

## THE WIGAN COALFIELD IN 1851<sup>1</sup>

BY A. J. TAYLOR, M.A.

AMONG the nineteenth century accounts of the Haigh collieries is a small MSS notebook with the cover title, *List of Collieries round Haigh 1851*.<sup>(1)</sup> In it are notes of 103 collieries with details of location, owner, seams worked, colliers employed and daily output. For the historian of the Lancashire coal industry this list supplements the printed lists of J. L. Kennedy in the *Report of the Children's Employment Commission* (1841-2)<sup>(2)</sup> and of J. Dickinson in the *Return of the Mines Inspector* (from 1854).<sup>(3)</sup> Kennedy's list, though lengthy, is selective, naming only those collieries which he himself had visited and furnishing details of employment for less than half of these: Dickinson's list, on the other hand, though professedly comprehensive in its coverage of the Lancashire coalfield, and probably coming close to this ideal, provides no detailed figures either of employment or of output. The Haigh list, however, though patently inaccurate in detail and restricted in scope to the Wigan area, is much the fullest of the three in its incidental information. Taken together the lists provide material for the construction of a clear picture of the structural framework of the West Lancashire coal industry at the middle of the nineteenth century.

What was the purpose of the Haigh *List*? Much hinges upon this question, for an estimate of the accuracy and completeness of its information depends largely upon an answer to it. Unfortunately the manuscript itself gives little or no clue to the reason for its existence. Certain possibilities present themselves: that this was a list compiled for the purposes of a trade association—such an association existed in the south-west Lancashire coal industry at this time; that it was intended to put on record Haigh's competitors in the local Wigan market; or that it was merely a mine-agent's exercise. Of these possible explanations the first seems the least plausible, if only because of the demonstrable omissions and errors of the list.<sup>(4)</sup> A less official and less formal *raison d'être* seems therefore probable.

If this assumption is correct, it would appear unlikely that the

<sup>(1)</sup> The "List" which is reproduced in Appendix I and on which the following notes are based is in the Haigh Muniments deposited at the John Rylands Library, Manchester. I wish to thank Earl Crawford and Balcarres and the Librarian of the John Rylands Library for permission to view and reproduce this material.

<sup>(2)</sup> Parliamentary Papers 1842 (382) XVII, pp. 194-6.

<sup>(3)</sup> Parliamentary Papers 1854 (621) XIX, pp. 75 *et seq.* The Inspector for the Lancashire district in 1854 was Joseph Dickinson and his list is here referred to as "Dickinson's List". For another copy of this list see: J. Dickinson, "Statistics of the Collieries of Lancashire and Cheshire and North Wales" (read 1854), *Memoirs of the Manchester Lit. and Phil. Soc.*, Ser. 2, Vol. XII (1855), pp. 71-107.

<sup>(4)</sup> It is also relevant to note that no reference is made to Haigh itself in the "List".

information contained in the *List* was obtained by direct enquiry from the owners or agents of the named collieries: rather would it seem probable that it was based on the personal knowledge and estimates of the compiler. Such a hypothesis would not only account for the patent shortcomings of the *List*, but suggest a cautious approach to the evidence which it provides. This, however, is not to condemn the *List* as a worthless document. Tested against the returns of Kennedy and Dickinson, it shows sufficient correlation with these to warrant its general acceptance. The number of collieries specified approximates sufficiently closely to Dickinson's total for a similar area to suggest that the Haigh *List* is comprehensive; while the difficulty of detailed correlation between the three lists, experienced largely in respect of the smaller collieries, is to be explained at least in part by problems of nomenclature and changing ownership.

The area covered by the Haigh survey extends to Billinge and Shevington in the west and to parts of Chorley in the north; it touches Westhoughton and Leigh in the east and Ashton in the south; it reaches as far as—but not beyond—Haydock and Parr in the south-west. Within this section of the Lancashire coalfield, according to the compiler of the *List*, one hundred operating collieries were producing upwards of 3,500,000 tons of coal a year. These figures may be compared with Dickinson's official return for the entire coalfield in 1854 of 363 collieries producing 9,800,000 tons.<sup>(5)</sup> The average annual output for each colliery, some 30,000 tons, was appreciably higher than that of the majority of inland coalfields, but below that of the "seasale" collieries of South Wales, Cumberland, and, above all, Northumberland and Durham.<sup>(6)</sup>

It is in detailed analysis, however, that the Haigh returns are most revealing.<sup>(7)</sup> Although the majority of collieries were small—fifty-eight *per cent* of them were each yielding less than 100 tons a day—the greater part of the district's output was accounted for at this time, as later, by a handful of large collieries. Six collieries, each producing upwards of 450 tons a day, provided more than a quarter of the district's output; nine, with a daily output of over 300 tons, more than a third. When attention is turned from collieries to firms, the disparity between the productive significance of the larger and smaller collieries is even more marked; for though at this time few individuals or firms owned more than a single colliery, such concentration of ownership as had occurred had affected the larger rather than the smaller collieries.

The "typical" colliery of the district, however, was that raising

<sup>(5)</sup> *Memoirs of the Geological Survey of Great Britain, Mining Records*, 1854. Dickinson's estimate for 1852 is 8,970,000 tons (Dickinson, *op. cit.*, p. 72).

<sup>(6)</sup> On the basis of statistics in *Mining Records*, 1854 the following average outputs per colliery may be calculated for the principal coal districts: Northumberland and Durham 68,500 tons; Cumberland 38,600, South Wales 34,900; Lancashire and Cheshire 27,200; Yorkshire 26,300; Scotland (East and West) 20,600; Derbyshire 19,600; Staffordshire 14,500.

<sup>(7)</sup> For a summary analysis see Appendix II.

from 100 to 300 tons a day. Almost a third—thirty-one—of the collieries fell into this category, and of these twenty-two, or almost a quarter, were raising between 100 and 200 tons; in all, the thirty-one collieries were responsible for forty *per cent* of the district's output. For once the "average" colliery was the "typical" colliery. The mean average output per colliery was 134 tons, and no fewer than fourteen collieries came within thirty tons of this figure.

The average daily output of each man may be computed as four tons. This is an extremely high figure, and it must therefore be assumed that the compiler counted as colliers only hewers employed at the face. Such a daily output for each hewer is similar to that calculated for the whole of Lancashire by Dickinson;<sup>(8)</sup> and, following Dickinson, one may therefore assume that each recorded collier represented approximately three additional offhand workers. The total labour force for the one hundred collieries would thus be about 13,000, and output per head about one ton a day.

To this point discussion has been of collieries rather than of pits, of business rather than technical units.<sup>(9)</sup> So far as it is possible to make calculations on the basis of the Haigh *List*, there were 201 pits in operation in the 100 collieries of the Wigan district in 1851. The number of colliers employed in individual pits was small by comparison with later standards, or by comparison with the great collieries of Northumberland and Durham.<sup>(10)</sup> Though the No. 1 pit at Messrs. Bromilows' Parr colliery was estimated to employ 100 faceworkers, with a daily output of 800 tons from the Rushy Park seam, such a pit was quite exceptional. It may be compared with Messrs. Eccles and Stocks' colliery at Ashton which was also producing in the region of 800 tons a day, but doing so with the labour of 134 colliers dispersed among ten distinct pits and fifteen different workings. Messrs. Evans at Haydock likewise had eight working pits employing 116 face workers to produce 675 tons of coal. Deeper winnings meant greater concentration of workers in the individual pit, and in those districts, particularly towards the boundaries of the coalfield, where the search for productive seams had demanded deepening shafts, the total number of workers in each pit might be high; but, even in the case of the collieries of large output, the daily production of a hundred tons of coal and the

<sup>(8)</sup> Dickinson, *op. cit.*, p. 73.

<sup>(9)</sup> Mining terminology is apt to be confusing. For the purpose of these notes a Pit is a drawing pit, *i.e.* a shaft from which coal is wound, not a shaft used exclusively for ventilation or drainage purposes; a Colliery is a pit or group of pits, often interconnected, on an integrated area of mining territory; a business unit, firm or concern may embrace a number of geographically distinct collieries. It follows, however, that the three terms, pit, colliery, firm, do not necessarily imply differences in size as measured by capital, manpower or output.

<sup>(10)</sup> In 1843 in the "seasale" districts of Northumberland and Durham some 25,000 men and boys were employed in and around approximately 190 pits, an average of approximately 130 a pit. At Cramlington there were 766 employees at 2 pits, over two-thirds of these being below ground, at Killingworth 350 at one pit, more than two-thirds of whom also were underground workers. (See Parliamentary Papers, 1843 (508) XIII, pp. cvii-cviii; 1847 (844) XVI, p. 37.)

employment of a hundred persons *in total* in a single pit was still in 1851 the exception rather than the rule.

The *List* as its compiler left it has one important omission—Haigh itself. Haigh, though not the largest of the West Lancashire collieries, was a concern of the first rank. In the three years, 1846-9, 651,881 tons were produced by the Haigh pits, an average of some 750 to 800 tons a day. In March 1849 this quantity was being raised from eighteen pits, less than fifty tons a day from each pit.

The picture that emerges, therefore, is of a coalfield in which the larger collieries were in the ascendent but had as yet not risen to a position of dominance. Already Lord Crawford, Jonathen Blundell, David Bromilow, John Case, John Darlington, Richard Evans and Ackers and Company were names of importance in the local coal trade: little less significant were the concerns of Ralph Thicknesse, John Lancaster and Meyrick Bankes, all destined to make their mark in the industry in the next half-century. But the day of the small coal-owner was by no means yet past; and the shallow pit of 500 feet or less was still the predominant technical unit on the coalfield.

The list of collieries which follows is in its essentials a transcript of the Haigh manuscript *List*, but it differs from it in the following respects: in omitting all details of pits and merely presenting figures of total manpower (*i.e.* colliers) and output for each colliery; in formalizing the presentation of the material: and in correcting the figures where errors of addition are clearly perceptible. Additions and corrections to the manuscript are indicated by square brackets. Doubtful words and figures—the calligraphy is generally poor—are queried: those more familiar with the area will perhaps find more appropriate renderings in these instances than I have been able to make. I have followed the order of the original list though the logic of geography and ownership suggests a different arrangement: to facilitate a rearrangement in the case of ownership I have indicated, after the names of owners, the numbers of other collieries in their possession. The details of seams worked are reproduced without comment. For their fuller identification and correlation reference may be made to *Memoirs of the Geological Survey of Great Britain*, by R. C. B. Jones, L. H. Tonks, W. B. Wright, *Wigan District* (1938).

APPENDIX I

LIST OF THE COLLIERIES ROUND HAIGH IN 1851

WIGAN COALFIELD 1851

Location	Owner	Colliery or Pit	Pits	No. of Workings (i.e. Hewers)	Colliers	Output/Day (Tons)	Seams Worked
1. Chorley	Blundell { (11) (35) (75)	Millstone Pit	2	2	32	100	Mountain
2.	Hargreaves (98)		1	1	12	50	Arley
3.	Jn. Whittle		2	2	23	67	Arley
4. Wigan	Case { (17) (22)	Douglas Bank	3	3	28	56	Wigan 7 ft.
5.	Ince Hail Co.		2	2	100?	300*	Cannel, King
6.	Charnock & Co.		3	3	77	335	Mountain
7.	Thos. Aspinall[]		1	1	7	15	Mountain
8.	Mrs. Fouracre		1	1	23	60	Pemberton
9.	Acton		1	1	7	30	Wigan 4 ft.
10.	Hy. Wood	Holme House	1	1	42	120	Wigan 4 ft., 5 ft.
11.	J. Blundell { (1) (35) (75)	Mesnes Coll.	2	2	41	110	Cannel
12.	Jn. Park	Spring Mill	1	1	5	12	4 ft.
13.	Jn. Woods	Factory (?) Pit	1	1	2	12	9 ft.
14.	Jn. Lamb	Wallace Lane Pit	2	2	13	30	Wigan 7 ft.
15.	Wright & Taylor		2	2	26	106	Pemberton 4 ft., 7 ft.
16. Ince	Eccles	Water Skye Pit	1	1	16	70	Ince 4 ft.
17. Wigan	Case { (4) (22)	Douglas Bank	4	4	81	260	Pemberton 4 ft., 5 ft. Wilcocks.
18. Ince	R. Preston (40?)		1	1	18	50	9 ft.
19.	Whaley & Co. { (45) (100)		2	3	27	100	Wigan 4 ft., 5 ft.
20.	Moss Hall [Coal Co.]	[Moss Hall]	4	4	81	260	Pemberton 2 ft., 5 ft. Wilcocks.
21.	Nuttall & Caldwell		3	6	46	105	Ince 4 ft., 7 ft.

\* Based on a weekly output of 1,650 tons.

	Location	Owner	Colliery or Pit	No. of Pits	Workings (i.e. Healers)	Colliers (i.e. Healers)	Output/ Day (Tons)	Seams Worked
22.	Ince	Case { (4) (17)}	Rose Bridge C.	2	4	44	160	Ince 4 ft., 7 ft.
23.		Nuttall (32)	Low Ground C.	1	1	7	15	King, Cannel,
24.		Haliburton (51)	High Hollins, Deep Pit.	4	5	75	184	Arley.
25.	Blackrod	Gore & Co.	Arley C.	1	1	8	70	Smith's,
26.	Leigh	Farrington & Co.	Springfield C.	2	2	22	105	7 ft., 6 ft.
27.	Aspall	Jn. Johnson		1	2	10	25	Cannel, King.
28.	Westhoughton	Scowcroft { (57) (63)}	Westhoughton C.	2	2	22	55	King.
29.		Trustees of J. P. Craig	Albert C.	1	1	10	15	King.
30.		Hulton	Whitehorses	1	1	40(?)	86(?)	Yard.
31.		Woodward		2	2	20	45	Yard.
32.		Nuttall (23)		1	1	10	28	Cannel.
33.	Wigan	Leigh & Co.	Chasm (?) Pit	3	3	135	547	Yard, Haigh, Arley.
34.	Hindley	Jn. Bleasdale	Castle Hill	2	2	11	20	5 ft.
35.		Blundell { (11) (75)}	Ambrose Wood	2	2	41	174	5 ft.
36.	Orrell	Banks (76)	Withy House (?)	3 (?)	3 (?)	124	195	Cannel, King, 4 ft.
37.	Pemberton	Hugh Brown	Delf Pit	1	1	5	15	Pemberton 5 ft.
38.		Jn. Daglish		2	2	24	96	Ince 4 ft.
39.	Wigan	May, Hull & Co.	Platt Bridge	2	2	27	69	4 ft.
40.		Preston & Son (18?)		3	4	29	124	Wigan 9 ft.
41.		Thickness [e] & Co. (80)	Platt Bridge	1	1	18	90	Pemberton 2 ft.
42.		White	Platt Bridge	1	1	25	110	Pemberton 2 ft.
43.	Hindley	Jn. Marsh		1	1	4	24	Pemberton 2 ft.
44.		Hy. Harrison	Clap Gate	1	1	6	20	Pemberton 5 ft.
45.		Whaley { (19) (100)}	Lowhouse	1	1	6	30	Pemberton 5 ft.
46.		Grimshaw		2	3	27	130	Pemberton, 4 ft., 5 ft.
47.		Jos. Barker	Donald Green (?)	1	1	3	15	Wigan 4 ft.
48.	[Leigh]	Evans (78)	Goldborne C.	4	8	60	200	4 ft., 7 ft.
49.		Ashton	Long Lane	2	2	12	50	7 ft.
50.		Rylands	Star Pit	1	1	45	117	King-Cannel,
51.		Haliburton (24)		3	3	27	80	Cannel, Haigh Yard.
52.	Blackrod	Ridgeway	Victoria Main	2	2	32	56	King.

53.	Blackrod	Thos. Winnard	1	3	18	King. Cannel.
54.	Blackrod Brow	Dutton & Co.	1	10	36	King.
55.	Leigh	Hull & Co.	2	41	150	5 ft., 4 ft.
56.		Livesey	1	12	35	4 ft.
57.		Scowcroft { (28) } { (63) }	1	6	15	Yard.
58.		Banks & Gregory	2	16	30	7 ft.
59.		Clegg & Co.	2	20	140	7 ft.
60.		Lowe	1	9	30	6 ft.
61.		Boon	1	20	70	6 ft.
62.	Hindley	Pet. Johnson	1	9	45	Pemberton 4 ft.
63.		Scowcroft & Co. { (28) } { (57) }	4	42	155	3 ft., 4 ft., 5 ft.
64.		Worsley	3	18	72	4 ft., 5 ft., Yard
65.		Woods	1	14	77	5 ft.
66.		D. Howarth	1	5	12	Pemberton 5 ft.
67.	Rainford	Harding	2	10	50	5 ft. 6
68.	Hindley	Mackay & Co.	1	4	20	5 ft. 6.
69.		Lancaster & Co.	2	32	155	Ince 4 ft., Wilcocks.
70.	Abram	Ackers & Co.	6	[115]	690	4 ft., 6 ft., 7 ft.
71.	Standish	Thos. Gaskell	1	10	50	7 ft.
72.		Taylor (84?)	2	31	168	Ince 4 ft.
73.		Holt [Stott?]	1	10	42	Pemberton 4 ft., 5 ft.
74.		Jn. Stevens	1	6	36	Pemberton 5 ft.
75.	Pemberton	Blundell & Sons { (1) } { (11) } { (35) }	3	4	408	4 ft., 5 ft.
76.	Winstanley	Banks (36)	3	32	111	Winstanley 3 ft. 6 ins., 4 ft., 5 ft.
77.	Ashton	Stock	2	11	60	4 ft., 5 ft.
78.	Haydock	Evans (48)	8	116	675	4 ft., 5 ft., Potato.
79.	Parr	Bromilow	2	140	1000	Rushy Park, Little Delf.
80.	Ince	Thicknesse (41)	3	93	206	King.
81.	Shevington	Barton & Winders (85)	2	38	175	Arley, Smith's.
82.		Stonford [Stonforth?]	1	8	40	Haigh Yard.
83.		Dickenson	1	8	28	Haigh Yard.
84.		Taylor (72?)	1	25	68	Haigh Yard.
85.		Barton & Winders (81)	1	10	40	4 ft.

	Location	Owner	Colliery or Pit	Pits	No. of Workings (i.e. Hevers)	Colliers	Output/ Day (Tons)	Seams Worked
86.	Standish	Bradley Coll.	Bradley C.	2	2	24	60	4 ft.
87.		Smith & Charnock		2	2	55	214	Mountain, Ince 4 ft.
88.		Jn. Darlington		3	3	77	335	Mountain.
89.	Leigh	Mort & Kearsley		1	1	10	50	4 ft.
90.		Bedford Coal Co.		2	2	46	230	4 ft.
91.		Byrom & Taylor		2	2	52	208	4 ft.
92.	Winstanley	Winders				Standing		
93.	Billinge	Wm. Jones	Shaley Brow	2	2	14	36	Mountain.
94.		Branker & Co.	Billinge C.	2	2	100	200	Mountain.
95.		Darlington	Astley C.	3	3	93	465	4 ft.
96.		Alexander	Holland Moor C.	1	1	7	28	Mountain.
97.	Coppull	Darlington	Coppull C.			Standing		
98.		Hargreaves (2)		2	3	65	250	Arley, Smith's.
99.	Standish	Wanes		2	2	18	72	Yard.
100.	Eccleston	Whaley				Standing		
101.	Ashton	Stocks (103 ?)		5	5	48	282	5 ft., 4 ft., Little.
102.		Eccles & Stocks		10	15	134	852	6 ft., 9 ft., Little Delf, Rushy Park 4 ft., 7 ft.
103.	Billinge	Sam. Stocks (101 ?)	Ash Grove Pit	1	1	6	21	Little.
						2,814	12,365	
				[201]	[228]	[3,365]	[13,408]	

Suppose 300 working days at 12,000 tons = about 3,600,000 tons a year.

[The error in the total as shown on the MSS. arises from the omission in the final addition of the output figure for a number of collieries. Allowing for these the weekly output is increased from 12,365 to 13,408 tons and the annual output should be correspondingly raised to about 4,000,000 tons. A calculation based on 300 working days, however, would seem to be over-generous in its estimate of employment. Dickinson (*op. cit.* p. 73) suggests a normal 11-day fortnight which would mean a working year of 286 days and this makes no allowance for breakdowns, suspension of work or casual holidays. On a basis of 275 working days a year and a daily output of 13,400 tons the total annual production of the Wigan collieries would be 3,685,000 tons, but this possibly still somewhat exaggerates the output of this part of the Lancashire coalfield.]



APPENDIX II  
 TABULATION OF COLLIERIES BY DAILY OUTPUT

(1) Daily output per colliery (tons)	(2) Number of Collieries	(3) Cumulative Total of Collieries	(4) Total daily output	(5) Cumulative Total of output	(6) (3) as % of Total Overall Output	(7) Cumulative Percentage
0-10	—	—	—	—	—	—
11-20	13	13	204	204	1.5	1.5
21-30	11	24	304	508	2.3	3.8
31-40	6	30	223	1,001	1.7	5.5
41-50	9	39	432	1,163	3.2	8.7
51-60	6	45	347	1,510	2.6	11.3
61-70	6	51	414	1,924	3.1	14.4
71-80	4	55	301	2,225	2.2	16.6
81-90	2	57	176	2,501	1.3	17.9
91-100	3	60	296	2,697	2.2	20.1
0-100	60	60	2,697	2,697	20.1	20.1
101-200	22	82	3,194	5,891	23.9	44.0
201-300	9	91	2,210	8,101	16.5	60.5
301-400	2	93	670	8,771	5.0	65.5
401-500	2	95	873	9,644	6.5	72.0
501-600	1	96	547	10,191	4.1	76.1
601-700	2	98	1,365	11,556	10.2	86.3
701-800	—	98	—	11,556	—	86.3
801-900	1	99	852	12,408	6.4	92.7
901-1000	1	100	1,000	13,408	7.5	100.2
	100		13,408		100.2	

+ 3 out of  
 production

## APPENDIX III

THE PRINCIPAL COLLIERY OWNERS WITH OUTPUTS OF  
120,000 TONS A YEAR OR OVER, IN ORDER OF OUTPUT.

	<i>Colliers</i>	<i>Daily output in tons</i>
Bromilow .. .. .	140	1,000
Evans .. .. .	176	875
Eccles and Stocks .. .. .	134	852
Blundell and Son .. .. .	165	802
Darlington .. .. .	170	800
Earl Crawford .. .. .	?	700-800
Ackers and Co. .. .. .	115	690
Leigh and Co. .. .. .	135	547
Case .. .. .	153	476