

SLATE MINES AND QUARRIES.

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Introductory.*

The tables on pages 61 to 62 are based on returns received from firms in Great Britain whose business in 1924 consisted wholly or mainly in the mining or quarrying of slate. No production was recorded in Northern Ireland in 1924. The number of such separate returns was 93.

Summary of results.—The following table shows the main results of the Censuses of 1924, 1912 and 1907, comparisons between the figures for the three years being subject to the qualifications mentioned in the next paragraph :—

Particulars.	Unit.	1924.	1912.	1907.
Total value of products (Gross output) ..	£'000	2,182	874	1,148
Cost of materials used	"	153	71	104
Net output	"	2,029	803	1,044
Average number of persons employed ..	No.	10,115	12,204	14,400
Net output per person employed ..	£	201	66	72
Mechanical power available :—				
Prime movers	H.P.	6,532	7,741	10,903
Electric motors driven by purchased electricity	"	9,826	2,734	(not recorded)

* See also the Notes on pages vii to xv.

Qualifications affecting comparisons.—In considering the above table and the other tables in this report which show figures for different censal years, it should be borne in mind that :—

(1) The comparability of figures relating to value or cost is affected by the changes which have taken place in the general purchasing power of money.

(2) The Censuses of 1907 and 1912 covered Great Britain and the whole of Ireland, while that of 1924 applied only to Great Britain and Northern Ireland; according to the Census of Production taken by the Government of the Irish Free State in respect of the year 1926, the total value of slate mined or quarried in that year was returned as only £26,000. Further, at the Census of 1907 the gross output for the whole of Ireland was valued at only £14,000 and the number of persons employed was only 271.

(3) The Censuses of 1907 and 1924 extended to all firms, however small, but in 1912 firms employing not more than five persons (excluding the proprietors) were required to state only the average number of persons employed by them in the year. According to the information so furnished, the average number of persons employed in the establishments thus excluded was 115 or less than 1 per cent. of the number employed by the remaining firms as shown in the above table.

Production.

Detailed information relating to the output of Slate Mines and Quarries in 1924 is summarised in Table II on page 61.

Slate.—The following statement shows, for the three censal years, the quantity and value of the different kinds of slate raised. The figures for 1924 include 400 tons of roofing slates, valued at £2,000, recorded on schedules for other trades. No output of slate was recorded on schedules for other trades in 1907 or 1912.

Kind of slate.	1924.		1912.		1907.	
	Quantity.	Selling value.	Quantity.	Selling value.	Quantity.	Selling value.
	Tons.	£'000.	Tons.	£'000.	Tons.	£'000.
Slates for roofing purposes	253,800	2,107	335,200	859	416,000	1,146
Slate slabs	12,300	69	7,400	14		
Slates for damp-courses returned as such ..	2,600	7	—	—		
TOTAL	268,700	2,183	342,600	873	416,000	1,146

The output shown above is free from duplication. In the Annual Report issued by the Mines Department, the total quantity of slate raised in 1924 was recorded as 281,669 tons. This figure is inclusive of 8,005 tons of crude or roughly dressed slate used for building

stone, road-metal, etc. Deducting the latter, the aggregate is reduced to 273,664 tons, which differs little from the output returned to the Census. The output of dressed slate is dealt with in the report on the Building Materials and Monumental Masonry Trades (see pages 239 and 249.)

Other products.—In addition to slate, an output of 2,400 tons of undressed stone, valued at £1,000, was recorded on schedules for Slate Mines and Quarries in 1924. Such output, being mainly produced at other quarries, is dealt with on pages 64 to 66. The value of stone recorded in 1912 was £1,000, and in 1907, £2,000.

Cost of materials.—The cost of materials used by firms that made their returns on schedules for Slate Mines and Quarries was returned as £153,000 in 1924; the corresponding figure for 1912 was £71,000, and for 1907, £104,000.

Net output.—The net output in 1924 of the firms that made their returns on schedules for Slate Mines and Quarries (whose gross output was valued at £2,182,000) was £2,029,000, that sum representing the total amount by which the value, at mine or quarry, of the aggregate output exceeded the cost, as purchased, of the materials used.

The net output per head of persons employed in the censal year 1924 was £201, as compared with £66 in 1912 and £72 in 1907.

Exports and imports.—The exports of slates for roofing purposes in 1924 amounted to 10,580 tons, of which 6,960 tons were exported to the Irish Free State. In 1912, exports to places outside the British Isles amounted to 26,230 tons, and in 1907 to 28,750 tons.

Retained imports in 1924 amounted to 11,620 tons, compared with 26,175 tons in 1912 and 36,815 tons in 1907.

Wages in 1924.

Under the Census of Production Act, 1906, the powers of the Board of Trade to require information do not extend to particulars of the amount of wages paid, and, consequently, no information on this head was secured in connexion with the Census of 1924. As a result, however, of the voluntary enquiry undertaken by the Ministry of Labour into wages and hours in the United Kingdom in 1924, information was obtained as to the total wage-bill of a group of firms in the Slate industry that made returns both to the Ministry of Labour and to the Census of Production office. According to the Census records this group of firms employed, in the week ended 18th October, 1924, 3,421 operatives, or 34 per cent. of the total of 9,991 operatives for the industry as a whole, and their net output totalled £628,000, or 31 per cent. of the aggregate net output of

£2,029,000 for the industry as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was £449,000, representing about 71 per cent. of their aggregate net output.

Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 61 to 62. The following table sets out certain particulars for that year, together with those relating to the two previous censal years. In the Census of 1924, separate particulars of male and female operatives were not required for each month of the year in this trade and, for the purposes of comparison, the number of female operatives employed in the week ended 18th October has been taken as the average for the year. The resulting figure for male operatives has been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October.

Average number.	Males.		Females.		Males and females.	
	Under 16.	All ages.	Under 16.	All ages.	Under 16.	All ages.
1924.						
Operatives	554	9,787	—	1	554	9,788
Administrative, etc. ..	3	318	1	9	4	327
TOTAL	557	10,105	1	10	558	10,115
1912..						
Wage earners	481	11,884	—	2	481	11,886
Salaried	2	317	—	1	2	318
TOTAL	483	12,201	—	3	483	12,204
1907.						
Wage earners	886	14,042	—	—	886	14,042
Salaried	6	349	—	9	6	358
TOTAL	892	14,391	—	9	892	14,400

The numbers of operatives recorded month by month in 1924 ranged from 310 below the average, in March, to 252 above the average, in December (see Table III B, page 62). Except for a falling-off in March, the numbers increased steadily throughout the year and were, in December, 509, or 5·3 per cent., greater than in January.

Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 62. The following table sets out the particulars for the three censal years relating to the capacity and kinds of *prime movers* and the capacity of *electric generators* installed.

Power equipment.	1924.			1912.	1907.
	Ordinarily in use.	In reserve or idle.	Total.	Total.	Total.
PRIME MOVERS :—	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines ..	1,667	490	2,157	3,581	7,047
Steam turbines	200	10	210	10	10
Gas engines	630	100	730	958	727
Petrol and light oil engines ..	467	55	522	207	
Heavy oil engines	485	20	505	2,985	3,107
Water power	2,212	196	2,408		
Other	—	—	—	—	12
TOTAL	5,661	871	6,532	7,741	10,903
ELECTRIC GENERATORS :—	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by—					
Reciprocating steam engines ..	—	—	—	63	150
Steam turbines	—	—	—	—	—
Gas engines	20	12	32	1,002	948
Petrol and light oil engines ..	—	—	—		
Heavy oil engines	50	—	50		
Water power	1,005	—	1,005		
Other prime movers	—	—	—	—	—
TOTAL	1,075	12	1,087	1,065	1,098

The capacity of *electric motors* recorded in 1924 and in 1912 was as shown below :—

Electric motors.	1924.			1912.
	Ordinarily in use.	In reserve or idle.	Total.	Total.
Driven by—	H.P.	H.P.	H.P.	H.P.
Electricity generated in own works ..	1,670	34	1,704	1,607
Purchased electricity	9,047	779	9,826	2,734

Corresponding information was not required for 1907. The total number of Board of Trade units of electricity purchased for power and lighting purposes in that year was returned as 1,335,000.

TABLES.

I.—Summary of results.

Note.—No production was recorded in Northern Ireland.

Particulars.	Unit.	England and Wales.	Scotland.	Great Britain.
Value of products (Gross output) ..	£'000	2,112	70	2,182
Cost of materials used	„	148	5	153
Net output	„	1,964	65	2,029
Average number of persons employed ..	No.	9,695	420	10,115
Net output per person employed ..	£	203	155	201
Mechanical power available :—				
Prime movers	H.P.	6,203	329	6,532
Electric motors driven by purchased electricity	„	9,826	—	9,826

II.—Production.

Products.	England and Wales.		Scotland.		Great Britain.	
	Quantity.	Selling value.	Quantity.	Selling value.	Quantity.	Selling value.
	Th. tons.	£'000.	Th. tons.	£'000.	Th. tons.	£'000.
Slates for roofing purposes	243.9	2,047	9.5	58	253.4	2,105
Slate slabs	10.3	61	2.0	8	12.3	69
Slates for damp-courses, returned as such ..	0.6	3	2.0	4	2.6	7
Stone, mainly undressed..	2.4	1	—	—	2.4	1
TOTAL VALUE OF PRODUCTS (GROSS OUTPUT)	2,112	..	70	..	2,182

III.—Employment.

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1924.

Kind of staff.	Males.		Females.		Males and females.	
	Under 16.	All ages.	Under 16.	All ages.	Under 16.	All ages.
England and Wales :—						
Operatives	555	9,557	—	1	555	9,558
Administrative, etc.* ..	3	306	1	7	4	313
TOTAL	558	9,863	1	8	559	9,871
Scotland :—						
Operatives	11	433	—	—	11	433
Administrative, etc.* ..	—	12	—	2	—	14
TOTAL	11	445	—	2	11	447
Great Britain :—						
Operatives	566	9,990	—	1	566	9,991
Administrative, etc.* ..	3	318	1	9	4	327
TOTAL	569	10,308	1	10	570	10,318

* Administrative, technical and clerical staff.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1924.

Week ended.	England and Wales.	Scotland.	Great Britain.
	Males and females.	Males and females.	Males and females.
January 12th	9,190	341	9,531
February 16th	9,166	403	9,569
March 15th	9,077	401	9,478
April 12th	9,200	393	9,593
May 17th	9,340	398	9,738
June 21st	9,392	398	9,790
July 19th	9,430	419	9,849
August 16th	9,471	415	9,886
September 13th	9,547	422	9,969
October 18th	9,558	433	9,991
November 15th	9,596	428	10,024
December 13th	9,615	425	10,040
ANNUAL AVERAGE	9,382	406	9,788

IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS.

Power equipment.	England and Wales.		Scotland.		Great Britain.	
	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.
PRIME MOVERS :—	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	1,617	490	50	—	1,667	490
Steam turbines	200	10	—	—	200	10
Gas engines	560	100	70	—	630	100
Petrol and light oil engines	433	55	34	—	467	55
Heavy oil engines	335	20	150	—	485	20
Water power	2,187	196	25	—	2,212	196
TOTAL	5,332	871	329	—	5,661	871
TOTAL OF PRIME MOVERS INSTALLED	6,203		329		6,532	
ELECTRIC GENERATORS :—	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by—						
Gas engines	20	12	—	—	20	12
Heavy oil engines	—	—	50	—	50	—
Water power	1,005	—	—	—	1,005	—
TOTAL	1,025	12	50	—	1,075	12
TOTAL OF ELECTRIC GENERATORS INSTALLED	1,037		50		1,087	
ELECTRIC MOTORS —	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by—						
Electricity generated in own works	1,610	34	60	—	1,670	34
Purchased electricity	9,047	779	—	—	9,047	779