

42
[HA 251]



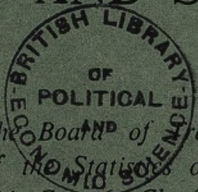
BOARD OF TRADE

THE REPORT
on the
CENSUS OF PRODUCTION
FOR 1951

Volume 1

Trade B

NON-METALLIFEROUS MINES AND
QUARRIES (OTHER THAN COAL,
SALT AND SLATE),



*Presented by the Board of Trade to Parliament
in pursuance of the Statutes of Trade Act, 1947
(10 & 11 Geo. 6, Ch. 39, Sec. 7).*

LONDON: HER MAJESTY'S STATIONERY OFFICE

1955

TWO SHILLINGS NET

42
[HA251]

LIST OF TABLES

Table No.	Title	Page
1	Summary: Larger establishments	1/B/2
2	Summary: Small firms	1/B/3
3	Estimated average employment: All firms	1/B/3
4	Analysis by size, 1951: Larger establishments in Great Britain	1/B/3
5	Analysis by standard region, 1951: Larger establishments in Great Britain	1/B/4
6	Analysis according to specialisation within the trade, 1951: Larger establishments in Great Britain	1/B/4
7	Total make of intermediate products: Larger establishments in Great Britain	*
8 or 8(i)	Sales of the principal products of the trade, including sales of these products by establishments classified to other trades: Larger establishments in Great Britain	1/B/5
8(ii)	Total sales by small firms in Great Britain	*
9	Sales of principal products of the trade by establishments classified to other trades: Larger establishments in Great Britain	1/B/7
10	Sales in the trade of other than principal products: Larger establishments in Great Britain	1/B/7
11	Production, exports and imports of certain principal products	1/B/8
12	Usage of certain specified purchased materials, 1951: Larger establishments in Great Britain	1/B/8
13	Employment in September: Larger establishments	1/B/9
14	Average employment: Larger establishments	1/B/10
15	Shift working, 1951: Larger establishments in Great Britain	1/B/10
16	Wages and salaries and employers' National Insurance contributions paid during the year: Larger establishments	1/B/11
17	Plant, machinery and vehicles - acquisitions and disposals, and capital expenditure on new building work: Larger establishments	1/B/11
<u>Country tables, 1951</u>		
18	Summary: Larger establishments	1/B/12
19	Summary: Small firms	1/B/12
20 or 20(i)	Sales in the trade: Larger establishments	1/B/13
20(ii)	Sales in the trade: Small firms	*
21	Stocks of products on hand for sale and work in progress, and stocks of materials and fuel: Larger establishments	1/B/15
22	Employment in September: Larger establishments	1/B/15
23 or 23(i)	Average employment: Larger establishments	1/B/16
23(ii)	Average employment: Small firms	*
24	Wages and salaries and employers' National Insurance contributions paid during the year: Larger establishments	1/B/17
25	Plant, machinery and vehicles - acquisitions and disposals, and capital expenditure on new building work: Larger establishments	1/B/17
26	Payments for transport services for finished goods sold and materials and fuel purchased: Larger establishments	1/B/18

* Not applicable to this trade

NON-METALLIFEROUS MINES AND QUARRIES (OTHER THAN COAL, SALT AND SLATE)

1/B/1

NON-METALLIFEROUS MINES AND QUARRIES (OTHER THAN COAL, SALT AND SLATE)

THIS REPORT relates to establishments engaged wholly or mainly in the mining and quarrying of non-metalliferous minerals (other than coal, salt or slate) and such ancillary operations as cleaning, washing, grading, etc. normally carried out at mines or quarries. Establishments similarly engaged in oil mining, oil shale mining and oil shale retorting are included.

This trade corresponds to minimum list headings 12, 14, 19(3) and 19(4) in the Standard Industrial Classification.

Quarries producing brick-earth, clay, etc., owned by firms manufacturing brick and fireclay products were, in the main, returned in the Brick and Fireclay Trade. Some firms, however, made separate returns for their different undertakings. There were similar differences in the treatment of quarries owned by firms manufacturing china and earthenware and cement.

At the 1935 Census, particulars relating to all mining and quarrying in Northern Ireland were included in the report on this trade, separate particulars not being available. In 1951, the mining and quarrying trades were excluded from the Census for Northern Ireland, and a census of production was not taken for Northern Ireland for 1948. For the censuses for 1950 and 1949, the figures include details for Northern Ireland of the Salt Mines, Brine Pits and Salt Works Trade (Volume 1, Trade C).

IMPORTANT NOTES and definitions appear on the inside of the back cover of this report. In interpreting the data in the following tables, it is essential to bear these in mind.

NON-METALLIFEROUS MINES AND QUARRIES (OTHER THAN COAL, SALT AND SLATE)

Summary

Larger establishments (a)

TABLE 1

	Great Britain		United Kingdom		Great Britain		United Kingdom
	1951	1950	1949	1949	1948	1935	
Gross output (production) (b)	£'000 66,644	£'000 47,908	£'000 44,468	£'000 43,159	£'000 41,440	£'000 13,574	
Cost of materials and fuel used (c)	18,584	15,808	14,306	13,927	11,864	3,471	
Payment for work done on materials given out	170	121	177	177	165	-	
Transport payments (d)	12,007(e)	..	..	..	..	..
Net output	35,884	31,979	29,984	29,055	29,412	10,103	
Wages and salaries of persons employed	18,393	17,211	16,641	15,992	15,319	..	
Average number of persons employed (f)	No. 45,130	No. 47,534	No. 48,293	No. 45,032	No. 45,367	No. 52,664	
Net output per person employed (f)	£ 795	£ 673	£ 621	£ 645	£ 648	£ 192	
Stocks at end of year	£'000	£'000	£'000	£'000	£'000	£'000	
Products on hand for sale and work in progress	1,539	1,532	1,467	1,465	1,281	..	
Materials and fuel	3,513	2,694	2,017	2,010	1,909	..	
Number of establishments	No. 1,035	No. 1,188	No. 1,219	No. 1,091	No. 1,066	No. 1,495	

The values of gross output and of materials and fuel used are derived in the following way:-

	£'000	£'000	£'000	£'000	£'000	£'000
Output of firms in this trade (g)						
Principal products (h)	47,466	44,834	42,004	40,695	35,921	12,598
Other output (i)	3,527						2,816	975
Value of outward transport on goods sold carried out by outside transport organisations and firms' own separate transport organisations	11,883	..	..	..	..	..
Value of outward transport on goods sold carried out by establishments' own employees	3,774	3,049	2,316	2,316	2,400(j)	..
Changes in stocks and work in progress (k)	- 6	+ 25	+ 148	+ 149	+ 418	..
Payment for transport by separate transport organisations (d)	66,644	47,908	44,468	43,159	41,555	13,574
	..	9,567	8,903	8,899	115(l)	
Gross output (production)	66,644	47,908	44,468	43,159	41,440	13,574
Materials and fuel used by firms in this trade						
Purchases	19,371	16,164	14,390	14,015	12,305	3,471
Changes in stocks (k)	- 787	- 356	- 83	- 87	- 442	
Materials and fuel used	18,584	15,808	14,306	13,927	11,864	3,471

(a) For small firms' summary see Table 2.

(b) Sales of products were collected at 'ex-mine' or ex-quarry prices in 1951, 1950, 1949 and 1948, and the cost of transport, whether carried out by establishments' own employees or by other firms was excluded and shown separately. Gross output for 1951 includes all payments to other firms and undertakings and to firms' own separate transport organisations for transport services. For other years, payments for transport services on goods sold are excluded.

(c) Including amounts paid for delivery services.

(d) Payments to other firms and undertakings and to firms' own separate transport organisations for transport charges on finished goods sold.

(e) Including £124,000 for transport payments in connection with contract work.

(f) Including working proprietors. For an estimate of the total number of persons employed in this trade see Table 3.

(g) Total value of sales (1951, 1950, 1949 and 1948) or production for sale (1935).

(h) For details for 1951 and 1948 see Table 8.

(i) For details for 1951 and 1948 see Table 10.

(j) Estimated.

(k) For details for 1951 see Table 21.

(l) Payments for transport by other firms in connection with work done only and included in value of output. Payments for transport by other firms of goods sold were not ascertained.

Summary

Small firms (a)

TABLE 2

	Great Britain		United Kingdom	Great Britain	
	1951	1950	1949	1949	1948
Number of returns	1,036	933	1,222	1,028	1,014
Average number of persons employed (b)					
Males	5,390	5,061	6,496	5,697	5,360
Females	201	170	204	184	169
Total	5,591	5,231	6,700	5,881	5,529

(a) Small firms (employing on the average ten or fewer persons) that made satisfactory returns. No information about small firms was collected in Northern Ireland for 1950.

(b) Including working proprietors.

Estimated average employment (a)

All firms

TABLE 3

	Great Britain		United Kingdom		Great Britain	
	1951	1950	1949	1949	1948	Number
As returned by firms						
Employing on the average more than ten persons (b)	45,130	47,534	48,293	45,032	45,367	
Employing on the average ten or fewer persons (c)	5,591	5,231(d)	6,700	5,881	5,529	
Estimated average employment in firms not making satisfactory returns	50,721	52,765	54,993	50,913	50,896	
	324	464	437	437	638	
Estimated average employment in all firms	51,045	53,229(d)	55,430	51,350	51,534	

(a) Including working proprietors.

(b) See Tables 13(iv) and 14.

(c) See Table 2.

(d) Excluding any small firms in Northern Ireland.

Analysis by size, 1951

Larger establishments in Great Britain

TABLE 4

Average number employed	Establishments	Gross output	Net output	Persons employed	Remuneration			Net output per person employed
					Operatives	Other employees (a)	Total	
	No.	£'000	£'000	No.	£'000	£'000	£'000	£
11 - 24	460	11,793	6,645	7,905	2,573	518	3,091	841
25 - 49	347	17,295	9,327	12,032	4,118	745	4,863	775
50 - 99	144	13,321	7,445	9,919	3,481	533	4,014	751
100 - 199	67	15,051	7,568	9,098	3,377	453	3,831	832
200 - 299	11	3,809	1,704	2,631	910	86	996	648
300 and over	6	5,374	3,195	3,545	1,220	378	1,598	901
Total	1,035	66,644	35,884	45,130	15,680	2,714	18,393	795

(a) Administrative, technical and clerical employees.

Analysis by standard region, 1951

Larger establishments in Great Britain

TABLE 5

Region	Estab- lish- ments	Gross output	Net output		Persons employed	Remuneration			Net output per person employed
			Value	Percent- age of total		Operatives	Other employees (a)	Total	
	No.	£'000	£'000		No.	£'000	£'000	£'000	£
England									
Northern	104	5,207	2,736	7.6	4,052	1,384	191	1,574	675
East and West Ridings	59	3,075	1,654	4.6	1,842	675	92	766	898
North Midland	101	7,750	4,075	11.4	4,812	1,784	307	2,090	847
Eastern	61	3,613	1,917	5.3	1,877	642	136	778	1,022
London and South Eastern	61	4,782	2,801	7.8	2,607	956	212	1,168	1,074
Southern	39	2,114	1,180	3.3	1,281	470	79	549	921
South Western	171	13,417	7,324	20.4	9,372	3,181	511	3,692	781
Midland	86	5,193	2,712	7.6	3,080	1,080	260	1,339	880
North Western	69	6,315	3,444	9.6	3,673	1,276	413	1,689	938
Total England	751	51,465	27,843	77.6	32,596	11,446	2,199	13,645	854
Wales	106	5,018	2,921	8.1	4,365	1,469	199	1,667	669
Scotland	178	10,162	5,119	14.3	8,169	2,765	316	3,080	627
Great Britain	1,035	66,644	35,884	100.0	45,130	15,680	2,714	18,393	795

(a) Administrative, technical and clerical employees.

Analysis according to specialisation within the trade, 1951

Larger establishments in Great Britain

TABLE 6

	Establish- ments	Gross output	Sales of charac- teristic products	Net output	Persons employed	Remuneration			Net output per person employed
						Operatives	Other employees (a)	Total	
	No.	£'000	£'000	£'000	No.	£'000	£'000	£'000	£
Specialist producers of Stone	570	31,889	22,728	16,615	23,039	7,944	1,247	9,191	721
Clay, sand, gravel and chalk	400	23,757	16,294	13,226	14,321	4,961	953	5,914	924
Remainder of the trade	65	10,999		6,042	7,770	2,774	514	3,288	778
Total	1,035	66,644		35,884	45,130	15,680	2,714	18,393	795

(a) Administrative, technical and clerical employees.

TABLE 7 - Total make of intermediate products: Larger establishments in Great Britain

This table is not applicable to the trade.

Minerals raised and either sold or used in manufactured products, including sales of these minerals by establishments classified to other trades (a)

Larger establishments in Great Britain

TABLE 8

	1951			1948	
	Quantity	Value (b)	Entries	Quantity	Value (b)
	Th. tons	£'000	No.	Th. tons	£'000
Igneous rocks					
For use as building stone (including monumental stone)	64	375	33	105	439
For use as kerbs and setts	37	140	43	77	173
For use as roadstone (including chippings) and ballasting					
Dry	7,530	4,662	205	6,358	3,652
Coated (c)	2,277	3,237	132	1,875	2,328
For artificial stone (including concrete blocks, slabs, etc.)	227	154	39	368	198
For all other purposes	548	354	46	322	197
Total igneous rocks	10,683	8,921	..	9,105	6,988
Limestone or dolomite					
For fluxing in blast furnaces	2,789	1,172	99	2,415	888
For use as refractory materials	1,056	1,604	20	658	1,757
For the manufacture of lime (d)	3,510	1,333	114	1,078	416
For the manufacture of cement	570	131	9	386	136
For use as building stone (including monumental stone)	263	427	42	331	355
For use as roadstone (including chippings) and ballasting					
Dry	4,731	2,477	213	4,139	2,048
Coated (c)	2,416	3,213	108	1,942	2,525
For artificial stone (including concrete blocks, slabs, etc.)	257	133	39	189	99
For agricultural purposes	1,362	1,446	140	..	2
For all other purposes	4,375	2,595	111	4,231	3,025
Total limestone or dolomite	21,328	14,531	..	15,369	11,250
Sandstone and quartzite (including ganister)					
For refractory purposes (including ganister, silica rock, silica stone and silica sand)	436	383	20	571	420
For use as building stone (including monumental stone)	64	433	42	121	401
For use as kerbs, setts, flags and paving	36	126	20	33	127
For use as roadstone (including chippings) and ballasting	1,435	927	64	1,486	879
For all other purposes	519	375	40	154	170
Total sandstone and quartzite	2,490	2,245	..	2,364	1,997

TABLE 8 (contd.)

	1951			1948	
	Quantity	Value (b)	Entries	Quantity	Value (b)
	Th. tons	£'000	No.	Th. tons	£'000
Sand and gravel					
Moulding and pig-bed sand	583	281	27	551	265
Glass-making sand	547	434	7	449	312
Sand and gravel for all other purposes, including building sand and gravel	29,012	9,200	281	20,377	5,887
				..	277
Total sand and gravel	30,142	9,915	..	21,376	6,465
				..	277
Clay, brick-earth, marl and shale					
Fireclay (including sagger marl)	1,008	1,004	84	835	787
Ball clay	352	936	11	272	641
China stone	62	262	..	86	224
China clay	886	4,336	17	618	2,411
All other clay, brick-earth, marl and shale other than oil shale	340	161	21	414	178
				..	25
Total clay, brick-earth, etc.	2,648	6,700	..	2,224	4,242
				..	25
Chalk	1,222	462	37	1,929	439
Fluorspar	56	412	12	54	291
				..	9
Barytes and witherite	87	546	11	104	540
Gypsum, not calcined, and anhydrite	1,018	1,016	10	758	611(e)
Other non-metalliferous minerals (including Fullers earth, oil shale, crude petroleum and crude oil)	3,577	4,462	95	3,145	3,926(f)
	..	452		..	436
Total		49,662	..		37,499
Sales in other trades (see Table 9)		2,197	..		1,578
Principal products of this trade sold by establishments in the trade		47,466	929		35,921

(a) Excluding minerals raised and either sold as such or used in the manufacture of bricks, cement, etc. by firms classified to the Brick and Fireclay Trade (Volume 1, Trade F) and the Cement Trade (Volume 1, Trade J) who did not make separate quarry returns. In 1951, such production was recorded as follows:-

Erick and Fireclay Trade	Th. tons	Cement Trade	Th. tons
Fireclay	1,243	Chalk	10,499
Other clays		Limestone	3,173
Brick-earth and clay	17,857	Clay	3,232
Sand	221	Other minerals	1,057
Shale and marl	2,306		
Other kinds	542		
Silica stone	89		

(b) At 'ex-mine' or 'ex-works' prices.

(c) The quantities shown for each year represent the weight of stone prior to the addition of tar, bitumen, etc.

(d) The figures for 1948 exclude the limestone or dolomite raised and used at the quarry in the manufacture of lime; in 1951 this is included. Particulars of the output of lime are given in Table 10.

(e) Excluding anhydrite.

(f) Including anhydrite.

Sales of principal products of the trade by establishments
classified to other trades (a)

Larger establishments in Great Britain

TABLE 9

	1951			1948	
	Quantity	Value	Entries	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000
Igneous rocks for use as roadstone (including chippings) and ballasting - dry	-	-	-	90	55
Limestone or dolomite					
For fluxing in blast furnaces	404	147	25	225	91
For the manufacture of lime	1,911	698	65	42	16
For use as roadstone (including chippings) and ballasting					
Dry	210	91	27	207	79
Coated	18	25	..	39	43
For agricultural purposes	178	190	25	313	267
For all other purposes, including for use as building stone and artificial stone	229	147	25		
Sand and gravel, other than moulding and pig-bed sand and sand for glass making	239	64	12	89	21
				..	76
Clay, brick-earth, marl and shale					
Fireclay (including sagger marl)				252	194
Other clay (except ball clay, china clay and china stone), marl and shale other than oil shale	467	288	45	5	2
Chalk	333	152	22	637	119
Other non-metalliferous minerals (including sandstone and quartzite, other than for use as refractory materials, building stone, kerbs, setts, flags and paving; fluorspar; gypsum, not calcined, and anhydrite)	1,897	396	59	1,741	485
				..	131
Total		2,197	..		1,578

(a) Excluding minerals raised and sold by firms classified to the Erick and Fireclay Trade and the Cement Trade (see footnote (a) to Table 8).

Sales in the trade of other than principal products

Larger establishments in Great Britain

TABLE 10

	1951		1948	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Lime				
Quicklime				
Lump	421	967	602	1,345
Powdered or ground	46	127		
Hydrated lime	144	537		
Hydraulic lime	-	-	13	19

TABLE 10 (contd.)

	1951		1948	
	Quantity	Value	Quantity	Value
		£'000	Th. tons	£'000
Manufactures of concrete	..	764	..	368
Manufactures of bituminous products	..	138	45	78
Other goods	..	628	..	480
Electricity and steam sold	..	73	..	58 (a)
Work done (b)				
Roadmaking		522		401
Other work		498		236
Total		4,254		2,984
Less value of minerals used in manufacture and in the work done and recorded as output in Table 8		727		168 (c)
Total		3,527		2,816

(a) Sales of electricity only.

(b) Amount charged.

(c) Value of materials used in roadmaking. The value of minerals used in manufacture was not ascertained.

Production, exports and imports of certain principal products (a)

TABLE 11

		Production (b) (c)	Exports	Retained imports
		Th. tons	Th. tons	Th. tons
Brick-earth and clay (d)	1951	886	472	..
	1948	618	336	-
	1935	747	430	-
Fireclay	1951	2,242	50	..
	1948	1,942	45	(e)
	1935	2,303	30	6
Brick-earth and other clay (except china stone), and shale other than oil shale	1951	24,301	157	..
	1948	16,687 (f)	144	16 (e)
	1935	27,040	76 (g)	12
Felspar and china stone	1951	62 (h)	..	19 (i)
	1948	86	1	15 (i)
	1935	45 (h)	10	25

(a) Figures of production (or sales) refer only to larger establishments in Great Britain (1951 and 1948) or the United Kingdom (1935). All recorded exports from and imports into the United Kingdom are given in the table. The figures therefore, are not strictly comparable.

(b) Production in 1951, sales in 1948 and production for sale in 1935.

(c) Including production (or sales) by establishments classified to other trades.

(d) Including brick-earth and clay raised by establishments classified to the Brick and Fireclay Trade or, for 1951 only, to the Cement Trade.

(e) Fireclay is included in the figure shown for 'Brick-earth and other clay'.

(f) Partly estimated.

(g) Excluding potters' clay.

(h) China stone only.

(i) Raw felspar only.

Usage of certain specified purchased materials, 1951

Larger establishments in Great Britain

TABLE 12

Materials used	Quantity
Timber (other than reclaimed), including that used for packing or packing case manufacture, but excluding joinery, other fabricated woodwork and purchased packing cases	Th. cu. ft.
Hardwood	1,030.1
Softwood	708.4
Iron and steel in all forms (other than finished parts)	Th. tons 9.1

Employment in September

Larger establishments (a)

TABLE 13

	Number					
	Great Britain	United Kingdom		Great Britain	United Kingdom	
	1951 (b)	1950 (b)	1949 (b)	1949 (b)	1948 (c)	1935 (c)
(i) Operatives						
Males						
Under 18	1,395	1,266	1,328	1,313	1,412	2,174
All ages	40,046	42,234	42,373	39,465	39,961	49,155
Females						
Under 18	5	11	13	5	12	2
All ages	104	109	98	80	116	19
Total						
Under 18	1,400	1,277	1,341	1,318	1,424	2,176
All ages	40,150	42,343	42,471	39,545	40,077	49,174
(ii) Administrative, technical and clerical employees (d)						
	Great Britain	United Kingdom		Great Britain	United Kingdom	Number
	1951	1950	1949	1949	1948	1935
Males						
Under 18	129	112	150	149	158	147
All ages	4,035	3,895	4,127	4,021	3,951	3,073
Females						
Under 18	201	146	186	186	193	48
All ages	1,281	1,205	1,288	1,252	1,206	417
Total						
Under 18	330	258	336	335	351	195
All ages	5,316 (e)	5,100 (e)	5,415 (e)	5,273 (e)	5,157 (e)	3,490
(iii) Total employees						
	Great Britain	United Kingdom		Great Britain	United Kingdom	Number
	1951	1950	1949	1949	1948	1935
Males						
Under 18	1,524	1,378	1,478	1,462	1,570	2,321
All ages	44,081	46,129	46,500	43,486	43,912	52,228
Females						
Under 18	206	157	199	191	205	50
All ages	1,385	1,314	1,386	1,332	1,322	436
Total						
Under 18	1,730	1,535	1,677	1,653	1,775	2,371
All ages	45,466 (e)	47,443 (e)	47,886 (e)	44,818 (e)	45,234 (e)	52,664

(a) Excluded employees. The following persons were employed at the larger establishments in this trade in 1951 but are not included in the above tables or in any other Census of Production report (e.g., employees engaged in merchanting):-

Canteen workers 17 Males 89 Females
Other workers 377 Males 37 Females

(b) In week ended September 22, 1951, September 30, 1950, and September 24, 1949.

(c) Average for the year.

(d) In week ended September 22, 1951, September 30, 1950, September 24, 1949, September 25, 1948, and October 12, 1935.

(e) Working proprietors. In addition working proprietors, shown in Table 13(iv) below, were engaged in this trade in larger establishments. The 1935 figures include working proprietors.

(iv) Working proprietors

	Number				
	Great Britain	United Kingdom		Great Britain	
	1951	1950	1949	1949	1948
Males	92	212	305	120	131
Females	5	10	17	4	2
Total	97	222	322	124	133

Average employment
Larger establishments (a)

TABLE 14

	Great Britain		United Kingdom		Number	
	1951	1950	1949	1949	1948	1935
	Operatives	39,770	42,057	42,555	39,634	40,077	49,174
Administrative, technical and clerical employees	5,263	5,255	5,416	5,274	5,157 (b)	3,490 (b)
Total	45,033	47,312	47,971	44,908	45,234	52,664

(a) For employment in small firms (employing on the average ten or fewer persons) that made satisfactory returns see Table 2.

(b) In week ended September 25, 1948, and October 12, 1935. The 1935 figure includes working proprietors. Outworkers. No outworkers were recorded in this trade for any year.

Shift working, 1951 (a)

Larger establishments in Great Britain

TABLE 15

	Total number of man-shifts worked in the week	Total number of shift-hours worked in the week	Number of returns showing the systems stated
Continuous 3 shift systems per 24 hours averaging 8 hours per shift	17,585	142,040	24
Continuous 4 shift systems per 24 hours averaging 6 hours per shift	-	-	-
All 2 shift systems	4,345	36,877	24
Other shift systems	5,036	40,200	..
Total	26,966	219,117	(b)

(a) Shift working during week ended September 22, 1951.

(b) The number and percentage of returns showing shift working and of operatives on shift-work were as follows:-

	Returns		Operatives		
	Total in trade	Showing shift-work	Total in trade	Total on returns showing shift-work	Number employed on shift-work
Number	929	45	40,150	10,680	4,936
Percentage of total in trade	100.0	4.8	100.0	26.6	12.3
Percentage of total on returns showing shift-work				100.0	46.2

Wages and salaries and employers' National Insurance contributions paid during the year

Larger establishments

TABLE 16

	Great Britain		United Kingdom		Great Britain		£'000
	1951	1950	1949	1949	1948		
	Wages and salaries (a) of Operatives Administrative, technical and clerical employees	15,680	14,742	14,211	13,602	13,091	
Total	18,393	17,211	16,641	15,992	15,319		
Employers' contributions to all National Insurance Schemes	479	494	491	463	383		

(a) Including bonus and commission payments.

Plant, machinery and vehicles - acquisitions and disposals, and capital expenditure on new building work

Larger establishments

TABLE 17

	Great Britain		United Kingdom		Great Britain		£'000
	1951	1949	1949	1949	1948		
Plant, machinery and vehicles							
Acquisitions							
Plant and machinery							
New	2,900	3,282	3,134	2,777			
Second-hand	260	351	322	331			
Vehicles							
New	693	607	560	557			
Second-hand	167	153	134	120			
Total acquisitions	4,020	4,393	4,150	3,786			
Disposals							
Plant and machinery	204	219	207	216			
Vehicles	115	63	58	66			
Total disposals	319	282	265	282			
New building work							
Capital expenditure on new building and other constructional work of a capital nature (excluding site values and development charges)	355	265	265	228			

MINING AND QUARRYING COUNTRY TABLES
NON-METALLIFEROUS MINES AND QUARRIES (OTHER THAN COAL, SALT AND SLATE)

1951

Summary

Larger establishments

TABLE 18

	England	Wales	Scotland	Great Britain
	£'000	£'000	£'000	£'000
Gross output (production)	51,465	5,018	10,162	66,644
Cost of materials and fuel used	13,454	1,213	3,917	18,584
Payment for work done on materials given out	85	6	79	170
Transport payments	10,082	878	1,047	12,007
Net output	27,843	2,921	5,119	35,884
Wages and salaries of persons employed	13,645	1,667	3,080	18,393
Average number of persons employed (a)	No. 32,596	No. 4,365	No. 8,169	No. 45,130
Net output per person employed (a)	£ 854	£ 669	£ 627	£ 795
Stocks at end of year	£'000	£'000	£'000	£'000
Products on hand for sale and work in progress	1,223	105	212	1,539
Materials and fuel	2,928	284	301	3,513
Number of establishments	No. 751	No. 106	No. 178	No. 1,035

The values of gross output and of materials and fuel used are derived in the following way:-

	£'000	£'000	£'000	£'000
Output of firms in this trade				
Total value of sales (see Table 20)	38,338	3,813	8,841	50,993
Value of outward transport on goods sold carried out by outside transport organisations and firms' own separate transport organisations	10,010	870	1,004	11,883
Value of outward transport on goods sold carried out by establishments' own employees	3,163	319	292	3,774
Changes in stocks and work in progress (see Table 21)	- 46	+ 15	+ 24	- 6
Gross output (production)	51,465	5,018	10,162	66,644
Materials and fuel used by firms in this trade				
Purchases	14,145	1,237	3,989	19,371
Changes in stocks (see Table 21)	- 691	- 24	- 72	- 787
Materials and fuel used	13,454	1,213	3,917	18,584

(a) Including working proprietors.

Summary

Small firms (a)

TABLE 19

	England	Wales	Scotland	Great Britain
Number of returns	890	58	88	1,036
Average number of persons employed (b)				
Males	4,627	340	423	5,390
Females	178	6	17	201
Total	4,805	346	440	5,591

(a) Small firms (employing on the average ten or fewer persons) that made satisfactory returns.

(b) Including working proprietors.

NON-METALLIFEROUS MINES AND QUARRIES (OTHER THAN COAL, SALT AND SLATE)
COUNTRY TABLES

Sales in the trade
Larger establishments

TABLE 20

	England and Wales		Scotland		Great Britain	
	Quantity Th.tons	Value £'000	Quantity Th.tons	Value £'000	Quantity Th.tons	Value £'000
Principal products						
Igneous rocks						
For use as building stone (including monumental stone)	23	271	41	104	64	375
For use as kerbs and setts	7	33	29	107	37	140
For use as roadstone (including chippings) and ballasting						
Dry	5,346	3,416	2,184	1,246	7,530	4,662
Coated	1,265	1,903	1,012	1,333	2,277	3,237
For artificial stone (including concrete blocks, slabs, etc.)	150	95	77	59	227	154
For all other purposes	363	228	185	125	548	354
Total igneous rocks	7,154	5,947	3,529	2,974	10,683	8,921
Limestone or dolomite						
For fluxing in blast furnaces	..	(a)	..	(a)	2,385	1,024
For use as refractory materials	1,056	1,604	-	-	1,056	1,604
For the manufacture of lime	..	(a)	..	(a)	1,599	635
For the manufacture of cement	..	(a)	..	(a)	570	131
For use as roadstone (including chippings) and ballasting						
Dry	4,412	2,320	109	66	4,521	2,386
Coated	2,330	3,116	67	72	2,397	3,188
For agricultural purposes	901	856	283	399	1,184	1,256
For all other purposes (including for use as building stone (including monumental stone) and for artificial stone (including concrete blocks, slabs, etc.))	..	(a)	..	(a)	4,666	3,008
Total limestone or dolomite	17,759	12,539	619	694	18,378	13,233
Sandstone and quartzite (including ganister)						
For refractory purposes (including ganister, silica rock, silica stone and silica sand)	..	(a)	..	(a)	436	383
For use as building stone (including monumental stone)	55	387	9	47	64	433
For use as kerbs, setts, flags and paving	..	(a)	..	(a)	36	126
Sand and gravel						
Moulding and pig-bed sand	..	(a)	..	(a)	583	281
Glass making sand	..	(a)	..	(a)	547	434
Sand and gravel for all other purposes, including building sand and gravel	26,537	8,673	2,236	464	28,773	9,137
Total sand and gravel	27,564	9,272	2,339	579	29,903	9,851
Clay, brick-earth, marl and shale						
Ball clay	352	936	-	-	352	936
China stone	62	262	-	-	62	262
China clay	886	4,336	-	-	886	4,336
All other clay, brick-earth, marl and shale other than oil shale	644	621	238	257	881	878
Total clay, brick-earth, etc.	1,944	6,155	238	257	2,181	6,413

TABLE 20 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity Th.tons	Value £'000	Quantity Th.tons	Value £'000	Quantity Th.tons	Value £'000
Principal products (contd.)						
Chalk	890	311	-	-	890	311
Barytes and witherite	..	(a)	..	(a)	87	546
Other non-metalliferous minerals (including sandstone and quartzite other than for use as refractory materials, building stone, kerbs, setts, flags and paving; fluorspar; gypsum, not calcined, and anhydrite; Fullers earth; oil shale; crude petroleum and crude oil)	2,917	3,167	1,790	3,630	4,707	6,796
	..	451	..	1	..	452
Total principal products		39,130		8,335		47,466
Other output						
Lime						
Quicklime						
Lump	..	(a)	..	(a)	421	967
Powdered or ground	..	(a)	..	(a)	46	127
Hydrated lime	..	(a)	..	(a)	144	537
Manufactures of concrete	..	724	..	40	..	764
Manufactures of bituminous products	..	138	-	-	..	138
Other goods	..	(a)	..	(a)	..	628
Electricity and steam sold	..	(a)	..	(a)	..	73
Work done (b)						
Roadmaking		292		230		522
Other work		457		40		498
Total other output		3,638		616		4,254
Less value of minerals used in manufacture and in the work done and recorded as principal products above		617		109		727
		3,021		506		3,527
Total		42,152		8,841		50,993

(a) Owing to the risk of disclosure of information relating to individual firms, separate particulars cannot be given.

(b) Amount charged.

Stocks of products on hand for sale and work in progress,
and stocks of materials and fuel

Larger establishments

TABLE 21

£'000

		England and Wales	Scotland	Great Britain
Products on hand for sale	{ at beginning of year	1,358	187	1,546
	{ at end of year	1,328	212	1,539
Work in progress	{ at beginning of year	-	-	-
	{ at end of year	-	-	-
Total products on hand for sale and work in progress	{ at beginning of year	1,358	187	1,546
	{ at end of year	1,328	212	1,539
Materials and fuel	{ at beginning of year	2,496	229	2,725
	{ at end of year	3,211	301	3,513

Employment in September
Larger establishments (a)(b)

TABLE 22

(i) Operatives

Number

	England and Wales	Scotland	Great Britain
Males			
Under 18	1,059	336	1,395
All ages	32,683	7,363	40,046
Females			
Under 18	5	-	5
All ages	89	15	104
Total			
Under 18	1,064	336	1,400
All ages	32,772	7,378	40,150

(ii) Administrative, technical and clerical employees

Number

	England and Wales	Scotland	Great Britain
Males			
Under 18	113	16	129
All ages	3,507	528	4,035
Females			
Under 18	180	21	201
All ages	1,109	172	1,281
Total			
Under 18	293	37	330
All ages (c)	4,616	700	5,316

(continued overleaf)

TABLE 22 (contd.)

(iii) Total employees

	England and Wales	Scotland	Great Britain
Males			
Under 18	1,172	352	1,524
All ages	36,190	7,891	44,081
Females			
Under 18	185	21	206
All ages	1,198	187	1,385
Total			
Under 18	1,357	373	1,730
All ages (c)	37,388	8,078	45,466

(a) Excluded employees. The number of persons employed at the larger establishments in this trade but not included in the above tables or in any other Census of Production report (e.g., employees engaged in merchandising) are shown in Table 22(v) below.

(b) Number employed in the week ended September 22, 1951.

(c) Working proprietors. In addition working proprietors, shown in Table 22(iv) below, were engaged in this trade in larger establishments.

(iv) Working proprietors

	England and Wales	Scotland	Great Britain
Males	74	18	92
Females	5	-	5
Total	79	18	97

(v) Excluded employees

	England and Wales	Scotland	Great Britain
Canteen workers			
Males	14	3	17
Females	76	13	89
Total	90	16	106
Other workers			
Males	268	109	377
Females	34	3	37
Total	302	112	414
Total excluded employees	392	128	520

Average employment
Larger establishments (a)

TABLE 23

	England and Wales	Scotland	Great Britain
Operatives	32,314	7,456	39,770
Administrative, technical and clerical employees	4,568	695	5,263
Total	36,882	8,151	45,033

(a) For employment in small firms (employing on the average ten or fewer persons) that made satisfactory returns see Table 19.

Outworkers. No outworkers were recorded in this trade.

Wages and salaries and employers' National Insurance contributions paid during the year

Larger establishments

TABLE 24

£'000

	England and Wales	Scotland	Great Britain
Wages and salaries (a) of			
Operatives	12,915	2,765	15,680
Administrative, technical and clerical employees	2,398	316	2,714
Total	15,313	3,080	18,393
Employers' contributions to all National Insurance Schemes	394	85	479

(a) Including bonus and commission payments.

Plant, machinery and vehicles - acquisitions and disposals,
and capital expenditure on new building work

Larger establishments

TABLE 25

£'000

	England and Wales	Scotland	Great Britain
Plant, machinery and vehicles			
Acquisitions			
Plant and machinery			
New	2,569	331	2,900
Second-hand	225	35	260
Vehicles			
New	642	51	693
Second-hand	159	8	167
Total acquisitions	3,595	424	4,020
Disposals			
Plant and machinery			
Vehicles	185	19	204
Vehicles	111	4	115
Total disposals	296	23	319
New building work			
Capital expenditure on new building and other constructional work of a capital nature (excluding site values and development charges)	319	36	355

Payments for transport services for finished goods
sold and in connection with contract work

Larger establishments

	England and Wales	Scotland	Great Britain
Payments for transport services			
For finished goods sold			
Amounts paid to other firms and undertakings	10,220	833	11,054
Amount paid or credited to firms' own separate transport organisations	659	170	830
In connection with contract work			
Amounts paid to other firms and undertakings	81 (a)	43 (a)	80
Amount paid or credited to firms' own separate transport organisations			44
Total	10,960	1,047	12,007

(a) Owing to the risk of disclosure of information relating to individual firms, separate particulars cannot be given.

GENERAL NOTES

The following brief notes refer to Great Britain and, unless otherwise stated, to the census of production for 1951. Reference should be made to the separate booklet in this series entitled 'The Report on the Census of Production for 1951: Introductory Notes' (price 1s.6d. net) for particulars of the minor differences in the Northern Ireland censuses and other details about the census of production.

Trade classification: Establishments are classified to trades according to the nature of their output. Certain products, called principal products, are identified as characteristic of the production of individual trades, the principal products for a given trade being of a similar nature or commonly associated in production. An establishment is classified to a trade if its output of principal products of that trade accounted for a greater proportion of the value of its output than did its output of principal products of any other trade.

The establishment: The basic unit for the collection of information is generally the establishment which in most cases comprises the whole of the premises under the same ownership or management at a particular address (e.g., a factory). Offices, warehouses and other ancillary places of business situated apart from the producing works are included in the return for the works.

Larger establishments and small firms: Larger establishments are those which employed more than 10 persons on the average during the year; small firms are those employing on the average 10 or fewer persons.

Working proprietors are proprietors of businesses other than limited companies, and include members of their families who work in the business without receiving fixed wages or salaries. Any persons working less than half the normal hours are excluded.

Persons employed: Administrative employees include directors other than those paid by fee only, managers, superintendents and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; and travellers and office (including works office) employees. Operatives include all other classes of employees, that is, broadly speaking, all manual workers.

All these figures exclude canteen employees and persons engaged in merchanting or any other activity not covered by a firm's return who are shown separately as excluded employees.

Figures for employees include only persons on the pay-roll (that is whose National Insurance cards were held by the firm), whether full-time or part-time employees.

Outworkers, who are shown separately, are persons employed by the firm who work on materials supplied by the firm, but do not work on the premises; operatives directly employed who work out of doors (e.g., maintenance workers) and sub-contractors are not included as outworkers.

Wages and salaries include all overtime payments, bonuses, and commissions, without any deduction for income tax, insurance, contributory pensions, etc. They exclude payments to working proprietors.

Capital expenditure: Expenditure on plant, machinery and vehicles relates to expenditure charged to capital account during the year of return, including transport and installation costs involved. Expenditure on new building work is similarly that charged to capital account during the year.

Materials and fuel: The cost of materials and fuel purchased includes all purchases during the year of materials for use in production and of fuel (including oil, gas, and electricity for all purposes, including heating and lighting); all packing materials, including the full cost of returnable containers when first purchased; workshop materials; office materials; water charges; materials for repairs to firms' own buildings, plant and vehicles when carried out by

their own work people included in the return; and consumable tools and parts for machinery purchased as replacement. Materials, components, etc. which were purchased and re-sold in the same state (that is, merchantable or factored goods) were excluded. For 1951 firms in many trades were required to state the quantities of certain purchased materials used.

Stocks and work in progress: Firms were instructed to give these at income tax value.

Output: Sales means sales during the year of goods made in the establishment covered by the return or made on commission for it, whether produced in the year or not. For all post-war censuses the value of sales was the net selling value, that is, the amount charged to customers, whether on an ex-works or delivered basis, and net of any trade discounts, agents' commissions, allowances for returnable cases, purchase tax, etc. For goods charged on a delivered basis to customers overseas, firms were required to give the f.o.b. value.

Gross output of a trade is the total value of goods made and other work done during the year; this means the value of sales and work done during the year adjusted for changes in the values of stocks.

Net output is the amount left after deducting from the value of gross output the aggregate of the cost of materials and fuel used and the amount paid for work given out and, for 1951, any transport payments included in firms' returns. This represents the value added to materials by the process of production, and constitutes the fund from which wages, salaries, rents, rates and taxes, advertising and other selling expenses and all other similar charges have to be met as well as depreciation and profits.

Customs and Excise Duty paid on materials purchased is included in the cost of materials, but where it is especially important separate figures are shown.

Later reports: Reports will be published later summarising the main census results and giving information about power equipment and fuel consumption.

Disclosure of information: The report has been prepared in conformity with the disclosure provisions of the Statistics of Trade Act, 1947. Figures have been combined with others of a similar nature in certain cases where publication of separate details might disclose the operations of an individual firm.

Symbols used: '...' for 'Not available', '-' for 'Nil or negligible (less than half the final digit shown)'

The figures in the tables have been rounded off to the nearest final digit, and there may be an apparent slight discrepancy between the sums of the constituent items and the totals shown.

Tables 1 to 17 show figures for the United Kingdom (or Great Britain).

Tables 18 to 26 are country tables and give, where practicable, separate details for England and Wales, Scotland and Northern Ireland.

Table 6: Specialist producers refer to those establishments 50 per cent. or more of whose total output by value is accounted for by the groups of products specified.

Table 8 (or 8(i)) shows the total sales of principal products of the trade, and includes therefore the sales of these products returned by establishments whether classified to the trade or to other trades. Those produced by establishments in other trades are shown in Table 9.

Table 10 shows the sales by establishments in the trade of products other than those regarded as principal products of the trade.

Table 20 (or 20(i)) shows sales by establishments in the trade of products, whether principal products or not, and broadly the aggregates here are equal to the corresponding figures in Table 8 (or 8(i)) less those in Table 9, plus those in Table 10.

Crown copyright reserved

Printed and published by
HER MAJESTY'S STATIONERY OFFICE

To be purchased from
York House, Kingsway, London W.C.2
423 Oxford Street, London W.1
P.O. Box 569, London S.E.1
13A Castle Street, Edinburgh 2
109 St. Mary Street, Cardiff
39 King Street, Manchester 2
Tower Lane, Bristol 1
2 Edmund Street, Birmingham 3
80 Chichester Street, Belfast
or through any bookseller

Printed in Great Britain