

THE DUDLEY ESTATE:
ITS RISE AND DECLINE
BETWEEN 1774 AND 1947.

T. J. RAYBOULD

Presented as a Thesis for the Degree of Ph.D.
in the University of Kent, July, 1970.

Volume 2

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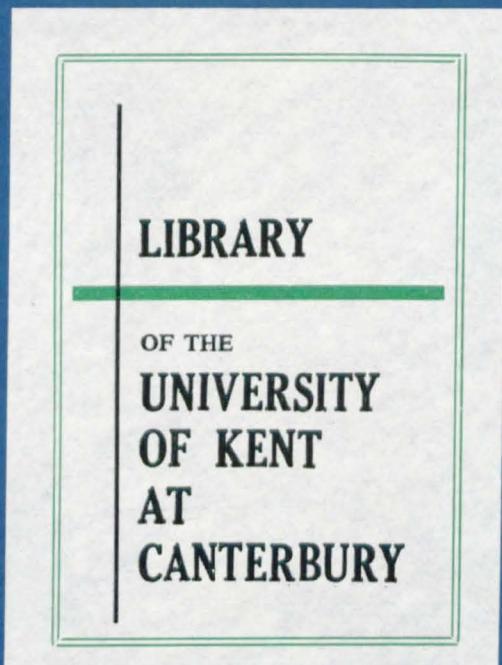
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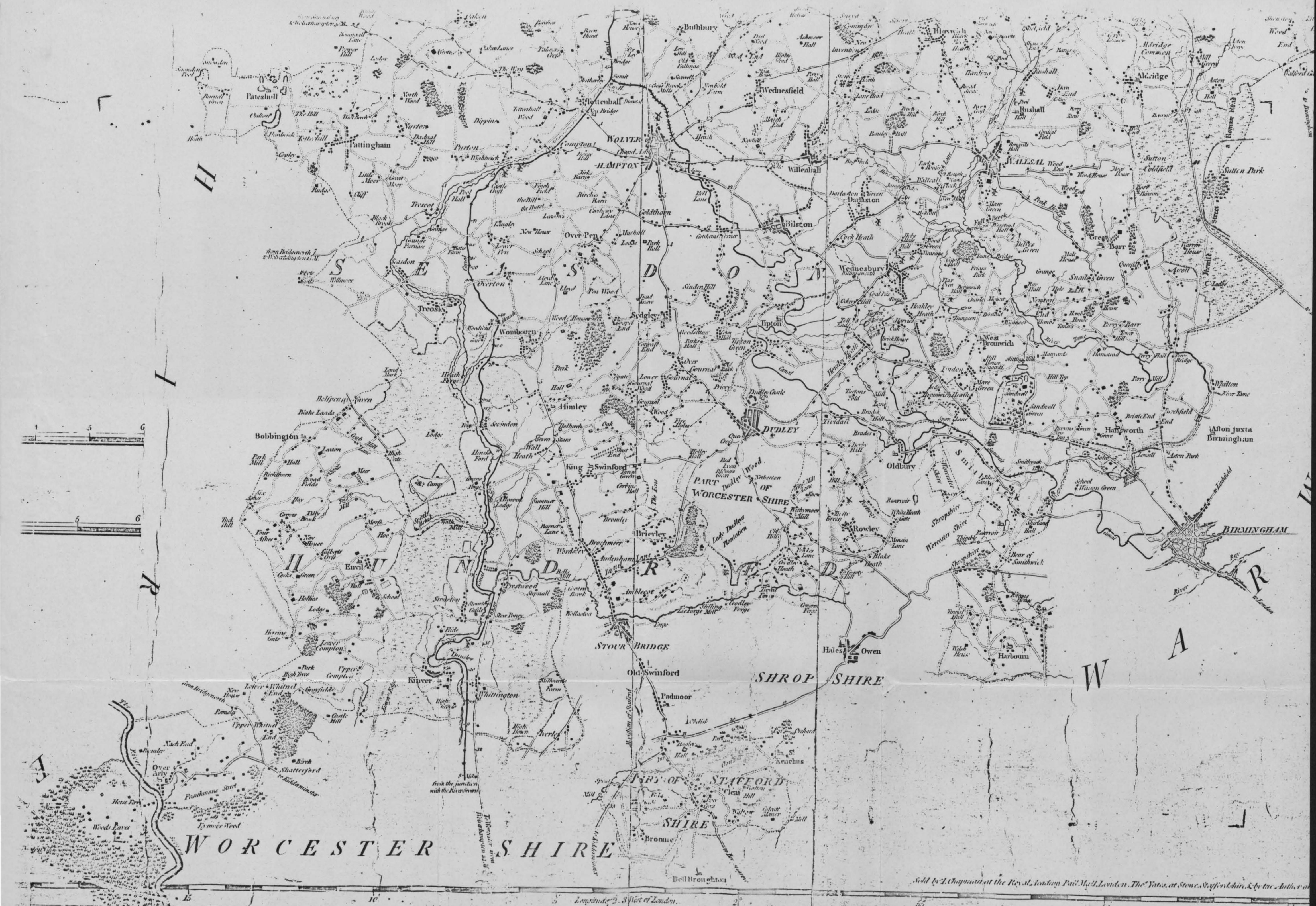
THE DUDLEY ESTATE
PHOTOGRAPHS
AND EXPLANATORY NOTES



T. J. RAYBOLD.

MAP I.

W. YATES, 1775.

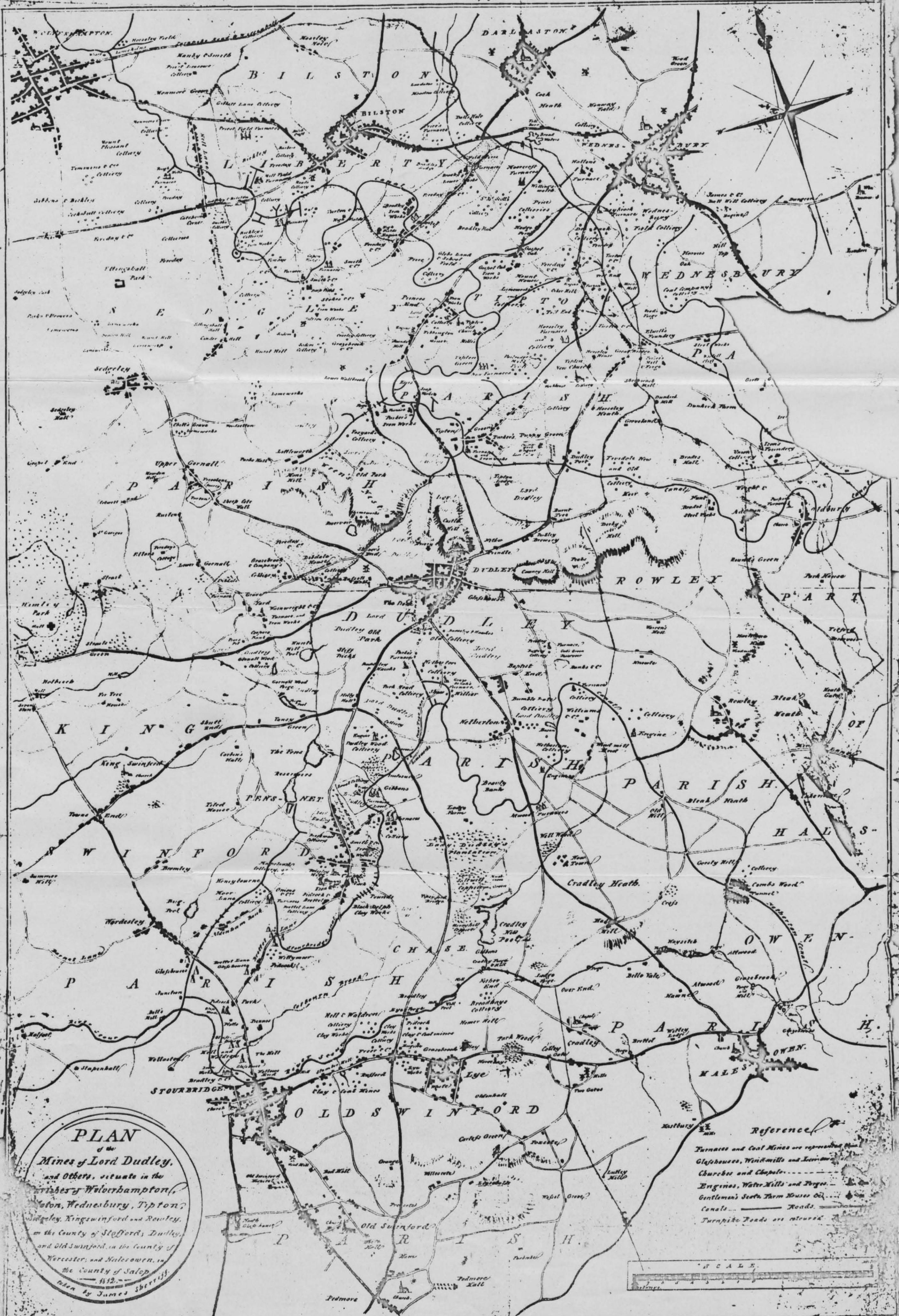


Sold by T. Chapman at the Royal Exchange Pall Mall London. The Office at Stowes, Giffordsham. & by the Author at

MAP 2.

J. SHERIFF, 1812.





PLAN
of the
Mines of Lord Dudley,
and Others, situate in the
villages of Wolverhampton,
Stour, Wednesbury, Tipton,
Dudley, Kingswinford and Rowley,
in the County of Stafford; Dudley
and Old Swinfold, in the County of
Worcester; and Halesowen, in
the County of Salop.
1812.—by James Sheriff.

Reference
Furnaces and Coal Mines are represented by dots
Glasshouses, Windmills and Ferries by crosses
Churches and Chapels
Enginees, Water Mills and Bridges
Gentlemen's Seats, Farm Houses &c
Canals Roads
Turnpike Roads are indicated

Scale
Miles
Kilometers

PHOTOGRAPHS

AND

EXPLANATORY NOTES

Maps

1. Map of South Staffordshire by William Yates, 1775.
S.C.R.O. D590/410.

Facsimile from a map of the whole county.
This shows southern Staffordshire and the area of the Dudley estate before the real expansion of the Black Country had begun. The existing canals, the Staffs-Worcs and the Birmingham Canal, are both shown.

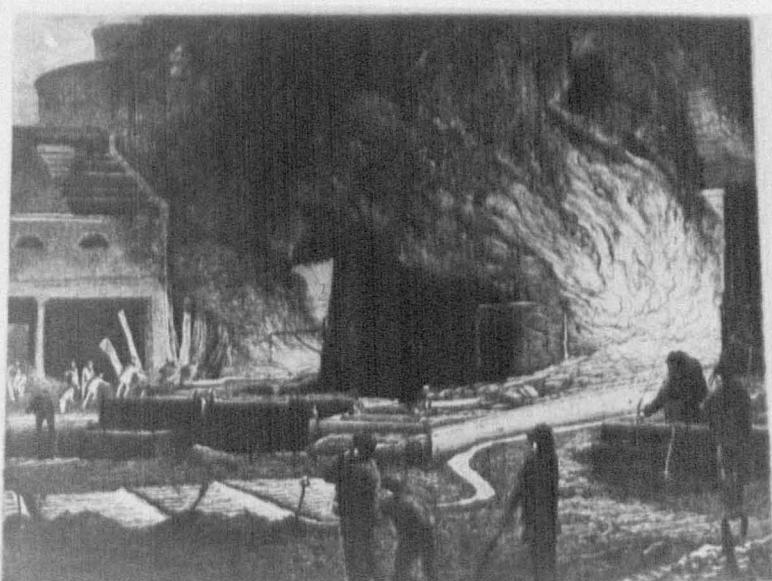
2. Plan of the Mines of Lord Dudley and Others by James Sheriff, 1812. D.P.L.

In contrast to Yates' map, this shows the extent to which mineral and industrial development had progressed. All canals are marked as well as the names of individual collieries.

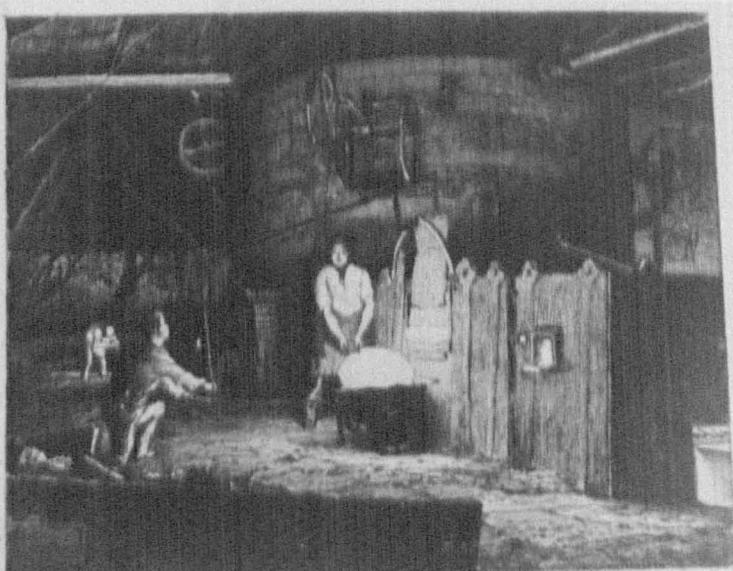
Photographs

Black Country Etchings by R. S. Chattock, 1872

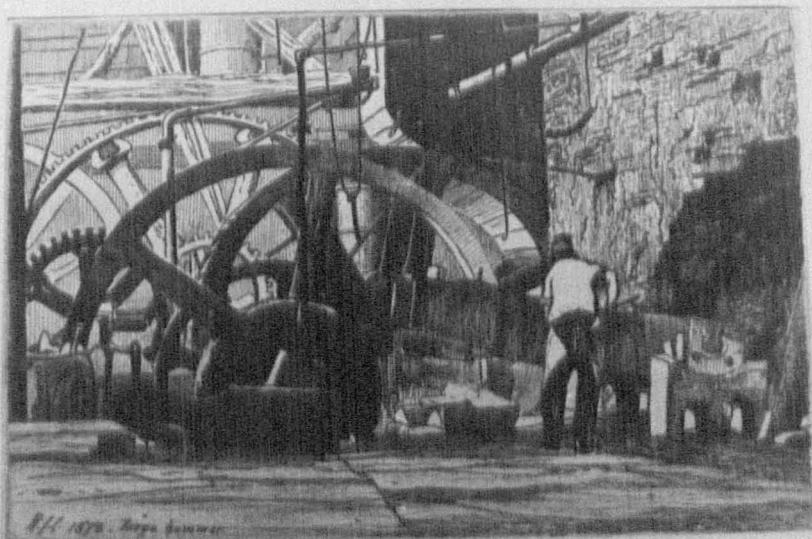
1. Tapping a blast furnace. Molten iron is being tapped from the furnace and is run into moulds to form 'pigs'.
2. A puddling furnace. Pig iron was placed in the furnace and heated to a pasty consistency. It was then removed - as shown in the illustration, and the puddled ball was taken to be forged into wrought iron.
3. A forge hammer or helve. The traditional method of forging iron - originally the helve was powered by water wheel. Even after the development of drop forging, old-fashioned helves, driven by steam engines, remained in use in the Black Country until the late nineteenth century.



1



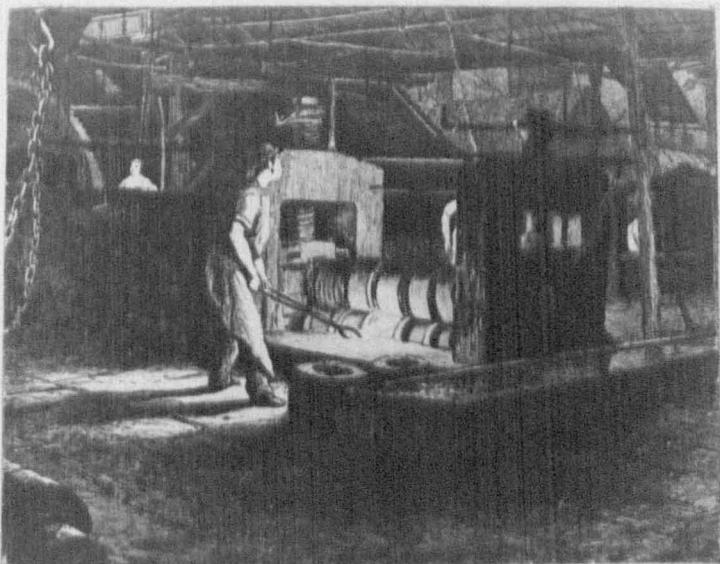
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3

THE FORGE HAMMER.
S. RICHARDSON, CHATTOCK,
AND WEAVER, LTD., LONDON. Taken in the puddling Furnace, 11 ft.

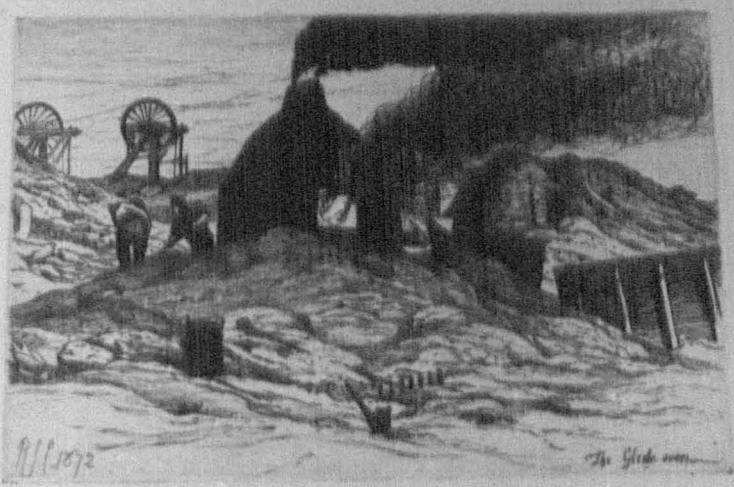
4. Forge rolls. Cort first had commercial success with puddling and rolling iron to produce wrought iron in 1784. Metal bars were passed through the rolls until the required thickness had been obtained. These could be powered by either water or steam.
5. A coke oven, Cradley. Circular brick flues with air spaces were erected and coal was heaped around them. A steady, controlled draught was maintained to avoid firing the coal.
6. A glede oven. Small coal was coked in a glede oven. This was used in small forges requiring only a small fire - such as nail and small chain forges.



4



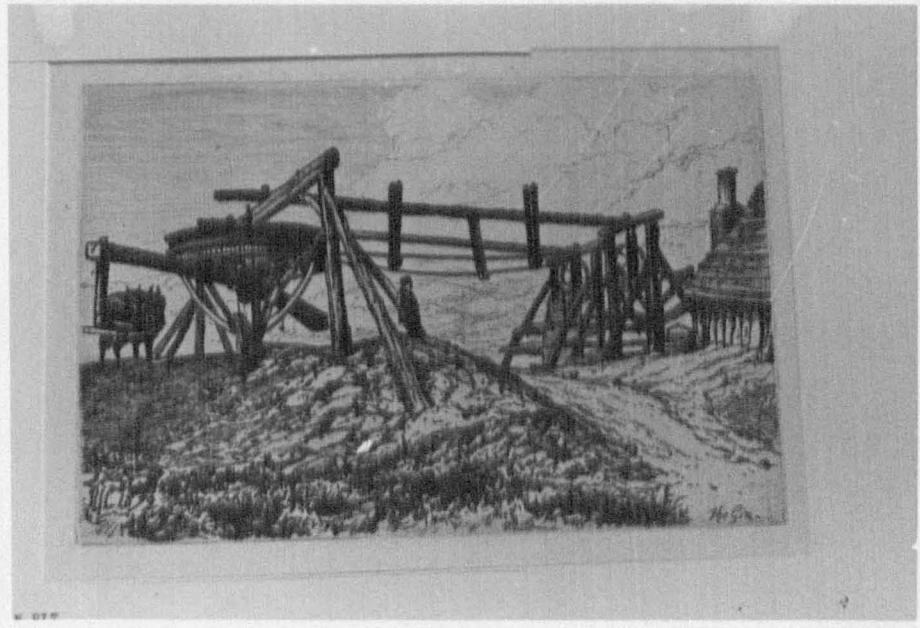
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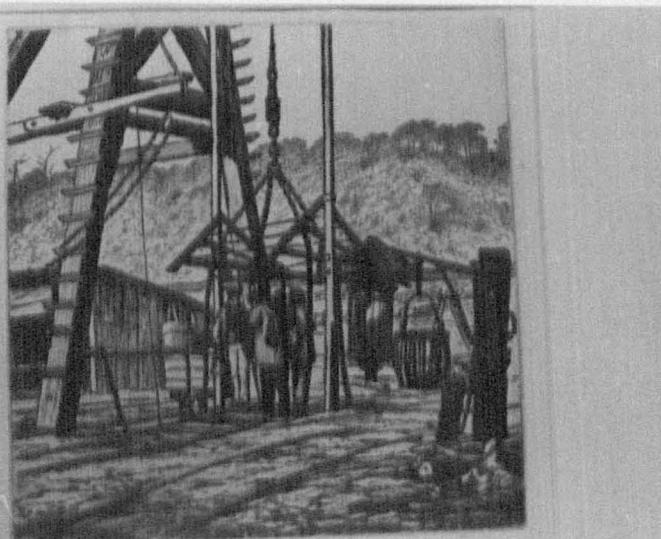
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7. A gin pit. Numerous in the Black Country because of the shallowness of the seams and the limited scale of many enterprises. Some were still in operation as late as 1945.
8. The pit mouth. Typical of larger pits by the 1870s. The miners descend in an open cage although a cover was run over the open mouth of the pit when coal was raised, to avoid accidents while the coal tubs were rolled off. For the comfort of miners leaving the pit, a brazier was normally kept burning near the top of the shaft as temperatures were much higher below ground.
9. The Buffery pit pump. A typical beam engine installed to combat the growing problem of drainage. Mineral railways and a horse gin are also indicated.

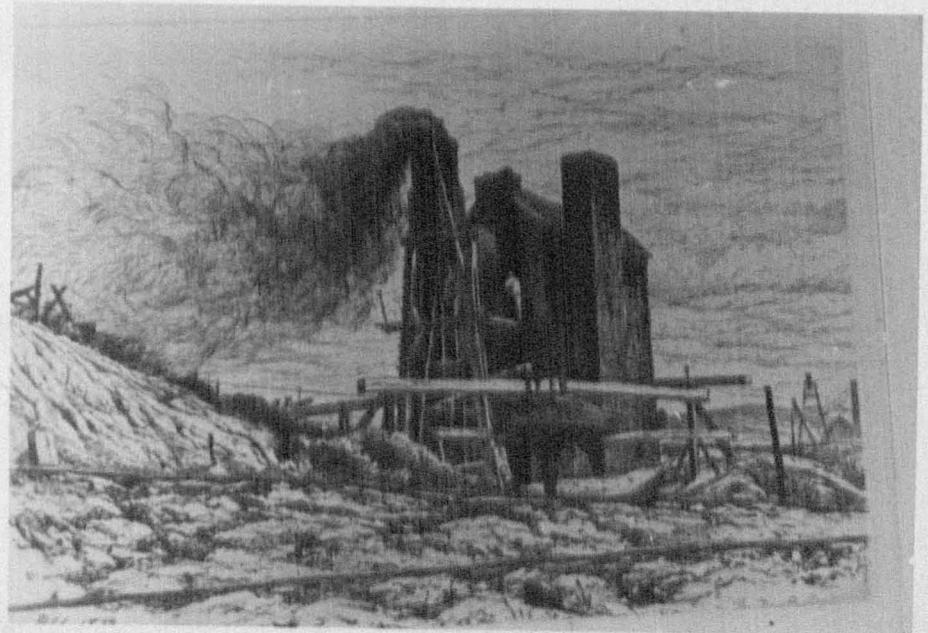
The Chattock etchings catch the spirit of the Black Country and indicate the arduous, grimy, and dangerous nature of the iron and mineral trades on which the wealth of the area was based.



7



8



9

10. Mineral seams at The Thorns, Brierley Hill. Taken in 1965 shortly after opencast working had begun. Several seams of coal and clay can be seen including pillar and stall working in the seam nearest the surface.
11. Wren's Nest limestone workings: entrance. The western mine at Wren's Nest. Pillars of the lower limestone seam have been left to support the roof. The angle of dip is clearly seen.
12. Wren's Nest limestone workings: the first underground working level. There were 13 levels in all before the private canal tunnel was reached - this connected with the Dudley Castle Canal Tunnel at Castle Mill. Pillars and stalls leading to the next level can be seen. Stone was brought out by horse mineral railways from this level: lower levels passed the stone down to the canal level and stone was also raised to canal level from workings lower down.

10



11



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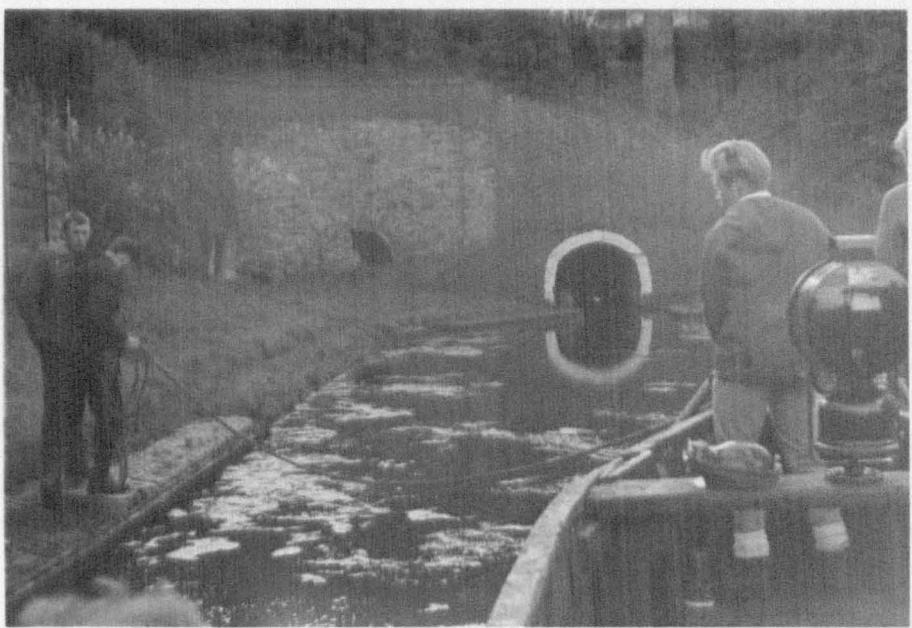


13. The Dudley Canal Tunnel and mine entrance: Castle Mill, Tipton. The tunnel is wide enough for one barge only - which has to be legged through. On the left is the entrance to one of the estate limestone workings. One of the bridge supports can be seen: this carried the Oxford, Worcester, and Wolverhampton Railway over the workings and canal.

14. The Dudley Canal: Park Head top lock. Here the canal splits into three branches: a short industrial and mineral branch - the Grazebrook branch, Lord Ward's Canal - to Round Oak, and the main canal which joins the Stourbridge Canal at the Nine Locks. This lock is very shallow and was the last one required to link the tunnel with the Dudley Canal.

15. The Nine Locks, Brierley Hill. The Stourbridge Canal, sponsored by Lord Dudley's bill in 1776, commences at the foot of the locks. This gives some indication of the problems of canal navigation in the area.

13



14



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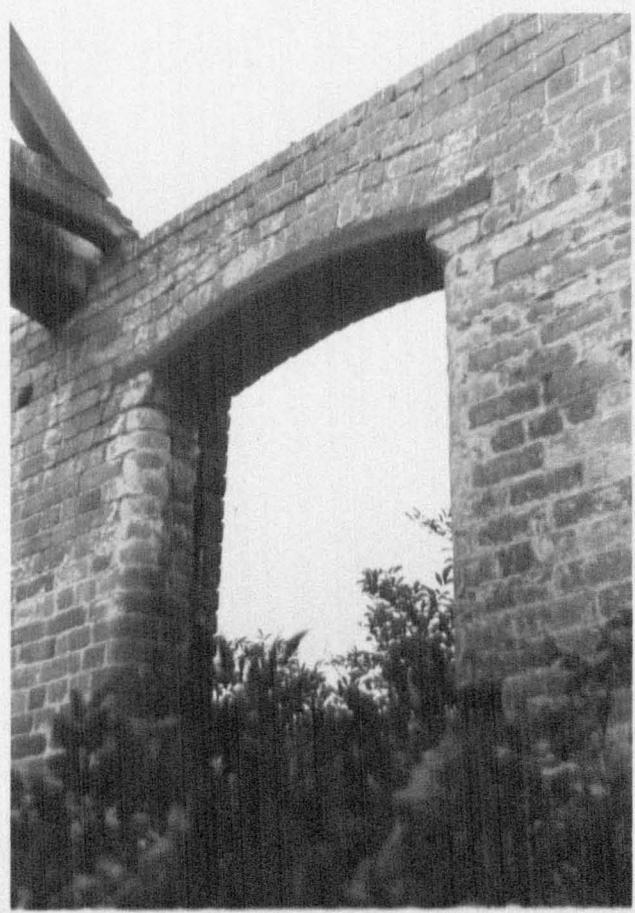


16. An engine house, Himley, 1878. The remains of a large pumping-engine house. Local Gornal sandstone has been used in the arch for the beam: the stone is inscribed to commemorate the Earl of Dudley: the smaller letters E.F.S. refer to Edward Fisher Smith, the mineral agent.
17. An iron lintel. In the same engine house: this was probably manufactured at the Castle Mill Engineering Works.
18. Baggeridge Colliery, 1912. The largest mineral enterprise with which the estate was connected: began operating, as a public company, in 1912. This photograph was taken in 1968, shortly after the N.C.B. closed the colliery.

16



17



18



19. Blackhills Sand and Gravel Quarry, c. 1935.
After 1923, all mineral working by the estate ceased - but, sand and gravel quarries were opened and worked until 1947. This enterprise, sold in 1947, is still active.
20. Round Oak Iron and Steel Works Ltd., 1897. This is a stylised illustration of the works showing the Pensnett Railway crossing the main line at right-angles, and steam tugs on the Dudley Canal. The well-known brand names established since 1856, together with international medals won, are also shown.
21. New Level Blast Furnaces. This photograph, taken before the furnaces were dismantled, in 1957, shows No. 1 and No. 2 furnaces. The bridge to the furnace top was a branch of the Pensnett Railway: the 1870 and 1900 blast engine houses are to the right, and the Dudley Canal and Round Oak Steel Works lie immediately behind.

19



THE EARL OF DUDLEY'S ROUND OAK IRON & STEEL WORKS LIMITED,
BRIERLEY HILL.
STAFFORDSHIRE.



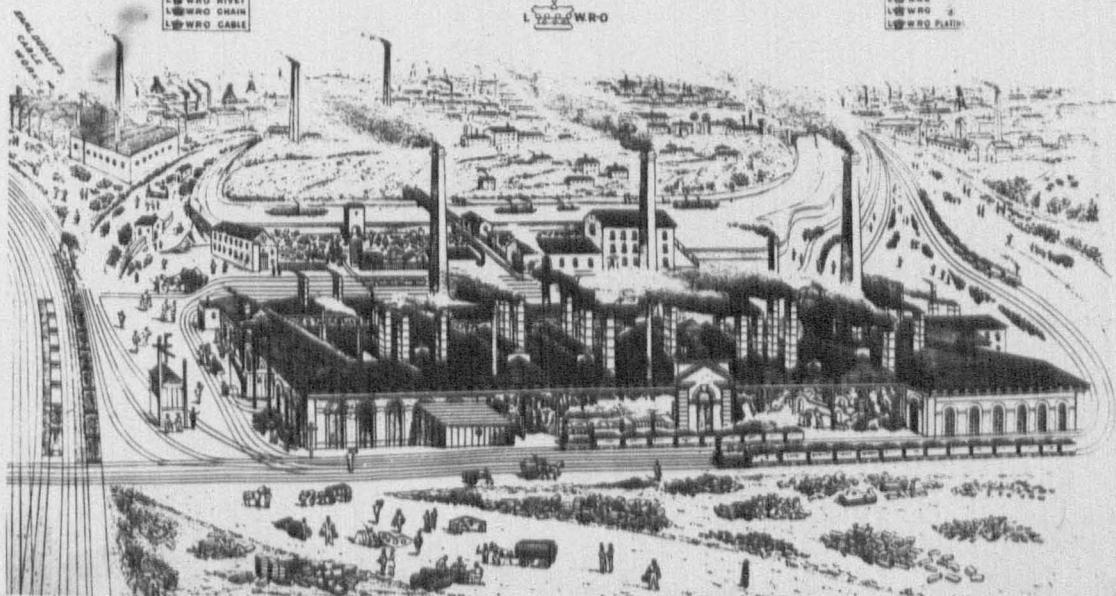
EXCLUS
L.W.R.O. RIVET
L.W.R.O. CHAIN
L.W.R.O. CABLE



BRAND
L.W.R.O.



EXCLUS
L.W.R.O.
L.W.R.O. 2
L.W.R.O. PLATE



20



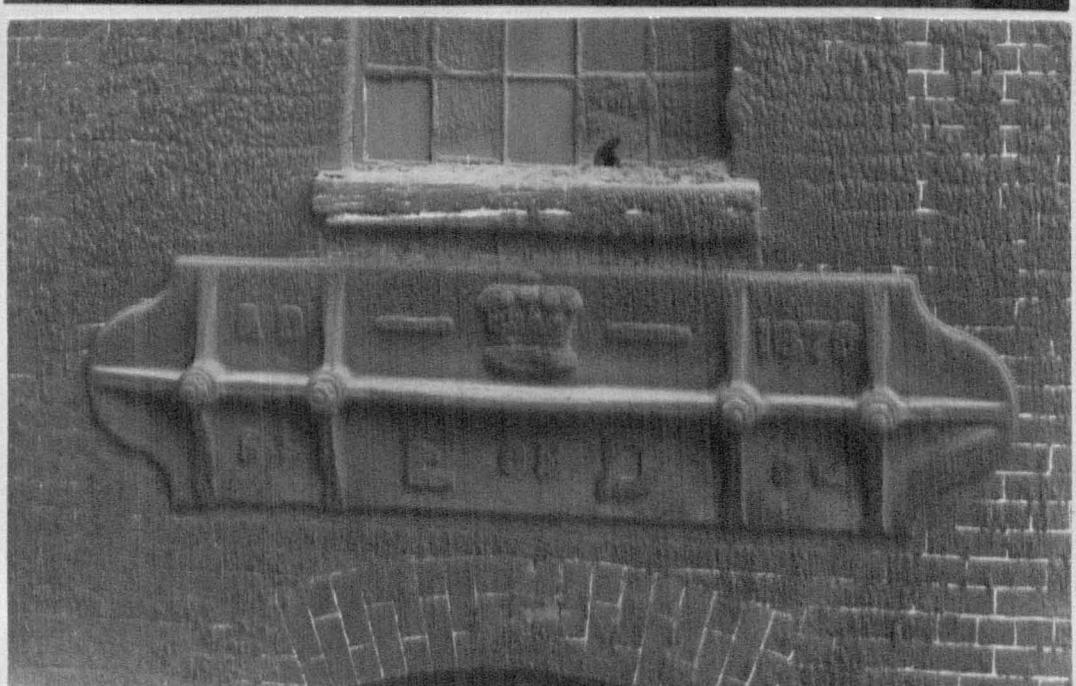
21

22. New Level Blast Furnaces: boilers and blast engine houses. This shows the arrangement of boilers supplying steam to the large blast engine. The furnaces lie to the right.
23. New Level Blast Furnaces: blast engine house, 1870. This iron plate records the Earl of Dudley: the letters F.S. refer to Frederick Smith, mineral agent 1864-70, and the letters C.M. refer to Castle Mill where the engine was made.
24. Blast engine, 1870. This beam was cast at Castle Mill and records the date and the Earl of Dudley. Iron lintels can be seen above the windows.

22



23



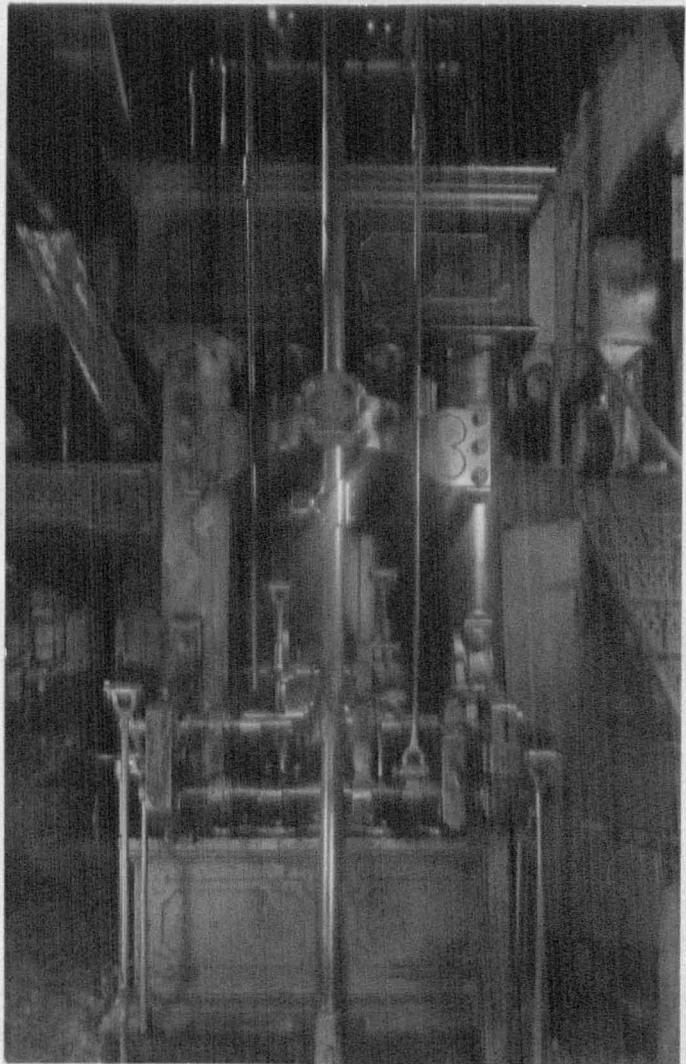
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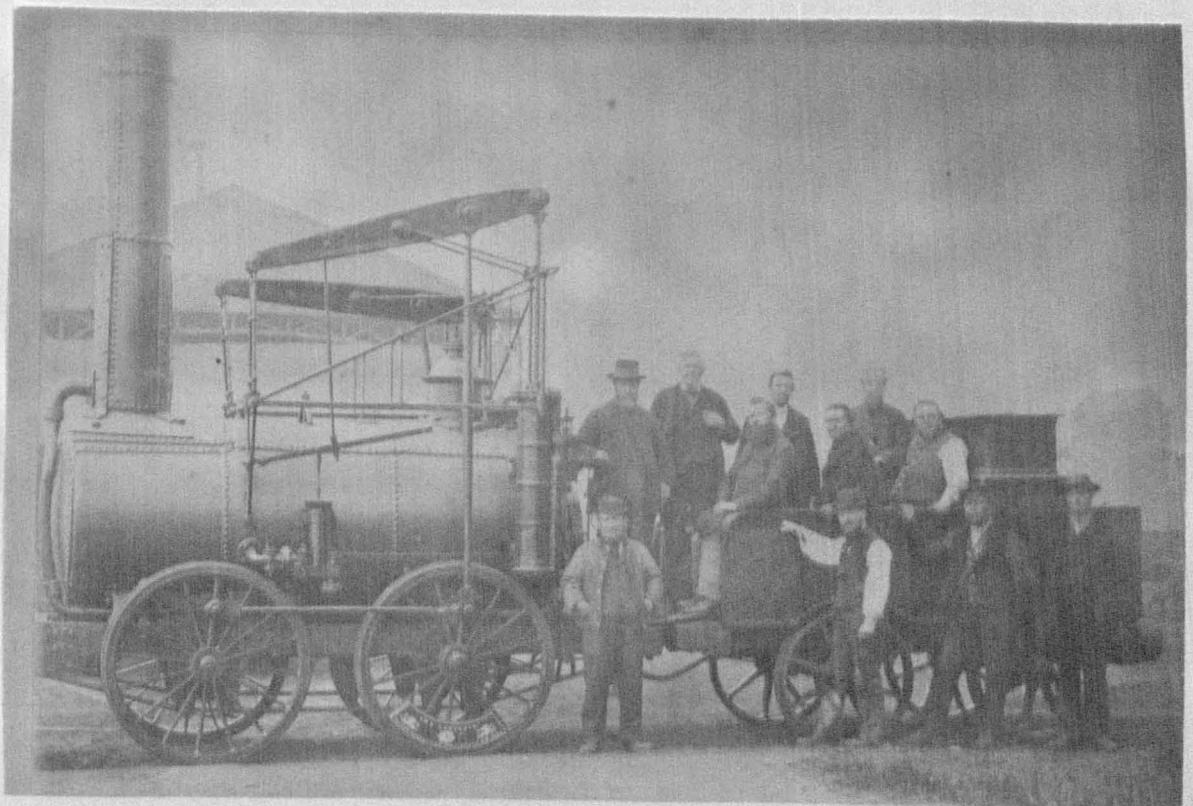
25. Blast engine, 1870: interior. Shows the commemorative plate and the ornate ironwork.

26. 'Agenoria' steam locomotive, 1829. The first steam locomotive in the Black Country: it ran on the estate's railway from Shut End to Ashwood canal basin. It was of beam engine construction and was made at the Stourbridge works of Foster Rastrick and Co. It is now at the York Railway Museum.

25



26



27. Pensnett Railway, bridge at Himley, 1882. The estate railway was extended to Himley as new pits were opened. This bridge was strengthened by adjustable iron trusses designed to counter the effects of mining subsidence. The plaque refers to the Earl of Dudley and to Edward Fisher Smith.
28. Pensnett Railway: line crossing the Oxford, Worcester, and Wolverhampton Railway at right-angles, Round Oak. This estate line was constructed when the New Level Furnaces were extended and modernised in 1845: the crossing was made when the main line was constructed 1846-54. This photograph shows one of the last steam locomotives crossing the main line to Round Oak Steel Works.
29. Himley Hall. Built in the 1780s by William Atkinson. It was repaired by the trustees 1833-45 and remained in the hands of the Dudley family until purchased by the National Coal Board in 1947.

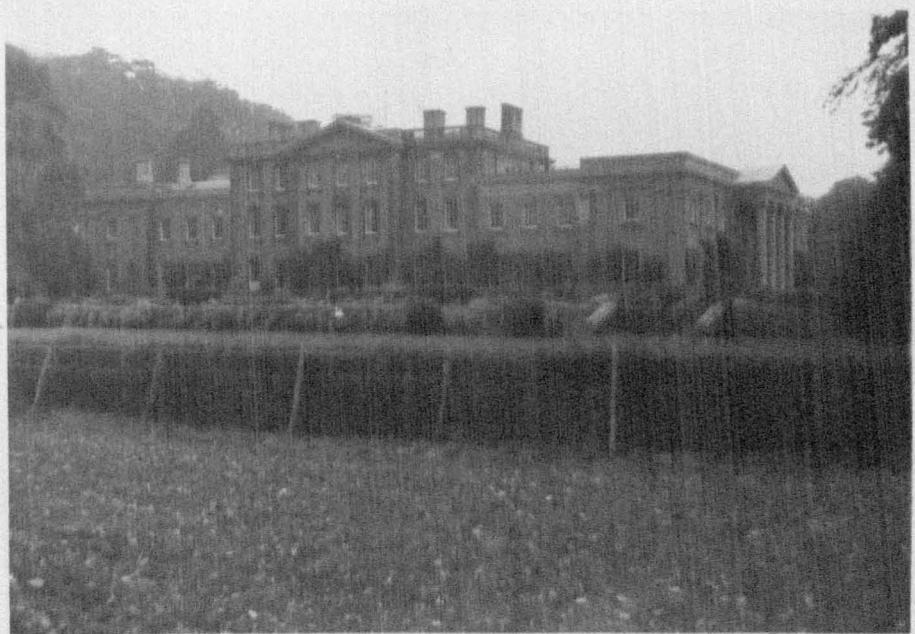
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28



29



Statistics Relating to the Dudley Estate

1. As a result of the expansion in estate mining activity brought about by Charles Beaumont's policies in 1797-8, ten new steam engines were purchased by the Dudley estate. This account refers to the purchase of material for the engines. See Sec. I, Chap. 2, Part C v.
2. This account specifies the size and cost of other parts: John Wilkinson's Bradley Iron Works and the Dale Abbey Works are referred to.
3. Technical Details and Location of all Steam Engines on the Dudley Estate, 1839. A document compiled by Richard Smith. It records the specifications, type, and location of all estate engines at the collieries and limestone workings. Weighing machines are also recorded. See Sec. II, Chap. 3, Part B.
4. Details of Steam Engines at the Ironworks, 1844. This records the location and specifications of engines supplying blast to the furnaces and power to the rolls.
5. Data Presented to the Commission of Enquiry into the Proposed Oxford, Worcester, and Wolverhampton Railway, 1845. Richard Smith compiled these statistics which were submitted in evidence to show the movement of goods and materials within the Black Country and to distant markets. It is a valuable source of information concerning ironworks leased and worked by the Dudley estate. See Sec. II, Chap. 2, and Chap. 4, Part C ii.

STATISTICS RELATING TO
THE
DUDLEY ESTATE

STATISTICS RELATING TO

THE

DUDLEY ESTATE

Lord Visc^t Dudley & Ward
Dr to Alexr Raby.
Mr Hastings had (exclusive of others that are paid for) from
Dale-abbey, to construct ten new Whimsies.

	Amount	Pds	wt.	gr.	lb.	£	sd.
Feb. 22.	6 Cylinders Pistons x 26. 28	1	1	3	21	16.	2
	1 Cylinder - bottom - x	1	4	1	15	17	5
	5 Regulators	1	2	1	7	10	1
	1 Spindle	1	5	3	20	16	5
Feb. 23.	2 - 26inch Cyliders	2	8	2	3	38	8
	1 - 28inch Cylinders	1	10	2	12	9	16
	16 Beavers	1	12	..	4	8	8
	2 spindles	1	12	3	12	0	6
	3 Left hand steam pipes	1	12	3	12	2	2
	3 square elbow Injection pipes	1	3	..	6	2	0
	6 Roundelbow injection pipes	1	3	..	10	2	3
	6 Roundelbow sinking pipes	1	4	..	6	2	0
	4 Jack head pipes	1	4	2	..	3	3
	2 Blash hole pieces	1	2	2	20	1	17
	4 Cylinder pillars	1	1	1	6
	10 Saddles for beams	1	5	..	11	1	9
	10 Injection Box-lids	1	2	2	21	1	18
	10 Steam Box-lids	1	6	..	21	4	6
	9 pair of gear carriages	1	4	1	8	3	6
	5 Small Cisterns	1	3	3	20	2	15
	3 drum wheels	1	10	3	12	13	18
Mar. 21.	1 Spear-Rod	1	4	2	16	17	5
						1108	10 1
Deduct 10/-	The underwritten castings were thrown aside - being useless.						
	3 Cylinders	2	11	1	11	13	10
	1 Sinking Valve & seat	1	6	..	6	1	3
	2 Regulators	1	10	..	18	8	9
	6 Sinking valves & seats	1	3	3	8	1	5
	1 Cylinder - bottom - Piston	1	6	3	..	5	1
		1	4	3	1
						61	10 1
						7013	8 9

Dr. Alexander Raby Esq. (account with Lord B. Dudley Ward)

A simple line drawing of a face with a large, round head, a small body, and a single arm reaching down.

Six Head Colliery Continued.

One Expansive Double-power Coalwinding Engine 15 Inch Steam Cylinder.
Working 5 ft. Stroke with Parallel motion at cylinder-end of Beam - High Lane
One Double-power Coalwinding Engine 21¹/₂ Inch Steam cylinder working 5 ft. Stroke
with Airpump Condenser and Parallel motion at cylinder-end of Beam
at High Lane.

Kingswinford Colliery

One Double-power Coalwinding Engine 18¹/₂ Inch Steam cylinder working
4 ft. Stroke with Airpump & Condenser and Parallel-motion at cylinder-end
of Beam - Standing still near the Isoline
One Double-power Coalwinding Engine 24 Inch Steam cylinder working
5 ft. Stroke with Airpump & Condenser and Parallel-motion at cylinder
end of Beam - Barrow Pit.

Bullfield Colliery

One Engine 36 Inch Steam cylinder Single-power - working 7 ft. Stroke
with Airpump & Condenser and Arch-head chains at each end of Beam
in four lifts - namely -

Bottom Lift - - 10¹/₂ inches

Second - do - 10¹/₂ - do - } = 10¹/₂ inches 160 yards Deep -

Third - do - 10 - do }

Fourth Lift - do - 9¹/₂ - do }

One Double-power Coalwinding Engine 30 Inch Steam cylinder working
4 ft. Stroke with Airpump & Condenser and Parallel-motion at cylinder
end of the Beam - Raven Pit.

One Atmospheric Coalwinding Engine 30 Inch Steam cylinder working
4 ft. Stroke and slide at cylinder-end of Beam - Leadville

One Atmospheric Coalwinding Engine 30 Inch Steam cylinder working
4 ft. Stroke and slide at cylinder-end of Beam - Middle Pit.

One Old 24 Inch now a skeleton near Wind-mill End.

Dixons Green

One Expansive Double-power Coalwinding Engine 14 Inch Steam
cylinder working 5 ft. Stroke with Parallel-motion at cylinder
end of Beam.

Sifton Colliery

Hloomfield Mine Engine 50 Inch Steam cylinder Double-power 7¹/₂ ft.
Stroke with Airpump & Condenser and Parallel-motion at each end of
Beam in two lifts - namely - Bottom Lift 16²/₃ inches = 16²/₃ inches 112 yards Deep
Top - do 16²/₃ - do }

111 Upper Colliery Continued -

Princes and Nine Engine 72 Inch Steam Cylinder - Single power working 3 feet stroke with Airpump & Condenser and Parallel motion at cylinder end of Beam & 1 ft. at the Pit end in three lifts - namely -
Bottom Lift - 13½ inches

Second do 13½ do } = 13½ inches 150 yards Deep
Third Lift do 13 do }

Five yards Nine Engine 36 Inch Steam Cylinder - Single power working 6 ft. stroke with Airpump & Condenser and slide at back-end of Beam in two lifts - namely - Bottom Lift - 8½ inches } = 8½ inches 95 yards Deep
Top do 8½ do }

One Double-power Coalwinding Engine 20 Inch Steam Cylinder working 6 ft. stroke with Airpump & Condenser and Parallel motion at cylinder end of Beam -

One Double-power Coalwinding Engine 12 Inch Steam Cylinder working 3 ft stroke with Airpump & Condenser and Parallel motion at cylinder end of Beam -

One Expansive Double-power Coalwinding Engine 7 Inch Steam Cylinder working 3 ft. stroke with slide at cylinder end of Beam -

One Expansive Double-power Coalwinding Engine 8 Inch Steam Cylinder working 3 ft. stroke with Parallel motion at cylinder end of Beam -

12 Castle Mill Works-West Hill Timeworks

One Double-power Limestone winding Engine 30 Inch Steam Cylinder working 1½ ft. stroke with Airpump & Condenser and Parallel motion at cylinder end of Beam - And Pumps in two lifts - namely -

Bottom Lift - 10 inches
Top do 9½ do } = 9½ Inch 110 yards Deep

Wond-hill Double-power Limestone winding Engine 28 Inch Steam Cylinder working 5.6 ft. stroke with Airpump & Condenser and Parallel motion at cylinder end of Beam - And Pumps in two lifts - namely - Bottom Lift - 5¾ inches
Top do 5½ do } = 5¾ inches 110 yards Deep

Wrend-wish Double-power Limestone winding Engine 18 Inch Steam Cylinder working 4 ft. stroke with Airpump & Condenser and Parallel motion at cylinder end of Beam -

South Castle Expansive Double-power Limestone winding Engine 8 Inch Steam Cylinder working 3 ft. stroke with Parallel motion at cylinder end of Beam - And Pump in one lift - namely - 15 inches - 30 yards Deep
Hurst Hill Timeworks

One Double-power Limestone winding Engine 24 Inch Steam Cylinder working 5 ft. stroke with Airpump & Condenser and Parallel motion at

Hurst hill Lineworks Continued.

Linder-end of Beam - And Pumps in two Lifts - Namely
Bottom Lift ... 5 $\frac{3}{4}$ inches
Top ... do 5 $\frac{1}{2}$ do = 5 $\frac{1}{2}$ inches 90 yards Deep

Near Wolverhampton -

An Expansive Double-power Coalwinding Engine 12 Inch Steam cylinder working 5 ft Stroke with Parallel-motion at cylinder-end of Beam Right & Left

Near Bradley Ironworks -

One Atmospheric Coalwinding Engine 28 Inch Steam cylinder working 6 ft stroke with Slide at cylinder-end of Beam

Connygate & Sivedale Colliery -

One Double-power Coalwinding Engine 30 Inch Steam cylinder working 6 ft stroke with Airpump & Condenser and Parallel-motion at cylinder-end of Beam - Trial-pit

One Double-power Coalwinding Engine 30 Inch Steam cylinder working 6 ft strokes with Airpump & Condenser and Parallel-motion at cylinder-end of Beam - Through-pit

One Double-power Coalwinding Engine 18 Inch Steam cylinder working 6 ft strokes with Airpump & Condenser and Parallel-motion at cylinder-end of Beam

One Atmospheric Coalwinding Engine 26 Inch Steam cylinder working 6 ft stroke and Slide at cylinder-end of Beam

One Atmospheric Coalwinding Engine 28 Inch Steam cylinder working 6 ft stroke and Slide at cylinder-end of Beam

One Double-power Coalwinding Engine 24 Inch Steam cylinder working 6 ft stroke with Airpump & Condenser and Parallel-motion at cylinder-end of Beam - Sivedale

Deepfield Colliery -

Deepfield Mine Engine 72 Inch Steam cylinder - Double-power - working 4 Stroke with Airpump & Condenser and Parallel-motion at cylinder-end of the Beam - in four Lifts - Namely

Bottom Lift ... 20 $\frac{3}{4}$ inches

Second ... do ... 20 $\frac{1}{2}$... do

Third ... do ... 20 $\frac{1}{4}$... do

Fourth & Top ... do ... 20 ... do

= 20 $\frac{1}{4}$ inches 160 yards Deep

One Double-power Coalwinding Engine 12 Inch Steam cylinder working 3 ft strokes with Airpump & Condenser and Parallel-motion at cylinder-end of Beam - Whitehouses-pit

Part of an Atmospheric Engine at bottom lift - 31 Inch Steam cylinder
D. D. ab Lady Moore

Steam Engines working at the Different Iron works

Mess^r. Fisons & C^o. The Old Level

One Blast Engine Double-power - 36 Inch Steam cylinder working 8 ft stroke with Airpump Condenser and Parallel motion at each end of the Beam

Mess^r. Gibbons's - Old Level

One Mill Engine Double-power - 38 Inch Steam cylinder working 7 ft stroke with Airpump Condenser and Parallel motion at cylinder end of Beam

One Forge Engine Single-power - 30 Inch Steam cylinder 6 ft stroke with Airpump Condenser and slide at cylinder end of Beam

H. Benjamin Gibbons - New Level

One Blast Engine Double-power - 42 Inch Steam cylinder working 8 ft stroke with Airpump Condenser and Parallel motion at each end of the Beam - 16 Inch Atmospheric Engine 3 ft stroke for the inclined plane

Mess^r. Evers & Marpion Park Head

One Blast Engine Single-power - 44 Inch Steam cylinder working 7 ft stroke with Airpump Condenser and slide at cylinder end of Beam

Gornal Wood

One Blast Engine Single-power - 40 Inch Steam cylinder working 6 ft stroke with Airpump Condenser and Arch-head Chains at each end of Beam

British iron Company - Netherton

One Blast Engine Double-power - 33 Inch Steam cylinder working 8 ft stroke with Airpump Condenser and Parallel motion at each end of the Beam

One Atmospheric Engine for the Inclined plane 18 Inch Steam cylinder working 4 ft stroke with slide at cylinder end of Beam

Coneygre Ironworks

One Blast Engine Double-power - 44 Inch Steam cylinder working 7 ft stroke with Airpump Condenser and Parallel motion at each end of the Beam

One Double-power Engine for the Inclined 12 Inch Steam cylinder working 5 ft stroke with Airpump Condenser and Parallel motion at cylinder end of Beam

In the Old Timber & Iron Store yard

One Double-power Mill Engine 20 Inch Steam cylinder working 5 ft stroke with Airpump Condenser and Parallel motion at cylinder end of Beam

One Double-power Boring Mill Engine 12 Inch Steam cylinder working 3 ft stroke with Airpump & Condenser and Parallel motion at cylinder end of Beam

Castle Mill & Wrens Nest Hill Limeworks Continued

1 Weighing Machine at South Castle Pit - Claypans -

1 Weighing Machine at North Castle Pit -
Foxyards Colliery -

1 Weighing Machine near the Iron Mine Engines
Flurst Hill Limeworks

1 Weighing Machine on the Road leading to Sedgley -
Clay Craft

1 Weighing Machine near the above place -

Oct. 1844. Office of Assistant Engineer Employed at the different Land Offices. D. Lee

Use of Color in Engineering Employment at the Aluminum Companies. D. Lavor

West Germany - 3 ft 6 -	7 ft 6 in	7 ft 6 in	12 ft 18	2 ft 10 in	210 ft 220 ft	2 fumos	Rep. Mexicana
France	3 ft 6 in	7 ft 6 in	8 ft 0 in	12 ft 18	2 ft 10 in	150 ft 160 ft	2 fumos
U.S.A.	3 ft 6 in	7 ft 6 in	8 ft 0 in	12 ft 18	2 ft 10 in	150 ft 160 ft	2 fumos
U.S.S.R.	3 ft 6 in	7 ft 6 in	8 ft 0 in	12 ft 18	2 ft 10 in	150 ft 160 ft	2 fumos
U.K.	3 ft 6 in	7 ft 6 in	8 ft 0 in	12 ft 18	2 ft 10 in	150 ft 160 ft	2 fumos

Longest	9 ft 6 in	8 ft 0 in	13 ft 20 in	3 ft 0 in	230 ft 200 ft	3 fms.
Width of the bridge left	6 ft 9 in	8 ft 0 in	8 ft 9 in	2 ft 0 in	170 ft 180 ft	2 fms.
Width of roadway	3 ft 8 in	7 ft 8 in	8 ft 0 in	2 ft 0 in	100 ft 110 ft	2 fms.

2 hours later
I found her at 10 $\frac{1}{2}$ mi. 10 to 75 lbs
I found her at 10 $\frac{1}{2}$ mi. 10 to 75 lbs
2 hours later 210 - 212 lbs

1st visit 2-4-8
 2nd visit 2-16-8
 3rd visit 2-23-8
 4th visit 3-1-8
 5th visit 3-8-8
 6th visit 3-15-8
 7th visit 3-22-8
 8th visit 3-29-8
 9th visit 4-5-8
 10th visit 4-12-8
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~~126-142 cold air 170-180°
2 hours 180°
126-142 cold air 170-180°
2 hours 180°~~

W. C. H. 10-10-1960 - 106.11 - 3000 - 335.360
W. C. H. 3-4-70 - 1000 - 105.19 - 13000
W. C. H. 10-10-1960 - 106.11 - 3000 - 335.360
W. C. H. 3-4-70 - 1000 - 105.19 - 13000

COMMITTEE OF MINERAL TRADES UPON THE LAW OF THE STATE OF WORCESTER, AND OF THE STATE OF MASSACHUSETTS

N. B.—The whole of the export tonnage from the works is calculated at the rate of iron both for canal and railway, but as a part of the articles sent away will consist of finished goods, a higher rate than 1*d.* per ton per mile will be obtained, and the return to the Railway Company in

Yours very sincerely,
James F. Carter.

on the OXFORD, WORCESTER, &c., RAILWAY BILLS.

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COAL AND IRON SUSPENDED FOR THE WORCESTER AND BRISTOL RAILWAY		IRON TROTS AND SUSPENDED FOR THE OXFORD, WORCESTER, &c., RAILWAY		COAL BY CANAL		2/7t 9/14 and 7/12 2/11		2/7t 9/14 and 7/12 2/11		Assumed to be brought from Lanes- cambre by rail.	
Forrestell's Works, Newbury Belonging to Messrs. Stephen & Dudley, and capable of producing 100 tons of pig iron per week. At this time only three of these furnaces are in blast, and the traffic is estimated at that number, although there is every rea- son to believe that the fourth furnace will be set to work.	0 1 3	Coal	0 2 0	ditto	1,000	1,000	1,000	1,000	1,000	10,000	3 0 0
Cotterell's Hall, Newbury— Furnaces—Three blast furnaces belonging to Messrs. Stephen, Dudley & Lupton, capable of producing 100 tons per week.	0 1 3	Ironstone	0 4 0	contig.	5,000	ditto	7/1 from Wolverhampton.	11 0 0	11 0 0	3,000	11 0 0
Ditto and cinders		Ditto and cinders	0 4 0	From Tipton ditto	0 4 0	ditto	3/3 9/9 6/6 and 7/8	0 500	9 0 0	0 500	9 0 0
Limestone Pig iron		Limestone Pig iron	0 4 0	Kingswinford dis- trict, and line of the Stour	0 4 0	ditto	1/9	5,000	ditto	5,000	0 0 0
Kersey's Furnaces— Four blast furnaces belonging to Messrs. Blackwell, Jones & Under, capable of producing 200 tons pig iron per week. Patented yearly pro- ducts, 1,000 tons.	0 4 0	Ironstone	0 4 0	Ellenmore port, Cheshire	0 4 0	ditto	1/11 1/9 and 7/11	14,500	ditto	14,500	6 0 0
Bromley Forge—An ironworks in the occu- pation of the Mervyn Wharrey, capable of smelting 80 tons of unmanufactured iron per week.	0 1 15	Coal	0 4 0	North Stafford- shire	0 4 0	ditto	1/11 1/9 and 7/11	7,300	ditto	7,300	9 0 0
Manufactured iron		Manufactured iron	0 4 0	contig. to Wol- verhampton.	0 4 0	ditto	1/11 and 7/11	3,000	ditto	3,000	11 0 0
Brickwork in the occu- pation of the Mervyn Wharrey, capable of smelting 80 tons of unmanufactured iron per week.	0 1 15	Coal	0 4 0	below Steeple Tipton district— Wolverhampton	0 4 0	ditto	1/10 1/11	6,500	ditto	6,500	6 0 0
Shropshire Kingswinford dis- trict— Liverpool		Manufactured iron	0 4 0	Works on Stoar, Brockmoor Bridgwater	0 4 0	ditto	1/12 and 8	1,000	ditto	1,000	12 0 0
Bristol Tipton district— Kingswinford dis- trict			1,500	Ry canal district	5 1/2	ditto	1/12 and 3	1,500	ditto	1,500	12 0 0
				1/12 and 3	1/12 and 3	ditto	1/12 and 4	500	ditto	500	33 0 0
				1/12 and 3	1/12 and 3	ditto	1/12 and 4	750	ditto	750	9 0 0
				1/12 and 3	1/12 and 3	ditto	1/12 and 4	350	ditto	350	3 0 0

(continued)

COMPUTATION OF MINERAL TRAFFIC upon the London, Worcester, and South Staffordshire Railway—continued.

Names of Places, or of Blast Furnaces, Mills, Forge, or other Works which will be supplied.	Distance from the proposed Railway.	Description of Produce conveyed to or from the Place.	Received from or conveyed to the undermentioned Places.	Distance of such Places from the proposed Railway.	Number of Tons now conveyed per Annum.	How conveyed at present.	Total Cost of Conveyance per Ton between the two Places.		Number of Tons per Annum assumed to be conveyed by Railway.	Distance by Railway.	Distance on Main Line.	Distance on Branch.	REMARKS.
							At present.	As proposed.					
Brockmore Ironworks.—An ironwork belonging to Mr. James Foster, capable of making 100 tons of manufactured iron per week.	m. f. c. 0 2 0	Manufactured iron	London - - - Bristol - - - Home, Wolverhampton, and Birmingham	Average m. f. c.	3,000 10,000 1,000	Canal - - - Canal and Severn - - - say 10/-	20/- 2 9 and 1/2 say 10/-	7/3 1/2 and 1/2 2 9 and 1/2	3,000 500	Average. m. f. c.	m. f. c. 117 0 0 33 0 0	m. f. c. - - -	To Tring. To Gloucester Railway.
New Lays Works.—An iron and tin work in the occupation of Messrs. Smith & Sommerholl, capable of manufacturing 20 tons per week, besides tin plates.	contig.	Tin - - - Tin plates - - -	Bristol - - - London, &c. - - -	- - -	500 1,200	Canal, &c. - - - Canal - - -	say 10/- say 30/-	2/9 5/0 and 6/10	25 600	33 0 0 117 0 0	- - - - - -	- - -	To Gloucester Railway. To Tring.
Brockmore.—An iron-work belonging to Messrs. Hunt & Brown, capable of making 200 tons of manufactured iron per week.	0 1 0	Manufactured iron	Bristol and West of England. London and South Liverpool and North.	- - - - - - - - -	6,500 500 3,000	Canal - - - ditto - - - ditto - - - to Wolverhampton.	say 10/- say 20/- say 19/-	1 and 1/2 1 and 1/2 1 and 1/2	1000 100 1,000	33 0 0 117 0 0 33 0 0	- - - - - - - - -	- - -	To Gloucester Railway. To Tring. To Grand Junction at Wolverhampton.
The Lays Furnaces.—Three blast furnaces belonging to the Messrs. Firmstone, capable of making 300 tons of pig iron per week.	•	Ironstone and cinders. Limestone Pig iron - - -	From Tipton district. Kingswinford Dudley Castle, Froghall, &c. To Tipton district Kingswinford district. Manchester and North.	0 4 0 0 4 0 contig. 0 4 0 0 4 0 - - -	10,000 10,000 55,000 7,500 6,000 1,500	Canal - - - ditto - - - to Wolverhampton.	1/4 1/6 1/10 2/9 1/4 3/9	8 and 1/7 1 and 1/2 4 1/2 and 1/2 8 and 1/7 3 and 1/7 1/2 and 1/2	10,000 5,000 8,000 4,500 3,000 1,000	8 0 0 5 0 0 4 2 0 8 0 0 3 0 0 12 0 0	- - - - - - - - - - - - - - - - - -	- - -	- - -
Brierley Ironworks — Ironworks belonging to James Forster, Esq., capable of making 150 tons of manufactured iron per week.	contig.	Sand Pig iron - - - Manufactured iron	Shut End - - - London - - - Bristol - - - Home - - -	- - - - - - - - - - - -	3,500 1,000 500	Canal - - - Canal and Severn - - - ditto - - - to Wolverhampton.	20/- 10/- 3/9	7/3 1/2 2 9 1/2	3,500 2,000 500	117 0 0 33 0 0 12 0 0	- - - - - - - - -	- - -	To Tring. To Gloucester Railway.

BOSTON CHURCHES.
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Concise Encyclopedia of Mathematics

Fig. 17a
Cone of return
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Level Furnaces - Page 5

making at least \$100 to \$150 per iron per week. These are not in favor, and therefore no estimate is made of the trade on the railways which will necessarily arise from them, they being situated in the interior.

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COMPUTATION OF MINERAL TRAFFIC UPON THE LONDON, WORCESTER, AND SOUTH STAFFORDSHIRE RAILWAY—CONTINUED.

on the OXFORD, WORCESTER, &c., RAILWAY BILLS.

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SWAN GARDEN

		Bristol, and Worcester.	contig.	160	Canal and Severn	6/6	3/1 and 1/1	50	37 0 0	—	
		Manufactured iron, tin plates, &c.	Bristol and Gloucester.	250	Canal	—	—				
Parkfields Furnaces.— Four blast furnaces belonging to the Parkfield Company, capable of making 150 tons of pig iron weekly.	contig.	Coal	Kingswinford district.	2,500	Canal and private railway.	1/6	1/7 and 1/5	1,000	7 0 0	—	
		Limestone	Dudley Castle	contig.	ditto	10	1/3 1/2 and 1/2				
			Walsall	9 0 0	ditto	2/	—	7,000	3 4 0	—	
			Froghall	40 0 0	ditto	4/6	—				
				and up ^t .							
			Kingswinford dist.	2,000	Canal	2/6	1/9 and 1/6	1,000	9 0 0	—	
			Home district	16,000	—	—	—				
			Kingswinford dist.	5,000	Canal	1/8	1/7 and 1/9	4,000	7 0 0	—	
			Tipton and Bilston district.	60,000	ditto	—	—				
		Manufactured iron	Liverpool	13,500	ditto	—	1/4 and 1/4	6,500	4 0 0	—	To Wolverhampton Junction.
			London	1,500	ditto	—	7/6 and 6 10	1,500	120 0 0	—	To Tring Junction.
			Home consumption								
			Kingswinford dist.	1,000	Canal and carts	3/	9 and 17	1,000	—		
			Tipton and Bilston district and Birmingham.	2,500	ditto	2/	2 and 1	500	—		
			Dudley	1,000	Carts	2 6	4 and 10	1,000	—		
Priory Acid Furnaces.— Three blast furnaces belonging to Mr. H. B. Whitehouse, capable of making 300 tons of pig iron weekly.	contig.	Coal	Kingswinford dist.	1,500	Canal	1/1	7 and 14	1,000	7 0 0	—	
			Tipton district and Oldbury.	75 0	ditto	1/8	2 and 3	2,000	2 0 0	—	
		Ironstone	Wolverhampton district.	1,500	ditto	1/10 1/6	2 and 8	500	2 0 0	—	
			North Staffordshire	750	ditto	2/6	5 and 2	500	2 0 0	—	
			Coventry	750	ditto	5/6	—				
		Cinders	Tipton district	8,000	ditto	1/1	2 and 6	3,000	2 0 0	—	
		Limestone	Dudley Castle and neighbourhood.	8,500	contig.	1/6	2 and 1	8,500	2 0 0	—	
			Wolverhampton, Walsall & Bilston.	1,000	ditto	—	—				
		Sand									
		Pig iron	contig.	1,100	ditto	1/1	1/4 and 1/4	600	4 0 0	—	To Wolverhampton Junction.
		Castings	Liverpool	1,000	ditto	14	1/2 and 1/2	1,000	5 0 0	—	To Tring Junction.
			London	1,000	ditto	20	7/5 and 6/6	1,000	119 0 0	—	To Worcester station.
			Bristol and Worcester.	500	ditto	—	—				
			Home district	9,500	ditto	—	—				

(continued)

COMPUTATION of MINERAL TRAFFIC upon the *London, Worcester, and South Staffordshire Railway*—continued.

Names of Places or of Blast Furnaces, Mills, Forges, or other Works, which will be supplied.	Distance from the proposed Railway.	Description of Produce conveyed to or from the Place.	Received in or conveyed to the undesignated Places.	Distance of such Places from the proposed Railway.	Number of Tons now conveyed per Annum.	Hds. conveyed at present.	Total Cost of Conveyance per Ton between the two Places.		Number of Tons per Annum assumed to be conveyed by Railway.	Distance by Railway.	Distance on Main Line.	Distance on Branch.	REMARKS.	
							At Present.	As proposed.						
Ettingshall Ironworks. —Thomas Banks & Son; making about 200 tons of unmanufactured iron weekly.	m. f. c. 100	Pig iron -	To works west of Dudley.	Average, m. f. c. —					Average,				Average, m. f. c. —	m. f. c. m. f. c.
		Manufactured iron	„ London	-	500	Canal	19/-	7/7 and 8/-	500	121 0 0	-	-	To Tring.	
			„ Liverpool	-	4,000	ditto	—							
			„ Hull	-	500	ditto	—							
		Limestone	„ Home district	-	1,000	—								
			From Dudley Castle	-	1,200	—								
		Ironstone	„ Fergall, &c.	-	2,000	—								
			„ Lancashire and Potters.	-	800	—								
Bovereaux Ironworks. —Producing about 100 tons of iron weekly.	-	Limestone	From Dudley Castle	2,525										
		Iron	„ Cheshire and Staffordshire	800										
		plate	London	-	1,500	Canal	19/-	7/7 and 8/-	1,500	121 0 0	-	-	To Tring.	
			„ verp. -	-	1,500	ditto	13/-	3 and 4/-	750	121 0 0	-	-	To Grand Junction Railway.	
			„ Hull	-	1,000	ditto	—							
			Home district	-	1,000	—								
			Bristol	-	100	Canal	10/-	2/1 and 1/-	100	33 0 0	-	-	To Gloucester Railway.	
			Worcester	-	—	—								
Caponfield Ironworks. —James Foster, occupier; mill and forge, producing 180 tons weekly of finished iron.	m. f. c. 100	Iron chiefly rails	London	-	4,000	ditto	19/-	7/7 and 7/8	3,000	121 0 0	-	-	To Tring.	
			Shardlow	-	3,000	ditto	—							
			Liverpool	-	1,000	ditto	13/-	1/3 and 1/4	500	3 0 0	-	-		
			Home district	-	1,000	Canal and carts	—							
Bradley (New).—James Foster, occupier; mill and forge, producing 120 tons of finished iron weekly.	140	Iron	London	-	3,000	Canal	19/-	7/7 and 7/8	2,500	121 0 0	-	-	To Tring.	
			Shardlow	-	20,000	ditto	—							
			Liverpool	-	500	ditto	—							
			Birmingham district	-	500	—								
Bilton Ironworks.—Messrs. Sparrow; producing 150 tons weekly.	050	Iron	London	-	1,500	Canal	19/-	7/7 and 7/4	1,500	121 0 0	-	-	To Tring.	
			Liverpool	-	4,500	ditto	—							
			Home	-	1,500	Canal and carts	—							

on the OXFORD, WORCESTER, &c., RAILWAY BILLS.

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COMPUTATION OF MINERAL TRAFFIC upon the London, Worcester, and South Staffordshire Railway—continued.

Tipton works.— Two blast furnaces, &c., belonging to Edward Cresswell & Sons, making 220 tons of pig iron, and 200 tons of manufac- tured iron per week.	0 2 0	Coal and ironstone Ironstone, &c.	Moxley - - - - 20,000 Tipton district - - - 22,000 Ditto - - - 9,000 Brockmoor - contig. 1,500 Liverpool and Potteries. - - - 7,000	Canal ditto Teams Canal ditto From Wolver- hampton.	1/ 19 17 2/ 7/ 1/	- - - /7 and /6 /6 and /4 -	1,500 2,000	-			
		Ashes, &c. Flue cinders Furnace cinders Iron	Great Bridge, &c. - - - 8,000 Deepfield, &c. - - - 1,000 Tipton Moor - - - 2,000 From Wolver- hampton. - - - 5,000 To Liverpool - - - 5,000	Canal ditto Rail Canal ditto To Wolverham- pton.	19 /8 /10 1/ 14/ 1/	- - - - /6 and /4 -	1,500	6 0 0	-	-	To Wolverham- pton Junction.
			" London - - - 1,000 " Birmingham, &c. - - - 1,000	Canal ditto	20/ 4/	7/4½ and 6/8 —	1,000	118 0 0	-	-	To Tring Junction.
		Limestone	" Dudley, &c. - - - 3,000 Mous Hill - - - 4,500	Carts, &c. Private railroad	3/6	/2 and 1/2	3,000	2 0 0	-	-	
Parkhead Furnaces, Evans & Martin.— Two blast furnaces, one of which is now out of blast, but will shortly be in again.	0 3 0	Ironstone	From North Staff- ordshire. - - - 1,000 " Lancashire - - - 1,000 " Coventry - - - 1,000 " Oldbury, &c. - - - 1,000 " Dudley Castle contig. 4,252 To Cradley - 0 4 0 3,500 " Whittington contig. 500 " Hyde - 1 0 0 500 " Bloomfield, &c. - - - 1,000	Canal ditto ditto ditto ditto ditto Team Canal ditto ditto	2/9 2/9 — — — — 2/6 3/6 2/8 1/8	8½ and 6 /8½ and /5 — — — 21 and /6 3/10 and /8 8 and /5 7½ and 1 3½, 8 & 0	500 500 500 4,452 3,000 500 500 500	8 4 0 8 4 0 — — — 2 2 0 2 4 0 8 0 0 6 4 0 3 4 0	-	-	From Grand Junc- tion Railway. ditto.
Russell's Hall Furnaces, Blackwell & Co.— Two blast furnaces, producing 11,500 tons of pig iron and castings per annum.	0 7 0	Limestone Pig iron	From Dudley Castle. contig. 6,926 To Wolverham- pton and Bilston district. - - - 7,000 " Kingswinford district. - - - 3,500	Carts Private railway, carts, and canal.	1/3 1/0 & 8	2 and /9 15 and 13	6,320 7,000	2 0 0 5 0 0	-	-	
		Casting and foun- dry iron.	" Birmingham, and other places. London - - - 700	Canal, &c.	—	—	—	—	-	-	To Tring.
Blower's Green Iron- works.—Two blast furnaces, in the occupation of Moses Grayebrook, produc- ting 190 tons of pig iron and castings weekly.	contig.	Ironstone Limestone Sand Pig iron and cast- ings.	Tipton district - - - 2,000 Dudley Cas'tle contig. 1,329 Stourbridge, &c. - - - 1,200 Tipton and Wol- verhampton dis- trict. - - - 7,000	Canal ditto ditto ditto	1/10 1/3 1/3 and 2 2/	5 and /9 /3 and /2 5 and /9	1,000 5,329 5,000	5 0 0 3 0 0 5 0 0	-	-	To Tring.
		Castings	London - - - 2,500	ditto	20	7/3½ and 6/6	2,500	117 0 0	-	-	(continued)

COMPUTATION OF MINERAL TRAFFIC UPON THE LONDON, WORCESTER, AND SOUTH STAFFORDSHIRE RAILWAY—CONTINUED.

Names of Places, or of Blast Furnaces, Mills, Forges, or other Works which will be supplied.	Distance from the proposed Railway.	Description of Produce conveyed to or from the Place.	Received from or conveyed to the undermentioned Places.	Distance of such Places from the proposed Railway.	Number of Tons now conveyed per Annum.	How conveyed. at present, and proposed.	Total Cost of Conveyance per Ton between the two Places.		Number of Tons per Annum assumed to be conveyed to Railway.	Distance by Railway.	Distance on Main Line.	Distance on Branch.	REMARKS.
							Average. m. f. c.	Present. m. f. c.					
Cradley Iron Works.— Samuel Evers & Co.	0 4 0 m. f. c.	Pig iron	Shropshire, via Stourport.	800	Canal, Severn, and Teara.	1/4	1/2 and 8	800	14 0 0	Average. m. f. c.	m. f. c.	m. f. c.	REMARKS.
			Ditto	800	Canal and Teara	7/6	1/2 and 8	800	14 0 0				
			South Wales, via Stourport.	700	Severn and ditto	1/2	1/2 and 8	700	14 0 0				
			Dudley district	4,500	Teams	3	—						
			North Staffordshire	250	Canal and team	—	—						
		Iron ore	Stourbridge	700	Teams	4/	—			Average. m. f. c.	m. f. c.	m. f. c.	REMARKS.
			Warrington	200	Canal and team	1 1/2	1 1/2 and 8	200	11 4 0				
		Sand, bricks, &c.	Birmingham	2,400	Teams	8	—			Average. m. f. c.	m. f. c.	m. f. c.	REMARKS.
			Dudley district	1,450	ditto	10 & 5/	—						
		Rods, bars, &c.	Stourbridge district	200	ditto	4/	—			To Tiverton	To Tiverton	To Tiverton	To Tiverton
Congreve's Ironworks.— British Iron Company.	1 1/2 m. f. c.	Manufactured iron	Coal	300	ditto	—	—						
			London	2,000	Private railroad and canal.	20/	7/31 and 2/	2,000	113 0 0				
			Shadow and the North.	7,000	ditto	—	—						
			Bristol Home dis- trict	500	ditto, carts and canal.	—	—						
				3,000	canal.	—	—						
Stonebridge Ironworks.— An ironwork occu- pied by James For- ster, esq., capable of making 250 tons of manufactured iron per week.	0 1 0 m. f. c.	Iron	Shropshire or Stourport.	4,000	Canal and Severn	3/6	1 1 and 6/	2,000	13 0 0	To Tiverton	To Gloucester Railroad junction.	To Gloucester Railroad junction.	To Gloucester Railroad junction.
			Coal	0 4 0	2,600	Canal	1/6	1/6 and 6/	12,000	6 0 0			
		Manufactured iron	London	5,000	ditto	19/	7/ and 6/10	4,000	112 0 0				
			Bristol and West Home consump- tion, Tipton dis- trict.	5,000	ditto	10/	2/4 and 2/	3,000	28 0 0				
			Kingswinford dis- trict.	1,500	ditto, and carts	3/6	9/ and 9/	1,000	9 0 0				
The Hyde Ironworks, near Kinner, in the occupation of Messrs. Lee & Bolton.	1 0 0 m. f. c.	Pig iron	Kingswinford dis- trict.	1,500	ditto	—	—			From Severn at Worcester. From Severn at Stourport.			
			From Wales, via Severn.	415	River Severn and canals.	9/	1/10 and 1/4	200	22 0 0				
		Coal	Shropshire, via Stourport.	2,450	ditto	6/	1/10 and 1/	1,000	10 0 0				
			South Stafford- shire.	0 2 0	Canals	2/9	—						
			Ditto	0 4 0	ditto	1/4	—						
		Coke	Ditto	0 4 0	400	ditto	2/	—					

COMPUTATION OF MINERAL TRAFFIC upon the London, Worcester, and South Staffordshire Railway—continued.

Names of Places, or of Blast Furnaces, Mills, Forges, or other Works, which will be supplied.	Distance from the proposed Railway.	Description of Produce conveyed to or from the Place.	Received from or conveyed to the undermentioned Places.	Distance of such Places from the proposed Railway.	Number of Tons now conveyed per Annum.	Mode of Conveyance at present.	Total Cost of Conveyance per Ton between the two Places.		Number of Tons per Annum assumed to be conveyed	Distance by Railway.	Distance on Main Line.	Distance on Branch.	REMARKS.	
							At present.	As proposed, by Railway.						
Broadwaters Ironworks, near Kidderminster; Messrs. Morgan, Banks & Co. occupiers.	0 1 0 m. f. c.	Coals	-	From Kingswinford district.	Average, m. f. c.	6,000	-	-	2/10 1/2	1/3 and 1/8	6,000	Average, m. f. c.	m. f. c.	To Junction with Gloucester Rail- way.
		Pig iron	-	Stourport	contig.	1,200	Canal	-	1/6	1/7 and 1/4	1,200	-	-	
		Block tin	-	Bristol	contig.	60	ditto	-	10/	1/10 and 1/14	60	-	-	
		Manufactured goods.	-	Wolverhampton	contig.	1,000	-	-	7/	2/1 and 1/4	1,000	20 0 0	-	
Wilden Iron and Tin Plate Works (Lewty & Co.), producing 1,000 tons of tin plates and sheet iron annually.	contig.	Coal	-	Kingswinford district.	-	5,500	Canal	-	3/6	1/6 and 1/6	5,500	18 0 0	-	To Tring Junc- tion.
		Cokes	-	ditto	-	230	ditto	-	-	-	230	18 0 0	-	
		Pig iron	-	Shropshire, via Stourport.	-	2,000	ditto	-	-	-	-	-	-	
		Tin	-	Bristol	-	100	Railway	-	-	-	-	-	-	
		Tin plates, &c.	-	London	-	500	Canal	-	-	8/3 and 6/6	500	99 0 0	-	
			-	Birmingham	-	300	-	-	-	-	-	-	-	
Messrs. Baldwin & Co., ironfounders, Stourport.	contig.	Coals	-	From Kingswinford district.	-	600	Canal	-	3	1/5 and 1/2	600	17 0 0	-	To Grand Junc- tion Railway. To Tring Junc- tion.
		Pig-iron	-	Wrockwardine	-	600	ditto	-	3/11	1/5 and 1/2	600	17 0 0	-	
		Cokes	-	Wales	-	900	ditto	-	3/9	1/5 and 1/2	900	17 0 0	-	
		Iron sheets, &c.	-	South Staffordsh.	-	500	Severn	-	-	-	-	-	-	
		Tin	-	Bristol	-	100	Canal	-	3/9	1/5 and 1/2	100	17 0 0	-	
		Limestone and fire-bricks.	-	Limesley	-	20	Severn	-	-	-	-	-	-	
		Manufactured	-	Dudley district	-	40	Canal	-	-	1/5 and 1/2	40	17 0 0	-	
			-	To Bristol	-	400	-	-	-	-	-	-	-	
			-	Liverpool	-	500	Canal	-	5/	2/1 and 1/	500	25 0 0	-	
			-	North London, &c.	-	100	ditto, and Rail- way.	-	-	8/3 and 1/	100	99 0 0	-	
COAL sent to sundry Towns on the Line:														
Stourbridge	-	Coal	-	South Staffordshire mineral district.	-	-	Canal and carts	-	-	/7	25,000	7 0 0	-	
Kinfare and Envile	-	ditto	-	ditto	-	-	ditto	-	-	/10	10,000	10 0 0	-	
Cookley and Wolverley	-	ditto	-	ditto	-	-	Canal	-	-	/11	4,000	11 0 0	-	
Kidderminster	-	ditto	-	ditto	-	-	ditto, and carts	-	-	1/3	40,000	15 0 0	-	
Stourport and Bewdley	-	ditto	-	ditto	-	-	Canal	-	-	1/7	11,000	19 0 0	-	
Hartlebury	-	ditto	-	ditto	-	-	ditto	-	-	1/9	3,000	21 0 0	-	
Ormesley	-	ditto	-	ditto	-	-	ditto	-	-	2/2	3,000	-	-	

ON LINE OF GLOUCESTER RAILWAY:

To Tewkesbury	-	-	coal	-	-	South Staffordshire mineral district.	-	-	Canal	-	-	2/11	15,000	35 0 0	-	-	-	To Gloucester Railway junction.
Cheltenham	-	-	ditto	-	-	ditto	-	-	ditto	-	-	2/11	40,000	35 0 0	-	-	-	ditto.
Gloucester	-	-	ditto	-	-	ditto	-	-	ditto	-	-	2/11	15,000	35 0 0	-	-	-	ditto.
Bishop's Cleeve	-	-	ditto	-	-	ditto	-	-	ditto	-	-	2/11	3,500	35 0 0	-	-	-	ditto.
London and towns between Tring and London on the line of London and Birmingham Railway.	-	-	ditto	-	-	ditto	-	-	ditto	-	-	7/6	40,000	120 0 0	-	-	-	To Tring.
Birmingham	-	-	ditto	-	-	ditto	-	-	Canal and carts	-	-	3	30,000	3 0 0	-	-	-	
London, Worcester, Gloucester, and Bristol.	-	-	fire-brick clay	-	-	Stourbridge district.	-	-	Canal	-	-	18/	4,000	115 0 0	-	-	-	To Tring.
Liverpool and Staffordshire Potteries.	-	-	Wolverhampton.	-	-	3,000	-	-	ditto	-	-	7/	1,500	29 0 0	-	-	-	
Sheffield and north of England.	-	-	-	-	-	4,000	-	-	ditto	-	-	10/ and 7/	2,000	10 0 0	-	-	-	To Wolverhampton.
						2,000	-	-	ditto and railway	-	-	12/ 20/ and upwards.	2,000	6 0 0	-	-	-	To Dudley.

SYND used in GLASS-MAKING and brought to Bristol from the Isle of Wight:

Glasshouses in Worcest- er and Dudley dis- trict which make on an average 35 tons of flat glass per week.	-	Glasshouse sand	South Staffordshire district.	-	1,600	Canal	-	-	10/	-	2/9	1,200	33 0 0	-	-	-	From junction of Bristol Railway.
		Flint glass	London, &c.	-	600	ditto	-	-	35/	24 1/2 & 9/	7/	900	115 0 0	-	-	-	To Tring.
			Bristol, &c.	-	250	ditto	-	-	15/	4 4/	4/	200	33 0 0	-	-	-	

ESTIMATED AMOUNT in Weight of Nails, Chains, Vices and Anvils made in the South Staffordshire District yearly, 40,000 :

London	-	-	Nails, chains	-	From South Staffordshire district.	-	16,000	Canal	-	-	2/	7/6 and 7/	8,000	120 0 0	-	-	-	To Tring.
Liverpool	-	-	ditto	-	ditto	-	12,000	ditto	-	-	14/	7/2 and 6/	2,000	9 0 0	-	-	-	To Wolverhampton junction.
Bristol	-	-	ditto	-	ditto	-	5,000	ditto	-	-	-	13/	1,000	36 0 0	-	-	-	To Bristol Junction.
Hull and home consumption.	-	-	ditto	-	ditto	-	9,000	-	-	-	-	-	-	-	-	-		

ESTIMATED AMOUNT of Weight of Fenders, Fire Irons, small Castings, and other Manufactured Goods made in the South Staffordshire District yearly :

London	-	-	Manufactured goods.	-	South Staffordshire district.	-	2,000	Canal	-	-	30/ & 35/	17/ and 8/	1,000	120 0 0	-	-	-	To Tring.
Liverpool	-	-	ditto	-	ditto	-	1,500	ditto	-	-	-	1/12	500	9 0 0	-	-	-	To W. Hampton station.
Bristol and home consumption.	-	-	ditto	-	ditto	-	2,500	ditto	-	-	-	4/6	500	36 0 0	-	-	-	To Bristol Junction.

(continued)

COMPOSITION OF MINERAL TRAFFIC upon the London,

	A.	B.	C.	D.	E.	F.	G.
	Coal.	Tonnes, ton. &c.	Tonnes.	Pig Iron, Castings, &c.	Bar Iron.	Sundries.	TOTAL.
BRANCH.							
The Oak Farm - - - - -	-	-	10,000	4,700	10,000	- - -	36,000
Shut End - - - - -	-	-	6,000	5,000	- - -	- - -	11,000
Corbyn's Hall - - - - -	-	-	11,000	6,000	8,500	- - -	25,500
Ditto (New B. Gibbons) - - - - -	-	1,000	14,500	14,500	12,500	- - -	42,500
Kettle - - - - -	-	-	3,500	6,000	4,250	- - -	14,250
Bromley Forge - - - - -	-	-	- - -	-	500	3,000	3,500
Brockmoor (Foster) - - - - -	-	-	- - -	-	-	3,500	3,500
New Lays - - - - -	-	-	- - -	-	-	625, tin and plates.	625
Brockmoor (Hunt & Brown) - - - - -	-	-	- - -	-	-	6,500	- - -
Lay's Furnaces - - - - -	-	-	15,000	8,000	8,500	- - -	31,500
Brierly Iron Works (Foster) - - - - -	-	-	- - -	-	-	6,000	- - -
Brettell Lane Furnaces - - - - -	-	2,000	2,000	3,000	- - -	- - -	7,000
Nine Locks Iron Works - - - - -	-	10,000	- - -	- - -	-	3,500	- - -
Level Iron Works (B. Gibbons) - - - - -	-	2,000	- - -	- - -	-	3,000	- - -
Level Old Furnaces (Iron) - - - - -	-	- - -	- - -	2,800	2,200	- - -	5,000
Holly Hall Foundry - - - - -	-	- - -	- - -	- - -	300 cast- ings.	- - -	300
Woodside Furnaces - - - - -	-	-	3,000	6,000	10,000	- - -	19,000
Brockmoor Lane Glass Works - - - - -	-	-	- - -	- - -	- - -	1,240 bot- tles, &c.	1,240
Kingswinford Railway - - - - -	-	-	- - -	3,148	- - -	- - -	3,148
	15,000	65,000	59,448	56,750	37,000	1,865	235,063

MAIN LINE.

Swan Garden - - - - -	-	-	-	-	-	160, tin	160
Park Field - - - - -	-	1,500	-	7,000	1,000	- - -	9,500
Spring Vale - - - - -	-	4,000	-	- - -	-	10,600	- - -
Prior Field - - - - -	-	3,000	4,000	8,500	9,600	- - -	18,100
Ettingshall Iron Works - - - - -	-	- - -	- - -	- - -	-	121	- - -
Bevereux - - - - -	-	- - -	- - -	- - -	-	2,350	- - -
Cappenhfield (Forster) - - - - -	-	- - -	- - -	- - -	-	3,500	- - -
Bradley (New ditto) - - - - -	-	- - -	- - -	- - -	-	2,500	- - -
Bilston (Sparrow) - - - - -	-	- - -	- - -	- - -	-	1,500	- - -
Stonefield - - - - -	-	- - -	- - -	- - -	250	800	- - -
Wednesbury Oak - - - - -	-	- - -	- - -	- - -	-	5,000	- - -
Tividale - - - - -	-	- - -	- - -	- - -	-	1,000	- - -
Tipton Old Church - - - - -	-	- - -	- - -	- - -	-	3,100 gals.	- - -
Gospel Oak - - - - -	-	800	- - -	- - -	-	-	3,600 tin plates
Factory - - - - -	-	- - -	- - -	- - -	-	500	- - -
Summerhill - - - - -	-	- - -	- - -	- - -	-	600	- - -
Bloomfield - - - - -	-	150, char- coal.	- - -	- - -	2,300	10,150	- - -
Tipton Iron Works (Cresswell) - - - - -	-	1,500	2,000	- - -	-	5,500	- - -
Parkhead - - - - -	-	- - -	1,000	4,252	4,500	- - -	9,752
Russell's Hall - - - - -	-	- - -	- - -	6,320	7,300	- - -	13,620
Blower's Green - - - - -	-	- - -	1,000	5,329	7,500	- - -	13,829
Cradley - - - - -	-	- - -	- - -	- - -	2,300	200	- - -
Congreaves - - - - -	-	- - -	- - -	- - -	-	2,000	- - -
Stourbridge Works - - - - -	-	12,000	- - -	- - -	2,000	8,000	- - -
Hyde - - - - -	-	300, char- coal.	- - -	- - -	1,200	1,000	- - -
Whittington - - - - -	-	5,000	- - -	- - -	-	1,500	- - -
Cookley Wood-screw Company - - - - -	-	500	- - -	- - -	-	30	- - -
Cookley Iron Works - - - - -	-	11,500	- - -	- - -	7,000	3,750	7,50, B. tin, &c.
Broadwaters - - - - -	-	5,000	- - -	- - -	-	1,000	60, B. tin
Wildon - - - - -	-	5,730	- - -	- - -	-	-	500, tin plates, &c.
Baldwin & Co. (Stourport) - - - - -	-	1,200	- - -	40	900	100	- - -
Various towns - - - - -	-	939,500	- - -	- - -	- - -	- - -	939,500
London, &c., fine bricks - - - - -	-	- - -	- - -	- - -	- - -	-	9,500
Glass works, &c. - - - - -	-	- - -	- - -	- - -	- - -	-	9,300
Chains, &c. - - - - -	-	- - -	- - -	- - -	- - -	-	11,000
Fenders - - - - -	-	- - -	- - -	- - -	- - -	-	2,000
	291,680	8,000	31,441	42,050	65,391	18,870	467,364
	15,000	65,000	59,448	56,750	37,000	1,865	235,063
	306,680	73,000	90,889	98,800	104,341	30,735	702,436

Worcester, and South Staffordshire Railway—continued.

A.	B.	C.	D.	E.	F.	G.
Coal.	Ironstone, Ore, &c.	Limestone,	Pig Iron, Castings, &c.	Bar Iron,	Sundries.	TOTAL.
- - -	- - -	- - -	- - -	- - -	- - -	- - -
- - -	375 - -	131 5 -	300 - -	1,870 16 8	- - -	2,677 1 8
- - -	232 16 -	145 16 8	- - -	- - -	- - -	378 19 8
- - -	420 16 8	156 - -	256 5 -	- - -	- - -	827 1 8
12 10 -	506 5 -	362 10 -	343 15 -	- - -	- - -	1,225 - -
- - -	160 8 4	162 10 -	178 2 6	- - -	- - -	301 - 10
- - -	- - -	- - -	39 11 8	175 - -	- - -	914 11 8
- - -	- - -	- - -	- - -	1,165 12 6	- - -	1,165 19 6
- - -	- - -	- - -	- - -	- - -	295 18 9	295 18 9
- - -	- - -	- - -	- - -	- - -	- - -	- - -
- - -	437 10 -	150 - -	237 10 -	1,446 17 6	- - -	1,446 17 6
- - -	- - -	- - -	- - -	- - -	- - -	825 - -
25 - -	25 - -	50 - -	- - -	1,579 13 9	- - -	1,579 13 9
125 - -	- - -	- - -	- - -	1,268 15 -	- - -	1,393 15 -
25 - -	- - -	- - -	- - -	1,050 - -	- - -	1,075 - -
- - -	- - -	35 - -	46 17 6	- - -	- - -	81 17 6
- - -	- - -	- - -	143 15 -	- - -	- - -	143 15 -
- - -	100 - -	75 - -	1,373 15 -	- - -	- - -	1,548 15 -
- - -	- - -	- - -	- - -	- - -	539 15 -	539 15 -
- - -	- - -	78 14 -	- - -	- - -	- - -	78 14 -
187 10 -	2,257 16 -	1,340 15 8	2,919 11 8	8,556 15 5	835 13 9	16,098 2 6
- - -	- - -	- - -	- - -	- - -	- - -	- - -
- - -	- - -	- - -	- - -	- - -	7 14 2	7 14 2
43 15 -	- - -	102 1 8	37 10 -	- - -	- - -	183 6 8
116 13 4	- - -	- - -	- - -	729 3 4	- - -	845 16 8
45 16 8	39 11 8	70 16 8	80 3 5	- - -	- - -	936 3 5
- - -	- - -	- - -	- - -	189 11 8	- - -	189 11 8
- - -	- - -	- - -	- - -	591 17 6	- - -	591 17 6
- - -	- - -	- - -	- - -	1,143 15 -	- - -	1,143 15 -
- - -	- - -	- - -	- - -	947 18 4	- - -	947 18 4
- - -	- - -	- - -	- - -	568 15 -	- - -	568 15 -
- - -	- - -	- - -	4 3 4	192 10 -	- - -	196 13 4
- - -	- - -	- - -	- - -	1,833 6 8	- - -	1,813 6 8
- - -	- - -	- - -	- - -	360 13 4	- - -	366 13 4
- - -	- - -	- - -	- - -	1,815 16 8	- - -	1,815 16 8
- - -	13 6 8	- - -	- - -	- - -	1,505 8 4	1,565 8 4
- - -	- - -	- - -	- - -	184 7 6	- - -	197 14 3
- - -	19 7 6	- - -	197 1 8	155 16 8	- - -	155 16 8
- - -	- - -	- - -	- - -	9,132 1 8	- - -	9,348 10 10
43 15 -	50 - -	- - -	- - -	431 5 -	- - -	525 - -
- - -	35 8 4	44 5 10	76 - 10	- - -	- - -	155 15 -
- - -	- - -	59 13 4	254 11 8	- - -	- - -	307 5 -
- - -	20 16 8	66 12 3	1,018 4 7	- - -	- - -	1,105 13 6
- - -	- - -	- - -	134 3 4	9 11 8	- - -	143 15 -
- - -	- - -	- - -	- - -	731 5 -	- - -	731 5 -
300 - -	- - -	- - -	108 6 8	1,787 10 -	- - -	2,195 16 8
34 11 8	- - -	- - -	60 - -	139 7 6	- - -	933 19 8
250 - -	- - -	- - -	100 - -	166 5 -	- - -	456 5 -
95 - -	- - -	- - -	- - -	5 - -	- - -	30 - -
737 10 -	- - -	- - -	204 3 4	502 1 8	68 15 -	1,512 10 -
312 10 -	- - -	- - -	35 - -	104 3 4	5 10 -	457 3 4
429 15 -	- - -	- - -	- - -	- - -	206 5 -	636 - -
85 - -	- - -	2 16 8	63 15 -	{ 93 6 8 } 7 1 8 }	- - -	253 - -
31,381 5 -	- - -	- - -	- - -	- - -	- - -	31,381 5 -
- - -	- - -	- - -	- - -	- - -	9,636 17 6	9,636 17 6
- - -	- - -	- - -	- - -	- - -	3,177 1 8 890 12 6	3,177 1 8 890 12 6
33,838 5 10	145 16 8	339 6 5	2,373 3 10	14,828 10 10	8,558 4 2	69,083 7 9
187 10 -	2,257 16 -	1,340 15 8	9,019 11 8	8,556 15 5	835 13 9	16,098 2 6
4,025 15 10	2,403 11 8	1,680 2 1	5,202 15 6	23,185 6 3	9,303 17 11	76,181 10 3

MINUTES OF EVIDENCE before SELECT COMMITTEE

IRON TRADE.

STATEMENT, showing the estimated Capacity of Weekly make of Iron at the several Iron Works on the Lines of Railways, with their Situation with respect to such Lines.

Number on Plan.	NAMES of PROPRIETORS.	NAMES OF WORKS.	Description of Article made.	Weekly Number of Tons.	Capacity for Cochr. Worcester and Wolverhampton.	Capacity for London and Birmingham.	Capacity for both Lines.
<i>Wolverhampton to Dudley District.</i>							
16	Parsons		bar-arms and edge tools	100	100		
16	Parke		edge tools	14	14		
19	Chillington Iron Company	Chillington Works	4 furnaces and forges	350	350		
16 & 17	G. B. Thorneycroft & Company	Shrubbery Works	forges and mills	400	400		
49	Dunn	Bradley	ditto				
6, 8, 9	Clarke & Company	Wolverhampton	hollowware founders	40	40		
11 & 12	Henderson		tin-plate works	100	100		
13	Gladstone		forget, mire and tin-plates	80	80		
14	Nose and Walker		edge tools	10	10		
15	Perry		founding	5	5		
17	Craze		ditto	15	15		
21	Spratt, W. & J. S. & Company	Stourbridge	5 furnaces	450	450		
20		Oxleaze	2 furnaces	250	250		
20		Binton	forge and mill				
23	Parke, Field & Company	Pickford Works	4 furnaces	220		220	
18	Wolverhampton Company	Wolverhampton Furnaces	2 furnaces	270			270
22	William Ward	Foxfield	bar-arms	300	300		
27	William Elvey	W. Elvey	2 furnaces	250	250		
28	Deacon, Jones	Binton	3 furnaces				
29	Dunn	Binton	2 furnaces	500			500
30	Dunn	Spurton Vale	forges and mills				
31	John Bassett & Sons	Copse Vale	4 furnaces	300	300		
34	James Foster	Copse Vale	forge and mills	150	150		
35	Dunn	Bradley	ditto	100	100		
32	Wesley	T. Fawcett & Son					
32	Vernon	Lodge		70	70		
33	L. Brooks & Son	Burton's Field	2 furnaces				
34	Dunn	Ersgreen	forge and mill	150	150		
35	Preston	Hightown	2 furnaces				
46	Wilkinson	Hallfields	2 furnaces				
29	Baldwin		2 furnaces				
32	Dunn	Belle Jellicoe	2 plates	200	200		
30	Parsons	Bilston Brook Furnaces	2 furnaces	150	150		
36	David Jones	Bilston Bridge Works	forge	60	60		
39	Pemberton, E.	Denfield	2 furnaces	200	200		
37	Whitehouse, Henry	Priory Field	2 furnaces	240			240
38	Sheddon	Caskey	founding	50			50
47	Williams, P., & Sons	Wedgwood Oak	2 furnaces, forge and mills	270	270		
48	Walker, J. & J.	Georgie Oak	2 furnaces				
48	Dunn	ditto	tin-plate works	300	300		
48	Dunn	Tipton Old Church	forge and mill				
49	Millington, E.	The Moat Forge		50	50		
49	Tipton Furnace Company	Tipton Furnace	2 furnaces				
49	Perry		founding	50	50		
50	Horsley Iron Company	Horsley Works	2 furnaces	100	100		
	Dunn	Toft End Works	ditto	100	100		
	Sir H. Paul	Broadbent	2 furnaces	150	150		
	Dunn	Willingworth	2 furnaces	250	250		
	Lloyd, Foster & Company	Wedgwood Old Park	2 furnaces, foundry	210	210		
51	Crossrell & Sons	Tipton Iron Works	2 furnaces, forge and mill	900			900
53	Beeley and Thomas	Soap Factory	foundry	20	20		
42	Bramah, Barrows & Hall	Bloomfield	forges and mills	200	200		
52	H. Bradley & Company	Factory Forge	forge and mills	70	70		
56	Maybury	Tipton Green	forge	20	20		
57	Morris & Son	Tipton Moor	2 furnaces	90			90
57	Lord Ward	The Coney-grove	2 furnaces	260			260
57 B	Harland & Company	Eagle Furnace	2 furnaces	160	160		
57 C	Hopkins and Company	Dudley Port	2 furnaces	150			150
57 D	Plant & Fisher	ditto	forge	60			60
57 E	March & Son	Barnet Tree	tin-plate manufacture	20			20
	William, P., & Company	Union	2 furnaces	270	270		
	Hunt & Sons	Brades	iron and steel works	40			40
	Dawes, J. P., & Sons	Oldbury	2 furnaces				
	Dunn	Broadbent	forges and mills	250	250		
	Walsh, Williams	Allison Iron Works	ditto	250	250		
	E. Page & Sons	Rivory	ditto	120	120		
	R. Hartman	Great Bridge	ditto	160	160		
	Melvin & Rawlinson	Phoenix	ditto	120	120		
	Dunn	Lea Brock	ditto	50	50		
	Caddington	ditto	ditto	40	40		

Number on Plan.	Names of Proprietors.	Names of Works.	Description of Article made.	Weekly Number of Tons.	Equally situated for Oxford, Worcester and Wolverhampton.	Equally situated for London and Birmingham.	Equally situated for both Lines.
<i>Wolverhampton to Dudley District—continued.</i>							
	Patent Axle-tree Company	Brunswick	Forge	30	30		
	Bignal & Sons	Goldhill	Forge and mills				
	Ditto	Tolls end	ditto				
	Ditto	Gold's Green	ditto	600	600		
	Ditto	Imperial	ditto				
	Ditto	Gold's Green	3 furnaces				
T. Davies & Son	Crick's Hay	2 furnaces, forges and mills	200	200			
Bills and Mills	Darlaston Green	1 furnace, forges and mill	100	100			
Edward Addenbrooke	Derbyton	2 furnaces	150	150			
Whitehouse & Company	Ridge Acre	Forge	100	100			
				11,965	8,825	1,400	7,050

Dudley to Stourbridge District.

60	Molineaux & Company	Bulley	2 furnaces	400	40		
62	Joseph Haden	ditto	1 furnace and forge	40	40		
63 a	Boat and Bowers	Wickymore	2 furnaces	150	150		
63 b	Partridges, S.	Windmill End	2 furnaces	140	140		
63 c	British Iron Company	Dudley Wood	4 furnaces				
63 d	Ditto	Netherton	2 furnaces	250			
63 e	Ditto	Congreves	2 furnaces, forges and mills			150	
74	Ditto	Briery-hill	forges and mills	150			
64 200	S. Evans	Cradley Iron Works	ditto	40			40
64	M. & W. Grasbrook	Netherton	2 furnaces and foundry	180	180		
65	Evens & Company	Park Head	2 furnaces	150	150		
66	Blackwell, Jones & Com- pany	Bussell's Head	2 furnaces	150	150		
67	Branch & Cachrane	Woodside	2 furnaces and foundry	250	250		
71	Lord Ward	Level Iron Works	3 furnaces	270			
72	Ians & Company	Level	2 furnaces	120			
73	H. Gilbass	Level	mills and forges	120			120
68	H. Hill	Woodside	forge	30			
68 & 90	Wheeler & Company	Brettell-lane and Brockhouse	2 furnaces and mills	140	140		
69	Hunt and Brown	Ley's Works	forges and mills	150	150		
70	Smith & Company	Ley's Works	tin-plate works	30	30		
71	W. & G. Firstone	ditto	3 furnaces	180	180		
72	Blackwell, Jones & Com- pany	Kettle's Works	2 furnaces	160	160		
80	Matthew & Dudley	Cochya's Hall	4 furnaces	100	100		
81	Bradley & Company	Shut End	2 furnaces			300	
78	Ditto	Brockhouse	forges and mills			300	
89	Ditto	Boseley	ditto				
111	Ditto	Sombridge	ditto	250	250		
112	Oak Forest Company	Oak Works	2 furnaces	400	400		
82	Ditto	ditto	forges and mills, &c.				
83	Benjamin Gibbons	Cotgrave Hall, New Furnaces	3 furnaces	250	250		
99	Beale, Pegg & Com- pany	Brettell-lane	foundry	30	30		
119	H. S. J. Swift	Wardley	ditto	20	20		
134	G. Robinson	Anderton	ditto	20			
135	Foster & Orme	Stourbridge	edge tools, &c.	10			
58	Johson	Holly Hall	foundry	20	20		
79	Horton, Joshua	Brierley Hill	boiler works	15	15		
113	Hudson, Samuel	Woolstaston	spade works	10			
				4,755	3,715	1,040	

Stourbridge to Stourport District.

123	Lee & Bulton	The Hyd's	Forge and mills	60			
124 a	Perkes	ditto	spade works	10			
125	James Williams & Com- pany	Whittington	Forge and mills	60			
126	Woodyst	Kisbrey	screw works	10			
127, 128	John Knight & Company	Cookley	Forge and mills, screw works	250			
128	Hunt & Company	Wolverley	screw works	10			
129, 130	Morgan, Banks & Com- pany	Broadwaters	copperplate works	30			
130	S. Bernt	Falling Sands	Forge	20			
140	Lewty & Company	Widow Works	copperplate works	20			
141	Turton	Kidderminster	Laundry	10			
142	Baldwin, See & Com- pany	Stourport	holice works	20			
				550			
					350		
					8,120	3,715	1,040
					11,065	8,825	1,100
					15,350	12,540	2,750

*STOURBRIDGE TO KIDDERMINSTER DISTRICT.**DUDLEY TO STOURBRIDGE DISTRICT.**WOLVERHAMPTON TO DUDLEY DISTRICT.*