NON-METALLIFEROUS (EXCEPT SLATE) MINES AND QUARRIES, INCLUDING OIL SHALE MINES

Note.—For information regarding the scope of the Census, instructions given to firms for making returns, and definitions of the terms used in this report, reference should be made to the Introductory Notes on pages v to xviii.

Introductory

This trade comprises firms that were engaged wholly or mainly in raising non-metalliferous minerals (other than slate) and oil shale. Comparability between the figures for the two years is impaired by the fact that the results for 1930 cover a wider field than those for 1924. At the earlier Census, Local Authorities and manufacturers of cement that owned quarries included particulars relating to their quarry production in their returns on the schedules for Local Authorities and for the Cement Trade respectively. At the 1930 Census, however, separate returns for the quarries concerned were made on the schedule for Non-Metalliferous Mines and Quarries, the total number of persons employed at these quarries being over 6,000, or more than 10 per cent. of the aggregate returned for the whole trade for 1930.

Brick manufacturers that raised their own clay, brick-earth, etc., were not, for Census purposes, required to make separate returns for either year in respect of their clay pits, the relevant particulars being included in their returns on schedules for the Brick and Fireclay Trade.

The following table shows the main results of the Censuses of 1930 and 1924 in respect of firms in Great Britain that employed an average of more than ten persons :—

Particulars	Unit	1930	1924
Value of products and work done (Gross output)	£'000	13,907	13,445
Cost of materials used	„	2,686	2,946
Net output	„	11,221	10,499
Average number of persons employed	No.	58,138	52,118
Net output per person employed	£	193	201
Power available :—			
Prime movers	H.P.	130,468	94,811
Electric motors driven by purchased electricity	„	60,296	15,405
Number of returns	No.	1,335	980
Number of mines and quarries	„	1,550	*

* Not available.

Deficiencies in 1930 aggregates.—The aggregate number of persons employed in 1930 by firms that stated that they employed not more than ten persons on the average was 9,946, of whom 2,250 were employed by Local Authorities. The total number of persons employed in 1924 by small firms (excluding employees at quarries owned by Local Authorities) was 4,360.

The value of the gross output of the small firms in 1924 was £738,000, and the chief items included in this figure and in the output of £127,000 for Northern Ireland, particulars of which cannot be stated separately, are given below :—

	£'000
Limestone and dolomite	95
Sand and gravel	194
Clay (other than china clay)	22
Sandstone	222
Gravel, basalt, quartzite, whinstone, etc.	130
Chalk	9
Flint and chert	15
China clay	21
Lime	104
Other products	32
Road-making	21
TOTAL	865

Size of firms.—In the following table the main particulars recorded at the Census of 1930 are grouped according to the average numbers of persons shown in the returns :—

Size of firm (average numbers employed)	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
11–24	650	2,308	1,955	10,790	181
25–49	387	3,396	2,791	13,336	209
50–99	189	3,242	2,537	12,802	198
100–199	86	3,103	2,373	11,557	205
200–299	11	500	409	2,754	149
300–399	6	632	544	2,177	250
400–1,499 ...	6	726	612	4,722	130
TOTAL ...	1,335	13,907	11,221	58,138	193

Regional distribution.—In the following table the results recorded at the Censuses of 1930 and 1924 are grouped according to the areas* into which Great Britain has been sub-divided :—

	Area	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
		No.	£'000	£'000	No.	£
1	1930	46	771	663	1,547	428
	1924	*8*	*114*	*92*	*320*	*288*
2	1930	111	592	482	3,334	144
	1924	*91*	*638*	*504*	*2,943*	*171*
3	1930	141	986	830	4,404	188
	1924	*118*	*990*	*724*	*3,679*	*197*
4	1930	77	972	817	3,998	204
	1924	*73*	*906*	*730*	*3,591*	*203*
5	1930	68	538	448	2,672	168
	1924	*34*	*367*	*299*	*1,625*	*184*
6	1930	539	6,202	4,907	26,012	189
	1924	*416*	*6,779*	*5,290*	*25,062*	*211*
7	1930	46	403	334	1,421	235
	1924	*57*	*427*	*328*	*1,575*	*208*
8	1930	73	1,052	821	4,762	172
	1924	*54*	*1,023*	*794*	*4,477*	*177*
9	1930	50	427	366	1,640	223
	1924	*33*	*411*	*290*	*1,634*	*177*
10	1930	184	1,964	1,553	8,348	186
	1924	*96*	*1,790*	*1,448*	*7,212*	*201*
TOTAL	1930	1,335	13,907	11,221	58,138	193
	1924	*980*	*13,445*	*10,499*	*52,118*	*201*

Northern Ireland.—The following table summarises the particulars recorded at the Census of Production taken by the Government of Northern Ireland for 1930, together with those furnished at the 1924 Census. The 1930 figures relate to firms that employed an average of more than *five* persons, while those for 1924 relate to all firms. The table relates to returns received from firms whose business consisted wholly or mainly in the mining and quarrying of minerals of all kinds. Such firms were not required to furnish separate returns in respect of their production where the minerals raised were used for their own manufacturing purposes (e.g., in brickmaking).

* For particulars see page xviii.

Particulars	Unit	1930	1924
Value of products (Gross output)	£'000	176	179
Cost of materials used	„	43	40
Net output	„	133	139
Average number of persons employed	No.	1,425	1,041
Net output per person employed	£	93	134
Power available :—			
Prime movers*	H.P.	2,246	1,490

* Excluding road rollers.

Production

Principal products.—The following table shows the quantity and value of the various non-metalliferous minerals raised in 1930 and 1924. The particulars of dressed stone shown in the column headed "All trades" do not include stone purchased and dressed by monumental masons and similar firms: such output is dealt with in the report on the Building Materials Trade, pages 163-177. Similarly lime returned by manufacturers of cement has not been included in the table but is dealt with in the report on the Cement Trade (pages 153-162).

Kind of mineral	1930				1924	
	Returned on schedules for					
	Non-Metalliferous Mines and Quarries		All trades		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Limestone or dolomite :—						
For fluxing in blast furnaces	2,258	369	2,400	388	2,830	565
For use as refractory material	360	58	364	58	384	121
For the manufacture of lime and cement ...	3,874	720	3,874	720	1,074	229
For use as building stone...	197	327	198	327	293	301
For use as paving stone, kerbs, etc.	23	12	23	12	11	9
For use as roadstone (including chippings) ...	4,797	1,188	4,846	1,196	2,905	1,410
For all other purposes (including calcspar) ...	1,406	291	1,413	295	795	183
TOTAL—Limestone or dolomite	12,915	2,965	13,118	2,996	8,292	2,818

Kind of mineral	1930				1924	
	Returned on schedules for					
	Non-Metalliferous Mines and Quarries		All trades		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Sand and gravel :—						
Moulding and pig-bed sand	318	69	325	69	432	105
Building sand and gravel	3,795	735	3,819	739		
Ballast (railroad and other)	707	151	721	155	3,948	859
Sand and gravel for other purposes	90	18	179	28		
TOTAL—Sand and gravel	4,910	973	5,044	991	4,380	964
Clay, brick-earth, etc. :—						
Fireclay (including saggar marl)	343	136	1,676	612	1,408	499
Potters' clay (including ball clay)	179	169	180	169	142	138
Mica clay	33	19	33	19	14	10
Other clay	730	81	730	81	426	49
Clay other than fireclay, not further distinguished	—	—	249	24	319	32
Brick-earth and marl ...	261	53	261	53	*	*
Shale	336	51	422	59	*	*
TOTAL—Clay, etc. ...	1,882	509	3,551	1,017	2,309	728
Sandstone and quartzite†:—						
For use as building stone	350	539	350	539	420	575
For use as kerbs, setts, flags and paving ...	203	298	203	298	193	254
For use as roadstone (including chippings) ...	1,424	363	1,424	363	534	140
For use as refractory material (including ganister, silica rock, silica stone and silica sand)	106	47	174	108	169	85
For all other purposes ...	452	184	508	217	311	290
TOTAL—Sandstone and quartzite	2,535	1,431	2,659	1,525	1,627	1,344
Igneous rocks‡:—						
For architectural and monumental use ...	55	102	55	102	64	110
For use as kerbs and setts	220	402	220	402	273	563
For use as roadstone (including chippings) ...	7,892	2,501	7,892	2,501	5,719	2,473
For all other purposes ...	285	73	287	73	193	41
TOTAL—Igneous rocks	8,452	3,078	8,454	3,078	6,249	3,187

Kind of mineral	1930				1924	
	Returned on schedules for				Total	
	Non-Metalliferous Mines and Quarries		All trades			
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Chalk	6,053	422	6,053	422	291	47
Flint and chert	86	23	86	23	153	41
China clay	700	1,073	700	1,073	801	1,427
China stone	60	80	60	80	49	79
Barytes and witherite :—						
Unground	37	53	37	53	34	66
Ground	17	44	18	47	12	43
Fluorspar	24	21	24	22	39	45
Gypsum and anhydrite :—						
Crude	213	107	213	107	} 178	106
Dressed	623	364	623	364		
Oil shale	2,021	607	2,021	607	2,855	1,070
Lime§	...	676	...	676	1,374	1,633
Tarred roadstone	...	975‖	...	975‖	¶	¶
Other and unclassified non-metalliferous minerals ...	...	77	...	132	...	175
TOTAL VALUE—PRINCIPAL PRODUCTS ...	...	13,478	...	14,188	...	13,773

* Not separately recorded.

† For 1924 quartzite was included with igneous rocks.

‡ The amounts shown for 1924 were returned under the heading "Granite, basalt, quartzite, whinstone, etc."

§ The 1924 figure represents the selling value of the lime produced: that for 1930 represents only the value added to the limestone or chalk used in lime-burning, the value of the limestone or chalk being included under the appropriate headings.

‖ These figures represent only the value added to the stone by the tarring process: the value of the stone itself is included under the various headings "Roadstone (including chippings)".

¶ Included above with "Roadstone (including chippings)". The quantities and values separately recorded were :—

	Th. tons	£'000
Granite, basalt, etc.	601·4	536
Limestone	875·1	779
TOTAL	1,476·5	1,315

At both Censuses, firms that made their returns on schedules for the Brick and Fireclay Trade gave particulars of the total quantities of minerals (brick-earth, clay, etc.) raised by them in the year at their own workings. The aggregates so recorded are additional to the output shown in the preceding table except in the case of fireclay and silica stone, of which a large proportion of the output was recorded by colliery firms both on schedules for the Brick and Fireclay Trade and also on schedules for mines. The following

statement shows the quantities of clay, etc., returned in the Brick and Fireclay Trade which should be added to the figures in the preceding table in order to arrive at the total output in each year by firms employing more than ten persons :—

	1930 Th. tons	1924 Th. tons
Brick-earth and clay	14,691	12,103
Shale	1,199	1,041
Sand, marl, etc.	937	380
Fireclay	189	*
Silica stone	106	*

* Not available.

The following output of chalk, limestone, etc., recorded at the 1924 Census on schedules for the Cement Trade, should also be added to the figures given in the table of "Principal products" for purposes of comparison with 1930 :—

	1924 Th. tons
Chalk	3,569
Limestone	1,111
Clay	361
Gypsum	171
Other quarry products...	49

Prices.—The average selling values of certain classes of non-metalliferous minerals in 1930 and 1924, as calculated from the Census returns, are shown in the following table. The comparison in the case of limestone and of chalk is probably affected by the absence from the 1924 figures of the output of these minerals transferred from the quarries to the cement works owned by the same firms (see above).

Kind of product	Average value		1930 as a percentage of 1924
	1930	1924	
	s. per ton	s. per ton	Per cent.
Limestone or dolomite :—			
For fluxing in blast furnaces ...	3·24	3·99	81·2
For use as refractory material ...	3·23	6·27	51·5
For the manufacture of lime and cement	3·71	4·27	86·9
For use as building stone	33·04	20·54	160·9
For use as paving stone, kerbs, etc. ...	10·48	15·65	67·0
For use as roadstone (including chippings)	4·94	6·22*	79·4
Sand and gravel :—			
Moulding and pig-bed sand	4·25	4·84	87·8
Clay, brick-earth, etc. :—			
Mica clay	11·40	13·43	84·9
Fireclay (including saggar marl) ...	7·30	7·09	103·0
Potters' clay (including ball clay) ...	18·78	19·37	97·0
Sandstone and quartzite :—			
For use as building stone	30·80	27·38	112·5
For use as kerbs, setts, flags and paving	29·44	26·34	111·8
For use as roadstone (including chippings)	5·09	5·24	97·1
For use as refractory material ...	12·32	10·06	122·5

Kind of product	Average value		1930 as a percentage of 1924
	1930	1924	
Igneous rocks :—	s. per ton	s. per ton	Per cent.
For architectural and monumental use	37·22	34·52	107·8
For use as kerbs and setts	36·58	41·26	88·7
For use as roadstone (including chippings)	6·34	7·57*	83·8
Chalk	1·39	3·24	42·9
Flint and chert	5·25	5·33	98·5
China clay	30·66	35·65	86·0
China stone	26·66	32·28	82·6
Barytes and witherite :—			
Unground	28·70	38·75	74·1
Ground	50·64	71·15	71·2
Fluorspar	18·02	22·82	79·0
Gypsum and anhydrite	11·28	11·92	94·6
Oil shale	6·01	7·50	80·1

* Exclusive of the output of tarred roadstone returned as such.

Volume of production in 1930 and 1924.—The following table compares the volume of production of non-metalliferous minerals in 1930 and 1924 :—

Kind of products	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	
	£'000	£'000	£'000	Per cent.
Limestone or dolomite	2,996	2,299*	2,077	144†
Sand and gravel	991	964	864	115
Clay, brick-earth, etc. :—				
Fireclay	612	499	514	119
Clay, other than fireclay ...	293	229	219	134
Brick-earth, marl and shale ...	112	—	—	—
Sandstone and quartzite ...	1,525	1,344	1,304	117
Igneous rocks	3,078	2,868*	2,472	125
China clay	1,073	1,427	1,227	87
China stone	80	79	65	123
Barytes and witherite	100	109	80	125
Oil shale	607	1,070	857	71
Other principal products	2,721	2,885	2,725	100†
TOTAL	14,188	13,773	12,404	114

* Excluding estimated value added to roadstone by tarring. This value is included in the figure of £2,885,000 shown below for "Other principal products."

† These figures are affected by the inclusion for 1930 under the heading for limestone of the whole of the limestone used in lime-burning (see note § to table on pages 388–90).

Production, exports and imports.—The following table shows, in relation to production, the quantities of certain non-metalliferous minerals exported from the United Kingdom in 1930 and 1924, together with the quantities imported and retained. The production figures for both years include the output of the small firms and, so far as is ascertainable from published information, the output of firms in Northern Ireland.

Kind of goods		Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British products
		Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Barytes, not ground ...	1930	32·8	0·2	0·7	19·9	52·4	62·1
	1924	*40·9*	*2·8*	*6·8*	*2·9*	*41·1*	*92·9*
Chalk ...	1930	6,918·1	30·0	0·4	2·2	6,890·3	100·0
	1924	*4,588·6*	*59·4*	*1·3*	*1·1*	*4,530·3*	*100·0*
Clay :—							
Potters clay (including ball clay)	1930	202·0	34·2*	16·9	—	167·8	100·0
	1924	*225·9*	*42·9**	*19·0*	†	*183·0*	*100·0*
China clay and china stone ...	1930	779·2	529·0	67·9	0·5	250·7	99·8
	1924	*861·1*	*614·2*	*71·3*	*1·0*	*247·9*	*99·6*
Fireclay ...	1930	2,033·7	33·0	1·6	10·2	2,010·8	99·8
	1924	*2,192·4*	*20·6*	*0·9*	*10·3*	*2,182·1*	*99·5*
Other clay	1930	15,629·9	51·9	0·3	25·2	15,603·3	99·9
	1924	*10,991·0*	*91·3*	*0·8*	*2·0*	*10,901·7*	*100·0*
Fluorspar ...	1930	29·8	6·6	22·2	—	23·2	100·0
	1924	*49·5*	*30·5*	*61·6*	—	*19·0*	*100·0*
Gypsum, unburnt, including alabaster...	1930	838·0	—	—	88·0	926·0	90·5
	1924	*371·3*	—	—	*26·8*	*398·1*	*93·3*

* Ball clay. † Less than 50 tons.

Other products.—In addition to the output shown in the table of principal products on pages 388-390, the following output was recorded for 1930 and 1924 by firms that made their returns on schedules for this trade :—

Kind of products	1930	1924
	£'000	£'000
Metalliferous ores	6	9
Other products	126	51
Road making	297‡	289‡
TOTAL	429	349

‡ Amount received.

Employment and Wages

Employment.—The following table shows the average numbers of persons employed in 1930 and 1924 :—

Persons employed	Males			Females			Total		
	Under 16	16 and under 18	All ages	Under 16	16 and under 18	All ages	Under 16	16 and under 18	All ages
1930									
Operatives (average for the year) ...	848	1,683	55,649	3	5	63	851	1,688	55,712
Administrative, technical and clerical staff (as at 13th December) ...	55	78	2,156	8	16	270	63	94	2,426
TOTAL ...	903	1,761	57,805	11	21	333	914	1,782	58,138
1924									
Operatives (average for the year) ...	1,112†	*	49,285	3	*	52	1,115†	*	49,337
Administrative, technical and clerical staff (as at 18th October) ...	75	*	2,484	11	*	297	86	*	2,781
TOTAL ...	1,187	*	51,769	14	*	349	1,201	*	52,118

* Not available.

† These figures are deficient to the extent that any of the 3,510 persons employed underground in oil shale mines were under 16 years of age.

Wages.—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 366 and 367.

Power

The following table shows the capacity of prime movers, electric generators and electric motors ordinarily in use and in reserve or idle in 1930 and 1924 :—

Power equipment	1930			1924		
	Ordinarily in use	In reserve or idle	Total	Ordinarily in use	In reserve or idle	Total
PRIME MOVERS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	43,786	6,742	50,528	45,769	5,939	51,708
Steam turbines ...	2,310	6,600	8,910	2,704	—	2,704
Internal combustion engines :—						
Gas	22,704	2,857	25,561	24,005	1,719	25,724
Petrol, kerosene, or other light oils ...	7,284	802	8,086	4,845	216	5,061
Heavy oils	34,363	1,897	36,260	8,204	500	8,704
Water engines ...	923	200	1,123	730	180	910
TOTAL	111,370	19,098	130,468	86,257	8,554	94,811
ELECTRIC GENERATORS	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by						
Reciprocating steam engines	4,724	1,925	6,649	3,361	1,271	4,632
Steam turbines ...	1,502	4,500	6,002	2,000	—	2,000
Internal combustion engines :—						
Gas	5,512	863	6,375	4,681	569	5,250
Petrol, kerosene, or other light oils	97	7	104	46	—	46
Heavy oils ...	6,089	444	6,533	874	—	874
Water engines ...	88	30	118	36	2	38
TOTAL	18,012	7,769	25,781	10,998	1,842	12,840
ELECTRIC MOTORS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by						
Electricity generated in same works ...	25,089	4,526	29,615	23,251	1,440	24,691
Electricity generated in other works under same ownership	7,503	1,000	8,503	—	—	—
Purchased electricity	55,490	4,806	60,296	14,711	694	15,405
TOTAL	88,082	10,332	98,414	37,962	2,134	40,096

Consumption of fuel

The following table shows the quantities of coal, coke and electricity recorded as used in 1930 :—

Kind of fuel used	For power (driving engines)	For other purposes (so far as recorded)	For power and other purposes, not separately distinguished
	Tons	Tons	Tons
Coal	243,015	308,055*	30,092
Coke	2,551	33,916*	916
			B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works			45,283
Generated in other works under same ownership			6,594
Purchased			42,855
TOTAL—Electricity			94,732

* These figures were recorded by firms representing 77·4 per cent. of the net output of the whole trade.

TABLES

I. Summary of results

Particulars	Unit	England and Wales	Scotland	Great Britain
Value of products and work done (Gross output)	£'000	11,516	2,391	13,907
Cost of materials used	,,	2,214	472	2,686
Net output	,,	9,302	1,919	11,221
Average number of persons employed	No.	48,150	9,988	58,138
Net output per person employed ...	£	193	192	193
Power available :—				
Prime movers	H.P.	106,639	23,829	130,468
Electric motors driven by purchased electricity	,,	50,144	10,152	60,296

II. Production

Kind of mineral	Unit	England and Wales	Scotland	Great Britain
Limestone or dolomite :—				
For fluxing in blast furnaces ...	*Th. tons*	*2,197*	*61*	*2,258*
	£'000	352	17	369
For use as refractory material ...	*Th. tons*	*360*	—	*360*
	£'000	58	—	58
For the manufacture of lime and cement	*Th. tons*	*3,727*	*147*	*3,874*
	£'000	681	39	720
For use as building stone	*Th. tons*	*	*	*197*
	£'000	*	*	327
For use as paving stone, kerbs, etc.	*Th. tons*	*23*	—	*23*
	£'000	12	—	12
For use as roadstone (including chippings)	*Th. tons*	*4,758*	*39*	*4,797*
	£'000	1,175	13	1,188
For all other purposes (including calcspar)	*Th. tons*	*	*	*1,406*
	£'000	*	*	291
TOTAL—Limestone or dolomite	*Th. tons*	*12,643*	*272*	*12,915*
	£'000	2,883	82	2,965
Sand and gravel :—				
Moulding and pig-bed sand... ...	*Th. tons*	*265*	*53*	*318*
	£'000	47	22	69
Building sand and gravel	*Th. tons*	*3,713*	*82*	*3,795*
	£'000	722	13	735
Ballast (railroad and other) ...	*Th. tons*	*	*	*707*
	£'000	*	*	151
Sand and gravel for other purposes	*Th. tons*	*	*	*90*
	£'000	*	*	18
TOTAL—Sand and gravel... ...	*Th. tons*	*4,750*	*160*	*4,910*
	£'000	933	40	973

Kind of mineral	Unit	England and Wales	Scotland	Great Britain
Clay, brick-earth, etc. :—				
Fireclay (including saggar marl) ...	*Th. tons*	*217*	*126*	*343*
	£'000	79	57	136
Potters' clay (including ball clay)	*Th. tons*	*176*	*3*	*179*
	£'000	168	1	169
Mica clay	*Th. tons*	*33*	—	*33*
	£'000	19	—	19
Other clay	*Th. tons*	*730*	—	*730*
	£'000	81	—	81
Brick-earth and marl	*Th. tons*	*261*	—	*261*
	£'000	53	—	53
Shale	*Th. tons*	*336*	—	*336*
	£'000	51	—	51
TOTAL—Clay, etc....	*Th. tons*	*1,753*	*129*	*1,882*
	£'000	451	58	509
Sandstone and quartzite :—				
For use as building stone	*Th. tons*	*285*	*65*	*350*
	£'000	460	79	539
For use as kerbs, setts, flags and paving	*Th. tons*	*	*	*203*
	£'000	*	*	298
For use as roadstone (including chippings)	*Th. tons*	*1,371*	*53*	*1,424*
	£'000	338	25	363
For use as refractory material (including ganister, silica rock, silica stone and silica sand)	*Th. tons*	*	*	*106*
	£'000	*	*	47
For all other purposes	*Th. tons*	*437*	*15*	*452*
	£'000	176	8	184
TOTAL—Sandstone and quartzite	*Th. tons*	*2,396*	*139*	*2,535*
	£'000	1,313	118	1,431
Igneous rocks :—				
For architectural and monumental use	*Th. tons*	*16*	*39*	*55*
	£'000	52	50	102
For use as kerbs and setts	*Th. tons*	*103*	*117*	*220*
	£'000	223	179	402
For use as roadstone (including chippings)	*Th. tons*	*5,330*	*2,562*	*7,892*
	£'000	1,775	726	2,501
For all other purposes	*Th. tons*	*165*	*120*	*285*
	£'000	46	27	73
TOTAL—Igneous rocks	*Th. tons*	*5,614*	*2,838*	*8,452*
	£'000	2,096	982	3,078
Chalk	*Th. tons*	*6,053*	—	*6,053*
	£'000	422	—	422
Flint and chert	*Th. tons*	*86*	—	*86*
	£'000	23	—	23
China clay	*Th. tons*	*700*	—	*700*
	£'000	1,073	—	1,073
China stone	*Th. tons*	*60*	—	*60*
	£'000	80	—	80

Kind of mineral	Unit	England and Wales	Scotland	Great Britain
Barytes and witherite :—				
Unground	*Th. tons*	*	*	*37*
	£'000	*	*	53
Ground	*Th. tons*	*	*	*17*
	£'000	*	*	44
Fluorspar	*Th. tons*	*24*	—	*24*
	£'000	21	—	21
Gypsum and anhydrite :—				
Crude	*Th. tons*	*213*	—	*213*
	£'000	107	—	107
Dressed...	*Th. tons*	*623*	—	*623*
	£'000	364	—	364
Oil shale	*Th. tons*	—	*2,021*	*2,021*
	£'000	—	607	607
Lime	£'000	626	50	676
Tarred roadstone	,,	742	233	975
Other and unclassified non-metalliferous minerals	,,	*	*	77
Metalliferous ores	,,	6	—	6
Other products	,,	95	31	126
Road-making	,,	132†	165†	297†
TOTAL VALUE OF PRODUCTS AND WORK DONE (GROSS OUTPUT) ...	£'000	11,516	2,391	13,907

* Owing to the possible disclosure of information relating to individual firms, separate particulars cannot be given for England and Wales and for Scotland.

† Amount received.

III. Employment

A.—Numbers employed in week ended 13th December, 1930

Persons employed	Males			Females			Males and females		
	Under 16	16 and under 18	All ages	Under 16	16 and under 18	All ages	Under 16	16 and under 18	All ages
England and Wales:—									
Operatives ...	656	1,248	44,474	3	4	53	659	1,252	44,527
Administrative, etc.*	48	72	1,949	7	14	224	55	86	2,173
Total ...	704	1,320	46,423	10	18	277	714	1,338	46,700
Scotland:—									
Operatives ...	169	393	9,656	—	1	8	169	394	9,664
Administrative, etc.*	7	6	207	1	2	46	8	8	253
Total ...	176	399	9,863	1	3	54	177	402	9,917
Great Britain:—									
Operatives ...	825	1,641†	54,130	3	5	61	828	1,646†	54,191
Administrative, etc.*	55	78	2,156	8	16	270	63	94	2,426
Total ...	880	1,719	56,286	11	21	331	891	1,740	56,617

* Administrative, technical and clerical staff.

† Including 106 persons returned as "under 18 years of age," of whom 88 were employed in England and Wales and 18 in Scotland.

B.—Operatives employed at four specified dates in 1930

1930	Males and females		
	England and Wales	Scotland	Great Britain
15th March	46,243	9,257	55,500
14th June	47,406	10,056	57,462
13th September	45,732	9,962	55,694
13th December	44,527	9,664	54,191
Average	45,977	9,735	55,712

IV. Power

Particulars of prime movers, electric generators and electric motors

Power equipment	England and Wales		Scotland		Great Britain	
	Ordinarily in use	In reserve or idle	Ordinarily in use	In reserve or idle	Ordinarily in use	In reserve or idle
Prime movers	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	32,574	3,441	11,212	3,301	43,786	6,742
Steam turbines ...	1,670	6,600	640	—	2,310	6,600
Internal combustion engines :—						
Gas	19,480	2,359	3,224	498	22,704	2,857
Petrol, kerosene, or other light oils ...	6,169	670	1,115	132	7,284	802
Heavy oils	30,840	1,772	3,523	125	34,363	1,897
Water engines ...	864	200	59	—	923	200
Total	91,597	15,042	19,773	4,056	111,370	19,098
Total of prime movers installed	106,639		23,829		130,468	
Electric generators	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by						
Reciprocating steam engines	2,640	425	2,084	1,500	4,724	1,925
Steam turbines ...	1,022	4,500	480	—	1,502	4,500
Internal combustion engines :—						
Gas	5,059	625	453	238	5,512	863
Petrol, kerosene, or other light oils	97	7	—	—	97	7
Heavy oils ...	5,789	444	300	—	6,089	444
Water engines ...	79	30	9	—	88	30
Total	14,686	6,031	3,326	1,738	18,012	7,769
Total of electric generators installed	20,717		5,064		25,781	
Electric motors	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by						
Electricity generated in same works ...	20,951	3,334	4,138	1,192	25,089	4,526
Electricity generated in other works under same ownership	2,212	7	5,291	993	7,503	1,000
Purchased electricity	46,164	3,980	9,326	826	55,490	4,806
Total	69,327	7,321	18,755	3,011	88,082	10,332
Total of electric motors installed	76,648		21,766		98,414	

V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power*	165,212	77,803	243,015
Coke used for power*	2,530	21	2,551
	B.T.U. (Kw.-hrs.) '000	B.T.U. (Kw.-hrs.) '000	B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works	35,521	9,762	45,283
Generated in other works under same ownership	1,811	4,783	6,594
Purchased	36,021	6,834	42,855
TOTAL—Electricity ...	73,353	21,379	94,732

* In addition 30,092 tons of coal (29,226 tons in England and Wales and 866 tons in Scotland) and 916 tons of coke (all in England and Wales) were recorded as used for power and for other purposes, not separately distinguished.