

THE SOAP, CANDLE AND PERFUMERY TRADES

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

These trades comprise firms that were engaged wholly or mainly in the manufacture of soap, candles and glycerine and of toilet preparations, perfumery and cosmetics. 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 goods made (Gross output)	£'000	28,969	31,914
Cost of materials used	"	16,096	19,626
Paid for work given out to other firms	"	11	—
Net output	"	12,862	12,288
Average number of persons employed	No.	26,789	28,909
Net output per person employed	£	480	425
Power available:—			
Prime movers	H.P.	41,140	24,125
Electric motors driven by purchased electricity	"	16,307	9,821
Number of returns	No.	174	189
Number of establishments	"	189	*

* 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 1,128, the corresponding figure for 1924 being 898. The value of the gross output of the small firms in 1924 was £725,000, and particulars of the items included in this figure and in the output of £159,000 for Northern Ireland, particulars of which cannot be stated separately, are given below:—

	Th. cwts.	£'000
Soap	341	432
Candles	81	172
Perfumery, etc. ... ..	...	140
Essential oils ... ..	...	82
Other goods ... ..	...	58
TOTAL ... ..	...	884

In addition, 9 firms to which schedules were sent at the 1930 Census and 50 at that of 1924 furnished no information; these firms either had small businesses or had ceased productive operations before the end of the censal year.

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 ...	50	768	285	898	317
25-49 ...	45	1,535	677	1,503	450
50-99 ...	30	1,935	1,001	2,086	480
100-199 ...	25	3,741	1,979	3,502	565
200-299 ...	7	1,787	701	1,704	411
300-499 ...	7	3,510	1,452	2,644	549
500-999 ...	5	3,176	1,312	3,090	425
1,000 and over ...	5	12,517	5,455	11,362	480
TOTAL ...	174	28,969	12,862	26,789	480

Regional distribution.—In the following table the results recorded at the Censuses of 1930 and 1924 are grouped according to the principal areas* of Great Britain in which firms in these trades are situated:—

Area	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
1 ... { 1930	71	8,438	4,107	8,573	479
... { 1924	73	8,009	3,084	8,620	358
2 ... { 1930	34	14,922	6,409	13,003	493
... { 1924	36	17,115	6,740	14,277	472
3 ... { 1930	14	1,068	431	885	487
... { 1924	17	1,279	487	1,031	472
4 ... 1930	4	748	246	646	381
4 and 7... 1924	4	496	160	431	371
5 ... { 1930	7	411	133	297	448
... { 1924	10	439	158	363	435
6 ... { 1930	31	2,426	1,195	2,448	488
... { 1924	34	3,488	1,340	3,237	414
9 ... { 1930	8	254	79	287	275
... { 1924	10	476	151	439	344
10 ... { 1930	5	702	262	650	403
... { 1924	5	612	168	511	329
TOTAL... { 1930	174	28,969	12,862	26,789	480
... { 1924	189	31,914	12,288	28,909	425

* For particulars see page xviii.

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.

Particulars	Unit	1930	1924
Value of goods made and work done (Gross output)	£'000	136	159
Cost of materials used	"	93	112
Net output	"	43	47
Average number of persons employed	No.	221	257
Net output per person employed	£	195	183
Power available:—			
Prime movers	H.P.	264	*
Electric motors driven by purchased electricity	"	57	*

* Not available.

Owing to the risk of disclosing information relating to the business of individual firms separate particulars of the production of the Soap and Candle Trade in Northern Ireland were not published.

Sub-divisions of the industry.—In the following table the results of the two Censuses are grouped in four divisions comprising the returns of firms whose chief business consisted in—

- (1) Soap boiling;
- (2) The manufacture of candles, night-lights and tapers;
- (3) The manufacture of perfumery, cosmetics and toilet requisites;
- (4) Other kinds of manufacture (including soap made by processes other than soap boiling).

Group	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
Soap boiling ... { 1930	57	20,782	8,764	18,350	478
... { 1924	...	24,686	9,435	20,364	463
Candles, night- lights and tapers ... { 1930	18	2,168	779	2,658	293
... { 1924	...	2,941	940	3,068	306
Perfumery, cos- metics and toilet requis- ites ... { 1930	54	4,279	2,594	4,081	636
... { 1924	...	2,030	1,049	2,770	379
Other kinds of manufacture { 1930	45	1,740	725	1,700	426
... { 1924	...	2,257	864	2,707	319
TOTAL ... { 1930	174	28,969	12,862	26,789	480
... { 1924	189	31,914	12,288	28,909	425

Production

Soap and glycerine.—The following table gives particulars of the output of these products in 1930 and 1924 :—

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Soap, Candle and Perfumery Trades			All trades				
	Quantity	Value	Entries	Quantity	Value	Entries	Quantity	Value
Th. cwts.	£'000	No.	Th. cwts.	£'000	No.	Th. cwts.	£'000	
Soap :—								
Soft	305	404	46	321	431	59	300	483
Hard, in bars and tablets, excluding toilet, shaving and abrasive ...	5,694	10,958	78	5,701	10,977	81	6,316	13,622
Toilet (except shaving), in bars and tablets ...	399	2,465	68	401	2,481	77	475	3,305
Shaving soap, including shaving cream ...	22	414	49	22	427	57	15	219
Abrasive, hard or in powder, for polishing and scouring ...	375	955	23	375	957	25		
Textile and other industrial soaps returned as such ...	303	471	28	313	482	32	577*	1,244*
Powder and flake, other than abrasive ...	1,951	4,188	69	1,983	4,221	75		
Other kinds of soap ...	33	107	9	48	156	26	1,696	3,897
Total—Soap, excluding soap base ...	9,082	19,962	...	9,164	20,132	...	9,379	22,770
Soap base†	255	354	6	255	354	6	210	216
Glycerine :—								
Crude (made for sale) ...	353	503	58	354	504	60	221	524
Distilled... ..	74	183	7	100	242	8	253	923
TOTAL ... ..	...	21,002	...	...	21,232	...	...	24,433

* Classified as "Polishing and scouring soap" :—

	Th. cwts.	£'000
Manufacturers'	135	247
Household	442	997

† i.e., Soap made for sale to other soap and perfumery manufacturers for further processing.

Of the output shown for 1930 in the above table as returned on schedules for the Soap, Candle and Perfumery Trades (£21,002,000), the firms included in group (1) on page 319 recorded the following amounts :—

	Th. cwts.	£'000
Soap :—		
Soft	240	330
Hard, in bars and tablets (excluding toilet, shaving and abrasive) ...	5,571	10,741
Toilet (except shaving), in bars and tablets	327	2,062
Shaving soap, including shaving cream	12	193
Abrasive, hard or in powder, for polishing and scouring	361	940
Textile and other industrial soaps, returned as such	269	411
Powder and flake, other than abrasive	1,440	3,319
Other kinds of soap	17	44
TOTAL—Soap	8,237	18,040
Soap base	250	344
Glycerine :—		
Crude	337	474
Distilled	74	183
TOTAL ... ..	...	19,041

The firms in group (1) produced about 90 per cent. of the total quantity of soap made in 1930, 95 per cent. of the output of crude glycerine and 74 per cent. of that of distilled glycerine. These firms also manufactured other products valued at £1,741,000, their gross output amounting to £20,782,000.

Total make of crude glycerine.—The total quantity of crude glycerine produced in 1930, including amounts refined or otherwise used in the makers' own works, was 406,000 cwts. (61 entries), including 1,000 cwts. (2 entries) recorded as output on schedules for other trades. In 1924, the aggregate production of crude glycerine amounted to 447,000 cwts., including 2,000 cwts. returned on schedules for other trades, and 2,000 cwts. recorded by small firms and by firms in Northern Ireland. Exports and retained imports of crude glycerine were as follows :—

	1930	1924
	Th. cwts.	Th. cwts.
Exports	29	65
Retained imports	13	24

The quantity of crude glycerine available for consumption in the United Kingdom was thus about 390,000 cwts. in 1930 and 406,000 cwts. in 1924. The output of distilled glycerine in the two years is shown in the above table as 100,000 cwts. and 253,000 cwts. respectively, so that, assuming an average glycerine content of 80 per cent. in the crude glycerine as returned and a small loss of weight in the distilling process, it may be estimated that about 256,000 cwts. of glycerine in 1930, and about 68,000 cwts. in 1924, were available in the crude state for use in the manufacture of explosives and other goods.

Candles, night-lights and tapers.—The following table gives particulars of the output of these products in 1930 and 1924, as returned on schedules for all trades:—

Kind of goods	1930			1924	
	Quantity	Value	Entries	Quantity	Value
	Th. cwts.	£'000	No.	Th. cwts.	£'000
Candles, night-lights and tapers ...	783*	1,581*	34*	918	2,103
Waxes (including paraffin wax†) refined, etc.	40	118	9	127	296
TOTAL ... ..	...	1,699	...	...	2,399

* Including 400 cwts., valued at £1,000, returned on three schedules for other trades.

† The production of crude paraffin wax is dealt with in the report on the Petroleum Refining Trade (pages 377-86).

Of the above output, the firms included in group (2) on page 319 recorded the following amounts:—

	Th. cwts.	£'000
Candles, night-lights and tapers	586	1,237
Waxes (including paraffin wax) refined, etc.	6	18
TOTAL ... ..	...	1,255

About three-fourths of the total production of candles, night-lights and tapers in 1930 was recorded by this group of firms. Other products made by these firms were valued at £913,000 (mainly lubricating oils, stearine and acid oils), the gross output of the group amounting to £2,168,000.

Perfumery and perfumed spirits, cosmetics and toilet requisites.—The following table gives particulars of the output of these products in 1930 and 1924:—

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Soap, Candle and Perfumery Trades			All trades				
	Quantity	Value	Entries	Quantity	Value	Entries	Quantity	Value
	Th. lbs.	£'000	No.	Th. lbs.	£'000	No.	Th. lbs.	£'000
Perfumery, cosmetics and toilet requisites... ..	12,829*	2,722	50	14,560*	3,106	96	1,515*	302
	Th. galls.			Th. galls.			Th. galls.	
Perfumed spirits	75	541	22	86	596	42	89	629
TOTAL ... ..	...	4,123	...	...	4,770	...	...	2,959

* Weight not stated.

Of the output shown above as returned on schedules for the Soap, Candle and Perfumery Trades (£4,123,000), the firms included in group (3) on page 319 produced the following amounts:—

	Th. lbs.	£'000
Perfumery, cosmetics and toilet requisites	11,503*	2,533
	784	
	Th. galls.	
Perfumed spirits	71	516
TOTAL ... ..	...	3,833

* Weight not stated.

About 79 per cent. of the total value of the output of perfumery, cosmetics and toilet requisites and 87 per cent. of that of perfumed spirits was recorded by this group of firms. The remaining output of these firms was valued at £446,000, their gross output amounting to £4,279,000.

Prices.—The average selling values of the principal products of these trades in 1930 and 1924, as calculated from the Census returns, are shown in the following table. The category "Perfumery, cosmetics and toilet requisites" includes articles of numerous varieties, and any changes that may have occurred since the earlier year in the quality or type of goods included under this description are not taken into account in the comparison; moreover, particulars of quantity were given for only a comparatively small proportion of the output in 1924, and the goods to which the calculated average relates may not be very representative.

Kind of goods	Average value		1930 as a percentage of 1924
	1930	1924	
	s. per cwt.	s. per cwt.	Per cent.
Soap:—			
Soft	26·8	32·2	83·2
Hard, in bars and tablets (excluding toilet, shaving and abrasive) ...	38·5	43·3	88·9
Toilet (except shaving), in bars and tablets	123·6	139·0	88·9
Shaving soap, including shaving cream	383·3	301·9	127·0
Abrasive and industrial	41·8	43·2	96·8
Other sorts, including powder and flake	43·1	46·0	93·7
Glycerine:—			
Crude	28·5	47·5	60·0
Distilled... ..	48·7	74·0	65·8
Candles, night-lights and tapers ...	40·4	45·9	88·0
Paraffin wax (refined)	22·9	40·3	56·8
Other waxes (except sealing wax) ...	65·0	82·6	78·7
Perfumery, cosmetics and toilet requisites	s. per lb.	s. per lb.	
	4·27	4·00	106·8
	£ per gall.	£ per gall.	
Perfumed spirits	6·95	7·11	97·7

Volume of production in 1930 and 1924.—The following table compares the volume of production of soap, candles, perfumery and other principal products of these trades in 1930 and 1924. As regards the calculation made for "Perfumery, cosmetics, etc.," the qualifications mentioned in the previous paragraph should not be overlooked.

Kind of goods	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	
	£'000	£'000	£'000	Per cent.
Soap :—				
Soft	431	483	402	107
Hard, in bars and tablets, excluding toilet, shaving and abrasive	10,977	13,622	12,110	91
Toilet (except shaving), in bars and tablets	2,481	3,305	2,938	84
Shaving soap, including shaving cream	427	219	278	154
Abrasive and industrial	1,439	1,244	1,204	120
Other sorts	4,377	3,897	3,651	120
Soap base	354	216	292	121
Glycerine :—				
Crude	504	524	314	160
Distilled	242	923	607	40
Candles, night-lights and tapers ...	1,581	2,103	1,851	85
Waxes (including paraffin wax) refined, etc.	118	296	185	64
Perfumery, cosmetics, etc. ...	4,174	2,330	2,488	168
Perfumed spirits	596	629	615	97
TOTAL	27,701	29,791	26,935	103

Production, exports and imports.—The following table shows, in relation to production, the quantities of soap, candles, glycerine and perfumed spirits exported from the United Kingdom in 1930 and 1924, together with the quantities imported and retained. The figures for 1924 include the output of the small firms and 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
Soap :—						
Soft	1930 321 1924 355	34 37	10·6 10·4	54 2	341 320	84·2 99·2
Hard, in bars and tablets, excluding toilet, shaving and abrasive	1930 5,701 1924 6,493	1,101 1,342	19·3 20·7	190 136	4,790 5,287	96·0 97·4
Toilet (except shaving) in bars and tablets	1930 401 1924 480	75 66	18·7 13·8	46 60	372 474	87·6 87·3
Shaving	1930 22 1924 15	2 1	9·1 6·7	6 5	26 19	76·9 73·7
Abrasive, hard or in powder, for polishing and scouring	1930 688* 1924 613	28 26	4·1 4·2	11 54	671 641	98·4 91·6
Powder and flake, other than abrasive	1930 1,983 1924 48	25 8	1·3 16·7	19 7	1,977 47	99·0 85·1
Other kinds, including powder and flake, other than abrasive ...	1930 2,031 1924 1,770	33 62	16·2 3·5	26 10	2,024 1,718	98·7 99·4
Total—Soap	1930 9,164 1924 9,726	1,273 1,534	13·9 15·8	333 267	8,224 8,459	96·0 96·8
Candles, night-lights and tapers	1930 783 1924 1,000	96† 171†	12·3 17·1	4† 4†	691 833	99·4 99·5
Perfumed spirits	1930 86 1924 89	49 55	57·0 61·8	23 17	60 51	61·7 66·7
Glycerine :—						
Crude	1930 406 1924 447	29 65	7·1 14·5	13 24	390 406	96·7 94·1
Distilled	1930 100 1924 253	100 176	† 69·6	16 1	† 78	† 98·4

* Including textile and other industrial soaps returned as such.

† Described in the trade returns as "Candles" only.

‡ Exports of distilled glycerine in 1930 were fractionally higher than the recorded production for sale in that year, being probably drawn, in part, from accumulated stocks; reliable figures are, therefore, not available for insertion here.

In the absence of a sufficiently representative record of the quantities of "Perfumery, cosmetics and toilet requisites" manufactured, comparison between production and external trade can

only be made for these commodities in terms of value. In comparing the figures given below, the differences in the bases of valuation of production, exports and imports should be borne in mind.

	1930 £'000	1924 £'000
Perfumery, cosmetics and toilet requisites :—		
Production (at factory)	4,174	2,471
Exports (f.o.b.)	925	735
Retained imports (c.i.f.)	901	626

Other products.—In addition to the output shown in the three tables of principal products, the following goods were produced in 1930 and 1924 by firms that made their returns on schedules for the Soap, Candle and Perfumery Trades. These goods are dealt with in the reports on those trades in which the principal output was recorded.

Kind of goods	1930	1924
	Value	Value
	£'000	£'000
Animal oils, fats and greases	371	490
Other oils, including lubricating oil and oil seed cake and meal	910	1,953
Chemical compounds (including soda compounds, disinfectants and chemists' sundries)	605	521
Washing and scouring materials other than soap	94	91
Other goods made	166	203
TOTAL	2,146	3,258

Employment and Wages

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

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
1930						
Operatives (average for the year)	835	10,673	2,785	8,346	3,620	19,019
Administrative, technical and clerical staff (as at 18th October)	254	5,090	482	2,680	736	7,770
TOTAL	1,089	15,763	3,267	11,026	4,356	26,789
1924						
Operatives (average for the year)	1,505	11,856	3,248	9,727	4,753	21,583
Administrative, technical and clerical staff (as at 18th October)	338	4,924	313	2,402	651	7,326
TOTAL	1,843	16,780	3,561	12,129	5,404	28,909

Wages.—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 252 and 253.

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	4,510	3,305	7,815	12,697	2,543	15,240
Steam turbines	20,900	11,085	31,985	4,016	2,000	6,016
Internal combustion engines :—						
Gas	585	3	588	1,135	352	1,487
Petrol, kerosene, or other light oils	5	—	5	1,265	5	1,270
Heavy oils	124	620	744	92	—	92
Water engines	3	—	3	20	—	20
TOTAL	26,127	15,013	41,140	19,225	4,900	24,125
ELECTRIC GENERATORS	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by						
Reciprocating steam engines	1,039	1,821	2,860	869	2,956	3,825
Steam turbines	14,200	7,500	21,700	3,000	1,500	4,500
Internal combustion engines :—						
Gas	104	—	104	402	232	634
Petrol, kerosene, or other light oils	3	—	3	3	—	3
Heavy oils	41	400	441	—	—	—
TOTAL	15,387	9,721	25,108	4,274	4,688	8,962
ELECTRIC MOTORS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by						
Electricity generated in same works	18,258	569	18,827	6,839	1,304	8,143
Electricity generated in other works under same ownership	—	—	—	3,000	—	3,000
Purchased electricity	14,892	1,415	16,307	9,146	675	9,821
TOTAL	33,150	1,984	35,134	18,985	1,979	20,964

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	74,597	283,280*	6,521
Coke	3,143	8,017*	6
			B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works			21,499
Purchased			9,102
TOTAL—Electricity			30,601

* These figures were recorded by firms representing 95.6 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 goods made (Gross output)	£'000	28,013	956	28,969
Cost of materials used	"	15,481	615	16,096
Paid for work given out to other firms	"	11	—	11
Net output	"	12,521	341	12,862
Average number of persons employed...	No.	25,852	937	26,789
Net output per person employed ...	£	484	364	480
Power available :—				
Prime movers	H.P.	40,630	510	41,140
Electric motors driven by purchased electricity	"	15,068	1,239	16,307

II. Production

A.—TOTAL MAKE OF CRUDE GLYCERINE AS RETURNED ON SCHEDULES FOR THE SOAP, CANDLE AND PERFUMERY TRADES

	Cwts.
England and Wales	391,185
Scotland	14,168
Great Britain	405,353

B.—OUTPUT SOLD OR ADDED TO STOCK

Kind of goods made	Unit	England and Wales	Scotland	Great Britain
Soap :—				
Soft	Th. cwts.	229	76	305
	£'000	295	109	404
Hard, in bars and tablets, excluding toilet, shaving and abrasive	Th. cwts.	5,459	235	5,694
	£'000	10,538	420	10,958
Toilet (except shaving), in bars and tablets	Th. cwts.	*	*	399
	£'000	*	*	2,465
Shaving soap, including shaving cream	Th. cwts.	*	*	22
	£'000	*	*	414
Abrasive, hard or in powder, for polishing and scouring	Th. cwts.	*	*	375
	£'000	*	*	955
Textile and other industrial soaps, returned as such	Th. cwts.	*	*	303
	£'000	*	*	471
Powder and flake, other than abra- sive	Th. cwts.	1,829	122	1,951
	£'000	3,949	239	4,188
Other kinds of soap	Th. cwts.	33	†	33
	£'000	107	†	107
TOTAL—Soap of all kinds	Th. cwts.	8,594	488	9,082
	£'000	19,072	890	19,962

Kind of goods made	Unit	England and Wales	Scotland	Great Britain
Soap base	Th. cwt. £'000	*	*	255
		*	*	354
Glycerine :—				
Crude (made for sale)	Th. cwt. £'000	*	*	353
		*	*	503
Distilled	Th. cwt. £'000	*	*	74
		*	*	183
Candles, night lights and tapers	Th. cwt. £'000	*	*	783
		*	*	1,580
Waxes (including paraffin wax) re- fined, etc.	Th. cwt. £'000	40	—	40
		118	—	118
Perfumery, cos- metics and toilet requisites (other than perfumed spirits, essential oils and soaps) ...	Th. lbs. £'000	12,829	—	12,829
		2,722	—	2,722
		860	—	860
Perfumed spirits	Th. galls. £'000	75	—	75
		541	—	541
Animal oils, fats and greases	£'000	345	26	371
Other oils, including lubricating oils and oil seed cake and meal	£'000	910	—	910
Chemical compounds (including soda compounds, disinfectants and chem- ists' sundries)	£'000	605	—	605
Washing and scouring materials, other than soap	£'000	92	2	94
Other goods made	£'000	157	9	166
TOTAL VALUE OF GOODS MADE (GROSS OUTPUT)	£'000	28,013	956	28,969

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

† Less than 500 cwt.

‡ Less than £500.

III. Employment

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1930

Persons employed	Males		Females		Males and females	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
<i>England and Wales :—</i>						
Operatives	745	10,143	2,671	8,050	3,416	18,193
Administrative, etc.*	246	4,915	475	2,624	721	7,539
TOTAL	991	15,058	3,146	10,674	4,137	25,732
<i>Scotland :—</i>						
Operatives	85	464	97	245	182	709
Administrative, etc.*	8	175	7	56	15	231
TOTAL	93	639	104	301	197	940
<i>Great Britain :—</i>						
Operatives	830	10,607	2,768	8,295	3,598	18,902
Administrative, etc.*	254	5,090	482	2,680	736	7,770
TOTAL	1,084	15,697	3,250	10,975	4,334	26,672

* Administrative, technical and clerical staff.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1930

Week ended	Males and females			Week ended	Males and females		
	England and Wales	Scotland	Great Britain		England and Wales	Scotland	Great Britain
Jan. 18 ...	18,436	704	19,140	July 19 ...	18,433	716	19,149
Feb. 15 ...	18,331	715	19,046	Aug. 16 ...	18,366	705	19,071
Mar. 15 ...	18,330	706	19,036	Sept. 13 ...	18,306	709	19,015
April 12 ...	18,181	717	18,898	Oct. 18 ...	18,193	709	18,902
May 17 ...	18,307	717	19,024	Nov. 15 ...	18,299	693	18,992
June 21 ...	18,403	708	19,111	Dec. 13 ...	18,171	677	18,848
AVERAGE FOR THE TWELVE MONTHS					18,313	706	19,019

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
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS						
Reciprocating steam engines	4,233	3,195	277	110	4,510	3,305
Steam turbines	20,900	11,085	—	—	20,900	11,085
Internal combustion engines:—						
Gas	462	3	123	—	585	3
Petrol, kerosene, or other light oils ...	5	—	—	—	5	—
Heavy oils	124	620	—	—	124	620
Water engines	3	—	—	—	3	—
TOTAL	25,727	14,903	400	110	26,127	15,013
TOTAL OF PRIME MOVERS INSTALLED	40,630		510		41,140	
ELECTRIC GENERATORS						
Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines	1,039	1,729	—	92	1,039	1,821
Steam turbines	14,200	7,500	—	—	14,200	7,500
Internal combustion engines:—						
Gas	22	—	82	—	104	—
Petrol, kerosene, or other light oils ...	3	—	—	—	3	—
Heavy oils	41	400	—	—	41	400
TOTAL	15,305	9,629	82	92	15,387	9,721
TOTAL OF ELECTRIC GENERATORS INSTALLED	24,934		174		25,108	
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works ...	17,977	569	281	—	18,258	569
Purchased electricity	13,840	1,228	1,052	187	14,892	1,415
TOTAL	31,817	1,797	1,333	187	33,150	1,984
TOTAL OF ELECTRIC MOTORS INSTALLED	33,614		1,520		35,134	

V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power*	71,542	3,055	74,597
Coke used for power*	3,143	—	3,143
	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	21,385	114	21,499
Purchased	8,645	457	9,102
TOTAL—Electricity	30,030	571	30,601

* In addition, 6,521 tons of coal (1,690 tons in England and Wales and 4,831 tons in Scotland) and 6 tons of coke (all in England and Wales) were recorded as used for power and for other purposes, not separately distinguished.