SECTION II.

MINES AND QUARRIES.

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SECTION II.-MINES AND QUARRIES.

GENERAL REPORT.

The following Section deals with the trades engaged in mining and quarrying and in the manufacture of coke, briquettes, and shale oil.

The "output" shown in the Tables is the gross output of each trade, i.e., where goods pass through the hands of several manufacturers at different stages, their quantity and value has been registered at each stage. The value of this gross output is, therefore, greater in the aggregate than the value of the goods, taken as a whole, when ready for export or consumption.

In the Tables the quantities and values of the principal products are generally shown in the classification adopted in the Export and Import Lists, but in the case of some trades a different classification was adopted in order to suit the convenience of manufacturers and, in accordance with the limitations imposed by the Census of Production Act, 1906, values only were then required to be stated.

The figures entered against each class of products show the output of that product in the year of return, whether sold or not, after deducting any amount worked up in the same factory into goods of a kind separately classified. Thus, for example, the entry against crude petroleum shows only that portion of the crude petroleum, extracted in the year of return, which was either sold as crude petroleum or remained in stock at the end of the year as crude petroleum, and does not include crude petroleum refined by the firms producing it.

Firms, however, were instructed to make separate Returns in respect of their coal mines and coke works or in respect of their oil shale mines and shale oil works and to treat the goods transferred from one works to the other as sales and purchases. The consequent duplication, as well as that arising from goods being sold by one firm and worked up by another, is eliminated when the total cost of materials used is deducted from the value of the gross output in order to arrive at the net output (see below).

The value recorded for mine or quarry products raised, or for goods made, is the net selling value of the products or goods calculated as at pit, quarry, or works.

The result of deducting the total cost of materials from the value of the gross output for any industry or group of factories is to give a figure which may, for convenience, be called the "net output" of the industry or the group. This figure expresses completely and without duplication the total amount by which the value of the products of the industry or of the group, taken as a whole, exceeded the value of the materials purchased from outside, *i.e.*, it represents the value added to the materials in the course of manufacture, and when added to the cost of those materials it would give the selling value of the products of the industry ready for export or for sale outside the industry. The net output constitutes for any industry the fund from which wages, salaries, rents, royalties, rates, taxes, depreciation, sales expenses, and other similar charges, as well as profits, have to be defrayed.

The following statement shows for the trades covered by this Section of the Report the gross output, the cost of materials used, the net output as defined above, the number of persons employed, the net output per person employed, and the horse-power of engines at mines, quarries, and factories. The figures relate to the United Kingdom as a whole. The horse-power shown does not include power rented from other establishments or the capacity of motors driven by purchased electricity.

Trade.	Gross Output. Selling Value. (1)	Materials Used. Cost. (2)	Net Output. Excess of Column (1) over Coluum (2). (3)	Average Number of Persons Employed. (4)	Net Out- put per Person Employed. (5)	Horse- Power of Engines at Mines, Quarries, and Factories. (6)
		0	0	in the second	e	пр
Coal and Ironstone Mines under the	122,637,000	16,547,000	106,090,000	838,586	127	2,293,978
Coke Works at Collieries	10,140,000	7.147.000	2,993,000	10,958	273	28,635
Manufactured Fuel Trade	1,205,000	938,000	267,000	1,537	174	5,344
Oil Shale Mines	651,000	128,000	523,000	4,276	122	15,129
Shale Oil Works	2,371,000	1,594,000	777,000	3,391	229	10,993
Iron Mines under the Metalliferous	1,999,000	251,000	1,748,000	11,252	155	27,557
Mines Act and Iron Quarries.	1 661 000	430,000	1.231.000	18.233	68	38,573
Salt Mines, Brine Pits, and Salt	667,000	348,000	319,000	4,736	67	4,127
Slate Quarries	1.148.000	104.000	1.044.000	14,400	72	10,903
Limestone Quarries and Lime Kilns	1,909,000	495,000	1,414,000	16,193	87	10,867
Quarries, other than Iron, Slate, and Limestone.	3,638,000	513,000	3,125,000	41,668	75	49,028
Total	148,026,000	28,495,000	119,531,000	965,230	_	2,495,134

In the following Table the number of persons employed is distributed by sex and age and according as they are wage-earners or salaried persons.

not Day secondary substances but	Average Number of Persons Employed in Mines, Quarries, and Works.									
	al Jacobier	Wage-ea	arners.	19.12	Salaried Persons.					
Trade.	Males.		Females.		Males.		Females.			
	Under 16.	Over 16.	Under 16.	Over 16.	Under :16,	Over 16.	Under 16.	Over 16.		
Coal and Ironstone Mines under the Coal Mines Regulation Acts : Above ground Below ground -Coke Works at Collieries Manufactured Fuel Trade* Oil Shale Mines : Above ground Below ground Shale Oil Works* Iron Mines under the Metalliferous Mines Act and Iron Quarries. Mines, other than Coal and Iron Salt Mines, Brine Pits, and Salt Works.* Slate Quarries Limestone Quarries and Lime Kilns Quarries other than Iron, Slate, and Limestone.	$15,578 \\ 43,660 \\ 219 \\ 46 \\ 60 \\ 213 \\ 257 \\ 261 \\ 654 \\ 337 \\ 886 \\ 344 \\ 1,101 \\ 1,01 \\ $	$\begin{array}{c} 136,733\\623,524\\10,351\\1,435\\637\\3,335\\2,780\\10,782\\16,710\\3,669\\13,156\\15,182\\39,158\end{array}$	642 1 - 1 - 28 139 - - - - - - - - - - - - -	4,685 	$\left. \begin{array}{c} 531 \\ 7 \\ 4 \\ 54 \\ 7 \\ 8 \\ 30 \\ 6 \\ 20 \\ 57 \end{array} \right.$	13,116 318 51 30 291 199 587 261 343 629 1,290		$ \begin{array}{c} 114 \\ 2 \\ - \\ 2 \\ - \\ 17 \\ 12 \\ - \\ 9 \\ 11 \\ 39 \\ \end{array} $		
Total	63,616	877,452	811	5,299	725	17,115	5	207		

* In the case of these trades the age-division is 18 years.

In the whole group 98.1 per cent. of the persons employed were wage-earners and 1.9 per cent. were salaried persons (including principals). Of the wage-earners 99.4 per cent. were males and 0.6 per cent. were females; and of the salaried persons 98.8 per cent. were males and 1.2 per cent. were females. Of the total number employed other than in the manufactured fuel trade, in shale oil works, or in salt mines and works 6.8 per cent. of the male wage-earners and 11.8 per cent. of the female wage-earners were under 16 years of age; 3.7 per cent. of the male salaried persons and 2.0 per cent. of the female salaried persons were under 16 years of age. 24678

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The following statement shows the value of the output of the leading products of the group, including not only $\pounds 148,026,000$, the value returned on the Schedules for the group, but also $\pounds 1,263,000$, the value of similar products returned on Schedules for other trades, together with the estimated value of coke stated to have been made by ironmasters and included in the value of their pig-iron :—

					£
Coal					 119,554,000
Foundry Coke (excluding	g Gas C	oke)		 10,304,000
By-products of	Foundry	Coke			 733,000
Manufactured F	uel				 1,205,000
Oil Shale					 650,000
Shale Oil				•••	 793,000
Shale Oil By-pr	oducts				 1,204,000
Ironstone					 4,315,000
Tin, Lead, and	Other Mi	nerals			 1,409,000
Salt					 695,000
Slate					 1,146,000
Limestone and	Lime				 2,074,000
Chalk, Stone, an	d Other	Quarry	Products		 4,636,000
Other Manufact	ared Prod	lucts			 146,000
					0110 001 010
			and the second se		

Total ... $\pm 148,904,000$

Each of the above headings is free from duplication within itself except "coal" which includes the value of coal used for colliery purposes. There is duplication between the different headings in respect of (a) coal used in the production of coke and manufactured fuel, (b) coal and coke used for mining and quarrying purposes and for lime-burning and salt evaporation, and (c) oil shale, valued at £650,000, used in the distillation of shale oil. The amount of duplication under heads (a) and (b) is not known exactly, but, from the information given in the Returns, it is estimated that after eliminating duplication the value of the output of the products of this group of trades is about £134,000,000. Excluding coke and shale oil by-products (the exports of which cannot be distinguished from those of like products in other groups) the value of the exports in 1907 was £43,900,000, free on board, and the value of the net imports (i.e., imports less re-exports) was £20,700,000 at port of landing.

The following statement shows the net output of those mines, quarries, and works where mechanical power was used, separately from the net output of those where no mechanical power was employed.

	Firms using	Firms not using
	Power.	Power.
	Net Output.	Net Output.
	£	£
Coal and Ironstone Mines, under the	and the second	
Coal Mines Regulation Acts	105,735,000	355,000
Coke Works at Collieries	2,636,000	357,000
Manufactured Fuel Trade	266,000	1,000
Oil Shale Mines	523,000	_
Shale Oil Works	777.000	
Iron Mines under the Metalliferous	,,	
Mines Act and Iron Quarries	1,658,000	90,000
Mines, other than Coal and Iron	1,168,000	63,000
Salt Mines, Brine Pits, and Salt Works	319,000	
Slate Quarries	974,000	70.000
Limestone Quarries and Lime Kilns	1.043,000	371,000
Quarries, other than Iron, Slate, and Limestone.	2,522,000	603,000
Total	£117,621,000	£1,910,000
		An and the second sec

Fuel Consumed.—All firms receiving Schedules for this group of trades were asked to make a voluntary statement as to the quantity of fuel used by them for haulage, ventilation, and other purposes. The replies received are summarised below and shown in relation to the aggregate net output of the firms furnishing information. It should be noted that coal used in the manufacture of coke and briquettes is not included, and that coal used in the evaporation of salt and in lime-burning is included :---

1 10.17 U.L.S	Net Outpu Furnishing	t of Firms Particulars.	Fuel Consumed by Firms Furnishing Particulars.		
Trade.	Amount.	Percentage of Total Net Output.	Coal.	Coke.	
and the second s	£	66.6	Tons.	Tons.	
Coal and Ironstone Mines under the Coal Mines Regulation Acts. Coke Works at Collieries Manufactured Fuel Trade	1,966,000 228,000	65·7 85·4	56,387	2,045* 80	
Shale Oil Works Shale Oil Works Iron Mines under the Metalliferous Mines Acts, and Iron Quarries.	1,485,000	85.0	116,787		
Mines, other than Coal and Iron Salt Mines, Brine Pits, and Salt Works Slate Quarries Limestone Quarries and Lime Kilns	$\begin{array}{c c} 1,107,000\\ 303,000\\ 485,000\\ 1,109,000\\ 2,864,000\end{array}$	$ \begin{array}{c c} 89.9\\ 95.0\\ 46.5\\ 78.4\\ 91.6 \end{array} $	$ \begin{array}{c c} 206,563\\ 621,880\\ 18,604\\ 419,350\\ 319,045 \end{array} $	$ \begin{array}{r} 1,912 \\ 221 \\ 20 \\ 67,803 \\ 10,573 \end{array} $	
Total	80,260,000	67.1	13,00	4,836	

* Separate particulars in respect of Coal and Coke were not required to be furnished in the case of Coal and Ironstone Mines and Coke Works situated at Collieries.

As shown above, the fuel consumed at the coal and ironstone mines, in respect of which particulars were furnished, amounted to 11,133,470 tons of coal and coke, practically all of which may be taken to be coal. The total quantity of coal raised by the firms furnishing particulars was 176,549,000 tons (including coal used for mine purposes), so that their fuel consumption was about 6.3 per cent. of their output of coal. This percentage does not conflict with the estimate of 6 to 8 per cent. of the output given in the Report of the Royal Commission on Coal Supplies (Cd. 2353) as the average consumption of coal for colliery purposes.

DETAILED REPORTS.

Coal and Ironstone Mines under the Coal Mines Regulation Acts.

Output.—The Tables on pages 66 to 68 are based on Returns obtained from mineowners working coal and ironstone mines under the Coal Mines Regulation Acts. A few quarries where coal was worked are also included. The aggregate value of the output of such mines and quarries amounts to $\pounds 122,637,000$, and, in addition, about 2,000 tons of steam coal, valued at about $\pounds 1,000$, was returned on Schedules for other trades, raising the total value to $\pounds 122,638,000$.

Mine-owners were required to state as their output the total quantity and value of all coal and other minerals raised in 1907, including in the case of coal that used for colliery purposes and "allowance coal" given to miners. The value of the coal and other products sold was to be based on the actual price obtained, calculated as at pit, *i.e.*, the price less charges for carriage, discount, and commission ; the cost of carriage over private colliery lines to a public railway line or to point of shipment or sale was to be estimated and deducted from the selling price. Coal used for colliery purposes, "allowance coal," and coal transferred to coke-works owned by the mine-owner making the Return were to be valued as if sold in the ordinary-course. In cases where a mine-owner supplied coal to an owner of coke-works and received back the coke, while the coke-oven proprietor retained the by-products, the mine-owner was instructed to include in his Return of output the coal supplied as if it had been sold, but to exclude the coke.

Including the small quantity of coal entered on Schedules for other trades the output in 1907 of coal and ironstone mines under the Coal Mines Regulation Acts was returned as follows :—

		Quantity.	Value.	
Coal :		rons.	ŧ	
Anthracite		3,909,000	2,297,000	
George		$128,\!204,\!000$	58,704,000	
Household	••••	29,039,000	12,779,000	
Other Sorts in dull G	•••	53,060,000	25,705,000	
separately distinguish	not	52,348,000	20,069,000	
separatery distinguished.				
Total—Coal	••••	266,560,000	119,554,000	
Ironstone		8 184 000	9 290 000	
Iron Pyrites		11 000	2,528,000	
Fireclay		2,538,000	510,000	
Clay and Shale, other than Fireclay Oil Shale.	and	518,000	59,000	
Limestone		391,000	63 000	
Sandstone, including Ganister		238,000	92,000	
whinstone, Barytes, Fluor Spar,	and (Recorded)	16,000	
Other Products.	{	by Value		
other i roducts	(only.	2,000	

The total value of the above products, as already stated, amounts to $\pounds 122,638,000$.

(a) Coal.—The figures shown above as to the output of coal in 1907 differ slightly from those given in Part III. of the General Report on Mines and Quarries for 1907 (Cd. 4343), the quantity being less than the total returned to the Home Office by rather less than the half of one per cent., and the value less by about four-fifths of one per cent. The difference is believed to be accounted for mainly by the exclusion from the Returns to the Census Office of a certain quantity of unsaleable coal which was included by the mine-owners in their Returns to the Home Office.

With regard to the classification of coal into the five classes shown in the statement, it is to be observed that in some cases colliery proprietors working more than one class of coal have not been able to give exact particulars of the output of each class, and were accordingly instructed to furnish estimates. In other cases, mine-owners have included as "other sorts" coal which, according to the state of the market, might be used as steam, or gas, or household coal.

The following statement shows the output of coal in 1907 in comparison with the quantity exported :—

	10. 11 12 12 12 12 12 12 12 12 12 12 12 12		Quantity Raised.	Quantity Exported.	Quantity shipped for the use of steamers engaged in the Foreign Trade.	Quantity retained in the United Kingdom.
Anthracite Steam Gas Household Other Sorts, inclu separately distingu	 ding Coal lished.	 not	Tons. 3,909,000 128,204,000 29,039,000 53,060,000 52,348,000	Tons. 2,128,000 46,730,000 10,445,000 1,510,000 2,788,000	Tons. 	Tons. 1,781,000 62,855,000* 18,594,000 51,550,000 49,560,000
	Total		266,560,000	63,601,000	18,619,000	184,340,000

* Including 2,150,000 tons of bunker coal for coasting trade.

A little under 24 per cent. of the coal raised was exported, and about 7 per cent. was shipped for the use of steamers engaged in the foreign trade. Of the steam coal raised 36.4 per cent. was exported and 14.5 per cent. shipped as bunkers on foreign-going vessels; these percentages must, however, be modified by the consideration that part, at least, of the coal returned by colliery proprietors as "other sorts" was probably classified by exporting merchants as "steam," "gas," or "household," its destination being then known. It should also be noted that part of the coal exported as cargo was for the use of ships (largely British) in foreign seas.

(b) Other Minerals.—As in the case of coal, and probably for a similar reason, the output of ironstone as returned to the Census Office is slightly less than that returned to the Home Office as the output of mines under the Coal Mines Regulation Acts. The same explanation probably also applies to fireclay and to clay and shale, other than fireclay and oil shale, with the addition that there appears also to have been differences of classification. In the case of limestone and sandstone the output of some quarries owned by mine owners has been included with that of the mines.

The total output of ironstone, limestone, fireclay, other clay, and sandstone, including that from metalliferous mines and from quarries, is dealt with on pages 51, 61, and 63.

Including iron pyrites returned on Schedules for other trades, the total output of iron pyrites in the United Kingdom in 1907 was returned to the Census Office as about 13,500 tons valued at about $\pm 6,500$, whereas the Home Office figures are 10,000 tons valued at about $\pm 4,500$.

(c) Comparison with 1906.—Proprietors of collieries and coke-works at mines were asked to make a voluntary statement respecting the value of their output in 1906. Firms, the total value of whose output amounted to $\pounds71,909,000$ or a little over 54 per cent. of the total output of coal and ironstone mines and coke-works at collieries in 1907, reported that the value of their output in 1906 was $\pounds56,125,000$. The increase of value in 1907, compared with 1906, was thus a little over 28 per cent. in the case of those firms reporting in both years. The output for 1906 cannot be divided between mines and cokeworks. It may, however, be noted that, according to the Home Office Returns, the approximate average price of coal per ton at the mines was nearly $23\frac{1}{2}$ per cent. higher in 1907 than in 1906, and that the aggregate value of the coal raised in 1907 was nearly 32 per cent. greater than the value of the coal raised in 1906.

Net Output.—The net output of the coal and ironstone mines covered by the Tables on pages 66 to 68 was $\pm 106,090,000$, that sum representing the total amount by which the value of the coal, ironstone, and other mine-products raised exceeded the cost of the coal used for colliery purposes, explosives, timber, and other materials used. The actual cost of such materials was $\pm 16,547,000$ The value of the coal, ironstone, &c., in the mine is not included in the cost of materials, and rents, royalties, and wayleaves have to be defrayed out of the net output, as well as wages, salaries, establishment charges, and profits.

The net output per head of persons employed in the censal year was nearly £127.

Persons Employed.—The average number of persons employed on the last Wednesdays in January, April, July, and October in connexion with the mines covered by the Tables on pages 66 to 68 is returned as 838,586, viz., 667,184 wage-earners below ground, 157,638 wage-earners above ground, and 13,764 salaried persons. The total number is distributed by age and sex as follows :—

Under 16 59,769 Under 16	
	 645
Over 16 773,373 Over 16	 4,799

The variation in employment during 1907 is shown in the following Table :---

	Pe	Persons Employed on last Wednesday in						
No. 1 and a state of the state	January.	April.	July.	October.				
Wage-earners : Below ground Wage-earners : Above ground Salaried Persons	653,447 153,890 13,651	$\begin{array}{c} 665, 647 \\ 157, 374 \\ 13, 736 \end{array}$	$\begin{array}{c} 669,466\\ 158,763\\ 13,804\end{array}$	680,178 160,524 13,865				
Total	820,988	836,757	842,033	854,567				

In connexion with those figures it should be borne in mind that the quantity of coal raised in 1907 was, according to the Home Office Returns, nearly 7 per cent. above that for 1906, which accounts for the progressive increase in the number employed in the course of the year.

Further, the wage-earners above ground include persons engaged in coal washing in preparation for coking, and probably other persons employed partly at coke-works and partly at mines.

In the case of underground workers, Returns were also called for, at the suggestion of the Advisory Committee appointed by the Board of Trade, with regard to the numbers employed on the Mondays preceding the last Wednesdays in the specified months, with a view to affording a measure of the excess of absenteeism alleged to occur on Mondays.

The information furnished is summarised in the following Table :----

and a starting of the second sec				Monday.	ta kutu suturi Manfi da u	Wednesday.			
		- obsis 14.17 study c	dan B Tan Da	Persons actually at Work.	Absentees.	Total.	Persons actually at Work.	Absentees.	Total.
January April July October	···· ··· ···	···· ··· ···	 	619,883 633,342 631,000 646,749	91,509 90,847 98,755 101,052	711,392724,189729,755747,801	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$63,177 \\ 63,101 \\ 64,842 \\ 72,114$	$716,624 \\728,748 \\734,308 \\752,292$
Average				632,743	95,541	728,284	667,184	65,809	732,993

The above figures show that there were, on the average, 29,732 more absentees on Mondays than on Wednesdays, and that the average percentage of absentees on Mondays was 13^{.1} per cent. and on Wednesdays 9^{.0} per cent. of the numbers on the colliery books on those days. It should, however, be remembered that in some districts it is general to work two shifts or more on Wednesdays and only one shift on Mondays.

The difference between the total figures on the books on Monday and on Wednesday is due to the fact that new workers are generally taken on after Monday, when the pits are in full work again for the week.

The numbers shown as absent on Wednesdays may be taken as representing the permanent average of absenteeism, including persons who are unable to attend on account of sickness or accident or who are laid off work for want of wagons, as well as those voluntarily absent for their own purposes. There is no precise evidence to show the extent to which absenteeism is due to these various causes. *Power.*—The particulars furnished with regard to power are summarised below, electricity purchased not being included :—

sub- on paper ad a <u>so v</u> ite, so	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
Mines with their own Engines Mines not using Power	£ 122,203,000 434,000	833,531 5,055	Horse-Power. 2,293,978
Total	122,637,000	838,586	2,293,978

Classed according to kinds of power, the particulars are :--

		Horse-Power.
Steam Engines		2,242,021
Internal Combustion Engines (gas, oil, &c.)		7,349
Water Power		468
Other Power	*****	44,140
in a stand of the second of the second second second		
Total	•••	2,293,978

Of the engines belonging to collieries, 2,143,260 horse-power was used directly in driving machinery and 150,718 horse-power (or 7 per cent.) in driving dynamos for the production of electric power and light. The capacity of the dynamos belonging to firms generating their own electricity may be estimated at 101,192 kilowatts, allowing about 10 per cent. for loss of energy in conversion, and taking 1,000 horse-power as the equivalent of 746 kilowatts.

The number of units of electricity purchased was not returned, but motors of 11,936 horse-power capacity were driven by purchased electricity.

Coke-works at Collieries.

Output.—The Tables on pages 69 and 70 are based on Returns received from cokeworks operated in connexion with collieries.

Mine-owners who transferred coal from their collieries to their own coke-works were instructed to include the value of such coal in their statement of cost of materials as if it had been purchased. In cases where a mine-owner supplied coal to an owner of coke-works and received back the coke while the coke-oven proprietor retained the by-products, the latter was instructed to make a full Return of the output of the cokeworks, treating the coal as if purchased and the coke as if sold.

The particulars furnished respecting the output of coke-ovens at collieries are summarised in the following statement :---

		Qualitity.	value.
		Tons.	£
Coke		11,344,000	9,516,000
By-products :			
Sulphate of Ammonia		37,000	416,000
Tar		121,000	101,000
Pitch		5,000	6,000
		Gallons.	
Tar Oils (Creosote, &c.)		1,066,000	12,000
Benzol and Toluol		2,350,000	49,000
Other By-products		*	40,000
Total_By-produ	lets		624.000

The total value of the coke and by-products amounts to $\pounds 10,140,000$.

In addition to the quantity of foundry coke shown above, ironmasters and other manufacturers also made foundry coke mainly for use in their own works but partly for sale. From information voluntarily furnished by such manufacturers it is estimated that their aggregate output of foundry coke was about 978,000 tons, valued at $\pounds788,000$.

* Recorded by value only.

The total output of foundry coke in 1907 was thus about 12,322,000 tons, valued at about $\pounds 10,304,000$. The value of the total output of by-products from the manufacture of foundry coke as returned on all schedules was $\pounds 773,000$.

The output of gas coke is dealt with separately on pages 834 to 841.

The particulars furnished in response to a request asking for a voluntary statement respecting the output of collieries and coke-works in 1906 are dealt with on page 43.

In the year 1907, 981,000 tons of coke (gas and foundry) were exported and 18,000 tons were imported and retained in the United Kingdom.

Net Output.—The net output of coke-works at collieries was £2,993,000, that sum representing the total amount by which the value of the coke and by-products made at such works exceeded the cost of the coal and other materials. The cost of materials used at such works was returned as $\pounds7,147,000$, coal supplied from collieries to coke-works belonging to the same owners being valued as if purchased.

The net output per head of persons employed in the censal year (neglecting certain classes of employees included with workers above ground at collieries) was a little over $\pounds 273$.

Persons Employed.—The average number of persons employed on the last Wednesdays in January, April, July, and October in coke-works at collieries is returned as 10,958, viz., 10,631 wage-earners and 327 salaried persons. These figures, however, do not include persons engaged in washing coal who are included with workers above ground at collieries (see page 44); probably some persons engaged partly about mines and partly about coke-works have also been returned as mine-workers. The total number returned as employed at coke-works is distributed according to age and sex as follows :—

Males : Under 16 Over 16		$\begin{array}{c} 226\\ 10.669 \end{array}$	Females :— Under 16 Over 16		1	
0,01,10,111	•••	10,000	J Over 16	•••	62	

The variation in employment during the year 1907 is shown in the following Table :----

alter and parts			Persons Employed on last Wednesday in					
-stice month in the	Tingo.	inc.	January.	April.	July.	October.		
Wage-earners Salaried Persons	 		10,393 323	$10,705 \\ 326$	10,699 328	10,725 333		
Total	 		10,716	11,031	11,027	11,058		

Power.—The particulars furnished with regard to power are summarised below, electricity purchased not being included :—

	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
Coke-works with their own Engines Coke-works not using Power	£ 8,480,000 1,660,000	9,335 1,623	Horse-Power. 28,635
Total	10,140,000	10,958	28,635

Classed according to kinds of power, the particulars are :--

						E B	Iorse-Power.	•
Steam Engines		••••	•••				26,213	
Internal Combus	tion En	gines (ga	as, oil,	, &c.)			2,411	
Other Power	•••	•••	••••	•••			11	
		Total			7		28,635	

Of the engines belonging to coke-works 25,686 horse-power was used directly in driving machinery and 2,949 horse-power (or 10.3 per cent.) in driving dynamos for the production of electric power and light. The capacity of the dynamos belonging to firms generating their own electricity may be estimated at 1,980 kilowatts, allowing about 10 per cent. for loss of energy in conversion, and taking 1,000 horse-power as equivalent to 746 kilowatts.

The number of units of electricity purchased was not returned, but motors of 537 horse-power capacity were driven by purchased electricity.

Output, Ovens Used, and Coal Consumed.—All makers of foundry coke, whether their works were at collieries, iron-works, or elsewhere, were asked to make a voluntary statement as to the quantity of coal used in the manufacture of coke, and the number and type of ovens used. Similar information had in previous years been collected by the Home Office, but the results of the enquiry undertaken by the Census Office for the year 1907 cannot be published in the same detail as that formerly given by the Home Office, since the Census of Production Act forbids the publication of figures which might lead to the identification of individual firms. The output of coke by districts, the quantity of coal carbonized, and the number and type of ovens used are shown in the following Table which relates to the production of 11,921,000 tons of coke out of a total made in the United Kingdom of 12,322,000 tons, valued at £10,304,000.

The state and and	Coke mad	e in 1907.		Number and Type of Coke Ovens in 1907.							
			Coal used	Ised In Existence. Average Number in operation							ration.
	Quantity. Value.	Value.	in the manu- facture of Coke.	By- product		n- oduct ns.	Total.	By- product	Non- By-product Ovens,		Total.
				Ovens.	Bee- hive.	Other Kinds.		Ovens.	Bee- hive,	Other Kinds.	
Durham Yorkshire Monmouthshire Lancashire Rest of England	Tons. 5,919,000 2,467,000 668,000 517,000 994,000	£ 5,120,000 1,875,000 577,000 466,000 748,000	Tons. 9,451,000 4,391,000 1,098,000 835,000 1,926,000	$1,340 \\ 1,125 \\ 830 \\ 161 \\ 253$	14,618 4,624 173 1,316 3,736	173 475 12 165	15,958 5,922 1,478 1,489 4,154	1,251 996 723 161 241	11,991 3,998 149 1,009 2,667	$ \begin{array}{r} 169 \\ 449 \\ 12 \\ 131 \end{array} $	$13,242 \\ 5,163 \\ 1,321 \\ 1,182 \\ 3,039$
Total—England Wales Scotland	10,565,000 884,000 472,000	8,786,000 791,000 446,000	17,701,000 1,333,000 750,000	3,709 1,254 240	$24,467 \\ 503 \\ 1,134$	825 194 —	29,001 1,951 1,374	3,372 1,238 236	19,814 378 989	761 191 —	23,947 1,807 1,225
Total-United Kingdom	11,921,000	10,023,000	19,784,000	5,203	26,104	1,019	32,326	4,846	21,181	952	26,979

No information was forthcoming respecting the coal carbonized and the number and type of ovens used in the production of 401,000 tons of coke, distributed over the various districts as follows :—

				Quantity.	Value.
				Tons.	£
Durham				-	
Yorkshire			•••	30,000	22,000
Monmouthshire .		••••			
Lancashire .				61,000	41,000
Rest of England .				188,000	115,000
Total—.	Ingland			279,000	178,000
Wales				29.000	27.000
Scotland			•••	93,000	76,000
United K	lingdom	••••		401,000	281,000

Manufactured Fuel Trade.

Output.—The Tables on pages 71 and 72 are based upon Returns received from factories and workshops engaged in the production of briquettes and other forms of manufactured fuel.

The total output of such factories and workshops amounted to 1,670,000 tons valued at $\pounds 1,205,000$. About nine-tenths of this quantity was made for export, exports of manufactured fuel in 1907 having amounted to 1,481,000 tons.

All manufacturers were asked to make a voluntary statement respecting the quantity and kind of coal used by them in the manufacture of briquettes and other fuel. Manufacturers with an output of 1,458,000 tons of manufactured fuel, or 87 per cent. of the total quantity produced, stated that they used 1,351,000 tons of coal. The coal used was thus $92\frac{1}{2}$ per cent. of the weight of fuel produced. At the same rate the total amount of coal used in making patent fuel would be 1,547,000 tons, while the coal used in making the patent fuel exported would be 1,372,000 tons. The class of coal used was not stated with sufficient precision in all cases to enable an exact classification to be made, but a large part was returned as steam or anthracite coal.

Net Output.-- The net output of the manufactured fuel factories and workshops covered by the Tables on pages 71 and 72 was £267,000, this sum representing the total amount by which the value of the products of the industry exceeded the cost of the materials used in their production. The actual cost of such materials was £938,000.

The net output per head of persons employed in the censal year was nearly ± 174 .

Persons Employed .- The average number of persons employed on the last Wednesdays in January, April, July, and October in the manufactured fuel factories and workshops covered by the Tables on pages 71 and 72 is returned as 1,537, viz., 1,481 wageearners and 56 salaried persons, the total number being distributed by age and sex as follows :--

Males :		Femalos .	
Under 18	50	Under 18	None
Over 18	1,486	Over 18	1

The variation in the number of persons employed during the censal year is shown in the following statement :---

			Persons Employed on last Wednesday in						
	1		January.	April.	July.	October.			
Wage-earners Salaried Persons		 	$1,\!483 \\ 57$	1,469 56	1,550 56	$\substack{1,420\\56}$			
Total		 	1,540	1,525	1,606	1,476			

Power.-The particulars furnished with regard to power used are summarised below, electricity purchased not being included :-

and a spin-	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
Factories with their own Engines Workshops (not using Power)	£ 1,201,000 4,000	$\substack{1,527\\10}$	Horse-Power. 5,344
Total	1,205,000	1,537	5,344

Classed according to kinds of power, the particulars are :---

Steam Engines B	ainmost					H	Iorse-Powe	r.
Internal Combust	on From	ing			•••		5,316	
Water Power	ion rugu	ies (ga	s, 011, d	zc.)	•••	•••	16	
	•••	•••	••••	••• 100	S 2		12	
and the second sec		п						
		1	otal	•••	•••	•••	5,344	

The firms making Returns also stated that they possessed dynamos of 239 kilowatts capacity, driven by steam engines. The capacity of these dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 7 per cent. of the engine-power belonging to manufactured fuel factories was required for driving dynamos for the production of electric power and light.

A complete statement of the amount of electric energy generated by those dynamos cannot be made, but manufacturers with dynamos of 101 kilowatts capacity stated that 237,000 Board of Trade units of electricity were generated.

About 3,000 Board of Trade units of electricity were purchased and used for lighting and power.

Oil Shale Mines.

Output.-The Tables on page 73 are based on Returns received from companies engaged in the extraction of oil shale from mines.

The total quantity of oil shale raised in the censal year was returned to the Census Office as 2,715,000 tons valued at £650,000, shale sent to companies' own oil works being valued as if sold. In addition, other products were raised to the value of £1,000, making the value of the total output of oil shale mines £651,000.

According to the General Report on Mines and Quarries for 1907 (Cd. 4343), the quantity of oil shale raised in that year was 2,690,000 tons; the difference between this amount and that shown above is due to the fact that the Returns made to the Census Office covered the business years of the several companies concerned, and those periods did not coincide with the calendar year 1907 except in one case.

Net Output.-The net output of oil shale mines was £523,000, that sum representing the total amount by which the value of the output of those mines exceeded the cost of materials used. The actual cost of the coal and other materials used was £128,000. The value of the shale in the mine was not included in the cost of materials, and rents, royalties, and wayleaves have to be defrayed out of the net output as well as wages, establishment charges, and profits.

The net output per head of persons employed in the censal year was a little over ± 122 .

Persons Employed .- The average number of persons employed on the last Wednesdays in January, April, July, and October in oil shale mines is returned as 4,276, viz., 3,548 wage-earners below ground, 697 wage-earners above ground, and 31 salaried persons. All the workers were males, 274 being under 16 and 4,002 over 16 years of age.

The variation in employment during the censal year is shown in the following statement :-

Endered and Annual and Annua	Persons Employed on last Wednesday in					
the domestic of the dist	January.	April.	July.	October.		
Wage-earners : Below ground Wage-earners : Above ground Salaried Persons	$3,531 \\ 708 \\ 31$	$3,561 \\ 717 \\ 31$	$3,543 \\ 662 \\ 31$	3,557 701 31		
Total	4,270	4,309	4,236	4,289		

In the case of underground workers, Returns were also called for, at the suggestion of the Advisory Committee appointed by the Board of Trade, with regard to the numbers employed on the Mondays preceding the last Wednesdays in the specified months, with a view to affording a measure of the excess of absenteeism alleged to occur on Mondays.

The information furnished is summarised in the following Table :---

				Monday. Wednesday.			Wednesday.		
tasi nende		Rohr	Persons actually at work.	Absentees.	Total.	Persons actually at work,	Absentees.	Total.	
January April July October	····	···· ··· ···	3,445 3,437 3,393 3,463	358 326 368 352	3,803 3,763 3,761 3,815	3,531 3,561 3,543 3,557	281 207 230 270	3,812 3,768 3,773 3,827	
Averagé			3,435	351	3,786	3,548	247	3,795	

All manufacturers were asked to make a voluntary statement respecting the quantity and kind of coal used by them in the manufacture of briquettes and other fuel. Manufacturers with an output of 1,458,000 tons of manufactured fuel, or 87 per cent. of the total quantity produced, stated that they used 1,351,000 tons of coal. The coal used was thus $92\frac{1}{2}$ per cent. of the weight of fuel produced. At the same rate the total amount of coal used in making patent fuel would be 1,547,000 tons, while the coal used in making the patent fuel exported would be 1,372,000 tons. The class of coal used was not stated with sufficient precision in all cases to enable an exact classification to be made, but a large part was returned as steam or anthracite coal.

Net Output.--The net output of the manufactured fuel factories and workshops covered by the Tables on pages 71 and 72 was £267,000, this sum representing the total amount by which the value of the products of the industry exceeded the cost of the materials used in their production. The actual cost of such materials was £938,000.

The net output per head of persons employed in the censal year was nearly $\pounds 174$.

Persons Employed .- The average number of persons employed on the last Wednesdays in January, April, July, and October in the manufactured fuel factories and workshops covered by the Tables on pages 71 and 72 is returned as 1,537, viz., 1,481 wageearners and 56 salaried persons, the total number being distributed by age and sex as follows :--

Males :-		I Femalos.	
Under 18 Over 18	$ \begin{array}{cccc} & 50 \\ & \dots & 1,486 \end{array} $	Under 18 None Over 18 1	

The variation in the number of persons employed during the censal year is shown in the following statement :---

·			Persons Employed on last Wednesday in				
	4		January.	April.	July.	October.	
Wage-earners Salaried Persons		 	$1,\!483 \\ 57$	$\substack{\textbf{1,469}\\56}$	1,550 56	$\substack{1,420\\56}$	
Total	•••	 	1,540	1,525	1,606	1,476	

Power.--The particulars furnished with regard to power used are summarised below,

	Gross Value of Output,	Average Number of Persons Employed.	Total Capacity of Engines.
Factories with their own Engines Workshops (not using Power)	$\begin{array}{c c} & \pounds \\ 1,201,000 \\ & 4,000 \end{array}$	$\substack{1,527\\10}$	Horse-Power. 5,344
Total	. 1,205,000	1,537	5,344

Classed according to kinds of power, the particulars are :----

Steam Engines, Reciprocating			Horse-Power. 5,316	
Water Power	••••	····	$\begin{array}{c}16\\12\end{array}$	
Total			5,344	

The firms making Returns also stated that they possessed dynamos of 239 kilowatts capacity, driven by steam engines. The capacity of these dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 7 per cent. of the engine-power belonging to manufactured fuel factories was required for driving dynamos for the production of electric power and light.

A complete statement of the amount of electric energy generated by those dynamos cannot be made, but manufacturers with dynamos of 101 kilowatts capacity stated that 237,000 Board of Trade units of electricity were generated.

About 3,000 Board of Trade units of electricity were purchased and used for lighting and power.

Oil Shale Mines.

Output.-The Tables on page 73 are based on Returns received from companies. engaged in the extraction of oil shale from mines.

The total quantity of oil shale raised in the censal year was returned to the Census Office as 2,715,000 tons valued at $\pounds 650,000$, shale sent to companies' own oil works being valued as if sold. In addition, other products were raised to the value of $\pm 1,000$, making the value of the total output of oil shale mines $\pounds 651,000$.

According to the General Report on Mines and Quarries for 1907 (Cd. 4343), the quantity of oil shale raised in that year was 2,690,000 tons; the difference between this amount and that shown above is due to the fact that the Returns made to the Census Office covered the business years of the several companies concerned, and those periods did not coincide with the calendar year 1907 except in one case.

Net Output.-The net output of oil shale mines was £523,000, that sum representing the total amount by which the value of the output of those mines exceeded the cost of materials used. The actual cost of the coal and other materials used was £128,000. The value of the shale in the mine was not included in the cost of materials, and rents, royalties, and wavleaves have to be defrayed out of the net output as well as wages, establishment charges, and profits.

The net output per head of persons employed in the censal year was a little over £122.

Persons Employed .- The average number of persons employed on the last Wednesdays in January, April, July, and October in oil shale mines is returned as 4,276, viz., 3,548 wage-earners below ground, 697 wage-earners above ground, and 31 salaried persons. All the workers were males, 274 being under 16 and 4,002 over 16 years of age.

The variation in employment during the censal year is shown in the following statement :--

3.000	Persons Employed on last Wednesday in					
There a new a bar of the transfer of the	January.	April.	July.	October.		
Wage-earners : Below ground Wage-earners : Above ground Salaried Persons	$3,531 \\ 708 \\ 31$	$3,561 \\ 717 \\ 31$	$3,543 \\ 662 \\ 31$	3,557 701 31		
Total	4,270	4,309	4,236	4,289		

In the case of underground workers, Returns were also called for, at the suggestion of the Advisory Committee appointed by the Board of Trade, with regard to the numbers employed on the Mondays preceding the last Wednesdays in the specified months, with a view to affording a measure of the excess of absenteeism alleged to occur on Mondays.

The information furnished is summarised in the following Table :----

	Monday.				Wednesday.	
nin an	Persons actually at work.	Absentees.	Total.	Persons actually at work.	Absentees.	Total.
January April July October	3,445 3,437 3,393 3,463	358 326 368 352	3,803 3,763 3,761 3,815	3,531 3,561 3,543 3,557	281 207 230 270	3,812 3,768 3,773 3,827
Averagé	3,435	351	3,786	3,548	247	3,795

These figures show that there were, on the average, 104 more absentees on Mondays than on Wednesdays, and that the average percentage of absentees on Mondays was 9.3 per cent. and on Wednesdays 6.5 per cent. of the numbers on the mine books on those days.

Power.-The particulars furnished with regard to power show that there were engines with 15,129 horse-power at oil shale mines, viz., steam engines, reciprocating, 15,119 horse-power, and internal combustion engines, (gas, oil, &c.) 10 horse-power. There were also dynamos of 1,240 kilowatts capacity, driven by steam engines, which generated 2,952,000 Board of Trade units of electricity in the censal year. The capacity of those dynamos is not an addition to the engine-power shown above. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power and allowing about 10 per cent. for loss of energy in conversion) about 12 per cent. of the engine-power belonging to oil shale mines was required for driving dynamos for the production of electricity for power and light. No electricity was purchased.

Shale Oil Works.

Output.-The Tables on pages 74 and 75 are based on Returns received from companies operating shale oil works in connexion with oil shale mines.

The particulars furnished respecting the output of finished products from such works are summarised in the following statement, which is free from duplication

the east from Addington South from these offic	Quantity.	Value.
Petroleum :	Gallons.	£
Lamp Oils	16,977,000	376.000
Lubricating Oils (above ·875 Sp. Gr.)	6,463,000	117.000
Gas Oils (.840 to .875 Sp. Gr)	12,259,000	160,000
Spirit	4,496,000	140,000
Total—Petroleum	40,195,000	793,000
s and hearing subject 15 and 4,000 and 1832	Tons.	sow and UAL IS
Paraffin Wax and Candles	25,000	601.000
Sulphate of Ammonia	52,000	590,000
Lubricating Greases	*	13,000
Coke	5,000	12,000
Other Products	*	5.000

The total value of the above products amounts to $\pounds 2,014,000$.

The companies making Returns also included in their statements of output 39,423,000 gallons of crude oil valued at £357,000, but this oil was either transferred to other works belonging to the same companies to be refined or was sold to other oil companies for refining, and, consequently, its value is included in the value of the finished products shown in the foregoing statement.

The net imports (i.e., imports less re-exports) of all kinds of petroleum in 1907 amounted to 299,140,000 gallons or nearly $7\frac{1}{2}$ times as much as the quantity produced in the United Kingdom. The net imports of paraffin wax amounted to about 51,000 tons and the exports to 14,000 tons.

Net Output.-The net output of shale oil works was £777,000, that sum representing the total amount by which the value of the output of those works exceeded the cost of the crude oil and other materials used. The cost of materials used by the trade, taken as a whole was $\pounds 1,237,000$, crude oil sold for refining or transferred for refining from one works to another works belonging to the same company being excluded.

The net output per head of persons employed in the censal year was a little over £229.

Persons Employed .- The average number of persons employed on the last Wednesdays in January, April, July, and October in shale oil works is returned as 3,391, viz., 3,043 wage-earners and 348 salaried persons, the total number being distributed by age and sex as follows :----

Males :— Under 18 Over 18	$ \begin{array}{ccc} $	11 71	Females :— Under 18 Over 18		··· 2 ·· 7	Alan Alan Alan
	Contraction of the second second		A CONTRACT OF	and particular the	- 10 Mar. 23.	18347 L.

* Recorded by value only.

The variation in employment during the censal year is shown in the following statement :--

	Persons Employed on last Wednesday in				
anter Maria and Antonio	January.	April.	July	October.	
Wage-earners Salaried Persons	3,097 348	3,022 350	2,997 344	$3,055 \\ 349$	
Total	3,445	3,372	3,341	3,404	

Power.-The particulars furnished with regard to power show that there were engines with 10.993 horse-power at shale oil works, viz., steam engines, reciprocating, 10,975 horse-power, and internal combustion engines, 18 horse-power. There were also dynamos of 2,158 kilowatts capacity, driven by steam engines, which generated 6,230,000 Board of Trade units of electricity in the censal year. The capacity of those dynamos is not an addition to the engine-power shown above. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 29 per cent. of the engine-power at shale oil works was required for driving dynamos for the production of electricity for power and light. No electricity was purchased.

Iron Mines under the Metalliferous Mines Regulation Act and Iron Quarries.

Output.-The Tables on pages 76 and 77 are based on Returns received from firms and companies working iron mines under the Metalliferous Mines Regulation Act and iron quarries.

The total output of such mines and quarries amounted to 6,802,000 tons of iron ore and ironstone, valued at £1,987,000, and limestone, gravel, sand, &c., valued at £12,000, the total value of the output thus being £1,999,000.

Including 8,184,000 tons of ironstone raised from mines under the Coal Mines Regulation Acts and about 2,000 tons returned on Schedules for other trades (valued together at $\pounds 2,328,000$) the total output of iron ore from mines and quarries in the United Kingdom in the year of return amounted to 14,988,000 tons valued at £4,315,000. These figures differ somewhat from those published for 1907 in Part III. of the General Report on Mines and Quarries (Cd. 4343, page 196), the quantity being less than the total returned to the Home Office by 4.7 per cent. and the value by 2.7 per cent. The difference is believed to be accounted for partly by the exclusion from the Returns to the Census Office of a certain quantity of unsaleable ore, which was included by the mine owners in their Returns to the Home Office, and partly by the fact that the 12 months to which the Census Returns relate are not quite identical in all cases with the period covered by the Home Office Returns.

The exports of iron ore raised in the United Kingdom amounted to about 15,000 tons in 1907, while the net imports (i.e. imports less re-exports of foreign ore) amounted to 7,635,000 tons in the same year. It should be noted, however, that the metallic content of the imported ore is much greater than that of the native ore, since most of it consists of hæmatite from Spain, Algeria, Greece, &c.

Net Output .-- The net output of iron mines under the Metalliferous Mines Regulation Act and of iron quarries was £1,748,000, that sum representing the total amount by which the value of the iron ore and other products of such mines and quarries exceeded the cost of the materials used in their extraction. The cost of the materials themselves was $\pm 251,000$. The value of the ore in the mine or quarry is not included in the cost of materials, and charges for rents, royalties, and wayleaves have to be defraved out of the net output, as well as wages, establishment charges, and profits.

The net output per head of persons employed in the censal year amounted to a little more than £155.

Persons Employed.-The average number of persons employed in connexion with the raising of iron ore from mines under the Metalliferous Mines Regulation Act and from D 2 24678

quarries, on the last Wednesdays in January, April, July, and October, is returned as 11,252, viz., 11,046 wage-earners and 206 salaried persons, the total number being distributed according to age and sex as follows :----

Males :	see to paindedbareness	Females :		
Under 16	268	Under 16	 	None.
Over 16	10,981	Over 16	 	3

The variation in the number of persons employed during the censal year is shown in the following statement :—

			Persons Employed on last Wednesday in						
erene eredt melt	VILL	e, Nil	January.	April.	July.	October.			
Wage-earners Salaried Persons			 $\begin{array}{c}10,928\\204\end{array}$	$\begin{array}{c} 11,025\\ 204 \end{array}$	$\begin{array}{c} 10,964 \\ 209 \end{array}$	11,268 208			
Total			 11,132	11,229	11,173	11,476			

Power.—The particulars furnished with regard to power used (exclusive of locomotive engines) are summarised below, electricity purchased not being included :—

ona Minaa Ruzdintion Act	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
Mines and Quarries with their own Engines Mines and Quarries not using Power	£ 1,900,000 99,000	$10,157 \\ 1,095$	Horse-Power. 27,557
Total	1,999,000	11,252	27,557

Classed according to kinds of power, the particulars are :--

Steam Engines :		H	orse-Power.	
Reciprocating Steam Turbines	 	 	$\substack{23,756\\3,250}$	
Total—Steam Engines			27,006	
Internal Combustion Engines (gas, oil, &c.)			491	
Water Power	••••		60	
Total		••••	27,557	

Capacity	of Dynamos dr	iven by	:			Kilowatts.	
Stea	m Engines, Re	ciprocat	ing	 	end	459	
Stea	m Turbines	•••		 	·····	2,385	
	Total		····	 ,		2,844	

The capacity of those dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 15 per cent. of the engine-power belonging to iron mines and quarries was required for driving dynamos for the production of electric power and light.

Mine and quarry owners were also required to state the quantity of electricity generated by their own dynamos, but owing to the insufficiency of their records a number

of them were unable to do so. The following statement summarises the information $\bar{}$ furnished :—

Durance driver by		Total Capacity of	Electricity Generated, so far as. particulars were returned.		
Dynamos driven by	Dynamos driven by		Dynamos.	Capacity of Dynamos.	Electricity Generated.
Steam Engines ; Reciprocating Steam Turbines	····	·	Kilowatts. 459 2,385	Kilowatts. 117 2,385	B.T. Units. 135,000 2,800,000
Total	522. (1)•••		2,844	2,502	2,935,000

No electricity was recorded as purchased.

Mines, other than Coal and Iron.

Output.—The Tables on pages 78 to 80 are based on Returns received from firms and companies working mines (other than ironstone mines) under the Metalliferous Mines Act. Some quarries and other workings (such as tin streams) are also included.

The following statement shows the quantities and values of the chief products of such mines :--

	Quality.	varue.
	Tons.	£
Tin Ore (including Tin recovered from Tin Streams):-		
Dressed	7,100	676,000
Undressed	19,700	8,000
Lead Ore	27,200	314,000
Zinc Ore	17,600	81,000
Copper Ore, Regulus, and Precipitate	7,200	32,000
Wolfram Ore	350	. 36,000
Gypsum	201.700	98,000
Barytes and Witherite	34,300	43,000
Ochre. Umber. &c	4,200	3,000
Arsenic and its Oxides (including Arsenical Pyrites)	4,000	41,000
Manganese Gold Uranium, Bauxite, and Other Ores	*	40,000
Fluor Spar	41,400	17,000
Stone ·		
Limestone	329,000	98,000
Sandstone (including Ganister)	104.700	55,000
Other Sorts	116,900	38,000
Clay	122,900	55,000
Chalk Flint Gravel Sand and Other Products	*	26,000

The total value of these ores and other mine products amounts to $\pounds 1,661,000$. The figures entered as the quantities of wolfram ore, gypsum, and fluor spar raised are based on replies in response to a request to all mine and quarry owners for a voluntary statement respecting the quantities raised by them, since, as those products are not included by weight in the Export and Import Lists, firms could not be compulsorily required to state the quantities raised; this information was generally given.

The output of stone, clay, chalk, flint, &c., included in the foregoing statement, refers only to the quantities raised from metalliferous mines other than ironstone mines. Estimates of the total output of those products are given on pages 61 and 63.

In addition to the amounts shown above, firms that made their Returns on Schedules for other trades included in their statements of output barytes, fluor spar, ochre, umber, &c., to the value of ±13,000.

Taking these additions into account the following statement shows the total output of these products in the United Kingdom in the censal year; for purposes of comparison, the output of the same products in the United Kingdom (but not in the Isle of

	0	4	

D 3

Man) in 1907, as shown in Part III. of the General Report on Mines and Quarries (Cd. 4343), is also given :---

Mos instructure transmittal, so iten es, a				Census of Prod	luction Returns.	Home Office Returns.		
and the second					Quantity.	Value.	Quantity.	Value.
Janarados:		ur(a)cryfa		S. S				
Tin Ore :—					Tons.	£	Tons.	£
Dressed					7.100	676,000	7.100*	707.000*
Undressed		a work is the		etatik)	19,700	8 000	.,	,
Lead Ore					27.200	314,000	30 400	390.000
Zinc Ore		Section 2		0.01	17.600	81,000	17 200	82,000
Copper Ore, Regulus, a	nd	Precipita	te		7 200	32,000	6,700	34,000
Wolfram Ore		r		11-1	350	36,000	320	41,000
Gypsum				•••	201 700	98,000	235 500	\$9,000
Barytes and Witherite				7.1.4	40,300	51,000	42,000	28,000
Ochre, Umber, &c.					5,500	4,000	14 700	14,000
Arsenic and its Oxides	(in	aluding E			1,000	41,000	2,200	14,000
Fluor Spar	(IIII	studing 1	yrnes,	,	45,000	41,000	3,300	39,000
		Trons.	6ma	Tent	49,400	19,000	49,500	23,000

* Including 81 tons of dressed Tin Ore (Black Tin) the equivalent of 1,317 tons of Tin Ore sold undressed (Tin Stuff) valued at £815.

The tin ore was returned to the Census Office partly in its undressed form and partly as dressed. In view of the great difference in values a precise total of the quantity of dressed tin ore obtained cannot be given, but it was probably about 7,200 tons. The quantity of copper ore returned to the Home Office is made up of about 6,400 tons of dressed copper ore and about 300 tons of precipitate, whereas the quantities returned to the Census Office include some undressed ore. Plaster manufacturers with their own gypsum mines or quarries, and paint manufacturers who raised their own ochre or umber, did not make Returns to the Census Office of the gypsum, ochre, or umber raised, but only of the plaster or paint manufactured, while the output of their mines and quarries is included in the Home Office Returns. In addition to the arsenic included in the foregoing statement, 3,200 tons valued at £80,000 were included in the Returns of refiners, smelters, and manufacturers of alkali and vitriol; this quantity was probably in the main obtained from foreign ores. The other discrepancies between the figures as published by the Home Office and those given in the Census of Production Tables are mainly due to the fact that the Census Returns did not in all cases refer to the calendar year 1907, which was the period covered by the Home Office Returns.

The following Table shows the exports and imports of the principal ores, the figures from the Home Office Report for the production of these ores in the United Kingdom and the Isle of Man being added for comparison :—

COM-BC	11 11 131		Production, 1907.	Exports, 1907.	Net Imports,* 1907.
Tin Ore Lead Ore Zinc Ore Copper Ore, Regul		· · · · · · · · · · · · · · · · · · ·	Tons. 7,100† 32,500 20,100 6,800‡	Tons. 7,300 11,300	Tons. 17,900 10,500 61,500 170,400

* I.e., imports less re-exports. † Tin Ore, dressed. ‡ Copper Ore, dressed, and precipitate.

The imports of lead ore were about one-third of the quantity raised in the United Kingdom and the Isle of Man, but the imports of tin, zinc, and copper ores were much greater than the British production. About 22 per cent. of the lead ore and about 56 per cent. of the zinc ore produced in the United Kingdom and the Isle of Man in 1907 were exported.

Net Output.—The net output of the mines (other than ironstone mines) under the Metalliferous Mines Regulation Act, covered by the Tables on pages 78 to 80, was $\pounds 1,231,000$, that sum representing the total amount by which the value of the products of those mines exceeded the cost of the materials used in their extraction. The cost of the materials themselves was $\pounds 430,000$. The value of the ores in the mine is not included in the cost of materials, and there has to be defrayed out of the net output rents, royalties, and way-leaves as well as wages, establishment charges, and profits.

The net output per head of persons employed in the censal year amounted to nearly ± 68 . This amount is much lower than in the case of coal and iron mines, which is to some degree accounted for by the fact that in a substantial proportion of the tin

mines open, the work which was carried on in the year of return was dominantly development work of a character not immediately remunerative. Taking separately the Returns for mines in which the development work was approximately normal, the net output per head of persons employed was nearly ± 80 .

Persons Employed.—The average number of persons employed in connexion with the raising of metalliferous ores and other minerals (except iron ore) from mines under the Metalliferous Mines Regulation Act and from quarries, on the last Wednesdays in January, April, July, and October, is returned as 18,233, viz., 17,621 wage-earners and 612 salaried persons, the total number being distributed according to age and sex as follows :—

Males		Females :	A REAL PROPERTY		
Under 16	662	Under 16		28	
Over 16	17,297	Over 16		246	

The variation in the number of persons employed during the censal year is shown in the following statement :---

in administration of beautimeter of	Persons Employed on last Wednesday in						
A of the second second is a second of the second se	January.	April,	July.	October.			
Wage-earners Salaried Persons	17,508 609	$17,513 \\ 627$	17,707 610	17,755 604			
Total	18,117	18,140	18,317	18,359			

Power.—The particulars furnished with regard to power used (exclusive of locomotive engines) are summarised below, electricity purchased not being included :—

	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
Mines and Quarries with their own Engines Mines and Quarries not using Power	£ 1,587,000 74,000	17,116 1,117	Horse-power. 38,573
Total	1,661,000	18,233	38,573

Classed according to kinds of power, the particulars are :--

24678

	Horse-power.
Steam Engines, Reciprocating	30,082
Internal Combustion Engines (gas, oil, &c.)	5,158
Water Power	3,300
Other Power	99
Total	38,573

Firms using dynamos driven by their own engines were required to state their capacity, and the information furnished may be summarised as follows :---

Capacity of Dynamos driven b Steam Engines, Reciproce	y :— ating		 	K 	lilowatts 1,087 1,638	•
Other rower	neod at '	Total	 		2,725	

The capacity of those dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power and allowing about 10 per cent. for loss of energy in conversion) about one-tenth of the engine-power belonging to mines other than coal and iron mines was required for driving dynamos for the production of electric power and light.

Mine and quarry owners were also required to state the quantity of electricity generated by their own dynamos, but owing to the insufficiency of their records a number

of them were unable to do so. The following statement summarises the information furnished :—

Dynamos driven by	Total Capacity of	Electricity Generated, so far as particulars were returned.		
ad dram muntries on the lash Wednesdays	Dynamos.	Capacity of Dynamos.	Electricity Generated.	
Steam Engines, Reciprocating Other Power	Kilowatts. 1,087 1,638	Kilowatts. 1,047 1,147	B.T. Units. 1,180,000 1,462,000	
Total	2,725	2,194	2,642,000	

About 1,378,000 Board of Trade units of electricity were purchased by mine and quarry owners for power and lighting purposes. This figure includes estimates made in the Census Office in respect of the quantities of electricity purchased by a number of small firms who were only able to state the amounts paid by them, but the total quantity so estimated forms only a very small proportion of the whole.

Salt Mines, Brine Pits, and Salt Works.

Output.—The Tables on pages 81 and 82 contain particulars relative to the production of salt at mines and brine pits and the refining of salt at salt works. The value of the gross output of those mines, brine pits, and works amounts to $\pm 667,000$, and, in addition, salt to the value of $\pm 69,000$ was included in their statements of output by firms making their Returns on Schedules for other trades. The resulting total of $\pm 736,000$ contains, however, a certain amount of duplication.

The following statement shows the gross output of salt works, including the Returns of like products made on Schedules for all trades :---

		 Quantity. Tons.	Value.
Rock and White Salt		 1,421,000	626,000
Table Salt (sold in jars,	packets, &c.)	 44,000	93,000
other rounces	••• •••	 	17.000

After making allowance for the duplication involved in a few cases where coarse salt was sold by one factory to another for refining, the total output of salt from salt works, as returned to the Census Office, was 1,452,000 tons valued at $\pounds 695,000$. Of this 1,417,000 tons, valued at $\pounds 618,000$, were rock and white salt, and 35,000 tons, valued at $\pounds 77,000$, were table salt. Adding in the value of other products ($\pounds 17,000$), the aggregate value of the output of salt works was $\pounds 712,000$.

In the Home Office Report on "Mines and Quarries" for 1907, Part III. (Cd. 4343), the total quantity of rock salt mined, white salt made from brine, and salt contained in brine used for making alkali (United Kingdom only) is stated to be 1,979,000 tons, valued at £644,000. The difference between the quantity as returned to the Home Office and that returned to the Census Office is principally due to the inclusion in the former Returns of the output of alkali manufacturers who owned salt mines or brine-pits, and used the salt obtained therefrom in their alkali works either in the form of brine or coarse salt. The Home Office Report shows that, out of 1,190,600 tons of salt (including salt in brine) produced at Cheshire and Staffordshire works, 853,600 tons were dispatched by rail, road, or ship, and it may therefore be assumed that the balance of 337,000 tons represents salt in brine sent to alkali works ; the exact quantity of brine pumped in Lancashire was piped direct to alkali works ; the exact quantity so piped is not shown in the Home Office Report, but the total production of salt in the county in 1907 was about 157,000 tons. It would also appear that a certain quantity of refined salt included in the Returns to the Census Office was represented in the Returns to the Home Office by a greater weight of coarse salt.

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In order to obtain a more detailed classification of the output of salt, all owners of salt works were asked to make a voluntary statement showing the quantities of brine pumped and of rock salt mined, and to classify their output of white salt under various headings specified. Excluding firms with an output valued at \pounds 73,000 who did not furnish the desired information, and also omitting the alkali manufacturers who used brine directly in their works, the remaining firms stated that they pumped 1,228,000 thousand gallons of brine and mined 244,000 tons of rock salt. Firms with an output of 1,144,000 tons of white salt also supplied the following details relating to the classification of their output :—

ite Salt :	Tons.
Coarse, for chemical or manufacturing purposes	277,000
Coarse, for other purposes	482,000
Fine	258,000
Fishery	127,000
	1 144 000
Total of White Salt	1,144,000

Wh

The exports of rock and white salt in 1907 amounted to 582,000 tons, or a little over 41 per cent. of the output of such salt as returned to the Census Office. As, however, the average value of salt exported was 15s.~6d. per ton free on board, while that of the salt returned to the Census Office was 8s.~10d. per ton at the works, it is probable that the salt exported was in a more refined state, and therefore the exports represent a larger proportion of the production than that indicated above. The net imports (*i.e.*, imports less re-exports) were only 30,000 tons valued at 14s.~11d. per ton at port of landing.

Net Output.—The net output of the salt mines, pits, and works, covered by the Tables on pages 81 and 82 was \pounds 319,000, this sum representing the total amount by which the value of the output of those works exceeded the value of the materials used in their manufacture. The actual cost of the materials used by those mines, pits, and works, taken as a whole, was about \pounds 335,000. It must be borne in mind that the cost of materials does not include the value of the salt in the mine or pit before being raised, and that rents and royalties have to be defrayed out of the net output, as well as wages, salaries, establishment charges, and profits.

The net output per head of persons employed in the censal year was a little over $\pounds 67$.

Persons Employed.—The average number of persons employed on the last Wednesdays in January, April, July, and October at the salt mines, brine pits, and salt works covered by the Tables on pages 81 and 82 is returned as 4,736, viz., 4,433 wageearners and 303 salaried persons, the total number being distributed by age and sex as follows :—

Males :	alle false for the	Females :	
Under 18	367	Under 18	 139
Over 18	3,930	Over 18	 300

The variation in the number of persons employed during the censal year is shown in the following statement :---

Carls and a franch and the	Persons Employed on last Wednesday in				
any permany the set of a set o	January.	April.	July.	October.	
Wage-earners Salaried Persons	4,407 305	4,423 302	4,425 302	4,476 302	
Total	4,712	4,725	4,727	4,778	

Power.—The salt mines, pits, and works covered by the Tables on pages 81 and 82 possessed engines of a total capacity of 4,127 horse-power, including the following classes of engines :—

Steam Engines :	Hor	se-Power.
Reciprocating		3,677
Steam Turbines	1	300
Total—Steam Engines		3 977
Internal Combustion Engines (gas, oil, &c.)		150
Total		4,127

Firms using dynamos driven by their own engines were required to state their capacity, and the information furnished may be summarised below :—

Capacity of Steam	Dynamos drive Engines, Recin	en by :	(1111)(30) (1111)	n latura da		ilowatts 241
Steam	Turbines	•••		 	•••••••	200
	Total			 		441

The capacity of those dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 16 per cent. of the engine-power belonging to salt mines, brine pits, and salt works was required for driving dynamos for the production of power and light.

Firms were also required to state the quantity of electricity generated by their own dynamos, and, as the following statement shows, the information furnished was nearly complete :—

Duran a driven by	Total Capacity of	Electricity Generated, so far as particulars were returned.		
Dynamos driven by	Dynamos.	Capacity of Dynamos.	Electricity Generated,	
Steam Engines :— Reciprocating Steam Turbines	Kilowatts. 241 200	Kilowatts. 226 200	B.T. Units. 235,000 638,000	
Total	441	426	873,000	

About 4,500 Board of Trade units of electricity were purchased by firms for power and lighting purposes.

Machinery.—In order to obtain another measure of the salt industry, the firms making Returns were asked to make a voluntary statement showing, in terms of the quantity of salt that could be evaporated, the maximum annual capacity of salt pans of all kinds and other evaporating plant owned by them. Firms whose output of white salt amounted to 1,108,000 tons (or a little more than 76 per cent. of the total output of 1,452,000 tons) stated that their maximum capacity was 1,565,000 tons. The actual output of these firms in the year of return was thus about 71 per cent. of the maximum capacity of their plant.

Slate Quarries.

Output.—The Tables on page 83 and 84 are based on Returns received from slate quarries.

The total quantity of slates for roofing purposes and slate slabs quarried was 416,000 tons, valued at £1,146,000, and stone valued at £2,000 was also obtained, raising the value of the total output to £1,148,000.

The total quantity of slates and slate slabs quarried in the United Kingdom in 1907 is stated in Part III. of the General Report on Mines and Quarries (Cd. 4,343) to have been 431,000 tons (excluding slate quarries in the Isle of Man, which were not covered by the Census), and the difference between this amount and that given above may be assigned to the fact that the Returns made to the Census Office were not in all cases for the calendar year 1907.

Firms that made their Returns on Schedules for other trades included in their statements of output slate goods valued at $\pounds 53,000$, but the slate used was all purchased from quarry owners, and is included in the quantity of slate shown above. The exports of slates for roofing purposes in 1907 amounted to about 29,000 tons, or a little under 7 per cent. of the total quantity (444,000 tons) of slates of all kinds quarried in the United Kingdom and the Isle of Man in that year (as reported to the Home Office). The net imports (*i.e.*, imports less re-exports) of slates for roofing purposes in the same year amounted to about 37,000 tons, or one-twelfth of the total quantity of slates of all kinds quarried in the United Kingdom and the Isle of Man.

Net Output.—The net output of the slate quarries covered by the Tables on pages 83 and 84 was $\pm 1,044,000$, that sum representing the total amount by which the value of the output of the quarries exceeded the cost of the fuel, timber, explosives, and other materials used in connexion with their extraction. The actual cost of such materials was $\pm 104,000$. The value of slate in quarries is not included in the cost of materials, and the rents of quarries and royalties on slate quarried have to be defrayed from the net output, as well as wages, salaries, establishment charges, and profits.

The net output per head of persons employed in the censal year was over $\pounds 72$.

Persons Employed.—The average number of persons employed on the last Wednesdays in January, April, July, and October in the slate quarries covered by the Tables on pages 83 and 84 is returned as 14,400, viz., 14,042 wage-earners and 358 salaried persons, the total number being distributed by age and sex as follows :—

Males :		remares	
Under 16	892	Under 16	 None.
Over 16	13,499	Over 16	 9

The variation in the number of persons employed during the censal year is shown in the following statement :----

	Persons Employed on last Wednesday in				
	January.	April.	July.	October.	
Wage-earners Salaried Persons	$14,376\ 358$	$13,965 \\ 356$	$\begin{array}{r}13,\!794\\358\end{array}$	$14,034 \\ 360$	
Total	14,734	14,321	14,152	14,394	

Power.—The particulars furnished with regard to power used (excluding locomotive engines) are summarised below, electricity purchased not being included :—

sentre anglastication and a sentre and an anglastication and a sentre and a sentre a sentre a sentre a sentre a	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.	
Quarries with their own Engines Quarries not using Power	£ 1,075,000 73,000	13,314 1,086	Horse-Power. 10,903 —	
Total	1,148,000	14,400	10,903	

Classed according to kind of power, the particulars are :---Horse-Power. Steam Engines :--... 7,047 Reciprocating Steam Turbines 10 7,057 Total—Steam Engines Internal Combustion Engines (gas, oil, &c.) 727 ... 3,107 Water Power 12 Other Power 10,903 Total

Firms using dynamos driven by their own engines furnished the following information regarding their capacity :--

Capacity of Dynamos driven by-					Kilowatts.	
Steam Engines, Reciprocating					150	
Other Power		••••	•••	•••	948	
Total	evoils	••••	hore a		1,098	

The capacity of those dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power and allowing about 10 per cent. for loss of energy in conversion) about 15 per cent. of the engine-power belonging to slate quarries was required for driving dynamos for the production of power and light.

Quarry owners were also required to state the quantity of electricity generated by their own dynamos, but owing to the insufficiency of their records a few of them were unable to do so. The following statement summarises the information furnished :---

Dunomen duinen ha	Total Capacity of	Electricity Generated, so far as particulars were returned.		
Dynamos uriven by	Dynamos.	Capacity of Dynamos.	Electricity Generated,	
Steam Engines, Reciprocating Other Power	Kilowatts. 150 948	Kilowatts. 150 855	B.T. Units. 141,000 441,000	
Total	1,098	1,005	582,000	

About 1,335,000 Board of Trade units of electricity were purchased by quarry owners for power and lighting purposes. This figure includes estimates made in the Census Office in respect of the quantities of electricity purchased by a number of small firms who were only able to state the amounts paid by them, but the total quantity so estimated forms only a very small proportion of the whole.

Machinery.—In order to obtain another measure of the slate industry quarry owners, were asked to make a voluntary statement respecting the number of slate-cutting machines owned by them. Firms with an output of 130,000 tons of slate (or $31\frac{1}{4}$ per cent. of the total) returned to the Census Office furnished the required information, showing that firms with an output of 96,000 tons owned 654 machines for cutting roofing slates and 81 machines for cutting slate slabs, while firms with an output of 34,000 tons stated that they had no machines. The remaining firms, whose output of slate amounted to 286,000 tons, did not state whether they did or did not use slate-cutting machines.

Limestone Quarries and Lime Kilns.

Output.—The Tables on pages 85 and 86 are based on Returns received from firms engaged in the quarrying of limestone and the burning of lime. The aggregate gross value of the output of the firms that made their Returns on the Schedules for limestone quarries and lime kilns was stated to be $\pounds 1,909,000$, to which should be added $\pounds 275,000$, the value of similar products included in their statements of output by firms that made their Returns on Schedules for other trades. The resulting total of $\pounds 2,184,000$ contains, however, a small amount of duplication.

The following statement shows the particulars furnished respecting the value of the output of all limestone quarries and lime kilns : -

flarge-Purret:	Returned on Schedules for Limestone Quarries and Lime Kilns.	Returned on Schedules for Other Trades.	Total.
Limestone (not burnt) Lime Hydraulic Lime Tar Paving Other Stone Other Products Road making	$\begin{array}{c} \pounds \\ 955,000 \\ 794,000 \\ 56,000 \\ 60,000 \\ 29,000 \\ 11,000 \\ 4,000 \end{array}$	£ 179,000 46,000 48,000 2,000 — — —	$\begin{array}{c} \pounds \\ 1,134,000 \\ 840,000 \\ 104,000 \\ 62,000 \\ 29,000 \\ 11,000 \\ 4,000 \end{array}$
Total	 1,909,000	275,000	2,184,000

The sum of £4,000 received for road-making is exclusive of the value of the stone used, which is included in the entry against limestone. Limestone valued at about £4,000 was quarried by certain firms and sold to others for burning, and appears in Table I on page 85, and in the above statement, both as limestone and as lime. Deducting this duplicated amount, the value of the output, taken as a whole, of the quarries and lime kilns covered by the Tables on pages 85 and 86 was about $\pounds 1,905,000.$

The quantity of the limestone, valued at $\pm 955,000$, included in the above statement was returned as 7,513,000 tons and represents only the limestone sold as such and not the total quantity raised. All firms working limestone quarries were asked to make a voluntary statement respecting the quantity of stone raised and the purposes for which it was used. Most of the firms concerned furnished these particulars, and, on the basis of the information so obtained, the limestone raised by the firms whose output is covered by Table I on page 85 is estimated to be as follows :—

Limest

one Quarried :				Tons.	
uilding Stone	noine out	1.202-00	 	350,000	
oad Metal			 	1,110,000	
or Lime Burning	A Day No		 	2,740,000	
or Other Purposes			 	4,330,000	
ot classified		•••••	 	1,630,000	
	Total		 	10,160,000	

In addition, firms that made their Returns on Schedules for other trades included in their statements of output \$33,000 tons of limestone, thus raising to 10,993,000 tons the total quantity raised by firms reporting to the Census Office. The total quantity of limestone raised in the United Kingdom in 1907 for all purposes is stated by the Home Office (Part III. of the General Report on Mines and Quarries for 1907, Cd. 4,343) to be 12,505,000 tons. The difference--1,512,000 tons—is mainly due to the fact that separate Returns of stone quarried were not obtained by the Census Office in respect of a number of quarries worked by local authorities, railway companies, road-making firms, cementmaking firms, iron-smelting firms, &c., who included the value of the limestone raised by them in the value of the roads, cement, pig-iron, &c., made by them. The output of those quarries is estimated to have been about 1,400,000 tons, and the rest of the discrepancy is due to the fact that the Returns furnished to the Census Office were not in all cases made in respect of the calendar year 1907, the period covered by the Home Office Report.

In addition to the 2,740,000 tons of limestone used for lime-burning, about 320,000 tons of chalk were used for the same purpose.

Further, firms that made their Returns on Schedules for other trades included in their statements of output sums raising the total value of lime made in the United Kingdom to $\pounds 840,000$, and the total value of hydraulic lime to $\pounds 104,000$.

The imports and exports of lime and limestone are triffing.

Net Output.—The net output of the quarries and lime kilns covered by the Tables on pages 85 and 86 was $\pm 1,414,000$, that sum representing the total amount by which the value of the output of such quarries and lime kilns exceeded the cost of the materials used in connexion therewith. The actual cost of materials used by those quarries and kilns, taken as a whole, was about $\pm 491,000$. The value of limestone in the quarry is not included in the cost of materials, and rents of quarries and royalties on stone have to be defrayed out of net output, as well as wages, salaries, establishment charges, and profits.

The net output per head of persons employed in the censal year was ± 87 .

Persons Employed.—The average number of persons employed on the last Wednesdays in January, April, July, and October at the quarries and lime kilns covered by the Tables on pages 85 and 86 is returned as 16,193, viz., 15,532 wage-earners and 661 salaried persons, the total number being distributed by age and sex as follows :—

Males :	Females :—
Under 16 364	Under 16 1
Over 16 15,811	Over 16 17

The variation in the numbers employed during the censal year is shown in the following statement :---

COLORS CONCELLS SHOULD THE	Persons Employed on last Wednesday in				
ministra te 100,500 000,500 1000	January.	April.	July.	October.	
Wage-earners Salaried Persons	15,377 657	$\begin{array}{c}15,781\\664\end{array}$	$15,675 \\ 665$	15,293 657	
Total	16,034	16,445	16,340	15,950	

Power.—The particulars furnished as to power used (exclusive of locomotive engines) are summarised below, electricity purchased being excluded :—

hidodd, incincial in a las para statement and the fimenoles worldes such and not	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines,
Quarries and Lime Kilns with their own Engines Quarries and Lime Kilns not using Power	£ 1,439,000 470,000	11,366 4,827	Horse-Power. 10,867
Total	1,909,000	16,193	10,867
Classed according to kind of power, th Steam Engines, Reciprocating Internal Combustion Engines (ga Water Power Other Power	e particulars a s, oil, &c.) 	re : Ho 	rse-Power. 8,713 1,931 220 3 0.867

Firms making Returns reported that they had dynamos of 96 kilowatts capacity driven by steam engines. This capacity should not, of course, be added to the capacity of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about one per cent. of the engine-power belonging to limestone quarries and lime kilns was required for driving dynamos for the production of electric power and light. The amount of energy generated by these dynamos was 90,000 Board of Trade units.

About 83,000 Board of Trade units of electricity were purchased and used for lighting and power.

Quarries, other than Iron, Slate, or Limestone.

Output.—The Tables on pages 87–89 are based on Returns received from firms and companies working quarries other than iron ore, slate, or limestone quarries, which are dealt with on pages 51, 58 and 60.

The gross value of the output of the firms that made their Returns on the Schedules for quarries, other than iron ore, slate, or limestone, was returned as $\pm 3,638,000$, to which should be added $\pm 1,044,000$ the value of similar products included in their statements of output by firms that made their Returns on Schedules for other trades. The resulting total of $\pm 4,682,000$ is substantially free from duplication.

	Returned on Schedules for Quarries other than Iron Ore, Slate, or Limestone.		Retur: Schedules Tra	Returned on Schedules for Other Trades.		tal.
tablear senior and profit.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
and the second second second second	_ Tons.	L £	Tons.	I £	Tons.	f.
Chalk	3,944,000	136,000	415,000	21,000	4,359,000	157.000
Chert and Flint	87,000	11,000	95,000	13,000	182,000	24,000
Clay and Shale :		A STREET				Lables of
Brick Clay and Earth	672,000	87,000	670,000	114,000	1,342,000	201,000
China Clay and China Stone	726,000	542,000	10,000	6,000	736,000	548,000
Fireclay	44,000	12,000	2,757,000	603,000	2,801,000	615,000
Gravel	518,000	47,000	419,000*	36,000	937,000	83,000
Mica	25,000	13,000	1990		25,000	13,000
Sand	1,946,000	165,000	1		1,946,000	165,000
Stone :						
Granite	3,162,000	825,000	4,000	1,000	3,166,000	826.000
Whinstone	1,267,000	252,000	91,000	18,000	1,358,000	270,000
Other Igneous Rocks	726,000	148,000	3,000	2,000	729,000	150.000
Limestone	27,000	8,000		<u> </u>	27,000	8.000
Sandstone (including Ganister)	4,055,000	1,306,000	500,000	207,000	4,555,000	1.513.000
Stone not further distinguished	39,000	10,000	87,000	17,000	126,000	27.000
Other Quarry Products)	Recorded	(40,000	1	6,000	_	46,000
Artificial Stone, Bricks, Lime, &c.	by Value	3 23,000	-			23,000
Roadmaking)	only.	(13,000	-			13,000
Total	all and the	3,638,000		1,044,000		4,682,000
* Including Sand			1. 7. 1. 1	1		

The sum of £13,000 received for road-making is exclusive of the value of the stone used, which is entered under its proper heading.

All quarry-masters who received this Schedule were asked to make a voluntary statement as to the total quantities of stone quarried by them and the purposes for which it was used. The great majority of the quarry-masters furnished these particulars, and the following estimate of the total output of stone from the quarries covered by Table I. on page 87 is based on their replies :—

					Tons.	
Building Stone			 		1,750,000	
Monumental Stone			 		30,000	
Setts and Paving Stones		08	 		680,000	
Road Metal			 		4,000,000	
Grindstones and Millstone	es	'	 	•••	30,000	
Stone for other Purposes			 		1,550,000	
Stone not Classified			 		1,240,000	
					9,280,000	

Brickmakers who themselves made into bricks the clay raised from their pits and quarries were allowed, where that course was convenient to them, to make combined Returns covering both their brickworks and their brickfields in respect of bricks made. In such cases they included the persons employed in raising clay with those employed in making bricks, and did not include the value of the clay used as part of the cost of their materials. Their Returns are summarised on pages 746 to 749. Brickmakers made voluntary statements to the effect that they raised from their own quarries and shallow workings 10,992,000 tons of brick-earth, 31,000 tons of which are included in the Table on page 62, and it appears that at least 426,000 tons of fireclay (212,000 tons of which are included in the Table on page 62) were raised by firms making fireclay products. These figures do not cover the total output of firms making bricks and fireclay goods, but they are included in the following statement. Cement-makers and lime-burners with their own chalk quarries, and builders, road contractors, and road authorities with their own stone quarries or their own gravel or sand pits were allowed to adopt a similar course, and their Returns are included in the Tables referring to their respective trades. A considerable number of firms availed themselves of this permission, with the result that the figures of quantity shown in Table I. on page 87 and in the above statement do not show the total quantities of the respective quarry products raised in the censal year, and do not agree with the figures given in Part III. of the General Report on Mines and Quarries for 1907 (Cd. 4343). The following statement shows the quantities of chalk, chert and flint, clay and shale, gravel and sand, mica, and stone, so far as they were returned to the Census Office, the figures published by the Home Office regarding the output of the same products in 1907 from mines and quarries (except workings under 20 feet deep) being also shown for purposes of comparison :--

				Census of Production.	Home Office.
				Tons.	Tons.
Chalk				4,359,000	4,779,000
Chert and Flint				182,000	54,000
Clay and Shale :	D II			10 202 000	14 018 000*
Brick Clay and	Earth		•••	736,000	782 000
China Clay and Fireelay	Stone	•••	••••	3.015.000	*
Gravel and Sand				2,883,000	_2,398,000
Mica ···				25,000	15,000
Stone :				0.100.0000	
Granite				3,166,000	tool 5 664 000 date column
Whinstone	Rocks	•••	•••	729 000	5,004,000 jon asia and
Sandstone	LOCKS	000.020	1	4.555,000	
Unspecified				126,000	

* Brickclay and fireclay are shown together in the Home Office Returns.

Where the differences between the Census figures and the Home Office figures are not due to combined Returns, they are in the main caused by differences in classification and by the fact that the Returns made to the Census Office were not in all cases for the calendar year 1907, the period covered by the Home Office Returns. The production of the Isle of Man has been deducted from the Home Office totals, as it was not covered by the Census of Production.

The exports and imports of the different kinds of stone were not shown separately in 1907, the total exports of stone in that year being 52,000 tons and the total net imports (*i.e.*, imports less re-exports) 1,192,000 tons. In 1909, however, when the total exports amounted to 56,000 tons, 17,000 tons of grindstones and millstones and 11,000tons of granite were exported, and out of 1,098,000 tons of net imports of stone in that year 874,000 tons consisted of granite and 29,000 tons of marble; the imports and exports of limestone and sandstone were very small.

Net Output.—The net output of the quarries covered by the Tables on pages 87 to 89 was $\pm 3,125,000$, that sum representing the total amount by which the value of the products raised exceeded the cost of the fuel, explosives, and other materials used in their extraction. The total cost of materials used at those quarries, taken as a whole, was $\pm 513,000$. The value of the stone, &c., in the quarry or pit is not included in the cost of materials, and rents of quarries and royalties on stone, &c., raised have to be defrayed out of the net output as well as wages, salaries, establishment charges, and profits.

The net output per head of persons employed in the censal year was $\pounds75$. In considering this amount it should be borne in mind that much of the work is irregular.

Persons Employed.—The average number of persons employed on the last Wednesdays in January April, July, and October in the quarries covered by the Tables on pages 87 to 89, is returned as 41,668, viz., 40,282 wage-earners and 1,386 salaried persons, the total number being distributed by age and sex as follows :—

Males :—			I Femalos.	
Under 16		1,158	Under 16	 None.
Over 10	•••	40,448	Over 16	 62

Work in the smaller quarries is frequently irregular, and in all it is to some extent dependent on the weather, both of which considerations affect the validity of the above figures as true averages of the numbers employed during the year. The actual numbers of persons at work on the four specified days were as follows :---

the other and fluit, clay		n nai	I	ersons Employed o	on last Wednesday	in
te output of the same	ii sa bro	unan Ngan	January.	April.	July.	October.
Wage-earners Salaried Persons	 		$39,244 \\ 1,386$	40,573 1,391	41,430 1,391	39,882 1,377
Total			40,630	41,964	42,821	41,259

Power.—The particulars furnished with regard to power used are summarised below, electricity purchased not being included :—

BRUET CONSTRUCT	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
Quarries with their own Engines Quarries not using Power	£ 2,977,000 661,000	32,800 8,868	Horse-Power. 49,028
Total	3,638,000	41,668	49,028

Classed according to 2	kinds of	power,	the par	rticulars	s are :	-04.57	Horse-Power.
Steam Engines-	-Recipro	cating					42,922
Internal Combus	tion Eng	gines (g	gas, oil,	&c.)			4,930
Water Power						• •••	1,128
Other Power	aroa						48
	Т	otal	101	11.1.1	Τ		49,028

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Firms who used dynamos driven by their own engines were required to state their capacity, and the information furnished may be summarised as follows :---

						1	filowatts.
Capacity of Dynamo Steam Engines,	s driver Recipr	n by :- ocating	 g	 			382
Other Power	•••			 		•••	205
]	Cotal		 	•••	•••	587

The capacity of these dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power and allowing about 10 per cent. for loss of energy in conversion) about 2 per cent. of the engine-power belonging to quarries was required for driving dynamos for the production of electric power and light.

	Total Canacity of	Electricity Generated, so far as particulars were returned.		
Dynamos driven by	Dynamos.	Capacity of Dynamos.	Electricity Generated.	
Steam Engines : Reciprocating Other Power	Kilowatts. 382 205	Kilowatts. 203 83	B.T. Units. 224,000 49,000	
Total	587	286	273,000	

About 602,000 Board of Trade units of electricity were purchased by quarry owners for power and lighting purposes. This figure includes estimates made in the Census Office in respect of the quantities of electricity purchased by a number of small firms who were only able to state the amounts paid by them.

TABLES.

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COAL AND IRONSTONE MINES UNDER THE COAL MINES REGULATION ACTS.*

TABLE I.—OUTPUT.

NOTE,—The figures in this Table are given to the nearest thousand in each case. Amounts lower than five hundred are not shown.

				England and Wales.	Scotland.	Ireland.	United Kingdom.		
CPR -		iper.		Quantity.					
Coal : Anthracite Steam Gas Household Other Sorts, inclu distinguished	 iding Coal no	 ot sep:	 arately	Tons. 3,453,000 106,476,000 28,157,000 46,143,000 42,113,000	$\begin{array}{c} \text{Tons.}\\ 381,000\\ 21,719,000\\ 879,000\\ 6,903,000\\ 10,235,000 \end{array}$	Tons. 75,000 7,000 3,000 14,000	Tons. 3,909,000 128,202,000 29,039,000 53,060,000 52,348,000		
distinguished.	TOTAL-Co	al		226,342,000	40,117,000	99,000	266,558,000		
Ironstone				7,379,000	805,000	andra in Ta ari	8,184,000		
Iron Pyrites			ap 36)	11,000	abipar <u>o</u> sta	99999 - 2 <u>01</u> 179	11,000		
Fireclay	14			+	†	+	2,538,000		
Clay and Shale other Shale	than Firecla	y and	l Oil }	†	†	†	518,000		
Limestone			, 	343,000	48,000	_	391,000		
Sandstone, including	Ganister		70.0%. •••	193,000	45,000		238,000		
Whinstone, Barytes, Mine Products. All Other Products	Fluor Spar	, and 	other		(Recorded by	Value only.)			
					Val	lue.	- augeoffereniai		
Coal : Anthracite Steam Gas Household Other Sorts, inclu distinguished.	 uding Coal no TOTAL—Coa	 ot sep:	 arately 	£ 2,078,000 49,659,000 12,305,000 22,132,000 15,702,000 101,876,000	$\begin{array}{r} \pounds \\ 183,000 \\ 9,041,000 \\ 473,000 \\ 3,567,000 \\ 4,367,000 \\ \hline 17,631,000 \end{array}$		£ 2,297,000 58,703,000 12,779,000 25,705,000 20,069,000 119,553,000		
Ironstone				1.946.000	382,000		2,328,000		
Iron Pyrites				5,000		_	5,000		
Fireclay				†	†	†	519,000		
Clay and Shale other Shale.	than Firecla	y and	l Oil }	t	†	†	59,000		
Limestone				49,000	14,000		63,000		
Sandstone, including	Ganister			80,000	12,000	_	92,000		
Whinstone. Barvtes.	Fluor Spar.	and	other	14,000	2,000	_	16,000		
Mine Products. All Other Products				2,000	-	_	2,000		
	TOTAL			104,411,000	18,178,000	48,000	122,637,000		

* Including particulars relating to a small number of Quarries. + In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

Coal and Ironstone Mines under the Coal Mines Regulation Acts*—continued.

TABLE II.-COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

e o direa di the reave <u>s (1)</u> statistiquitate.	England and Wales.	Scotland.	Ireland.	United Kingdom.
the local prost line of the local states of th	£	£	£	£
Cost of Materials Used	14,266,000	2,275,000-	6,000	16,547,000
II.	<u>na praticipal</u>			
Value of Output	104,411,000	18,178,000	48,000	122,637,000
III.	811 (alo acto	(1)) 1040	and anno shad	Mines with
Value of Output less Cost of Materials Used	90,145,000	15,903,000	42.000	106,090,000

TABLE III.—PERSONS EMPLOYED.

AVERAGE NUMBERS AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

TO EDEP THE SHE SHE		Males.		Females.			Males and Females.		
	Under 16 years of age.	Over I6 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.
INGLAND AND WALES :-	_	and an one of the second		and a second			14. 		
Wage-earners :			0H	hundhinit					
Below Ground	38,722	535,775	574,497			0.000	38,722	535,775	574,49
Above Ground f	13,790	119,829	133,619	197	2,842	3,039	13,987	122,671	136,60
Salaried Persons	427	11,500	11,927	1	68	69	428	11,368	11,99
TOTAL	52,939	667,104	720,043	198	2,910	3,108	53,137	670,014	723,15
COTLAND							1.5		ost. do
Wage-earners :				A. Carl				. 30.03	1. 39
Below Ground	4.923	87.223	92.146	10.00			4,923	87.223	92,14
Above Groundt	. 1.774	16,690	18,464	445	1,843	2,288	2,219	18,533	20,75
Salaried Persons -	- 102	1,586	1,688	2	46	48	104	1,632	1,73
TOTAL	6,799	105,499	112,298	447	1,889	2,336	7,246	107,388	114,63
DELAND .									
Wage-earners									
Below Ground	. 15	526	541	_			15	526	54
Above Groundt	14	214	228	_			14	214	22
Salaried Persons	. 2	30	32	-	-		2	30	3
TOTAL	. 31	770	801	_	. <u> </u>		31	770	80
T T TT TT TT TT			-				h-		
JNITED KINGDOM :-	-								
Wage-earners :	12 660	692 594	667 184			1.	43 660	623 524	667 18
A how Groundt	15 578	126 722	159 211	619	1 685	5 327	16 220	141 418	157 63
Salariad Parsons	531	13 116	13,647	2	114	117	534	13,230	13.76
Salalieu I eisous									
TOTAL	. 59,769	773,373	833,142	645	4,799	5,444	60,414	778,172	838,58
					The second second		1.5		

+ Including those engaged in coal washing.

Coal and Ironstone Mines under the Coal Mines Regulation Acts*—continued.

TABLE IV .-- CAPACITY OF ENGINES OWNED.

A.-CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.-The Gross Value of Output in this Table is given to the nearest thousand pounds.

_	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
	Englan	D AND W	ALES.	Sc	OTLAND.	
	£		Horse- Power.	£		Horse- Power.
Mines with their own Engines Mines not using Power	103,995,000 416,000	718,346 4,805	1,882,278	18,164,000 14,000	114,464 170	410,978
TOTAL	104,411,000	723,151	1,882,278	18,178,000	114,634	410,978
	II	RELAND.		Unite	d Kingd	ом.
and the first of	£		Horse-	£	1 3	Horse-
Mines with their own Engines Mines not using Power	44,000 4,000	721 80	722	122,203,000 434,000	833,531 5,055	2,293,978
TOTAL	48,000	801	722	122,637,000	838,586	2,293,978

B.-TYPE AND CAPACITY OF ENGINES.

	England and Wales.	Scotland.	Ireland.	United Kingdom.
Steam Engines Internal Combustion Engines (gas, oil &c)	Horse-Power. 1,833,296 6,944	Horse-Power. 408,086 402	Horse-Power. 639 3	Horse-Power. 2,242,021 7,349
Water Power Other Power	468 41,570	2,490	80	468 44,140
TOTAL	1,882,278	410,978	722	2,293,978

* Including particulars relating to a small number of quarries.

COKE WORKS AT COLLIERIES.

TABLE I.—OUTPUT IN 1907.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

price T Marine and Period			England and Wales.	Scotland.	Great Britain.	
in and mail and the			Quantity.			
			Tons.	Tons.	Tons.	
Coke			10,779,000	565,000	11,344,000	
By-products :			*	*	37,000	
Tar			112,000	9,000	121,000	
Pitch		·	* Galls. *	* Galls. *	5,000 Galls.	
Parcel and Tolnol			*	*	2 350 000	
Other By-products			(Reco	rded by Value	only.)	
		1	abilitie (this is	Value.		
Coke	•••		£ 8,994,000	£ 522,000	£ 9,516,000	
By-products :— Sulphate of Ammonia,			*	*	416,000	
Tar			95,000	6,000	101,000	
Pitch			*	*	6,000	
Tar Oils (Creosote, &c.)		•••	*	*	12,000	
Benzol and Toluol			*	*	49,000	
Other By-products			26,000	14,000	40,000	
Total-By-products			520,000	104,000	624,000	
TOTAL VALUE			9,514,000	626,000	10,140,000	

TABLE II.-COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	England and Wales.	Scotland.	Great Britain.
I. and to make the state	£	£	£
Cost of Materials Used	6,746,000	401,000	7,147,000
Value of Output	9,514,000	626,000	10,140,000
Value of Output less Cost of Materials Used	2,768,000	225,000	2,993,000

* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for Great Britain as a whole. 24678

Coke Works at Collieries-continued.

TABLE III.—PERSONS EMPLOYED.

Average Numbers at Work on the last Wednesdays in January, April, July, and October.

adadite nost		Males.	die		Females.		Males and Females.		
	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.
ENGLAND AND WALES :-		1							Take
Wage-earners Salaried Persons	208 7	9,776 303	9,984 310	_	50 2	50 2	208 7	9,826 305	$10,034 \\ 312$
TOTAL	215	10,079	10,294	-	52	52	215	10,131	10,346
SCOTLAND : Wage-earners Salaried Persons		575 15	$586\\15$	_1	10		12	585 15	597 15
TOTAL	11	590	601	1	10	11	12	600	612
GREAT BRITAIN :	219 7	10,351 318	10,570 325	_1	60 2	61 2	220 7	10,411 320	10,631 327
TOTAL	226	10,669	10,895	1	62	63	227	10,731	10,958

TABLE IV.—CAPACITY OF ENGINES OWNED.

A .- CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.-The Gross Value of Output in this Table is given to the nearest thousand pounds.

00051 005. 10	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.
	ENGLAN	D AND V	VALES.	S	COTLANI).	GREAT BRITAIN.		
	£		Herse-	£		Horse-	£		Horse-
Coke Works with their own Engines	7,976,000	8,855	26,463	504,000	480	2,172	8,480,000	9,335	28,635
Coke Works not using Power.	1,538,000	1,491	14/200	122,000	132		1,660,000	1,623	
TOTAL	9,514,000	10,346	26,463	626,000	612	2,172	10,140,000	10,958	28,635

B.-TYPE AND CAPACITY OF ENGINES.

	England and. Wales.	Scotland.	Great Britain.
Steam Engines <	Horse-Fower. 24,052 2,411	Horse-Power. 2,161 — 11	Horse-Power. 26,213 2,411 11
TOTAL	26,463	2,172	28,635

MANUFACTURED FUEL TRADE.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.



TABLE II.-COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

—	United Kingdom.*
I	£ 938,000
II. Value of Output	1,205,000
III. Value of Output less Cost of Materials Used	267,000 ·

TABLE III.—PERSONS EMPLOYED.

AVERAGE NUMBERS AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

and an and the second		Males.			Females.		Males and Females.		
	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
UNITED KINGDOM* :	46	1,435	1,481	-		_	46	1,435	1,481
Salaried Persons	4	51	55	-	1	1	4	52	56
TOTAL	50	1,486	1,536	_	1	1	50	1,487	1,537

* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole. E 4 24678

Manufactured Fuel Trade-continued.

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

et diesched 'e can sera		Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.	
	1.10	United Kingdom.*			
Factories with their own Engines Workshops (not using Power)	 	 £ 1,201,000 4,000	1,527 10	Horse-Power. 5,344	
TOTAL	 	 1,205,000	1,537	5,344	

B.-TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	ALC: NE	and A.S.		e mitou minguom.
				Horse-Power
Steam Engines, Reciprocating				5,316
Internal Combustion Engines (gas, oi	l, &c.)			16
Water Power				12
TOTAL				5,344
Capacity of Dynamos driven by :			inver 1	Kilowatts.

C.—Amount of Electricity Purchased.

NOTE.—The figure in this Table is given to the nearest thousand.

	United Kingdom.*	
Amount of Electricity Purchased	Board of Trade Units. 3 000	

* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

OIL SHALE MINES. TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	aligned all a	Scotland.		
· · · · · · · · · · · · · · · · · · ·		Quantity.	Value.	
Oil Shale Other Products		Tons. 2,715,000 (Recorded by Value only.)	£ 650,000 1,000	
TOTAL VALUE	-		651,000	

TABLE II.—COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

						Scotland.
0.00	un de la complete	I.		1.10		£
000,0	Cost of Materials Used				 	128,000
	Value of Output				 	651,000
	Value of Output less Cost	t of Mat	erials	Used	 	523,000

TABLE III.-PERSONS EMPLOYED.

AVERAGE NUMBERS AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

			Males.				
OT ADISALIST			Under 16 years of age.	Over 16 years of age.	Total.		
SCOTLAND : Wage-earners : Below ground Above ground Salaried Persons	 	 ···· ···	 213 60 1	3,335 637 30	$3,548 \\ 697 \\ 31$		
TOTAL	 	 	 274	4,002	4,276		

TABLE IV.—CAPACITY OF ENGINES OWNED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

eringen and		Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
t	ONTRO DATE STORE	atti-ili ali	SCOTLAND.	
Mines with	n their own Engines	£ 651,000	4,276	Horse-Power. 15,129
Alternation	BTYPE AND CAPACITY OF ENGINES	s, and Capac	CITY OF DYNA	MOS.
			Scotland.	
feial.	Steam Engines, Reciprocating Internal Combustion Engines (gas, oil, &	 c.)	Horse-Pow 15,11 1	er. 9 .0
	TOTAL		15,12	29
949 53901	Capacity of Dynamos driven by :		Kilowatta	s. 10

SHALE OIL WORKS.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

					Scotland.		
000055 1 10 10 200	Tona.				Quantity.	Value.	
Petroleum : Lamp Oils Lubricating Oils (abo		 Gr.)		 ••••	Galls. 16,977,000 6.463.000	£ 376,000 117,000	
Gas Oils (·840 to ·875	Sp. Gr.)			 	12.259.000	160.000	
Spirit				 	4,496,000	140,000	
	TOTAL-	Petrole	um	 	40,195,000	793,000	
Crude Oil	•			 	Galls. 39,423,000 Tons	357,000	
Paraffin Wax and Candles				 	25,000	601,000	
Sulphate of Ammonia	·			 	52,000	590,000	
Lubricating Greases	•			 	(Recorded by Value only.)	13,000	
Coke	• •••			 	5,000	12,000	
Other Products		TTM		 	(Recorded by Value only.)	5,000	
	TOTAL V.	ALUE		 		2,371,000	

TABLE II.—COST OF MATERIALS USED, SHOWN IN RELATION TOVALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

		Scotland.	N. 28.
	I.	in birding av	d é. PerusiaRi
	Cost of Materials Used	£ 1,594,000	
	II.		
124 10	Value of Output	2,371,000	
	III.		
Se gifting of	Value of Output less Cost of Materials Used	777,000	

TABLE III.—PERSONS EMPLOYED.

Average Numbers at Work on last Wednesdays in January, April, July, and October.

	in citin	Males.		BS00	Females.		Males and Females.		
intellection intellection intellection intellection intellection	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
SCOTLAND : Wage-earners Salaried Persons	$\begin{array}{c} 257\\ 54 \end{array}$	2,780 291	$3,037 \\ 345$	1	5. 2	6 3	258 55	2,785 293	3,043 348
TOTAL	311	3,071	3,382	2	7	9	313	3,078	3,391

Shale Oil Works-continued.

TABLE IV.-CAPACITY OF ENGINES OWNED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

These Kingdon.		Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
	-		SCOTLAND.	
Works with their own Engines		£ 2,371,000	3,391	Horse-Power. 10,993

B.—TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

a - Inco and a second and	Scotland.	1
Steam Engines, Reciprocating Internal Combustion Engines (gas, oil, &c.) TOTAL	Horse-Power. 10,975 18 10,993	
Capacity of Dynamos driven by :	Kilowatts. 2,158	



IRON MINES UNDER THE METALLIFEROUS MINES REGULATION ACT AND IRON QUARRIES.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

				United I	Xingdom.*
interested and antersona				Quantity.	Value.
Iron Ore and Ironstone	 	·	·	Tons. 6,802,000	£ 1,987,000
Limestone, Gravel, Sand, &c	 			(Recorded by	12,000
TOTAL VALUE	 989 9	16 0		Value only.) —	1,999,000

TABLE II.—COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

and the second second second		and a supplication where	the second					
i sata	Lotticolizi	suite dirites by set lo						
	I. Cost of Materials Used		£ 251,000					
	II. Value of Output		1,999,000					
	III. Value of Output <i>less</i> Cost of Materials Used		1,748,000					

TABLE III.—PERSONS EMPLOYED.

Average Numbers at Work on the last Wednesdays in January, April, July, and October.

		Males.			Females	•	Males and Females.		
	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.
UNITED KINGDOM* : Wage-earners Salaried Persons	261	10,782 199	11,043 206	_	_3	3	$261 \\ 7$	10,785 199	11,046 206
TOTAL	268	10,981	11,249	-	3	3	268	10,984	11,252

* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be given for the United Kingdom as a whole.

Iron Mines under the Metalliferous Mines Regulation Act and Iron Quarries—continued.

TABLE IV .- CAPACITY OF ENGINES OWNED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.-The Gross Value of Output in this Table is given to the nearest thousand pounds.

	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
The second secon	T.	JNITED KINGDOL	м.*
Mines and Quarries with their own Engines Mines and Quarries not using Power	£ 1,900,000 . 99,000	10,157 1,095	Horse-Power. 27,557
TOTAL	. 1,999,000	11,252	27,557

B.-TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

		-				United Kingdom.*
Steam Engines, Reci Steam Turbines Internal Combustion Water Power	procating Engines	g s (gas,	 oil,	 &c.) 	 	Horse-Power. 23,756 3,250 491 60
TOTAL					 	27,557
Capacity of Dynamos Steam Engines, Steam Turbines	driven k Reciproc	by :— cating			 	Kilowatts. 459 2,385
TOTAL					 	2,844

* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be given for the United Kingdom as a whole.

MINES, OTHER THAN COAL AND IRON.

TABLE I.-OUTPUT.

NOTE.—The figures of quantity in this Table are given to the nearest hundred (except in the case of wolfram ore), and those of value to the nearest thousand. Amounts lower than fifty in the case of quantities and five hundred in the case of value are not shown.

Consur Lan	30.3	enta V	anne Raine		ru, da U kao	tyreste Press	90 . (f) 90 a	England and Wales and Ireland.*	Scotland.	United Kingdom.
nd principa.							der an	fine to contra	Quantity.	NODK.
Tin Ore (includi	ng Ti	n recov	vered fr	om T	'in Strea	ms) :-	-	Tons.	Tons.	Tons.
Undroggod	in the second	S. M. Mark		11.1			•••	10,700	-	7,100
Load Oro								• 19,100		19,700
Zing One	•••							T the	• +	27,200
Zinc Ore								†	†	17,600
Copper Ore, Reg	ulus, a	ind Pro	ecipitat	е				7,200	_	7,200
Wolfram Ore		·						350		350
Gypsum								201,700		201.700
Barytes and With	herite							+	+	34 300
Arsenic and its (Dxides	(inclu	ding A	rsenic	al Pyrit	es)	- R9181	4 000	dorres reitin	4,000
Manganese, Gold	. Uran	ium. I	Banxite	and	Other O	rog		(Record	d by Value	1,000
Fluor Spar	,	, -	Juanne	, and	other o	105		11 400	a og varae	11 100
Ochre Umber &	c							41,400	Toroll	41,400
Stone :-	···				•••			4,200		4,200
Limostono								100.000		
Sandatana (120,300	208,700	329,000
Sanustone (1	nclua	ing Ga	nister)					†	†	104,700
Other Sorts								116,900	the state of the s	116,900
Clay								+	+	122,900
Chalk, Flint, Gra	vel, S	and, ar	nd Othe	r Pro	ducts			(Record e	ed by Value	only.)
									0	
							-			
							El-El		Value	

m 0 (1 1 1)		State States	States States						
Tin Ore (including	Tin reco	overed f	from T	'in Stre	ams) :-	-	£	£	f.
Dressed						2012	676,000	CARGE TRANSFER	676 000
Undressed							8,000	LUNCE TRANCE	8,000
Lead Ore				1200	180 .40		0,000	distants family	0,000
Zing Oro								In the Island	314,000
							†	1	81,000
Copper Ore, Regulu	s, and P	recipita	te				32,000	-	32,000
Wolfram Ore							36,000		36,000
Gypsum		1					98,000	and the second second	98,000
Barytes and Witheri	ito		1.				10,000	1	12,000
Argonia and its Orig	log (in al			1			I	I'm martinering	43,000
Arsenic and its Oxic	ies (incl	uding A	rsenic	al Pyri	ites)		41,000		41,000
Manganese, Gold, U	ranium,	Bauxite	e, and	Other (Ores		40,000	PLANS TO	40,000
Fluor Spar		***	· · · ·				17 000	Lates in	17,000
Ochre, Ümber, &c							2,000		2,000
Stone :				•••			5,000		3,000
Stone									
Limestone							57,000	41.000	98.000
Sandstone (incl	uding G	anister)					ť	+	55,000
Other Sorts							38,000	La	28,000
Clay					•••		50,000	1	55,000
Challe Elist Garant		1.0.1					T	I	33,000
Chark, Finn, Graver	, Sana, a	and Oth	er Pro	ducts			19,000	7,000	26,000
						A SALE AND			
To	TAL VA	LUE				1.000	1.557.000	104 000	1 661 000
						50.00	2,007,000	101,000	1,001,000

TABLE II.—COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	 England and Wales and Ireland.*	Scotland.	United Kingdom.
I. Cost of Materials Used	 £ 410,000	£ 20,000	£ 430,000
Value of Output	 1,557,000	104,000	1,661,000
Value of Output less Cost of Materials Used	 1,147,000	84,000	1,231,000

* The figures for England and Wales and for Ireland have been combined in order to avoid the possible disclosure of particulars relating to the few firms in Ireland. † In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

Mines, other than Coal and Iron-continued.

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TABLE III.—PERSONS EMPLOYED.

AVERAGE NUMBERS AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

			Males.		Females.			Males and Females.		
in president	16 0	Under 6 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.
ENGLAND AND WALE	s		10 810 021	84 5 7	14	(32.2)	9 (2014) (2014) (2014) (2014) (2014)	Barris .		na da tas Na tarres
Wage-earners . Salaried Persons .	-	621 7	$15,934 \\ 552$	$16,555 \\ 559$	28 —	$\begin{array}{c} 226\\ 15 \end{array}$	$\begin{array}{c} 254\\ 15\end{array}$	649 7	$16,160 \\ 567$	16,809 574
TOTAL		628	16,486	17,114	28	241	269	656	16,727	17,383
SCOTLAND : Wage-earners . Salaried Persons .		33 1	776 35	809 36		32	$3 \\ 2$	33 1	779 37	812 38
TOTAL		34	811	845	_	5	5	34	816	850
UNITED KINGDOM :		654 8	16,710 587	17,364 595	28	229 17	257 17	682 8	16,939 604	17,621 612
TOTAL		662	17,297	17,959	28	246	274	690	17,543	18,233

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OFELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

-Are- State	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.
	ENGLAN	D AND V IRELAN	WALES	Sc	OTLAND	•	Unite	d King	DOM.
Mines and Quarries with their own	£ 1,486,000	16,303	Horse- Power. 36,610	£ 101,000	813	Horse- Power. 1,963	£ 1,587,000	17,116	Horse- Power. 38,573
Engines. Mines and Quarries not using Power.	71,000	1,080	-	3,000	37	-	74,000	1,117	
TOTAL	1,557,000	17,383	36,610	104,000	850	1,963	1,661,000	18,233	38,573

* The figures for England and Wales and for Ireland have been combined, in order to avoid the possible disclosure of particulars relating to the few firms in Ireland.

Mines, other than Coal and Iron-continued.

TABLE IV .- CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED—continued.

B.-TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

The second secon	Englandand Wales and Ireland.*	Scotland.	United Kingdom.
Steam Engines, Reciprocating Internal Combustion Engines (gas, oil, &c.) Water Power Other Power TOTAL	 Horse-Power. 28,379 5,018 3,180 33 36,610	Horse-Power. 1,703 140 120 1,963	Horse-Power. 30,082 5,158 3,300 33 38,573
Capacity of Dynamos driven by :	 Kilowatts. 1,087 1,589 2,676	Kilowatts. 49 49	Kilowatts. 1,087 1,638 2,725

C.-AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

		England and Wales and Ireland.*	Scotland.	United Kingdom.
Amount of Electricity Purchased	 201911	Board of Trade Units. 1,378,000	Board of Trade Units.	Board of Trade Units. 1,378,000

* The figures for England and Wales and for Ireland have been combined, in order to avoid the possible disclosure of particulars relating to the few firms in Ireland.

SALT MINES, BRINE PITS, AND SALT WORKS.

TABLE I.-OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

Control Control Control Control	United H	Kingdom.*
Caresa Eradoan*	Quantity.	Value.
Rock and White Salt	Tons. 1,244,000 . 34,000	£ 576,000 74,000
Other Products	. (Recorded by Value only.)	17,000
TOTAL VALUE		667,000

TABLE II.-COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

Silowaits.	- 178	uovinit south	United Kingdom.*
Cost of Materials Used	I. 		£ 348,000
Value of Output	II. 	· · · · · · · · · · · · · · · · · · ·	667,000
Value of Output less Cost	111. of Materials Used	· ··· ···	319,000

TABLE III.—PERSONS EMPLOYED.

AVERAGE NUMBER OF PERSONS EMPLOYED ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

		Males.			Females.		Males and Females.		
and a state	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
UNITED KINGDOM*:	. 337	3,669	4,006	139	288	427	476	3,957	4,433
Salaried Persons .	. 30	261	291	-	12	12	30	273	303
TOTAL .	. 367	3,930	4,297	139	300	439	506	4,230	4,736

* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole, F

Salt Mines, Brine Pits, and Salt Works-continued.

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OFELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

Caller State Caller	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
and the second s	UI.	NITED KINGDOM	1.*
Mines, Pits, and Works with their own Engines	£ 667,000	4,736	Horse-Power. 4,127

B.-TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

- 000,71	the second s	United Kingdom.*
ov to	Steam Engines :	Horse-Power. 3,677 300 150
	'TOTAL	4,127
1	Capacity of Dynamos driven by :— Steam Engines, Reciprocating Steam Turbines	Kilowatts. 241 200
	TOTAL	441

C.—Amount of Electricity Purchased.

NOTE.—The figure in this Table is given to the nearest hundred.

		United Kingdom.*	
•		Board of Trade	
MILOVAL.	Amount of Electricity Purchased	4,500	aoas

* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

		 	in the second	- times		
						Stiaried Fermina

SLATE QUARRIES.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case. Amounts lower than five hundred are not shown.

to were Guiss Vants or Otrever Asto	England and Wales.	Scotland.	Ireland.	United Kingdom.
Automotive form trends		Qua	ntity.	a fraction
Slates for Roofing Purposes and Slate Slabs	Tons. 391,000	Tons 20,000	Tons. 5,000	Tons. 416,000
		Va	ilue.	
Slates for Roofing Purposes and Slate Slabs Stone	£ 1,091,000 2,000	£ 39,000 —	£ 16,000	£ 1,146,000 2,000
TOTAL VALUE	1,093,000	39,000	16,000	1,148,000

TABLE II.—COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	England and Wales.	Scotland.	Ireland.	United Kingdom.
I. Cost of Materials Used	£ 99,000	£ 3,000	£ 2,000	£ 104,000
II. Value of Output	1,093,000	39,000	16,000	1,148,000
III. Value of Output less Cost of Materials Used	994,000	36,000	14,000	1,044,000

TABLE III.—PERSONS EMPLOYED.

Average Numbers at Work on the last Wednesdays in January, April, July, and October.

		Males. Females.				20162	Males and Females.		
	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total,	Under 16 years of age.	Over 16 years of age.	Total.
ENGLAND AND WALES:	872 6	$12,142 \\ 322$	$13,014 \\ 328$		-9	→ ₉	872 6	$12,142 \\ 331$	$13,014 \\ 337$
TOTAL	878	12,464	13,342		9	9	878	12,473	13,351
SCOTLAND : Wage-earners Salaried Persons	13	752 13	$765\\13$			_	13	752 13	765 13
TOTAL	13	765	778			1	13	765	778
IRELAND :	_1	262 8	263 8	_	-		_ 1	262 8	263 8
TOTAL	1	270	271				1	270	271
UNITED KINGDOM :	886 6	$13,\!156\\343$	14,042 349		-9	9	886 6	$13,156 \\ 352$	14,042 358
TOTAL	892	13,499	14,391		9	9	892	13,508	14,400

Slate Quarries-continued.

TABLE IV .- CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED.

A .--- CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.-The Gross Value of Output in this Table is given to the nearest thousand pounds.

000,311 000,8 040,000	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
2 <u>x</u> <u>x</u>	Englan	d and Wa	les.	S	cotland.	
2000	£		Horse-	£	-	Horse-
Quarries with own Engines Quarries not using Power	$1,043,000 \\ 50,000$	$12,729 \\ 622$	10,599	17,000 22,000	$\begin{array}{c} 335\\ 443\end{array}$	90
TOTAL	1,093,000	13,351	10,599	39,000	778	90
and countred in proce rear	. I	reland.		United	l Kingdoi	n.
analgula analasi analas	£	-	Horse-	£		Horse-
Quarries with own Engines Quarries not using Power	$15,000 \\ 1,000$	250 21	214 	1,075,000 73,000	$13,314 \\ 1,086$	10,903
TOTAL	16,000	271	214	1,148,000	14,400	10,903

B.-TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	England and Wales.	Scotland.	Ireland.	United Kingdom.
Steam Engines, Reciprocating Steam Turbines Internal Combustion Engines (gas, oil, &c.). Water Power Other Power	Horse-Power. 6,890 10 645 3,042 12	Horse-Power. 8 	Horse-Power. 149 — — 65 —	Horse-Power. 7,047 10 727 3,107 12
TOTAL	10,599	90	214	10,903
Capacity of Dynamos driven by :	Kilowatts. 150 895	Kilowatts. 	Kilowatts.	[•] Kilowatts. 150 948
TOTAL	1,045	53		1,098

C.--AMOUNT OF ELECTRICITY PURCHASED.

NOTE.-The figures in this Table are given to the nearest thousand in each case.

Ars ors T -	England and Wales.	Scotland.	Ireland.	United Kıngdom.
Amount of Electricity Purchased	Board of Trade Units. 1,335,000	Board of Trade Units.	Board of Trade Units. —	Board of Trade Units. 1,335,000

LIMESTONE QUARRIES AND LIME KILNS.

	ED.		101	Engla	and and Vales.	Scotla	ind.	Ireland,	U Kir	nited ngdom.
REAL THEFT OF TO AND A	To secon	<u>i) 1121</u>		179	900 30 9	1 	Quantit		1.2.2.2.	······
Limestone (not burnt)	···· 0			T 7,20	'ons. 02,000	Tor 55	,000	Tons. 256,000) T	'ons. 13,000
							Value			and a second second second
a Value Xamber Daniel 90 - Sold Seesan Gapade				0.	£	£	000	£		£ 000
Lime		 		9 6	91,000	58	,000	45,000	3 + 9	94,000 5 c 000
Tar Paving	 			15%	60,000	-		- 1.000		60,000
Stone, other than Limeston Other Products	ne				*	1	,000	1,000		29,000
TOTAL				1,7	50,000	73	,000	82,000	0 1,9	05,000
Amount Received for Roa	d-makin	g		-	3,000	1	-	1,000	0.	4,000
TOTAL VALU	JE			1,7	53,000	73	,000	83,00	0 1,9	09,000
NOTE.—The figur	res in t	VAL his Tabl	UE le are	OF give	OUT out out to th	PUT.	t thousan	nd in ec	ich case.	
inder states in the second				Eng!	land and Wales.	Scotl	and.	Ireland.	Ki	United ingdom.
I. Cost of Materials Used		10720 ⁹ 1		4	£ 144,000	2	e 7,000	£ 24,00	0 4	£ 195,000
II. Total Value of Output				1,7	753,000	- 78	3,000	83,00	0 1,9	909,000
III.			122				and the second se		the state of the state of the	
Value of Output less Cost	of Mate	rials Us	ed	1,3	309,000	46	5,000	59,00	0 1,4	414,000
Value of Output <i>less</i> Cost	of Mate	rials Us	ed	1,3	309,000	4	5,000	59,00	0 1,4	14,000
Value of Output <i>less</i> Cost Average Number	of Mate TABL s at V	rials Us E III Vork (Ju	ed —PE DN TE	1,3 CRS(HE L	ONS I AST W OCTOF	40 EMPLC VEDNESI BER.	OYED.	59,00 Janua	0 1,4 ARY, AI	414,000 PRIL,
Value of Output <i>less</i> Cost Average Number	of Mate TABL s at V	rials Us E III Vork (Ju Males,	PE PE N TE	1,3 CRS(HE L ND	309,000 ONS I .ast W Остон	40 EMPLC TEDNESI BER. Females.	3,000 YED. DAYS IN	59,00 Janua Mal	0 1,4 ARY, AI es and Fer	414,000 PRIL, males.
Value of Output <i>less</i> Cost AVERAGE NUMBER	of Mate TABL s AT Under 16 years of age.	E III VORK (JU Males. Over 16 years of age.	ed PE DN TE LY, A		309,000 ONS I AST W OCTOF	46 EMPLC EDNESI BER. Females. Over 16 years of age.	5,000 OYED. DAYS IN Total.	59,00 JANUA Mal Under 16 years of age.	0 1,4 ARY, AI es and Fer Over 16 years of age.	PRIL, males. Total.
Value of Output <i>less</i> Cost AVERAGE NUMBER ————————————————————————————————————	of Mate TABL S AT V Under 16 years of age. 308 20	rials Use E III VORK (JU Males. Over 16 years of age. 13,598 558	ed PE DN TE LY, A Tota 13,9	1,3 CRS(HE L ND	009,000 ONS I AST W OCTOF	46 EMPLC VEDNESI BER. Females. Over 16 years of age. 3 9.	5,000)YED. DAYS IN Total. 3 10	59,00 JANUA Mal Under 16 years of age. 308 21	0 1,4 ARY, A1 es and Fei 0 ver 16 years of age. 13,601 567	E14,000 PRIL, males. Total. 13,909 588
Value of Output less Cost AVERAGE NUMBER —— ENGLAND AND WALES:— Wage-earners … Salaried Persons … TOTAL	of Mate TABL s AT Under 16 years of age. 308 20 328	rials Use E III VORK (JU Males. Over 16 years of age. 13,598 558 14,156	ed	1,3,3 IRS0 HE L NND	309,000 ONS I AST W OCTOH ^{Under} 16 years of age. 1 1	46 EMPLC FEDNESI BER. Females. Over 16 years of age. 3 9 12	5,000)YED. DAYS IN Total. 3 10 13	59,00 JANUA Mal Under 16 years of age. 308 21 329	0 1,4 ARY, A1 es and Fer of years of age. 13,601 567 14,168	E14,000 PRIL, males. Total. 13,909 588 14,497
Value of Output less Cost AVERAGE NUMBER —— ENGLAND AND WALES:— Wage-earners … Salaried Persons … TOTAL SCOTLAND :—	of Mate TABL S AT V Under 16 years of age. 308 20 328	rials Use E III VORK (JU Males. Over 16 years of age. 13,598 558 14,156	ed —PE DN TE LY, A Tots 13,9 5 14,4	1,3 IRSC HE L ND 006 578 184	309,000 ONS I AST W OCTOF	40 EMPLC VEDNESI BER. Females. Over 16 years of age. 3 9 12	5,000 9 Y ED. DAYS IN Total. 10 13	59,00 JANUA Mal Under 16 years of age. 308 21 329	0 1,4 ARY, AI es and Fei Over 16 years of age. 13,601 567 14,168	E14,000 PRIL, males. Total. 13,909 588 14,497
Value of Output less Cost AVERAGE NUMBER ————————————————————————————————————	of Mate TABL S AT V Under 16 years of age. 308 20 328 9 -	rials Use E III VORK (JU Males. Over 16 years of age. 13,598 558 14,156 496 32	ed —PE DN TE LY, A Tots 13,9 5 14,4 5	1,3 CRS0 HE LL NND 006 578 884 605 32	309,000 ONS I AST W OCTOH Under 16 years of age. 1 1	46 EMPLC VEDNESI BER. Females. Over 16 years of age. 3 9 12 3 2	5,000 9 Y ED. DAYS IN Total. 3 10 13 3 2	59,00 JANUA Mal Under 16 years of age. 308 21 329 9 -	0 1,4 ARY, A1 es and Fei of age. 13,601 567 14,168 499 34	E14,000 PRIL, males. Total. 13,909 588 14,497 508 34
Value of Output less Cost AVERAGE NUMBER —— ENGLAND AND WALES:— Wage-earners … Salaried Persons … TOTAL Scotland:— Wage-earners … Salaried Persons … Salaried Persons … TOTAL	of Mate TABL S AT V Under 16 years of age. 308 20 328 9 	rials Use E III VORK C JU Males. Over 16 years of age. 13,598 558 14,156 496 32 528	ed —PE DN TE LY, A Tota 13,9 5 14,4 5 5 5 14,4	1,3 CRS0 HE L ND 906 578 484 484 605 32 537	309,000 ONS I AST W OCTOF	40 EMPLC VEDNESI BER. Females. Over 16 years of age. 3 9 12 3 2 5	5,000 9 Y ED. DAYS IN Total. 3 10 13 3 2 5	59,00 JANUA Mal Under 16 years of age. 308 21 329 9 9	0 1,4 ARY, A1 es and Fei 0 ver 16 years of age. 13,601 567 14,168 499 34 533	E14,000 PRIL, males. Total. 13,909 588 14,497 508 34 545
Value of Output less Cost AVERAGE NUMBER ————————————————————————————————————	of Mate TABL s AT Under 16 years of age. 308 20 328 9 	rials Use E III VORK C JU Males. Over 16 years of age. 13,598 558 14,156 496 32 528 1,088 39	ed —PE DN TE LY, A Tota 13,9 5 14,4 5 11,1	1,3 CRS0 HE L ND 006 578 484 605 32 537 115 39	309,000 ONS I AST W OCTOF	40 EMPLC VEDNESI BER. Females. Over 16 years of age. 3 9 12 3 2 5	5,000 9 Y ED. DAYS IN Total. 3 10 13 3 2 5 —	59,000 JANUA Mal Under 16 years of age. 308 21 329 9 	0 1,4 ARY, A1 es and Fei 0 ver 16 years of age. 13,601 567 14,168 499 34 533 1,088 39	E14,000 PRIL, males. Total. 13,909 588 14,497 508 34 542 1,115 35
Value of Output less Cost AVERAGE NUMBER ————————————————————————————————————	of Mate TABL s AT V Under 16 years of age. 308 20 328 9 	rials Use E III VORK C JU Males. Over 16 years of age. 13,598 558 14,156 496 32 528 1,088 39 1,127	ed —PE N TE LY, A Tots 13,9 5 14,4 5 11,1 1,1	1,3 CRS0 HE L ND 006 678 484 605 32 537 115 39 154	309,000 ONS I AST W OCTOF	40 EMPLC VEDNESIBER. Females. Over 16 years of age. 39 12 32 5	5,000 PYED. DAYS IN Total. 3 10 13 3 2 5 — —	59,000 JANUA Mal Under 16 years of age. 308 21 329 9 9 9 9 27 	0 1,4 ARY, A1 es and Fen 0 ver 16 years of age. 13,601 567 14,168 499 34 533 1,088 39 1,127	E14,000 PRIL, males. Total. 13,909 588 14,497 508 34 542 1,115 39 1,154
Value of Output less Cost AVERAGE NUMBER ————————————————————————————————————	of Mate TABL s AT V Under 16 years of age. 308 20 328 9 	rials Use E III VORK C JU Males. 0 ver 16 years of age. 13,598 558 14,156 496 32 528 1,088 39 1,127 15,182 629	ed —PE DN TE LY, A Tota 13,9 5 14,4 5 1,1 1,1 15,5 (1,3 CRS0 HE L ND 006 678 484 605 32 337 115 39 154 526 649	309,000 ONS I AST W OCTOF	40 EMPLC VeDNESIBER. Females. Over 16 years of age. 39 12 32 5 6 11	5,000 PYED. DAYS IN Total. 3 10 13 3 2 5 	59,000 JANUA Mal Under 16 years of age. 308 21 329 9 9 9 9 9 27 27 344 21	0 1,4 ARY, A1 es and Fen 13,601 567 14,168 499 34 533 1,088 39 1,127 15,188 640	E14,000 PRIL, males. Total. 13,909 588 14,497 508 34 542 1,112 35 1,154 15,532 661

United Kingdom as a whole. F 3

Limestone Quarries and Lime Kilns-continued.

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.-The Gross Value of Output is given in this Table to the nearest thousand pounds.

000000 0000000000000000000000000000000	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
0001880	Englani) AND W	ALES.	Sco	OTLAND,	Tar Pavil Tar Pavi
Quarries and Lime Kilns with own Engines. Quarries and Lime Kilns not using Power. TOTAL	£ 1,346,000 407,000 1,753,000	10,511 3,986 14,497	Horse- Power. 9,884	-£ 54,000 19,000 73,000	338 204 542	Horse- Power. 655 655
	Ir	ELAND.	111 1211	UNITE	D KINGDO	•М.
Quarries and Lime Kilns with own Engines. Quarries and Lime Kilns not using A.Power.	£ 39,000 44,000	517 637	Horse- Power. 328	£ 1,439,000 470,000	11,366 4,827	Horse- Power. 10,867
TOTAL	83,000	1,154	328	1,909,000	16,193	10,867

B.—TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	England and Wales.	Scotland.	Ireland.	United Kingdom.
Steam Engines, Reciprocating Internal Combustion Engines (gas, oil, &c.). Water Power Other Power	Horse-Power. 7,911 1,780 190 3	Horse-Power. 570 65 20	Horse-Power. 232 86 10	Horse-Power. 8,713 1,931 220 3
Тотаl	9,884	655	328	10,867
Capacity of Dynamos driven by :	Kilowatts. 96	844		Kilowatts. 96

C.—AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

224.01 891.01	England and Wales.	Scotland.	Ireland.	United Kingdom.
Amount of Electricity Purchased	Board of Trade	Board of Trade	Board of Trade	Board of Trade
	Units.	Units.	Units.	Units.
	58,000	—	25,000	83,000

QUARRIES, OTHER THAN IRON, SLATE, OR LIMESTONE.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case. Amounts lower than five hundred are not shown.

- Males and Fentales.			England and Wales,	Scotland.	Ireland.	United Kingdom.
Toolar, Over 1 Toola, 18 years Total,	Pater Salar	1992 1 1992		QUAN	TITY.	
alego alego		975 (1)	Tons.	Tons.	Tons.	Tons.
Chalk			3,944,000			3,944,000
Chert and Flint			87,000			87,000
Clay and Shale :-				- Cherter (14) - Cherter		
Brick Clay and Earth			628,000	43,000	1,000	672,000
China Clay and China Stone			726,000			726,000
Fireclay			37,000	1,000	6,000	44,000
Gravel			489,000	20,000	9,000	518,000
Mica			25,000		—	25,000
Sand			1,602,000	331,000	13,000	1,946,000
Stone :		1.50				0 1 2 2 0 0 0
Granite			2,787,000	332,000	43,000	3,162,000
Whinstone			473,000	674,000	120,000	1,267,000
Other Igneous Rocks			703,000	20,000	3,000	726,000
Limestone			26,000	1,000		27,000
Sandstone (including Ganister)			3,234,000	751,000	70,000	4,055,000
Stone, not further distinguished	d	••	30,000	- Aller - Aller	9,000	39,000
Other Quarry Products						
Artificial Stone, Bricks, Lime, &c.			}	(Recorded by	Value only.)	
Amount Received for Road Making			1			the second second
			and estimate	VAI	LUE.	Company and V
			£	e.	£	£
Chalk	1020		136.000			136.000
Chert and Flint			11.000			11,000
Clay and Shale -			1,000	-		
Brick Clay and Earth			83,000	4.000	-	87,000
China Clay and China Stone	176	143 34	542,000		120.000.110	542,000
Fireclay	17-1	PT LINE	11.000	12000	1,000	12,000
Gravel			44.000	2,000	1,000	47,000
Mica			13.000	-	· · ·	13,000
Sand	223	TOTAL ST	142.000	22,000	1,000	165,000
Stone -			ADERAL 10	a mail of the		
Granite			and the second se			
			655.000	146,000	24,000	825,000
Whinstone			655,000 113,000	$ \begin{array}{c c} 146,000 \\ 125,000 \end{array} $	24,000 14,000	825,000 252,000
Whinstone			655,000 113,000 144,000	$ \begin{array}{c c} 146,000 \\ 125,000 \\ 4,000 \end{array} $	24,000 14,000	825,000 252,000 148,000
Whinstone Other Igneous Rocks Limestone			$\begin{array}{c c} 655,000 \\ 113,000 \\ 144,000 \\ 8,000 \end{array}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	24,000 14,000	$\begin{array}{r} 825,000\\ 252,000\\ 148,000\\ 8,000\end{array}$
Whinstone Other Igneous Rocks Limestone Sandstone (including Ganister)			$\begin{array}{c} 655,000\\ 113,000\\ 144,000\\ 8,000\\ 1,066,000\end{array}$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		$\begin{array}{r} 825,000\\ 252,000\\ 148,000\\ 8,000\\ 1,306,000\end{array}$
Whinstone	···· ···· ····		$\begin{array}{c} 655,000\\ 113,000\\ 144,000\\ 8,000\\ 1,066,000\\ 5,000\end{array}$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{r} 24,000 \\ 14,000 \\ \\ 8,000 \\ 4,000 \\ \end{array} $	$\begin{array}{r} 825,000\\ 252,000\\ 148,000\\ 8,000\\ 1,306,000\\ 10,000\end{array}$
Whinstone	 		$\begin{array}{c} 655,000\\ 113,000\\ 144,000\\ 8,000\\ 1,066,000\\ 5,000\\ 37,000\end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c} 24,000 \\ 14,000 \\ \\ 8,000 \\ 4,000 \\ 2,000 \end{array} $	$\begin{array}{r} 825,000\\ 252,000\\ 148,000\\ 8,000\\ 1,306,000\\ 10,000\\ 40,000\end{array}$
Whinstone	 		$\begin{array}{c} 655,000\\ 113,000\\ 144,000\\ 8,000\\ 1,066,000\\ 5,000\\ 37,000\\ 23,000\end{array}$	$\begin{array}{c c} 146,000\\ 125,000\\ 4,000\\ \hline \\ 232,000\\ 1,000\\ \hline \\ 1,000\\ \hline \\ \end{array}$	$\begin{array}{c} 24,000\\ 14,000\\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	$\begin{array}{c} 825,000\\ 252,000\\ 148,000\\ 8,000\\ 1,306,000\\ 10,000\\ 40,000\\ 23,000\end{array}$
Whinstone	···· ···· ···· ····	···· ··· ··· ···	$\begin{array}{c} 655,000\\ 113,000\\ 144,000\\ 8,000\\ 1,066,000\\ 5,000\\ 37,000\\ 23,000\\ 8,000\\ \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c} 24,000\\ 14,000\\\\ 8,000\\ 4,000\\ 2,000\\\\ 1,000\end{array}$	$\begin{array}{r} 825,000\\ 252,000\\ 148,000\\ 8,000\\ 1,306,000\\ 10,000\\ 40,000\\ 23,000\\ 13,000\end{array}$
Whinstone Other Igneous Rocks Limestone Sandstone (including Ganister) Stone, not further distinguishe Other Quarry Products Artificial Stone, Bricks, Lime, &c. Amount Received for Road Making	 	··· ··· ··· ···	$\begin{array}{c} 655,000\\ 113,000\\ 144,000\\ 8,000\\ 1,066,000\\ 5,000\\ 37,000\\ 23,000\\ 8,000\\ \end{array}$	$\begin{array}{c c} 146,000\\ 125,000\\ 4,000\\ \hline \\ 232,000\\ 1,000\\ \hline \\ 4,000\\ \hline \\ 4,000\\ \hline \end{array}$	$\begin{array}{c} 24,000\\ 14,000\\\\ 8,000\\ 4,000\\ 2,000\\\\\\ 1,000\\\\\\\\\\\\\\\\\\\\$	$\begin{array}{r} 825,000\\ 252,000\\ 148,000\\ 8,000\\ 1,306,000\\ 10,000\\ 40,000\\ 23,000\\ 13,000\\ \end{array}$
Whinstone Whinstone Other Igneous Rocks Limestone Sandstone (including Ganister) Stone, not further distinguishe Other Quarry Products Artificial Stone, Bricks, Lime, &c. Amount Received for Road Making TOTAL VALUE	 	···· ··· ··· ···	$\begin{array}{r} 655,000\\ 113,000\\ 144,000\\ 8,000\\ 1,066,000\\ 5,000\\ 37,000\\ 23,000\\ 8,000\\ \hline 3,041,000\\ \end{array}$	$\begin{array}{c c} 146,000\\ 125,000\\ 4,000\\ \hline \\ 232,000\\ 1,000\\ \hline \\ 4,000\\ \hline \\ 541,000\\ \end{array}$	$\begin{array}{c} 24,000\\ 14,000\\\\ 8,000\\ 4,000\\ 2,000\\\\ 1,000\\ \hline 56,000\\ \end{array}$	$\begin{array}{r} 825,000\\ 252,000\\ 148,000\\ 8,000\\ 1,306,000\\ 10,000\\ 40,000\\ 23,000\\ 13,000\\ \hline \end{array}$

TABLE II.—COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

En Extended	England and Wales.	Scotland.	Ireland.	United Kingdom.
I. Cost of Materials Used	£ 429,000	£ 79,000	£ 5,000	£ 513,000
II. Value of Output ··· ··· ···	3,041,000	541,000	56,000	3,638,000
III. Value of Output less Cost of Materials Used	2,612,000	462,000	51,000	3,125,000

Quarries, other than Iron, Slate, or Limestone-continued.

TABLE III.-PERSONS EMPLOYED.

Average Numbers at Work on the last Wednesdays in January, April, July, and October.

	Males.			Females.			Males and Females.		
	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.	Under 16 years of age.	Over 16 years of age.	Total.
ENGLAND & WALES :	945 50	31,586 1,042	32,531 1,092		20 25	20 25	945 50	31,606 1,067	32,551 1,117
TOTAL	995	32,628	33,623	the trans	45	45	995	32,673	33,668
SCOTLAND :	$\begin{array}{c} 135 \\ 7 \end{array}$	6,560 222	6,695 229		2 14	2 14	$\begin{array}{c}135\\7\end{array}$	6,562 236	6,697 243
TOTAL	142	6,782	6,924		16	16	142	6,798	6,940
IRELAND : Wage-earners Salaried Persons	21	1,012 26	1,033 26		1	1.	21	1,013 26	1,034 26
TOTAL	21	1,038	1,059		1	1.00	21	1,039	1,060
UNITED KINGDOM :	1,101 57	39,158 1,290	40,259 1,347		23 39	23 39	1,101 57	39,181 1,329	40,282 1,386
TOTAL	1,158	40,448	41,606	+	62	62	1,158	40,510	41,668
		Sul Sul Sul	TAN CEL	6 11 3 A	State - State - State	and the second second			

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OFELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

A DESCRIPTION OF A	Conversion of the local division of the loca				and the second se	and a product of the second	
	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Em- ployed.	Total Capacity of Engines.	
	Englani) and W	ALES.	SCOTLAND.			
Quarries with their own Engines Quarries not using Power	£ 2,486,000 555,000	$26,420 \\ 7,248$	Horse- Power. 38,874	£ 461,000 80,000	5,865 1,075	Horse- Power. 9,763	
TOTAL	3,041,000	33,668	38,874	541,000	6,940	9,763	
	IRELAND.			UNITED KINGDOM.			
Quarries with their own Engines Quarries not using Power	£ 30,000 26,000	$515 \\ 545$	Horse- Power. 391	£ 2,977,000 661,000	32,800 8,868	Horse- Power. 49,028	
TOTAL	56,000	1,060	391	3,638,000	41,668	49,028	
And the second	1 martine and the second	Constanting and the state	and the second s		and the second s		

Quarries, other than Iron, Slate, or Limestone-continued.

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OFELECTRICITY PURCHASED - continued.

B.-TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

_	England and Wales.	Scotland.	Ireland.	United Kingdom.
Steam Engines, Reciprocating Internal Combustion Engines (gas, oil, &c.). Water Power Other Power	Horse-Power. 34,012 3,880 934 48	Horse-Power. 8,574 995 194	Horse-Power. 336 55 —	Horse-Power. 42,922 4,930 1,128 48
TOTAL	38,874	9,763	. 391	49,028
Capacity of Dynamos driven by :	Kilowatts. 286 83	Kilowatts. 96 122	Kilowatts. — —	Kilowatts. 382 205
TOTAL	369	218	-	587

C.-AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

The alberta and the station of	England and Wales.	Scotland.	Ireland.	United Kingdom.
Amount of Electricity Purchased	Board of Trade Units. 356,000	Board of Trade Units. 246,000	Board of Trade Units.	Board of Trade Units. 602,000