## THE CHINA AND EARTHENWARE TRADES.

## Contents.



The tables on pages 218 to 223 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 china, earthenware and similar goods. The number of such separate returns was 551. About 40 firms to which schedules were sent did not furnish returns, but these firms for the most part had very small establishments and they included some that had ceased operations before the end of the censal year. 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 was probably not in excess of $£ 50,000$.

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 :-

| Particulars. | Unit. | 1924. | 1912. | 1907. |
| :---: | :---: | :---: | :---: | :---: |
| Value of goods made and work done (Gross output) | $£^{\prime} 000$ | 17,620 | 8,269 | 7,585 |
| Cost of materials used .. .. | む | 6,645 | 8,269 | 2,871 |
| Paid for work given out to other firms | " | , 35 | - 6 | 2,87 |
| Net output . . |  | 10,940 | 5,001 | 4,630 |
| Average number of persons employed | No. | 70,008 | 72,475 | 68,168 |
| Net output per person employed | $\star$ | 156 | -69 | 68 |
| Mechanical power available :- |  |  |  |  |
| Prime movers | H.P. | 33,623 | 25,060 | 26,024 |
| electricity | , | 11,303 | 2,924 | $\begin{aligned} & \text { (not } \\ & \text { recorded) } \\ & \hline \end{aligned}$ |

[^0]Qualifications affecting comparisons.-In considering the above table and the other tables in this report which show figures for 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.
(2) The Censuses of 1907 and 1912 covered Great Britain and the whole of Ireland, but that of 1924 applied only to Great Britain and Northern Ireland. The exclusion of Southern Ireland in 1924 does not, however, seriously affect the comparability of the figures.
(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 required to state only 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 672 , or less than 1 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 that made returns, and, for the reasons explained in paragraphs (i) and (ii) on pages xii and xiii, they overstate the value of the output of, and the cost of the materials used by, the China and Earthenware Trades considered as a whole. The matter is discussed on page 214, where it is estimated that the value, free from duplication, of the output of the China and Earthenware Trades in 1924 lay between $£ 16,600,000$ and $£ 17,100,000$, and the cost of the materials purchased from sources outside the trade and worked up into its products, lay between $£ 5,650,000$ and $£ 6,150,000$.
Sub-divisions of the industry.-The most important groups of products of the industry are general earthenware of all kinds, products of ware, and china and porcelain. There is a considerable degree of specialisation among firms engaged in making these groups of products, as the following particulars show :-

| Output of specified groups of products returned by- | General <br> earthenware, <br> etc. | Sanitary <br> ware. | China and <br> porcelain. |
| :--- | :--- | :---: | :---: | :---: | :---: |

The following table gives summary particulars regarding the firms mainly engaged in these three sub-divisions of the industry :-

| Particulars. | Unit. | Firms mainly engaged in themanufacture of |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { General } \\ & \text { earthenware, } \\ & \text { etc. } \end{aligned}$ | Sanitary ware. | China and porcelain. |
| Gross output ... ... .. | $\ell^{\prime} 000$ | 9,696 | 2,477 | 1,794 |
| Cost of materials used and value of work given out |  | 3,695 | 829 | 636 |
| Net output .. .. .. .. |  | 6,001 | 1,648 | 1,158 |
| Average number of persons employed | No. | 42,713 | 6,411 | 8,579 |
| Net output per person employed .. | t | 140 | 257 | 127 |

There remain a certain number of firms that did not naturally fall within any one of the three groups mentioned.

## Production.

Detailed information relating to the output of the China and Earthenware Trades in 1924 will be found in Table II on pages 219 and 220.
Principal products.-The following statement shows, for the three censal years, the value of the principal classes of output of the China and Earthenware Trades, the figures for each year being inclusive of similar products returned on schedules for other trades.

| Kind of goods. | 1924. | 1912. | 1907. |
| :---: | :---: | :---: | :---: |
|  | Selling | Selling value | Selling value. |
| Tiles:- <br> Floor tiles for tesselated pavements and mosaics <br> Glazed wall and hearth tiles . . <br> All other tiles (including quarries, roofing and paving tiles) . . | £'000 | £'000 | $£^{\prime} 000$ |
|  | 209 | 131 | 151 |
|  | 1,449 |  |  |
|  | 80 |  | 442 |
| Total-Tiles | 1,738 | 620 | 593 |
| Porcelain, chinaware and Parian | 2,021 | 1,221 | 1,025 |
| Sanitary ware <br> General earthenware, semi-porcelain and majolica (including jet, Rockingham and Samian ware, red pottery, terra-cotta ware, stoneware, brown and yellow ware, etc.) | 2,495 | 1,464 |  |
|  | 9,031 | 4,492 | 4,277 |
| Other pottery (electrical ware, chemical ware, door fittings, etc.) | 775* | - | 149 |
| Crucibles (plumbago) | 434 | 585 | 412 |
| Clay tobacco pipes .. .. .. .. | 42 | 4 | 1 |
| China and earthenware, purchased and decorated | 163 | 47 | 62 |
| Potters' materials (glazes, marl, etc.) Stilts, spurs, thimbles, saggars, etc. | 768 118 |  | 222 |
| Total value-Principal products .. | 17,585 | 8,761 | 8,136 |

Quantities of output were not required to be stated in 1907 and 1912 and in 1924 the returns of quantity were not complete. It is,
therefore, not possible to say with precision how the magnitude of the output in 1924 compared with that in 1907. It appears reasonably certain, however, that there was a substantial increase in the output of tiles, electrical ware, and some minor classes of pottery. As regards general earthenware, semi-porcelain and majolica, there was an increase in value of 111 per cent., which may have represented some slight increase in quantity. Crucibles and tobacco pipes appear to show definite decreases.
The National Council of the Pottery Industry was consulted in the preparation of the schedule for the 1924 Census and recommended that a classification of pottery goods should be adopted different from that applied to the records of export and import trade. This new classification could not be made compulsory, but, of the output covered by the revised headings, about 85 per cent. was classified as suggested by the Council.
The following statement gives more detailed particulars of the principal classes of pottery goods manufactured in 1924 :-



| Returned on schedules for |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| The China and Earthenware Trades. |  |  | Other trades. |  | $\underset{\text { All }}{\substack{\text { Ald } \\ \text { trades. }}}$ |
| By quantity andvalue. |  | By value only. | Quantity. | Selling value. | Selling value. |
| Quantity. | Selling value. | Selling value. |  |  |  |
| Th. cwts. | $£^{\prime} 000$ | $£^{\prime} 000$ | Th. cwts. | £'000 | £'000 |
| 997 | 2,691 | 3,286 | . | 5 | 5,982 |
| 118 | 288 | 153 | . | 2 | 443 |
| 172 | 83 | 101 | . | 146 | 330 |
| 535 | 450 | 449 | - | - | 899 |
| - | - | ${ }^{1,260}$ | - | - | 1,260 |
| $\overline{323}$ | $\overline{583}$ | 91 171 | $\cdots$ | 26 21 | 117 775 |
|  |  | 142 | $\cdots$ |  | 775 42 |
| - | - | 434 | - | - | 434 |
| - | - | 163 | - | - | 163 |
| - | - | 768 | - | - | 768 |
| - | - | 118 | - | - | 118 |
| . | 8,016 | 9,314 | . | 255 | 17,585 |

General earthenware, semi-porcelain an majolica*
Jet, Rockingham and
Samian ware*
Red pottery and terracotta ware, glazed or not*
Stoneware, brown and yellow ware*
Glazed earthenware (jet
Rockingham, Samian and other ware except terra-cotta) $\ddagger$
General earthenware (including unglazed red pottery, brown and ellow and terra-cott ware) $\ddagger$
Electrical ware
Clay tobacco pipes
Plumbago crucibles
China and earthenware purchased and decor ated
Potters; material (glazes, marl, etc.)
Stilts, spurs, thimbles saggars, etc.
Total value-Prin

* Voluntary classification not adopted by all firms.
$\dagger$ Not including the output of similar goods returned on schedules for the Brick and Fireclay Trades, page 199
$\ddagger$ Headings used by firms that did not adopt voluntary classification
An output of 409,000 tons of pipes and tubes of fireclay or stoneware, valued at $£ 2,307,000$, was also returned on schedules for the Brick and Fireclay Trades (see page 199). A large proportion of this output probably consisted of drain pipes and similar sanitary ware, pipes for telephone cables, etc., but no details are available to show what this proportion may have been.

Other products.-In addition to the products shown above, the firms that made their returns for 1924 on schedules for the China and Earthenware Trades included in their statements of output the
following classes of goods which, being of kinds chiefly produced in other trades, are dealt with in the reports on those trades :-

$$
\begin{array}{rlllr}
\text { Bricks and fireclay goods } & & & \ldots & 86,000 \\
\text { Other goods made and work done } & . . & . . & 143,000 \\
\text { Total } . . & . . & . . & 229,000
\end{array}
$$

In both 1912 and 1907 the corresponding total was $£ 195,000$.
Work done for the trade. -Firms that made their returns on schedules for the China and Earthenware Trades stated that they received $£ 61,000$ in 1924 for work done for the trade. The corresponding figures for 1912 and 1907 were $£ 32,000$ and $£ 34,000$, respectively.
Value of output free from duplication.-The aggregate value of the goods made and work done in 1924, as returned on schedules for the China and Earthenware Trades, was $£ 17,620,000$, a sum which is free from duplication except with regard to the following products :China and earthenware, purchased and decorated, of which the finished value was $£ 163,000$; potters' materials, $£ 768,000$; stilts, spurs, etc., $£ 118,000$. The cost of the china purchased and decorated would only represent duplication in so far as the ware was purchased from firms that made their returns on schedules, for the China and Earthenware Trades ; and, similarly, the potters' materials and stilts, spurs, etc., would only be duplicated in so far as they were sold to firms that made returns on schedules for these trades. There may also be duplication in respect of the $£ 35,000$ paid for work given out to other firms. The total amount of duplication probably did not amount to $£ 1,000,000$ and may have been much less. It thus appears reasonable to estimate the value of the output in 1924, free from duplication, at a sum lying between $£ 16,600,000$ and $£ 17,100,000$.

Cost of materials and work given out.-The cost of materials used by firms that made their returns on schedules for the China and Earthenware Trades was returned as $£ 6,645,000$ in 1924 , a sum which, by the exclusion of purchases of the products of other firms in the trade, is reduced to a sum lying between $£ 5,650,000$ and $£ 6,150,000$.

The amount paid to other firms for work given out to them was returned as $£ 35,000$ in $1924, ~ £ 6,000$ in 1912, and $£ 84,000$ in 1907.

Net output.-The net output in 1924 of the firms that made their returns on schedules for the China and Earthenware Trades (whose gross output was valued at $£ 17,620,000$ ) was $£ 10,940,000$, that sum representing, without duplication, the total amount by which the value, as delivered, of the aggregate output exceeded the cost, as purchased, 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 $£ 156$, as compared with $£ 69$ in 1912, and $£ 68$ in 1907.

Exports and imports.-The record of quantities produced is incomplete except in the case of tiles and a detailed comparison of production with exports and imports cannot, therefore, be made. The following table gives the quantities and values of the exports and retained imports of the chief classes of pottery in 1924 :-

| Kind of goods. | Exports. |  | Net imports. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity. | ( $\begin{gathered}\text { Value } \\ \text { (f.ob.) }\end{gathered}$ | Quantity. | $\underset{\substack{\text { Value } \\ \text { (c.1.1.) }}}{\text { a }}$ |
| Tiles :- | Th. cwts. | £'000 | Th. cwts. | $£^{\prime} 000$ |
| Floor tiles for tesselated pavements and mosaics | $27 \cdot 8$ | 35 | $3 \cdot 8$ | 3 |
| Glazed wall and hearth tiles | $178 \cdot 6$ | 425 | $115 \cdot 8$ | 147 |
| roofing, and street paving tiles) | $165 \cdot 1$ | 81 | $839 \cdot 0$ | 204 |
| Total-Tiles | $371 \cdot 5$ | 541 | $958 \cdot 6$ | 354 |
| Sanitary ware :- <br> Pipes and tubes of fireclay or stoneware | $393 \cdot 7$ | 174 | $1 \cdot 5$ | 1 |
| Enamelled sanitary ware of fireclay Other sanitary ware | $\begin{aligned} & 167 \cdot 0 \\ & 211 \cdot 3 \end{aligned}$ | $\begin{aligned} & 458 \\ & 658 \end{aligned}$ | \} $0 \cdot 4$ | 1 |
| Total-Sanitary ware | $772 \cdot 0$ | 1,290 | $1 \cdot 9$ | 2 |
| Porcelain, chinaware, and Parian :- Bone china and Parian .. | $15 \cdot 0$ | 310 | $0 \cdot 6$ | 6 |
| Other sorts | $4 \cdot 5$ | 66 | $10 \cdot 9$ | 76 |
| Total-Porcelain, chinaware and Parian | $19 \cdot 5$ | 376 | $11 \cdot 5$ | 82 |
| Electrical ware (including insulators) | $55 \cdot 5$ | 193 | $23 \cdot 9$ | 73 |
| General earthenware, semi-porcelain and majolica :- |  |  |  |  |
| Jet, Rockingham, Samian and other glazed earthenware (except terra-cotta) | $933 \cdot 2$ | 3,563 | $242 \cdot 5$ | 678 |
| red pottery, brown and yellow ware and terra-cotta ware) . . | $42 \cdot 6$ | 64 | $9 \cdot 6$ | 22 |
| Total-General earthenware, semi-porcelain and majolica | $975 \cdot 8$ | 3,627 | $252 \cdot 1$ | 700 |
| Stoneware (other than insulators).. | $51 \cdot 5$ | 73 | $3 \cdot 2$ | 6 |
| Total value .. | . | 6,100 | . | 1,217 |

The value of the similarly described products returned as made in 1924 was $£ 18,985,000$.* Thus, the f.o.b. value of the exports of the above goods was about one-third of the value (at factory) of the home production of similar goods. The proportion of the

* Including the amounts returned on schedules for the Brick and Fireclay Trades as Enamelled ware of fireclay and Pipes and tubes of fireclay or stoneware.
production exported was highest in respect of general earthenware, semi-porcelain and majolica, and lowest in respect of porcelain, chinaware and Parian. The proportion of the home market supplied from imports was roughly 10 per cent. in 1924.


## 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 China and Earthenware Trades that made returns both to the Ministry of I abour and to the Census of Production office. Accordins to the Census records this group of firms employed, in the week ended 18th October, 1924, 37,116 operatives, or 57 per cent. of the total of 66,597 operatives for the trades as a whole, and their net output totalled $£ 5,559,000$, or 51 per cent. of the aggregate net output of $f 10,940,000$ for the trades as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was $£ 3,336,000$, representing about 60 per cent. of their aggregate net output.

## Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 221 and 222. 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. | $\begin{gathered} \text { All } \\ \text { ages. } \end{gathered}$ | $\begin{aligned} & \text { Under } \\ & 18 . \end{aligned}$ | All ages. | Under 18. | All ages. |
| 1924. Operatives Administrative, etc | $\begin{array}{r} 3,946 \\ 346 \end{array}$ | $\begin{array}{r} 31,092 \\ 3,651 \end{array}$ | $\begin{array}{r} 8,610 \\ 188 \end{array}$ | $\begin{array}{r} 34,026 \\ 1,239 \end{array}$ | $\begin{array}{r} 12,556 \\ 534 \end{array}$ | $\begin{array}{r} 65,118 \\ 4,890 \end{array}$ |
| Total | 4,292 | 34,743 | 8,798 | 35,265 | 13,090 | 70,008 |
| $\quad 1912$. Wage earners Salaried .. | $\begin{array}{r} 5,885 \\ 306 \end{array}$ | $\begin{array}{r} 37,565 \\ 3,289 \end{array}$ | $\begin{array}{r} 9,097 \\ 61 \end{array}$ | $\begin{array}{r} 31,209 \\ 412 \end{array}$ | $\begin{array}{r} 14,982 \\ 367 \end{array}$ | $\begin{array}{r} 68,774 \\ 3,701 \end{array}$ |
| Total | 6,191 | 40,854 | 9,158 | 31,621 | 15,349 | 72,475 |
| 190\%. Wage earners Salaried .. | $\begin{array}{r} 5,958 \\ 318 \end{array}$ | $\begin{array}{r} 36,523 \\ 3,477 \end{array}$ | 7,729 86 | $\begin{array}{r} 27,783 \\ 385 \end{array}$ | $\begin{array}{r} 13,687 \\ 404 \end{array}$ | $\begin{array}{r} 64,306 \\ 3,862 \end{array}$ |
| Total | 6,276 | 40,000 | 7,815 | 28,168 | 14,091 | 68,168 |

The proportion of female operatives was, in 1907, about 43 per cent., in 1912 about 45 per cent., and in 1924 about 52 per cent.

The numbers of operatives recorded month by month in 1924 ranged from 4,243 below the average, in August, to 1,984 above the average, in November (see Table III B, page 222). Apart from the summer holiday period, a tendency upwards is shown from January to November, and the number recorded for December was $5 \cdot 6$ per cent. greater than for January.

## Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 223. 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 | 25,931 | 2,335 | 28,266 | 21,823 | 21,825 |
| Steam turbines .. .. | 80 | 375 | -455 | 1,010 | 777 |
| Gas engines $\quad \because \quad .$. | 3,095 | 425 | 3,520 | 1,818 |  |
| Petrol and light oil engines | 194 | 20 | 214 | \} 74 | \} 2,278 |
| Heavy oil engines Water power . | $\begin{aligned} & 195 \\ & 930 \end{aligned}$ | 43 | 238 930 | \} $\begin{array}{r}74 \\ 335\end{array}$ | 1,144 |
| Total | 30,425 | 3,198 | 33,623 | 25,060 | 26,024 |
| Electric generators :Driven by- |  | Kw. | Kw. | Kw. | Kw. |
| Reciprocating steam engines. | 2,677 | 761 | 3,438 | 1,323 | 666 |
| Steam turbines .. | - | 280 | 280 | $753$ | 560 |
| Gas engines ${ }_{\text {Petrol and light oil engines }}$. | 407 31 | 55 | 462 32 |  |  |
| Petrol and light oil engines Heavy oil engines | 31 85 | 1 20 | 32 105 | $\} 169$ | 118 |
| Water power .. .. | 20 | 2 | 12 |  |  |
| Total | 3,220 | 1,117 | 4,337 | 2,245 | 1,344 |

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

| Electric motors. | 1924. |  |  | 1912. |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Ordinarily } \\ & \text { in use. } \end{aligned}$ | In reserve or idle. | Total. | Total. |
| Driven by- | H.P. | H.P. | H.P. | H.P. |
| Electricity generated in own works | 2,597 | 339 | 2,936 | 1,902 |
| Purchased electricity .. .. | 10,333 | 970 | 11,303 | 2,924 |

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 $1,032,000$.

TABLES.
I. Summary of results.

| Particulars. | Unit. | England and Wales. | Scotland. | Great <br> Britain. | Northern Ireland. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Value of goods made and work done (Gross output) | $£^{\prime} 000$ | 16,844 | 759 | 17,603 | 17 |
| Cost of materials used .. .. | L | 6,386 | 255 | 6,641 |  |
| Paid for work given out to other firms | , |  | 2 |  |  |
| Net output .. . . . . | , | 10,425 | 502 |  |  |
| Average number of persons employed .. .. .. .. | No. | 66,867 | 2,997 | 69,864 | 144 |
| Net output per person employed. . | t | 156 | 167 | 156 | 95 |
| Mechanical power available :Prime movers | H.P. | 31,113* | 2,510 | 33,623* | * |
| Electric motors driven by purchased electricity | , , | 10,548 | 755 | 11,303 | - |

* In order to avoid the disclosure of information relating to individual firms, the *igure for Northern Ireland has been included with that for England and Wales and for Great Britain.


## II.-Production.



[^1]

## III.-Employment.

A.-Numbers employed in week ended 18th October, 1924.

| Kind of staff. | Males. |  | Females. |  | Males and females. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under $18 .$ | All ages. | $\begin{aligned} & \text { Under } \\ & 18 . \end{aligned}$ | All ages. | Under 18. | All ages. |
| England and Wales :Operatives .. .. Administrative, etc.* | $\begin{array}{r} 3,838 \\ 336 \end{array}$ | $\begin{array}{r} 29,946 \\ 3,469 \end{array}$ | $\begin{array}{r} 8,575 \\ 179 \end{array}$ | $\begin{array}{r} 33,738 \\ 1,154 \end{array}$ | $\begin{array}{r} 12,413 \\ 515 \end{array}$ | $\begin{array}{r} 63,684 \\ 4,623 \end{array}$ |
| Total | 4,174 | 33,415 | 8,754 | 34,892 | 12,928 | 68,307 |
| Scotland:Operatives Administrative, etc.* | $\begin{array}{r} 168 \\ 10 \end{array}$ | $\begin{array}{r} 1,688 \\ 176 \end{array}$ | 244 9 | $\begin{array}{r} 1,095 \\ 83 \end{array}$ | $\begin{array}{r} 412 \\ 19 \end{array}$ | $\begin{array}{r} 2,783 \\ 259 \end{array}$ |
| Total | 178 | 1,864 | 253 | 1,178 | 431 | 3,042 |
| Great Britain :Operatives Administrative, etc.* | $\begin{array}{r} 4,006 \\ 346 \end{array}$ | $\begin{array}{r} 31,634 \\ 3,645 \end{array}$ | $\begin{array}{r} 8,819 \\ 188 \end{array}$ | $\begin{array}{r} 34,833 \\ 1,237 \end{array}$ | $\begin{array}{r} 12,825 \\ 534 \end{array}$ | $\begin{array}{r} 66,467 \\ 4,882 \end{array}$ |
| Total | 4,352 | 35,279 | 9,007 | 36,070 | 13,359 | 71,349 |
| Northern Iveland :Operatives Administrative, etc.* | 20 | $\begin{array}{r} 98 \\ 6 \end{array}$ | 3 | 32 2 | 23 | 130 8 |
| Total | 20 | 104 | 3 | 34 | 23 | 138 |
| United Kingdom:Total | 4,372 | 35,383 | 9,010 | 36,104 | 13,382 | 71,487 |

* Administrative, technical and clerical staff.
B.-Operatives employed in one week in each month of 1924.

England and Wales. (Annual average: Males, 29,337; Females, 32,907; Total,

| Week ended | Males. | Females. | Total. | Week ended | Males. | Females. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 12th | 28,741 | 31,610 | 60,351 | July 19th | 29,442 | 33,112 | 62,554 |
| Feb. 16th | 29,045 | 32,494 | 61,539 | Aug. 16th | 27,958 | 29,996 | 57,954 |
| Mar. 15th | 29,072 | 32,804 | 61,876 | Sept. 13th | 29,701 | 33,435 | 63,136 |
| April 12th | 29,289 | 33,247 | 62,536 | Oct. 18th | 29,946 | 33,738 | 63,684 |
| May 17th | 29,484 | 33,307 | 62,791 | Nov. 15th | 30,025 | 34,104 | 64,129 |
| June 21st | 29,482 | 33,289 | 62,771 | Dec. 13th | 29,860 | 33,752 | 63,612 |

Scotland. (Annual average : Males, 1,652; Females, 1,086; Total, 2,738.)

| Jan. 12th |  | 1,553 | 1,011 | 2,564 | July 19th | 1,496 | 893 | 2,389 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Feb. 16th |  | 1,682 | 1,110 | 2,792 | Aug. 16th | 1,666 | 1,118 | 2,784 |
| Mar. 15th |  | 1,680 | 1,103 | 2,783 | Sept. 13th | 1,687 | 1,101 | 2,788 |
| April 12th |  | 1,630 | 1,093 | 2,723 | Oct. 18th | 1,688 | 1,095 | 2,783 |
| May 17th |  | 1,646 | 1,122 | 2,768 | Nov. 15th | 1,718 | 1,123 | 2,841 |
| June 21st |  | 1,646 | 1,137 | 2,783 | Dec. 13th | 1,725 | 1,122 | 2,847 |

Great Britain. (Annual average : Males, 30,989 ; Females, 33,993; Total, 61,982.)

 | Jan. 12th |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Feb. 16th | .. | 30,294 | 30,727 | 33,621 | 62,915 | July 19th | 30,938 | 34,005 | 64,943 |

 \begin{tabular}{ll|l|l|l|l|l|l|l|}
April 12th \&. \& 30,919 \& 34,340 \& 65,259 \& Oct. 18th \&. \& 31,634 \& 34,833 <br>
May 17th \&.. \& 31,130 \& 34,429 \& 65,559 \& Nov. 15th \&.. \& 31,743 \& 35,227 <br>
M6,

 

May 17th \&.. \& 31,130 \& 34,429 \& 65,559 \& Nov. 15th .. \& 31,743 \& 35,227 \& 66,970 <br>
June 21st \&.. \& 31,128 \& $34,4,26$ \& 65,554 \& Dec. 13th \&.. \& 31,585 \& 34,874 \& 66,459 <br>
\hline
\end{tabular}

Northern Iveland. (Annual average : Males, 103 ; Females, 33 ; Total, 136.)

| Jan. 12th | .. | 108 | 34 | 142 | July 19th | . | 102 | 32 | 134 |
| :--- | :--- | ---: | ---: | ---: | ---: | :--- | ---: | ---: | ---: |
| Feb. 16th | . | 109 | 35 | 144 | Aug. 16th | . | 102 | 34 | 136 |
| Mar. 15th | .. | 111 | 36 | 147 | Sept. 13th | . | 103 | 34 | 137 |
| April 12th | . | 113 | 36 | 149 | Oct. 18th | . | 98 | 32 | 130 |
| May 17th | . | 97 | 30 | 127 | Nov. 15th | . | 99 | 32 | 131 |
| June 21st | .. | 98 | 30 | 128 | Dec. 13th | .. | 98 | 32 | 130 |

## .-Mechanical Power

Particulars of prime movers, Electric generators and ELECTRIC MOTORS.

| Power equipment. | England and Wales and Northern Ireland.* |  | Scotland. |  | United Kingdom. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ordinarily in use. | In reserve or idle. | $\begin{aligned} & \text { Ordinarily } \\ & \text { in use. } \end{aligned}$ | 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 | 23,862 | 2,120 | 2,069 | 215 | 25,931 | 2,335 |
| Steam turbines ... | 23,862 80 | 2,120 |  | 215 | 25,931 80 | 2,335 375 |
| Gas engines $\quad \because \quad \because$ | 3,017 | 382 | 78 | 43 | 3,095 | 425 |
| $\begin{array}{ll}\text { Petrol and light oil } \\ \text { engines } & .\end{array}$ | 169 | 20 | 25 | - | 194 | 20 |
| Heavy oil engines .. | 195 | 43 | - | - | 195 | 43 |
| Water power.. | 850* | - | 80 | - | 930* | - |
| Total | 28,173* | 2,940 | 2,252 | 258 | 30,425* | 3,198 |
| TOTAL OF PRIME MOVERS installed | 31,113* |  | 2,510 |  | 33,623* |  |
| Electric generators :Driven by- <br> Reciprocating steam engines <br> Steam turbines <br> Gas engines <br> Petrol and light oil engines <br> Heavy oil engines <br> Water power | Kw. | Kw. | Kw. | Kw. | Kw. | Kw. |
|  | 2,560 | 751 | 117 | 10 | 2,677 | 761 |
|  | -407 | 28055 | - | - | - | - 58 |
|  |  |  |  |  | 407 |  |
|  | $\begin{aligned} & 12 \\ & 85 \\ & 20 \end{aligned}$ | $2{ }^{1}$ | 19 | - | 3185 |  |
|  |  |  |  |  |  |  |
|  |  |  |  | - | 20 |  |
| Total | 3,084 | 1,107 | 136 | 10 | 3,220 | 1,117 |
| Total of electric GENERATORS INSTALLED | 4,191 |  | 146 |  | 4,337 |  |
| Electric motors :Driven by- | H.P. | H.P. | H.P. | H.P. | H.P. | H.P. |
|  |  |  |  |  |  |  |
| Electricity generated in own works | $\begin{aligned} & 2,464 \\ & 9,645 \end{aligned}$ | $\begin{aligned} & 290 \\ & 903 \end{aligned}$ | $\begin{aligned} & 133 \\ & 688 \end{aligned}$ | 49 <br> 67 | $\begin{array}{r} 2,597 \\ 10,333 \end{array}$ | $\begin{aligned} & 339 \\ & 970 \end{aligned}$ |
| Purchased electricity |  |  |  |  |  |  |

* See footnote to Table I.


[^0]:    * See also the Notes on pages vii to xv.

[^1]:    * $\dagger \ddagger$ See Notes on page 220.

