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CORRECTIONS & ADDITIONS TO
THE HISTORICAL NOTES ISSUED IN CONNECTION WITH
THE BICENTENARY OF THE MIDDLETON COLLIERY RAILWAY

NOTE National Grid references have been freely used in the Notes to pin-point features which cannot be otherwise defined amid the extensive housing developments in Middleton & Belle Isle. All the grid references quoted consist of the letters 'SE' followed by six or eight figures. The former define the spot to the nearest 100 metres and the latter to the nearest 10 metres. Persons unfamiliar with map references and desirous of locating the points concerned, will find details of the systems on current 1" and 6" Ordnance Survey Maps.

MINOR CORRECTIONS Page 1. penultimate paragraph, fourth line: Insert 'be' between 'to' and 'effected'. ✓
Page 2, second paragraph, fourth line: insert the words 'it was' between 'when' and 'exhausted': third paragraph: for 'Teal's May' read 'Teal's Map'. Page 3, second paragraph, second line, last word but one: for 'sinning' read 'winning'. Page 4 fourth paragraph, third line: the third word should be 'thereat'. Page 5. 'The Decline of Fortune' paragraph three, third line: for 'Prussien' read 'Prussian'. Paragraph four, line five: the last word but one should be 'cottages'. Paragraph five, second last line: for 'Middle Park Avenue' read 'Middleton Park Avenue'. Paragraph six, second line, eighth word: for 'and' read 'the'. Page 6. second paragraph, fourth line, fourth word: for 'of' read 'or'. Seventh paragraph, second line, thirteenth word: for 'Plants' read 'Plans'. Page 8 Delete the first seven words which are repeated from the previous page. First paragraph, third last line, sixth word: for 'in' read 'on'.

FACTUAL CORRECTIONS AND ADDITIONAL INFORMATION

THE PRE-LOCOMOTIVE ERA Page 1, paragraph 2. Conyers Spring, sometimes incorrectly shown as Conyer's Spring, is really the name given to the copse, brake or thicket which formerly occupied this site. The spring is at a higher, not a lower, level than the now obliterated Day Hole End. Paragraph 3. The Brandling Family had several branches and it is certain that they occupied Middleton as well as Felling or Gosforth for a considerable part of the period when it was in their possession. The appointment of an Agent was normal practice. Page 2, paragraph 3. Delete the last sentence and substitute the following:- "The 'Fire Engine' mentioned thereon and located at approximately National Grid reference SE31452895, is probably the steam pumping engine which is known to have been supplied in 1779/80 to the designs of John Smeaton, the Engineer, of Austhorpe, near Leeds, better known for his Eddystone Lighthouse. Mr Smeaton received payment in 1780 for his design and instruction as to erection.

THE BLENKINSOP ERA Page 4, end of top paragraph: according to an entry in the Colliery Records for August 1812, £30 was paid to a W. West, 'To Patent Right on High Pressure Steam'. Dendy Marshall (supra, page 41) says that a £30 Royalty was paid to the owners of the Trevithick Patent 'for the use of the high pressure steam'. Paragraph 3. Wm. Strickland does NOT give the gradient as '4/5 of an inch to the yard' but as 'about half an inch to the foot, rising in all fourty-four feet'. This is still unsatisfactory as the rise, according to the Ordnance Survey, is about 60 feet.

THE DECLINE OF FORTUNE Page 5, paragraph 4. Closer study of the map reveals that the waggon way followed the field boundary line as shown on later Ordnance Survey and other maps from the Fanny Pit to the South side of Town Street, opposite the School, where it turned parallel with the road but remaining on its South side as far as the known crossing place at the head of the incline. The twin hedges at Nova Scotia are

a prominent feature of all large scale maps and bounded the inclined waggon way from the supposed engine to the main waggon way at Day Hole End. Paragraph 8. The Brandling Estates were advertised for sale on 19 and 20 October 1853 as a direct result of the Brandling v. Plummer Chancery proceedings, but there is no record of a sale having taken place or any change of ownership before 1862.

EARLY COMPANY DAYS. Chance reference to an old Leeds Directory revealed that the new owners called themselves Tetley & Company but it has not yet been possible to follow up this matter of nomenclature. The Middleton Estate & Colliery Company is understood to have anticipated Nationalisation and to have separated its coal, fireclay and other interests in the early days of the last war. Paragraph 2. The position has been clarified from two sources. According to page 30 of a little booklet with the imposing title 'The Commons Question: Report of Chancery Proceedings in the Hunslet Moor Case, Friday February 22nd, 1878, with the affidavits filed on both sides: and an introduction by John de Morgan, Commoners' Agent', (+) the line was altered in 1875 to eliminate the lower incline and "the new siding or branch line" was put in before the old alignment was abandoned. A letter from Robert Stephenson & Hawthorns Ltd. has now established that the change of gauge did not take place until 1881 so the 4'1" gauge branch line "for the purposes of forming a junction with the Midland Railway" must indeed have been legal subterfuge !

THE TWENTIETH CENTURY Robert Stephenson & Hawthorns Ltd., confirm the supply of locomotives by Manning Wardle, whom they have absorbed, as follows:

<u>Works No.</u>	<u>Built</u>	<u>Type</u>	<u>Gauge</u>	<u>Name</u>
220	1866	0-4-0 ST	4' 1"	BLENKINSOP
284	1869	0-4-0 ST	4' 1"	MATTHEW MURRAY
797	1881	0-6-0 ST	4' 8 $\frac{1}{2}$ "	BLENKINSOP No.2
1262	1892	0-6-0 ST	4' 8 $\frac{1}{2}$ "	NIGER
1752	1909	0-4-0 ST	4' 8 $\frac{1}{2}$ "	MATTHEW MURRAY No.2.

In view of this information, paragraph 4 is incorrect.

Robert Stephenson & Hawthorns, Ltd., who have been to some trouble to elucidate this important point, state that No. 220 was scrapped at an unknown date but No. 284 was returned to the makers for conversion to standard gauge in 1881. As a new locomotive of standard gauge was also supplied in this year, these facts conclusively pin-point the date of the gauge conversion of the railway as 1881, six years after the re-alignment. It is yet no more than a guess that the connection with the Midland Railway Hunslet Lane Goods Depot, via a level crossing in Kidacre Street and reversal in the Gas Works, was put in at this time. It is shown on the 1889/90 Ordnance Survey plans.

The last paragraph on page 7 and its continuation on page 8 also need to be reworded in view of the foregoing. As shown above, No. 220 was scrapped before 1881 but the date of scrapping of No. 1262 and the rebuilt 284 does not appear to be recorded. No. 797 was rebuilt in 1910 and appears as item (3), whilst No. 1752 is, of course, item (2). The Hudswell Clarke engine of 1954, correctly described as an 0-6-0 ST, would now appear to be the third to bear the name of BLENKINSOP.

Page 8, paragraph 4. The Balm Road tramway extension appears to have been opened five years before it was authorized ! The date of opening to Belle Isle Circus is correct but the Light Railway Extension Order is, of course, that for the final link with the Middleton Light Railway, opened in two stages during 1949.

Penultimate paragraph. The bridge over Holmes Street, headroom 7'6", was demolished on 1 February 1948.

D.G.

HISTORICAL NOTES ISSUED IN CONNECTION WITH

THE BICENTENARY OF THE MIDDLETON COLLIERY RAILWAY

- (+) Items so marked, or plans, prints or reproductions thereof are included in the Exhibition at the Leeds Art Gallery. Official Opening 11.30 a.m. Saturday 7th June 1958, thereafter open 10.30 - 6.30 (Sundays 2.30 - 5) until 15th June inclusive.

The History of the Middleton Colliery Railway can conveniently be considered in five parts: The pre-locomotive era; the Blenkinsop era; The decline of fortune; Early Company days and The Twentieth Century.

THE PRE-LOCOMOTIVE ERA - up to about 1808.

In 1646, Sir Ferdinande Leigh was the owner of a 'colemyne' at Middleton. This is one of the earliest records so far traced and suggests something more advanced than the bell pits which had sufficed from the beginning of time to win coal from a depth of but a few yards. Sir Ferdinande's was probably a 'day level' or substantially horizontal adit driven into an outcrop.

In 1669, Frances Conyers of Middleton was issuing a halfpenny token 'For the use of ye Cole Pits' (+). Conyers Spring, near Dayhole End but at a slightly lower level, may well be the site of these workings, the spring being either an artificial drainage outlet or a natural seepage from his otherwise blocked adit.

Ralph Brandling, of the Tyneside coal owing family of Felling, County Durham, married the Leigh heiress in 1697, thereby, in due course, amalgamating the fortunes of the two families and bringing Tyneside methods to Middleton. By 1717 it is recorded that he was the owner of 'A Wrought Colliery or Coal Mine with a Water Engine and Smithy' at Middleton.

The Brandlings continued to make their principal home at Felling and later at Gosforth, so they employed an Agent at Middleton. By 1754, Richard Humble was so installed and played a big part in developing the estate and coal workings in competition with those of the Fentons, around Rothwell and elsewhere. At this time Fenton had better access to Leeds and the river for marketing his coals owing to the Middleton coals having to negotiate narrow lanes or bridle paths. Doubtless under Humble's advice, Charles Brandling, who had succeeded to the Estates in 1749, acquired land by the river side and elsewhere which gave him a route over his own land and that of friendly neighbours to the river, except for a length where, in 1755, he obtained leave to construct a wooden waggon way for 960 ft. on Woodhouse Hill Lane. Thus it appears that Brandling's river staiths, just upstream of where the G.N. Railway bridge now stands, antedated the waggon way to Leeds by two years.

The first record of attempts to build a waggon way towards Leeds was in 1757 but not until January 1758 was the first agreement signed between Charles Brandling and a landowner for the laying of a waggon way for supplying Leeds. Further agreements were signed between March 1758 and December 1759 but Brandling evidently became aware of a possible snag in these agreements and sought their ratification by a Private Bill presented to Parliament. He obtained his Act, 31 Geo. 11 Cap. 22 on 9th June 1758. It was the first Act of Parliament for the construction of a 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 Act confirmed Brandling's agreements and gave him his wayleaves for as long as he continued to supply not less than 24,000 tons of coal a year at 50.3d per ton. (The actual figures are quoted at pence per cove but have been converted to current terms). Delivery was to effected at "a certain field or open space called Casson Close near the Great Bridge at Leeds".

The Act refers to '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 consisted of oak rails with a renewable strip of beech on the upper surface. They were cross sleepers at about 3 ft. pitch, the sleepers being covered with gravel or cinders to protect them from the horses' feet. Wheels were usually of beech, small in diameter and broad, with a circular metal plate fastened to the inner face by way of a flange.

The waggon way gave Brandling an immediate advantage over his competitors in the matter of reduced transport costs for coals brought to Leeds and the output of the Middleton Collieries doubled within a decade.

A second Act of Parliament, 19 Geo. III Cap 11, was obtained by Charles Brandling in 1779. This empowered him to increase the price of coal to 58.3d per ton but he undertook to deliver twice the quantity previously supplied. The people of Leeds agreed to this arrangement and increase because the previous quota of coal at a specified price was insufficient to meet demands and when exhausted, perhaps well before the winter, coals could be sold at any price they would fetch. Brandling was also required to supply the new quota in equal quarterly instalments, but was enabled to sell part of the consignment 'at any convenient place or places near or adjoining to the said waggon way within the said borough of Leeds --'. There are records of sales on Hunslet Moor from 1771, which may have been unlawful. The Act legalised such sales and may have presaged the lawful supply to premises on the route, such as the Leeds Pottery, in which Mr. Humble was a partner. By the terms of this Act, Brandling was to lose the rights for his waggon way if he should 'permit or suffer any coals which shall be dug or got 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 -'. A scale of charges for cartage from Casson Close to various parts of the Borough was also laid down.

Teal's May of Middleton in 1786 (+) is most revealing as to the extent of the waggon ways at that time. Many of them survive on modern maps as footpaths. The 'Fire Engine' mentioned thereon is presumably Smeaton's pumping engine, located at approximately SE31452895.

Despite the provisions of the Act of ten years earlier, Brandling, hitherto a partner in the Beeston New Colliery (location uncertain), acquired the rights of his retiring partner in 1789 and connected the colliery with his waggon way, offering Beeston coal for sale at Leeds staith. No map or plan of any branch to Beeston has been traced, however.

According to the Colliery records, cast iron tram plates were being purchased in quantity in 1790. These may have been for use underground but it seems likely that they were for surfacing the waggon ways above ground where individual waggons contained $2\frac{1}{4}$ tons of coal.

The third Act, 33 Geo. III Cap. 86, dated 30th April 1793, makes reference to 'very great Expense in making fresh Winnings in the said Coal Working, and in making additional Waggon Ways therefrom'. This probably refers to the first stage of the development of mining in the area now largely covered by the Middleton housing estate. The early pits seem to have been spread along both sides of Town Street, lying within a hundred yards thereof. The surviving incline was not built at this period.

In 1793, Smeaton's pumping engine was replaced by a 60" one made by Boulton & Watt and Smeaton's 72" engine was re-erected at a new, but unidentified, location.

The new Act authorised an increase in price of tenpence to 68.3d per ton and this was apparently conceded by the people of Leeds under a threat to discontinue the supply and allow the wayleaves to lapse. Since Brandling's coal was both good and cheaper than that from other and less favourably placed collieries, the price increase was conceded but the supply was to be reserved for the people of Leeds and there was to be a daily quota, six days a week. The Act legalised the sale of Beeston or Hunslet coal but only when Middleton coal was not available for good and sufficient reason. Authority for sale of a portion of the daily quota at any place en route was also given. There were also extensive provisions against various rackets and unfair trading practices by all concerned.

The last Act, 43 Geo. III Cap. 12, which received the Royal Assent on 24th March 1803, mentions Charles Brandling as the former owner and Charles John Brandling as the present owner. It refers again to the 'great expense in making fresh winnings in the said Coal Works and in making and laying additional Waggon Ways therefrom'. This Act authorised the raising of the price of coal to 83.4d per ton, 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'. This clearly indicated the intention to cut back the Leeds end of the line and to build new staiths athwart the site of Great Wilson Street, not then made. Netlam & Francis Giles Map of 1815 (+) shows 'Brandling's Old Coal Staiths' on the site occupied from about 1824 by the South Market, and 'New Coal Staiths' slightly to the South thereof. The exact date of the change cannot now be traced but seems likely to be before 1807, in which year the sale of coal at the river

staihs ceased whilst that at the Leeds staihs reached a record of 67,000 tons, soon to be eclipsed when steam traction was introduced.

A detailed Valuation of the Middleton Colliery was made early in 1808 by T. Fenwick & J. Watson, dated 28th January. This showed that the average sinning over the past seven years had been 35,000 waggons or 45 cwt. of 78,750 tons, of which an average of 8,464 tons had been for the workmen and engines. The Valuation refers to the two pumping engines but no winding engines are mentioned, only 5 gins and 6 machines for drawing coals.

At the date of the Valuation, there were $4\frac{1}{2}$ miles of waggon way, including main way and bye-way, one half being then of iron. There were staihs at Leeds and Hunslet. The river staihs were referred to as 'Hunslet' and even though the last record of sales there was for the year 1807, the evidence is against the existance of staihs on Hunslet Moor. There is an interesting reference to '2 machines on the inclined plane'(singular), which were valued at £120, having cost £145 new. This would be the Old Run incline from Belle Isle to Hunslet Carr.

THE BLENKINSOP ERA - 1808-1831.

John Blenkinsop, born in 1783 'near Leeds', became Agent to Charles John Brandling at Middleton in 1808, probably after spending some time at Brandling's Tyneside collieries.

Stimulated by the ever increasing cost of horses and fodder, due to the demands of the Napoleonic Wars, Blenkinsop investigated other possible alternatives, and, doubtless because the adequate adhesion of a smooth iron wheel on a smooth iron rail had not then been proved in regular usage; but possibly also with a blind faith that it might be possible thereby to negotiate the modest incline with empty waggons, Blenkinsop devised his rack rail method of traction for which he secured Patent No. 3431 on 10th April 1811. The firm of Fenton, Murray and Wood, of nearby Holbeck, was entrusted with the design of a steam locomotive incorporating Blenkinsop's patent.

Fenton, Murray & Wood was formed in 1795, and the circular building, from which the Works came to be known as The Round Foundry(+) was erected in 1800.

Matthew Murray, born in Newcastle-on-Tyne in 1765 and in due course apprenticed to blacksmithing and millwrighting, migrated to Stockton-on-Tees. Trade declining, he walked to Leeds in 1789 and found work with John Marshall, a maker of flax spinning machinery. Here he met David Wood and they hatched their plans for setting up in business together. Finance was provided by James Fenton. Wood's first interest was the design and making of machinery whilst Murray developed steam engines, stationary and otherwise.

Murray's first locomotive must have been substantially complete before the end of 1811 as plaques were made at the Leeds Pottery which depict a locomotive and bearing that date (+). It is possible that the plaques were back dated, though that would seem pointless.

A very full account of the first practical test, on 24th June, 1812, appears in The Leeds Mercury of 27th June 1812. The issue for the 18th July 1812, carries a minute wood-cut illustration (+), surely the first newspaper illustration of a steam locomotive ?

Apart from incorporating Blenkinsop's rack patent, the locomotive was unique in having two cylinders. Many and varied have been the descriptions thereof but few, alas, bearing any stamp of authority. C.F.Dendy Marshall reviewed all known accounts and his findings were published posthumously in 'A History of Railway Locomotives down to the year 1831'. Five or six locomotives were built to these general designs but each succeeding one might incorporate variations and artists were neither as scrupulous nor as able as the camera upon which so many later records depend. It seems fairly certain that the earlier locomotives had a cast iron boiler of oval section, about 37" x 32" and 9½ ft. long, made in two halves bolted together and having a single flue, 14" in diameter, passing through to a tall chimney of reduced diameter. Two cylinders of 8" diameter by 24" stroke were sunk into the boiler for half their length. They exhausted to atmosphere, though a silencer was later added (+). Steam was controlled by two plug cocks, coupled together and was distributed by larger, 4-way plug cocks which were oscillated through about 60 degrees. The rack wheel was on the left side only, despite pictures and descriptions to the contrary. Murray, as an Engineer, did not like this lop-sided arrangement. He probably never ceased to advocate twin rack rails, since a single central rack would interfere with the use of horses for shunting.

The locomotive had two spring loaded safety valves but it is not now certain whether it originally had a feed pump which proved unsatisfactory and was discarded, or whether this was a later innovation. The latter seems more likely though Dendy Marshall was not so convinced and the Kirkstall Abbey Museum model of SALAMANCA, built in 1928 after careful research by the late E. Kilburn Scott, has been given a feed pump. The only known reference to the boiler pressure gives this as 55 lb. 'on every cubic (sic) inch'. The price has been variously quoted at £350 and £400 and included a sum of £20 or £30 paid to Richard Trevithick for the use of his patent.

Blenkinsop is reported to have stated that the engine weighed 5 tons and did the work of 16 horses. It drew 27 waggons, representing a load of 94 tons, at 3.5 m.p.h. on the level, or 15 tons up a gradient of 1 in 18. Lightly loaded, its speed was 10 m.p.h. The consumption of coal was 21.3 lb. per train mile and each lb. of coal evaporated 6.7 lb. of water. At this time, a horse cost £50 to buy and £55 per annum in upkeep, exclusive of the driver.

The reference to a gradient of 1 in 18 is interesting. Could it be that the locomotive negotiated the Belle Isle incline? Wm. Strickland in his 'Report on Canals, Railways, Roads and Other Subjects' in 1826 (+) gives the plane as being 350 yards long and the gradient '4/5 of an inch to the yard' or about 1 in 45. He also gives the rise as 44 feet so something does not fit. The first edition Ordnance Survey 25" plan of 1893 shows a bench mark of 112.4 ft. near the foot of the old incline and one of 171.9 ft. at the top. They are about 1300 feet apart and can be assumed to be nearly enough the same distance above the ground surface, thereby giving a gradient of about 1 in 21. Certainly the locomotives did not regularly work the incline and a self-acting system with brake drum was installed (+).

The first two locomotives went into regular service on 12th August 1812. It being H.R.H.'s Birthday, one of them was called PRINCE REGENT and the other SALAMANCA (+) after the victory thereat three weeks earlier. These two are presumed to have operated on the lower level and there is considerable confusion both as to the number of additional engines supplied and their names. The third engine to be made was sent to Willington, Northumberland, for use at a colliery owned by a man who partnered Brandling in another of his colliery enterprises. It had been ordered by Blenkinsop for Middleton but he forewent it for the time being. Whether it came back as 'the Willington Locomotive' or whether its replacement was referred to as 'the Willington replacement' is not now clear, (vide Dendy Marshall supra). It would be easy enough for this to become "Wellington" with that name on everyone's lips. The prefix 'Lord' and later 'Marquis' would be natural if the name was adopted officially, whilst the naming of a fourth engine after Marquis Wellesley, Wellington's illustrious brother, would seem a natural corollary. The dates of appearance of these two additions are given as 4th August and 23rd November, 1813 respectively.

Blenkinsop's efforts to improve the colliery must have been highly successful and in 1814 they achieved an all time record output of slightly in excess of 100,000 tons in the year. That was the year when George Stephenson's BLUCHER, the first successful flanged adhesion locomotive, was put to work at Killingworth colliery. One of the engines blew up in 1818, killing the driver and scalding a number of children. Nevertheless, collectively they outlived their creators.

Giving evidence before a Committee of the House of Commons, George Stephenson said about this explosion "the driver had been in liquor, and had put a considerable load on the safety valve, so that upon going forward, the engine blew up and the man was killed. But, he added, that if proper precautions had been used with that boiler, the accident would not have happened".

There was a serious accident between 6.0 p.m. and 7.0 p.m. on 12th January 1825, 24 men and boys being killed by an explosion at 'Gosforth Coal Pit, 3 miles from Leeds'. The explosion was caused by the removal of the top of a safety lamp, for which, in future, Blenkinsop proposed to provide a lock. The list of killed in the Leeds Mercury 15/1/1825 (+) includes one boy of 5, two of 8, three of 10 and two of 12 years of age. Gosforth Coal Pit, doubtless named after Brandling's Northumberland home, was stated to be 80 yards in depth, sunk at the end of a tunnel 1400 yards in length because "The estate did not belong to the owner of the ocal". This may well have been the Day Hole at SE 309288, near the later Broom Pit. At one time there were two shafts, one called Gosforth and the other Woodstar, located close together at SE 312277. The surrounding land, bounded by Sharp Lane and Throstle Carr Beck on the North, East & South, had belonged to a Mr. Armitage and no known map shows any track leading to the site of these pits, which may have been for ventilation only, the position being not inconsistent with a tunnel of 1400 yards to the Day Hole. The tunnel was said to have been big enough to accommodate a horse and cart, which pit pundits now interpret as pony and tram !

Matthew Murray died on 20th February 1826, at the age of 61. He is buried in Holbeck Cemetery and his grave is marked by a cast iron monument (*), made as a labour of love by the men at the Round Foundry. Murray's house, built about 1803, and officially called "Holbeck Lodge" though shown on early maps as "Spring Field", was popularly referred to as "Steam Hall" on account of its pioneer steam heating installation. It still stands in a triangle of railway lines at Holbeck; map reference SE 29263290(+).

John Blenkinsop died on 22nd January 1831 after "a tedious illness". He was barely 48 and lies buried at Rothwell.

THE DECLINE OF FORTUNE 1831 - 1862.

By 1835, production had dropped to about 75% of the peak figures and the average price per ton had been forced down by ever increasing competition from new collieries in the surrounding neighbourhood and improved transport, from 88.3d in 1811/12 to 60.0d.

In 1834, another engine blew up and in the same year the Estate passed into the hands of Trustees, who, with dwindling profits, were loath to incur any avoidable expenditure, either on replacement of locomotives or the much needed sinking of new pits. Steam traction was abandoned altogether in 1835 and horse traction came into its own again, the price of fodder having fallen sharply.

The precise date of building the incline from Belle Isle (not of course the modern circus of that name) up to Middleton Village cannot now be traced. It appears to have been in existence by 1827 when two Prussian mining engineers visited the colliery, though it is not mentioned by Strickland, whose Report of 1826 includes a detailed drawing of the lower incline (*). Martin's Map of 1831 (+) is the earliest to show it, terminating at Venture Pit, map reference SE 306282. Priestly also refers to it - tantalisingly briefly - in his 'Historical Account of the Navigable Rivers, Canals and Railways of Great Britain' published in 1831.

In 1832 there appears to have been a rail connection between the Fanny Pit, now Colliery Farm, New Lane, (SE 29862818) and the top of the incline, crossing Town Street obliquely in front of the School. At this time there was also a line running from the foot of the incline, up the hillside to Nova Scotia. Both had disappeared before the Ordnance Survey party arrived. Nova Scotia survives as a grim row of corrages within the grasp of the octopus housing estate which threatens to engulf it any moment. It was probably the site of a pumping engine and the twin hedges thence to Day Hole End still survive.

The first edition 1" Ordnance survey map of 1840 shows the line extending to what appears to be the West Pit, which is known to have been sunk to 116 yards in or before 1836. The first edition 6" Ordnance Survey map of 1848-51 shows the system in its complete form via "Venter" (sic) Pit to the West Pit, SE 295277, with a tramway running from Henrietta Pit, SE 29812783, via Glasshouse Colliery, SE 29922749, to Bleachground Engines, which the 1850 Estate Map (+) described as "Bleachground Pit". This was situated at the junction of New Lane and Thorpe Lane, now respectively Middle Park Avenue, (slightly re-aligned) and Middleton Lane, SE 29982705.

At the other end of the line, Great Wilson Street was driven through at some time between 1831 and 1839, necessitating cutting back and terminus by about 50 yards and probably necessitating some staith reconstruction.

Christ Church, Meadow Lane, was built only shortly before the well known picture drawn by N. Whitlock and engraved on steel by T. Owen (+) appeared in 1829. This picture, which shows one of the Blenkinsop engines in the middle of a train of waggons on a viaduct with Christ Church in the back-ground, has two curious errors of draughtsmanship. The inclination of the cross-head guide tie bars is impossible and a mill chimney, one of several in the background has been swept round and incorporated in the locomotive in addition to its own chimney !

Doubtless the lack of Blenkinsop's guiding hand and certainly the failure to plough back sufficient of the dwindling profits, resulting in decreasing efficiency, caused the Estate to be increasingly embarrassed, and a large scale map was prepared in 1850 (+), probably with a view to selling up. A further map was prepared in 1853 and bears the title "Brandling V Plummer" (+). This shows the following pits and no others; Day Hole Colliery; Henrietta Coal Pit; West Pit; New Lane Colliery (i.e. Glasshouse) & Bleach Ground Pit. The two latter were connected by tramway with a main line which ran from West Pit to Great Wilson Street along the original alignment now called "Old Run Road".

EARLY COMPANY DAYS 1862 - 1903.

The Brandling Estates were sold in 1862, together with all rights and responsibilities of the Waggon Way. The new owners, formed into the Middleton Estate and Colliery Company, set about the task of making the colliery profitable again and sank the Broom Pit, to a deeper level than heretofore. They re-introduced steam traction, the first locomotive, built by Manning Wardle in 1866 being of 4' 1" gauge and called "BLENKINSOP". This was followed by "MATTHEW MURRAY" in 1869.

Wm. Emsley, a Solicitor of Leeds, wrote a booklet in 1877 (HUNSLET MOOR: The four Acts of Parliament) in which he sought to demonstrate that the Company had no authority to run locomotives upon the unfenced line across Hunslet Moor. He also declaimed against "the new siding of branch line which the Owners of the Collieries have lately made on the Moor - for the purpose of forming a junction with the Midland Railway". If a connection with the Midland Railway was contemplated, a change of gauge to the standard 4' 8½" must have been made at about this time. It is also fairly certain that the realignment on to the present route, thereby eliminating the lower incline, was contemporary with the re-introduction of locomotives, though it could have been contemporary with the change of gauge and proposed Midland connection. The building of the branch towards the Midland appears to have been a piece of legal subterfuge. The Company acquired seven eighths of the Manor of Hunslet in 1868 and the remaining eighth in 1874. They shortly afterwards laid the branch as far as the limits of the Moor, apparently with no immediate prospect of completing the connection until they could buy the land thence to the Midland, or persuade the Midland to obtain powers to do so. Meanwhile, it seemed that they were not entirely happy about the extension on the Moor and hoped to acquire rights of ancient usage by the time they had acquired the remaining land.

Meanwhile, a certain John de Morgan had set himself up to champion the Commoners and, in the presence of a company estimated variously between 30 and 40 thousand he solemnly lifted a rail of the branch on 8th December 1877 though "no violent speeches were made nor were any acts of violence committed." Chancery proceedings were duly instituted on 22nd February 1878 and a hollow victory secured for the Colliery Company. The first edition 25" ordnance map of 1890 still shows the branch turning across the Moor and terminating nowhere !

Two further locomotives were supplied by Manning, Wardle; 'BLENKINSOP NO. 2' in 1881 and 'NIGER' in 1902.

Bacon's Plan of Leeds, circa 1889 (+) is interesting in that it shows the new alignment of the colliery line, with the old alignment, on what is now Old Run Road, dotted. Doubtless because of its uselessness, the branch is not shown. According to the 1890 Ordnance Survey, the line was fenced except on the Moor. The great iron fence which separates the line from the Moor now, could only have been put up after a decisive victory by the Colliery Company over the pretentious Commoners. It would have done credit to a wartime hush-hush factory, each of the enormous gates at a road crossing bearing a fearsome cheval de frise. How they survived the second war scrap metal drive when a simple wire and post fence is considered adequate for the fast and frequent tram route alongside, is beyond conjecture. Saxby and Farmer's gate posts and mechanism bear the dates 1901 and 1903, which may not have been the first enclosure. They have long been disused.

The Midland connection was completed in time for inclusion in the 1895 Handbook of Stations but by that date, and probably for some years before, there had been a physical connection with the Midland Goods Station (former North Midland terminus) via a level crossing in Kidacre Street and reversal in the Gas Works.

There had been various sidings from the colliery line at its northern end before the gauge conversion and two short ones are shown on the 50" Ordnance Plans of Leeds of 1850. A passing place is also shown between Moor Road and Hillidge Place.

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 new connection with the Middleton Colliery line near New Pit.

By the time the Ordnance Survey explored the area in detail for the second time, in 1890, all the pits on the plateau had been closed and the line put back to a dead end at a spot nearly enough on the eastern boundary of the Middleton Housing estate. Coal was no longer brought down the incline but was sent up by the aid of a steam winding engine the building and chimney of which, together with the winding sheave, still survive (+).

There was a return sheave near the defunct Venture Pit, whereby the coal waggons were cable hauled across Town Street to staiths on the south side of the road, They could also be dropped back into the yard for supply to the engine.

THE TWENTIETH CENTURY.

Apart from the supply of a new locomotive, noted above, in 1902, little of interest has emerged from the early part of the century. The 1905 revision of the Ordnance Maps show the south end of the line cut back a little further, to a site just short of the present tramway, a spot it had first reached about 80 years previously. The coal straits there were in use until 1948, as was the incline itself, and all traces south of Town Street have but recently been effaced. The weighbridge for road vehicles remains, as do the lines in the road but the latter may not long survive the onslaught of a mechanical digger which is inexorably progressing daily nearer in its task of opening up a trench for a sewer.

The steam winding engine was replaced by a humble electric motor in about 1930 and the driving pinion moved to the opposite side of the wind/^{ing}sheave (+). A turntable was installed as a last phase, to enable waggons of coal to be turned into the yard for bagging.

Now, an explosive store has been built on the incline near its lower end, though the rails remain elsewhere.

The upper incline is not the only feature of the enterprise to suffer a reversal of traffic. A gas main, laid alongside the railway to convey gas from the Colliery coking ovens to the gas works near the northern terminus is now used to supply gas from the gas works to the ever increasing population in the Belle Isle area !

By arrangement with the National Coal Board, John Fowler & Company use the colliery line for test purposes. They gain access via the Midland connection.

Of the development of the track and sidings around Broom Pit and New Pit and the coke ovens, brickworks, clay pits and quarries thereabouts, little factual record remains beyond that shown on the larger scale Ordnance Survey maps and plans. Three commercial sidings on Hunslet Moor call for notice in that access to and from the Midland line is obtained over the colliery line and the National Coal Board or their predecessors have dealt with quite a vast amount of traffic for these "customers" over their line.

The oldest is that of Waggon Repairs Ltd., on the south side of the Midland connecting line. This dates back to just before the first war and is still in regular use. The second serves three premises on the West of the line which are reached by reversal from a dead end shunting neck connected with the main line by a North facing curve. These were laid in during 1910/20 and serve: Clayton, Son & Co. Ltd., Structural Engineers, Dartmouth Works, who were presumably the first so connected as the crossing of this connection with the tramway is called "Clayton's Crossing"; Robinson & Birdsell, Metal Merchants; and John King & Co., Ironfounders. All these are still in use though not to the same extent as formerly. The third connection to the Hunslet Foundry of Samuel Denison & Son Ltd., appeared officially at about the same time as the Clayton connection though it is difficult not to believe that there must have been a connection many years before to the foundry which, whilst in other hands, cast the iron rails to Blenkinsop's patent design. In those days, of course, the line was on Old Hun road and through the recreation ground in front of the premises. The modern connection to and through the has been taken out but recently and has not yet been deleted from the 1950 new alignment book of Stations.

One more siding appears on the 1932 and 1949 Ordnance Maps. It left the main line immediately to the north of the bridge carrying the Great Northern branch to Hunslet and proceeded for a quarter of a mile in a N.N.E. direction upon substantially flat ground which was formerly a slag heap for the New Pit. This is understood to have been a stack yard. Like Conyers Spring, it is now better contemplated upon the map than in reality.

The visitor to the neighbourhood of Day Hole End and Conyers Spring will find disappointment indeed. The little covert has become a public rubbish dump and the spring is encumbered with the rejects of civilisation at its lowest. No trace remains of the Day Hole and the present dead end shunting neck terminates against virgin rock, affronted by more of civilisation's cast-offs.

The date of scrapping of the four Manning Wardle locomotives has not yet come to light and it seems unlikely that any more were purchased other than the three which were

purchased other than the three which were taken over by the National Coal Board on vesting day, 1st January 1947. These were (1) an O-6-0 tank, built by the North Eastern Railway at Darlington in 1897 and sold to the colliery in, or soon after 1918. Called JEAN, she was out of commission on vesting day and was scrapped in 1948 or 1949. (2) An O-4-0 saddle tank built by Manning Wardle in 1909 and named MATTHEW MURRAY. She was out of commission for repairs on vesting day but was subsequently repaired in 1951 and survived until 1954 when she was scrapped. (3) An O-6-0 saddle tank built by Manning, Wardle in 1910 and named BLENKINSOP. She was the only locomotive in service in vesting day. By 1950 her condition was 'poor' and in 1951 the firebox collapsed. No repairs were undertaken and she was scrapped in 1953.

The current stud of locomotives at Middleton is as follows: Hudswell Clark O-6-0, Works Number 1175, built in 1916 for the Appleby Frodingham Steel Company and given their Number 69, she was sold to Middleton Colliery in October 1950 and was rebuilt with a new firebox of copper in August 1951. In 1925 the Hunslet Engine Co. built EDITH an O-6-0 for J. J. Charlesworth, Rothwell Colliery. She was transferred to Middleton by the National Coal Board in 1952 and is now in a state of suspended animation pending a decision by the economic experts as to her fate. The fourth engine to bear the name BLENKINSOP, an O-6-0, was built in 1954 by Hudswell Clarke.

The Middleton Light Railway is sometimes confused with the Colliery Line. Built by contractors for Leeds City Tramways under the Leeds Corporation Act of 1919, it is an electric tramway mainly laid on a reserved track and built to serve the Middleton housing estate. The first section from Dewsbury Road is laid in the highway along Moor Road until it reaches its reserved track parallel and adjacent to the colliery line. From Clayton's Crossing, both routes are together within the same fences as far as the point of divergence just short of the G.N. Railway bridge. Here the tramway strikes off through the woods by Middleton Lodge, quite away from any public road until it reaches the Ring Road on the plateau. The line was opened for passenger traffic to its original terminus at Middleton Park Circus on 12th November 1925, and was extended to Lingwell Road just short of the old Venture Pit on 26th November 1927.

Under the Leeds Corporation Light Railway Extension Order of 1945, the existing tramway to Balm Road was extended to serve the Belle Isle housing estate and tracks were laid along Belle Isle Road to the Belle Isle Circus and opened for traffic on 22nd July 1940. This was extended to Middleton Road on 24th February 1946. A further extension to the junction of Belle Isle Road and Middleton Park Road was opened on 6th March 1949 and the final link with the Middleton Light Railway at Lingwell Road was opened on 28th August 1949.

It is interesting to note that the original plans brought the tramway close alongside the Broom Pit and a physical connection of 1 furlong and 1 chain in length was intended to be made with the colliery railway. This plan, of course, antedates the Belle Isle housing estate but is interesting in view of the fact that Leeds City Tramways used to handle mineral and goods traffic over its system. A heavy mineral traffic between the Gipton Pit at Harehills and the Leeds Fireclay Company at Wortley survived until late in 1930.

Traffic north of Moor Depot was discontinued on and after 13th September 1948 and the bridge over Holmes Street, which was barely high enough to walk under, was demolished by the National Coal Board midst the blessing of nearly everyone. The capstones are still in place on each side of the road.

Now the remainder of the track is life expired and renewal by the National Coal Board is not justified. Unless British Railways can come to the rescue it seems likely that Brandling's pioneer line, scene of an important phase in the development of steam locomotives, will not long survive its bi-centenary.

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