

THE BREWING AND MALTING TRADES.

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Introductory.*

The Tables on pages 170 to 174 are based on Returns received from firms in Great Britain and Northern Ireland whose business in 1924 consisted wholly or mainly in the manufacture of malt or the brewing of beers. The number of such separate Returns was 1,080. About 100 firms to which schedules were sent did not furnish Returns, but these firms for the most part had very small establishments and may have included some that brewed only for their own retail distribution. On the basis of the information available it is estimated that they did not employ more than 400 persons in all and that their total net output did not exceed £200,000.

Summary of results.—The following table shows the main results of the Censuses of 1924, 1912 and 1907, comparisons between the figures for the three years being subject to the qualifications mentioned in the next paragraph.

* See also the Notes on pages vii-xiv.

Particulars.	Unit.	1924.	1912.	1907.
Value of goods made and work done				
(Gross output)	£'000	159,466	67,022	67,250
Cost of materials used	"	37,386	28,690	25,833
Paid for work given out to other firms	"	189	125	196
Net output	"	121,891	38,207	41,221
Average number of persons employed	No.	67,236	80,087	84,969
Net output per person employed	£	1,813*	477*	485*
Mechanical power available:—				
Prime movers	H.P.	44,102	60,873	64,636
Electric motors driven by purchased electricity	"	57,399	14,654	(not recorded)

* Inclusive of beer duty. Exclusive of this duty the figures would be : 1924, £685 ; 1912, £311 ; and 1907, £331.

These aggregates relate only to brewing establishments producing beer for wholesale distribution. Innkeepers and similar firms brewing beer for their own retail trade only were not required to furnish Census Returns.

Qualifications affecting comparisons.—In considering the above table and the other tables in this Report which show figures for the different censal years, the following qualifications should be borne in mind:—

(1) The comparability of figures relating to value or cost is affected by the changes which have taken place in the general purchasing power of money and in the excise duty on beer over the period.

(2) The Censuses of 1907 and 1912 covered the whole of Great Britain and Ireland, but that of 1924 applied only to Great Britain and Northern Ireland. According to the Census of Production taken by the Government of the Irish Free State in respect of the year 1926, the total value of the output of breweries and maltings in that territory was £11,567,000, including duty; the quantity of beer of all kinds brewed was 2,216,000 standard barrels, and the average number of persons employed 5,545.

(3) The Censuses of 1907 and 1924 extended to all firms, however small, but in 1912 firms employing not more than five persons (excluding the proprietors) were merely required to state the average number of persons employed by them in the year. According to the information so furnished, the number of persons employed in the establishments thus excluded was 4,334 or 5·4 per cent. of the number employed by the remaining firms, as shown in the above table.

Value of output and cost of materials.—The figures in the above table representing the value of goods made and work done and the cost of materials used, are the aggregates of the figures recorded by the firms making Returns, and, for the reasons explained in paragraphs (i) and (ii) on page xii, they may overstate the value of the output of, and the cost of the materials used by, the Brewing and

Malting Trades considered as a whole. The matter is discussed on pages 166-167, where it is estimated that in 1924 the value, free from duplication, of the output of these trades was about £151,000,000 and the cost of the materials purchased from sources outside those trades and worked up into their products was about £29,000,000.

Production.

Total make of malt.—The total quantity of malt produced in the United Kingdom in 1924 was returned as 12,710,000 cwts., of which 5,030,000 cwts. were made by brewers mainly for their own use, and 7,680,000 cwts. by firms whose business was confined to malting. These aggregates are exclusive of malt produced by distilleries and used in the manufacture of spirit.

Exports of malt in 1924 amounted to 294,000 cwts. and net imports to 33,000 cwts. Apart from the requirements of distilleries, the total quantity of malt available for consumption in the United Kingdom was thus 12,449,000 cwts., and on the basis of the average value of malt sold in the year, the total value may be estimated at about £12,750,000. The bulk of this malt, though not the whole, was required by the brewing trade.

The total quantity of beer brewed in the censal year 1924, viz., 20,512,000 standard barrels,* may be taken as equivalent to about 26,200,000 bulk barrels† (see p. 163). The information published by the Commissioners of Customs and Excise shows that 1 cwt. of malt was required for 2·3‡ bulk barrels of beer. The quantity of malt used for brewing in 1924 would thus be about 11,400,000 cwts. Out of the total available for consumption in 1924 there thus remained about 1,000,000 cwts. of malt to provide for sales to manufacturers of malt foods and extracts and any additions to stocks at the end of the year.

It is estimated that of the 12,710,000 cwts. of malt produced in 1924, 11,620,000 cwts. consisted of malt made by brewers or maltsters from grain which they themselves purchased, and 1,090,000 cwts. of malt made on commission. As regards malt made on commission, the value returned to the Census office was the total amount received by maltsters from the firms supplying the grain and not the value of the malt itself.

In response to a request for voluntary information as to the quantities of British and of foreign barley used in malt production in 1924, firms responsible for the production of nearly 69 per cent. of the total output of malt in the year furnished the following particulars:—

* *i.e.*, Barrels of 36 gallons at a gravity of 1,055°.

† *i.e.*, Barrels of 36 gallons at any gravity.

‡ This figure relates to the year ended 30th September, 1924; in the preceding year it was slightly less and in the following year somewhat more.

	<i>Th. cwts.</i>
British barley used	6,830
Foreign barley used	4,369
TOTAL—Barley used	11,199
Quantity of malt produced	8,729

In 1912, firms producing about 34 per cent. of the total output of malt returned the proportion of British barley used by them as nearly 70 per cent. (out of a total of 8,617,000 cwts.) compared with a proportion of 61 per cent. in the figures shown above for 1924. These proportions may not be similar to those representing the practice of the makers of the remainder of the malt produced, regarding which no information was furnished in either year. Corresponding information was not asked for in 1907.

Production for sale.—The detailed information relating to the output of the Brewing and Malting Trades in 1924 will be found in Tables IIA and IIB on page 171.

The following statement affords a comparison of the output of the chief products of the Brewing and Malting Trades in 1924, 1912 and 1907, the figures for each year being inclusive of the output of similar products returned on schedules for other trades:—

Kind of goods.	1924.		1912.		1907.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Th. standard barrels.*	£'000.	Th. standard barrels.*	£'000.	Th. standard barrels.*	£'000.
Beer, ale, stout and porter brewed	20,512	141,919	32,091	56,057	34,505	58,581
Malt made for sale	Th. cwts. 6,805	6,947	Th. cwts. 11,103	7,337	Th. cwts. 11,248	6,603
Grains, malt commings and other offals	1,049	..	1,153	..	1,081
TOTAL VALUE	149,915	..	64,547	..	66,265

* Barrels of 36 gallons at 1,055°.

The quantity of beer shown in the above table as brewed in the respective years includes all the beer brewed, whether subsequently bottled by the brewing firm or not. According to the 16th Report of the Commissioners of Customs and Excise, for the year ended 31st March, 1925, the quantity of home-made beer brewed in that period was 26,735,000 bulk barrels (at any gravity) and the quantity charged with duty was 20,954,000 standard barrels. One standard barrel was equivalent to 1·276 bulk barrels in that period and to 1·278 bulk barrels in the preceding twelve months. On this basis the bulk equivalent of the 20,512,000 standard barrels returned to the Census as made in 1924 would be about 26,200,000 barrels, which appears to correspond closely with the 25,928,000 bulk barrels reported by the Excise authorities as brewed in the twelve months ended 30th September, 1924, the latter exceeding by about 2 per

cent. the quantity reported for the twelve months ended 31st March, 1924. The standard barrelage reported to the Census was a little more than 1 per cent. below the quantity stated by the Excise Authorities to have been made in the calendar year 1924, i.e., 20,732,000 standard barrels. The Census records show that over half the recorded output of beer was made by firms whose Returns were for periods ending between 30th June and 30th September, 1924. The Excise quantities, however, include the beer made by innkeepers for their own retail sale and such persons were not required to make Returns to the Census. The exact quantity of such beer is not known, but in 1924 it was probably between 100,000 and 200,000 standard barrels; as that class of beer is usually of higher specific gravity than most beer, the corresponding bulk quantity would lie between 125,000 and 250,000 barrels, raising the total make of beer (exclusive of the very small quantity made by brewers not for sale) to a figure in the neighbourhood of 26,400,000 bulk barrels or 20,700,000 standard barrels in the periods covered by the Census of 1924, which, as mentioned above, did not for all firms correspond with the calendar year.

Brewers were required to include in the selling value of the beer made by them the Excise duty, less drawbacks on exports, etc., but not the value of returnable casks, bottles, etc. The duty on home-brewed beer in 1907 was 7s. 9d. per standard barrel of 36 gallons and in 1912 it was still at the same rate. Throughout the period covered by the Census of 1924 the rate of duty was £5 per standard barrel but a rebate was allowed of £1 per bulk barrel on beer brewed by brewers for sale. A delay of three months was allowed for payment of the duty. The following information, which may, it is stated, be considered as relating to beer brewed in the preceding calendar year, is extracted from the Reports of the Commissioners of Customs and Excise.

Particulars.	Year ended 31st March.		
	1925.	1913.	1908.
	Thousand standard barrels.		
Quantity on which duty was charged	20,954	34,752	34,376
Net quantity on which duty was paid	20,406	34,088	33,850
	£'000		
Net receipts of duty	75,826	13,200	13,117

It would, therefore, appear that more than one-half of the aggregate selling value of the beer reported to the Census as made in 1924 was accounted for by Excise duty, while in 1907 and 1912 less than one-fourth corresponded to the duty charge.

Retained imports of beer in 1924 were 1,510,000 standard barrels, all of which, except about 15,000 barrels, came from the Irish Free State. British exports amounted to 263,000 standard barrels in 1924, of which nearly 37,000 barrels went to the Irish Free State. Trade with the area of the present Irish Free State was treated as domestic

trade in 1907 and 1912, but when that is eliminated for 1924, the export trade in that year shows a heavy fall from the 605,000 standard barrels (including 77,000 barrels to the United States) exported in 1907. Retained imports in 1907 were 54,000 bulk barrels. Taking the production of beer in the calendar year 1924 as 20,732,000 standard barrels the quantity available in that year for consumption in Great Britain and Northern Ireland was 21,979,000 standard barrels, of which 93·1 per cent. was brewed in the United Kingdom and nearly all the remainder in the Irish Free State. In any comparisons with 1907 it may be noted that Irish Free State exports of beer to countries other than the United Kingdom amounted in 1924 to less than 1,000 standard barrels.

Classification of output.—Firms were asked to classify the beer brewed by them according to kind and specific gravity, and firms making 9,317,000 standard barrels, or 45 per cent. of the total output returned in 1924, complied with this request. A similar request in 1907 brought replies as to the kind of beer brewed from firms making 16,112,000 standard barrels, or 47 per cent. of the output, and as to gravity from firms making 14,868,000 standard barrels, or 43 per cent. of the output, but in 1912 only firms making 24 per cent. of the output furnished information. The particulars supplied for 1912 have, accordingly, been omitted, and those for 1907 and 1924 are set out below. In comparing the figures it should be remembered that not all the firms that furnished information in one of the two years also did so in the other and that the Census of 1907 covered all Ireland; the average gravity of the beer brewed in Ireland in that year was considerably higher than that of beers brewed in Great Britain.

Kind of beer.	1924.	1907.	Gravity of beer.	1924.	1907.
	Thousand bulk barrels of 36 gallons.			Thousand bulk barrels of 36 gallons.	
Ales	10,770	14,055	Over 1,060°	314	2,353
Stout	909	1,468	From 1,050° to 1,060°	1,788	6,973
Porter	412	1,397	From 1,030° to 1,050°	9,512	6,325
Lager beer	35	107	Under 1,030°	512	75
	12,126	17,027		12,126	15,726

It cannot be said how far these samples are representative of the whole brewing output, but the exclusion of Southern Ireland has contributed to the fact that, of the 1907 sample, 59·3 per cent. consisted of beers of 1,050° specific gravity and upwards, whereas only 17·3 per cent. of the 1924 sample was so constituted. The actual change that has taken place is thus exaggerated by these figures, but the reports of the Excise authorities show that the average specific gravity of the beer brewed in Great Britain fell from 1,052·44° in the fiscal year 1907-8 to 1,051·28° in 1912-3 and to 1,043·12° in 1924-5.

Other products.—In addition to the output dealt with in the preceding paragraphs, firms that made their Returns on schedules for

the Brewing and Malting Trades recorded, in each of the three censal years, an output of goods which are mainly produced in other trades and which are dealt with in the Reports on those trades. The following statement shows the value of such goods returned in 1924, 1912 and 1907:—

Kind of goods.	1924.	1912.	1907.
	Value.	Value.	Value.
	£'000.	£'000.	£'000.
Liquors purchased and bottled	8,160	1,674	353
Casks and barrels made and repaired .. .	549	311	343
Aerated and mineral waters made	290	189	31
(<i>Th. doz. bottles</i>)	(2,502)	(4,304)	(686)
Yeast	13	5	15
Non-alcoholic drinks brewed	50	15	—
Malt extracts and malt flour	182	—	} 115
Other goods made	93	199	
TOTAL	9,337	2,393	857

A striking feature of the 1924 figures is the greater relative importance of the liquors purchased and bottled for sale by brewers.

Malting done on commission.—The amount received by maltsters for making malt on commission in 1924 was £228,000 and it is estimated that the quantity of malt so made was 1,090,000 cwts., of which some was made for brewers and the remainder for other firms. On the assumption that the whole of the £189,000, recorded as paid by brewing firms for work given out, was for malting done on commission, the quantity of malt made for them may be taken as about 900,000 cwts., and the £189,000 paid for such work will be duplicated in the value of the beer made by these brewers.

The amount received for malting done on commission in 1912 and 1907 was £167,000 and £132,000 respectively.

Value of output free from duplication.—The total quantity of malt required by the brewing trade in 1924 has been estimated (page 162) at about 11,400,000 cwts., and, of this aggregate, brewers, whose output was used almost entirely in their own works, produced 5,030,000 cwts., leaving about 6,370,000 cwts., as the quantity purchased or made on commission. In the previous paragraph it is estimated that the quantity of malt made on commission for brewers was about 900,000 cwts., thus leaving about 5,470,000 cwts., as the quantity purchased from maltsters. The value of this 5,470,000 cwts., may be taken as £5,600,000, and this sum is duplicated in the value of the beer made except in so far as some part of the retained imports of 33,000 cwts., of malt, valued c.i.f. at £35,000, may have been bought by brewers. A further duplication may exist between the value of the malt sold and the £182,000 shown as the output of malt extracts and malt flour on schedules for the Brewing and Malting Trades. This duplication may have amounted to £90,000. Duplication also occurs in the sum of £8,160,000, returned as the

value of liquors purchased from other firms and bottled, in so far as it represents beer brewed in the United Kingdom; an important part of these liquors is understood to consist of imported beer, of spirits, and of wine. The available information is insufficient to enable the amount of this duplication to be ascertained accurately, but it may be roughly estimated as between £2,000,000 and £3,000,000. The remaining items of output appear to be free from any substantial duplication. The value, free from duplication, of the Brewing and Malting Trades in 1924 may, therefore, be taken as about £151,000,000. Estimated on the same basis, the value, free from duplication, of the output of these trades in 1907 was about £61,200,000.

Cost of materials and work given out.—The cost of materials used by firms making their Returns on schedules for the Brewing and Malting Trades was returned as £37,386,000 in 1924, a sum which, by the exclusion of purchases of the products of other firms in these trades may be reduced to about £29,000,000. The corresponding net figure for 1907 was £19,915,000.

The amount paid to other firms for work given out to them was £189,000 in 1924, £125,000 in 1912 and £196,000 in 1907.

Net output.—The net output in 1924 of the firms making their Returns on schedules for the Brewing and Malting Trades (whose gross output was valued at £159,466,000) was £121,891,000, that sum representing, without duplication, the total amount by which the value (at brewery or malting) of the aggregate output exceeded the cost (at brewery or malting) of the materials used and the amount paid to other firms for work given out to them.

The net output per head of persons employed in the censal year 1924 was £1,813 as compared with £477 in 1912, and £485 in 1907. These figures, however, are inclusive of the sums paid in Excise duty; if these be deducted the net output per person employed would be approximately £685 in 1924, £311 in 1912 and £331 in 1907.

Kind of materials used.—The table which follows shows the main classes of materials used, as given in the Annual Report of the Commissioners of Customs and Excise.

Materials used in brewing.	Year ended 30th September.		
	1924.	1912.	1907.
	Th. cwts.	Th. cwts.	Th. cwts.
Malt	11,275	19,338	19,524
Unmalting corn	23	26	36
Rice and maize (grit and flaked) and similar preparations	846	1,419	1,257
Sugar, including its equivalent of syrups, glucose and saccharine	1,700	3,067	2,859
Hops	350	550	571
Hop substitutes		Under 500 cwts.	
	Thousand bulk barrels.		
Beer produced	25,928	36,099	35,369

Wages in 1924.

Under the Census of Production Act, 1906, the powers of the Board of Trade to require information do not extend to particulars of the amount of wages paid, and, consequently, no information on this head was secured in connexion with the Census of 1924. As a result, however, of the voluntary enquiry undertaken by the Ministry of Labour into wages and hours in the United Kingdom in 1924, information was obtained as to the total wage-bill of a group of firms in the Brewing and Malting Trades which made Returns both to the Ministry of Labour and to the Census of Production office. According to the Census records this group of firms employed, in the week ended 18th October, 1924, 38,658 operatives, or 69 per cent. of the total of 55,781 operatives for the trades as a whole, and their net output totalled £84,439,000, or 69 per cent. of the aggregate net output of £121,891,000 for the trades as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was £5,680,000, representing about 6.7 per cent. of their aggregate net output.

Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 172-173. The following table sets out certain particulars for that year together with those relating to the two previous censal years. For the purpose of this comparison the average numbers of operatives of each sex returned for 1924 have been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October:—

Average number.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
1924.						
Operatives	2,247	49,304	600	5,230	2,847	54,534
Administrative, etc. ..	518	11,326	73	1,376	591	12,702
TOTAL	2,765	60,630	673	6,606	3,438	67,236
1912.						
Wage earners	5,065	63,563	324	2,522	5,389	66,085
Salaried	764	13,778	17	224	781	14,002
TOTAL	5,829	77,341	341	2,746	6,170	80,087
1907.						
Wage earners	4,148	67,217	175	1,779	4,323	68,996
Salaried	978	15,764	14	209	992	15,973
TOTAL	5,126	82,981	189	1,988	5,315	84,969

The numbers of operatives recorded month by month in 1924 ranged from 1,915 above the average, in December, to 1,192 below the average, in June (see Table III B, p. 173).

Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 174. The following table sets out the particulars for the three censal years relating to the capacity and kinds of *prime movers* and the capacity of *electric generators* installed.

Power equipment.	1924.			1912.	1907.
	Ordinarily in use.	In reserve or idle.	Total.	Total.	Total.
PRIME MOVERS:—					
	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	22,100	6,486	28,586	42,981	49,010
Steam turbines	104	—	104	2,165	2,088
Gas engines	10,224	1,704	11,928	13,780	12,168
Petrol and light oil engines	1,114	137	1,251	1,499	
Heavy oil engines	1,982	53	2,035		448
Water power	195	—	195	3	
Other	3	—	3		
TOTAL	35,722	8,380	44,102	60,873	64,636
ELECTRIC GENERATORS:—					
Driven by—					
Reciprocating steam engines	2,434	1,673	4,107	2,330	2,390
Steam turbines	—	—	—	1,524	1,524
Gas engines	843	126	969	2,097	862
Petrol and light oil engines	166	—	166		
Heavy oil engines	1,151	44	1,195	34	
Water power	34	—	34		
Other prime movers ..	—	—	—		
TOTAL	4,628	1,843	6,471	5,951	4,776

The capacity of *electric motors* recorded in 1924 and 1912 was as shown below:—

Electric motors.	1924.			1912.
	Ordinarily in use.	In reserve or idle.	Total.	Total.
Driven by—				
Electricity generated in own works ..	6,942	719	7,661	3,371
Purchased electricity	51,905	5,494	57,399	14,654

Corresponding information was not required for 1907. The total number of Board of Trade units of electricity purchased for power and lighting purposes in that year was returned as 2,721,000.

TABLES.

I.—Summary of results.

Particulars.	Unit.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
Value of goods made and work done (Gross output)	£'000	148,987	10,388	159,375	91
Cost of materials used	"	35,130	2,239	37,369	17
Paid for work given out to other firms	"	171	18	189	—
Net output	"	113,686	8,131	121,817	74
Average number of persons employed	No.	62,025	5,125	67,150	86
Net output per person employed	£	1,833*	1,586*	1,814*	861*
Mechanical power available:—					
Prime movers	H.P.	39,529†	4,573	44,102†	†
Electric motors driven by purchased electricity	"	53,179†	4,220	57,399†	†

* Inclusive of beer duty.

† In order to avoid the possible disclosure of information relating to individual firms, the particulars for Northern Ireland have been combined with those for England and Wales and for Great Britain.

II.—Production.

A.—TOTAL QUANTITY OF MALT MADE IN THE YEAR.

England and Wales and Northern Ireland.*	Scotland.	United Kingdom.
Th. cwts. 11,223	Th. cwts. 1,487	Th. cwts. 12,710

* See footnote (†) to Table I.

B.—OUTPUT FOR SALE OR FOR STOCK.

Kind of goods made and work done.	Unit.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
Beer, ale, stout and porter brewed	Th. standard barrels†	19,003	1,500	20,503	9
Malt made for sale	Th. cwts.	6,118‡	686	6,804‡	‡
Grains, malt commings and other offals	£'000	939	96	1,035	1
Liquors purchased from other firms and bottled	"	8,113‡	47	8,160‡	‡
Casks and barrels made and repaired	"	495	54	549	—
Aerated and mineral waters made	Th. doz. bottles.	*	*	2,502	—
Yeast	£'000	9	4	13	—
Non-alcoholic drinks brewed	"	*	*	50	—
Malt extracts and malt flour	"	*	*	182	—
Other goods made	"	93	—	93	—
TOTAL VALUE OF GOODS MADE	£'000	148,772	10,375	159,147	91
Malting done on commission	"	215§	13§	228§	—
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT)	£'000	148,987	10,388	159,375	91

* In order to avoid the possible disclosure of information relating to individual firms, figures can only be given for Great Britain as a whole.

† Barrels of 36 gallons at 1,055°.

‡ See footnote (†) to Table I.

§ Amount received for work done.

III.—Employment.

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1924.

Kind of staff.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
<i>England and Wales :—</i>						
Operatives	1,963	46,644	515	4,910	2,478	51,554
Administrative, etc.*	481	10,438	66	1,186	547	11,624
TOTAL	2,444	57,082	581	6,096	3,025	63,178
<i>Scotland :—</i>						
Operatives	334	3,689	96	472	430	4,161
Administrative, etc.*	37	871	7	188	44	1,059
TOTAL	371	4,560	103	660	474	5,220
<i>Great Britain :—</i>						
Operatives	2,297	50,333	611	5,382	2,908	55,715
Administrative, etc.*	518	11,309	73	1,374	591	12,683
TOTAL	2,815	61,642	684	6,756	3,499	68,398
<i>Northern Ireland :—</i>						
Operatives	—	48	8	18	8	66
Administrative, etc.*	—	17	—	2	—	19
TOTAL	—	65	8	20	8	85
<i>United Kingdom :—</i>						
TOTAL	2,815	61,707	692	6,776	3,507	68,483

* Administrative, technical and clerical staff

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1924.

England and Wales. (Annual average : Males, 45,650 ; Females, 4,751 ; Total, 50,401.)

Week ended.	Males.	Females.	Total.	Week ended.	Males.	Females.	Total.
Jan. 12th ..	46,140	4,469	50,609	July 19th ..	44,587	5,067	49,654
Feb. 16th ..	45,838	4,302	50,140	Aug. 16th ..	44,651	5,156	49,807
March 15th ..	45,476	4,201	49,677	Sept. 13th ..	44,889	4,906	49,795
April 12th ..	45,794	4,472	50,266	Oct. 18th ..	46,644	4,910	51,554
May 17th ..	45,413	4,698	50,111	Nov. 15th ..	46,856	4,895	51,751
June 21st ..	44,424	4,902	49,326	Dec. 13th ..	47,098	5,026	52,124

Scotland. (Annual average : Males, 3,606 ; Females, 460 ; Total, 4,066.)

Jan. 12th ..	3,610	478	4,088	July 19th ..	3,478	514	3,992
Feb. 16th ..	3,608	431	4,039	Aug. 16th ..	3,406	486	3,892
March 15th ..	3,614	419	4,033	Sept. 13th ..	3,575	483	4,058
April 12th ..	3,603	415	4,018	Oct. 18th ..	3,689	472	4,161
May 17th ..	3,584	478	4,062	Nov. 15th ..	3,793	450	4,243
June 21st ..	3,501	451	3,952	Dec. 13th ..	3,811	448	4,259

Great Britain. (Annual average : Males, 49,256 ; Females, 5,211 ; Total, 54,467.)

Jan. 12th ..	49,750	4,947	54,697	July 19th ..	48,065	5,581	53,646
Feb. 16th ..	49,446	4,733	54,179	Aug. 16th ..	48,057	5,642	53,699
March 15th ..	49,090	4,620	53,710	Sept. 13th ..	48,464	5,389	53,853
April 12th ..	49,397	4,887	54,284	Oct. 18th ..	50,333	5,382	55,715
May 17th ..	48,997	5,176	54,173	Nov. 15th ..	50,649	5,345	55,994
June 21st ..	47,925	5,353	53,278	Dec. 13th ..	50,909	5,474	56,383

Northern Ireland. (Annual average : Males, 48 ; Females, 19 ; Total, 67.)

Jan. 12th ..	51	27	78	July 19th ..	45	19	64
Feb. 16th ..	52	15	67	Aug. 16th ..	46	19	65
March 15th ..	47	18	65	Sept. 13th ..	48	19	67
April 12th ..	49	18	67	Oct. 18th ..	48	18	66
May 17th ..	48	18	66	Nov. 15th ..	48	18	66
June 21st ..	44	20	64	Dec. 13th ..	48	18	66

IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS,
AND ELECTRIC MOTORS.

Power equipment.	England and Wales and N. Ireland.*		Scotland.		United Kingdom.	
	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.
PRIME MOVERS :—	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	19,329	6,101	2,771	385	22,100	6,486
Steam turbines	104	—	—	—	104	—
Gas engines	9,125	1,552	1,099	152	10,224	1,704
Petrol and light oil engines	1,068	105	46	32	1,114	137
Heavy oil engines	1,982	53	—	—	1,982	53
Water power	107	—	88	—	195	—
Other	3	—	—	—	3	—
TOTAL	31,718	7,811	4,004	569	35,722	8,380
TOTAL OF PRIME MOVERS INSTALLED	39,529		4,573		44,102	
ELECTRIC GENERATORS :—	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by—						
Reciprocating steam engines	2,205	1,559	229	114	2,434	1,673
Gas engines	795	126	48	—	843	126
Petrol and light oil engines	156	—	10	—	166	—
Heavy oil engines	1,151	44	—	—	1,151	44
Water power	2	—	32	—	34	—
TOTAL	4,309	1,729	319	114	4,628	1,843
TOTAL OF ELECTRIC GENERATORS IN- STALLED	6,038		433		6,471	
ELECTRIC MOTORS :—	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by—						
Electricity generated in own works	6,285	655	657	64	6,942	719
Purchased electricity	47,877	5,302	4,028	192	51,905	5,494

* See footnote (†) to Table I.