

The Nottinghamshire and Derbyshire Coalfields before 1850.

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BEFORE 1850 coalmining in Nottinghamshire and Derbyshire was confined to the exposed coalfield. For a long time it was thought that the Coal Measures did not continue eastwards under later sediments, and not until 1854 were any pits sunk into the concealed coalfield.¹ In Derbyshire the Coal Measures come to the surface in three distinct districts. One in the north-west is an overlap of the Lancashire and Cheshire coal basin. The other in the south is a similar continuation of the Leicestershire field. Both are of small extent.² The third, by far the most important of the visible coalfields of Derbyshire, is the one which forms part of the great Yorkshire, Nottinghamshire and Derbyshire outcrop. In Nottinghamshire the Coal Measures do not come to the surface except in the district lying along the western border of the county. Here the Erewash, forming for a large part of its course the boundary between Nottinghamshire and Derbyshire, has given its name to an important coalmining area. Along the line of the stream the Coal Measures have been arched by an anticlinal fold and the deep valley has exposed a number of workable seams in both counties.³

¹ The Concealed Coalfield of Yorkshire and Nottinghamshire, by Walcot Gibson, D.Sc., Memoirs of the Geological Survey. H.M. Stationery Off: Victoria County History, Notts., Vol. II, p. 329.

² Victoria County History. Derbyshire, Vol. II, p. 349.

³ The Concealed Coalfield of Yorkshire and Nottinghamshire, pp. 18-19.

It is recognised that coal was worked in both Nottinghamshire and Derbyshire at an early date,¹ but economic historians are not agreed as to the importance of coalmining in these two counties before 1850. Some ignore the area entirely; some mention it but only to show its insignificance; a few ascribe to it a vague importance, and one local historian goes so far as to assert that "from a very early date Nottingham was perhaps second only to Newcastle as a producer of coal."² Referring to the seventeenth century, Galloway writes, "A dearth of records is felt in the case of the Yorkshire, Derbyshire and Nottinghamshire coalfield. Calmly and peacefully the coal trade of the district seems to have held on the even tenor of its way . . .," and turning to Nottinghamshire in particular he remarks, "The collieries of Nottinghamshire are scarcely heard of at all at this period."³ In his recent book on "Nottinghamshire in the Eighteenth Century," Dr. Chambers modifies Galloway's remarks by mentioning the evidence of an anonymous historian of 1641, who testifies to the facility with which the inhabitants of the town of Nottingham could obtain coal at that time.⁴ E. R. Turner in an article published in the *American Historical Review* on "The English Coal Industry in the Seventeenth and Eighteenth Centuries,"⁵ takes a different view from that of Galloway, and asserts that "At this time there was no little activity in the Midlands, while Scotland could be mentioned also." On the other hand Cunningham's "Growth of the English Industry and Commerce in Modern Times," makes no mention of the Nottinghamshire and Derbyshire coalfield in the section on the coal trade 1689-1776, but

¹ V.C.H. Notts.; V.C.H. Derbyshire; Galloway, *Annals of Coal Mining and the Coal Trade*, 1898.

² E. L. Guilford, Nottingham. *The Story of the English Towns*, 1919, p. 94.

³ Galloway, *Annals of Coal Mining and the Coal Trade*, p. 184 and p. 188.

⁴ J. D. Chambers, Notts. in the Eighteenth Century, p. 88.

⁵ *American Historical Review*, 1921-22, Vol. XXVIII, Oct., p. 2.

the writer's opinion is made clear by the following sentence: "The History of coal mining during this period is chiefly that of the Newcastle district, though mining had been successfully carried on in Yorkshire and Scotland from time immemorial."¹

A little more attention is paid to the coal trade of Nottinghamshire and Derbyshire in the eighteenth century and the first half of the nineteenth century. In Cunningham, for example, there is the admission that during the period 1776-1815 "the increased facilities for internal carriage rendered the coalfields of Lancashire and the Midlands much more available than formerly."² Making use of Chapman's Survey of 1774, the author of "Nottinghamshire in the Eighteenth Century" gives the positions of fourteen pits at work at that time, but considers that "further development of the mining industry in this country was slow."³ In the list of coalfields given by Professor Halévy in his "History of the English People in 1815," no mention is made of Nottinghamshire or Derbyshire although Durham and Northumberland, the Scottish Lowlands, Cumberland, Lancashire, Staffordshire, Yorkshire and South Wales are included.⁴ Professor Clapham is more generous in his estimate of the importance of the coalfield under discussion and on his map based on the Report of the Select Committee on the State of the Coal Trade in the Port of London 1830, gives the area, a considerable one, normally supplied by the Yorkshire, Nottinghamshire and Derbyshire coalfield.⁵ Ashton and Sykes commenting on the same report remark that "the markets of the coalfields of Yorkshire, Derby and Nottingham now

¹ Cunningham, *Growth of English Industry and Commerce in Modern Times*, p. 342.

² *Ibid.*, p. 462.

³ J. D. Chambers, *Notts. in the Eighteenth Century*, p. 89.

⁴ Halévy, *History of the English People in 1815*, pp. 226-7.

⁵ Clapham, *An Economic History of Modern Britain; The Early Railway Age*, opposite p. 236.

covered an area from Knaresborough and Pickering in the north almost to Northampton in the south; and places as far apart as Huddersfield and Peterborough came within their sphere.”¹

To these estimates of the importance of the Nottinghamshire and Derbyshire coalfield, the account given by Dr. Nef of coalmining in this area before 1750, forms a marked contrast. Making full use of the Report of the Historical MSS. Commission on the MSS. of Lord Middleton preserved at Wollaton Hall, Nottinghamshire, and other evidence, the writer provides a description which gives the impression of great activity, especially in the mines in or near Wollaton. Tentative estimates of output suggest 10,000 to 15,000 tons yearly as probable figures for the beginning of the seventeenth century, and from 100,000 tons to 150,000 tons yearly for the beginning of the eighteenth. To read “The whole district to the west and north of Nottingham was given over to coal mining,” and “It must have resembled in appearance the Tyne valley about Gateshead, or the Wear valley about Lumley Castle,” is a great surprise, after the lukewarm accounts of other writers quoted above.²

Any attempts to estimate correctly the importance of the Nottinghamshire and Derbyshire coalfield before 1850 must recognise that at no time during this period was coal from either of these two counties able to challenge, even with moderate success, the coal of Northumberland and Durham enjoyed in the London market. But while this failure shows the limitations of this Midland field, the attempts made testify to the vigour and enterprise of the Nottinghamshire and Derbyshire trade. The V.C.H. suggests that the grant of the lordship and manor of Tibshelf and all the coalpits

¹ Ashton and Sykes, *The Coal Industry of the Eighteenth Century*, p. 237.

² *The Rise of the British Coal Industry*, J. U. Nef, 1932, p. 60.

there to the mayor and commonalty of London in 1553 may be part of an attempt to supply London with Derbyshire coal.¹ It is certain that about 1605 the Willoughby family of Wollaton near Nottingham, proposed to send coals to London for the king's use down the Trent via Newark, Gainsborough and Hull and then by sea. The project failed because the cost of conveying the coal from Nottingham Bridge to London increased the price from 6/- to 22/2 and made competition with the Newcastle coal impossible.² This makes it difficult to believe the seventeenth century historian of Derbyshire who alleged that "harde coal, wheresoever it comes is called Darbyshire coale, London and elsewhere." Unsupported by any other evidence this extravagant claim cannot be taken seriously.³ It does, however, seem probable that from 1600 or before, the coal owners of Nottinghamshire and Derbyshire cast jealous eyes on the lucrative London trade. There is no doubt that at the beginning of the nineteenth century a serious attempt was made to introduce the coals of the Erewash valley to the London market, but this venture also proved unprofitable.⁴ In spite of failure further attempts were made. During the year 1828 there was delivered into the Port of London from Derbyshire one shipload of small coals comprising 108 chaldrons.⁵ Success seemed far away. The Report of the Select Committee on the State of the Coal Trade 1836 records that no Derbyshire coal entered the Port of London from 1832 to 1835. The same Committee reported that the amount of coal reach-

¹ V.C.H. Derbyshire, Vol. II, p. 353.

² Historical Manuscripts Commission, Report on the MSS. of Lord Middleton preserved at Wollaton Hall, Notts., 1911, pp. 171-172 and Introduction, p. xi. See also Guilford, Nottingham, pp. 94-95.

³ Mentioned in V.C.H. Derbyshire, Vol. II, p. 353.

⁴ V.C.H. Notts., Vol. II, p. 329.

⁵ Report from the Select Committee of the House of Lords appointed to take into consideration the State of the Coal Trade in the United Kingdom, 1830, p. 86.

ing London by inland navigation had fallen from 8,381 tons in 1831, to 1,862 in 1834, and expressed the opinion that the "supply of London by inland navigation may be considered at an end."¹

But people living in 1836 were unable to estimate the effect of the coming of the steam locomotive. By the early fifties of the nineteenth century, the attempts to obtain a footing in the London market, made by the coal-owners of the Nottinghamshire and Derbyshire border at various times spread over two and a half centuries, were at last meeting with success. While the rich people of the capital still bought the "best Wallsend" with its reputation and its high price, the poor were supplied by a new class of coal dealer with inland coal brought from Derbyshire and Yorkshire by rail.²

It seems reasonable to suppose that an industry capable of attempting to capture, although unsuccessfully, a distant market at a time when means of transport were still very poor, would already be in possession of substantial markets in some part of the country. Evidence is at hand to show that this was true of the Nottinghamshire and Derbyshire industry. Galloway's low estimate of the importance of the Nottinghamshire coalfield in particular, appears to be based upon the amount of evidence rather than upon its nature and interpretation. He refers to a statement made by the justices of the peace in 1620 to the effect that Nottingham needed no storehouse for grain since other counties who sent up the Trent for coals brought in corn whenever it was needed.³ Unfortunately in Galloway's quotation "counties" is written "countries," causing him to remark "it is singular that the Trent does not figure as exporting coal abroad in the balance sheet of the farmers

¹ p. XV and p. 245.

² Clapham, *An Economic History of Modern Britain*, 1850-1886.

³ Galloway, *Annals of Coal Mining and the Coal Trade*, p. 188, *Cal. of State Papers Dom.*, 1619-1623, Vol. CXIII.

of the coal revenues for the 1617 as a trade of this description is found existing immediately after this date." The misquotation probably prevented him from seeing that the evidence, very reliable though short, pointed to a considerable trade in coal between Nottinghamshire and the surrounding counties.

Before the publication of J. U. Nef's "The Rise of the British Coal Industry" in 1932, most historians underestimated the importance of the supply of Nottinghamshire and Derbyshire coal, not only to places within these counties, but also to other counties to the south and the east. Dr. Nef has described fully the activities of the pits within easy reach of the Trent, and the consequent trade down the river; he has made tentative estimates of the output of the region; he has dwelt upon the part played by the Willoughby family in developing the trade of the area. At times it almost seems that, in departing from the previous attitude of historians to the Nottinghamshire and Derbyshire field, he has gone too far in the opposite direction. It is certain that he has made mistakes which a person more intimately acquainted with the district would not have made. On the map showing "Midland Collieries about 1610," collieries are marked at Mansfield, Newstead and Linby among other places.¹ All three are situated some miles from the area where the Coal Measures outcrop, and in order to reach coal at these points, the sinking of shafts through later sediments would be necessary. It is recognised that even in the eighteenth century coal was not mined so far to the east, and as already mentioned, the sinking of the first pit into the concealed coalfield did not take place until 1854.² In another place, Dr. Nef writes of hundreds of small pits scattered throughout "Derbyshire, northern

¹ Nef; map opp. p. 57.

² See Lowe, *Gen. View Agric. Notts.*, 1798, 5 quoted by V.C.H. Notts. Vol. II, p. 328; Walcot Gibson, *The concealed Coalfield of Yorkshire and Notts. passim.*; *Geol. map V.C.H. Notts.*, Vol. I.

Nottinghamshire and Yorkshire.¹ There were certainly no pits in northern Nottinghamshire during the period 1500-1750. The visible coalfield of Nottinghamshire occupies a narrow strip along the western border of the southern and central portions of the county.

It may be noted that Galloway himself provides further evidence of the trade with surrounding counties, although as in the instance mentioned above, he fails to appreciate its full significance. Towards the end of the seventeenth century, from the Derbyshire mines at Smalley, Heanor, and Denby, coal was sent into Leicestershire and Northamptonshire, and at the same time the town of Derby consumed annually about 3,000 loads.² Since Galloway wrote, the Historical Manuscripts Commission has published its report on the manuscripts of Lord Middleton preserved at Wollaton Hall, Nottinghamshire. In this volume are many references to the coal mines around Wollaton, and the coal trade arising from them. These references form the nucleus of Dr. Nef's account, but for some years have been known and used by students of local history in Nottinghamshire.

A document of 1316 allows exemption from payment of rent when the men were hindered from working by the "*ventus qui vocatur le dampe*," a provision which the editor of the Report on the Middleton MSS. considers to be an indication of appreciable depth in the workings.³ At the end of the fifteenth century profits from sea-coals occur in the bailiff's accounts. These items persist throughout the sixteenth century and vary in amount,⁴ the receipts from October, 1597 to October, 1598, amounting to £2,696. 1s. 6d. In this year, 13271 "*rookes*" 2 quarters were sold, including some sold at Newark and a small amount at Gainsborough.⁵ According to the

¹ Nef., pp. 57-60.

² Galloway, p. 184.

³ Wollaton Hall MSS., p. 88 and Introduction, xi. ⁴ *Ibid.*, p. 307 et seq.

⁵ *Ibid.*, p. 169, p. 175, "*Everie rooke to conteyne in measure 2 yeardes one quarter hye and one yeard square close stacked.*" Dr. Nef regards 13,264½ rooks as equal to about 20,000 tons.

Report, among the MSS. of Lord Middleton is a great mass of accounts and other papers connected with Coal Mines and Iron Forges in the sixteenth and seventeenth centuries. Of these, a few pages have been printed, but they do not form more than an infinitesimal proportion of the total mass.¹ In the printed extracts from the Collections of Cassandra Willoughby (1702) is a statement that all the stone used in the building of Wollaton Hall (1580-88) was brought from Ancaster in Lincolnshire in exchange for coal from Wollaton.² If further confirmation of the existence of a considerable coal trade in the sixteenth is required, there is the information from Camden that many of the inhabitants of the town of Nottingham used "the offensively smelling dug up coal."³ Near to Nottingham were not only the Wollaton pits of the Willoughbys, but also the Strelley pits of the Strelley family. The bickerings and actions at law between these two families are a further testimony to the energy and profit with which the Nottinghamshire coal mines were worked in the sixteenth century.⁴

With the coming of the seventeenth century, documentary evidence illustrating the Nottinghamshire and Derbyshire coal industry increases. Mention has already been made of the trade between the two counties and their neighbours, and the attempt of the Willoughby family to send supplies to London. Among the Wollaton Hall MSS. is a copy of an agreement (1609)⁵ by which Robert Fosbrooke agrees to convey 3,000 rookes of coal yearly to Trent Bridge from Wollaton and Strelley, and to sell them there or by water. The same document provides the information that Sir Percival Willoughby had ten boats, "The John, The William, The Constance,

¹ Wollaton Hall MSS., p. 492.

² *Ibid.*, p. 566.

³ Camden, *Britannia*, first edition (1586), p. 309, quoted by Galloway, p. 114.

⁴ V.C.H. Notts., Vol. II, p. 325-6.

⁵ Wollaton Hall MSS., p. 172-173.

The Anne, The Trinitie, The Grace of God, The Speedwell, The Bartholmew, the keele in John Jervis' hands, The Henry Maria," for the purpose of conveying coal down the Trent. In his turn Sir Percival promised to stack yearly, for the next seven years, 3,000 rookes of coal "at Wollerton (Wollaton) lane end at the new rayles end." This undertaking, together with the provision of houses and places for storing coal at the rail end, at Trent Bridge, and at Newark, makes the agreement appear to be an attempt to organise the river trade on efficient lines. Another document of interest among the Wollaton Hall MSS. is an inventor's proposal for an improved pumping machine for use in coal pits.¹ Claiming for his machine the power to pump water from a depth of "one hundred fadam," and "to drive the water to any height whatsoever wheare a pipe may be fixed," the inventor discloses the fact that the method employed in the Wollaton pits at that time was "the oulde and usual cheaine pumpe, sutche as ar now used in London to force the Teamse water to serve there houses," and that the height they drew the water was under "fifteene fadam."

Complaints of bad trade² through unseasonable weather, figures of sales at Trent Bridge, at "the railles" and at Newark (4,608 rookes 4 Oct. 1613 to 3 Oct. 1614),³ rivalry with others engaged in conveying coal down the Trent,⁴ a recipe "for the dampe,"⁵ coal accounts for Wollaton, Cossall and Trowell⁶ are all recorded in the Manuscripts of Lord Middleton. It may have been the consumption of large amounts of Wollaton coal by the people of Nottingham,⁷ which led the Common Council of Nottingham to

¹ p. 173, c. 1610 A.D. See Ashton and Sykes, p. 33, et seq. for methods of combatting water.

² *Ibid.*, p. 183.

³ *Ibid.*, p. 177.

⁴ p. 176.

⁵ p. 193.

⁶ p. 323.

⁷ The same anonymous writer of 1641 mentions the conveyance of coal by the Trent to Newark, Gainsborough and other places. The Thoroton Society of Nottinghamshire published this anonymous work in the Transactions of 1898. One manuscript is in the Bromley House Library, Nottingham.

prospect for coal within their own land at various times between 1594-5 and 1650, but failure was the only possible result.¹ The seventeenth century saw activity on the Derbyshire coalfield too, for in 1631 the justices placed coalmining with leadmining as an industry which provided work for many of the inhabitants. It appears that coal was made into coke in this county as early as the middle of the seventeenth century.²

The history of the Nottinghamshire and Derbyshire coalfield from 1700 to 1850 is a continuation of the seventeenth century activities with developments in new directions. Defoe³ is one authority for the eighteenth century coal trade down the Trent, and Deering another. The latter comments upon the favourable position of Nottingham for supplies of coal and explains how the destruction of wood in the forest led to the consumption of coal.⁴ In mentioning the use of "coak or cynder," made from Nottinghamshire coal, in the drying of malt, Deering touches upon an important feature of the eighteenth century, the growing importance of coal as fuel for industrial purposes.⁵ Both Nottinghamshire and Derbyshire ales were supposed to possess a superiority over the ales of other counties on account of the substitution of coal for other fuel in the drying of malt.⁶ In the Report on the Wollaton MSS., there is mention of the employment of coal in the making of glass in the early seventeenth century.⁷ By the eighteenth century the burning of lime with coal, practised from a much earlier

¹ V.C.H. Notts., Vol. II, p. 327.

² V.C.H. Derbyshire, Vol. II, p. 353; *D.A.J.*, 1933, p. 16.

³ Daniel Defoe, *A Tour through England and Wales*, Intro. by G. D. H. Cole, Everyman's Library, Vol. II, p. 145.

⁴ For the destruction of wood in Sherwood Forest during the Commonwealth and especially after the Restoration see Chambers, Notts. in the Eighteenth Century, pp. 161-2.

⁵ Deering, *Nottingham Vetus et Nova*, p. 87, quoted by V.C.H. Notts., Vol. II, p. 328.

⁶ V.C.H. Derbyshire, Vol. II, p. 354. See also Ashton and Sykes, p. 5.

⁷ Wollaton Hall MSS., p. 500-1, quoted by Nef.

date, had become a regular industry in Derbyshire.¹ It is clear from the records of this county that coal was increasingly used for a number of purposes throughout the century. Pilkington's "View of the Present State of Derbyshire" (1789) refers to the making of coke from soft coal. In Glover's History of the County of Derby (1829) are interesting figures of the development of the iron industry and the substitution of coke for charcoal. According to this authority the number of blast furnaces for the smelting of iron, before the introduction of coke, was four with an output of 800 tons. His figures for other years are as follows:—

- 1788. One charcoal blast furnace; seven coke blast furnaces: 4,500 tons.
- 1796. 10 blast furnaces: 7,650 tons pig iron.
- 1806. 11 blast furnaces about 10,000 tons pig iron.
- 1825. 14 blast furnaces about 19,000 tons pig iron.
- 1827. 15 blast furnaces: 20,000 tons pig iron.
- 1829. 19 blast furnaces (14 in work) not more than 29,000 tons pig iron.²

When Glover wrote the Butterley Company at their furnaces and collieries employed nearly 1,500 men. This company had already manufactured iron bridges for various places in the British Isles, India and the East Indies, war material, large quantities of water and gas pipes and numerous steam engines. During the Napoleonic Wars the Alfreton Iron Works, according to Glover, sent as many as 3,100 tons of cannon shot and shells to Woolwich in one year. After the war the works reverted to the manufacture of pipes, bridges, etc., and made a speciality of retorts for gas works. Steam engines consumed a considerable amount of coal, the Butterley Company alone employing 26 of these engines.³ Mines

¹ V.C.H. Derbyshire, Vol. II, p. 352; Pilkington's, "View of the Present State of Derbyshire," 1789, cited by Galloway, p. 326.

² Glover, p. 230.

³ *Ibid.*, p. 231.

of various kinds were by this time also using steam power.¹ In Nottinghamshire there was not the same increase in the consumption of coal caused by the iron industry, but other factors were at work. At Papplewick a steam cotton mill was started in 1785, and others later.² The steam factory did not begin to capture the Framework Knitting Industry until about 1845,³ but the Lace Industry adopted this form of power much earlier. From 1816 onwards, steam was used in the manufacture of bobbin net lace, and in 1820 great distress was experienced by some owners through the introduction of this form of power.⁴ In 1841 it was stated that there were 29 to 30 power factories in the lace trade.⁵

Considerable evidence is available to show the number and position of coal pits in both Nottinghamshire and Derbyshire during the second half of the eighteenth and the first half of the nineteenth centuries. Chapman's survey of Nottinghamshire, 1775, indicates the position of fourteen pits, but the gaps in the map give the impression that the survey is not entirely reliable. It is difficult, for example, to believe that in 1775 no mines existed in the parishes of Greasley and Selston, for coal had been worked there since the middle ages, and was again in the nineteenth century.⁶ In fact the act authorising the making of the Nottingham Canal 1792, expressly mentions collieries of the Duke of Newcastle at Brinsley in the parish of Greasley.⁷ In 1789 hard coal was mined in Derbyshire at Smalley, West Hallam, Ilkeston, Heanor,

¹ See below.

² V.C.H. Notts., Vol. II, p. 351-2.

³ J. D. Chambers, Notts. in the 18th Century, p. 132 et seq.

⁴ V.C.H. Notts., Vol. II, pp. 359-60.

⁵ Knowles, *The Industrial and Commercial Revolutions*, quoting Felkin's evidence, "Export of Machinery, 1841, VII."

⁶ V.C.H. Notts., Vol. II, p. 324 et seq., Sanderson's *Survey Twenty Miles Round Mansfield*, 1835.

⁷ An Act for Making and Maintaining a Navigable Canal from the Cromford Canal, in the County of Nottingham, to or near to the Town of Nottingham, 1792. Reference Libraries at Nottingham and Derby.

Shipley, Denby, Ripley, Swanwick, Normanton, Blackwell, Chesterfield, Eckington, Newhall, Measham, and near Burton.¹ Farey gives the situations of fourteen pits which were worked about the beginning of the nineteenth century. In addition, he indicates three places where coal had been mined until just before the time of his writing, and five others where it had been obtained at an earlier date.² A list of over two hundred and forty collieries of which half had been worked "formerly," and half were still being worked, is given by Glover. Most of the places named are in Derbyshire, but some are in Nottinghamshire.³

Were no other evidence available of growing activity in the Nottinghamshire and Derbyshire coalfield at this time, the efforts made to increase the facilities for the transport of coal would be sufficient indication. At the end of the first quarter of the eighteenth century, the turnpike system reached Nottinghamshire, and by 1765 a number of roads leading westwards from Mansfield, Worksop, and Nottingham to the coalmining areas of the Erewash Valley and South Yorkshire had been turnpiked. Further progress in this direction was made on the coalfield between 1765 and 1795. Petitions presented to the House of Commons for the making of turnpike roads expressly mention the desire for better transport of coal and a consequent lower price.⁴ The connection between coal and canals is closer still. Between 1777 and 1802 the Chesterfield, Erewash, Nutbrook, Peak Forest, Cromford, Derby and Nottingham canals were completed, better transport of coal being in each instance, one, if not the

¹ Pilkington, *View of the Present State of Derbyshire*, 1789, cited by Galloway, *Annals of Coal Mining and the Coal Trade*, p. 326.

² Farey, *Gen. View of Agric. and Mining Derbyshire* (1811) quoted in V.C.H. Notts., Vol. II, p. 328.

³ Glover, *History of the County of Derby*, 1829, p. 53 et seq.

⁴ Cossons, *The Turnpike Roads of Nottinghamshire*, 1934. Historical Association Leaflet No. 97, pp. 8 to 18 and p. 23.

principal, object of their construction.¹ Numerous railroads or tramways were made to connect the pits with the waterways. An excellent example of this system of transport may be seen on Sanderson's Survey of the district twenty miles round Mansfield (1835). From both sides of the Erewash valley, railroads brought down coal to the Cromford, Derby, Nottingham and Nutbrook canals. A more ambitious railway worked on the same principle, that is without the use of locomotives, was the Pinxton to Mansfield Railroad, completed about 1819.² In 1825 an act was obtained for the building of the Cromford and High Peak Railway to connect the counties of Derby, Nottingham and Leicester with Stockport and Manchester.³ Eventually, on parts of this railway, locomotives were used, but trucks were pulled up the steeper gradients by stationary steam engines. Coal owners were mainly responsible for the construction of the Midland Counties Railway, connecting Leicester, Nottingham and Derby, a railway of the modern type, all the hauling being done by locomotives. On the 30th of May 1839, the first train travelled from Nottingham to Derby and back. More railways followed.⁴

It is possible to gain a glimpse of the miners themselves, and of methods of working from the evidence available for the eighteenth and nineteenth centuries. In 1756 a season of backward harvests, the miners of the Midlands gathered at Coventry, Nuneaton and Nottingham and terrified the local authorities in an effort to reduce the price of food.⁵ About the same time the Mayor of Nottingham is reported as saying "These Colliers are

¹ See Acts of Parliament for making and maintaining the various canals. Glover, *History of Derbyshire*, p. 261 to 270; Mellors, *In and About Notts.*, p. 160.

² Glover, *History of the County of Derby*, 1829, p. 268. V.C.H. Notts., Vol. II, p. 329.

³ See extracts printed in the 1934 volume of the Derbyshire Archaeological Society, p. 40. Glover, p. 259.

⁴ Mellors, *In and About Notts.*, p. 462 et seq.

⁵ *American Hist. Rev.*, Vol. XXVII, 1921-1922, p. 13.

always let loose to support the Freedom of Elections, and therefore now all the party are desirous to have the Colliers now in prison rescued."¹ In 1774 further riot took place in Nottingham.² As late as the enquiry of 1842 the miners usually worked 14 hours a day or longer, and in this respect the Nottinghamshire and Derbyshire coalfield compares unfavourably with other districts. Although apparently no women or girls were employed in Nottinghamshire and Derbyshire mines, boys of seven and upwards worked the same long hours as the men.³ Evidence of the source of winding power in the first half of the nineteenth century is available. In "Nottinghamshire in the Eighteenth Century," Dr. Chambers expresses the opinion, based on the written evidence of a Nottinghamshire miner and upon family tradition, that the main source of winding power during the first forty years of the nineteenth century was the horse gin.⁴ This was by no means the only source of power, for Farey, in 1810, counted more than fifty winding engines in the counties of Derby and Nottingham alone, though some of these were used at metal as distinct from coal mines, Ashton and Sykes consider that it is clear that by the date mentioned, steam had superseded horses and water-wheels at most of the larger collieries in the Midlands.⁵ The Commissioners for Inquiring into the employment of Children and Young Persons in Mines and Collieries complained that in Derbyshire boys were employed at the steam engines for letting down and drawing up work-people.⁶

¹ *Ibid.*

² Ashton and Sykes, p. 126.

³ See *The Physical and Moral Condition of the Children and Young People Employed in Mines and Manufactures, illustrated by Extracts from the Reports of the Commissioners for Inquiring into the employment of Children and Young Persons in Mines and Collieries, etc.* John W. Parker, W. Strand, H.M. Stat. Office, 1843.

⁴ Chambers, p. 89.

⁵ Ashton and Sykes, p. 60.

⁶ This complaint may also refer to Nottinghamshire, as Nottinghamshire towns and villages are mentioned in this volume under the heading of Derbyshire.

It seems that in spite of the small importance which most historians have attached to coalmining in Nottinghamshire and Derbyshire before 1850, there was actually a steady growth from the thirteenth century onwards. By the end of the sixteenth century coal was carried down the Trent as far as Gainsborough, and soon afterwards the trade, with counties to the south and east, became a marked feature. Although attempts to gain a footing in the London market did not meet with success until after 1850, during the period from 1700 to 1850, the industry expanded through the increasing consumption of coal for industrial purposes, and through the improvement in transport which gave better access to places not within easy reach of a navigable river. It is scarcely necessary to say that with the working of the concealed coalfield, begun in 1854, the output increased by leaps and bounds. In 1862 the figure for Nottinghamshire was 732,666 tons; in 1867, 1,575,000 tons; in 1897, 6,970,624 tons; and in 1907, 11,728,886 tons.²

² V.C.H. Notts., Vol. II, p. 329.