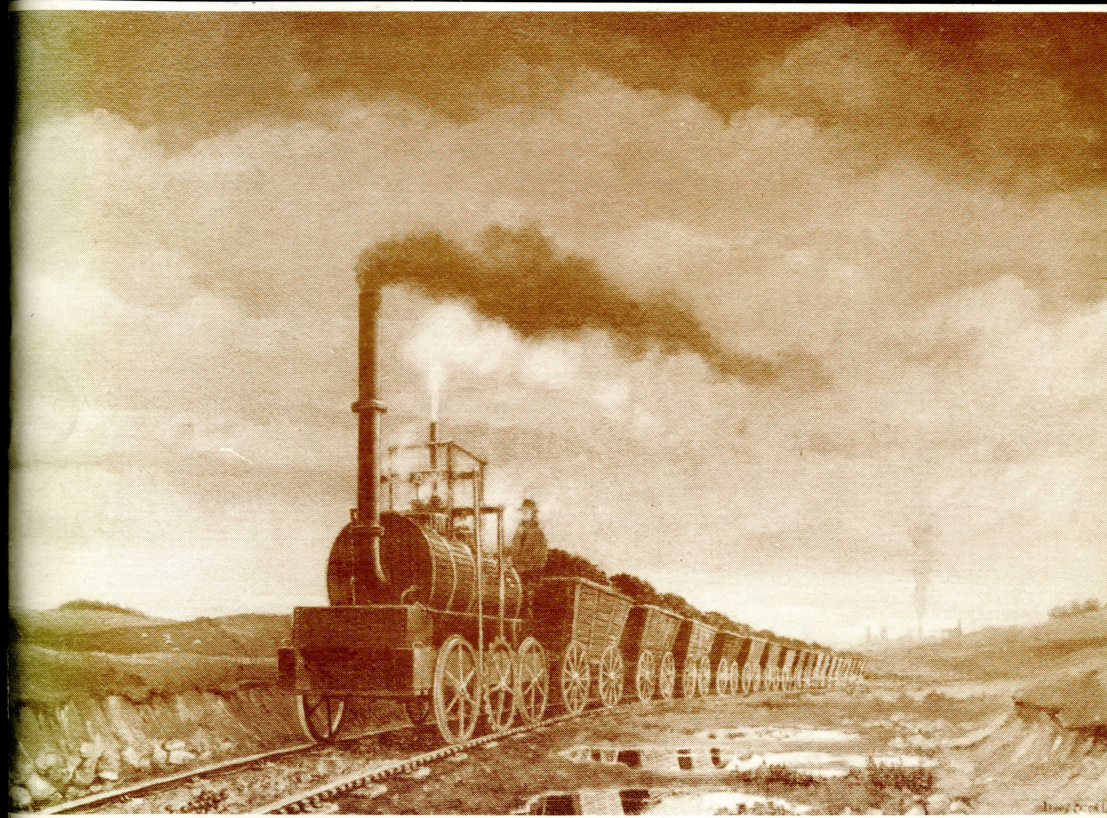


A HISTORY OF THE MIDDLETON RAILWAY LEEDS



SEVENTH EDITION

FOREWORD

In its youth, the Middleton Railway gave vital impetus to the growth of Leeds and of Leeds industries. It made possible an ample supply of cheap coal, which benefitted both the developing use of steam engines in textile and other factories, and also the growth of those industries whose processes used its heat directly; brewing, iron and brass founding, and glass, pottery and brick making. Its successful pioneer use of steam locomotives proved to the world that they were commercially viable, and led to the development of the extensive Leeds locomotive-building industry.

Our railway survived the decline and demise of much of the heavy industry it served during its first two centuries. Now it serves instead Leeds' leisure and tourist trade, providing an interesting and worthwhile hobby for some and an enjoyable afternoon out for others. It also gives an exciting experience of 'living history' to hundreds of schoolchildren each year.

It is now over thirty years since the start of volunteer working of the line, and during that time much has been achieved by a small group of dedicated enthusiasts. In 1758, when the citizens of Leeds watched the first coal waggons rolling into Casson Close, *The Leeds Intelligencer* reported that "a general Joy appear'd in every Face": more than two hundred and thirty years later, the oldest firm in the business still has this aim.

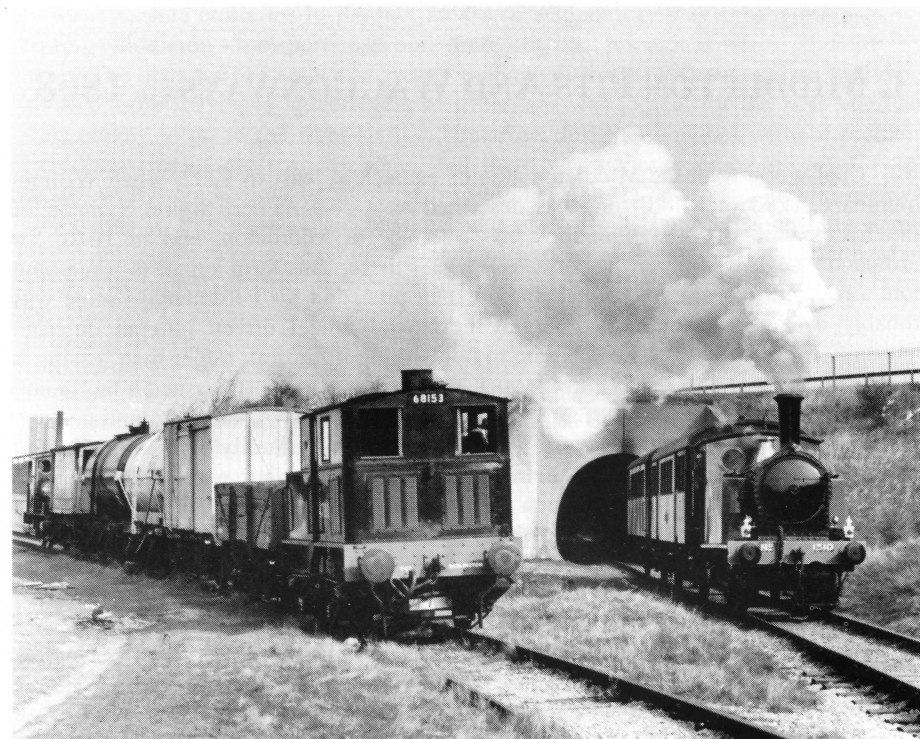
Sheila Bye, Middleton Railway Trust Historian



Above: *Mirvale* at Park Halt, 1992. In recent years, the Middleton Railway's environment has been returning to its original verdure. Photo: *Keith M. Hartley*

Cover Picture: a Murray/Blenkinsop locomotive hauls its train along the Middleton Railway, c.1812. Photo by *Mike Scargill* of an original painting by *Denis Caton*.

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ISBN 0 9516205 3 3



Above: old and new images of the Middleton Railway meet during a photographers' special event, 1993. The Sentinel, the Middleton Railway Trust's first steam locomotive, waits on the Dartmouth Branch with a demonstration goods train, whilst NER1310 steams southwards from the tunnel with a passenger train. Photo: *Robin Stewart-Smith*

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At its fullest extent, the Middleton waggonway/railway network had three levels, linked by inclines: the upper level (the plateau at the southern end); the middle level (site of the Broom Pit and the present Park Halt); and the lower level (from Hunslet Carr to Leeds). In the text, these levels are used to indicate the sites of various developments (see also centre page map). Original spellings, etc. have been used in all quotations.

1. MIDDLETON PITS AND WAGGONWAYS - to 1808

Coal-working in the Middleton area dates back at least to 1202, when William Grammary, Lord of Middleton, was described as a coal owner. Simon Symeon of Pontefract's will, of 1401, mentions his "cole pits" at Middleton, and in 1646, Sir Ferdinando Legh was the owner of a "cole myne" there. This term suggests something more advanced than the traditional shallow 'bell pits', and Sir Ferdinando's mine was probably a 'day hole' or adit; a largely horizontal tunnel driven into an outcrop. Unusually for a landowner, he was said to be working it himself, rather than leasing it out. In 1669, "FRANCES CONYERS OF MIDLTON IN YORKE SHIRE" issued a halfpenny token "FOR THE VSE OF YE COLE PITS", which again must have been substantial.

Ralph Brandling, member of a Tyneside coal-owning family of Felling, County Durham, married Anne, the Legh heiress, in 1697, in due course amalgamating the property of the two families. Although his father-in-law did not die until 1706, Ralph Brandling appears to have taken charge of at least the mining interests at Middleton before then, and is mentioned in the 1701/2 diary of Ralph Thoresby as having lately erected "an ingenious engine to drain his coalmines". In 1717, it was further recorded that he was the owner of "A Wrought Colliery or Coal Mine with a Water Engine and Smithy" at Middleton. Brandling brought to Middleton the mining innovations of his native Tyneside; the business expanded, and by 1728 he had two coal-loading staiths established on the banks of the River Aire at Thwaite Gate, c.2½ miles downstream from Leeds. Around 650 boatloads a year reputedly were handled there.

Ralph Brandling died in June 1749, and was succeeded by his nephew, also Ralph, who died a few weeks later. Ralph the younger's son, Charles, was abroad at the time, presumably on his 'Grand Tour' as he was only sixteen years old. He did not return to England until early 1751, and agents ran at least the Middleton estates for him. As he took up residence on the Tyneside estates, first at Felling and later at Gosforth House, agents continued to oversee his other possessions, and by 1754 a fellow Tynesider, Richard Humble, was his Middleton agent, probably with a brief to improve the colliery's share of the growing Leeds market.

For some centuries, there had been steady depletion of English woodlands, for building ships and houses, for domestic and industrial fuel, to make charcoal for iron-smelting, and by clearances to create new agricultural land. During the 18th century, coal was being used increasingly as a replacement for domestic firewood, as industrial fuel, latterly including use in steam-engines, and, following Abraham Darby's pioneer work, to provide coke for iron-smelting. In the mid 18th century, Leeds had three main sources of coal supplies: Brandling's Middleton pits, Joshua Wilkes' Beeston pits, which were nearer to Leeds, and the Fenton family's Rothwell pits, recently deepened, which were closer to the Aire and Calder Navigation for transporting coal into Leeds, albeit with toll charges. Waggonways were already a familiar sight in the Shropshire and Tyneside coalfields, and Ralph Brandling the elder had them built for at least two

of his Tyneside collieries in the late 1690's; a waggonway was an obvious means of cutting Middleton's transport costs and, therefore, coal prices.

The distance to Leeds was greater than the distance to Thwaite Gate, and would involve more wayleave agreements, so it perhaps was logical for the first Middleton waggonway to go to the river staiths. However, this plan was not without problems. Brandling owned most of the route, but there was an intervening piece of Fenton estate, which could only be avoided by running along a section of public highway. Objections to this were raised by the Duke of Norfolk, James Fenton, and Samuel Armitage, and a writ of *Ad Quod Damnum* ("to what damage"), dated 29th March 1755, was copied into the Quarter Sessions records on 31st July. On the King's behalf, the Attorney General directed the Sheriff of York to inquire:

whether or no it be to the Damage or Prejudice of us or any other if we should grant to Charles Brandling Esquire License that he the said Charles Brandling may make and lay down with Timber Wood and other Materials a Waggon Way of the length of three hundred and twenty yards or thereabouts leading from a Close or ffield called Gamstock Close to a ffield or Close called Upper two Lands belonging to the sd Charles Brandling in upon & along a certain Lane & publick Highway leading from the Village of Middleton to the Town of Leeds called by the Name of Woodhouse hill Lane

with the *proviso* that Brandling "do make good and keep in Repair" the portion used for the waggonway "to the end that all Passengers and Travellers & all Carts & other Carriages may safely commodiously & conveniently travel & pass along the same". The "Inquisition" was taken at Leeds on 28th April, before the Sheriff and nineteen assorted merchants and gentlemen of the townships of Leeds and Hunslet. They found that to grant the requested licence to Charles Brandling would cause no "Damage or Prejudice" to the King or to any other, and the Woodhouse hill Lane section - "nine hundred and sixty feet of Land in length and four feet and eight Inches in breadth" - was duly sanctioned.

The river staiths waggonway undoubtedly benefitted the colliery's trade with other areas, and during the period 1753-57 a total of 15 pits were sunk, mainly spread along the lower part of the Middleton Woods escarpment and the area immediately north of there. Coal sent up-river to Leeds would incur river and wharfage tolls, just as did the 'export' trade, but the alternative was the road, still little more than a bridle path for much of the way from Middleton to Leeds. Furthermore, the upkeep of road surfaces was causing concern, because of growing volumes of traffic, and tolls were being imposed to provide money for repairs. In November 1757, *The Leeds Intelligencer* weekly paper printed a letter suggesting that a toll bar be placed on the Leeds-Hunslet road, so that the passage of coal carts could be charged for; clearly, a waggonway to Leeds was also needed, to keep Brandling coal competitively priced.

On Tuesday 6th December 1757, *The Leeds Intelligencer* printed a notice that "PROPOSALS HAVING been made for reducing the Price of COALS", a meeting would be held the following Friday. Nothing further appeared until 10th January 1758, when Richard Humble advertised:

*To all Gentlemen, and other Inhabitants of
the Town of LEEDES,*

AS the Scheme for reducing the Price of COALS, proposed by CHARLES BRANDLING, Esq; has met with all proper Encouragement at two Meetings held for that Purpose by the Gentlemen and principal Inhabitants of the said Town, and a most generous Subscription set

on Foot for establishing the same: *It is therefore desired*, (as it is hoped the intended Waggon-Way will be completed about *Lammas* next,) That the Inhabitants of the said Town will all unanimously concur to encourage the said Scheme, and decline giving Ear to any Insinuation that may be offer'd to the Prejudice of so laudable an Undertaking, which once completed, Mr. BRANDLING will stand oblig'd to serve the Inhabitants of the said Town with Coals of as good Quality as any other Coal, and much cheaper than they can be supplied with elsewhere: *And for the Benefit of the said Town, this is to give Notice*, That Attendance is this Day given, and will be continued, at the *Three-Leggs*, by the Agents of the said Mr. BRANDLING, to contract with Gentlemen and Others, to serve them with Coals of the best Quality from *Middleton Colliery*, at Six-pence per Corf, at their respective Dwelling-Houses, and the Corf to contain 7680 cubical Inches, which by a late Experiment is found to weigh Sixteen Stone and upwards.

It is interesting to note that Leeds citizens were so eager for the scheme to go ahead that they had started a subscription towards its costs. Naturally, Brandling's rivals were alarmed, and an adjoining advertisement declared that William and Thomas Fenton also would deliver coal at six pence per corf, but **they** would contract to do so for a term of eleven years. Joshua Wilks also advertised coal to be delivered at the same price, adding that it was on sale at his Beeston Colliery for only three pence a corf.

The results of this 'cut-throat' competition obviously delighted the local populace, and the following week's paper had a letter from "A TOWNSMAN", mentioning "the three charitable Advertisements for reducing the Price of COALS this cold Winter" and asking "Which of the three Gentlemen are the Inhabitants of the Town most oblig'd to for the present Reduction in the Price of Coals?" The same three advertisements were printed that week, Wilks' exactly as before, but the Fentons claiming that their corves contained 8830 cubical inches (i.e. more than Brandling corves). No doubt provoked by the Fentons' offer of an eleven year contract, the Middleton advertisement offered a contract term of **sixty** years. It also stated that coal would be sold at Mr. Brandling's "Coal-Yard in Leedes" at four pence three farthings a corf. On 31st January, the Fentons offered **seventy** year contracts, but at this point Joshua Wilks discontinued his advertisement, as did the Fentons a week later. A news item in the 7th February paper announced that "The Bill for reducing the Price of Coals in this Town, proposed by Charles Brandling, Esq: was laid before the Hon. House of Commons last Wednesday."

On Saturday 28th January, a draft agreement had been drawn up for the lease of some of the land over which the waggonway would pass. Hans Busk, a Leeds merchant, would "farm lett" to Charles Brandling two and one part closes of land in Hunslet, probably near to the township's boundaries with Holbeck and Leeds, for 60 years at a yearly rent of £52. The draft refers to the proposed Act of Parliament in the same manner as had *The Leeds Intelligencer*, as being "to bind & oblige the said Cha. Brandling his heirs Extors Admors & Assigns to the performance of the said proposal"; i.e. "to furnish the Inhabitants of the Town of Leeds in the County of York with Coals to be delivered at a Coal yard on the south side of the Great Bridge in Leeds aforesaid at all times of the year from his Collieries at Middleton and Beeston in the said County of York during the Term of 60 years to comence from Ladyday next at four pence three farthings per Corf each Corf to be of the same Content & Measure as the Corves now used at his Colliery at Middleton". Perhaps because of the 'Insinuations' mentioned in Humble's advertisement, the establishing of advantageous coal prices and term of supply were given greater importance than the building of a waggonway: "& it will be convenient in order to carry the said proposal into Execution for the said Cha. Brandling his Extors & Admors for the more comodious Carriage of

Coals from his said Collieries to Leeds aforesaid to lay & place a Newcastle or Coal Waggon Road from a place called Hunslet Moor in the said Co. of York to the Townsp of Leeds". However, the waggonway would be an expensive undertaking, and it would be vital to ensure that lease and wayleave agreements made for its route would continue to be legally binding for the next sixty years, no matter how many times the land changed ownership.

The *Commons Journal* for 1758 tells a rather different and even more complicated story. On Wednesday 1st February, three Petitions, not a Bill, were presented before the House of Commons. The first was from Charles Brandling and the land owners with whom he had made agreements, and states that "the Petitioners are apprehensive that such Agreements cannot be effectually carried into execution without the Aid of Parliament" and asks that leave be given for a Bill "for establishing such Agreements, and vesting the Right to the said Waggon Way in the said *Charles Brandling*". The officials and leading inhabitants of Leeds and Hunslet, and also those of several towns north of Leeds, on the other hand petitioned for a Bill "to establish the said Agreements and ascertain the Weight and Measure of the said Coals". The latter was a genuine cause for concern since, whilst the capacity of a Middleton corf was always stated as being 7680 cubic inches, the 10th January advertisement vowed that a corf "by a late Experiment is found to weigh Sixteen Stone and upwards", Articles of Agreement produced as evidence to the subsequent Parliamentary Committee stated that each corf held "14 Stone and a Half", and the resulting Act of Parliament set the weight as "about Two hundred and Ten Pounds" - i.e. 15 stone. The Petitions were referred to a Committee, which reported on Friday 24th February that the Articles of Agreement promised deliveries of coal at a yard "on the South Side of the great Bridge, at all Times of the Year, for the Term of Sixty Years, at the Rate of 4¾d. a Corf" "provided the said *Charles Brandling* may be allowed to lay down and use a Waggon Way . . . for the said Term of 60 Years". Joshua Green had told the Committee that, for the past five years, coal had sold for c.7½d. a corf, and that the annual consumption of coal in Leeds was c.30,000 dozen corves, brought from different collieries in the neighbourhood. The Committee was satisfied that agreements had been made with all the landowners affected, as well as with Mr. Joseph Bilton and Mr. Cooper, for traversing "a Common called *Hunslett Moor*", they and Charles Brandling being joint Lords of the Manor of Hunslet (Cooper later seems to have sold his shares in the Lordship to one of his two fellow shareholders). Leave was now given for a Bill to be prepared and brought in by Lord Downe and three other gentlemen, and on Monday 13th March, Lord Downe presented the Bill and it received its First Reading.

The Bill had its Second Reading on 17th March, and *The Leeds Intelligencer* confidently reported that "we hope, in a few Days, to have the Pleasure to inform our Readers in this Neighbourhood, of its passing into a Law": in fact, it did not become law for another three months. The Bill passed to a Committee, and on Wednesday 5th April Lord Downe reported on their behalf that the Allegations in favour of an Act were found to be true, that all parties concerned had consented to the Bill, and that the Committee had made some amendments which were then agreed by the House. On Tuesday 11th April, the Bill had its Third Reading, and the Amendments were severally proposed and agreed, these mainly being the insertion in various places of the word "Wastes" to cover use of parts of Hunslet Moor. The Moor was the manor's common or waste land, then considerably larger than its modern remains. It stretched from Balm Road on the

east to Hunslet Hall on the west, beyond the modern Dewsbury Road, and to skirt around it would add considerably to construction and operation costs. Charles Brandling owned shares in the Lordship of the Manor of Hunslet, and the Lordship was usually deemed to include control of the Manor's waste or common land. Brandling made an early agreement with his fellow shareholder, Joseph Bilton, for the necessary wayleave, but Bilton died and a second agreement, registered at Wakefield on 27th March, had to be made with his heir. Uncertainty about this agreement perhaps was the reason for the Busk draft lease stating that the waggonway would start at Hunslet Moor. The right to traverse the Moor was not obtained cheaply, and Brandling was to pay Joseph Bilton the younger £8 an acre annually for land utilised; far more than he contracted to pay for many other parts of the route.

Once the amendments had been proposed and agreed, it was resolved that the Bill be passed, and Lord Downe was ordered to carry the Bill to the House of Lords and ask for their "concurrence". On Friday 21st April, a message was sent from the Lords stating that they had agreed to the Bill without further amendments, and seven weeks later, on Friday 9th June, the Act became law.

Designated '31 Geo. 2, c.xxii, 9th June 1758', it was the first Act predominantly concerned with the construction of a waggonway or railway, and was entitled:

An ACT for Establishing Agreements made between Charles Brandling, Esquire, and other Persons, Proprietors of Lands, for laying down a Waggon-Way, in order for the better supplying the Town and Neighbourhood of Leeds, in the County of York, with Coals.

The agreements were ratified, and were to be formalised as Leases or Privileges, the Indentures of which must be "inrolled in the publick Register-Office" at Wakefield, "obviating and preventing any Controversies or Disputes that might otherwise arise". His leases etc. were confirmed for at least sixty years, or as long as he continued to deliver at "a certain field or open space called Casson Close near the Great Bridge of Leeds" not less than 240,000 corves (22,500 tons) of coal a year at 4³/₄d per corf, c.21p per ton in modern terms. (The annual tonnage and price per ton are calculated from the Act's declaration that a corf held about 210 pounds of coal, and 24 corves filled a waggon.) If Joshua Green's evidence to Parliament was correct, this represented a massive decrease of almost 37% in the price of Middleton coal sold in Leeds.

The Act mentions "Iron Rails", but also says "a Waggon-Way (such as is used for and about the Coal-works and Coal-mines in the Counties of Durham and Northumberland)". These usually had oak rails, topped with a renewable strip of beech, and were cross-sleepered at about every three feet, the sleepers being covered with gravel or cinders to protect them from the horses' hooves. Wheels were usually of beech, small in diameter and thick, with a circular metal plate nailed to the rim of the inner face, forming a flange.

The first agreement to be registered at Wakefield, albeit prior to the Act, was that with Joseph Bilton, giving Brandling rights to build "a Waggon Way or Newcastle Road" across "the wastes or common grounds" of Hunslet. Though they were jointly Lords of the Manor, there were also numerous 'commoners' who usually had rights to the use of waste lands. The 1235 Statute of Merton (20 Hen.III c.iv) still governed use of waste lands by Lords of the Manor, allowing them to enclose or encroach on portions which were not needed by their 'free tenants'. However, a deed of 2nd March 1713, which conveyed six acres of common land to Hunslet church trustees to endow the

Hunslet clergy, was signed by over a hundred freeholders, and stated that they had a right and title to the Commons of Hunslet. The relevant Act (12 Anne c.i) stated that Lords of West Riding Manors who wished to so endow their clergy had to have the consent of three quarters of the freeholders and others with rights of common. This perhaps was thought to have set a legal precedent, and the preamble of the 1758 Act states that "some of the Owners and Proprietors of the Lands may happen to have only a limited and not an absolute Interest and Property therein". A hundred and twenty years later, rights of way across the Moor were to cause a considerable amount of trouble.

Between 29th June 1758 and 12th December 1759, thirteen other Indentures were signed and later registered at Wakefield. The first of these was with John Suttell for the lease of the land and buildings at Casson Close, together with an adjoining woodyard. According to the Busk draft lease, Brandling originally had hoped to establish his coal yard in three closes of land belonging to Jeremiah Barstow, but obviously had changed his plans. He had occupied Casson Close since 1st May, and agreed to maintain all the buildings and to pay Suttell an annual rent of £33.10s. Further south, Jeremiah Dixon leased to him five acres of land and a stable at Rushy Pasture, Hunslet, perhaps for use as a 'staging post' for changing and resting horses, since Brandling promised to attend carefully to the disposal of all waste hay, straw and horse dung from the premises. Haulage on the river staiths waggonway had been sub-contracted out, but the Leeds waggonway was to be worked directly, and involved a substantial number of horses. In October, a revised agreement with Hans Busk replaced the January draft, this time quoting the new Act and setting an annual rent of only £32.

Initially it had been hoped to have the waggonway in use by Lammas (1st August), but in fact it did not open until seven weeks later. *The Leeds Intelligencer* of Tuesday, 26th September 1758 reported that:

On Wednesday last, the first Waggon Load of Coals was brought from the Pits of Charles Brandling, Esq; down the new Road to his Staith near the Bridge in this Town, agreeable to the Act of Parliament passed last Sessions.- A Scheme of such general Utility, as to comprehend within it, not only our Trade and Poor, (which ought to be the grand Objects of our Concern) but also beneficial to every Individual within this Town and Neighbourhood: On this occasion the Bells were set a ringing, the *Cannons* of our FORT fired, and a general Joy appear'd in every Face.

The massive 37% price-cut gave Brandling's coal an immediate advantage over that of his competitors, and output of the Middleton Colliery doubled within a decade.

Charles Brandling began to enlarge his Middleton estate by purchasing adjacent plots as they came on to the market, and eventually he installed his elder son, Charles John, in a fine modern house, Middleton Lodge. He also bought the 'living' of the local parish, Rothwell, for his younger son, Ralph Henry, who became vicar there c.1796. Around 1761/2, a hamlet of miners' cottages was established north of Middleton Woods, near the modern Park Halt. It was called Belle Isle, perhaps commemorating the 1761 English victory over the French at Belle Île, off the Breton coast.

During the twenty years following the Act, the demand for coal increased. By 1778, the annual allocation was totally inadequate, and once the fixed-price quota was finished, coal could be sold at any price it would fetch. The Town Clerk placed an advertisement in *The Leeds Mercury* of 23rd June 1778, stating that as the town and

neighbourhood of Leeds had not been sufficiently well supplied with coal in recent years, a meeting would be held to discuss this on 2nd July, at the Moot-hall. However, discussion was forestalled by Charles Brandling, and on 30th June he advertised that the specified allocation would be delivered at the Staith by 1st September, "after which Time no more Coals will be delivered at the said Staith till the Commencement of the next Year, unless in the mean Time an Agreement should be entered into for obtaining an Amendment of the said Act, for the supplying the Inhabitants of the Town and Neighbourhood of Leeds with a larger Quantity of Coals than stipulated in the said Act, at an advanced Price". A week later, the Town Clerk invited inhabitants to a meeting to be held on 30th July, "in order to take into Consideration Mr. BRANDLING's Advertisement for better supplying them with COALS".

Charles Brandling had the inhabitants almost completely at his mercy, and a second Act (19 Geo. 3, c.xi) became law early in 1779. The price of coal increased to 5½d per corf (c.24.4p per ton), but Brandling undertook to deliver double the previous amount. The 480,000 corves (45,000 tons) were to be divided into equal quarterly instalments, so that any extra requirements would not all be needed in winter when higher prices could be charged than in other seasons. Some of Brandling's advertisements mentioned that "Complaint has been made that the Agents employed in the Coal-Yard of Leeds have not loaded the Carts according to their Turns", and the new Act stipulated that a person appointed by the Quarter Sessions was to superintend activities at the Staith, including regular checking of the capacity of waggons, corves, etc. used as coal measures. The complaints led also to Charles Brandling and his employees no longer being allowed to take any part in the 'leading' of coal from Casson Close, and a scale of charges was laid down for deliveries to various districts by independent carters; on 23rd February 1779, William Potts advertised for sale his half-share of horses, hay, waggons, etc., which he and his partner were no longer allowed to use. By April 1781, the colliery's loss of control over trade beyond the Staith had led to some vendors selling other pits' inferior coal deceitfully described as "New Brandlings".

Other terms of the new Act included loss of the waggonway rights if Brandling should "permit or suffer any Coals which shall be got or dug out of any Mine or Seam of Coal lying within or under any Lands or Grounds in the said Townships of Beeston or Hunslet, or either of them, to be brought to the said Repository or Coal Yard for Sale there", Beeston and Hunslet coal being of inferior quality. Part of the daily quota could now be delivered "at any convenient Place or Places near or adjoining to the said Waggon Way, within the said Borough of Leeds, between the said Coal Mines and the said Repository in Casson Close". There actually are records of sales at Hunslet Moor from 1771, which may have been via one of the branches listed below, or to the Leeds Pottery at Jack Lane, near the northern edge of the Moor. In 1770, Richard Humble had purchased Rushy Pasture - land leased twelve years previously by Charles Brandling, and in partnership with the Green brothers, he established the famous Leeds Pottery there. The waggonway continued to pass through the site, and by 1787 a branch went into the pottery. As well as receiving a way-leave fee for the main way, the pottery reputedly was supplied with coal at a reduced price.

The owners of other premises likewise saw the advantages of being linked to the waggonway, and Jonathan Teal's plan of the Middleton network as it was in August 1787 shows several such branches:

35 yards long, into the "Foundary" at Hunslet Carr (now Denison's),

35 yards long, into "Armitage Staith", perhaps a little north of the modern Moor Road Depot, but not quite as far north as the site of Hunslet Moor Staith, 52 yards long, into "Workhouse Staith", a little north of the Hunslet Moor Staith, 154 yards long, into the Leeds Pottery, just north of Jack Lane.

Johnson & Sedgwick's 1791 map of Hunslet shows a short branch, running N.N.W. from about the modern Moor Road Station site and ending at a building (perhaps Armitage Staith). By 1802, there was also a branch into "Fullage Close", adjoining the north east edge of Hunslet Moor, perhaps to supply fuel for the Boulton & Watt steam engine in the scribbling mill which was advertised for sale that year. North west of there, also in 1802, "Building Lots" were for sale "to communicate with Meadow or Jack Lane, and the Coal Rail Road from Mr. Brandling's Pits at Middleton to Leeds". The waggonway also quickly became established as an unofficial footpath, being much better surfaced than most contemporary roads, and in March 1775 one James Walker was fined for riding his horse along it in order to avoid paying tolls at the Hunslet Turnpike Bar.

New pits apparently were required to meet the doubled coal quota allowed by the second Act, and in 1779 several were opened in the Middleton Park area, a little further up the escarpment from the earlier pits. During the next decade, more pits were opened in the areas previously worked, and operations extended further south also, to the Town Street area at the top of the escarpment. Most of the pits had only a short lifetime, though some were closed down and later re-opened, as trade dictated. Teal's maps of Middleton in the 1780's show what appears to be a large network of 'bye-ways', extending for more than a mile from the southern end of the main waggonway, to pits on and around the upper level. A few of these routes still exist as footpaths in Middleton Park and Woods. The "Fire Engine", located on these maps at modern Grid Reference SE 31452895, was probably the steam pumping engine known to have been built in 1779/80 to the design and instructions of John Smeaton, of Austhorpe near Leeds, an engineer most famous for his Eddystone Lighthouse.

Further improvements were made at the colliery. In 1790, John Curr, patentee of the L-shaped iron tram-plate, was paid "a Gratuity for his Trouble & c respecting the Hurrying & Drawing the Coals agreeable to his Patent £10.0.0", and a year later, he was paid a further £17.6.7d "for sundry Castings". "Hurrying" was the transporting of coal from face to shaft. Curr's system also involved the use of vertical rails in the shaft, to prevent damage to the corves, by guiding them as they were 'drawn' up. In 1793, a 60" Boulton & Watt pumping engine replaced Smeaton's 72" engine, which was re-erected at an unidentified location, and about this time the miners' hamlet at Belle Isle was either rebuilt or expanded, and new hamlets constructed at Conyers Spring and Nova Scotia.

The plentiful supply of coal from Middleton fuelled further expansion and development of local industry, and also served the homes of the influx of new workers; in little more than a decade, the lawful quota again was insufficient to meet demands. On 28th July 1792, the Mayor of Leeds proclaimed in *The Leeds Mercury* that, in answer to a petition signed by ten prominent citizens, he would hold a meeting of inhabitants the following Thursday, to discuss "the best Means to ensure a suitable Supply at all Seasons . . . bearing in Mind the Distress which was occasioned in this Town and Vicinity last Winter, by the WANT of a Proper SUPPLY of COALS". No doubt following much unmentioned rumination, a committee which had been formed advertised another

meeting to be held on the 12th November, this time "having received Proposals from CHARLES BRANDLING, Esq; to supply the Town with an additional Quantity". On Tuesday 19th November, *The Leeds Intelligencer* announced with obvious relish that the committee's agents had "found a bed of coal four feet thick, . . . situated at Churwell, near this town". However, the alternative source of supply apparently proved unlikely to rival Mr. Brandling's, and once again he had the townsfolk almost completely at his mercy. *The Leeds Intelligencer* of Tuesday 13th May 1793 briefly mentioned that a third Act of Parliament had been given royal assent "on Wednesday se'ennight" (30th April).

The new Act (33 Geo. 3, c.lxxxvi) referred to "the advanced Price of Labour, and of the Materials used in and about the said Coal Works", and also to "a very great Expense in making fresh Winnings in the said Coal Working, and in making additional Waggon Ways therefrom", the earliest of these "Winnings" being around the top end of the Park, with a few later pits also being sunk both south-west and south-east of there. Since 1779, improvements had been made at Casson Close also, references now being made to "the Spouts or Places for shooting and delivering the said Coals", implying a raised staith.

The 1793 Act authorised an increase in price to 13s1d per waggon (6½d per corf, or c.28.8p per ton), in case "on Account of the present inadequate Price or Rate of the said Coals, the said Charles Brandling should discontinue and give up the said Waggon Way or Repository". The annual quota remained at 20,000 waggons, but was to be divided into daily quotas of 64 waggons, 6 days a week, with no less than 10 waggonloads a day to be sold in small amounts. Though a portion of the daily quota could be sold at any place *en route*, the increased demands of Leeds were to be met by ruling that the entire amount of coal which was brought to Casson Close would be sold only to inhabitants of the "Town and Parish of Leeds", whereas previously, according to the Act, "the greatest part of the Coals" were "purchased and taken away by persons residing at a great distance from . . . Leeds". As under the second Act, a Superintendent was to be appointed, to keep a record book of sales, to write out 'tickets' for purchasers, drivers, etc., and to label each cart, in white paint, with its official capacity. Two weeks later, the Justices of the Peace advertised for "A Steady, Active MAN, who writes a good Hand, to superintend the DELIVERY of COALS at the LEEDS COAL STAITH. The Salary will be upwards of Forty Pounds per Annum." The new Act legalised the sale of Beeston or Hunslet coal, but only when Middleton coal was not available for sufficiently good reasons. (Despite the restrictions of the 1779 Act, Brandling, formerly a partner in the Beeston New Colliery, had acquired his retiring partner's share in 1789, and reputedly had connected the colliery with his waggonway, offering Beeston coal for sale at Leeds Staith.)

Charles Brandling died at Gosforth House, near Newcastle, on 29th June 1802, and was succeeded by his elder son, who left Middleton to take up residence at Gosforth. Almost immediately, Charles John Brandling sought a new Act of Parliament, proposing a price increase to 16s a waggon (8d a corf, or 35.5p a ton), and a quota increase to 80 waggons a day (56,250 tons a year). *The Leeds Mercury* of Saturday 25th December 1802 commented that, with the added expense of "leading", a waggonload of coal would actually cost the inhabitants 18s4d, and it was noted that a committee had been appointed to "treat with Mr. Brandling". However, the now rapidly expanding Leeds industries needed the promised extra coal, and the Act (43 Geo. 3, c.xii) received Royal Assent on the 24th March 1803, the new quotas and prices, those

originally proposed, coming into use on the 1st April. It was stipulated that coal was to be delivered to "the said Repository at Casson Close aforesaid, or at any other Place near thereto, to be used as a Repository for Coals instead thereof"; Casson Close perhaps was considered too small for the increased amount of coal about to be delivered to and dispersed from there. The Act referred once more to the "great expense in making fresh winnings" and in laying "additional Waggon Ways therefrom", four pits having been sunk or re-opened during 1802, again around the top end of the Park. Exploration beyond Town Street had continued also, with a pit being sunk nearly half a mile south of there.

During the next few years, more pits were sunk, but the 1803 Act's price and quota increases did not prevent C.J. Brandling's colliery business from remaining in recession, where it had been since at least 1800 when, despite sales of 73,773 tons, the colliery had lost £1883. For some years, sales and profits fluctuated widely, not always in unison. In 1803, the annual tonnage shot up to 75,488, but then declined, until in 1808 a mere 59,216 tons were sold. The importance of the Thwaite Gate river staith had survived the building of the Leeds waggonway, and it usually handled about one third of the total amount of coal dispatched from the colliery. However, between 1799 and 1807, this proportion fell drastically, perhaps as pits opened nearer to the 'export' customers or, alternatively, as a larger proportion of the output was needed in Leeds. Meanwhile, transport costs were escalating because of military demands for horses and fodder during the Napoleonic Wars, and economies were obviously necessary. In 1807, the sending out of coal via the river staith appears to have ceased, but the estate was still in financial trouble, despite the sinking of four new pits during that year.

In *The Leeds Mercury* of 22nd August 1807 there was offered for sale by auction the Lordship of the Manor of Middleton, "Two desirable Residences", farms, and "the inexhaustible Coal Works", together with "Two Powerful Steam Engines, and Five smaller Raising Engines, with complete Machinery: a Water Corn-Mill, a Brewery, Malting, and numerous Warehouses, Stabling, Tenements, and Other suitable Buildings". The property was described as lying "nearly within a Ring Fence, and is capable of the greatest Improvement, so as to render it one of the most productive Estates in the West Riding". The advertisement continued to appear for more than four months, at times including a share of the Manor of Hunslet. Due notice of the Day of Sale was always promised, but never given. Some time during the same period, C.J. Brandling appears to have commissioned two Tyneside mining experts, Thomas Fenwick and John Watson, to make a detailed survey and valuation of the Middleton Colliery, and this was sent to him on 28th January 1808. Prepared for the information of prospective purchasers, it valued the colliery at £24,951, with an annual profit of £3,500 and coal reserves estimated to last a further 66 years. Since 1801 there had been an average annual 'winning' of 78,750 tons (35,000 waggons), of which an average of 8,464 tons had been for the workmen and engines. Two pumping engines and "5 gins and 6 machines for drawing coals" were mentioned, but no steam winding engines. There were 4½ miles of waggonways, including main-way and bye-way, one half being of iron. One of the "2 Staiths", valued at £275, was probably the disused river staith. The other was listed as "Leeds Hunslet", being near the boundary between the two townships. "2 machines on the inclined plane", were valued at £120, having cost £145 when new. This would be the incline from Belle Isle to Hunslet, worked by self-acting rope haulage.

On 18th April 1808, Edward Steel also supplied a report, valuing the colliery at £26,611, with £4,000 yearly profits forecast for 43 years. However, by the time the Fenwick/Watson report was in Brandling's hands the sale advertisements had ceased. C.J. Brandling obviously needed money, and though he seemed reluctant to sell his former home estate, he was prepared to mortgage if necessary, during his regime, a great many documents were registered at Wakefield for what appear to be loans, raised with the Middleton manor and estates as collateral. The 1807 advertisements had described the "Coal Works" as being "inexhaustible", but most of the many pits sunk during the last fifty years, c.60 in all, had only a short productive life. Though the 1803 Act bound C.J. Brandling to a fixed charge, costly new sinkings were regularly needed and, clearly, some new means of reducing expenditure was urgently required.

2. THE BLENKINSOP ERA - 1808 to 1831

Shortly after the Fenwick/Watson report was finished, John Blenkinsop arrived at Middleton. Born in 1783 at Felling, County Durham, John Blenkinsop is thought to have already worked at Brandling's Tyneside collieries. The Middleton estate had been described as being "capable of the greatest improvement", and that appeared to be the task assigned to the new agent or viewer. He quickly embarked upon his own survey of the pits, detailing the working methods and potential of each, and coming to the general conclusion that many improvements could be made, especially in the method of bringing coal to the surface. Regarding transport, he noted that a new "Wagon Road" was to pass on the north side of Middleton Lodge, and go through the Woods to join the "present Wagon Road" a little east of Belle Isle hamlet. Blenkinsop considered that it would be much better for it to join the main "Road" at Hunslet Common, which probably would have brought it along much the same route as the 20th century electric tram track, joining the modern railway route at Parkside bend and continuing north to join the then "present Wagon Road" at about the modern Moor Road Station. Apparently, almost seven decades before the railway actually was re-routed, the perceptive Blenkinsop realised the advantages of the modern alignment. However, all this did little to increase the flagging sales of coal, and moves were made to regain the colliery's former river trade. The 1803 Act had allowed for coal to be delivered "at any Place near" to Casson Close, and did not clarify whether this was exclusively or additionally "instead thereof". Despite the Act's reassertion of the exclusive rights of Leeds to coal brought down to Casson Close, it was now planned to take some coal across from there to the river bank near Leeds Bridge, where there were wharfs for public use, as well as many private wharfs. Ideally, the waggonway would be extended, and in the spring of 1809, John Blenkinsop began to seek advice as to whether this, or even the passage of heavy traffic without the laying of rails would be allowed, since two important highways into Leeds would have to be crossed. These were Meadow Lane and Water Lane, which together with Hunslet Lane converged on Leeds Bridge, then the only access into Leeds from south of the river.

As well as crossing two highways, the waggonway would also cross the "flagged causeway" which bordered them for the use of pedestrians, and this would violate an Act of Parliament which forbade "encroachments and obstructions" on the streets of Leeds, and listed a large variety of wheeled vehicles which must not be placed or moved upon the town's footpaths.

John Hardy, a partner in the Low Moor Ironworks near Bradford, which had its own extensive network of waggonways, was of opinion that if the rails were laid quickly enough, there would be no problem caused by the construction, though once in use the waggonway perhaps would cause obstructions deemed to be a nuisance. The opinion of a Carlisle solicitor, G.S. Holroyd, was that Mr. Brandling might not have the right even to "break open" roads or footpaths laid on his own land, for the purpose of laying a waggonway. A few weeks after Holroyd's opinion was sent, Brandling and Blenkinsop received an even firmer rebuff, from the Mayor of Leeds, dated 28th August 1809. They were informed that:

At a Meeting of the Magistrates of Leeds to take into consideration the propriety of allowing Mr. Brandling to extend his Rail Road across Meadow lane -

It was unanimously resolved,

"That in their opinion such Rail Road would be most dangerous to individuals and a great public nuisance and therefore they think it their duty to refuse their assent to such Railroad being made"

However, Mr. Brandling was determined to resume his river trade, and *The Leeds Mercury* of 4th November 1809 contained the following defiant advertisement:

COALS TO BE DISPOSED OF, On the most advantageous Terms.

NOTICE is hereby given, That CHARLES JOHN BRANDLING, Esq. the Proprietor of the extensive and valuable Coal Mines, at Middleton, near Leeds, is ready to deliver any QUANTITY of COALS on Board any Vessel or Vessels to be placed in the River Aire for the Purpose, either immediately above or below the Bridge, in Leeds, at Eighteen Shillings per Waggon, containing Twenty Coal Bolls, Winchester Measure, weighing Forty-five Cwts. and upwards.

For further Particulars apply to Mr. John Blenkinsop, of Middleton.

Even this curtailed plan apparently was not accepted calmly, and the same newspaper contained a letter complaining that "some persons or other" constantly occupied the two public wharfs near the Bridge with "stones &c.", when these wharfs were meant for the free use of the general public. The advertisements continued throughout November, but then ceased. *The Leeds Mercury* of 27th January 1810 noted that the problem of encroachment on the public wharfs had been put to the town magistrates, and there was every hope that the property would be secured again for public use.

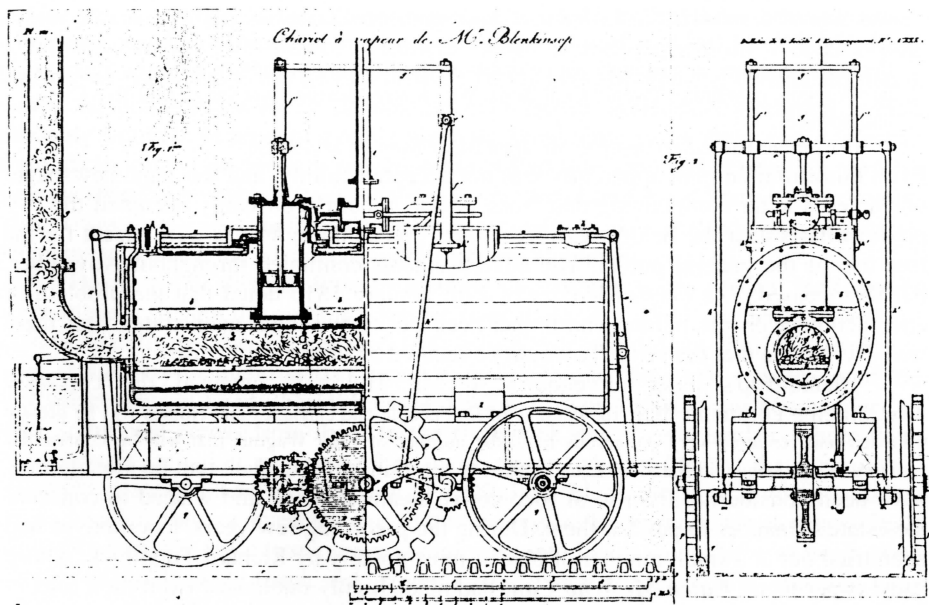
Blenkinsop's letter of enquiry to Mr. Holroyd contained the curiously discouraging comment that "the passage of foot people and carriages and Horses will be greatly impeded and rendered very dangerous from the number of Coal Wagons that will be continually crossing Water Lane and Meadow Lane" and it is tempting to speculate that he already may have been considering the use of locomotive steam engines, and wished to conserve the estate's finances to pay for them. During the preceding few years, locomotives had been tried out at a small number of places, most notably by Richard Trevithick, whose latest experiment, *Catch Me Who Can*, had made highly publicised exhibition runs in London during 1808.



Left: Matthew Murray, from an engraving taken from a portrait.

Below: technical drawings of a Murray/Blenkinsop steam locomotive, published in 1815 in the *Bulletin de la Société d'Encouragement pour l'Industrie Nationale*, under the title 'Chariot à vapeur de M. Blenkinsop'. The drawings give a fair idea of the workings of the locomotives as they were at the single-acting stage of their development, though they only ever had one rack wheel, not two as portrayed here.

Illustrations: the M.R.T. collection.



However, exhibition use was not the same as commercial use, and the cast iron rails of that era broke easily and often, under any locomotive heavy enough to have a commercially viable tractive effort. Having decided to try steam-driven transport, the inventive Blenkinsop devised a rack and pinion method of propulsion, by which a cogged wheel, attached to the engine, pulled it along by engaging in 'teeth' cast into the sides of the rails. His patent for the device, No.3431, was granted on the 10th April 1811. The principle was already employed in some types of machinery, notably in the mechanical stokers and boring machines devised by Matthew Murray, and it was naturally to Murray, the most prominent local engineer, that Blenkinsop entrusted the building of a 'steam carriage' to incorporate his patent motion.

Matthew Murray was born in Newcastle-on-Tyne in 1765, and in due course had been apprenticed to blacksmithing and millwrighting. He migrated to Stockton-on-Tees, and when trade declined there, he walked to Leeds in 1788. Here he found work with John Marshall, a flax mill owner interested in the improvement of flax-working, and Murray devised for him some revolutionary machinery. At Marshall's he met David Wood, and they decided to set up in business together. Their first venture, at Mill Green, Holbeck, probably opened about August 1795, when they advertised for a number of whitesmiths, joiners, wood-turners, and iron-turners. It apparently was so successful that, in February 1796, they advertised for two green sand moulders, to extend their processes. At about the same time, they purchased a plot of land in Water Lane, near to Marshall's Holbeck mills, and began building larger premises. On 9th July 1796, "Murray & Wood" advertised in *The Leeds Mercury* that they had "erected and Opened a FOUNDRY, in Water-Lane, Leeds, for the Purpose of CASTING IRON".

Further plots of ground were acquired to extend the works, and two new partners were taken, to provide extra capital. James Fenton, a former partner of John Marshall, joined Murray & Wood in August 1799, and the firm became Fenton, Murray & Wood. William Lister became a 'sleeping partner' in 1804. David Wood's interest was the design and making of machinery, and he supervised the day-to-day running of the works; Murray developed stationary steam engines, and sought orders for the firm; Fenton attended to their accounts. In 1802, they built the circular fitting-up shop, from which the works came to be known as the 'Round Foundry'. Murray's home was locally known as 'Steam Hall' because of its pioneer steam heating.

There is some evidence that early experiments were made at Middleton with a single-cylinder condensing engine: according to Rees' *Cyclopædia*, of 1819, Blenkinsop first "employed a small condensing engine, but finding the water to grow so hot that he gained but little by the condensation, he applied a high-pressure engine with a wrought-iron boiler, and two cylinders in it."

The high-pressure, two cylinder engine was first tried out on a test track at the Round Foundry, and was then put into active service for the first time on the wagonway on 24th June 1812. *The Leeds Mercury* of 27th June 1812 recorded that:

On Wednesday last a highly interesting experiment was made with a Machine constructed by Messrs. FENTON, MURRAY and WOOD, of this place, under the direction of Mr. John BLINKINSOP, the Patentee, for the purpose of substituting the agency of steam for the use of horses in the conveyance of coals on the Iron-rail-way from the mines of J.C. Brandling, Esq. at Middleton, to Leeds. This machine is, in fact, a steam-engine of four horses' power, which, with the assistance of cranks turning a cog-wheel, and iron cogs placed at one side of the rail-

way, is capable of moving, when lightly loaded, at the speed of ten miles an hour. At four o'clock in the afternoon, the machine ran from the Coal-staith to the top of Hunslet-Moor, where six, and afterwards eight waggons of coal, each weighing 3 tons, were hooked to the back part. With this immense weight, to which, as it approached the town, was super-added about 50 of the spectators mounted upon the waggons, it set off on its return to the Coal-staith, and performed the journey, a distance of about a mile and a half, principally on a dead level, in 23 minutes, without the slightest accident. The experiment, which was witnessed by thousands of spectators, was crowned with complete success; and when it is considered that this invention is applicable to all rail-roads, and that upon the works of Mr. Brandling alone, the use of 50 horses will be dispensed with, and the corn necessary for the consumption of, at least, 200 men saved, we cannot forbear to hail the invention as of vast public utility, and to rank the inventor amongst the benefactors of his country.

The eight waggons of coals brought to Leeds at the launching of the machine, was by order of Mr. Blenkinsop, presented to the General Infirmary.

The issue for 18th July 1812 carried a small wood-cut illustration, and an abstract of the Patent Specification. Two weeks later, the paper reported that:

Mr. Blenkinsop's Machine is now in full activity. On Thursday it made seven journeys each way from Hunslet-Moor to the Coal Staith and back again, and in those journeys brought down 102 waggons of coals, each weighing about three tons. The journey both ways is a distance of about two miles and a half, and one of these journeys was performed in fifty minutes, taking up twenty empty and bringing down twenty full waggons. - Owing to a deficiency in the rail-way some of the waggons yesterday got a wrong direction, but no serious accident occurred.

The "deficiency" may have been caused by the problem hinted at in a letter from Matthew Murray to John Watson, dated 8th March 1813:

... Mr. Blenkinsop has found it his interest to attend to his iron rails - I have improved the mode of joining them together which has made them both simple and perfect and the engines themselves answer much beyond our expectation which I have no doubt in saying is the most valuable improvement to the Colliery Business that has been made these 50 years.

There was at least one drawback to the "valuable improvement"; locomotives pulling long trains of waggons to and from Casson Close apparently at last exceeded the Staith's handling capacity, and on 26th February 1813, C.J. Brandling assigned to one George Banks the remaining 5 years of the 60 years lease. Land was leased further south at Kidd Acre Lane, to the west of the waggonway, and a long stone viaduct was constructed, branching from the waggonway and incorporating a string of coaldrops. Another drawback was the expense of relaying existing waggonways, and the cost of the locomotives themselves; initially £380, including a Royalty of £30 paid to W. West, owner of the Trevithick Patent, "for the use of the high pressure steam". In a letter dated 8th March 1813, Murray estimated the cost of 3 miles of rack rail as £2,100, so the first section of Middleton track plus 2 locomotives must have cost Brandling c.£1,800, enough to have him borrowing money in June 1812, with the estate as collateral. On 10th March 1813, Blenkinsop wrote to Mr. Bevan, who had enquired about the engines, "I intend this summer to make a complete Rail Road", and this, plus two more engines, necessitated further borrowing. In the long term, however, Blenkinsop estimated that great savings would be made.

Six or seven locomotives in all were built by Fenton, Murray & Wood to the same general design, though each one might incorporate variations. The earliest of them had a cast iron boiler of oval section, about 37" high x 32" wide x 9½' long, made

in two halves bolted together. By April 1813, however, Murray was considering making the boilers of wrought iron, and in a letter of 1st June 1813, Blenkinsop wrote that "You must have a wrought iron boiler with a double iron tube". In the early locomotives, at least, a single flue tube 14" in diameter, passed through the boiler to a chimney of reduced diameter, about 9 ft high. Two cylinders of 8" diameter by 24" stroke (perhaps 9" x 22" on the first engine, *Prince Regent*) were sunk into the boiler for half their length, exhausting into the atmosphere. Two small plug-cocks, coupled by a rod, controlled the steam supply from the boiler. Each piston-rod was controlled by two vertical guides, and by a pair of return connecting rods it drove parallel outside cranks on a crankshaft below it. The two crankshafts were connected through gearing with an intermediate shaft, upon one end of which was the rack wheel, gearing with the rack rail. In the *Leeds Mercury* drawing, and in technical drawings published in 1815 in the French *Bulletin de la Société d'Encouragement pour l'Industrie Nationale*, the cranks appear to be set at 180°, implying that the cylinders were single-acting at that time. However, a letter from Blenkinsop published in *The Monthly Magazine*, June 1814, says that the cranks were then fixed at right angles, implying that the advantages of double-acting cylinders had since been considered necessary. The steam distributing valves were large 4-way plug cocks, fitted with wrist plates. These were connected, by horizontal rods above the boiler, to vertical rods at each end of the boiler, pivoted near the centre of the boiler ends. The lower ends of the vertical rods were connected with eccentrics mounted on the crankshafts. Reversing was achieved by attaching the valve rods to points in the wrist plates at right angles to the usual points, to oscillate the cocks by 90°. Short levers, with the valve rods attached to their lower ends, were mounted loosely on the valve stems, and pins in their upper ends engaged with either of two holes in the wrist plates. Forked hand-levers, engaging with collars on the valve lever bosses, slid them into or out of gear. A direct loaded spring safety valve was fitted near each end of the boiler top, and the maximum working pressure of the boiler was 55lbs to the square inch, though it was tested to 60 p.s.i. The engine was supported on a wooden frame, carried on four 35" diameter wheels with a wheelbase of 7'4"; the rack wheel was of c.43" overall diameter, and turned at half the speed of the crankshafts. Boiler and cylinders were lagged with wood.

Early in October 1813, Blenkinsop mentioned in a letter that he had now "got the noise of the steam taken completely off by fixing a wooden cistern between the cylinders as a receiver and a discharging pipe fixed on top of it". The drawings and detailed account supplied by the French engineer Andrieux to the *Bulletin* did not include this improvement, but did show a small water feed tank with a pump activated by the valve gear, on the front end of the locomotive. M. Andrieux was said to have collected his information on the spot, but it is not clear how recently before publication he had collected it. Napoleon Bonaparte greatly encouraged the invention and development of new machinery within France, and also took a keen interest in foreign inventions; for example, the American inventor, Robert Fulton, was invited to France to build a submarine for him to inspect. Rewards and 'pensions' encouraged the French, and some English supporters of the Revolution, to seek details of new machinery which might be of use to French industry, and the Middleton steam carriages perhaps may have been the target of some early international industrial espionage. The feed tank

could have been an unused idea or an optional extra offered to prospective buyers. According to a letter written by Murray in April 1813, he calculated the locomotives' boiler size according to the length of the railway, presumably expecting a water supply to be available at both termini. However, in practice Blenkinsop found that he lost steam when filling frequently with cold water, and as early as August 1812 was planning to raise a cistern from which he could fill the boiler with hot water. Many Trevithick stationary engines already had feed pumps, and the Middleton locomotives perhaps may have had them at some time, though no other known drawing shows one.

Each engine weighed about 5 tons fully charged, and according to Blenkinsop did the work of 16 horses in 12 hours. It drew 27 waggons, representing a load of 94 tons, at 3½ miles per hour on the level. On 16th January 1829, during a demonstration for representatives of the Liverpool & Manchester Railway Company, a train of 140 tons (38 loaded waggons) was hauled at 2-3½ m.p.h. The average coal consumption was 21.3 pounds per train mile, and each pound of coal evaporated 6.7 lbs of water. In 1812, a horse cost £50 to buy and £55-£60 per annum in upkeep, exclusive of the driver. In a letter of January 1813, Blenkinsop detailed the annual upkeep of 16 horses and 8 men as £1,360, as against £160 for an engine and man; a saving of £1,200p.a.

Though no contemporary account exists, the first two engines are said to have gone formally into service on 12th August 1812, one being named *Prince Regent*, as that was H.R.H.'s birthday. The other was named *Salamanca*, news of the victory there having reached London on the 15th. *Prince Regent* had been in use since the June trial. The impact on their rural surroundings can be guessed at from the account by the King of Prussia's Librarian, Dr. S.H. Spiker, who visited in summer 1816:

It is a curious spectacle, to see a number of columns of smoke winding their way through the countryside. As they approach we see them more and more distinctly, till at length along with the column of smoke, we also perceive the waggon from which it ascends, dragging a long train of similar waggons hooked to it, which gives it the appearance of a monstrous serpent.

Dr. Spiker was most impressed that he "was obliged to move at a sharp pace, indeed almost a trot, to keep up with" the engine. David Joy, who first saw one when he was a boy, much later in their working life, was not at all impressed when the engine he had been told would come by "like a flash of lightning . . . only came lumbering on like a cart."

Nearly thirty waggons moving at walking pace obviously took some time to pass by, and during the locomotives' lifetime at least four members of the public were killed trying to cross the line at the last moment, before a train blocked their way. The new technology had many inherent dangers. The engines' first victim was one of their own drivers, George Butler, who fell from the footplate whilst stoking the fire, early in December 1812. Before he could be extricated, the machinery had claimed his right hand. Two months later came the first fatality, a boy of about 13 years, John Bruce, who, "notwithstanding repeated cautions to the contrary, persisted in running on the iron-rail-way" and was fatally wounded by one of the engines. *The Leeds Mercury* piously trusted that "This catastrophe . . . will operate as a warning to others".

The *Repertory of Arts, Manufactures and Agriculture* of 1818, printed Mr. Blenkinsop's *Answers to Sir John Sinclair's Queries respecting the conveyance of coals on Railways by Steam Engines*, first posed and answered in 1814, in which Blenkinsop stated that the engines could transport "15 tons up a hill rising two inches in a

yard", roughly the rise of the lower incline from Belle Isle to Hunslet Carr. The incline had a self-acting rope haulage system, with a brake-drum mechanism housed at its summit, but it seems to have been intended originally that the engines should negotiate the rise. This was implied in a letter written in April 1813 by Murray, who strongly advocated a central rack for the system. He wrote that "beginning over again" with the engines "will be the case here I believe before they can expect to run to the pits as the oblique action or side pull is very determinial in going up a moderate rise or turning". He added that "The side rack did very well as a cheap method for trying the scheme, but certainly is not calculated for practice." However, the side rack was retained, and in 1818 at least, the incline was being rope-worked, though it is conceivable that locomotives occasionally changed levels via the incline, or took short trains up it if, for instance, the brake-drum mechanism was under repair. A central rack would have interfered with the use of horses in emergencies, but in his Patent Specification Blenkinsop mentioned the possible use of a rack wheel at both sides. The *Bulletin* drawings show twin wheels, but as well as being more expensive, a rack at each side would have caused considerable difficulty in negotiating even the slightest curve, and though the accompanying details to the drawing state that there **was** a rack wheel at each side, it is likely that this was an early design changed during production, or was done merely to show that the rack wheel **could** be fixed at either side.

On Thursday evening, 31st December 1812, large blocks of stone and loose iron rails were placed on the railway near to Leeds Pottery and on Hunslet Moor, and "Part of the Machinery about the said Carriages was . . . Broken and otherwise materially injured". Blenkinsop's advertisement in *The Leeds Mercury* of 9th January 1813, offered 50 guineas reward for information leading to the conviction of the perpetrators. The attack seems more ambitious than children's tricks, and obviously was considered serious by Blenkinsop, whose coal deliveries must have been severely disrupted: 50 guineas was more than many a man's annual pay. Luddite activity had been rife in the area throughout 1812, and each engine allegedly dispensed with the work of seven men. The railway may well have been visited by machine breakers that New Year's Eve.

The third engine to be made at Holbeck for Blenkinsop, was offered by him to the viewer and part owner of the Kenton and Coxlodge Collieries near Newcastle, John Watson, whom he had been trying to persuade to adopt the system there. Watson appears to have named the engine *Willington*, after the village where he lived, but the third engine actually to arrive at Middleton has since been referred to occasionally as *Willington* or even *Lord Willington*, causing modern speculation that Watson's engine might have been returned to Leeds - perhaps unlikely because of the nuisance of dismantling and transporting it for a second time. Certainly by 1818 a Middleton engine was called *Lord Wellington*, and the naming of the fourth Middleton engine after his Lordship's brother *Marquis Wellesley* was a natural corollary, though this engine has also been called *Marquis Wellington* in some accounts. The Kenton and Coxlodge colliery railway in Northumberland conveyed coal to staiths on the Tyne, about five miles from the pits, though an awkward incline prevented locomotives from being used on the half mile nearest to the river. *Willington* appears to have begun work there with great ceremony at 1 o'clock on 2nd September 1813, and according to *The Leeds Intelligencer* it replaced 40 horses. George Stephenson witnessed the event,

with several other Killingworth men. He told them scornfully that he could "make a better engine than that to go upon legs", and soon started work on *Blücher*, embodying in it many of the Murray/Blenkinsop features. Robert Stephenson, in an appendix to Samuel Smiles' 1862 biography of George, admitted that "The construction of my father's first engine was very much after the same plan as that made by Mr. Blenkinsop; but the combined power of the two cylinders was communicated to the wheels which supported the engine on the rail instead of to the cog-wheel, which, in Mr. Blenkinsop's engine, acted on a cogged-rail independently of the four supporting wheels." The engines differed in another important aspect: *Blücher*, first tried on 25th July 1814, could draw a 30 ton load at 4 miles an hour, whilst the Murray/Blenkinsop engines regularly hauled more than **90 tons** at that speed!

Smiles' biography, relying heavily on the reminiscences of the great man's friends and of his son, states disparagingly, and to some extent erroneously, that "the Blenkinsop engine at Coxlodge was found very unsteady and costly in its working; besides, it pulled the rails to pieces, the entire strain being upon the rack-rail on one side of the road. The boiler, however, having shortly blown up, there was an end of that engine; and the colliery owners did not feel encouraged to try any further experiment." However, the Kenton and Coxlodge viewer's report of 9th May 1815, stated that "The method of leading coals by the aid of the steam engine lately adopted we certainly think preferable to the former plan of leading by Horses". He had been so impressed by *Willington* that, within a few weeks of it starting work, he had ordered two more locomotives from Fenton, Murray and Wood. Unfortunately, in May 1815 there began a bitter dispute with the part owner of the Fawdon Colliery, which used the same line, but with horses. Watson later claimed £2,100 from him for the "loss in laying off the travelling engines from May, 1815 to Lady Day, 1817", and he evidently was well enough satisfied with the engines to put them back to work as soon as the dispute was settled. This was despite a previous rumour that the Coxlodge managers had decided to adopt "the Killingworth plan of conveying their coals", as mentioned in a letter from Blenkinsop to Watson in November 1814. Blenkinsop was obviously perturbed by the prospect of losing a source of patent royalties, and demanded rhetorically "Do you think the Killingworth engine will travel up hill or on a level during wet or frost". Recently, he had told Sir John Sinclair that "The steam Carriage was at work last winter at Middleton night and Day and was not impeded during the great falls of snow". A letter written to Watson by Matthew Murray on 14th October 1813, perhaps implies that another engine might have been built for Tyneside. Explaining why he still had not started work on the two engines ordered by Watson, he wrote that "We have had an engine of larger dimensions but of nearly the same description in hand these 6 months for Mr. Buddle is now nearly finished, we believe it is for drawing coals upon an inclined plane".

The instant success of the Middleton locomotives led to the system being adopted also at Orrell Colliery, near Wigan. Robert Daglish, then manager at Orrell, said that the first locomotive there started work at the beginning of 1813, and that, by arrangement with Blenkinsop, he had built it at the Haigh Iron Works, of which he was also manager. Three locomotives are said to have been built for Orrell, each weighing 6½ tons. One was said to be an adhesion principle engine, but it may have been converted to such. Two locomotives each worked their own section of the line, exchanging waggons at the summit of a 1 in 36 incline, which one locomotive worked. The third remained as spare engine. Writing in 1856, Daglish declared that his locomotives had worked for over 36 years, until the closure of the colliery. Various

local accounts called them *The Yorkshire Horse* or *The Walking Horse*. One account stated that the latter was because of the loud snorting effect of the exhaust steam.

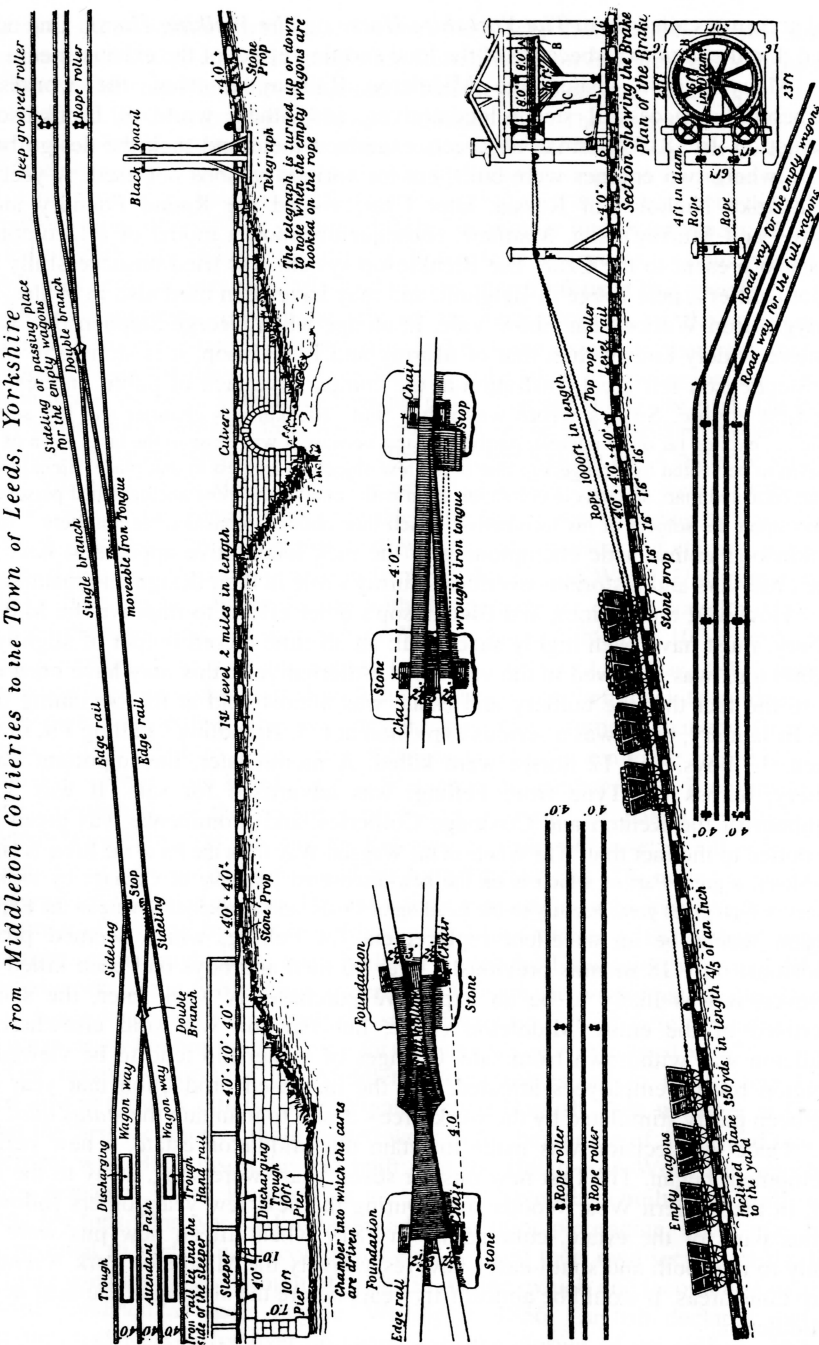
Many people visited the Middleton Railway to view the world's first commercially successful steam locomotives, and others wrote to Blenkinsop for information. In 1815, German engineers examined them and took the design back to Berlin, where two engines were built, but for various reasons not used. A year later, Grand-Duke Nicholas of Russia, later Czar, visited the Round Foundry and the railway, and Murray's son, Matthew, subsequently took a model of a locomotive to Russia to present to the Czar. The Blenkinsop system was tried unsuccessfully at the Horlot Colliery, near Liège in Belgium, and may have been used also in Wales, at the Nantyglo Iron Works, near Ebbw Vale. In an age when George Stephenson's work is far more widely known than that of Murray and Blenkinsop, it is strange to observe that Stephenson felt great frustration at the comparative lack of public interest in his own first engine. Smiles wrote waspishly that "Blenkinsop's clumsier and less successful engine . . . excited far more interest; partly, perhaps, because it was close to the large town of Leeds, and used to be visited by strangers as one of the few objects of interest in that place. Blenkinsop was also an educated man, and was in communication with some of the most distinguished personages of his day upon the subject of his locomotive, which thus obtained considerable notoriety." Indeed, Blenkinsop's enthusiastic championing of the rack locomotive appears to have made some observers and historians overlook Murray's role in their design and manufacture.

However, the engines, and Blenkinsop's other efforts to improve the Middleton Colliery, must have been highly successful: an all time record output of slightly over 100,000 tons was achieved in the year 1814. Alternatively, this may have been due in part to the fact that the colliery and estate was almost sold at the beginning of that year. In January, there was a serious explosion at C.J. Brandling's Felling Pit, in which 9 men, 13 boys, and 12 horses were killed. A month later, the important Fawdon Colliery, across the Tyne from Felling, was advertised for sale. It was a close neighbour of the Kenton and Coxlodge Collieries, and prominence was given in the sale notice to the fact that "The Whole of the Waggon-Way from the Pit to the River is laid with Cast-Metal, a great Part of which is on the new-discovered Principle of Carriage by locomotive Engines, which gives great Facility to the Leading of Coals, and a material Saving in the Expence". Fawdon would be an excellent replacement for Felling, which seemed prone to explosions; only 18 months previously, over 90 men and boys had been killed there. However, it was likely to be an expensive purchase. A week later, the sale was advertised of the entire Middleton estate, but Fawdon was sold elsewhere, and Middleton was withdrawn from sale. Changes of ownership tend to be viewed with suspicion by the employees affected, and the increased production that year might have been partly stimulated by the workforce's desire to maintain the *status quo*.

Once the decision was made to retain the Middleton estate, a new period of development began. The first new pits for seven years were sunk, away to the south-west, in the modern West Woods area. During the next few years others followed in various parts of the estate, culminating in 1819 when fifteen new pits were sunk, mainly to the south and south-east - now respectively the Middleton Park Avenue and Sharp Lane areas. It would be almost fifty years before the sinking of the next new pits at Middleton.

GENERAL PLAN & ELEVATION OF MR BRANDLING'S RAILWAY,

from Middleton Collieries to the Town of Leeds, Yorkshire



On the 28th February 1818, the boiler of *Salamanca* exploded, killing the driver. *The Leeds Mercury's* 7th March 1818 report of the inquest provides some interesting details of the working of trains around the incline at that time. The first witness, James Hewitt, stated that:

he worked the Engine called the *Lord Wellington*: the deceased, *George Hutchinson*, had the care of the Engine which exploded, called the *Salamanca*. He stated that all the Engine-men had directions from Mr. Blenkinsop, never to have the steam at a higher pressure than fifty-five pounds the square inch, but that the deceased had several times had the steam raised to a much higher pressure. On Saturday, the 28th of February, in the afternoon, witness was at the break-house at the top of the inclined plain, when the deceased arrived there with the *Salamanca Engine* and a number of loaded waggons. The Engine having been separated from the loaded waggons, was placed, by the deceased, in the usual place for returning with empty waggons, that he then increased the fire under the boiler, and came into the break-house, and remained until the empty waggons came up, which was upwards of an hour. Witness could see the steam issue through the cocks of the boiler, and through the joints of the Engine; and witness is quite sure that the two safety-valves were made fast down with the spring which is used for keeping the safety-valves steady and right when the Engine is going on the road, and which ought to be at liberty when the Engine is not in motion, to permit the steam to escape when it reaches the proper pressure, and which it would do without danger. Witness, on seeing the Engine so high charged, said it was a shame to see it so. The deceased, when the empty waggons came up, moved the Engine to them, to take them out of the way: he then got from the place where he stood to work the Engine, and went to the end of it to mend the fire, when the Engine-boiler burst at the end next the fire, and the deceased was carried, with great violence, into an adjoining field, the distance of one hundred yards.

John Spink corroborated all this, and "also stated that he told the deceased to be sharp, as he had the steam too strong, but that instead of reducing the pressure, he turned the cocks, so as to prevent any steam from escaping". Joseph Speed, an engineer at the colliery, and Richard Jackson, Murray's son-in-law, then manager at the Round Foundry and later a partner, both testified as to the boiler being sound and good before the accident. Jackson added that it appeared "to have been burst by negligence, in keeping the spring upon the safety-valve, at a time when the Engine was not in motion. The Engine was tried at a pressure of 60lb. on the square-inch, and at that pressure it was perfectly safe". The Jury found a verdict of "*Accidental Death*, occasioned by the bursting of the boiler, in consequence of the deceased not having taken the precaution of removing the pressure from the safety-valves". *The Leeds Intelligencer* of 9th March noted that "The Bill for regulating *Steam Engines*, now before the House of Commons, contains a clause to compel the adoption of boilers for Steam Engines, made of *wrought iron* only." *Salamanca's* boiler was of cast iron.

In a strange sequel to the accident, *The Times* of Wednesday 30th March 1825 mentioned in a column of small news items that "On Saturday afternoon last, George Hutchinson, one of the men employed in conducting the steam-engines used in conveying coals from Middleton to Leeds, was blown to pieces by the bursting of the boiler." The first Bill promoting the Liverpool-Manchester Railway had entered the Committee stage in Parliament nine days previously. The Company proposed to use locomotives, and the seven years old 'news' item undoubtedly was sent to *The Times* in an attempt to discredit locomotives as being unsafe. Powerful vested interests prevailed, and the Bill was withdrawn after two crucial clauses were voted out.

There was a serious accident underground at the Middleton Colliery, at about 6.45p.m. on Wednesday, 12th January 1825; twenty-three miners being killed outright

and two fatally injured by an explosion at "Gosforth Coal Pit, three miles from Leeds". *The Leeds Mercury's* first report stated that the explosion happened when one of the miners removed the top of his Davy lamp to allow it to cool, it having become red hot - a great fault of the Davy lamp. The exposed flame ignited 'fire-damp', which probably had been released by a recent series of minor roof falls in worked-out sections. The inquest revealed that, despite strict instructions not to do so, some miners habitually removed the tops from their lamps for a variety of reasons, including the lighting of tobacco pipes from the flame. Blenkinsop proposed to fit locks to the lamp-guards to prevent this happening in future, and also to have "one or more persons expressly appointed to take care of the lights in each pit". The list of dead included a boy only five years old.

Gosforth Coal Pit, named after Brandling's Northumberland home, was stated to be 80 yards in depth, sunk c.1819 at the end of a tunnel 1,400 yards in length because "the estate did not belong to the owner of the coal". This probably was the 'Day Hole' located on the middle level at Grid reference SE 309288, near the later Broom Pit. At the ensuing inquest, Blenkinsop explained the excellent ventilation of the pit as being due to "the size of the air furnace, and the width of the tunnel . . . the air furnace is 3 feet 3 inches, by 7 feet 3 inches; that tube is made so large, in order to cause a regular and free circulation of air in the workings". The tunnel was rumoured to be big enough to accommodate a horse and cart, and a letter written to the Reverend R.H. Brandling in February 1833 implies that the steam engines' waggons were shunted in and out of the tunnel by horses. George Hill's 'viewing' of the colliery stated that the dayhole tunnel was 1,356 yards long to the shaft, and went in direction "South 5 degrees East".

The disaster led to an immediate drop in the amount of coal for sale in Leeds, during the coldest season of the year. During February, coal was sent from a Lofthouse pit, but the drivers made the mistake of trying to sell it illegally from their carts in the street. According to a letter from James Scholes of Rothwell Haigh, placed as a paid advertisement in *The Leeds Mercury* of 5th March, they were informed on by someone acting for "some of the Coal Leaders, who supply the Town with Coal at a very exorbitant Rate", and subsequently they were fined by the Magistrates. An American, William Strickland, who visited Middleton in June 1825, wrote about the railway in his *Reports on Canals, Railways, Roads and other subjects*, but commented that "this method is now entirely out of use". Presumably this was as a result of the disaster, but the colliery obviously rallied quickly, and during 1825 there was only a drop of 1,800 waggons of 'best coal' and c.500 of 'drifted slack', whilst 'slack' production rose by 1,000 waggons and '40 yds coal' by 500, total production for the year being 40,416 waggons.

Coal would still be produced by the smaller pits on the plateau, and it perhaps is most likely that the upper incline, from Middleton village down to Belle Isle, was built at this time to improve the transporting of coal from the plateau down to the main waggonway. Though Martin's 1831 map was the earliest one to show the upper incline, terminating at Venture Pit, modern Grid reference SE 306282, there is a curious reference in Edward Steel's April 1808 valuation of the colliery, to the costs of "attending two planes including Ropes & c.". It certainly was in existence by 1826/7, when Prussian mining engineers, Von Oeynhausens and Von Deckens, visited the colliery. They studied the railway's dimensions and its working methods, giving many interesting details in their report: a locomotive normally made six journeys daily at this

time, using 40 cwt of coal; the self-acting lower incline could also have up to four loaded waggons let down it on the brake; the Brandlings still adhered to the terms of the 1803 Act, by charging 16s per waggon of best coal; the Kidacre Street Staith was 594 feet long, and had a new working method. Dr. Spiker, in 1815, had seen the waggons overturned for unloading; just over a decade later, his compatriots wrote that "The wagons have doors in the bottom; the railway runs over masonry-vaulted arches, and in the middle of each vault there is an iron shoot, by means of which the coal is emptied into the separate compartments by several partition walls, and likewise by a middle wall, the upper part of which is formed as a flap, so that coal can be tipped into either side of the compartment". In 1835, Sir George Head wrote that "any part of a waggon-load may also be delivered by means of a regulating bar, by which the bottom of the wagon is closed or opened at will".



Looking south up the top end of 'Rope Hill', the upper incline, in November 1950. Note the simple wooden signal, right, and the sloping retaining rollers for the wires. Photo: Leeds City Engineers, reproduced by kind permission of Leeds Reference Library.

William Strickland also described this system in the explanation accompanying the Plan and Elevation of the railway (reproduced on Page 24). About the railway in general, and the lower incline in particular, he wrote:

This railway is formed of two levels and an inclined plane. The first level is about two miles in length, one half of which is embanked from four to twelve feet in height: the other level extends to the colliery, being about a mile in length, half of which consists of heavy

embankment. On each of these, a locomotive engine, attended by a man and a boy, propels twenty-six loaded wagons, carrying upwards of two tons each, at the rate of four miles an hour.

The inclined plane between the levels is three hundred and fifty yards long, and has an inclination of about half an inch to the foot, rising in all forty-four feet. A brake is placed at the summit of it, which carries up four empty wagons by the descent of four loaded ones. A is a horizontal wheel, sixteen feet in diameter, the rim of which is made of wood, about nine inches broad, with a groove in it to receive the rope, and the lower edge hooped with iron. B is a flexible rim, made of several thicknesses of lath, lined or hooped on the inside with iron: this rim surrounds the rope wheel, and is suspended by chains just so as to clear it. It is made to collapse on the rope wheel by the lever C, so as to check the velocity of the loaded wagons at any time during their descent, and ultimately to stop them at the head and foot of the inclined plane, by the pressure of the suspended rim against the revolving rope wheel. The roller over which the ropes pass, on the gallows F, should be so placed as to be in the line of the plane continued. The time required for the transit of the set of wagons over the brake, is less than a minute: it is attended by one man.

By 1826, however, one of the most important periods of the railway's history was drawing to a close.

Charles John Brandling, M.P. for Northumberland, died at Gosforth House on 1st February 1826, aged 56. He was succeeded at Middleton by his brother, the Reverend Ralph Henry Brandling, Vicar of the Parish of Rothwell from c.1796 to 1829. Ralph Henry took up residence at Gosforth House, and installed his son, Charles John the younger, in Middleton Lodge.

Matthew Murray died on 20th February 1826, at the age of 60. *The Leeds Mercury* said that he was "A man whose mechanical abilities were perhaps inferior to none; his great improvements in the steam-engine, flax-spinning, and other machinery, will be a lasting testimony of his unceasing labours". He is buried in Holbeck Cemetery, his grave marked by a cast iron monument made as a labour of love by the men of the Round Foundry.

John Blenkinsop died on 22nd January 1831, after a "tedious illness" - consumption, said by some to be a result of him being one of the first rescuers to enter Gosforth Pit after the explosion. His obituary in the *Mercury* said that "As a generous and disinterested friend, his memory will be long cherished by a numerous circle of acquaintance: in his station as agent he commanded the entire confidence and esteem of his employers, and also lived highly respected among the working classes, and died sincerely lamented by all who were in any way connected with him." He lies buried at Rothwell, aged only 47.

The influence of these men lived on in many ways. The Middleton Railway itself is a lasting tribute to the innovative personalities of successive members of the Brandling family. Blenkinsop's son, John Stanley Blenkinsop, became a locomotive engineer - doubtlessly inspired by the Middleton engines. In 1838, he travelled to Germany for Forrester's of Liverpool, to construct for them two locomotives supplied for the opening of the first German state railway, from Braunschweig to Wolfenbüttel. He stayed on, soon becoming Locomotive Superintendent to the railway, and later its Technical Director; his son, Oswald Blenkinsop, was engineer to the Kiel Canal. Though few locomotives were built at the Round Foundry in Matthew Murray's lifetime, during the 1830's and early 1840's, as Fenton, Murray & Jackson, it supplied engines to many early European lines, and also built twenty 'Firefly' class locomotives for the G.W.R., their quality being highly praised by Daniel Gooch; the renowned

Leeds locomotive building industry had its origins here. Amongst many famous men of the engineering world trained at the Round Foundry during and after Murray's lifetime were David Joy, inventor of the Joy valve-gear, Richard Peacock, of Beyer Peacock & Co., Matthew Murray junior, who set up an engineering works in Moscow, his nephew Murray Jackson, chief engineer of the Imperial & Royal Danube Steam Navigation Co., John Chester Craven, locomotive superintendent of the London, Brighton & South Coast Railway, Luke Longbottom, locomotive superintendent of the North Staffordshire Railway, the brothers Krupp, of the mighty German armaments firm, Samuel Owen, who pioneered engineering in Sweden, Benjamin Hick, of Hick, Hargreaves & Co. - builders of mill engines, and Charles Todd, who helped found both Kitson & Co. and E.B. Wilson's Railway Foundry, from the latter of which stemmed Manning Wardle, Hudswell Clarke and the Hunslet Engine Company. Through these men, Murray's standards of excellence spread across the world.

3. DECLINE AND REVIVAL - 1831 to 1900

At the time of Blenkinsop's death, the state of the railway and its locomotives was fast deteriorating, but for a few weeks in early 1831, there was a chance that the railway might acquire a set of new locomotives.

In autumn 1830, in the wake of the Liverpool & Manchester Railway's instant success, surveys were made for a railway linking Leeds and Bradford. The route decided upon would skirt round the southern edge of Leeds to join the Leeds & Selby Railway at its intended terminus, east of the town. With junctions to proposed cross-Pennine lines at its Bradford end, the railway would form part of a future coast-to-coast route. However, several main highways into Leeds from the south would have to be crossed, as too would the Middleton Railway, and for this reason it was decided to raise on arches a long section of the proposed line. In February 1831 George Hill wrote from Newcastle, on behalf of the Reverend Ralph Henry Brandling, to Mr. Brandling's Leeds solicitors, Hemingway & Nelson:

Mr. Brandling desires me to say that he wishes you to inform the Directors of the Bradford rail road that, he has no intention of opposing any part of their plan, provided they do not interfere with his own arrangements for leading Coals along his own line of Way. According however to the levels adopted, as they appear in their Sections, such an interference would undoubtedly take place, in as much as the top of the proposed rail road would be elevated only 14 feet from the top of Mr. Brandling's railroad, which the whole height required to clear the Chimney of his (Mr. Brandling's) loco-motive Engines would be at least 28 feet from the surface of his own rails. To obviate this objection Mr. Brandling proposes, and he requests you so to inform them, that the Directors shall engage to supply him at the expence of the Company with three loco-motive Engines, in place of those he now employs, properly adapted to their own levels, of at least equal power and strength of material with his present Engines, and of as simple a construction as the circumstances will admit of. His proposition agreed to, I repeat that Mr. Brandling has no objection whatever to offer to the proceedings of the Company in the execution of their plans; and, moreover, the present Engines, after the new ones are provided, will be entirely at the Company's disposal.

Unfortunately, the Reverend Brandling's cheeky attempt to procure replacements for his aging and decrepit engines at the Bradford & Leeds Railway Company's expense failed. Two months later, George Hill wrote to his nephew Thomas Embleton, Blenkinsop's successor, to ask for information about the locomotives for George Stephenson, whose advice had been sought as to "the best mode of altering the Travelling Engines so as to adapt them to the Railway Arch of the Bradford and Leeds Company". By July, however, there was so much powerful opposition, in particular to the Holbeck and south Leeds sections of the route, that the company's Bill to Parliament failed almost immediately. It was another fifteen years before the first Leeds and Bradford rail link was opened, and the Reverend Brandling's locomotives limped on towards their inevitable collapse.

On Wednesday 12th February 1834, there was a second boiler explosion. The accident happened at Hunslet Carr, and the shock was felt throughout Hunslet, causing many inhabitants to think there had been an earthquake. The engine-man was killed instantly. Between 1831 and 1835, another engine broke down irreparably. Only one remained, and Sir George Head's *A Home Tour through the Manufacturing Districts of England in the summer of 1835* provides a glimpse of the last of the Murray/Blenkinsop locomotives at work:

The rail-road and locomotive steam-engines are curious and worthy of observation, being of the earliest manufacture in the country; the latter especially as different in appearance from the engines in present use, as a stage-coach in the days of Queen Anne from Mr. Leader's modern vehicles. A wheel on one side of the engine works upon a line of cogs, with which the rails on the same side are furnished, so that, though her motion is slow, her purchase is that of the rack and pinion. This crazy, rickety, old engine continues to trundle along day after day at the rate of about five miles an hour, and affords an extraordinary instance, by comparison, of the improvements in machinery that have taken place within the last fifteen or sixteen years.

Shortly after Sir George's visit, steam traction was abandoned completely, and horses came into use again at Middleton, the price of fodder having fallen sharply. In what surely was the first attempt to preserve a steam locomotive, the only remaining Murray/Blenkinsop engine was displayed in a shed at Belle Isle until about 1860, when, tragically, it was scrapped.

Had there been even a continuation of the colliery's financial state as it was in 1830/1, the rack locomotives might have been replaced. West Pit was being developed on the plateau, south of the modern Middleton Park Road, and the waggonway was to be extended to there, from the Venture Pit. Continuing his family's *penchant* for innovation, R.H. Brandling arranged for the new way to be laid with Losh's Patent Malleable Iron Rails. A sample length had been laid at Gosforth, and on 3rd March 1831 George Hill wrote to tell his nephew that "the Rails are so keyed down to the Chairs that they cannot rise . . . it looks well". He was intending to lay the "Brandling Inclined plane" with them, but he understood that at Middleton they were for "the new piece of Way to the West pits, where the loco motive Engine is not to be used". These rails could "have no Cogs upon them", so could be of no use for the sections worked by the locomotives. William Losh, the patentee, was enquiring at Hull about the purchase of old ships' planks for sleepers, but Hill thought that stone sleepers could be used. Hill's next letter to Embleton, written at Kenton on 27th March, implies that they actually were considering the possibility of using locomotives at the southern limits of the network,

and he supplied details of a Killingworth locomotive-worked branch which he thought had a worse "acclevity", or rise, than the section between Venture and West pits. As he already knew that the rails could not be made with cogs, he apparently was envisaging that the new locomotives the Reverend Brandling was hoping to gain from the Bradford & Leeds Company at that time would be adhesion type, and that they might work even more of the network than had their predecessors.

On 18th June, Hill wrote that he had "agreed with Losh & Co for the supply of Malleable Iron Rails for extending the Railway to the West pits". Chairs also were to be made by Losh's, as the patent "joinings" had to be cast precisely. "The price for the Rails £11-5-0 a Ton, weight 32 lbs to the running yard - for the Chairs 9d a Cwt. & for the Wedges 4d a lib". The first half of the order was expected to be ready to ship out in 2 or 3 weeks, and Hill proposed to send a workman from Coxlodge to lay them down, as he had previous experience of laying these rails. Stone "keepers", or sleepers, had been decided on. On 19th July, dispatch of the rails was imminent, and with them would be sent "The points and Crossings . . . and also a few short plates to carry you round the turning at the Venture pit".

Just over a year later, Hill wrote on Losh's behalf asking Embleton for a written testimonial, as Losh was hoping to supply his patent rails to the proposed Newcastle & Carlisle line. Embleton stated that they had fully answered their expectations:

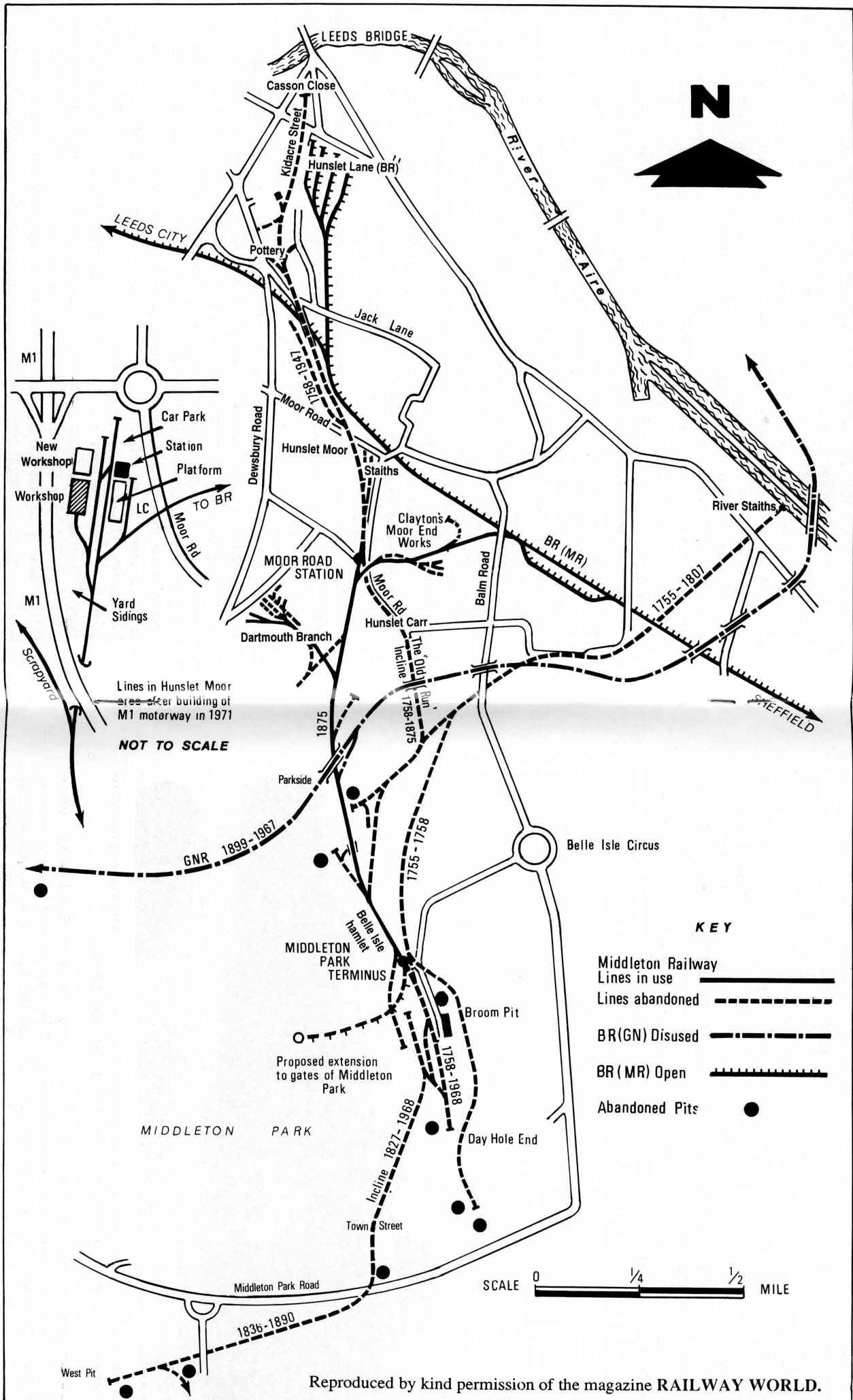
The only objection I entertained with regard to them was that the upper surface of the Rails might separate into thin laminæ by the friction of the wheels but however there is not as yet the slightest sign of such an appearance - We are satisfied with the efficiency of the joints and the mode of fastening the Rail to the Pedestal: and as far as my observation goes your Malleable Iron Rails form a very superior Road to any that I have seen -

The testimonial also revealed the extent of the new track:

We have 1600 yards laid when the ascent is one in 158 and part of an inclined plane (300 yds) where the rise equals one in 9 or ten and find the overlap point and the method of wedging the Rail to the pedestal to suit equally well in both situations . . . We intend at some future period to relay the inclined plane entirely with these Rails -

New track was being laid elsewhere on the Middleton plateau, and by 1832 there appears to have been a connection between Fanny Pit (later Colliery Farm), New Lane (ref. SE 29862818) and the top of the upper incline.

However, the general financial climate was already deteriorating. A large local customer went bankrupt, owing money to the colliery. The coal trade on Tyneside was as depressed as that in Yorkshire, and the Reverend Brandling wrote to his son, prophesying the collapse of the entire trade. Some coal owners cut their prices to the bare minimum, to retain a share of the market. Demand for coal was still growing, but transport improvements had enabled the opening of new coalfields and many new pits. Charles John the younger cut back his Middleton Lodge establishment, selling his large carriage, paying off his chief butler, and stopping his book subscriptions. Periodically, Thomas Embleton wrote to his employer with excuses for the continuing absence of profits to send him. By 1835, production at Middleton had dropped to about 75% of the peak figures and the average price per ton of coal had been forced down from 7s4.3d (c.37p) in 1811/12 to 5s (25p). At the end of 1835, the Reverend R.H. Brandling and his son assigned the heavily mortgaged Middleton estate into the hands of trustees, a legal ploy which was often done to place an estate beyond the reach of creditors, whilst the owner continued to enjoy the use of the estate.



The Brandlings continued to run the colliery, with the son remaining in residence at the Lodge. West Pit eventually was sunk to a depth of 116 yards, but Middleton had never been very profitable at the best of times, and the gradual erosion of receipts discouraged further investment in either the colliery or its waggonways.

A few new branches were made, and the first edition 6" Ordnance Survey map of 1848-51 shows the 'feeder' system in its complete form, extending via "Venter" Pit to West Pit (reference SE 295277), with a tramway running from Henrietta Pit (SE 29812783) via Glasshouse Colliery (SE 29922749) to Bleachground Engines, described by an 1850 estate map as "Bleachground Pit". This was situated at the junction of New Lane and Thorpe Lane, now respectively Middleton Park Avenue, slightly realigned, and Middleton Lane (reference SE 29982705). At the other end of the main line, Wilson's Street, later Great Wilson Street, was built c.1838, necessitating the loss of about 150 feet from the north end of the Kidacre Street Staith.



The curtailed northern end of the Kidacre Street Staith in January 1949. Photo: Leeds City Engineers, reproduced by kind permission of Leeds Reference Library.

A few hundred yards further south, two sidings had been built by 1847, when the 5ft:1 mile O.S. map was surveyed. One ran N.N.W. into the yard and tenterground of Potter Dale Mill; the other curved eastwards into the Leeds Iron Works. By this time, the Leeds Pottery branch, a little further south, had disappeared. The same map shows a long passing loop between Moor Road and Hillidge Place, north of Hunslet

Moor Staith. The staith had one line, diverted at each end from the main track, and elevated over 12 coal drops. Kidacre Street Staith had two tracks elevated over c.20 coal drops each, with an elevated passing line between, for returning empty waggons.

Dwindling profits and insufficient investment caused decreasing efficiency and increasing financial embarrassment, in addition to which Chancery proceedings had been initiated by the Brandlings against one of the trustees. On 3rd October 1850, the estate was advertised for sale by auction, and a large-scale map of the property was prepared, but no sale was made. Sale by auction was again advertised to take place on 11th and 12th September 1851, and yet again on 19th and 20th October 1853. Each sale was ordered by the High Court of Chancery, as a result of Brandling v. Plummer proceedings, but no sale took place. Robert Plummer was by then a trustee, and the Brandlings may have been attempting to reclaim the estate from the trustees' hands before the allotted time, in order to sell (as well as for evading creditors, assignment to trustees was often used to ensure that property stayed entailed to the family). The map prepared in 1853 showed only five pits: Day Hole Colliery, Henrietta Coal Pit, West Pit, New Lane Colliery (i.e. Glasshouse) and Bleachground Pit. The latter two were connected by bye-way to a main-way running from West Pit to Great Wilson Street.

In 1854, an Act of Parliament was passed for the building of a Bradford, Wakefield and Leeds Railway, branching at Wortley, west of Leeds, from the Leeds, Bradford & Halifax's line, and going via Ardsley to the Great Northern-Lancashire & Yorkshire station at Wakefield. The company advertised in October 1853 that they proposed to make the most extensive and valuable Yorkshire coalfields easily accessible by rail, "giving an abundant supply of every description of coal for manufacturing and domestic purposes - inexhaustible for centuries to come"! The Brandlings obtained rights to make a branch from the line to the colliery, and possibly this might have been seen as a way of re-mechanising their 'leading' without bearing the expense of new track and locomotives themselves, enabling them to abandon the 1758 line. The Leeds, Bradford & Halifax's Bradford to Leeds section opened on 1st August 1854, and the Bradford, Wakefield & Leeds's line on 3rd October 1857. However, the Middleton branch was not built as planned. In 1865, both the L.B. & H. and the B.W. & L. were absorbed by the Great Northern Railway Company, and Middleton's link was only achieved via the G.N.'s Beeston to Hunslet line, opened on 3rd July 1899. Failure to do so forty years earlier may have been due to the fact that at Middleton, once more, an era was coming to an end. The Reverend Ralph Henry Brandling died in 1853. On 5th May 1856, his son, Charles John, apparently transferred his rights in the estate to Robert Plummer and two others. Less than two months later, Charles John also died.

Litigation continued, and in October 1862 a sale was decreed again, this time as a result of three Brandling v. Plummer and one Brandling v. Liddell Chancery proceedings. *The Leeds Intelligencer* later reported that none of the lots had been sold, and the trustees limped on until 14th August 1865, when the entire remaining-estates, collieries etc. were purchased for £100,000 by Francis William Tetley, one of two partners in the Tetley brewery, sited some 200 yards north of Kidacre Street Staith.

At about this time, Tetley and his brewery partner also bought the freehold of their original premises, and embarked on an ambitious programme of expansion and rebuilding. The purchase of the Middleton estate, and the redevelopment necessary

there also, may have stretched his resources too far, and within a few months he had mortgaged a substantial amount of the estate, though he retained the right to work the minerals. Most of this property was not redeemed until 1880. Tetley also took three partners, John Rhodes, sharebroker, Joseph Ogden March, machine maker, and Edmund Maude, timber merchant. After a short time as Messrs. Rhodes, Tetley, March and Maude, the partnership became the Middleton Colliery Company, and then, on 8th June 1867, it was incorporated as the Middleton Estate and Colliery Company. During 1865/6, Marshall Nicholson, mining engineer, moved into Middleton Hall and was soon described in directories as "colliery viewer and manager", both residence and position having once been occupied by John Blenkinsop. Nicholson, a relative of Edmund Maude, later became Company Secretary, and eventually was Managing Director. Charles Ryder, Tetley's brother-in-law and brewery partner, and the other colliery partners' sons, Fairfax Rhodes, George March and William Henry Maude, also became directors of the Company, and on 4th April 1868, the estate was officially transferred from the partners to the Company. It is interesting to note that Joseph and George March were, respectively, the son-in-law and grandson of Matthew Murray. They were partners in the Union Foundry, a short distance from the Kidacre Street Staith, and it is likely that both they and Tetley were attracted by the prospect of their own regular supplies of coal being delivered near their other business interests.

In 1865, only the Dayhole and the Henrietta and West Pits were being worked, but the Company quickly set about the task of making the colliery profitable again. They re-introduced steam traction, the first locomotive being built by Manning Wardle in 1866, of 4'1" gauge and called *Blenkinsop*; *Matthew Murray* followed in 1869.

In 1868, the Company sunk three new pits, Doggy Pit and New Pit, near Parkside and, near the present Park Halt, the 810 feet deep Broom Pit.

During the same year, they redeemed the seven eighths of the Manor of Hunslet mortgaged in 1865, and in 1874 they bought the remaining eighth. Also in 1874, the Company bought the Leeds Pottery, which had surrounded a short section of track north of Jack Lane since 1770. The purchase presumably was to safeguard the wayleave through the yard there, but the Company perhaps turned their new acquisition to some practical as well as strategic use: when the route for the South-East Leeds Urban Motorway was being plotted in the late 1960's, a bore-hole on the site of the main track beside the Hunslet Moor Staiths revealed a layer of 19th century pottery waste, apparently laid down as ballast.

At some time during 1875, part of the main line was diverted to its present alignment to avoid the lower incline, enabling locomotives to travel unimpeded between the main colliery and Kidacre Street. Also in 1875, the Company bought two strips of land, from Riley Briggs, flax-spinner, and from Leonard and Lawrence Clayton and James Smith, boilermakers. These plots were bordered by the Midland Railway's Sheffield to Leeds track at their north-east end, and Hunslet Moor at their south-west end. During the same year, the M.E.C.C. laid a branch from their main line towards the Midland, but only as far as the edge of the Moor.

Whilst it would be of considerable advantage to make a link with the Midland, and the land undoubtedly had been purchased for that reason, there was no way of connecting a 4'1" gauge branch line to the 4'8½" gauge Midland line. As the Company

did not bother to continue the branch on to their newly-purchased land, it may well have been a measure of legal subterfuge, to establish the branch in anticipation of the passing of the 1876 Commons Act, which would soon forbid further enclosure of common land, except for the benefit of the neighbourhood.

During the next two years, the local inhabitants with commoners' rights to use of the Moor became increasingly angry that the Lords of the Manor were infringing those rights. They found a champion in the editor of the *Woolwich Gazette*, John De Morgan, who had been leading campaigns in other places against encroachment of commoners' rights. In addition, William Emsley, a Leeds solicitor, published a booklet containing copies of the four Middleton Acts and details of the commoners' grievances. The Company appears to have behaved in a most cavalier fashion in proving their own rights to the Moor, selling off some portions of it, tearing up a new paved footpath laid adjoining it by the Corporation, and even charging 2s6d a year to anyone whose house door opened on to the Moor. On 26th October 1877, De Morgan addressed a meeting at the Hunslet Mechanics' Institute, which resulted in an ultimatum being sent to the Company, ordering them to remove the "siding" or the commoners would do so themselves. The Company replied that any valid objections to the new line could be taken to court. Further meetings were held on Saturday 24th November, at which De Morgan advised the commoners that their rights were being violated according to the very Acts of Parliament under which the Company claimed its powers: horsedrawn waggons only were envisaged, not the steam locomotives now in use; the coal was to be reserved for the people of Leeds, when now it was being "sent along the whole Midland system"; best coal was to be priced 7s a ton, but now was being sold at 15s5d a ton; the Acts authorised only "a" waggonway, when three actually were laid. In fact, though the title of the 1758 Act did mention "a Waggon-Way", the preamble said "Waggon-Way or Ways", and the body of the Act said "Waggon-Way or Ways, and Branches". The Company indeed may have been acting in innocence initially, as Tetley's purchase deed included rights to use the existing waggonways and to "make others whenever required in addition to or in lieu thereof".

On Saturday 8th December, according to the following Monday's *Yorkshire Post*, over 30,000 people gathered near the branch to hear De Morgan speak. He then "carried out his threat to pull up a portion of one of the lines" with much assistance from "a working man" named Jukes, who was paid 5s. The situation clearly could not be allowed to deteriorate further. On 22nd February 1878, the Company appeared as plaintiffs before the Master of the Rolls, asking for an injunction against any further tampering with the new branch by the commoners. The defence filed affidavits attempting to prove the illegality of the line, but were told that this should be contested separately. They also stated that the line interfered with an important public highway, and that two accidents had happened already because of this. The plaintiffs' solicitors filed affidavits stating that the Company had pulled up the abandoned section of 1758 route, giving c.396 square yards of additional land to the commoners, and that they had diverted a highway at their own cost to avoid it being crossed repeatedly by the "tramway". The case was left pending, and the commoners held more meetings. However, most of them were poor, and attendance dwindled after a subscription was started to pay defence costs. De Morgan battled on, and on Saturday 11th May, his

support began to increase again. That morning, 75 years old Sarah Hollis was approaching the line on a footpath when a train came, presumably travelling south as the waggons were said to be empty. The driver blew the engine whistle and called out several times, but by the time he realised Mrs. Hollis was deaf it was too late to stop the train. She was hit, and later had her left leg amputated. At his meeting that evening, De Morgan further fuelled the revival of the cause by announcing that the Company were negotiating to sell the Moor to the Corporation. He believed that by law the commoners should have fifteen sixteenths of any money paid, and he promised to enter a case in the Leeds Summer Assizes if a sale went ahead.

On the following Saturday, 18th May, the Hunslet Moor Case was resumed before the Master of the Rolls, but De Morgan somehow had neglected to file his "defence and affidavits of merit" for the hearing. The Master said there was no excuse for this lapse, since Mr. De Morgan knew the law well enough (he had been in Holloway Gaol several times in connection with similar cases, and later related that the Governor had written to him threatening to put him in solitary confinement if he ever appeared there again!). The Master also said that though De Morgan styled himself 'Commoners' Agent', he was not a commoner of Hunslet, and that those who were could not delegate their rights to him. He granted an injunction to the Company, with costs for the case to be paid by the defendants. On Monday 20th May, the local M.P., Mr. Barran, stood up in the House of Commons and asked if the Secretary of State for the Home Department knew of the Hunslet Moor accident, and whether he was "aware that the tramway in question is traversed by locomotives without parliamentary sanction, and is so unguarded and uncontrolled as to be dangerous to the numerous persons crossing the moor; and whether he would direct an official inquiry to be made with a view to protecting the public against similar accidents". Mr. Cross, the Minister, replied that he understood that the poor old woman was in a hopeless state, and in a few days a coroner's inquest would be required, and that he could not anticipate that inquiry. But Mrs. Hollis lingered on.

Meanwhile, the Company seemed near to completing their sale of the Moor. *The Yorkshire Post* of Wednesday 29th May reported that the Company wished to "reserve to themselves the minerals, about eight acres of the moor, and the tramways running across the moor, belonging to the Middleton Colliery Company, and the width of which is to be extended. The lords also reserve the manorial rights and the copyhold tenements". The asking price had come down to £4,000, and the Company had agreed to "contribute £250 towards the cost of fencing off the tramways". On Saturday 1st June, De Morgan announced to a meeting of 600 people, that he had entered an action for the Summer Assizes, and had a promise from the Board of Trade that an inspector would attend the inquest if Mrs. Hollis died. Against all expectations, Mrs. Hollis seems to have survived.

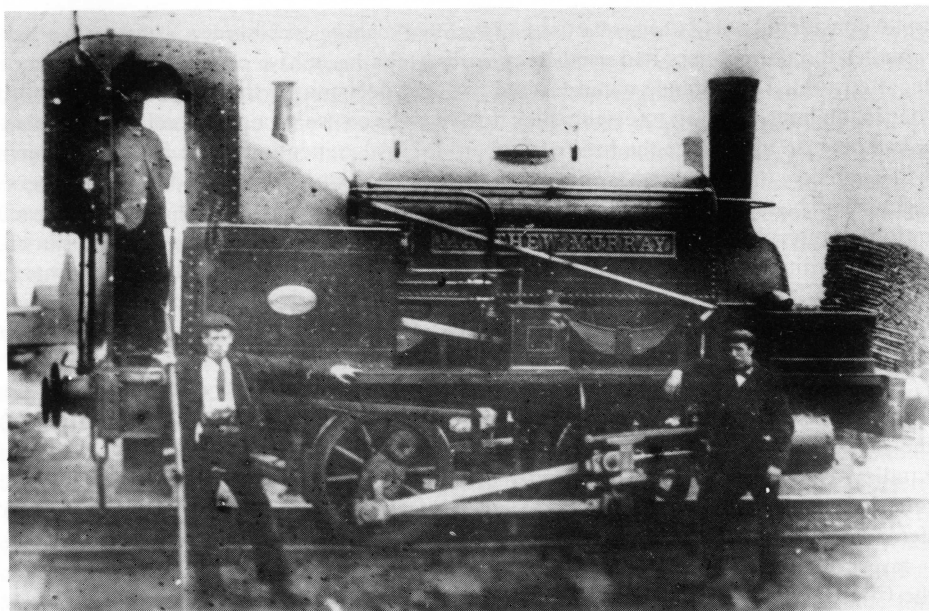
The case of *S. Wormack v. Middleton Estate Company Limited*, trespass, was one of several cases still untried at the end of the Summer Assizes. When the Winter Assizes commenced, the plaintiffs were W. Peel, J. Christy and J. Cherrington. Their case, heard on Monday 4th November, was that the inhabitants of Hunslet for a long time had had right of usage of the Moor for recreation, and that the Company had "broken into the land", laying down tramways and roadways, had broken the terms of the fourth Act by planning to send coal out of Leeds and, therefore, had forfeited their rights to operate even the first "tramway". However, the judge directed that the question

to be considered was "whether the usage of the Moor could be established as a legal custom", or whether the commoners had used it "as anybody else might have used it", which was not legal custom. The defence counsel cited a recent decision by the Master of the Rolls, that inhabitants wishing to establish exclusive right of use to a place had to prove that it had been so used since the time of Richard I. He also mentioned the 1712 Act which had enabled common land to be given to the local clergy, and said if commoners' rights had been in existence this would have been illegal. The plaintiffs' counsel unfortunately failed to correct this allegation by giving details of the Hunslet parish deed regarding the permission of three quarters of the commoners being necessary, presumably because he was never told of its existence. After consideration, a verdict was reached that "The jury are unanimously of the opinion that the plaintiffs have failed to prove their exclusive right to the moor, as distinguished from other parties".

On Thursday 14th November, an appeal against the verdict was heard in the Exchequer Division of the High Court, on the grounds that Judge Lindley had directed the jury "in a sense adverse to the plaintiff". It was decided to consult with Mr. Justice Lindley as to his directions, and judgement was reserved. A week later, counsel were told informally that the Court had decided to grant the rule called for, that the defendants should show "cause why there should not be a new trial on the ground of the verdict in favour of the defendants at the Leeds Assizes being against the weight of evidence." However, the Corporation continued to negotiate a purchase of the Moor. During the first week of December, a local poll was held as to whether or not the purchase should be made, the final result being 19,160 votes in favour of purchase and 16,498 votes against.

The commoners undoubtedly had a good case against the Company on many grounds, but the Corporation forged ahead with its plans, and the Leeds Corporation Act of 23rd May 1879 must have settled the controversy to a large extent. The Act empowered the Corporation to buy Hunslet Moor from the Commoners and the Lords of the Manor, but protected the rights of the Company, and forbade all unavoidable interference by the Corporation with their waggonways and the traffic thereon. A Commissioner was to be appointed to discover who had rights to the Moor, and the Corporation was to recompense such persons as appropriate, for the loss of their rights. The Act also stipulated that, "for the avoidance of accidents, and for the more safe and convenient use of the moor" the Corporation should "make and erect a good and substantial fence . . . along and on either side of the several waggon-ways . . . together with any necessary gates or stiles". A great iron fence eventually separated the line from the Moor. Saxby and Farmer's gate posts and mechanisms variously bore the dates 1901 or 1903, and each enormous road crossing gate was surmounted by a fearsome *cheval de friese*. The Corporation purchased the Moor in 1879 for £6,360. The controversial branch remained unconnected for more than ten years, but there is a story that, around the end of the last century, the Company maintained a free coal-pile on the Moor for the commoners, in return for the right to run across the Moor.

In 1881, as planned in 1878, the gauge was changed to 4'8½" and *Matthew Murray* was returned to its makers for conversion to standard gauge. *Blenkinsop* had already been scrapped, but two new standard gauge locomotives were supplied at about this time by the same local firm, Manning Wardle: *Blenkinsop No.2* in 1881 and *Niger* in 1892.

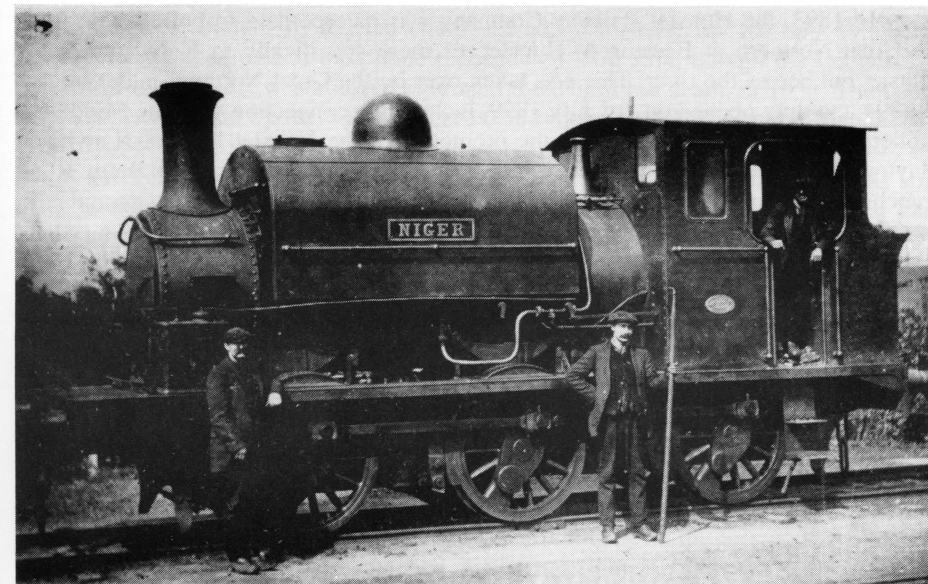


MW284, *Matthew Murray*, built to 4ft. 1in. gauge in 1869, rebuilt to standard gauge in 1881. Photo c.1900?: W. Clapham (M.E.C.C. driver).

A change of gauge at the time of the 1875 re-alignment might have been a better option, but perhaps would have strained manpower and finances too far. It is no more than a guess that the connection with the Midland Railway's Hunslet Lane Goods Depot, formerly the North Midland terminus, via a level crossing in Kidacre Street and reversal in the neighbouring Gas Works, was put in at the time of the gauge conversion. It is shown on the 1889/90 Ordnance Survey maps. Bacon's plan of Leeds, c.1889, shows the new alignment of the colliery line, with the old alignment dotted. Presumably because of its uselessness, the branch at Hunslet Moor is not shown; the connection was completed in time for inclusion in the *1895 Handbook of Stations*.

On 2nd August 1883, an Act of Parliament was passed authorising the construction of the East & West Yorkshire Union Railway. The ultimate object was to form a main line from the Great Northern Railway at Ardsley, through Rothwell, to meet the proposed Hull, Barnsley & West Riding Junction Railway at Drax. From Rothwell, a branch would go west to join the Middleton Railway, with a "proper and sufficient station for passengers and goods near Broom Pit", and then would use the Middleton Railway's route to gain access into Leeds.

The E. & W.Y.U. company had great difficulty raising capital, and the idea of a Leeds branch was abandoned eventually, leaving the E. & W. as a link from the G.N. at Ardsley to Rothwell, and then onwards via the South Leeds Junction Railway to the Midland line at Stourton. Both E. & W. and S.L.J. were closed in 1966, but the difference the 1883 proposals would have made to the future of the Middleton Railway is almost unimaginable.

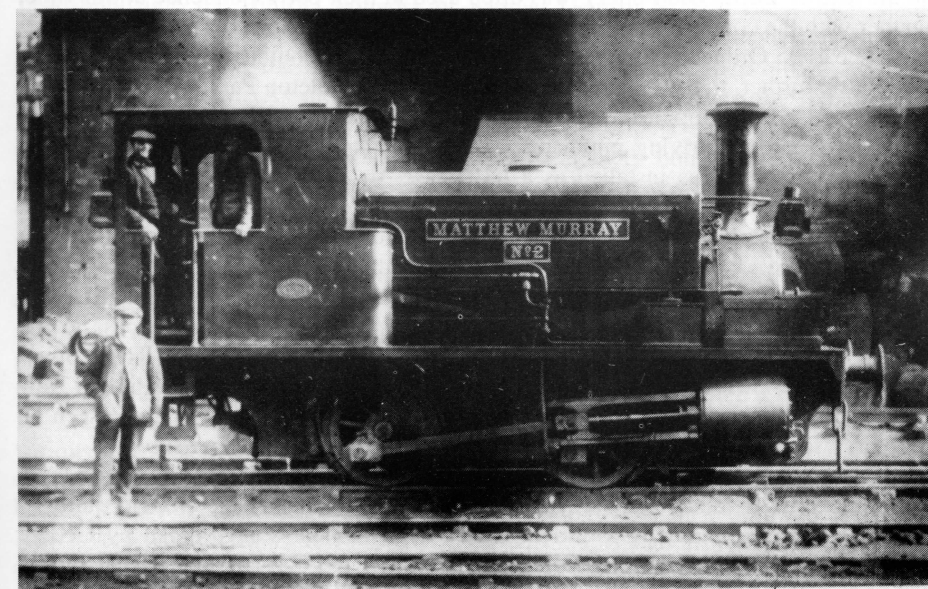


Above: MW1262, *Niger*, supplied new in 1892.

Below: MW1752, *Matthew Murray No.2*, supplied new in 1909.

Both photos: M.R.T. collection, but believed to be by W. Clapham

Matthew Murray No.2 was the last new locomotive to be bought by the M.E.C.C. It would be 45 years before the next brand new locomotive arrived, purchased by the N.C.B.



In 1893, the Hunslet Railway Company was incorporated to build a line from the Great Northern at Beeston to Hunslet, or more specifically to Knowsthorpe, in Hunslet but across the river. This was taken over by the Great Northern under its Act of 1894 and duly opened on 3rd July 1899, including a connection with the Middleton Colliery line near New Pit. Among the promoters of the Hunslet line was Lawrence Clayton, who had sold land to the M.E.C.C. for the building of the Balm Road branchline. His firm, Clayton, Son & Company, was to play an important part also in the twentieth century development of the railway.

When the Ordnance Survey explored the area in detail a second time, in 1890, all shafts on the plateau had been closed, except for ventilation, the pits being linked underground. The line was cut back to a dead end, near to the eastern boundary of the later Middleton housing estate. Coal was no longer sent down the incline; instead, a steam winding engine brought coal up from the middle level. There was a return sheave near the defunct Venture Pit, whereby the coal waggons were cable-hauled across Town Street to a staith on the south side of the road. They also could be dropped back into the yard for supplying the engine.

4. A DOWNHILL RUN - 1900 to 1959

In a 1900 Leeds Directory, the M.E.C.C. appeared for the first time in the list of Brick & Tile Manufacturers, utilising the abundant fireclay near the Broom Pit site, and the title of 'Leeds Old Pottery' was often used in their correspondence at this time, together with the company's own name.

The 1905 Ordnance Survey map revision shows the southern end of the line cut back a little further, to a site just short of the present Middleton Park Road. The steam winding engine at the top of the upper incline was replaced by a humble electric motor about 1930, and the driving pinion was moved to the opposite side of the winding sheave. A turntable was installed as a last phase, to enable waggons of coal to be turned into the yard for bagging. The incline and coal staith were in use until 1948, after which an explosives store was built on the incline, near its lower end, and the rails were removed. During the next twenty years, the sleepers gradually disappeared and the store was demolished. One wall of the old winding house survived until 1964. The upper part of the incline's alignment is now a steps and footpath access to the Manor Farm housing estate, built across the site, and all traces south of Town Street have gone. The intricate development of track and sidings around Broom Pit and New Pit, and the coke ovens, brickworks, clay pits and quarries thereabouts, can be seen on older large scale O.S. maps and plans, though nothing can be traced on site.

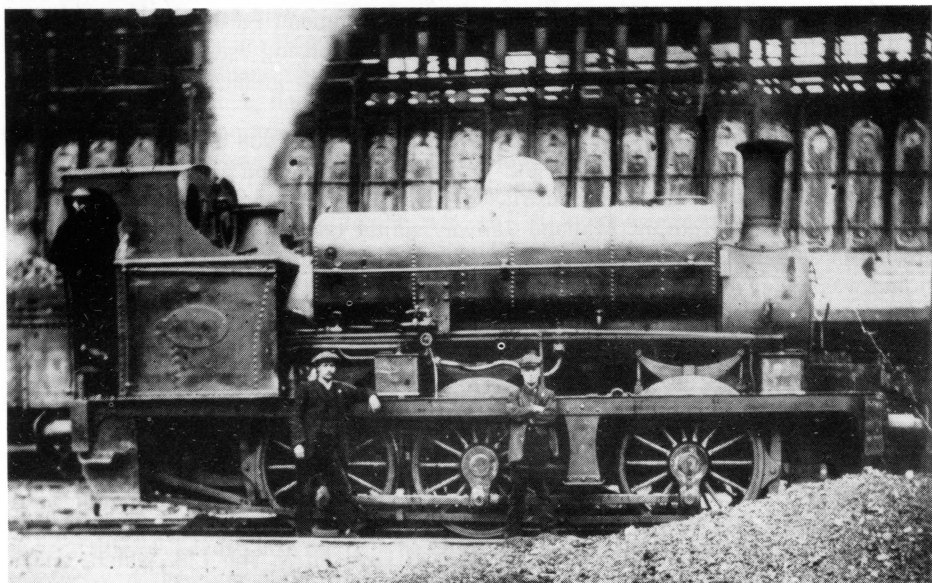
The twentieth century saw the gradual depletion of the Company's property. On 31st January 1920, land was sold to the City for the building of the electric tramway known as the Middleton Light Railway, the sale document being signed by George March and Fairfax Rhodes, Directors of the M.E.C.C., and C.J. Dixon, their Secretary. The park and woods, together with Middleton Lodge, the Brandlings' Middleton

residence, were bought by a local charity, Wade's Trustees, on 1st July 1920, and ceremonially transferred to the public of Leeds on 23rd July, though the Lodge's last resident, Miss Maude, was allowed to remain there until her death, in 1933. The list of Trustees was headed by the Vicar of Leeds, and included a Tetley and a Maude. The property, 316 acres in all, was leased to the city for 999 years, for an annual rent of £1, and it still forms one of Leeds' largest public parks. South of the park, land was sold off gradually in small lots for private housing development. Further south than that, land had already been sold for the huge corporation housing estate. The number of sales probably echoed the Company's finances, and the greatest concentration of transactions occurred during the 'depression' of the 1930's.

However, some new development was achieved. The 1908 large scale O.S. map shows a long passing loop near the Midland Railway end of the Balm Road branchline. Three sidings were constructed near Hunslet Moor, giving neighbouring firms access to and from the Midland Railway via the colliery line, and the Company dealt with quite a vast amount of traffic for these 'customers' over their line. The oldest siding was a pair of tracks into Wagon Repairs Ltd., later the Acme Engineering Co., on the south side of the Balm Road branchline. This dated back to 1913, and was in regular use until 1959. The second served three premises on the west side of the line which, until June 1971, were reached via a 'headshunt' connected with the main colliery line by a north facing curve. This was laid during 1919/20, and served Clayton, Son & Co. Ltd., the first to receive a train - on 6th August 1920: Robinson & Birdsell, metal merchants; and John King & Co., ironfounders. Of these, only Robinson & Birdsell's siding and a very short length of Clayton's Dartmouth Yard siding still exist. The third connection, first used on 5th March 1921, was a similar 'headshunt' into the Hunslet Foundry of Samuel Denison & Son Ltd. which, under Gothard & Salt, cast replacement rack rails to Blenkinsop's patent design. In those early days, of course, the line came down Old Run Road and then turned along the front of the foundry. (As mentioned previously, a branch ran into the foundry yard from the old alignment c.1787.) Though seldom used, the Denison siding from the new alignment was still intact in 1959, and our society obtained rails from it for repairing the curve to Dartmouth Yard. By 1932, there was a branch into a Leeds Corporation yard, south of the bridge over the Midland, and also a branch into the asphalt works then occupying the site of the Leeds Pottery field. The 1908 and 1921 O.S. 1:2500 maps show a short branch west of the line, just north of the G.N.R. bridge at Parkside, and a long siding nearby, parallel to the line's eastern side. An M.E.C.C. siding also appears on 1932 and 1949 O.S. maps, starting in a similar place but proceeding for a quarter of a mile in a N.N.E. direction upon substantially flat ground, formerly a spoil heap for the New Pit. It is understood to have served a stock yard.

During the first part of the twentieth century, work on the line was shared at various times by five locomotives: *Matthew Murray No.2* was usually deployed as colliery yard shunter, venturing as far as the clay pit near the Great Northern line on behalf of the Fireclay Works, and occasionally joining *Niger* on spoil train duty to 'the Alps'; *No.6* worked trains down to Hunslet Moor Staiths, and also dealt with traffic to and from the nearby firms; *Blenkinsop No.2*, working from a shed in Kidacre Street with *Gladstone* as spare engine, took trains over the entire route. The connected firms

further varied the goods carried on what once had been purely a coal railway. Scrap metal travelled to and from Robinson & Birdsell's, and Clayton's traffic included special loads such as boilers and gasholder sections. Other non-coal traffic on the line included, during the 1920's, bricks from the Fireclay Works for building the Middleton housing estate, and pit spoil for the Middleton Light Railway's trackbed.



No.6, photographed alongside the coking plant at the Broom Pit. Photo: M.R.T. collection, but believed to be by W. Clapham, for many years an M.E.C.C. engine driver.

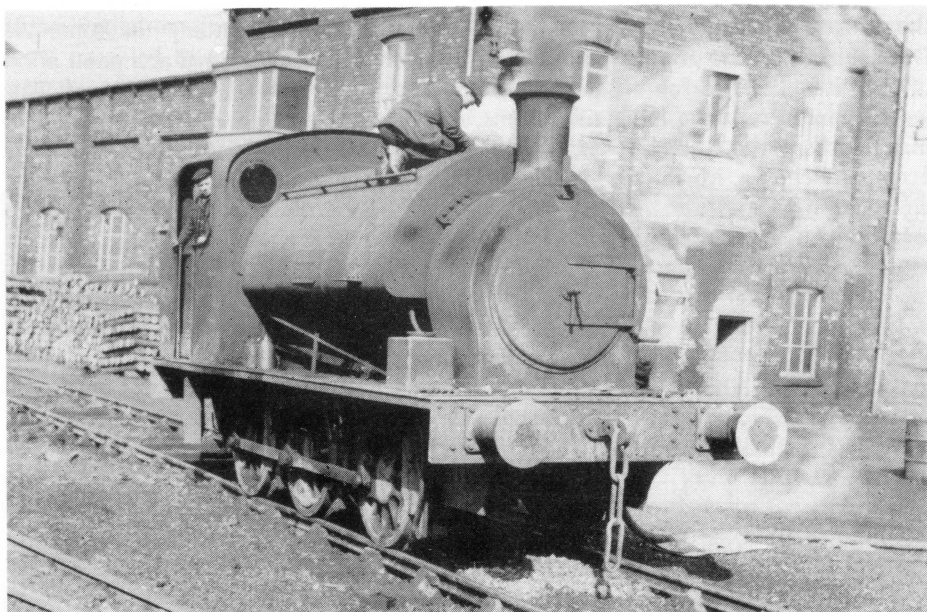
The Middleton Light Railway sometimes is confused with the colliery line, but it actually was an electric tramway, built by Leeds Corporation and opened on 12th November 1925. Much of its route from Leeds to Middleton was on reserved track, running alongside the colliery line from Hunslet Moor Staiths to a point just north of the G.N.R. viaduct, and then going south through the woods. Various extensions resulted in a circular route to Middleton being opened on 28th August 1949, via Dewsbury Road/Moor Road in one direction and Balm Road/Belle Isle Road in the other direction. The line was abandoned on 28th March 1959. Original plans for the Belle Isle portion of the circular route brought the tramway from Balm Road via the eastern end of Moor Road, then up Old Run Road and alongside the middle level of the railway, past Belle Isle miners' hamlet and the Broom Pit, where a physical connection of 242 yards length was intended to be made with the railway. Until 1930, Leeds City Tramways handled mineral traffic over its system, between the Gipton Pit at Harehills and the Leeds Fireclay Company at Wortley. Waggons cannot normally transfer between railway and tramway because of flange differences, but a slight modification of the flanges could have made the Middleton project possible. However, the situation never arose there, as the Belle Isle route finally chosen continued on up

Balm Road, probably to gain a more uniform gradient. Regarding the route via Dewsbury Road, the original plan was for it to leave Dewsbury Road at a point north of Jack Lane, and to run beside the colliery line from about the Pottery Yard. This would have served the industrial premises in the area and avoided the problem of making sharp turns at each end of the western section of Moor Road, the route eventually chosen. Much later, in the 1950's, it was suggested that the tramway route be diverted on to the then abandoned northern section of the railway, to avoid the increasing traffic congestion on Dewsbury Road, but the scheme had drawbacks, especially the narrowness of the bridge over the Midland line.

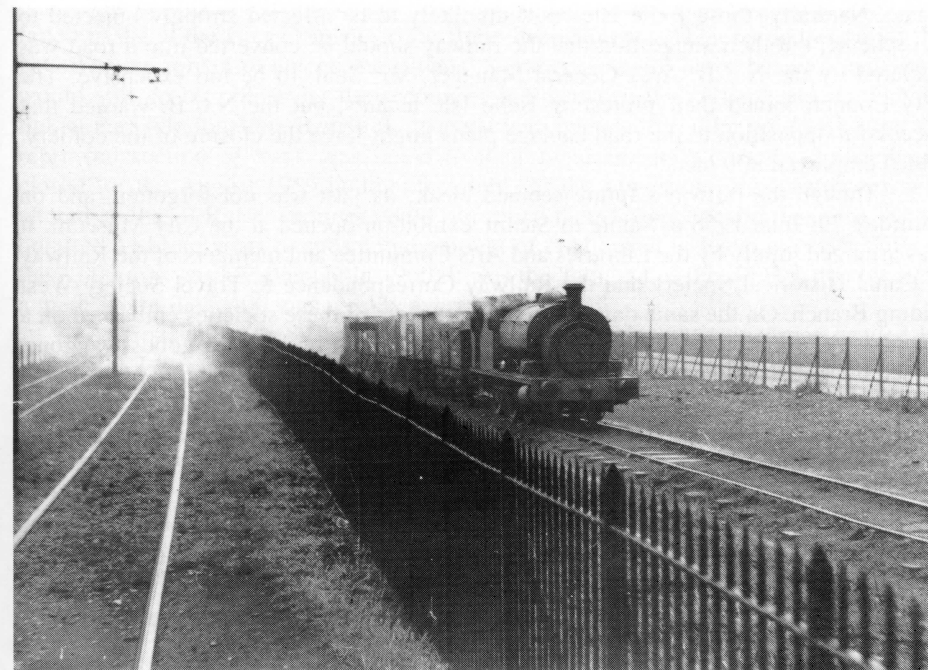
The building of the private sidings had come at a fortuitous time, and their traffic provided much-needed income during the colliery lock-outs and strikes of the 1920's. In 1921, three of the five pits closed down permanently. Times were hard for the British coal industry: a long and bitter engineering works strike severely affected coal sales, and exports to France dwindled as the Germans made post-war reparation 'payments' with Ruhr coal. The two remaining pits were stopped intermittently by disputes centring on the miners' understandable reluctance to accept wage cuts, and during one strike in February 1922, the Company threatened to abandon the colliery. Eventually it re-opened, but in 1926 closed again for almost a year during the General Strike, production also being reduced at the Fireclay Works. The miners eventually went back to work a three-day week, a situation which continued until 1928; New Pit never re-opened for coal production, though the shafts were used for pumping and ventilation until 1968. Despite selling off much of the estate during the 1920's and 30's, the Company was still rumoured to have debts of around £60,000 when increased demand for coal during the 2nd World War brought temporary relief.

The M.E.C.C. apparently anticipated post-war nationalisation by separating their various interests. The Middleton Fireclay Company Limited took control of most of the remaining non-colliery property, including the railway's trackbed. From its apparent inauguration as a separate limited company, in January 1946, it continued selling off superfluous estate in and around Middleton village. Nine months after the National Coal Board took over the colliery, traffic north of Hunslet Moor Staiths, latterly known as Whitaker's Staiths, ceased - on 13th September 1947, and the land was sold by its owners, the Fireclay Company. The Kidacre Street viaduct lingered on until 1956, but the Holmes Street bridge, headroom only 7'6", was demolished by the N.C.B. on 1st February 1948.

The N.C.B. soon set about re-organising the locomotive stock held by its various rail-linked collieries. Middleton, whose most recent arrival had been the second-hand *Gladstone* in 1916, gained a variety of 'hand-me-downs' from other collieries, before the arrival of *Blenkinsop* 1953, which came new in 1954: the first brand-new locomotive to arrive at Middleton since *Matthew Murray No.2* in 1909. Diesels also made occasional appearances when, by arrangement with the N.C.B., John Fowler & Co. used the colliery line for test purposes. Due to the generally anarchic character of the line's operation, this led on one occasion to a collision at the sharp bend near the G.N.R. bridge, when a northbound Fowler diesel met *Blenkinsop No.2* taking a train of empty waggons to the pit. Despite the diesel having the advantage of downhill impetus, the outcome was a decisive victory for steam!



Above: HE1482, *Edith*, photographed in the Broom Pit yard, 26th March 1959.
Below: HC1175, *No.69*, photographed further along the yard on the same day.
Both photos: J.A. Peden



HC1871, *Blenkinsop Nineteen Fifty Three*, running south from Hunslet Moor Staiths towards Burton Road, on the fenced Hunslet Moor section of the line. Left of picture is the Middleton Light Railway electric tram track, reserved section. Photo: M.R.T. collection

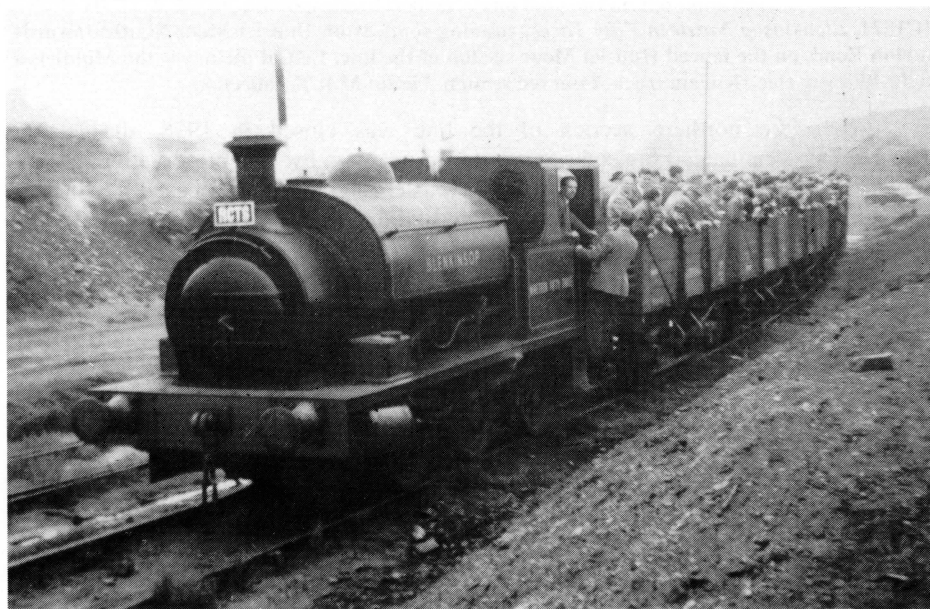
When the northern section of the line was closed in 1958, the testing arrangement terminated, but subsequent to re-opening by the preservation group, Hudswell Clarke, Greenwood & Batley and Hunslet Engine Company used the line for testing purposes. Though the local locomotive-building industry is now almost extinct, the line is still used occasionally by firms repairing works locomotives.

The railway's bicentenary year began with a stunning blow. *The Yorkshire Evening Post* of Saturday 1st February 1958 announced with a front-page banner headline "COAL BOARD IS TO ABANDON PRE-STEPHENSON RAILWAY IN LEEDS - IT'S TOO COSTLY". An N.C.B. spokesman had told the reporter that the line was kept open only by heavy maintenance, and really needed complete renewal. For a colliery which was "a losing concern" this would be too expensive, besides which, the Middleton Estates Company owned the land on which the line stood, and the lease was due to expire very shortly. It would be much cheaper to load coal into lorries at the pit, rather than at "the Middleton depot" (i.e. Hunslet Moor Staiths), as currently happened.

However, the colliery had no real road outlet: the railway was its lifeline. Broom Pit was isolated from local roads by distance or by steep gradients, and the only feasible way to take out coal directly by lorry was to build a road over the low south-east end of the pit heap, to link up with the roads through the Belle Isle housing

estate. Naturally, those Belle Isle residents likely to be affected strongly objected to the scheme, but their suggestion that the railway should be converted into a road was declared by the N.C.B. Area General Manager, Mr. Saul, to be too expensive. The City Council joined their protesting Belle Isle tenants, but the N.C.B. warned that successful opposition to the road haulage plans might force the closure of the colliery, which employed 800 men.

Though the railway's future seemed bleak, its past was not forgotten, and on Saturday 7th June 1958 a 'Salute to Steam' exhibition opened at the City Museum. It was arranged jointly by the Libraries and Arts Committee and members of the Railway & Canal Historical Society and the Railway Correspondence & Travel Society West Riding Branch. On the same day, about 300 members of these societies embarked on a bicentenary journey from Hunslet Moor Staiths in a train of six open goods waggons, loaned by British Railways. A spruced-up *Blenkinsop 1953* was driven by Mr. George Buckle, a driver for 47 years. He was said by *The Yorkshire Evening Post* to do all his own firing, shovelling 1½ cwt. of coal on each trip. For safety reasons, the train was followed at a discreet distance by a new Fowler diesel, on test at the line, and Fowler's Locomotive Manager remarked ruefully to the reporter that "If it can stand this line then it can stand anything in the world". Not even Mr. Saul's ill-timed announcement that plans were now complete for the changeover to road haulage could dampen the society members' enthusiasm. Whilst some enjoyed tea and sandwiches in the colliery canteen, more intrepid members walked the 'Rope Hill' upper incline or swarmed around searching for traces of long-abandoned branches and sidings.



The bicentenary special, headed by *Blenkinsop 1953*, pictured near the Broom Pit yard entrance. Photo: Sheila Bye

The confident announcement that road haulage would start in August 1959 also failed to daunt the City Council or the Belle Isle residents. They battled on, until the N.C.B. were forced to amend their plans. Some coal would leave by road, but some would still go by rail, using the section of line between the colliery and the G.N.R. link at Parkside Junction. British Railways was to operate the entire rail traffic, and the reprieved section of track was relaid to their requirements whilst the colliery was closed for the August 1959 holiday fortnight. At the same time, the yard layout was altered so that B.R. locomotives could run round their trains. For the first time in two hundred and one years, a substantial amount of coal began to leave by road: 55% of the 3,000 tons weekly average in 1960. It was the 'thin end of the wedge', and by 1967 a mere 3% of the 5,400 tons weekly average left by rail.

At first, up to three trains a day left via the G.N. link, sometimes headed by giant WD 2-8-0 tender locomotives. However, tank locomotives normally were used, at first ex-G.N.R. J50 0-6-0T's, then Thompson L1 2-6-4T's of late L.N.E.R. origin, followed in turn by Stanier and Fairburn ex-L.M.S. 2-6-4T's. When Ardsley Shed closed, Wakefield took on the Middleton work, using similar locomotives from the old L. & Y. Depot. When this also closed, Healey Mills diesels worked the last few weeks of rail coal traffic in 1967. However, much was to happen before then.

5. PIONEER PRESERVATION - 1959 onwards

In September 1959, some Leeds University Union Railway Society members had the idea of acquiring or building a short stretch of line for the preservation of railborne museum pieces. Sites on the university sports ground at West Park were surveyed, but the Leeds University Union consultative panel made it clear that they definitely did not approve of a union society running a railway - it must be admitted that in 1959 this did seem rather an outrageous thing to do! Mr. Chris Thornburn, a student, was the first to suggest the Middleton Railway as a suitable site. Apart from the section relaid for B.R.'s colliery traffic, the railway was disused and likely to remain so. The Middleton Fireclay Company was then in process of liquidating its assets, and informed the L.U.U.R.S. that the section of line from the colliery to Parkside was now a B.R. and Coal Board matter, but that the remainder of the line had been sold to Clayton, Son & Co. Ltd., who, like the other firms, had been left without a rail goods service. It was heard later that Clayton's had hoped B.R. would continue traffic to and from their works, but that B.R. would not agree to this unless the line was relaid at Clayton's expense. An approach to Clayton's by the society received the reply that they could try out their scheme, but without any formal purchase, rent or take-over. With its outstanding history and current disuse, this section of the Middleton Railway was an ideal choice for the students' project, and they gratefully accepted the offer. At a meeting in the university in December 1959, chaired by Dr. R.F. Youell - then Staff President of the society, the L.U.U.R.S. unanimously decided to found the Middleton Railway Preservation Society. The societies were different

virtually only in name, but that difference meant that the Middleton project would not be subject to university control, even though carried out by university members. Eventually, of course, it was an advantage to include interested people from outside the university. Nevertheless, the L.U.U.R.S. remained very active, and their major contribution, particularly to the civil engineering side, continued for a long time. Sadly, their involvement with the Middleton Railway lapsed some years ago.

Negotiations for the use of the line were difficult, due to its antiquity and its accompanying statutes and rights. Though the major owner of the disused section of line was Clayton, Son & Company Ltd., Leeds City Highways Department owned the level crossing sections, and Leeds City Parks Department owned the section where the tram route crossed the line, with the unusual liability of maintaining the crossing and giving way to our trains. Robinson & Birdsell Ltd., John King & Co. (Leeds) Ltd., Acme Engineering, and Parkfield Metals - at the former Hunslet Moor Staiths, all owned their own sidings, and a short section at the Balm Road end of the Midland branch line had been sold in 1881 and was now British Railways' property. None of the owners of the lines north of Parkside placed any restriction on the use of the line, and the preservation society was the only common denominator with the prospect of restoring and re-opening the line irrespective of ownership.

Regular operation of the line was not envisaged when the society was founded, but usable relics were acquired for restoration and display, including several trams from Leeds and other towns, whose tramway systems were being closed down at that time. Hunslet Engine Company loaned, and later sold to us, their 1932 diesel 0-6-0 No.1697, the first to run for a main line company in this country. The closure of the Swansea and Mumbles Railway (built in 1804 as the first passenger railway) made it possible to acquire one of their double deck carriages, which looked like a large electric tramcar. These vehicles ran in trains of up to four units, and it was found that though unwieldy, they had been transported by rail from Brush of Loughborough to Swansea. A Mumbles coach came to Leeds by train, the upper deck, the lower deck, and the motor bogies travelling on three separate bogie waggons. On 18th June, the Hunslet diesel, polished up for the occasion, hauled these sections on to the Middleton Railway. The coach was reassembled and, as noted in the next day's *Yorkshire Post*, at 4.45p.m. on Monday 20th June, "Dr. F. Youell . . . wearing academic dress, took over the controls of a light engine and gently pulled away a train full of eager children."

The Middleton Railway had become the first standard gauge line to be operated by unpaid volunteers. The albeit temporary passenger service was part of the University Rag Week charity events. Using the 106 seat vehicle, 'Free rides at your own risk' altogether carried 7,700 passengers between Burton Road level crossing and Parkside G.N.R. bridge, and even earned a small amount in donations. By running slowly and carefully, they stayed on the rails; looking back on the conditions at the time, this was a major achievement. At the end of the week, work began on repairing and relaying the track.

What started as purely demonstration runs gave rise to a further idea - why not run the line as it had always been run, for goods traffic? At a meeting with the firms, two of them - Robinson & Birdsell's and Clayton's - agreed to take rail traffic, in the form, respectively, of scrap metal and heavy steel raw materials.



Above: HE1697, later named John Alcock, hauls the Mumbles railcar back to Burton Road, June 1960.

Below: John Alcock with a goods train near the Moor Road end of the Balm Road Branch in the early 1960's. The end of Burton Road, now our car park entrance, appears immediately right of the engine cab.

Both photos: M.R.T. collection



A daily goods service was a tougher task than midsummer exhibition runs, though the customers laid down no conditions other than that the line should be insured, and a reliable daily service provided. The Fireclay Company had run down track maintenance in the expectation of complete closure, and the line was in very bad condition: sleepers were rotten, the chairs on them were a miscellany - Midland from the 1881 relaying, G.N.R., S.E.&C.R., L.N.E.R., L.M.S.R. The prize specimens were stamped Met.&L.N.E., from the short Watford to Rickmansworth line, the only one built by this joint railway. A far-from-home pair was a G.W.R. and a G.E.R. on the same sleeper. Repairs at that stage could only be described as a patching up operation. By running on one of the two tracks from Moor Road to Balm Road, and using the other track for spare parts and later for a short exchange loop at the B.R. end, we were able to give ourselves running conditions with some chance of successful operation.

On 1st September 1960, our first goods train ran. It was three empty 4-wheel waggons to Robinson & Birdsell's, two of which went out the same day loaded with scrap for the steelworks. Clayton's Dartmouth Works traffic started a month later. As we were the first 4'8½" gauge railway to be re-opened in this way, the Ministry of Transport descended on us in our first week, but no offence was being committed, and we had good advice from the inspector sent to investigate our activities. As B.R. had an integral part in the operation, good contact had to be kept with them. Mr. Edward Cowell, N.E. Region's West Riding Traffic Manager, and Mr. Harold Ormiston, then Leeds Area Permanent Way Supervisor, gave much useful support and advice, as did the Balm Road Yardmaster. At the other end of the traffic, the friendly helpfulness of the Messrs. Catchpole - father and son, at Robinson & Birdsell's, deserves particular comment. On the society's side, Dr. R.F. Youell and the late Dr. R.C. Lawrence must also be mentioned. Reggie Lawrence became the society's permanent way expert, drew up its first Rule Book, and was instrumental in acquiring the Sentinel - our first steam locomotive. Fred Youell, as our first Chairman, was the guiding influence for many years; now a Vice-President, he still played an active part in the railway's life until very recently. It is impossible to name here all the other people who have given time, effort and money, in order to keep running the world's oldest railway enterprise, but their contributions to the task have been, and still are, invaluable.

Over the years, the level of traffic varied due to unpredictable industrial needs; we might have only one or two waggons on the line, or, after a bulk order, thirty or more waggons might await unloading. Our traffic relieved the local roads, which were not suited to such giant loads as fabricated steelwork, or 10-ton steel plates. The largest single loads were a three waggon bogie train with a tare weight of nearly 240 tons from B.R. Doncaster to Clayton's works, and export orders for a New Zealand gas works, which produced a twenty-one waggon train for Birkenhead docks. Generally, two trains a day were run, the first leaving Clayton's at 08.00, returning at 08.47, and the second leaving Clayton's at 13.00 and, following shunting of the exchange sidings, returning at 14.45. The timetable was fairly flexible, due to lecture commitments, etc., but it worked well, and by the end of 1960, 2,881 tons of freight had been moved. Average annual tonnage was around 7,000, but in 1964 12,000 tons were handled, a quite remarkable achievement for volunteer workers. During University vacations, trains were run by a growing number of non-student members with daytime jobs. At

these times, and later regularly - as student participation declined, trains were run in the evening, usually taking about fifty minutes if all went smoothly.

Quite early, a clash of interests began to develop. Many early members were tram enthusiasts, and much of the society's meagre finances had been spent on purchasing trams and transporting them to the railway. It had been hoped that, with wheel flanges suitably adapted, they could run on the railway. However, the lure of a tram museum then being developed in Derbyshire was too often irresistible to the tram enthusiasts. The Middleton collection was increasingly neglected by them, but not by the local vandals; it soon became obvious that an easily-entered yard on the edge of town was not the best place in which to keep a collection of largely glass-sided vehicles. Eventually, most of the trams were moved to other sites, and Middleton became a working railway museum. Pleas for a more suitable home for the Swansea and Mumbles coach brought no serious offers, and, reduced to a dangerous state by vandalism and easily accessible to local children, it had to be scrapped.

Parkfield Metals at Hunslet Moor Staiths did not take advantage of our services, and the last train using this siding ran on 28th January 1961, conveying visitors in open waggons. A short section was used for waggon storage, but was lifted by the firm about 1969, the staiths themselves being demolished in late 1970. A new curved siding was built at Dartmouth Works in 1961, to avoid using King's siding, and an interchange loop with B.R. was built at Balm Road in 1962. Also in 1962, a branch was laid into Clayton's Moor End Works, which had never before had a connection, though it had an internal rail network. The connection was for inter-works traffic, but a change of policy resulted in only rare usage.



A busy scene in Dartmouth Yard in the early 1960's. Photo: M.R.T. collection

The three waggon Midland hand crane and the G.W.R. steam crane were invaluable for heavier jobs, but steady effort by manual labour dealt with normal relaying work. The locomotive situation gradually improved. When our Hunslet diesel was being overhauled by its makers in July 1962, we had the loan of a B.R. Drewry diesel, D2323, but when our Sentinel L.N.E.R. Y1 No.54 from Darlington had been put into working order, we had a useful reserve. On 27th January 1961, the Hunslet diesel had been named *John Alcock* by and in honour of her designer, and L.M.S. brakevan M158760 was handed over to the society by B.R. During the last three decades, the Society/Trust has acquired a collection of locomotives and rolling stock appropriate to its industrial origins; many of the locomotives were built by local firms. With this gradual increase, we at last had the luxury of being able to choose which locomotive to use. In general during the week, the Hunslet, Fowler or Hudswell Clarke diesel locomotives were suitable, as they could start within a matter of minutes. If steam was used for goods traffic, the Sentinel, with its ability to steam within an hour of lighting up, came into its own. At weekends, when we were on display to the public, steam locomotives were in their element, hauling both goods traffic and visitors' trains. Unlike most of the later preserved lines, some of our busiest traffic was in the winter months, August being the slackest for goods traffic. We were the only one to provide a daily service, on demand, throughout the year.

Operating and motive power problems were more manageable than the unforeseen crises. A minority of the half million inhabitants of Leeds caused constant headaches. Vandals and drunken intruders smashed the brake van windows; men with horses and carts stole rails and chairs; wooden keys vanished for firewood; small children endangered their safety and ours by playing with the switches at junctions, or by putting bricks and bottles to jam the points; rugby football supporters from the old Hunslet ground threw bricks at our train crew; gas, electricity, water, and telephone authorities dug under the line and failed to properly reinstate the foundations, bringing trains off the rails; 'travellers', camping nearby, stole sleepers for firewood and strung washing across the track. On one occasion, our steam crane stopped for water to find that the standpipe had been stolen, leaving a muddy puddle, and local residents with buckets and bowls helped fill up the tank in a real-life 'Titfield Thunderbolt' effort. Sometimes, in heavy snow, we had to use a shovel to find whether the track was still there, or hard ice had to be chipped away from the level crossings. The obligation to run a 'Daily service in all weathers' took a lot of maintaining.

In 1965, our existence was threatened by a B.R. scheme to close the G.N.R. line and run all colliery traffic via the Balm Road link, leaving the society there only on sufferance. However, work at the current coal face was causing subsidence beneath a geriatric hospital, and no other seams were economically workable. Rail traffic from the pit ceased completely in July 1967, and the Broom Colliery's last shift was worked on 16th May 1968. The nightmare threat to the society ended, but so did Middleton's centuries as a pit village community.

The preservation society, by then entitled the Middleton Railway Trust, had applied for the rest of the line and usable Broom Pit buildings in 1967. The disposal of old mining property is a complicated matter, often with long negotiations being necessary between the N.C.B. and the local authority. A historic railway in the middle

of the derelict area caused complications, with even more delay in reaching a decision. The final agreement for the future of the area was that the City of Leeds should take over and, as a long term scheme, clear away the pit refuse and landscape the area as a public open space, extending to Middleton Park. Some colliery buildings were to become our offices, museum and rolling stock depots, but the winding gear and unadaptable buildings were demolished, and the shafts were filled to ground level. The N.C.B. wanted £4,000 for the rest of the line and a £100 annual rent for the buildings, with the property being transferred eventually to Leeds City Council. The Trust would be tenants with a desire to purchase when the future of the area had been settled.



Middleton Broom Pit yard, 2nd June 1968. Centre rear are the Fireclay Works buildings, with Middleton Woods and Clearings beyond. Photo: Keith M. Hartley

Throughout 1969, the Trust worked very hard to raise the purchase price of the southern end of the line; at £20 per member this was not easy, but other preservation societies had surmounted similar problems and failure was not anticipated. The N.C.B. finally left the Broom Pit on 20th February 1970, and on Saturday 21st March 1970 their Chief Engineer, Mr. McAllister, handed over the key to the Rt. Hon. Merlyn Rees, M.P. for the area, acting for the Trust. At once, the task began of repairing the buildings, providing water and electricity supplies, caretaker's accommodation, storage and exhibition space, and generally tidying up. Vandalism cut short the project; later in 1970 the Coal Board demolished the remaining buildings for safety reasons, and the Trust had to wait more than a decade longer before it had the kind of depot facilities which many preservation societies acquired with their track.

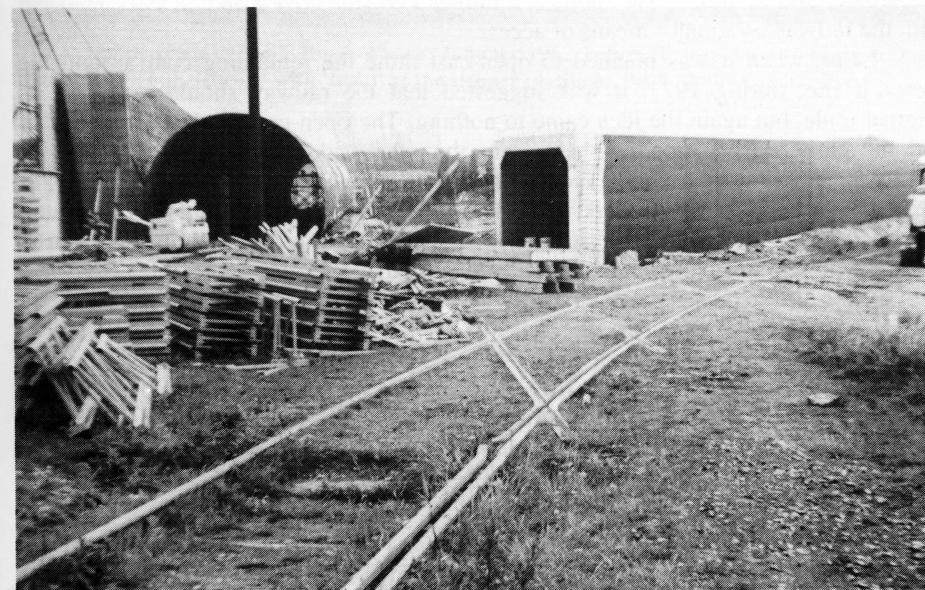
Meanwhile, changes in traffic had taken place. The first nine years of the society's existence had been spent running goods trains for the firms along the northern part of the railway, the disconnected southern end still being used by the N.C.B. By 1969, however, freight was becoming increasingly expensive to operate, because of B.R. starting to make demurrage charges (penalties for waggons remaining unattended on sidings) as soon as waggons arrived at the interchange instead of when they arrived on the firms' sidings. Clayton's refused to pay this extra charge, and in future had their goods delivered from Balm Road by lorry, which cost B.R. much more time, effort and money than did merely delivering consignments by rail to our interchange siding. Traffic continued to and from Robinson & Birdsell's, but rising costs caused a gradual decline of this also, and our goods service died away completely in 1983.

In 1969, when the chance came to acquire the southern part of the line, the serious loss of income from Clayton's goods traffic led to a rethinking of the railway's operations. It was decided to run a weekend passenger train service between Moor Road and Middleton Park, and with this in mind, the whole of that stretch of track was overhauled and brought up to passenger standards, and two gaps in the track were re-railed: one of these was left from the 1958/9 adaptation of the route by B.R. and the other was the result of the theft of nearly 100 yards of track. Work started on 17th June 1969, the first through train ran on 30th June, and at the end of July, during the annual Hunslet 'Feast' week, *Henry de Lacy II* hauled the first regular passenger service on the line: a new era had begun. In the first year, the service operated every weekend throughout, but it became obvious that winter traffic at that time was not enough to justify steam trains. The service was soon pruned to being seasonal, at first from March to October, then Easter to the end of September. In 1990, an August only Wednesday afternoon steam service was added, and in 1993 steam trains were run on Sundays in October and November. Originally, visitors were carried in the L.M.S.R. 20 ton brake van plus an open waggon, without any form of continuous brake. Legislative changes brought about the introduction of an air brake system, which coincided with the introduction of a lighter van than previously used, this one being of L.N.E.R. origin. Passenger facilities were rudimentary - visitors needed help to climb on to the train in the first year! A sleeper platform was soon erected at Moor Road, and a small ex-B.R. wooden container was subsequently adapted as a station building. A stone platform, containing many stone sleepers from the old waggonway, was built in the mid-1970's, and a further container was added to the original one to make a reasonably sized shop, which served the railway well for a number of years.

Though the diesel locomotives owned by the Trust, or by individual members, are a no less interesting collection than the steam locomotives, the Saturday diesel service has never reached the same level of public popularity as the Sunday steam service. In the early days, the number of Saturday visitors occasionally could be counted on the fingers of one hand. The annual totals improved gradually, and peaked in the mid to late 1980's, but then declined as the recession worsened. Despite the recession, however, special events such as Santa trains and 'Friends of Thomas the Tank Engine Days' still attract large numbers of visitors, as do the annual Schooltrain Days, when hundreds of children of all ages take a ride and a guided tour with explanatory talks, usually with experienced teachers or B.R. workers from among the

Trust's membership. On a more exotic note, Middleton has played host at various times to radio and television personalities and recording teams, subsequently appearing in such wildly diverse programmes as *Savile's Travels*, a commercial starring 'Mr. Pastry', the B.B.C.'s *Money Programme*, *Fred the Fugitive Engine* - pilot episode of a proposed children's series, shown in Channel 4's 1990 'Salute to Steam' season, Yorkshire Television's *How We Used To Live* education series, and perhaps most notably as the sinister railway depot in the B.B.C.'s *Edge of Darkness* serial.

A handicap of at least our first ten years was that very industrial 'scenery' which made the railway so historically interesting. When compared to other preserved lines with beautiful scenery and olde worlde flower-decked stations, it lost us esteem and public support which would have brought higher membership and more visitors. The South East Leeds Urban Motorway brought about some fundamental changes to the railway. Good lighting and protective fences lowered the risk of vandalism and theft, and landscaping made the environment far more attractive to visitors, though at the cost of much of the industrial surroundings developed during more than two centuries. Since 1960, a National Trust Covenant had protected the line as being of historical interest, but in any case, a railway used at least once a year cannot be compulsorily purchased and pulled up without an Act of Parliament, to which the railway company can object; a railway tunnel was duly added to the motorway plans.



Looking southwards to the Armco railway tunnel, left, and pedestrian tunnel, right, during the motorway construction work in June 1971. In the foreground, the old Dartmouth Branch curves away towards the headshunt, across the unusual railtrack/tramtrack crossing, now preserved at Moor Road Station. Photo: Sheila Bye

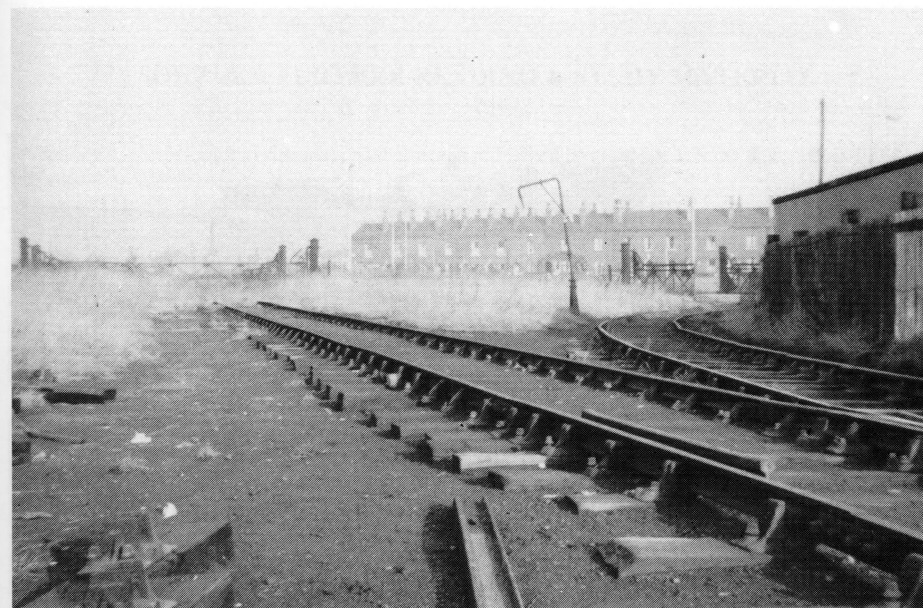
Retention of the old Dartmouth turnout would have necessitated a second tunnel, but the problem was solved by the construction of a new turnout, c.200 yards south of the original one, and at the other end of the tunnel, so that the re-aligned and better graded branchline ran parallel to the motorway, and both passenger and goods traffic passed through one tunnel. In March 1971, a section of line south of the old turnout was lifted, and visitors' trains ran on the only usable route, between Moor Road and Dartmouth Yard. For months, the massive paraphernalia of motorway construction lumbered around as the Trust endeavoured to carry on its services. A sectional 'Armco' tunnel was set up over the main line south of the old turnout, and Trust members took advantage of the disruption to full-line service to regrade the stretch between the tunnel and the G.N.R. bridge to an average 1 in 47 (originally it varied between 1 in 27 and 1 in 65). The new Dartmouth Branch was laid in by the motorway construction firm's contractors, and on 4th October 1971 the railway link-ups were completed. For only 15 days, in June, had traffic totally ceased. Even then, the sidings on the Dartmouth Branch had been packed with empty waggons, which our customers gradually loaded ready to be shipped out once the line re-opened.

Also during the 1970's, two other schemes were announced which might have substantially changed the railway's lifestyle. Leeds unsuccessfully applied to host the 1978 Commonwealth Games, incorporating in their plans sports halls, a 2,000-seat velodrome, and a 30,000-seat sports stadium at Parkside, and a lake at Park Halt, all with the railway as a major means of access.

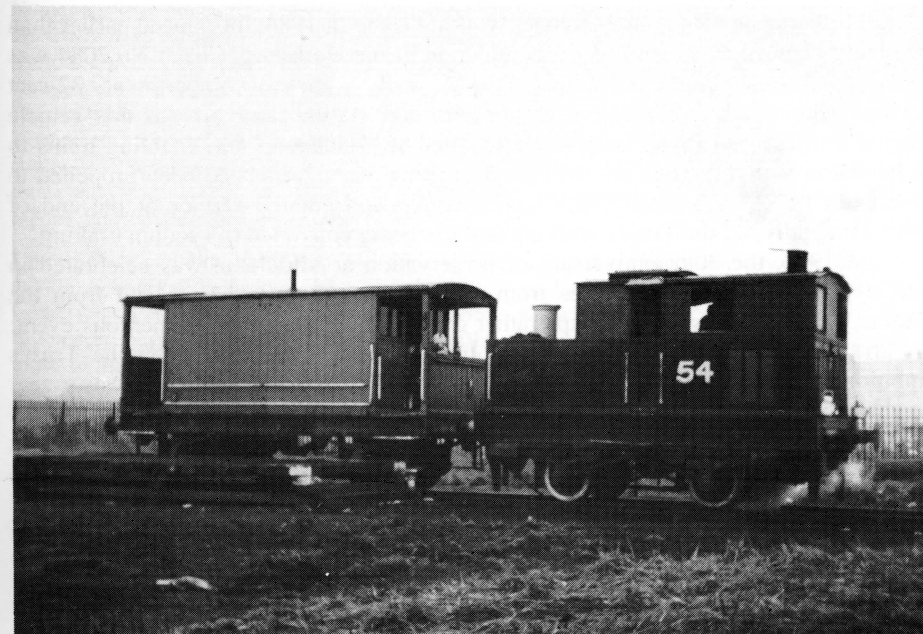
Later, when it was planned to open-cast mine the remaining coal around the New Pit site, during 1977, it was suggested that the railway should revert to its original trade, but again the idea came to nothing. The open-cast work went ahead, as had the earlier excavation of shale from the other side of the track, for use as motorway surfacing aggregate, and as did the later removal of the impressive bulk of the main pit-heap, north of Park Halt. The shale excavation site was refilled with refuse, and the Broom Colliery site also was levelled, using baled compacted refuse. All these sites were finally earthed over and landscaped.

Whilst these changes to the railway's environment were taking place, the society also was undergoing changes. Since 1962, it had been a charitable trust; now it became a registered charity in October 1971, and a limited liability company in March 1974. In 1978, two hundred and twenty years after the passing of the first Act of Parliament solely concerning the building of a waggonway or railway, all the Middleton Railway Acts were repealed in the comprehensive statute law revision which took place that year, being no longer relevant after the colliery closed.

The 1980's also brought fundamental changes. Since 1960, Clayton, Son & Co. Ltd. had generously provided a home for the Trust, but in 1983 they decided to sell Dartmouth Works, and we had to move out of the works yard. In the short space of ten weeks, everything was transferred to our new home at Moor Road. For years, this had been a 'green field' site, apart from the main line and a small platform. Trust volunteers spent many hours laying sidings to receive the locomotives and rolling stock. A big bonus for the new site was the erection of a workshop and a station building with the help of a Community Grant made to the M.R.T. that year. At last, we had station and workshop facilities as good as most preserved lines, and better than some.



The changing scene at Moor Road. Above: January 1967, before the regular passenger service. Below: 1970, our Sentinel with 'train' at the sleeper platform. Both photos: Sheila Bye





A welcome quiet moment at the Station on Schooltrain Day, June 1993. Photo: Sheila Bye

Further changes to our passenger working came in 1984, introduced earlier than originally planned as a result of the completion of the workshop. Coach No.2084 was converted from a Southern Railway P.M.V., with a guard's compartment, 32-seat covered saloon and a verandah at its northern end. At the same time as this vehicle entered traffic, a run-round loop was completed at Middleton Park, enabling trains to be hauled in both directions for the first time (previously, trains had been propelled to Middleton Park). A second P.M.V./coach conversion entered service at the end of 1989. Gradually, all the Trust's working stock is being converted to vacuum braking.

In 1990, the 30th anniversary of preservation at Middleton was celebrated in fine style, with guest locomotives from neighbouring preserved lines and from the National Railway Museum, perhaps rather overshadowing another momentous event: the arrival of a Manning Wardle locomotive, *Arthur*. It had long been the Trust's ambition to acquire an engine built by this firm, once the Middleton Railway's near neighbour and builder of half its 19th century locomotive stock.

At present, a new workshop is taking shape, and once this is in use the Trust hopes to develop a museum in part of the 1983 workshop. A longer term plan is to extend the line to a new terminus near the lake in Middleton Park, 're-colonising' the escarpment which, two hundred years ago, was covered with waggonways. Almost halfway through its third century of service, the world's oldest existing railway enterprise still has plans for the future

SOURCES, FURTHER READING & STUDY MATERIAL

- A History of the Middleton Railway*, past editions published by the M.R.P.S./M.R.T., 1960-1973
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 do. 24.1.1930 pp 94/5, 31.1.1930 pp 128/9 (details from the Watson Papers)
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The Brandlings at Middleton, }
The Middleton Railway, } S.P. Newbould (typescripts in Leeds Reference Library)
Hunslet de Ledes, manuscript by W. Calvert, 1956
 Numerous town directories of Leeds and the West Riding
The Yorkshire Post Leeds Tercentenary Supplement, 1926
 Various articles published in the M.R.T. members' magazine, *The Old Run*, 1960 to present date
 Newspapers: *The Leeds Intelligencer*, *The Leeds Mercury*, *The Times*, *The Yorkshire Evening News*,
The Yorkshire Evening Post, and *The Yorkshire Post*
 Documents: the four Middleton Railway Acts of Parliament, the Leeds Corporation Act, 1879,
 copies of lease agreements for the 1758 waggonway, copies of sale and mortgage documents for the
 estate and for Messrs. Fenton, Murray & Wood, Quarter Sessions records, John Blenkinsop's colliery
 reports, and Thomas Embleton's letter book.

Leeds Reference Library and West Yorkshire Archives, Leeds, have many maps showing the railway at various stages of its history. West Yorkshire Archives, Leeds also have such items as Middleton Colliery account books and the above-mentioned Blenkinsop and Embleton material. Leeds Reference/Local History Library has microfilm files of the above-named newspapers and copies of most of the books. Leeds University's Brotherton Library owns bound copies of *The Leeds Intelligencer*, including 1755 and 1758. West Yorkshire Archives, Wakefield have the Quarter Sessions records (QS 10/22), and the registered copies of Charles Brandling's lease agreements (Vol. B3), and of the various mortgage, lease and sale contracts, including that of 1865, which minutely details the Estates and Collieries as they then existed. West Yorkshire Archives, Bradford has the Busk/Brandling draft agreement (16D86/1401). Bradford Reference Library has microfilm copies of *The Leeds Mercury*, *The Yorkshire Post*, and *The Times*. The Library of the North of England Institute of Mining and Mechanical Engineers, Newcastle upon Tyne, owns the Watson Papers. The Record Office, House of Lords, has the *Commons Journal*. The M.R.T. Historian wishes to thank all these establishments and their helpful members of staff. The Trust is most grateful also to Mr. Handel Kardas and Ian Allan Ltd., Editor and Publishers of the magazine *RAILWAY WORLD*, for permission to use the map of the Middleton Railway which first appeared in their May 1989 issue.

LOCOMOTIVES AT MIDDLETON - 1812 TO 1960

4'1" GAUGE

Name	Type/Builder/Works No./Date
<i>Prince Regent</i>	2-1-2 rack loco built by Fenton, Murray & Wood (1812)*
<i>Salamanca</i>	ditto**
<i>Lord Wellington</i>	ditto, built 1813*
<i>Marquis Wellesley</i>	ditto, built 1813*,+
<i>Blenkinsop</i>	0-4-0ST built Manning Wardle 220 of 1866 IC ++
<i>Matthew Murray</i>	0-4-0ST built Manning Wardle 284 of 1869 +++

NOTES

- * 1 locomotive withdrawn 1831-5, 1 exploded 1834, 1 withdrawn 1835 and scrapped c.1860.
 ** Exploded 1818.
 + There is still some doubt as to the veracity of this name.
 ++ Scrapped by 1881.
 +++ Rebuilt to standard gauge in 1881.

4'8½" GAUGE

Name/Number	Type	Builder/Works No.	Date	Arrived	Withdrawn
<i>Blenkinsop No.2</i>	0-6-0ST IC	Manning Wardle 797	1881	1881 (a)	Nov. 1953 (b)
<i>Niger</i>	0-6-0ST IC	Manning Wardle 1262	1892	1892	Scrapped by 1947
<i>No. 6</i>	0-6-0 IC	N.E.R. ?/?	c.1900	? (c)	Scrapped by 1947
<i>Matthew Murray No.2</i>	0-4-0ST	Manning Wardle 1752	1909	1909	11.1953. (b)
<i>Gladstone</i>	0-6-0ST IC	Hudswell Clarke 491	1898	1916 (d)	8.1950
<i>Jean/L.N.E.R.407</i>	0-6-0ST IC	N.E.R. Gateshead ?	1897	10.1947 (e)	Scrapped by 1949
<i>69</i>	0-6-0ST	Hudswell Clarke 1175	1916	1950 (f)	1959
<i>St. Johns No. 1</i>	0-4-0ST	Peckett 1597?	1921	1952 (g)	Before 1960
<i>St. Johns No. 2</i>	0-4-0ST	Peckett 1763	1922	1952 (g)	Before 1960
<i>Edith</i>	0-6-0ST IC	Hunslet 1482	1925	1953 (h)	1960
<i>Nostell No. 2</i>	0-6-0ST IC	Hudswell Clarke 328	1889	1953? (i)	Before 1960
<i>Nostell No. 4</i>	0-4-0ST	Peckett 1789	1929	1953 (j)	1960
<i>Blenkinsop 1953</i>	0-6-0ST	Hudswell Clarke 1871	1953	1954 new	1960 (k)

NOTES

- (a) Rebuilt 1910.
 (b) Scrapped by G. Cohen's.
 (c) Rebuilt as an 0-6-0ST in 1912.
 (d) From Price, Wills & Reeves, Workington. Scrapped by Robinson & Birdsell.
 (e) Ex-L.N.E.R. No.407, June 1937; ex-Whitwood Chemical Company, 1943; ex-Briggs Collieries Company, Saville Colliery, October 1947.
 (f) From Appelby Frodingham Steel Company (No.69).
 (g) From N.C.B. St. Johns, Normanton. To N.C.B. Lofthouse.
 (h) From N.C.B. Charlesworth, Rothwell. To N.C.B. Lofthouse after repair at Hunslet's.
 (i) Rebuilt 1934 and 1951. ex Nostell Colliery. Went to N.C.B. Lofthouse.
 (j) Originally Shawcross No.1. Ex-N.C.B.Shawcross,1952; ex-N.C.B.Old Roundwood, 1952; ex-N.C.B. Nostell, 1953. To N.C.B. Lofthouse.
 (k) To N.C.B. Lofthouse. Scrapped 1971 at N.C.B. St. Johns.

ST saddle tank locomotive.
 IC inside cylinder locomotive.

LOCOMOTIVES AT MIDDLETON - 1960 ONWARDS

Name/No.	Type	Builder/Works No.	Built	Arrived	Notes
<i>John Alcock</i>	0-6-0DM	Hunslet 1697	1932	1960	
<i>No.54</i>	4wTGVb	Sentinel 8839	1933	1961	
<i>Windle</i>	0-4-0WT	Borrows 53	1909	1961	
<i>Swansea</i>	0-6-0ST	Avonside 1569	1909	1962	(l)
<i>1310</i>	0-4-0T	N.E.R. Gateshead 38	1891	1965	Owners: S.P.T. '65
<i>Matthew Murray</i>	0-4-0ST	Bagnall 2702	1943	1966	
<i>21</i>	0-6-0ST	Avonside 1671	1913	1966	(m)
	0-4-0DM	Fowler 3900002	1945	1967	
<i>Henry de Lacy II</i>	0-4-0ST	Hudswell Clarke 1309	1917	1968	
<i>Courage</i>	4wDM	Hudson-Hunslet 1786	1935	1968	Owners: L.U.U.R.T.S.
<i>Carroll</i>	0-4-0DM	Hudswell Clarke D631	1946	1969	
<i>Chairman</i>	0-4-0ST	Hudswell Clarke 1717	1940	1969	(n)
<i>No. 6</i>	0-4-0ST	Hawthorn Leslie 3860	1935	1971	
<i>385</i>	0-4-0WT	Hartmann, Chemnitz 2110	1895	1972	Owners: S.P.T. '65
<i>John Blenkinsop</i>	0-4-0ST	Peckett 2003	1941	1972	Owners: M.R.T./S. Bye
	0-4-0ST	Peckett 2103	1948/50	1981	Owners: A.&J. Bell (o)
<i>Mary</i>	0-4-0DM	Hudswell Clarke D577	1932	1980	Owner: G. Parkin
	4wDH	Thomas Hill 138C	1964	1982	Owner: P. Nettleton
	0-4-0DH	Fowler 4220038	1966	1983	Owners: J.Lee/V.Smith(p)
	0-4-0DH	Fowler 4220029	1965	1983	Owners: " " (q)
<i>Mirvale</i>	0-4-0ST	Hudswell Clarke 1882	1955	1986	(r)
<i>91</i>	0-4-ODE	Brush/Beyer P. 91/7856	1958	1987	(s)
<i>Rowntree No.3</i>	4wDM	Ruston & Hornsby 441934	1960	1988	(t)
<i>Harry</i>	0-4-0ST	Andrew Barclay 1823	1924	1989	(u)
<i>Arthur</i>	0-6-0ST	Manning Wardle 1601	1903	1990	
<i>Brookes No.1</i>	0-6-0ST	Hunslet 2387	1941	1991	Owner: D. Monckton

NOTES

- (l) ex Llanelli Bynea Steel Works. Sold for private preservation in 1973.
 (m) ex Mersey Docks and Harbour Board. Broken up for spares in 1969.
 (n) ex Yorkshire Tar Distillers, Stourton. Broken up for spares in 1972.
 (o) ex Croydon 'B' Power Station. Went to G.Y.R.P.S., Harrogate in 1986.
 (p) ex C.E.G.B. Thornhill Power Station. Sold back into industrial use 1993.
 (q) ex Norsk Hydro Chemicals, Immingham. Broken up for spares in 1985.
 (r) Owned by the M.R.T. and a consortium of members.
 (s) On permanent loan from British Steel, Orb Works, Newport.
 (t) Owned by North Yorkshire Moors Historical Railway Trust.
 (u) On loan from Crossley Brothers, Shipley. Went to Pontypool & Blaenavon Railway, 28th November 1992.

DE diesel electric
 DH diesel hydraulic
 DM diesel mechanical
 G geared drive
 IC inside cylinder
 OC outside cylinder
 ST locomotive with saddle tank
 T locomotive with side tanks
 VB vertical boiler
 WT locomotive with well tank

THE MIDDLETON RAILWAY

ACCESS (to Moor Road Station)

i) By car, via M1 motorway from the south to exit No.45, turn right along Tunstall Road, then right at the roundabout. The Station is on the right.

OR via the A653 to Tunstall Road traffic lights, approximately one mile from the City Centre or approximately two miles from the southern City boundary, turn down Tunstall Road to the roundabout and proceed as above.

ii) By 'bus from Leeds city centre.

SERVICES

Visitors' trains run afternoon services every Saturday (diesel), Sunday (steam), and Bank Holiday Monday (steam) from Easter to the end of September. Additionally, Wednesday afternoon steam services run throughout August, Sunday steam services run in October and November, Santa Special trains run in December, and there are special events during the year for enthusiasts, families, schools and playgroups. Special trains for groups can be arranged. For details of services please send a stamped addressed envelope to The Publicity Officer at the Trust's address (see below), ask at the Station, or - for the 'Talking Timetable' of regular services - ring (0532)710320.

MEMBERSHIP

The railway is still maintained and operated by the voluntary labour of the Trust's own membership. If you would like to help the world's oldest railway in its third century of service (training given where appropriate), or wish to support it by your membership, please send a stamped addressed envelope to The Membership Secretary at the Trust's address (see below), or ask at Moor Road Station for a Membership Form.

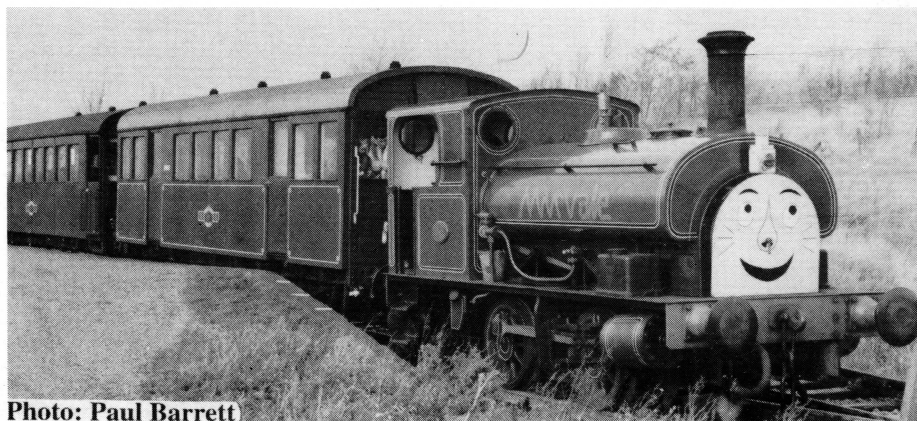


Photo: Paul Barrett

Published by The Middleton Railway Trust Limited
The Station, Moor Road, Leeds, LS10 2JQ. Tel. (0532)710320.

Printed by Panache Press
Arctic House, Howard Street, Burnley, BB11 4PA. Tel. (0282)33321.

ISBN 0 9516205 3 3