

## THE BREAD AND BISCUIT 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 bread, biscuits, cakes, pastries, etc.

The following table shows separately for the Bread, Cakes, etc. Trade and for the Biscuit Trade 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	Bread, Cakes, etc. Trade	Biscuit Trade
Value of goods made (Gross output) ... { 1930	£'000	57,122	14,851
... { 1924	,,	59,428	12,741
Cost of materials used ... { 1930	,,	35,455	6,688
... { 1924	,,	39,210	6,314
Net output ... { 1930	,,	21,667	8,163
... { 1924	,,	20,218	6,427
Average number of persons employed ... { 1930	No.	82,681	36,095
... { 1924	,,	67,700	27,795
Net output per person employed ... { 1930	£	262	226
... { 1924	,,	299	235
Power available:—			
Prime movers ... { 1930	H.P.	5,868	3,740
... { 1924	,,	6,752	4,316
Electric motors driven by purchased electricity ... { 1930	,,	53,419	21,738
... { 1924	,,	42,699	11,187
Number of returns ... { 1930	No.	1,811	69
... { 1924	,,	1,958	52
Number of establishments* ... 1930	,,	2,154	74

\* Particulars for 1924 are not available.

**Deficiencies due to the exclusion of small firms.**—At the 1924 Census 16,221 returns were received from firms that employed not more than ten persons while no information was received from about 5,875 firms, the great majority of which were of a similar

order of size. The average number of persons employed by the small firms that made returns was 55,645 and it was estimated that a further 14,000 were employed by the other firms, raising the total for firms of this class to about 70,000 persons. Adding this number to that recorded by firms employing more than ten persons, the total for the Bread and Biscuit Trades as a whole was about 165,000 persons in 1924.

Many bakers, and probably the great majority of the smaller firms, combine the making of bread and cakes with the retail sale of confectionery and other provisions, and a catering business is also maintained in a large number of cases. The total number of the staff employed in connection with bakery establishments will thus be considerably in excess of that required for the production of bakery products alone. Every firm, irrespective of size, was required to complete at the 1924 Census a detailed form of return which contained explicit directions to the effect that firms carrying on a mixed trade should confine their entries of operative employees to those that were employed in the bakehouse, excluding shop assistants. At the 1930 Census, a common type of form was issued to small firms in all trades and it was not possible to secure a similar limitation of the numbers to those properly assignable to bakery production. Consequently, the total number reported by the 22,015 small firms that made returns, viz., 82,465 persons, included a large proportion of employees engaged mainly in general distributive trade. There were, in addition, 1,225 firms from which no returns were received. Examination of the returns made by the small firms for 1930 suggests that in the case of at least 60 per cent. the bakehouse was only one department, and sometimes a minor department, of a more general business.

The number of persons recorded by small firms for 1930 is therefore overstated in relation to 1924, but the extent of the excess cannot be estimated with any precision. The total number of firms of this class in the Census register was about 23,240 in 1930 and about 22,150 in 1924, but the 1924 figure was a corrected total arrived at after the deletion of numerous firms that were found, after investigation, to be properly assignable to trades other than baking. As already explained no such investigation was practicable at the 1930 Census and the recorded number of firms is thus also excessive in relation to the 1924 total. On the whole, it appears probable that no considerable change took place in the number of small bakery businesses in existence and that the total number of persons employed by firms of this class in 1924, viz., 70,000, was substantially the same in 1930. For firms employing an average of more than ten persons, the recorded

increase in employment was about 24 per cent. While it is probable that this increase overstates the position by reason of the inclusion in the later year of certain selling staff specifically excluded from the scope of the earlier Census, it is clear that the relative importance of the small firms was less in the later year.

Assuming that some 70,000 persons were employed by the small firms, a total of about 189,000 persons was employed by all firms in the Bread and Biscuit Trades in 1930, of which about 37 per cent. were in establishments at which not more than ten persons were employed on the average; the corresponding figures for 1924 were 165,000 persons and 42 per cent.

According to estimates published by the Ministry of Labour\*, the number of insured workpeople aged 16-64 in employment in the Bread, Biscuit, Cake, etc., Making Industry in Great Britain and Northern Ireland was about 129,900 in June, 1924, and about 137,300 in June, 1930. In comparing these figures with the aggregates given above it should be borne in mind that there are considerable differences in the scope of the two sets of statistics. The Census totals include working proprietors, persons under 16 and over 65 years of age, and a considerable number of salaried staff that are not subject to the Unemployment Insurance Acts; further the Census figures include persons engaged in the selling and delivery of the bakers' own products, whereas (apart from staff engaged in the delivery of bread to retail shops of central bakeries) such staff are generally classified with "Distributive" employees for the purposes of the Ministry of Labour records.

Details of the output of the 16,221 small firms from which returns were received at the 1924 Census are given below:—

Kind of goods	Quantity	Value
	Th. 4 lb. loaves	£'000
Bread ... ..	496,712	19,411
Cakes, pastry, buns, scones, etc. ... ..	†	2,563
Bread, cakes, pastry, etc., not separately distinguished ... ..	...	9,651
		2,934
Total—Bread, cakes, etc. ... ..	...	34,559
	Th. cwts.	
Biscuits ... ..	51	247
Self-raising flour ... ..	...	735
Sugar confectionery ... ..	...	107
Other products ... ..	...	273
TOTAL ... ..	...	35,921

† Quantity not stated.

\* Ministry of Labour Gazette, December, 1933.

**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
<i>Manufacturers of bakery products other than biscuits—</i>	No.	£'000	£'000	No.	£
11-24 ... ..	946	9,660	3,613	15,878	228
25-49 ... ..	502	11,509	4,135	17,185	241
50-99 ... ..	211	9,795	3,692	14,251	259
100-199 ... ..	104	9,972	3,692	14,415	256
200-299 ... ..	24	3,808	1,226	5,575	220
300-399 ... ..	7	1,330	628	2,506	251
400-499 ... ..	5	1,840	712	2,152	331
500-999 ... ..	9	4,086	1,339	5,626	238
1,000 and over ... ..	3	5,122	2,630	5,093	516
<b>TOTAL ... ..</b>	<b>1,811</b>	<b>57,122</b>	<b>21,667</b>	<b>82,681</b>	<b>262</b>
<i>Manufacturers of biscuits—</i>					
11-24 ... ..	13	113	62	256	241
25-49 ... ..	8	92	45	309	145
50-99 ... ..	7	215	120	460	260
100-199 ... ..	14	925	390	2,058	190
200-299 ... ..	7	835	325	1,814	179
300-749 ... ..	5	1,125	624	2,634	237
750-999 ... ..	4	1,724	818	3,625	226
1,000-1,499 ... ..	3	1,553	870	3,791	229
1,500 and over ... ..	8	8,269	4,909	21,148	232
<b>TOTAL ... ..</b>	<b>69</b>	<b>14,851</b>	<b>8,163</b>	<b>36,095</b>	<b>226</b>

**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 divided:—

Area	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
1. { Bread, Cakes, etc. Trade 1930 Biscuit Trade 1930	No.	£'000	£'000	No.	£
	369	15,386	6,469	20,523	315
	13	4,968	2,821	11,531	245
Total ... { 1930 1924	382	20,354	9,290	32,054	290
	427	21,449	9,078	31,022	293
2. { Bread, Cakes, etc. Trade 1930 Biscuit Trade 1930	292	9,251	2,990	13,223	226
	17	3,411	1,747	8,060	217
	Total ... { 1930 1924	309	12,662	4,737	21,283
309		11,029	3,634	13,762	264

\* For particulars see page xviii.

Area	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
3.* Total ... { 1930 1924	No.	£'000	£'000	No.	£
	110	1,981	700	3,431	204
4.* Total ... { 1930 1924	82	1,704	660	3,093	213
	83	1,836	565	2,293	246
5. { Bread, Cakes, etc. Trade 1930 Biscuit Trade 1930	144	5,709	1,922	6,787	283
	4	340	189	843	224
	Total ... { 1930 1924	148	6,049	2,111	7,630
152		6,541	1,889	5,508	343
6. { Bread, Cakes, etc. Trade 1930 Biscuit Trade 1930	414	9,881	3,715	14,645	254
	13	3,373	1,988	8,863	224
	Total ... { 1930 1924	427	13,254	5,703	23,508
435		12,418	4,550	17,360	262
7. Bread, Cakes, etc. Trade† 1930	45	944	354	1,343	264
	59	1,267	406	1,340	303
8. Bread, Cakes, etc. Trade† 1930	11	183	69	284	242
	11	185	51	246	207
9. { Bread, Cakes, etc. Trade 1930 Biscuit Trade 1930	113	4,521	1,683	8,112	207
	7	1,303	688	3,153	218
	Total ... { 1930 1924	120	5,824	2,371	11,265
171		7,832	2,825	11,427	247
10. { Bread, Cakes, etc. Trade 1930 Biscuit Trade 1930	239	7,787	3,171	11,769	269
	7	1,231	664	3,116	213
	Total ... { 1930 1924	246	9,018	3,835	14,885
249		7,463	2,944	9,571	308
TOTAL { Bread, Cakes, etc. Trade 1930 Biscuit Trade 1930	1,811	57,122	21,667	82,681	262
	69	14,851	8,163	36,095	226
	Total ... { 1930 1924	1,880	71,973	29,830	118,776
2,010		72,169	26,645	95,495	279

\* Owing to the risk of disclosure of the business of individual firms, separate particulars cannot be shown for biscuit makers in these areas.

† No firms in these areas were engaged solely or mainly in the manufacture of biscuits.

It will be noted that the figures shown for the West Riding of Yorkshire and the North-East Coast (areas 3 and 4) are considerably smaller in relation to the population of those areas than those for other areas of Great Britain, and this also applies to Lancashire (area 2) to some extent. Further reference to this matter is made on page 55.

The net output per person employed by bakers in the Greater London area (area 1) was much higher than for any other area, but there was no such marked difference in the case of biscuit makers in any area.

**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 firms irrespective of size.

Particulars	Unit	1930	1924
Value of goods made (Gross output) ... ..	£,000	2,964	3,080
Cost of materials used ... ..	"	1,901	2,133
Net output ... ..	"	1,063	947
Average number of persons employed ... ..	No.	4,417	4,083
Net output per person employed ... ..	£	241	232
Power available :—			
Prime movers ... ..	H.P.	876	834
Electric motors driven by purchased electricity ... ..	"	2,151	1,576

The items included in the gross output values shown in the above table were as follows:—

Kind of goods	1930		1924	
	Quantity	Value	Quantity	Value
	Th. 4-lb. loaves	£'000	Th. 4-lb. loaves	£'000
Bread ... ..	42,074	1,512	17,533	662
	*	221	*	1,171
Cakes, pastry, buns, scones, etc. ... ..	...	1,090	...	915
	Th. cwts.		Th. cwts.	
Biscuits ... ..	21	92	37	153
	*	43	—	—
Bread, biscuits, cakes, pastry, etc., not separately distinguished ... ..	—	—	...	174
Other goods, chiefly confectionery and preserves ... ..	...	6	...	5
<b>TOTAL VALUE OF GOODS MADE (GROSS OUTPUT) ... ..</b>	...	<b>2,964</b>	...	<b>3,080</b>

\* Quantity not stated.

### Production

The following table shows, for the Bread, Cakes, etc. Trade and the Biscuit Trade separately, the quantity (where available) and value of the principal classes of goods manufactured in 1930 and 1924:—

Kind of output	Returned by								
	Manufacturers of bread, cakes, pastries, etc.			Manufacturers of biscuits			All trades		
	Quantity	Value	Ent-ries	Quantity	Value	Ent-ries	Quantity	Value	Ent-ries
	<b>1930</b>								
	Th. 4-lb. loaves	£'000	No.	Th. 4-lb. loaves	£'000	No.	Th. 4-lb. loaves	£'000	No.
Bread ... ..	788,671	25,132	1,370	977	29	5	789,648	25,161	1,375
	*	2,358	199				*	2,358	199
Cakes, pastries, buns, scones, etc. ... ..	...	22,354	1,532	...	242	17	...	22,675	1,551
Bread, cakes, pastries, etc., not separately distinguished ... ..	...	1,036	48	—	—	—	...	1,036	48
	Th. cwts.			Th. cwts.			Th. cwts.		
Biscuits for human consumption ... ..	325	1,191	213	2,932	14,137	62	3,288	15,367	283
	*	145	98	R*	90	7	* 60	258	109
Self-raising flour ... ..	...	1,640	627	...	2	3	...	1,748†	636
Ice cream ... ..	...	1,293	199	—	—	—	...	1,318	208
Puddings, mince-meat and similar products ... ..	...	460‡	31	...	6‡	...	...	976‡	92
<b>TOTAL—PRINCIPAL PRODUCTS, 1930 ... ..</b>	...	<b>55,609</b>	...	...	<b>14,506</b>	...	...	<b>70,897</b>	...
	<b>1924</b>								
	Th. 4-lb. loaves	£'000	No.	Th. 4-lb. loaves	£'000	No.	Th. 4-lb. loaves	£'000	No.
Bread ... ..	699,776	25,682	...	1,878	68	...	701,654	25,750	...
	*	4,276	...	*	1	...	*	4,277	...
Cakes, pastries, buns, scones, etc. ... ..	...	20,087	...	...	426	...	...	20,655	...
Bread, cakes, pastries, etc., not separately distinguished ... ..	...	2,124	...	—	—	—	...	2,124	...
	Th. cwts.			Th. cwts.			Th. cwts.		
Biscuits for human consumption ... ..	263	1,137	...	2,305	11,985	...	2,585	13,188	...
Self-raising flour ... ..	...	1,431	...	...	8	...	...	1,472†	...
Ice cream ... ..	...	415‡	...	—	—	...	...	431‡	...
Puddings, mince-meat and similar products ... ..	...	129‡	...	...	4‡	...	...	365‡	...
<b>TOTAL—PRINCIPAL PRODUCTS, 1924 ... ..</b>	...	<b>55,281</b>	...	...	<b>12,492</b>	...	...	<b>68,262</b>	...

\* Quantity not stated.

† Excluding particulars of the output recorded on schedules for the Grain Milling Trade, for which see pages 33-4.

‡ So far as recorded separately.

It will be seen from this table that the amount of over-lapping between the Bread, Cakes, etc. Trade and the Biscuit Trade was quite small. In 1930, about 91 per cent. of the total recorded output of biscuits was manufactured by firms chiefly engaged in this class of production, while the output of general bakery products (bread and cakes, pastries, etc.) by these firms was of only trifling importance in relation to that of the remaining bakery establishments.

**Total output of bread, cakes, pastries, etc.**—The particulars contained in the above table indicate that the manufacture of biscuits is a specialised branch of the bakery trade and was not carried on extensively by general bakers, particularly those in a small way of business. It will probably involve no serious degree of error to assume that all but 2 per cent. of the large unclassified output shown for both years consisted of bakery products other than biscuits and to divide 98 per cent. of the sums recorded under this heading between the two classes "bread" and "cakes, pastries, etc.," in the proportion of the values returned specifically for these products by bakers. The result of this division is shown in the following table, which also includes a calculation of the total output of bread, based on the average value of all bread definitely recorded as such:—

Products	1930		1924	
	Quantity	Value	Quantity	Value
	Mill. 4-lb. loaves	£'000	Mill. 4-lb. loaves	£'000
Bread ... ..	881.2	28,079	852.1	31,273
Cakes, pastries, buns, scones, etc....	...	23,130	...	21,491
<b>TOTAL ... ..</b>	...	<b>51,209</b>	...	<b>52,764</b>

These figures show an increase of between 3 and 4 per cent. between the two years in the quantity of bread baked, but from the explanation given on pages 47-9 it will be clear that a review limited to firms employing more than ten persons fails to account for a very important proportion of the total output of bakery products. The total number of 4-lb. loaves represented by all returns received for the year 1924, including those from firms in Northern Ireland, may be estimated approximately as 1,518 million\*, while the allowance necessary on account of the small bakers that furnished no returns may have added a further 150-155 million\* to this figure, raising the total to a round figure of 1,670 million loaves; of this total, about 1,620 million were made in Great Britain and about 50 million in Northern Ireland. Thus, only about 53 per cent. of the total quantity of bread baked for sale in 1924 appears to have been made by firms employing

\* These estimates are made on the assumption, based on the more detailed information now available, that the proportion of the large unclassified output, valued at £5,232,000 for all firms, that consisted of biscuits was very small and the figures, therefore, slightly exceed those appearing in the Report on the Third Census, which allowed for the inclusion of a considerable proportion of biscuits in this sum.

more than ten persons. The aggregate value of the output of bread in Great Britain was £61.3 million. As regards cakes, pastries, etc., similar calculations suggest that the total value of the output in Great Britain in 1924 was between £34.6 million and £34.7 million, of which about 62 per cent. was contributed by firms whose average staff exceeded ten.

If it is assumed (see page 48) that there was no appreciable change between 1924 and 1930 in the amount of the output of the small firms, estimated at 767 million loaves in 1924, the addition of the output shown in the above table for the larger establishments would represent for 1930 a total of about 1,650 million 4-lb. loaves, an increase of about 2 per cent. compared with the total estimated for Great Britain for the earlier year.

The increase in the bakery output of cakes, pastries and similar products was clearly more substantial. Assuming, as for bread, that no change occurred in the volume of output by the smaller firms, the total output of goods of this class by the bakery trade as a whole was probably slightly less in value in 1930 than in 1924, the increase in quantity being about 15 per cent.

The estimate of 1,650 million 4-lb. loaves as the total production at bakeries in 1930 represents an average consumption of about 148 lbs. of bakers' bread per head of the population of Great Britain, or about 1 lb. per head less than in 1924, and an average expenditure of about 24s. 6d. in the year; for cakes, pastries, etc., the estimated total represents an average expenditure of 15s. 3d. per head in 1930. An excess or defect of 20 million loaves in the estimated output of bread would increase or decrease the average sum per inhabitant by roughly 3½d. and an error of the same order of importance in the estimated supply of cakes, pastries, etc., would affect the calculation by about 2d. The expenditure of each of the 44,652,000 inhabitants of Great Britain in 1930 on these two principal products of the bakery trade may be estimated as probably lying between 39s. 0d. and 41s. 0d.

Reference has already been made (page 51) to the relatively small production of bakery products indicated by the general results for the Yorkshire area and the North-East Coast. The importance in 1924 of the home-baking custom in Yorkshire and the English counties further north was reflected in the quantity of bakers' bread available per head of the population in these areas, which amounted to less than one-half of the average supply per head in the Lancashire area and to about one-third of that in the rest of England and Wales. A corresponding calculation cannot be made for 1930 owing to the more limited field of the survey, but it may be noted from the table on pages 50-1 that, in spite of a substantial increase in employment at bakery establishments with more than ten persons in Yorkshire and the North-East Coast, the proportion of the number of employees in these two areas together to the total recorded for the whole of Great Britain showed no change in the two years. For the later year the position in Lancashire differed rather less widely from that of the country as a whole, apart from the northern counties of England than it did in 1924.

**Co-operative bakeries.**—In view of the importance of the Co-operative Societies in the production of bread, cakes, etc., the principal particulars shown in the returns made by these organisations for 1930 are given separately in the following table :—

Particulars	Unit	Bread, cakes, etc.		
		Private firms	Co-operative Societies	Total
Value of goods made (Gross output)	£'000	41,783	15,339	57,122
Cost of materials used ... ..	"	25,927	9,528	35,455
Net output ... ..	"	15,856	5,811	21,667
Average number of persons employed ... ..	No.	66,457	16,224	82,681
Net output per person employed ...	£	239	358	262
Number of returns ... ..	No.	1,491	320	1,811

Of the bakery establishments concerned mainly with the manufacture of bread, cakes, pastries, etc., the Co-operative Societies formed nearly 20 per cent. measured by number of employees and 27 per cent. measured by net output. In the case of both private firms and Co-operative Societies, the cost of materials formed about 62 per cent. of the gross output. The net output per employee returned by the co-operative bakeries was higher by nearly 50 per cent. than for bakery establishments owned by private firms. This result may be due in part to the fact that the total number of employees properly attributable to bakery production is understated in the case of co-operative bakeries owing to the non-inclusion of certain employees (particularly clerical workers) that were connected with the Societies' activities as a whole.

**Prices.**—The average selling values of bread and biscuits in 1930 and 1924, as calculated from the Census returns, are shown in the following table :—

Kind of goods	Average value		1930 as a percentage of 1924
	1930	1924	
	Pence per 4-lb. loaf	Pence per 4-lb. loaf	Per cent.
Bread ... ..	7·65	8·81	
	£	£	
	per cwt.	per cwt.	
Biscuits ... ..	4·67	5·10	91·6

The average value of the bread returned by the firms employing in 1924 not more than ten persons, was 9·38d. per 4-lb loaf, a value substantially higher than that obtained by the larger firms. Examination of the returns made for 1924 by some of the largest bread bakeries, producing mainly for distribution wholesale, shows

that the average value realised in most cases by this class of establishment was appreciably below the general average for firms employing more than ten persons. There were, however, certain returns in which the average value per 4-lb. loaf was 10d. or over, and the explanation of this may be found in the large quantities of bread produced by these firms in the form of rolls. For 1930 the particulars for the same firms of large size show a similar price relationship in so far as the private firms are concerned. In the case of the large co-operative bakeries, however, the average value of a 4-lb. loaf was with few exceptions above the general average.

**Volume of production in 1930 and 1924.**—The following table shows the estimated volume of production of the chief products of the Bread and Biscuit Trades in 1930 and 1924. For the items for which quantities were not recorded, the revaluation has been based on such information as is available regarding manufacturing costs in the two years.

Kind of goods	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	Per cent.
Bread, recorded as such ... ..	£'000 27,519	£'000 30,027	£'000 26,063	106
Cakes, pastry, buns, scones, etc., recorded as such ... ..	22,675	20,655	17,300	131
Bread, cakes, pastries, etc., not separately distinguished ...	1,036	2,124	1,800	*
Biscuits for human consumption ...	15,625	13,188	12,080	129
Flour, self-raising ... ..	1,748	1,472	1,200	146
Ice cream ... ..	1,318	431	350	*
Other bakery products (including Christmas puddings, mince-meat and similar products) ... ..	976	365	300	*
<b>TOTAL ... ..</b>	<b>70,897</b>	<b>68,262</b>	<b>59,093</b>	<b>120</b>

\* These figures would have no significance.

**Exports and imports.**—Exports from the United Kingdom of biscuits for human consumption amounted to 168,000 cwts., valued at £970,000, in 1930, as compared with 169,000 cwts., valued at £1,108,000, in 1924, while the retained imports of biscuits not containing any dutiable ingredients (i.e., unsweetened) were 60,000 cwts., valued at £221,000, in 1930 and 12,000 cwts., valued at £44,000, in 1924. While a precise comparison cannot be made owing to the absence of information regarding the imports of sweetened biscuits, it is evident that British manufactured biscuits predominated in the home market in both years. About 5,000 cwts. of cakes, valued at £24,000, were exported in 1930, the corresponding figure for 1924 being 14,000 cwts., valued at £62,000. Imports of cakes were not separately recorded for either year.

**Other products.**—In addition to the output shown in the table of principal products on page 53, the following goods were produced in 1930 and 1924 by firms that made their returns on schedules for the Bread and Biscuit 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
Cocoa and sugar confectionery (including chocolate confectionery) ... ..	559	2,068
Preserved meat in tins, glasses, etc. ... ..	10	82
Other preserved meat (including sausages, cooked meats, pies, etc.) ... ..	967	1,020
Marmalade, jams and fruit jellies ... ..	25	432
Infant, invalid and breakfast foods ... ..	44	217
Animal and poultry foods ... ..	107	86
Other goods (mainly food products) ... ..	146	490
<b>TOTAL</b> ... ..	<b>1,858</b>	<b>4,395</b>

### 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
<b>1930</b>						
Operatives (average for the year)	7,633	58,620	11,439	37,627	19,072	96,247
Administrative, technical and clerical staff (as at 18th October) ... ..	1,073	10,732	2,449	11,797	3,522	22,529
<b>TOTAL</b> ... ..	<b>8,706</b>	<b>69,352</b>	<b>13,888</b>	<b>49,424</b>	<b>22,594</b>	<b>118,776</b>
<b>1924</b>						
Operatives (average for the year)	6,937	53,284	8,691	28,300	15,628	81,584
Administrative, technical and clerical staff (as at 18th October) ... ..	720	8,492	846	5,419	1,566	13,911
<b>TOTAL</b> ... ..	<b>7,657</b>	<b>61,776</b>	<b>9,537</b>	<b>33,719</b>	<b>17,194</b>	<b>95,495</b>

**Wages.**—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 18 and 19.

### 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
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
<b>PRIME MOVERS</b>						
Reciprocating steam engines ... ..	3,684	1,345	5,029	4,105	1,497	5,602
Internal combustion engines:—						
Gas ... ..	2,158	727	2,885	3,961	812	4,773
Petrol, kerosene, or other light oils ...	253	265	518	341	34	375
Heavy oils ... ..	852	313	1,165	282	36	318
Water engines ... ..	5	6	11	—	—	—
<b>TOTAL</b> ... ..	<b>6,952</b>	<b>2,656</b>	<b>9,608</b>	<b>8,689</b>	<b>2,379</b>	<b>11,068</b>
	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
<b>ELECTRIC GENERATORS</b>						
Driven by						
Reciprocating steam engines ... ..	1,412	800	2,212	1,045	829	1,874
Internal combustion engines:—						
Gas ... ..	337	71	408	314	126	440
Petrol, kerosene, or other light oils ...	45	—	45	62	8	70
Heavy oils ... ..	388	240	628	173	25	198
<b>TOTAL</b> ... ..	<b>2,182</b>	<b>1,111</b>	<b>3,293</b>	<b>1,594</b>	<b>988</b>	<b>2,582</b>
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
<b>ELECTRIC MOTORS</b>						
Driven by						
Electricity generated in same works ...	1,888	36	1,924	2,645	208	2,853
Purchased electricity	69,763	5,394	75,157	50,222	3,664	53,886
<b>TOTAL</b> ... ..	<b>71,651</b>	<b>5,430</b>	<b>77,081</b>	<b>52,867</b>	<b>3,872</b>	<b>56,739</b>

## 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)
	Tons	Tons
Coal ... ..	23,746	107,066*
Coke ... ..	195	226,326*
		B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—		
Generated in same works ... ..		2,429
Purchased ... ..		53,064
		TOTAL—Electricity ... ..
		55,493

\* These figures were recorded by firms representing 99.7 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	57,131	14,842	71,973
Cost of materials used ... ..	"	33,507	8,636	42,143
Net output ... ..	"	23,624	6,206	29,830
Average number of persons employed ...	No.	92,626	26,150	118,776
Net output per person employed ...	£	255	237	251
Power available :—				
Prime movers ... ..	H.P.	7,358	2,250	9,608
Electric motors driven by purchased electricity ... ..	"	56,112	19,045	75,157

## II. Production

Kind of goods made	Unit	England and Wales	Scotland	Great Britain
Bread ... ..	<i>Th. 4-lb. loaves</i>	631,872	157,776	789,648
	£'000	20,117	5,044	25,161
Cakes, pastry, buns, scones, etc. ...	£'000	2,171	187	2,358
Bread, cakes, pastry, etc., not separately distinguished ... ..	£'000	17,326	5,270	22,596
Biscuits for human consumption ...	£'000	478	558	1,036
	<i>Th. cwt.</i>	2,567	690	3,257
	£'000	12,101	3,227	15,328
	£'000	97	138	235
TOTAL—Bread, biscuits, cakes, etc. ...	£'000	52,290	14,424	66,714
Self-raising flour, ... ..	£'000	1,513	129	1,642
Ice cream ... ..	£'000	1,274	19	1,293
Other bakery products (including Christmas puddings, mincemeat and similar products) ... ..	£'000	409	57	466
Cocoa and sugar confectionery (in- cluding chocolate confectionery) ...	£'000	437	122	559
Preserved meat in tins, glasses, etc. ...	£'000	10	—	10
Other preserved meat (including sausages, cooked meats, meat pies, etc.) ... ..	£'000	894	73	967
Marmalade, jams and fruit jellies ...	£'000	24	1	25
Infant, invalid and breakfast foods ...	£'000	29	15	44
Animal and poultry foods ... ..	£'000	107	—	107
Other goods (mainly food products) ...	£'000	144	2	146
TOTAL VALUE OF GOODS MADE (GROSS OUTPUT) ... ..	£'000	57,131	14,842	71,973



## 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 ... ..	5,615	45,810	8,667	29,204	14,282	75,014
Administrative, etc.* ... ..	773	8,644	1,778	8,629	2,551	17,273
TOTAL ... ..	6,388	54,454	10,445	37,833	16,833	92,287
<i>Scotland :—</i>						
Operatives ... ..	2,007	12,724	2,755	8,368	4,762	21,092
Administrative, etc.* ... ..	300	2,088	671	3,168	971	5,256
TOTAL ... ..	2,307	14,812	3,426	11,536	5,733	26,348
<i>Great Britain :—</i>						
Operatives ... ..	7,622	58,534	11,422	37,572	19,044	96,106
Administrative, etc.* ... ..	1,073	10,732	2,449	11,797	3,522	22,529
TOTAL ... ..	8,695	69,266	13,871	49,369	22,566	118,635

\* 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 ...	73,006	20,710	93,716	July 19 ...	77,566	20,760	98,326
Feb. 15 ...	72,689	20,668	93,357	Aug. 16 ...	76,644	20,869	97,513
Mar. 15 ...	73,213	20,684	93,897	Sept. 13 ...	76,664	20,925	97,589
Apr. 12 ...	75,800	20,636	96,436	Oct. 18 ...	75,014	21,092	96,106
May 17 ...	76,202	20,771	96,973	Nov. 15 ...	75,167	21,199	96,366
June 21 ...	76,774	21,017	97,791	Dec. 13 ...	75,494	21,403	96,897
AVERAGE FOR THE TWELVE MONTHS ... ..					75,353	20,894	96,247

## 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						
Reciprocating steam engines ... ..	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
3,186	1,185	498	160	3,684	1,345	
Internal combustion engines :—						
Gas ... ..	1,551	544	607	183	2,158	727
Petrol, kerosene, or other light oils ...	186	245	67	20	253	265
Heavy oils ... ..	437	13	415	300	852	313
Water engines ... ..	5	6	—	—	5	6
TOTAL ... ..	5,365	1,993	1,587	663	6,952	2,656
TOTAL OF PRIME MOVERS INSTALLED ... ..	7,358		2,250		9,608	
ELECTRIC GENERATORS						
Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines ... ..	1,375	800	37	—	1,412	800
Internal combustion engines :—						
Gas ... ..	235	61	102	10	337	71
Petrol, kerosene, or other light oils ...	34	—	11	—	45	—
Heavy oils ... ..	209	20	179	220	388	240
TOTAL ... ..	1,853	881	329	230	2,182	1,111
TOTAL OF ELECTRIC GENERATORS INSTALLED	2,734		559		3,293	
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works ...	1,530	6	358	30	1,888	36
Purchased electricity	52,572	3,540	17,191	1,854	69,763	5,394
TOTAL ... ..	54,102	3,546	17,549	1,884	71,651	5,430
TOTAL OF ELECTRIC MOTORS INSTALLED	57,648		19,433		77,081	

## V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power ... ..	16,984	6,762	23,746
Coke used for power ... ..	1	194	195
	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 ... ..	2,092	337	2,429
Purchased ... ..	40,611	12,453	53,064
TOTAL—Electricity ... ..	42,703	12,790	55,493