward, has used his legal skills to piece together the fragmented records of the New River Company into the most detailed analysis of this remarkable undertaking.

The 42 mile, contour-hugging waterway was conceived by Edmund Colthurst in 1602. He gained Queen Elizabeth's support. Her successor, James I, granted the necessary Charter in 1604. Colthurst financed the first three miles but, by 1605, had realised that the City had to be involved to complete a scheme of this magnitude. Further Parliamentary Acts empowered the City to proceed with a far more sophisticated plan. In 1609 they entrusted the co-ordination of the works to Hugh Myddelton. Ward explains how Myddelton went about the task and identifies the costs of construction and the size of the labour force involved.

The book explains the background to the growth of London's water supply and the rivalry that subsequently developed between various companies and the way in which they either bought each other out or agreed demarcation lines for their respective

territories. The author pays particular attention to the people involved, their roles and their place in the company structure. The issue of better quality water for London, following the cholera outbreaks, is given much attention. This ultimately led to the nationalisation of the New River Company and its take over by the Metropolitan Water Board in 1904. More recent developments, including 'privatisation' in 1989, are fully addressed. The creation of the London Ring Main in 1994 and the development of the Artificial Recharge System in 1995 draw together the story of the final changes that have taken place. Very well conducted research by an expert 'sleuth' makes this book essential reading for those interested in the development of London's water supply.

ROGER SQUIRES

The Foundation of Brunel's Great Western Railway — André Gren

144pp, 236x170mm, 38 b&w illustrations, 1 map, 29 tables, paperback, Silver Link Publishing, The Trundle, Ringstead Road, Great Addington, Kettering NN14 4BW, 2003, ISBN 1 85794 210 8, £16.99

This interesting book draws extensively on parliamentary records to examine aspects of the early history of the Great Western Railway, in particular the role of Brunel. It does so in the context of some general themes: notably the ways that railway companies were promoted, financed and incorporated, the Parliamentary processes involved and the role of the state. There is an extensive bibliography of primary and secondary sources and a short index. Many of the illustrations are reproductions of contemporary material and include a fascinating, if rather bloodthirsty, series of cartoons drawn in about 1840 by the GWR's secretary, Charles Saunders, and now held by the National Railway Museum.

There is a wealth of detail in this book, which is valuable in shedding light on some lesser known and poorly documented aspects of railway incorporation and of Brunel's involvement in them on behalf of the GWR. It is not easy reading and will appeal to the historian rather than a general readership. Its value is reduced because there are no footnotes and few explicit references in the text to enable information to be traced to source. This is also true of the tabular data, with the exception of four tables in chapter 10 where a PRO Catalogue Reference is given. Some statements about early railways are over simplified and fail to distinguish tramroads from 'modern' railways which confuses the arguments. For example, the Stratford & Moreton and Bridgend Railways, both tramroads, are described as 'the two smallest railways' and many GWR constituents in Appendix 1 are canals or tramroads, but this is not interpreted. There are editorial errors, including some unnecessary repetition of material, which detract from an otherwise worthy volume.

TIM EDMONDS

An Illustrated History of Southern Coaches — Mike King

224pp, A4, 200 photographs, 80 diagrams, hardback, Oxford Publishing Company, an imprint of Ian Allan Publishing, Riverdene Business Park, Hersham, Surrey KT12 4RG, 2003, ISBN 0 86093 570 1, £35.

Surely not even the most dedicated carriage, or Southern Railway, enthusiast will buy this book to read from cover to cover or dip into on a casual basis. It is a reference book in the traditional sense. Keep it on the shelf and turn to it when necessary to discover anything there is to know about specific carriage types from late pre-grouping to the late 1940s. The price reflects the work that Mike King has put into it. Not only carriages are covered, in black and white illustrations and 4mm drawings, but non-passenger-carrying express stock including milk tanks, post office vans and even the cross channel brake vans built to SNCF loading gauge as well as the converted hearse van in Sir Winston Churchill's funeral train are covered. Not forgetting the notorious Bullied Tavern Cars that were such a critical disaster but economic triumph. The individual carriages within numbered sets, so beloved of SR, are given in tabulated form and there is much useful information about liveries, allocations and workings on main line and branch line alike. Modellers will find it indispensable, although a nit-picking little criticism is that the drawings of later types are slightly fuzzy in reproduction. It is hard to believe that this is ever going to be equalled, let alone bettered, as a definitive study.

BRIAN WESLEY

The Arun Navigation — P A L Vine

128pp, 235x165mm, photographs, maps, drawings, paperback, Tempus Publishing, The Mill, Brimscombe Port, Stroud, Gloucestershire GL5 2QC, 2000, ISBN 0 7524 2103 4, £9.99.

Although once connected to the Thames (via the Wey & Arun Canal and the Wey Navigation) and thus to the main English waterway network, this southern waterway has been isolated since the closure of the Wey & Arun in 1871. The author, who has devoted much effort to the exploration and study of south-eastern waterways, is to be congratulated for assembling this collection of images. The more picturesque reaches of the river encouraged artists, so a significant number of paintings and drawings is included as well as the predictable postcard views and OS map sections. Some of the reproduced illustrations lack contrast, but there is a good coverage of the various aspects of this navigation, for example, its link to the Thames, its seagoing vessels on the southern section, barges, wharves, floods, bridges and the unique tunnel (on an English river navigation) at Hardham. A hint of what the future might hold is given by a photograph of a Wey & Arun Canal Trust working party rebuilding a lock on the Arun Canal, although that was over ten years ago.

The text is brief, as is usual in the 'Images of England' series. Clearly, the publisher does not seek to supplant the standard histories which must still be consulted by serious students. Nevertheless, it is entertaining to see such an extensive collection of pictures of an often forgotten waterway.

MARK BALDWIN

Beyond Hidden Dangers — Stanley Hall

128pp, 300x220mm, 120 photographs & 6 plans, hardback, Ian Allan Publishing, Riverdene Business Park, Hersham, Surrey KT12 4RG, 2003, ISBN 0 7110 2915 6, £19.99.

In this book, Stanley Hall, a former professional railwayman and signalling and safety officer at British Railways Board headquarters and now one of Britain's foremost commentators on railway safety, continues his consideration of the causes and effects of railway accidents within the era of privatisation. The book examines many of the most recent and high profile incidents, looking at how the railway industry has responded to the realisation that safety could have been compromised following privatisation in 1995. The author also considers, in some depth, how far the industry has proceeded in its attempt to ensure that similar accidents cannot recur. Mr Hall also looks into the role of the Railway Accident Investigation Branch of the Health & Safety Executive.

The book is excellently supported by photographs and plans and contains a useful index. It will be of great interest to those who wish to study railway safety in the past, present and future.

RODNEY HARTLEY

Midland Main Lines: St Albans to Bedford including the Hemel Hempstead branch — Geoff Goslin

96pp, 231x166mm, 120 b&w illustrations, 16 maps, 13 timetable extracts, hardback, Middleton Press, Easebourne Lane, Midhurst, West Sussex GU29 9AZ, 2003, ISBN 1 904474 08X, £14.95

The Midland Railway's London extension has lost its once-dominant southbound coal traffic but passenger services are at a record level. The photographs, many predating nationalisation and depicting the infrastructure of the traditional railway, indicate how stations that began as variations on a common theme have been altered, rebuilt or closed as circumstances changed. Most stages of this process are illustrated — from Bedford before 1868 to Luton Airport Parkway opened 1999. Freight traffic is not overlooked: for instance, the steep gradient at Forder's cement works led to some goods locomotives being fitted with tender cabs.

Glimpses of the Hemel Hempstead line, which came to the Midland after being spurned by the L&NWR and GNR, confirm that it was a cheaply engineered and very minor branch.

The usual large-scale maps, a clear diagram of the twice-altered approaches to Bedford station and generally informative, although brief, captions create a more coherent volume than some in this series.

DENNIS HADLEY

Glory Days: British Ferries — David L Williams

96pp, 235x185mm, about 150 photographs, hardback, Ian Allan Publishing, Riverdene Business Park, Hersham, Surrey KT12 4RG, ISBN 07110 1891 5, £16.99

This lavishly-illustrated book examines the development of British ferries from the end of the Second World War to the 1980s. It ranges widely geographically from the Isle of Man Steam Packet Company to Sealink. The text explores the changing patterns of demand, especially the growth of ro-ro traffic, and the changes in design and technology leading to car ferries and then vehicle ferries becoming almost extensions of the motorway network. The author brings out well the social and economic changes which led to a different demand pattern, such as the high employment conditions and rising real wages which led to growth in car ownership and the taste for 'exotic' foreign holidays. The book is good on tracking the various services and which ships were operating on them. It also stresses the changes in ferry size and configuration — the conversion in the 1960s of many passenger-only ferries to stem-loading car ferries — the type of propulsion and the changes in ownership from the 1970s. It has no index and the bibliography is brief but otherwise it is a useful short history.

JOHN ARMSTRONG

Rails Around Dublin: an Irish Railway Pictorial — Dónal Murray

80pp, 213x282mm, 205 b&w illustrations, 2 maps, paperback, Midland Publishing, 4 Watling Drive, Hinckley, Leicestershire LE10 3EY, 2002, ISBN 1 85780 144 X, £12.99

This is a collection of annotated photographs taken between 1931 and 2002 in an area bounded by Greystones, Kildare, Enfield and Drogheda. After a four-page introduction, the pictures are organised into seven chapters: four geographically based around each of the main lines out of Dublin, followed by Inchicore Works, the North Wall lines and the Guinness Brewery, and finishing with a brief note on Metro proposals. There is no index, bibliography or list of pictures.

The photographic coverage includes much of interest, notably of operations at Guinness, but is patchy in both time and place. From the historical viewpoint it is unfortunate that over a quarter of the pictures are undated, and others lack precise dates. A major weakness is that the two maps provided give only a limited view of Dublin city; there is no map on which to locate the pictures that lie beyond.

In the words printed on the back cover, this book 'explores the complex and fascinating network of railways which serve Dublin'. It has some success in meeting this objective and will be enjoyed by those with an interest in the railways of Ireland, although at £12.99 for 80 pages it is somewhat overpriced. The book is not recommended for those seeking a systematic approach or historical detail.

TIM EDMONDS

Branch Line to the Derwent Valley including the Foss Islands Branch — Vic Mitchell & Keith Smith

96pp, 235x165mm, 120 illustrations, 19 maps & plans, hardback, Middleton Press, Easebourne Lane, Midhurst, West Sussex GU29 9AZ, 2003, ISBN 1 904474 06 3, £14.95 (post free)

The first third of this book covers the North Eastern Railway's Foss Islands branch on the east side of York and the associated railway systems serving Rowntree's factory and the York Gas Company's works. The remainder deals with the Derwent Valley Light Railway which opened in 1912/3 and closed in stages between 1964 and 1981. The arrangement follows Middleton Press practice — a short historical introduction preceding pages of well-captioned photographs and plans illustrating features of the lines and their operation in geographical order. Coverage is good and includes views of the immaculate locomotive workshop at Rowntree's, the DVLR's railbus which operated the short-lived passenger service and the attractive rural stations which graced a line on which traffic was mainly agricultural. A small caveat is that the track diagram of Cliff Common does not exactly match that which appears in the photographs. Otherwise a happy read.

STEPHEN BRAGG

Eastern Electric — John Glover

158pp, 300x220mm, 170 photographs, 24 maps, 30 tables, hardback, Ian Allan, 4 Watling Drive, Hinckley, Leicestershire LE10 3EY, 2003, ISBN 0 7110 2934 2, £21.99

This is a fine, well-illustrated book which gives a history of all the electrified lines, past and present, in date order, in the former Eastern Region of British Rail. It starts with the North Eastern Railway's high-density suburban Tyneside electric line, which occurs again at the end of the book, electrified a second time as the Tyne & Wear Metro. Another NER line covered is the Shildon–Newport line built to carry coal and de-electrified as early as 1934. Much of the Great Eastern and Great Northern networks are now electrified; this book deals in detail with the piecemeal way in which this came about from the 1930s to the 1990s. Other lines included are the Harton Electric Railway, Grimsby–Immingham, the Docklands Light Railway and the Airedale and Wharfedale lines. There is a particularly interesting section on the Manchester–Sheffield–Wath, showing how this line never reached its full potential because of its isolation from the rest of the electrified network. The use of timetables to illustrate development of services on this and other lines is fascinating.

WARWICK BURTON

Eastern Main Lines: Hitchin to Peterborough, including the Ramsey North branch — Vic Mitchell & Allan Mott

96pp, 240x170mm, 120 illustrations, 25 maps & plans, 1 gradient profile, hardback, Middleton Press, Easebourne Lane, Midhurst, West Sussex GU29 9AZ, 2003, ISBN 1 904474 07 1, £14.95.

Slicing through the Bedfordshire and Huntingdonshire landscape, the Great Northern main line served market towns such as Biggleswade, St Neots and Huntingdon seemingly by accident rather than design. Although through traffic always far outweighed local in importance, this offering from Middleton Press shows how the GNR stimulated the extractive industries between Hitchin and Sandy and south of Peterborough as well as serving Fenland agriculture. The illustrations are well-chosen and well-reproduced. Unusually, some non-railway scenes are included, such as Tempsford airfield and the drainage of Whittlesey Mere. Occasional caption details might be queried: Peterborough power station, for example, was largely (exclusively?) rail, not water-served. But, overall, highly-recommended.

TONY KIRBY

Steam Around Plymouth — Bernard Mills

128pp, 285x165mm, 221 photographs, 1 map, paperback, Tempus Publishing, The Mill, Brimscombe Port, Stroud, Gloucestershire GL5 2QG, 2003, ISBN 0 7524 2814 4, £12.99

This book offers much more than its title would suggest. A well-selected series of photographs give a superb railtour of the Plymouth area from Edwardian days down to the 1960s. Geographical coverage is comprehensive: the ex-GWR from Hemerdon to Saltash, the ex-L&SWR from Friary to Tamerton and their branches and twigs from Devonport Dockyard to Victoria Wharf. Vanished traffic comes to life again, including the Saltash auto-trains and the 'First Cornish New Potato Special' of 1958 (complete with headboard). Ships, tenders and ferries get a look in, as does the current preservation scene in the shape of the Plym Valley Railway. Regrettably, some photographs are too dark to enable any detail to be discerned. Nonetheless, good value for money.

TONY KIRBY

More Odd Corners of the GWR — Kevin Robertson

130pp, 263x194mm, approximately 250 b&w photographs, hardback, Sutton Publishing, Phoenix Mill, Thrupp, Stroud, Gloucestershire GL5 2BU, 2003, ISBN 0 7509 3219 8, £19

This is a very varied album of pictures of the GWR in the age of steam. Most of the pictures are of locomotives at work in their setting but there are many oddities and also features on carriages and wagons. There are some very early images but most are post-nationalisation. Many of the 'corners' are

really not 'odd' — Temple Meads, Snow Hill, Sonning Cutting and Box Tunnel, for example, are all here. Captions are informative but a few are guesswork and a few wrong. A picture of a clean 'Castle' is called a 'running in turn' — unlikely as the engine is pictured coming down the Lickey Incline. A small prairie tank engine is identified as '51XX no 5175' which cannot be a printer's error. 'Bulk road' and 'Whitehall Summit' probably are. The pictures are well reproduced and in sharp contrast. A good book of its type.

MARTIN BARNES

Odd Corners of the London Midland from the Days of Steam — Eric Sawford

146pp, 280x200mm, 200 b&w photographs, hardback, Sutton Publishing, Phoenix Mill, Thrupp, Stroud, Gloucestershire GL5 2BU, 2003, ISBN 0 7409 3220 1, £19.99

'These engines must be photographed before they disappear for good.' How often have we said (or thought) that — and then done nothing about it? But Eric Sawford *did* take the photographs: LNWR Coal Tanks, Midland Compounds, 9Fs and many others.

This book takes us through the London Midland Region, its illustrations all dated and adequately if rather briefly captioned. We see pictures of clean engines, engines on the scrap road, engines that shouldn't have been on the scrap road had it not been for the headlong rush to dieselise everything, engines undergoing heavy repairs at unexpected sheds; photographs we should like to have taken. This book accomplishes exactly what it sets out to do. Sawford isn't an 'Eric Treacy' photographer; he's not concerned with aesthetics, architecture or locations; no Lune Gorge, no Beattock, no light and shade in Lime Street cutting, but a workmanlike record of past glories: a book worth having and keeping.

BILL HOLLINSON

Stage and Mail Coaches — David Mountfell

32pp, A5, 47 b&w illustrations, paperback, Shire Publishing, Cromwell House, Church Street, Princes Risborough, Buckinghamshire HP27 9AA, 2003, ISBN 0 7478 0554 7, £3.50

This is a first-rate concise survey of the history of coaching, Britain's first passenger transport system, as the author points out. It took a while to evolve from 17th century beginnings; the appearance of mail coaches from 1784 was a major factor. Coaching reached its apogee in speed and punctuality in the twenty years after Waterloo — an all too short climax before railways made it history. Improvements in coach technology and, especially, road conditions were crucial. As a business coaching was high in cost and risk with narrow profit margins; relatively few entrepreneurs were in a large line of business, even in London. Coaching's romance, fuelled by prints and Christmas cards, has been exaggerated. With detailed records scarce if not non-existent the historian is hard put to it to find other than anecdotal evidence. This is a balanced summary of what there is; the well-chosen illustrations are nicely reproduced.

PHILIP SCOWCROFT

Wings on Rails: industrial railways in the logistic support of Britain's air defence forces 1914–1994 — W J L Corser

vi+143pp, A4 landscape, 54 photographs, paperback, Arcturus Press, The Manse, Fleet Hargate, Lincs PE12 8LL, 2003, ISBN 0 907322 85 9, £16.95 post free

This book has been published for the World War Two Railway Study Group and is certainly the definitive work on the subject. Following a ten-page historical introduction, there are 96 pages of gazetteer of all sites in the British Isles where railways have been used by and for the Royal Naval Air Service, Royal Flying Corps, Royal Air Force, Royal Aircraft Establishment, US Army Air Force and US Air Force, describing no fewer than 88 major sites, 43 minor sites with locomotives and 78 minor sites. Appendices provide details of the signalling arrangements at three locations where there was a conflict between aircraft take-off/landing and the movement of trains on an adjacent 'main line' railway, together with lists of locomotives and rolling stock used by and for the air services. Sources of information are quoted and there is an extensive bibliography.

GRAHAME BOYES

Wareham to Swanage: 50 Years of Change — Vic Mitchell & Keith Smith

96pp, 241x173mm, 121 b&w photographs, 3 maps, hardback, Middleton Press, Easebourne Lane, Midhurst, West Sussex GU29 9AZ, 2003, ISBN 1 904474 09 8, £14.95

Fifty years ago elderly steam engines worked Swanage's passenger trains. The were succeeded by newer engines, then by diesel units. But in 1972 the line closed and track was removed — apart from three miles serving goods traffic which is still developing. Gradually a preservation society relaid track and restored passenger trains as far as Norden, reopening both branch stations and providing three new ones. Then in 2002 goods and passenger lines were joined so that a Virgin Voyager could visit Swanage. All these aspects are illustrated in this book. Over half of the photographs date from the preservation era. ALLAN BRACKENBURY

Working Boat: Early Canal Carriers in the West Midlands 1770–1845, 2, The Birmingham Trade — Ray Shill (compiler) & Tom Foxon (editor)

64pp, A5, 1 photograph, 5 illustrations, 12 maps, Heartland Press, 100 Frederick Road, Stechford, Birmingham B33 8AE, 2003, ISBN 0 9543098 0 4, £6

This volume considers all the wharves in Birmingham, Aston and Digbeth which were used by merchandise canal carriers. The development of the wharves and warehouses by their successive owners and tenants is clearly explained, with details of the services operated and the types of merchandise carried. Good use is made of contemporary maps. Full sources are given, which shows the admirable depth of the research. Although this is not a book for the general reader — covering one aspect of carrying, in a small but important part of England, and for only 75 years — it is a valuable examination of a relatively unknown aspect of how canals operated in their heyday. PETER BROWN

Short Reviews

As They Were: Railways on OS Maps in 1950s, Book 1, Southern England — Aeneas Mackintosh (editor)

183pp, A4, 176 full page colour maps, hardback, Offington Press, PO Box 2117, Pulborough, West Sussex RH20 2YP, 2002, ISBN 0 9543 2690 3, £30 post free from the publisher

This is an atlas of southern England bounded in the north roughly by the GWR main line from Paddington to Bristol. It comprises full colour reprints at a slightly reduced scale of the 1 inch Ordnance Survey maps 6th edition — dating from around 1947. As such they represent the railway system at its fullest extent and will be an invaluable aid to explorers using modern maps on which the tracks of old railways are incompletely depicted. Former canals are, in some instances, better indicated than they are on modern OS maps. Everything else is here as well as the railways and the maps show strikingly how the topography has changed in 50 years due to new building and new roads. The 6th edition was not as clear as later editions, particularly in urban areas such as London and Bristol. There is an index of stations and a reproduction of the key to symbols.

Walks from the Welsh Highland Railway, Part 1: Caernarfon to Rhyd Ddu — Dave Salter & Dave Worrall

96pp, 183x121mm, paperback, 33 photographs, 15 maps, Gwasg Carreg Gwalch, 12 Iard yr Orsaf, Llanrwst LL26 0EH, 2003, ISBN 0 86381 816 1, £4.50.

Timed to coincide with the extension of the restored Welsh Highland Railway to Rhyd Ddu, this pocket-sized publication describes 12 walks that either start or finish at one of the railway's stations. Some, including the Snowdon Ranger and Rhyd Ddu paths to Snowdon's summit, will give good views of the railway, others are remote from it. All of the walks are accompanied by a condensed historical background to the locality. The bibliography does not include any of the books published about the railway.

West Country Branch Lines: a Colour Portfolio — Peter W Gray

80pp, 190x247mm, 80 colour photographs, hardback, Ian Allan, Riverdene Business Park, Molesey Road, Hersham, Surrey KT12 4RG, 2003, ISBN 0 7110 2950 4, £14.99

This is a collection of attractive photographs featuring most branch lines west of Taunton and a few others. Many show trains with a scenic background: indeed, some of the shots include a train as a minor part of a landscape view. All were taken between 1958 and 1967, half of them in 1961–2. Those were the days when the sun always shone and diesels hardly got a look in. An enjoyable album.

The Sheppey Light Railway — Peter A Harding

32pp, A5, 48 b&w photographs, 9 maps, 7 diagrams, paperback, Peter Harding, Mossgiel, Bagshot Road, Knaphill, Woking GU21 2SG, 2002, 0 9523458 7 0, £3.50 plus 40p for postage

This is a revised version of a title originally published by Mr Harding in 1984 and is in the same format as his many other titles about Southern Railway branch lines. A detailed chapter on the building of the line is followed by others describing the route, the motive power and closure. A single page entitled 'Life on the Sheppey Light' captures the true nature of daily life on such a railway. Most of the illustrations date from the time of opening or the years immediately prior to closure.

The Archaeology of Railways — Richard Morriss

191pp, 247x167mm, 120 b&w photographs, 31 colour plates, paperback, Tempus Publishing, The Mill, Brimscombe Port, Stroud, Gloucestershire GL5 2 QG, 2003, ISBN 0 7524 2854 3, £15.99

This is the first paperback edition of a book first published in hardback in 1999 and reviewed fully in the *RCHS Journal* in November 2000. It is an introduction to the subject with chapters covering earthworks, track, hybrid and rope-hauled railways, atmospheric railways, bridges, tunnels, stations, goods depots, loco sheds and works and signal boxes. The illustrations are well chosen and reproduced.

Clinging On: the Moira Cut, Coal and the Last Days of Carrying — G Box

109pp, A5, 34 photographs, 2 diagrams, paperback, Ambion Publishing, 56 High Street, Measham, Swadlincote, Derbyshire DE12 7HZ, 2003, ISBN 0 9545056 0 3, £9 (p&p £2)

'Clinging On' takes us into the fascinating world of the enthusiasts and businesses who continued the struggle to carry cargoes in canal narrow boats after the nationalised fleet finished in 1963. Mr Box has had access to important records and the significant characters in his story and their evidence is important and usefully recorded. He takes us into new and fertile ground, which needs to be researched and published, and the new electronic technologies have made this possible. Aspiring researchers should be enthused by the subject matter. The book appears to have lacked an editor as it has too many repetitions, spelling and grammatical errors.

Number Plates — David Moss

32pp, A5, 52 b&w photographs, paperback, Shire Publications, Cromwell House, Church Street, Princes Risborough, Buckinghamshire HP27 9AA, 2003, ISBN 0 7478 0566 0, £3.50

A brief but fascinating survey of road vehicle registration and plates from their beginnings in 1896. They first applied only to heavy road locomotives, becoming general in 1903, with further developments and rationalisation in 1920. The system has adapted to the huge proliferation of motor vehicles since then, especially after the mid 1950s. As always with Shire, the well-produced photos underline many of the points made, not least the many curiosities, anomalies and 'collectors' plates'.

Errata

Page 357 The last few end-notes were omitted:

5. Records of the Worcester & Birmingham Canal; Public Record Office, RAIL 886
6. Borough of Stratford upon Avon Records; Shakespeare Birthplace Records Office
7. N Billingham, *Stratford Canal*, 2002

From the RCHS Photographic Collection

No 20: RAC 62/32 (July 2003, page 328)

The suggestion in the November *Journal* that this might be on the Cambrian branch to Van elicited two responses both suggesting that this was probably Cerist.

Mr R W Kidner wrote that it was the one station on the branch that he did not photograph, but the station house was standing in 1953, and it did not have a loop which explains the narrow formation. It may not have had a platform. It was definitely not Trewythan, Pwll-Glas or Garth, and Red House did not have a platform.

Tim Edmonds visited and photographed the line in early 1980s and took photographs including the one published here of Cerist. It shows the Station House (Tyr Orsaf) looking along the B4569 towards Trefeglws at grid reference SN964881. The mystery picture was taken from the trackbed to the right of the road in this view (that is in an almost southerly direction and towards Van). By 1982 the house had undergone some repairs. The chimneys at each gable have been removed, and there is evidence of slate renewal at each end of the roof where this would have occurred. Barge boards and finial are retained but the slate cladding has been replaced with a render, and an additional window knocked through at first floor level in the gable wall facing the road.

Cerist station building, 1982
(photographed by Tim Edmonds)

No 21: RAC 66/18 (November 2003, page 396)

Nobody has made any suggestions about this photograph.

No 22: Print RAC 111

Another unlabelled print from the Ray Cook collection, taken by himself at an unknown date. This is a single negative and there are no adjacent views to suggest a location. It looks like a railway building, but where is it, and what is it?

If you can identify the location or provide information about the view, please contact Stephen Duffell, Hillcroft, Ford, Shrewsbury, SY5 9LZ, telephone 01743 851154, or e-mail stephen.duffell@tesco.net.

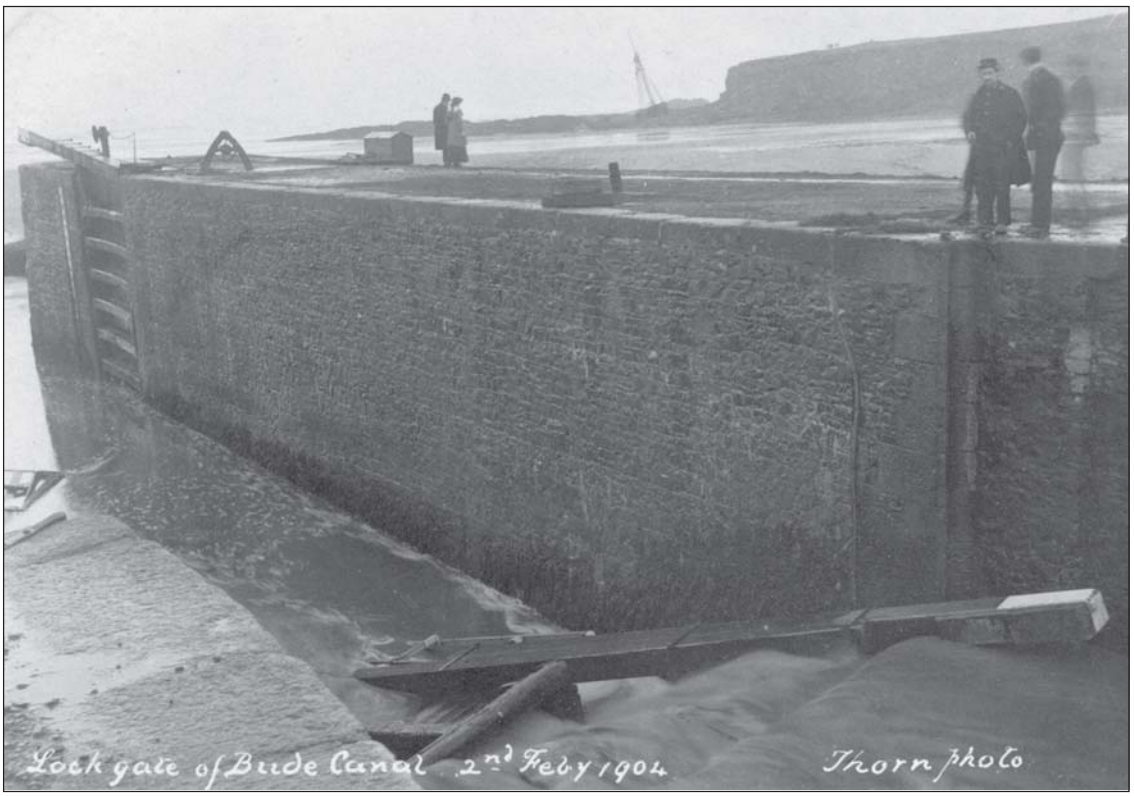
No 20: RAC 62/32

The mystery photograph published in the July 2003 issue and now thought to be Cerist

From the RCHS Canal Postcard Collection, No 3

This time there is no problem identifying the place — Bude — though there is a query about the exact date, which is shown on the postcard as '2nd February 1904'. *The Bude Canal*, by Bill Young & Bryan Dudley Stamp, describes the incident thus[1]:

> ... a phenomenal high tide and heavy seas on 3rd February 1904 caused considerable damage to the breakwater and completely destroyed the lock gates, which were swept out to sea. A ketch, the *Wild Pidgeon*, moored just inside the gates, was also swept out to sea and became a total wreck under Summerleaze Point. She was owned by Mr N Tregaskes, a Bude Merchant, but luckily there was no-one on board at the time. Another vessel, the *Jessie*, broached across the now empty entrance and a large volume of water was released from the Canal.



Summerleaze Point is immediately to the north of Bude, so presumably it is the *Wild Pidgeon* which is visible across the bay. One of the bystanders looks like a London & South Western Railway servant. Just to his left can be seen the outline of the tramway which was used to move sand from the beach to the railway. To his right is a ghost — perhaps a long-dead Cornish fisherman come to look at the damage?

1. Bill Young & Bryan Dudley Stamp, *The Bude Canal*, 1998, 53. The book has a photograph taken from the sea of the lock, which confirms that both the lower gates were undamaged; it also shows the *Jessie* diagonally across the canal, just above where the top gates should be.

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