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## THE COTTON TRADE.

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.

At the Census for 1930 production in the Cotton Trade was regarded as falling into two distinct divisions, viz. (A) the spinning of yarn, including doubling and the manufacture of sewing cotton, and (B) the weaving trade, which dealt with the subsequent processes up to and including the manufacture of the cloth. Separate forms of inquiry were used for each division and firms engaged both in spinning and in manufacturing were required to complete a return for each department, treating yarn used in their own works as a sale from the spinning department and as a purchase by the weaving department. In respect of the office and management staff, of power equipment and of consumption of electricity, such firms frequently found it impossible to make a reliable estimate of the proportions applicable to each department, and in these cases particulars covering the business as a whole were accepted for these details, on the schedule which covered the most important section of the business. A similar course was followed in 1924, and figures given under the heads in question are therefore, in the main, comparable for the two years in both the spinning and the weaving trades. Bleaching, dyeing and other finishing processes on cotton goods were surveyed separately (see pages 183-208), and manufacturers of cotton goods who maintained finishing departments were required to furnish separate returns for these departments also. A similar method of procedure was followed at the 1924 Census.
Separate reports are accordingly made for the spinning and the weaving sections of the Cotton Trade, but in addition the trade is considered as a self-contained unit for the purpose of some general comparisons between the results for the two years, including an estimate of the value of the output free from duplication.

## COTTON SPINNING.

The following table shows the principal results of the Censuses of 1930 and 1924 in respect of firms in Great Britain that employed more than ten persons on the average :-

| Particulars. | Unit. | 1930. | 1924. |
| :---: | :---: | :---: | :---: |
| Value of goods made and work done (Gross output) | $£^{\prime} 000$. | 78,624 | 195,271 |
| Cost of materials used ... ... ... | , | 58,584 | 147,902 |
| Paid for work given out to other firms | ", | 212 | 456 |
| Net output ... ... . |  | 19,828 | 46,913 |
| Average number of persons employed | No. | 190,736 | 252,655 |
| Net output per person employed ... | £ | 104 | 186 |
| Mechanical power available :- |  |  |  |
| Prime movers ... . | H.P. | 948,432 | 1,090,341 |
| Electric motors driven by purchased electricity... |  |  | 142,920 |
| Number of returns ... ... ... ... | No. | 911 | 1,114 |
| Number of establishments | " | 1,000 | * |

* Not available.

In cases where factories were closed in the course of the year, firms were required to furnish returns in respect of that part of the year in which production was carried on. The depression in the cotton spinning trade in the year 1930 is illustrated by the fact that out of 911 returns received for that year no less than 241 related to factories which were open for production for only a portion of the year. These returns recorded a net output of $£ 2,364,000$, or about 12 per cent. of the aggregate returned by the entire trade.

Deficiencies in 1930 aggregates.-The exclusion from the 1930 Census of firms employing not more than ten persons had little effect on the comprehensiveness of the results for the spinning trade. Only 142 persons were employed at the 1924 Census by firms of this class and by the few firms in Northern Ireland, and their gross output amounted to $£ 77,000$. For 1930 a somewhat larger number of firms below the prescribed limit appeared to be in existence, the total number of their employees being returned at 601. This larger number comprised many firms that in 1924 employed considerably more than ten persons but closed down in 1930 after a limited period of production.

In addition, 18 firms to which schedules were sent at the 1930 Census, and 13 at that of 1924, furnished no information; these firms either had small businesses or had ceased productive operations before the end of the censal year.

Size of firms.-In the following table the main particulars recorded at the Census of 1930 are grouped according to the average numbers of persons shown in the returns:-

| Size of firm (average numbers employed). | No. of returns. | Gross output. | Net output. | Average number of persons employed. | Net output per person employed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | £'000. | £'000. |  | $\stackrel{\text { £ }}{ }$ |
| 11-24 | 68 | 527 | 133 | 1,178 | 113 |
| 25-49 | 106 | 1,929 | 496 | 3,871 | 128 |
| 50-99 | 179 | 5,442 | 1,275 | 13,228 | 96 |
| 100-199 | 196 | 11,454 | 2,769 | 28,139 | 98 |
| 200-299 | 185 | 18,972 | 4,343 | 44,722 | 97 |
| 300-399 | 67 | 9,280 | 2,071 | 22,866 | 91 |
| 400-499 | 47 | 7,842 | 2,012 | 20,325 | 99 |
| 500-749 | 42 | 9,759 | 2,698 | 25,542 | 106 |
| 750-999 ... | 13 | 4,573 | 1,245 | 10,628 | 117 |
| 1,000 and over... | 8 | 8,846 | 2,786 | 20,237 | 138 |
| Total ... | 911 | 78,624 | 19,828 | 190,736 | 104 |

The higher ranges contain a number of returns covering more than one factory under the same ownership. It will be seen that about one-half of the total number of persons employed, and the same proportion of the aggregate net output, was recorded by the returns covering 300 or more persons.

Regional distribution. - In the following table the results recorded at the Census of 1930 are grouped according to the principal areas* of Great Britain in which firms in this trade are situated. Corresponding figures for the year 1924 are added for purposes of comparison.

| Area. | No. of returns. | Gross output. | Net output. | Average number of persons employed. | Net output per person employed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\int 1930$ | 788 | $\begin{gathered} £^{\prime} 000 . \\ 67,849 \end{gathered}$ | $\begin{gathered} £^{\prime} 000 . \\ 16,403 \end{gathered}$ | 165,362 | $\begin{aligned} & £ \\ & 99 \end{aligned}$ |
| $2 \cdots\{1924$ | 951 | 173,410 | 39,337 | 220,549 | 178 |
| 3 (1930 | 79 | 4,281 | 1,157 | 9,880 | 117 |
| $3 \quad \cdots\left\{\begin{array}{l}1924\end{array}\right.$ | 107 | 10,672 | 2,335 | 13,905 | 168 |
| 9 and 10 \{ 1930 | 16 | 4,253 | 1,668 | 10,152 | 164 |
| 9 and 10... 1924 | 17 | 7,043 | 3,723 | 10,929 | 341 |
|  | $28$ | $2,241$ |  |  |  |
| $\text { areas }\{1924$ |  | $4,146$ | $1,518$ | $7,272$ |  |
| Total $\left\{\begin{array}{l}1930 \\ 1924\end{array}\right.$ | $\begin{array}{r} 911 \\ 1,114 \end{array}$ | $\begin{array}{r} 78,624 \\ 195,271 \end{array}$ | $\begin{aligned} & 19,828 \\ & 46,913 \end{aligned}$ | $\begin{aligned} & 190,736 \\ & 252,655 \end{aligned}$ | $\begin{aligned} & 104 \\ & 186 \end{aligned}$ |

[^0]Sub-divisions of the Spinning Trade.-In the following table the results of the 1930 Census are grouped according to the chief kind of production carried on by firms in the trade :-

| Group. | No. of returns. | Gross output. | Net output. | Average number of persons employed. | Net output per person employed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $£^{\prime} 000$. | $£^{\prime} 000$. |  | £ |
| Spinners mainly of :- |  |  |  |  |  |
| Waste yarns Counts up to 40 's... | 97 402 | 3,472 44,433 | 1,043 10,363 | 102,698 | 146 |
| Counts over 40 's and |  |  |  |  |  |
| up to 80's ... | 183 | 17,253 | 4,636 | 46,842 | 100 |
| Counts over 80's ... | 42 | 3,858 | 1,205 | 10,860 | 111 |
| Doublers (including commission doub- |  |  |  |  |  |
| ling) ... . | 152 | 8,710 | 2,353 | 21,086 | 112 |
| Other firms | 35 | 898 | 228 | 2,089 | 109 |
| Total | 911 | 78,624 | 19,828 | 190,736 | 104 |

The figures in this table should not be taken to represent the total value of the output and the numbers employed in the specified processes considered as separate units. Allocation to the group was determined by the class of business in which each firm was principally concerned. A number of firms mainly engaged in spinning yarns up to 40 's manufactured in addition the finer counts and vice versa, while a large number of spinners also carried out doubling. Details of the principal classes of output recorded as made for sale or on commission by each of these groups are given on page 36 .

## Production.

Total make of single yarn.-The following table shows the quantity of cotton yarn at the single stage spun in 1930 and 1924.

| Single cotton yarn. | 1930. |  | 1924. |
| :---: | :---: | :---: | :---: |
|  | Quantity. | Entries. | Quantity. |
| Counts spun :- | Th. lbs. | No. | Th. lbs. |
| Up to 40's ... | 821,600* | 634 | 1,021,879 |
| Over 40's and up to 80's | 185,164 | 354 | 1, 313,707 |
| Over 80's and up to 120's | 36,835 | 148 | 55,874 |
| Over 120's ... ... | 3,504 | 61 | 3,623 |
| Total-Single yarn spun | 1,047,103 | ... | 1,395,083 |

[^1]Total production in 1930 was lower than in 1924 by nearly 25 per cent., counts up to 40 's showing a fall of about 20 per cent. and counts over 40 's one of nearly 40 per cent. In this connection it may be noted that, according to the statistics published by the Liverpool Cotton Association, deliveries of raw cotton to mills declined from about 1,420 million lbs. in 1924 to 1,095 million lbs. in 1930, or by about 23 per cent. The output of the finer counts, over 40 's, declined from about 27 per cent. of the total make of all single yarn in 1924 to about 22 per cent. in 1930. The proportionately greater importance of the coarser yarns in 1930 will have contributed to the decline in the value of net output per head from £186 in 1924 to £104 in 1930, but the main cause of this decline was the fall in prices. Of the counts up to 40 's the output returned by waste spinners was 91.7 million lbs., but as waste is understood to be used to some extent by certain spinners of raw cotton, the total quantity of yarn spun from waste may be in excess of this figure.

The average weight of single yarn spun in 1930 per head of the persons employed in this trade was $5,484 \mathrm{lbs}$., or 32 lbs . less than the corresponding average for 1924. This decrease does not appear to have been due to an increased proportion in 1930 of other goods made. To what extent the decrease may have been due to the greater amount of short time worked in the later year cannot be stated.
The total quantities of single yarn produced in 1930 by the principal groups of spinners were as follows :-

| Group. | Counts up to 40 's. | Counts over 40 's and up to 80 's. | Counts over 80 's. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| Spinners mainly of :- | Th. lbs. | Th. lbs. | Th. lbs. | Th. lbs. |
| Waste yarns ... | 91,916 |  |  | 91,916 |
| Other yarns up to 40's | 693,687 | 49,533 | 2,459 | 745,679 |
| Yarns over 40's and up to 80's | 34,424 | 128,753 | 18,605 | 181,782 |
| Yarns over 80's | 525 | 6,878 | 19,275 | 26,678 |
| Total | 820,552 | 185,164 | 40,339 | 1,046,055 |

Goods made for sale and on commission.-The following table shows the value and, where available, the quantity of cotton yarn, waste and other products made in 1930 and 1924 for sale and on commission.


* Quantity not stated.

Spinners were required to value their output in the form in which the goods were delivered, and the yarn, therefore, was valued at the single stage only in cases where it was sold at that stage. If yarns were both spun and doubled by the same firm the value returned was that of the doubled yarn (which in some cases may have included purchased yarn) or sewing cotton. As already indicated, firms that carried on both spinning and weaving were required to state the value of all yarns spun, including yarns transferred for use in their own weaving departments, and the values given in such cases did not necessarily represent the market values of single yarns. For these reasons, it is not possible to state the value of the total yarn produced, taken as single yarn.

The following table shows, for each group of firms distinguished in the table on page 33, the quantity and value of the goods made in 1930 for sale or on commission :-

| Group. | Cotton yarn (single or doubled) including sewing cotton. |  | Cotton waste. |  | Other products | Amount received for work done on commission. | Total value of output. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity. | Value | Quantity. | Value. | Value. | Value. | Value. |
|  | Th. lbs. | $£^{\prime} 000$. | Th. lbs. | £'000. | £'000. | £'000. | $£^{\prime} 000$. |
| Spinners mainly of :Waste yarns | 92,625 | 3,423 | 9,178 | 49 | - | - | 3,472 |
| Other yarns up to 40 's | 774,463 | 43,428 | 104,438 | 914 | 84 | 7 | 44,433 |
| Yarns over 40's and up to 80 's | 195,665 | 16,462 | 48,548 | 777 | 9 | 5 | 17,253 |
| Yarns over 80's ... | 28,939 | 3,648 | 9,737 | 177 | 27 | 6 | 3,858 |
| Doublers ... .. | 64,828 | 8,372 | 2,020 | 25 | 82* | 231 | 8,710 |
| Other firms | 2,291 | 241 | 79 |  | 589 | 67 | 898 |
| Total value ... | 1,158,811 | 75,574 | 174,000 | 1,943 | 791 | 316 | 78,624 |

* Including some work done on silk and artificial silk goods (see Table IIB, page 00).

It will be seen that in the case of each of the four groups of spinners the weight of the output of yarns as delivered exceeded the total weight of the single yarn spun in the year (see page 34). The excess amounted to under 1 per cent. for waste spinners, to about 4 per cent. for the large group spinning mainly the coarser counts from raw cotton, to nearly 8 per cent. for the group spinning counts over 40 's and up to 80 's, and to over 8 per cent. for the group mainly concerned with the finest ranges of counts. The progressive percentage difference between the two sets of figures suggests that it was due primarily to doubling, which is more common with the higher than with the lower counts, by spinners who purchased yarn for doubling with yarn of their own production. The aggregate difference between the output of yarns as delivered by the four groups of spinners and the total weight of single yarn spun by them in the year amounted to nearly 45 million lbs. In 1924 the quantity of purchased yarn used for doubling by firms of this class was estimated at about 50 million lbs. The quantity of doubled yarn made by spinners and on commission was not ascertained. That made by doublers who purchased their whole supplies of yarn amounted to $82,909,000 \mathrm{lbs}$. in 1924 and $64,470,000 \mathrm{lbs}$. in 1930.

The table shows that the quantity of waste produced was greater for the finer than for the coarse counts, the figures for the four specified spinning groups being :-


Prices.-The average selling values of cotton yarns and cotton waste 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 lb. | Pence per lb. | Per cent. |
| Cotton yarns (single or doubled) including sewing cotton | $15 \cdot 7$ | $29 \cdot 5$ | $53 \cdot 2$ |
| Cotton waste, unmanufactured ... | $2 \cdot 7$ | $5 \cdot 6$ | $48 \cdot 2$ |
| Cotton yarns reeled, wound, warped, etc. | 21.5 | $25 \cdot 0$ | $86 \cdot 0$ |

In connection with the marked decline between 1924 and 1930 in the average values of cotton yarn and cotton waste, it should be noted that the price of raw cotton, both American and Egyptian, was between 50 and 55 per cent. less in 1930 than in 1924 . Further, in the course of the year 1930 prices of yarns and of raw cotton fell very substantially. The quotation for American middling at Liverpool, for example, fell from 9.46d. to 5.34d. per lb ., and for American 32 's twist from $13 \frac{1}{2}$ d. to $8 \frac{3}{4} \mathrm{~d}$. per lb. It would appear from the returns that, on a constantly falling market, many firms failed to realise on yarns sold a price sufficient to cover the expenses of their production. The average proportion of net output represented by wages was about 71 per cent. in 1930 and 55 per cent. in 1924, for the Cotton Trade as a whole. It seems open to question whether the margin of 29 per cent. in 1930 (possibly less for the Spinning section of the industry) was adequate to meet other overhead expenses on the average.

Volume of production in 1930 and 1924.-The following table compares the volume of production of the principal items of output recorded by the Cotton Spinning Trade in 1930 and 1924 :-

| Kind of goods. | Total production. |  |  | $\begin{gathered} 1930 \\ \text { as a } \\ \text { percentage } \\ \text { of } \\ 1924 . \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1930. | 1924. |  |  |
|  | As returned. | As returned. | At 1930 average values. |  |
|  | £'000. | $£^{\prime} 000$. | £'000. | Per cent. |
| Cotton yarns (single or doubled) including sewing cotton | 76,264 | 187,947 | 97,648 | 78 |
| Cotton waste, unmanufactured $\cdot .$. | 2,342 | 5,585 | 2,609 | 88 |
| Cotton yarns, reeled, wound, warped, etc. | 1,216 | 1,122 | 965 | 126 |
| Total ... | 79,822 | 194,654 | 101,222 | 79 |

Production, exports and imports.-The following table shows, in relation to production, the quantities of the principal classes of cotton yarn exported from the United Kingdom in 1930 and 1924*, together with the quantities imported and retained.

| Counts of yarns. | Production. | Exports | Proportion of production exported. | Retained imports. | Available for use in the United Kingdom. | Share of home market held by British products. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Up to 40's $\left\{\begin{array}{l}1930 \\ 1924\end{array}\right.$ | $\begin{array}{r} \text { Th. lbs. } \\ 821,600 \\ 1,021,985 \end{array}$ | $\begin{aligned} & \text { Th. lbs. } \\ & 65,901 \\ & 76,181 \end{aligned}$ | $\begin{gathered} \text { Per cent. } \\ 8.02 \\ 7.45 \end{gathered}$ | Th. lbs. <br> 9,922 6,842 <br> 6,842 | Th. lbs. 765,621 952,646 | $\begin{gathered} \text { Per cent. } \\ 98 \cdot 7 \\ 99 \cdot 3 \end{gathered}$ |
| $\left.\begin{array}{c} \text { Over } 40 \text { 's } \\ \text { and up to } \\ 80 \text { 's } \ldots \end{array}\right\} \begin{aligned} & 1930 \\ & 1924 \end{aligned}$ | $\begin{aligned} & 185,164 \\ & 313,710 \end{aligned}$ | $\begin{gathered} 50,679 \\ 61,559 \end{gathered}$ | $\begin{aligned} & 27 \cdot 36 \\ & 19 \cdot 62 \end{aligned}$ | $\begin{array}{r} 1,697 \\ 779 \end{array}$ | $\begin{aligned} & 136,182 \\ & 252,930 \end{aligned}$ | $\begin{aligned} & 98 \cdot 7 \\ & 99 \cdot 7 \end{aligned}$ |
| $\begin{gathered} \text { Over 80's } \\ \text { and up to } \\ 120 \text { 's } \ldots \end{gathered} 1930$ | $\begin{aligned} & 36,835 \\ & 55,874 \end{aligned}$ | $\begin{aligned} & 17,819 \\ & 23,377 \end{aligned}$ | $\begin{aligned} & 48 \cdot 37 \\ & 41 \cdot 83 \end{aligned}$ | $\begin{array}{r} 57 \\ 6 \end{array}$ | $\begin{aligned} & 19,073 \\ & 32,503 \end{aligned}$ | $\begin{array}{r} 99 \cdot 7 \\ 100 \cdot 0 \end{array}$ |
| Over 120's $\left\{\begin{array}{l}1930 \\ 1924\end{array}\right.$ | $\begin{aligned} & 3,504 \\ & 3,623 \end{aligned}$ | $\begin{aligned} & 2,589 \\ & 1,939 \end{aligned}$ | $\begin{aligned} & 73 \cdot 88 \\ & 53 \cdot 51 \end{aligned}$ | $\begin{array}{r} 9 \\ 21 \end{array}$ | $\begin{array}{r} 924 \\ 1,705 \end{array}$ | $\begin{aligned} & 99 \cdot 0 \\ & 98 \cdot 8 \end{aligned}$ |
| Total $\left\{\begin{array}{l}1930 \\ 1924\end{array}\right.$ | $\begin{aligned} & 1,047,103 \\ & 1,395,192 \end{aligned}$ | $\begin{aligned} & 136,988 \\ & 163,056 \end{aligned}$ | $\begin{aligned} & 13.08 \\ & 11.69 \end{aligned}$ | $\begin{array}{r} 11,685 \\ 7,648 \end{array}$ | $\begin{array}{r} 921,800 \\ 1,239,784 \end{array}$ | $\begin{aligned} & 98 \cdot 7 \\ & 99 \cdot 4 \end{aligned}$ |

Other products.-In addition to the output shown in the table of principal products on page 35, the following goods were produced in 1930 and 1924 by firms that made their returns on

[^2] Northern Ireland.
schedules for the Cotton Spinning Trade. These goods are dealt with in the reports on those trades in which the principal output was recorded.

| Kind of goods. |  |  | 1930. | 1924. |
| :--- | :--- | :--- | :---: | :---: |

* Including a small amount in respect of work done (see Table IIB, page 59).


## Fmployment and Wages.

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

| Persons employed. | Males. |  | Females. |  | Total. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Under } \\ & 18 . \end{aligned}$ | $\begin{gathered} \text { All } \\ \text { ages. } \end{gathered}$ | $\begin{aligned} & \text { Under } \\ & 18 . \end{aligned}$ | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ | $\begin{array}{\|c} \text { Under } \\ 18 . \end{array}$ | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ |
| 1930. <br> Operatives (average for the year) <br> Administrative, technical and clerical staff (as at 18th October) | 11,675 343 | $\begin{gathered} 72,042 \\ 5,467 \end{gathered}$ | 22,417 144 | 112,228 <br> 999 | $\begin{array}{r} 34,092 \\ 487 \end{array}$ | $\begin{array}{\|r} 184,270 \\ 6,466 \end{array}$ |
| Total ... ... | 12,018 | 77,509 | 22,561 | 113,227 | 34,579 | 190,736 |
| 1924. <br> Operatives (average for the year) <br> Administrative, technical and clerical staff (as at 18th Octaber) | $\begin{array}{r} 18,414 \\ 514 \end{array}$ | $\begin{gathered} 99,136 \\ 6,456 \end{gathered}$ | 31,347 121 | 146,125 938 | 49,761 <br> 635 | $\begin{array}{\|r} 245,261 \\ 7,394 \end{array}$ |
| Total ... | 18,928 | 105,592 | 31,468 | 147,063 | 50,396 | 252,655 |

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. |
|  | н.Р. | H.P. | H.P. | H.P. | Н.Р. | H.P. |
| Prime movers <br> Reciprocating steam engines | 813,977 78,502 | 35,524 8,834 | 849,501 87,336 | 965,283 56,282 | 56,924 4,234 | $1,022,207$ 60,516 |
| Steam turbines <br> Internal combustion engines :- | 78,502 | 8,834 | 87,336 | 56,282 |  |  |
| Gas $\quad \ldots$... | 1,024 | 923 | 1,947 | 2,026 | 704 | 2,730 |
| $\begin{gathered} \text { Petrol, } \\ \begin{array}{c} \text { kerosene } \\ \text { or } \\ \text { or } \\ \text { oils } \end{array} \\ \ldots \end{gathered} \text { light }$ | 33 | 13 | 46 |  | 7 | 7 |
| Heavy oils ... | 1,220 | 125 | 1,345 | 180 |  | 180 4701 |
| Water engines Other prime movers | 5,416 2,172 | 622 47 | 6,038 2,219 |  | 600 | 4,701 |
| Total ... | 902,344 | 46,088 | 948,432 | 1,027,872 | 62,469 | 1,090,341 |
|  | Kw. | Kw. | Kw. | Kw. | Kw. | Kw. |
| Electric generators. Driven by |  |  |  |  |  |  |
| Reciprocating steam engines ... | 44,197 | 3,278 12309 | 47,475 | 37,366 33,099 | 4,488 | 41,854 <br> 33,900 |
| Steam turbines ... <br> Internal combusengines :- | 51,048 | 12,309 | 63,357 | 33,099 | 801 | 33,900 |
| Gas ... ... | 212 | 242 | 454 | 390 | 162 | 552 |
| Heary oils ... | 350 | 75 | $\begin{array}{r}425 \\ \hline\end{array}$ | $\begin{array}{r}75 \\ \hline 292\end{array}$ | - | 75 2,392 |
| Water engines ... | $1,690$ | 204 | $\begin{aligned} & 1,894 \\ & 45 \end{aligned}$ | 2,392 | - | 2,392 |
| Total ... | 97,542 | 16,108 | 113,650 | 73,322 | 5,451 | 78,773 |
|  | н.Р. | H.P. | H.P. | н.Р. | Н.Р. | H.P. |
| Driven by |  |  |  |  |  |  |
| Electricity generated in same works | 90,668 | 6,227 | 96,895 | 75,550 | 2,411 | 77,961 |
| Electricity generated in other works under same ownership | 1,581 | 79 | 1,660 |  |  |  |
| Purchased electricity | 177,769 | 20,343 | 198,112 | 134,386 | 8,534 | 142,920 |
| Total | 270,018 | 26,649 | 296,667 | 209,936 | 10,945 | 220,881 |

## Consumption of fuel.

The following table shows the quantities of coal, coke and electricity recorded as used in 1930 :-

| Kind of fuel used. |  |  |  |  | For power (driving engines). | For other purposes (so far as recorded). | For power and other purposes, not separately distinguished. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coal Coke |  |  |  |  | Tons. $\begin{array}{r} 1,425,899 \\ 63 \end{array}$ | Tons. $271,647 *$ $1,484^{*}$ | $\begin{array}{r} \text { Tons. } \\ 17,975 \\ 6 \end{array}$ |
| Electricity used for all purposes :Generated in same works Generated in other works under same ownership Purchased |  |  |  |  |  |  | B.T.U. <br> (Kw.-hrs.) '000. |
|  |  |  |  |  |  |  | $\begin{array}{r} 124,534 \\ 944 \\ 283.993 \end{array}$ |
| Total-Electricity |  |  |  |  |  |  | 409,471 |

* These figures were recorded by firms representing $83 \cdot 6$ per cent. of the net output of the whole trade.


## COTTON WEAVING

The following table shows the aggregate figures for 1930 and 1924 returned by firms in Great Britain that employed an average of more than ten persons and made their returns on schedules for the Cotton Weaving Trade :-

| Particulars. | Unit. | 1930. | 1924. |
| :---: | :---: | :---: | :---: |
| Value of goods made and work done (Gross output) | £’000. | 79,631 | 172,026 |
| Cost of materials used | ," | 55,774 | 134,988 |
| Paid for work given out to other firms | " | 346 | 363 |
| Net output ... ... ... ... |  | 23,511 | 36,675 |
| Average number of persons employed | No. | 198,653 | 275,122 |
| Net output per person employed | £ | 118 | 133 |
| Mechanical power available :- |  |  |  |
| Prime movers ... ... | H.P. | 297,391 | 328,355 |
| Electric motors driven by purchased electricity... |  | 56,543 | 37,796 |
| Number of returns ... ... ... ... | No. | 1,182 | 1,456 |
| Number of establishments | " | 1,291 | * |

* Not available.

The total of 1,182 returns received for 1930 includes 196 that related to factories which were open for production for only a portion of the year. These returns recorded a net output of $£ 2,345,000$, or about 10 per cent. of the aggregate shown for the trade as a whole.

Deficiencies in 1930 aggregates.-The aggregate number of persons employed in 1930 by firms that stated that they employed not more than 10 persons on the average was 712, the corresponding figure for 1924 being 393*. As in the spinning trade, the number so reporting for 1930 included many firms that recorded a considerably higher number of employees at the 1924 Census. The value of the gross output of the small firms in 1924 was $£ 171,000^{*}$, and particulars of the classes of goods included in this figure are given below:-


$$
\dagger \text { Less than } 500 \text { cwts. }
$$

In addition, 37 firms to which schedules were sent at the 1930 Census and 50 at that of 1924 furnished no information; these firms either had small businesses or had ceased productive operations before the end of the censal year.

Size of firms.-In the following table the main particulars recorded at the Census of 1930 are grouped according to the average numbers of persons shown in the returns.
*These figures include the numbers employed by and the output of the few firms in Northern Ireland.

| Size of firm (average numbers employed). | No. of returns. | Gross output. | Net output. | Average number of persons employed. | Net output per person employed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 11-24 | 87 | £'000. 701 | $£^{\prime} 000 .$ $213$ | 1,580 | $\stackrel{\text { ¢ }}{135}$ |
| 25-49 | 143 | 2,083 | 658 | 5,185 | 127 |
| 50-99 | 293 | 8,614 | 2,632 | 21,450 | 123 |
| 100-199 | 337 | 19,170 | 5,571 | 47,989 | 116 |
| 200-299 | 165 | 16,183 | 4,729 | 39,715 | 119 |
| 300-399 | 76 | 10,340 | 3,076 | 26,401 | 117 |
| 400-499 | 32 | 5,533 | 1,706 | 14,248 | 120 |
| 500-749 | 25 | 5,552 | 1,714 | 14,355 | 119 |
| 750-999 | 11 | 3,240 | 963 | 9,418 | 102 |
| 1,000-1,499 | 8 | 3,865 | 988 | 9,928 | 100 |
| 1,500 and over ... | 5 | 4,350 | 1,261 | 8,384 | 150 |
| Total . | 1,182 | 79,631 | 23,511 | 198,653 | 118 |

Regional distribution.-In the following table the results recorded at the Census of 1930 are grouped according to the principal areas* of Great Britain in which firms in this trade are situated. Corresponding figures for 1924 are added for comparison.

| Area. | No. of returns. | Gross output. | $\begin{aligned} & \text { Net } \\ & \text { output. } \end{aligned}$ | Average number of persons employed. | Net output per person employed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \{ 1930 | 1,038 | $\begin{aligned} & £^{\prime} 000 . \\ & 72,259 \end{aligned}$ | $\begin{aligned} & £^{\prime} 000 . \\ & 20,905 \end{aligned}$ | 180,849 | $\stackrel{ \pm}{116}$ |
| 1924 | 1,203 | 154,138 | 32,247 | 245,928 | 131 |
| 1930 | 70 | 3,433 | 1,052 | 5,955 | 177 |
| 1924 | 166 | 12,799 | 2,756 | 17,411 | 158 |
| 9 and $10 \quad \ldots\{1930$ | 34 | 1,432 | 591 | 3,911 | 151 |
| Jand $\cdots$ 1924 | 36 | 1,770 | 600 | 4,805 | 125 |
| Other areas ... 1930 | 40 | 2,507 | 963 | 7,938 | 121 |
| Other ateas $\cdots\{1924$ | 51 | 3,319 | 1,072 | 6,978 | 154 |
| Total $\ldots\left\{\begin{array}{l}1930 \\ 1924\end{array}\right.$ | 1,182 | 79,631 | 23,511 | 198,653 | 118 |
| L $\cdots\{1924$ | 1,456 | 172,026 | 36,675 | 275,122 | 133 |

Northern Ireland.-Owing to the possible disclosure of information relating to individual firms, no particulars are available for 1930 or for 1924 regarding the small production in Northern Ireland.

## Production.

Piece-goods.-The following table shows the quantity and value of cotton piece-goods produced in 1930 and 1924 :-


* Defined in 1930 as " Unbleached grey (including bordered grey dhooties in which the proportion of coloured threads did not exceed 5 per cent. of the total)" and in 1924 as "Unbleached grey (including unbleached dhooties)."
$\dagger$ Manufactured wholly or in part of dyed yarn and commonly known as "coloured cottons."

The above totals include the following amounts returned for 1930 on schedules for trades other than the Cotton Weaving Trade.

| Piece goods of cotton or of cotton mixed with other materials. | 1930. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity. |  |  | Value. | Entries. |
| Goods made for sale :Unbleached, grey Coloured cottons Woven from bleached yarn. Pile fabrics | Th. lin. yds. 7,953 597 236 240 | $\begin{gathered} \text { Th. } \\ \text { sq. yds. } \\ 8,050 \\ 680 \\ 230 \\ 195 \end{gathered}$ | Th. cwts. 29 2 2 1 | $\begin{array}{r} £^{\prime} 000 . \\ 532 \\ 80 \\ 15 \\ 30 \end{array}$ | No. 68 10 9 3 |
| Total-Cotton piece-goods made for sale | 9,026 | 9,155 | 34 | 657 | $\ldots$ |
| Goods made on commission :Unbleached, grey Coloured cottons | $\begin{array}{r} 1,285 \\ 202 \end{array}$ | $\begin{array}{r} 1,414 \\ 275 \end{array}$ | $\begin{aligned} & 3 \\ & 2 \end{aligned}$ | Amount received. 10 2 | 7 1 |
| Total-Cotton piece-goods made on commission | 1,487 | 1,689 | 5 | 12 | ... |

Output of piece-goods (quantities).-Piece-goods made on commission were in most cases woven to the order of merchants and were not, therefore, in general, duplicated in the output of firms that made goods for sale. Adding together the quantities recorded as made for sale and made on commission, the total output in the two years may be stated as follows, with only a trifling margin of error :-

|  |  | 1930. | 1924. |  |
| :--- | :--- | ---: | ---: | ---: |
| Thousand linear yards | $\ldots$ | $3,179,321$ | $5,588,808$ |  |
| Thousand square yards | $\ldots$ | $3,398,749$ | $6,026,060$ |  |
| Thousand cwts. | $\ldots$ | $\ldots$ | 6,790 | 10,344 |

Measured by both square yardage and linear yardage, the output in 1930 was smaller by about 43 per cent. than in 1924. The comparison is affected, though not materially, by the separate specification in the 1930 schedule of tissues of artificial silk mixed with cotton, which were probably recorded under the heading of cotton, piece-goods at the 1924 Census (see "Other products," pages 49-50).

The average width of cotton piece-goods showed little change being 38.5 inches in 1930 and 38.8 inches in 1924, but the figures indicate that a substantial increase took place in the average weight of the goods, i.e., from 5.20 square yards to the lb. in 1924 to 4.47 square yards to the lb . in 1930 , or by about 16 per cent. In respect of the piece-goods retained for consumption in this country, the average weight in 1930 was about 39 per cent. greater than in 1924, but, as indicated on page 194, any change in weight resulting from the finishing processes would have a marked effect on this figure. It is clear, however, that a substantial increase took place between 1924 and 1930 in the average weight of the piecegoods retained for use in this country. The available information
is not sufficient to show how far this increase may reflect a general decline in the use of the finer counts of yarn resulting from the substitution of cotton fabrics by those containing artificial silk, or may be due to a relatively greater output of the heavier classes of goods, such as tyre fabrics, etc. It is probable, however, that goods of the latter classes formed a considerably greater proportion of the aggregate retained for use in this country in 1930 than in the earlier year, this aggregate, measured by square yardage, being about one third less in 1930 than in 1924.

The quantities of cotton piece-goods bleached, printed or dyed in 1930 are shown below (see report on the Textile Finishing Trade, page 188).

Cotton piece-goods : Bleached, but not dyed or printed

Th. sq. $y d s$
Th. lin. yds.

Dyed, but not printed
Printed whether dyed or not

1,107,144
1,053,899 724,470

603,008
Total
-
2,381,377

Without making allowance for any increase or decrease in the square yardage as the result of the finishing processes, the quantity of piece-goods bleached, dyed or printed in 1930 formed about 72 per cent. of the total quantity manufactured in that year. If exports of grey piece-goods and coloured cottons-674,358,000 square yards-be added to the quantity finished, a total of about $3,109,300,000$ square yards is obtained, which falls short of the total output by about $289,000,000$ square yards. The latter amount, with the addition of the yardage of any fabrics which, being partly or wholly woven of dyed yarn and subsequently bleached, may be included both in the total of goods bleached and in the exports of coloured cottons, expresses the quantity of grey goods and unbleached coloured cottons available for consumption or further manufacture in this country and represents about 9 per cent. of the year's output of piece-goods. For 1924 the corresponding proportion was 10 per cent.

Output of piece-goods (value).-The aggregate value recorded for piece-goods made for sale in 1930 ( $£ 64,764,000$ ) should be increased by an amount representing the value of the piece-goods made on commission, which formed, in terms of square yardage, under 1 per cent. of the total. Valued at the same average value as that recorded for goods of the same description made for sale, the selling value of goods made by commission firms may be estimated at about $£ 725,000$, yielding a total, in round figures, of $£ 65,500,000$ as the value of all cotton piece-goods made in 1930. The corresponding estimate for the year 1924 was $£ 165,000,000$.

Bleaching, dyeing, printing and other finishing processes carried out on cotton piece-goods in 1930 were valued at a total figure of $£ 16,100,000$ (see page 188), and if this sum be added to the factory value of the goods at the unbleached stage, there results a total of $£ 81,600,000$. In this aggregate no allowance is made for the cost of packing and making-up or for the handling expenses of merchants to whose order the goods were finished and the figure does not, therefore, fully express the value of all cotton piece-goods as sold for home consumption or for export. The estimate for 1924 corresponding to the figure of $£ 81,600,000$ was $£ 191,500,000$, indicating for 1930 a decline in money value of about 57 per cent. The effect of the absence from the 1930 figures of the output of the smaller firms and of the output in Northern Ireland may be neglected, but the comparison may be affected to some extent by the inclusion in the 1924 figures of certain piece-goods of artificial silk mixed with cotton, to which reference has already been made.
Other cotton manufactures.-The following table gives particulars of the value and, where available, the quantity of cotton goods other than piece-goods, produced in 1930 and 1924 by firms mainly engaged in the cotton manufacturing trade

| Kind of goods. | 1930. |  |  |  |  |  | 1924. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Returned on schedules for |  |  |  |  |  | Total. |  |
|  | The Cotton Weaving Trade. |  |  | All trades. |  |  |  |  |
|  | Quantity. | Value. | Entries. | Quantity. | Value. | Entries. | Quantity. | Value. |
| Machinery belting :Of cotton Of woven hair ... Of cotton and woven hair nöt separately distinguished | Th. cwts. | £'000. | No. | Th. cwts. | £'000. | No. | Th. cwts. | $£^{\prime} 000$. |
|  |  |  |  | $\begin{aligned} & 15 \cdot 2 \\ & 18 \cdot 0 \end{aligned}$ | $\begin{aligned} & 170 \\ & 317 \end{aligned}$ | $\begin{array}{r} 19 \\ 8 \end{array}$ | 4 $47 \cdot 8$ | 855 |
|  |  |  |  |  |  |  |  |  |
|  | ... | 21 | 1 | $\ldots$ | 50 | 2 |  |  |
| Total- |  |  |  |  |  |  |  |  |
| ing .. |  | 465 | ... | $\ldots$ | 537 | $\ldots$ | ... | 855 |
| Cotton smallwares (including ribbons, trimmings, tapes, webbings, etc.) ... | $\ldots$ | 1,560 | 68 | $\ldots$ | 1,719 | 93 | $\ldots$ | 1,934 |
| Towels, quilts, blankets and counterpanes, not in the piece ... | $\ldots$ | 1,110 | 15 | $\ldots$ | 1,117 | 18 | $\ldots$ | 3,379 |
| Cotton wool and wadding |  | 518 | 18 |  | 518 | 19 |  | 397 |
| Manufactured cleaning waste | $29,877$ | 404 | 34 | $29,877$ | 404 | 34 | Th. lbs. 55,197 | 841 |
| Surgical bandages and dressings ... | , 87 | 904 | 16 | -877 | 904 | 16 |  |  |
| Other cotton manufactures |  | 997 | 23 |  | $1,301$ | 50 |  | 1,121 |
| Total Value ... | $\ldots$ | 5,958 | $\ldots$ | $\ldots$ | 6,500 | $\ldots$ | $\ldots$ | 8,527 |
| 19518 |  |  |  |  |  |  |  | c |

Prices.-The average selling values of piece-goods and certain other cotton manufactures in 1930 and 1924, as calculated from the Census returns, are shown in the following table. It should be borne in mind, however, that these comparisons do not take account of any changes that may have occurred since the earlier year in the quality, type or weight of goods included under the specified descriptions. The average charges for weaving on commission are also included in the table.


Volume of production in 1930 and 1924.-The following table compares the volume of production of piece-goods and other manufactures of cotton in 1930 and 1924 :-

| Kind of goods. | Total production. |  |  | 1930 as a percentage of 1924. |
| :---: | :---: | :---: | :---: | :---: |
|  | 1930. | 1924. |  |  |
|  | As returned. | As returned. | At 1930 average values. |  |
|  | $£^{\prime} 000$. | £'000. $^{\text {d }}$ | $£^{\prime} 000$. | Per cent. |
| Made for sale :- |  |  |  |  |
| Cotton piece-goods :Unbleached grey | 53,515 | 145,112 | 96,934* | 55 |
| Coloured cottons $\quad . .$. | 9,092 | 18,019 | 14,747* | 62 |
| Manufacture of bleached yarn | 610 |  | - | - |
| Pile fabrics ... ... ... | 1,547 | - | - | - |
| Machinery belting of cotton and woven hair | 537 | 855 | 701 | 77 |
| Cotton smallwares ... ... ... | 1,719 | 1,934 | 1,292 $\dagger$ | 133 |
| Towels, quilts, blankets and counterpanes | 1,117 | 3,379 | 2,379 $\ddagger$ | 47 |
| Cotton wool and wadding ... | 518 | 397 | 268 § | 193 |
| Manufactured cleaning waste | 404 | 841 | 747 | 54 |
| Other cotton manufactures | 2,205 | 1,121 | $770\|\mid$ | 286 |
| Total-Made for sale | 71,264 | 171,658 | 117,838 | 60 |
| Made on commission :- |  |  |  |  |
| Cotton piece-goods :- |  |  |  |  |
| Unbleached grey ... ... | $\begin{array}{r} 55 \\ 107 \end{array}$ | $129$ | $\underset{0}{107^{*}}$ | $51$ |
| Coloured cottons ... .. | 127 | 287 | 249* | 51 |
| Total-Made on commission | 182 | 416 | 356 | 51 |
| Total ... ... ... | 71,446 | 172,074 | 118,194 | 60 |

* Based on square yardage.
$\dagger$ Based on average value of unbleached grey piece-goods.
$\ddagger$ Based on average value of all piece-goods.
§ Based on average import value of cotton linters.
|| Based on average revaluation of other principal products shown.
Other products.-In addition to the output shown in the tables of principal products on pages 44 and 47, the following goods were produced in 1930 and 1924 by firms that made their returns on schedules for the Cotton Weaving Trade. These goods are dealt with in the reports on those trades in which the principal output was recorded.
owing to the absence of specific provision for these goods in the Census schedule.

* Not recorded separately.


## Production, exports and imports.

Quantities of piece-goods. -The total quantity of cotton piecegoods produced in 1930 and 1924, including those made on commission, was as follows :-

|  |  |  | 1930. | 1924. |
| :--- | :--- | :--- | :--- | ---: |
| Million linear yards | $\ldots$ | $\ldots$ | 3,179 | 5,590 |
| Million square yards | $\ldots$ | $\ldots$ | 3,399 | 6,027 |
| Thousand cwts. $\ldots$. | $\ldots$ | $\ldots$ | 6,790 | 10,348 |

The exclusion from the 1930 figures of the production of firms in Northern Ireland and of small firms in Great Britain has no appreciable effect on the comparability of the figures for the two years.
For the purpose of comparison with exports, the different classes of piece-goods must be added together, since a large proportion recorded by the manufacturers against the headings " unbleached, grey " and " manufactured of bleached yarn "," are bleached, printed, dyed or otherwise finished before exportation and appear in the trade returns as "dyed ", " printed ", etc.
The total quantities of cotton piece-goods exported in the years 1930 and 1924 are shown below, together with the corresponding quantities imported and retained. Flags, handkerchiefs, and shawls, not in the piece, are included in the figures shown.

| Exports :- |  |  | 1930. | 1924. |
| :---: | :--- | :--- | ---: | ---: |
| Million linear yards | $\ldots$ | $\ldots$ | 2,530 | 4,649 |
| Million square yards | $\ldots$ | $\ldots$ | 2,433 | 4,485 |
| Thousand cwts. $\ldots$ | $\ldots$ | $\ldots$ | 4,196 | 7,371 |
| Retained imports :- |  |  |  |  |
| Million linear yards | $\ldots$ | $\ldots$ | 70 | 31 |
| Million square yards | $\ldots$ | $\ldots$ | 79 | 36 |
| Thousand cwts. $\ldots$ | $\ldots$ | $\ldots$ | 285 | 150 |

The following table, based on the figures given above, shows the quantities of piece-goods available for consumption in the United 19518

Kingdom, the proportion which exports formed of the output in each year and the proportion of the home market that was supplied from domestic sources :-

| Cotton piece-goods. | Available for consumption in the United Kingdom. |  | Proportion of production exported. |  | Share of home-market held by British products. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1930. | 1924. | 1930. | 1924. | 1930. | 1924. |
| By linear yardage ... | Mill. <br> lin. yds. 719 Mill. | Mill. lin. yds. 972 Mill. | $\begin{gathered} \text { Per } \\ \text { cent. } \\ 79 \cdot 6 \end{gathered}$ | Per cent. $83 \cdot 2$ | $\begin{gathered} \text { Per } \\ \text { cent. } \\ 90 \cdot 3 \end{gathered}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \\ & 96 \cdot 8 \end{aligned}$ |
| By square yardage... | $\begin{aligned} & \text { sq. yds. } \\ & 1,045 \end{aligned}$ | $\begin{aligned} & \text { sq. yds. } \\ & 1,578 \end{aligned}$ | $71 \cdot 6$ | $74 \cdot 4$ | $92 \cdot 4$ | 97-7 |
| By weight ... ... | Th. cwts. $2,879$ | Th. cwts. 3,127 | $61 \cdot 8$ | $71 \cdot 2$ | $90 \cdot 1$ | $95 \cdot 2$ |

An important feature of the above table is the wide divergence between the percentages of the total production formed by the exports, as measured by the three different units of quantity in use. As between the figures of linear yardage and square yardage it is known that cotton piece-goods are frequently split before export, and for such part of the exports as was split the linear yardage would be doubled or in some cases trebled in the export record, the square yardage remaining the same. Further some increase in linear yardage may be expected as a result of the finishing processes. While it is impossible to estimate the effect of these factors upon the export aggregates for either year, information supplied by trade organisations suggests that the increase in the linear yardage which took place as the result of splitting may have been some 150 million in 1930; with this addition, the proportion of piece-goods exported would be reduced from 79.6 per cent., as stated in the table, to about 76 per cent. This estimate is, however, based on a number of uncertain factors.
Measured by weight, the proportion exported in 1930 was lower by 9.8 per cent. than when measured by square yardage, whereas in 1924 the percentage by weight was only 3.2 per cent. less than when calculated by square yardage. The average weight of exported piece-goods, although slightly greater in 1930 than in 1924, was very substantially lower in both years than the average of the balance remaining for home use or for manufacture for export as apparel, etc.

Cotton piece-goods.
Exported

| 1930. | 1924. |
| :---: | :---: |
| Sq. yds. | Sq. yds. |
| per lb. | per lb. |
| 5.18 | 5.43 |

Retained for consumption or further manufacture in the United Kingdom
3.32

The increase in the average weight was about 39 per cent. in the case of goods retained for use in this country and somewhat less than 5 per cent. for goods exported. The finishing processes may be expected, on the whole, to increase rather than to decrease the average weight of the goods as returned in the grey condition. An increase of about 10 per cent. in average weight resulting from the finishing processes would reduce the increase in the average weight of piece-goods retained for use in this country from 39 per cent. to 30 per cent.
The average widths of piece-goods in the two years were as follows :-


These figures suggest that in both years the piece-goods retained for use in this country were considerably wider than those sent to overseas markets. How far the widths shown for the home market would be affected by splitting cannot be stated precisely, but using the estimate of an additional 150 million yards resulting from splitting, the average width of the piece-goods retained in 1930 would be about $43 \frac{1}{2}$ inches. The corresponding figure for 1924 , resulting from a similar estimate, was nearly 45 inches.

Values of piece-goods.-The following table shows the estimated value of piece-goods made in 1930 and 1924 (inclusive of the costs of dyeing, printing and finishing) in relation to the declared values of exported goods :-

> Cotton piece-
goods.
Production, ex factory
Exports, f.o.b.
Exports expressed as a percentage of production
1930. 1924.

In million $£$.
$81.6 \quad 191.5$
$62.3 \quad 155.6$
76.3
81.3

In the above table the charges for packing and making-up and the handling expenses and profits of the owners of the goods are not included for either year, so that the figures do not represent actually the proportion exported, but they serve to indicate the relative reduction in the proportion of piece-goods exported to piece-goods made.

Other cotton manufactures.-The following table shows, in relation to production, the exports and retained imports of certain cotton manufactures other than piece-goods in 1930 and 1924. As regards the 1930 figures of production, the deficiencies referred to on page 31 of this report should be borne in mind; the figures for 19518

1924 include the recorded output of firms in Northern Ireland and, in addition, the output of small firms.

| Kind of goods. | Production. | Exports. | Proportion of production exported. | Retained imports. | Available for use in the United Kingdom. | Share of home market held by British products. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Machinery belting of$\left.\begin{array}{l}\text { cotton and woven } \\ \text { hair }\end{array}\right\}$1930 <br> 1924Manufactured <br> ing waste ...........1930 <br> 1924 | Th. cwts. | Th. cwts. | Per cent. | Th. cwts. | Th. cwts. | Per cent. |
|  | $36 \cdot 6 *$ | $29 \cdot 9$ 49.9 | $81 \cdot 7$ | 0.1 0.4 | $6 \cdot 8$ | 98.5 |
|  | $48 \cdot 0$ | $49 \cdot 2$ | $\cdots$ |  | ... | $\cdots$ |
|  | $266 \cdot 8$ $514 \cdot 7$ | $\begin{aligned} & 139 \cdot 0 \\ & 193 \cdot 5 \end{aligned}$ | $\begin{aligned} & 52 \cdot 1 \\ & 37 \cdot 6 \end{aligned}$ | $\begin{aligned} & 4 \cdot 9 \\ & 4 \cdot 6 \end{aligned}$ | $\begin{aligned} & 132 \cdot 7 \\ & 325 \cdot 8 \end{aligned}$ | $\begin{aligned} & 96 \cdot 3 \\ & 98 \cdot 6 \end{aligned}$ |
|  |  |  |  | f'000. $^{\text {, }}$ |  |  |
| Cotton smallwares ... $\begin{aligned} & 1930 \\ & 1924\end{aligned}$ | 1,719 | 245 |  | 701 |  |  |
|  | 1,948 | 448 |  | 1,409 |  | $\dagger$ |

* Including an estimate in respect of belting returned by value only.
$\dagger$ These particulars are not inserted owing to the different bases of valuation used for production, exports and retained imports.


## 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. |
|  | 5,633 379 | $\begin{array}{r} 60,602 \\ 5,749 \end{array}$ | 18,902 210 | $\begin{array}{r} 130,977 \\ 1,325 \end{array}$ | $\begin{array}{r} 24,535 \\ 589 \end{array}$ | $\begin{array}{r} 191,579 \\ 7,074 \end{array}$ |
| Total | 6,012 | 66,351 | 19,112 | 132,302 | 25,124 | 198,653 |
| 1924. <br> Operatives (average for the year) ... <br> Administrative, technical and clerical staff (as at 18th October) | 9,092 550 | 84,511 6,984 | 23,928 210 | 182,376 1,251 | 33,020 760 | 266,887 8,235 |
| Total ... .. | 9,642 | 91,495 | 24,138 | 183,627 | 33,780 | 275,122 |

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. | $\left\|\begin{array}{c} \text { Ordinarily } \\ \text { in } \\ \text { use. } \end{array}\right\|$ | In reserve or idle. | Total. |
| Prime movers. | H.P. | H.P. | H.P. | H.P. | H.P. | H.P. |
| Reciprocating steam engines | 264,807 | 11,989 | 276,796 | 277,942 | 32,129 | 310,071 |
| Steam turbines | 11,561 | 2,000 | 13,561 | 8,130 | 2,550 | $10,680$ |
| Internal combustion engines :Gas | 2,074 | 113 | 2,187 | 3,428 | 639 | 4,067 |
| Petrol, kerosene, or other light oils ... | 2,074 106 | 13 24 | 130 | 3,428 66 | 639 35 | 4,067 101 |
| Heavy oils ... ... | 1,631 | 30 | 1,661 | 104 | 23 | 127 |
| Water engines ... | 2,472 | 297 | 2,769 | 3,098 | 211 | 3,309 |
| Other prime movers... | 272 | 15 | 287 | , | - | , |
| Total ... | 282,923 | 14,468 | 297,391 | 292,768 | 35,587 | 328,355 |
|  | Kw. | Kw. | Kw. | Kw. | Kw. | Kw. |
| Driven by |  |  |  |  |  |  |
| Reciprocating steam engines | 17,404 | 1,227 | 18,631 | 10,780 | 2,539 | 13,319 |
|  | 6,994 | 1,500 | 8,494 | 4,398 | 1,532 | 5,930 |
| Internal combustion engines :- <br> Gas | 194 | 31 | 225 | 323 | 8 | 331 |
| Petrol, kerosene, |  |  |  | 323 | 8 | 331 |
| or other light | 32 | - | 32 | 8 | - | 8 |
| Heavy oils ... | 212 | - | 212 | 17 | - | 17 |
| Water engines ... | 1,039 | 40 | 1,079 | 565 | - | 565 |
| Other prime movers | 12 | 1 | 13 | - | - |  |
| Total ... ... | 25,887 | 2,799 | 28,686 | 16,091 | 4,079 | 20,170 |
| Electric motors. Driven by | H.P. | H.P. | H.P. | H.P. | H.P. | H.P. |
| Electricity generated in same works ... | 19,184 | 1,359 | 20,543 | 13,982 | 484 | 14,466 |
| Electricity generated in other works under same ownership | 80 | 15 | 95 | - |  |  |
| Purchased electricity | 50,751 | 5,792 | 56,543 | 33,992 | 3,804 | 37,796 |
| Total ... ... | 70,015 | 7,166 | 77,181 | 47,974 | 4,288 | 52,262 |

## Consumption of fuel.

The following table shows the quantities of coal, coke and electricity recorded as used in 1930 :-


* These figures were rec
output of the whole trade.


## COTTON SPINNING AND WEAVING.

In the following paragraphs the Cotton Trade is treated as a whole and some general comparisons are made between the results of chief importance shown by the two Censuses.

## Value of output of cotton goods free from duplication.

The method used below of estimating the total value of all cotton manufactures with which the Spinning and Weaving Trades are principally concerned (i.e., except cotton lace, cotton hosiery, elastic webbing, cotton ropes and cotton gloves) follows that adopted in the report on the 1924 Census. The figures for 1924 are added for purposes of comparison.
1930. 1924. In Million £.
Cotton yarn exported, value at mill, about ... ... ... ... ... Cotton piece-goods made (grey, white, dyed, printed)
$13.7 \quad 26.9$
$\begin{array}{lllll}\text { Her cotton manufactures made } & \ldots & 12.2 & 17.2\end{array}$
Estimated value of cotton yarns and waste used in other trades ... ...
Cotton waste exported, value at mill, about

| $\cdots$ | $\cdots$ | 0.5 | $\frac{2.1}{118.0}$ |
| :---: | :---: | ---: | ---: |
| Total | $\ldots$ | $\underline{256.0}$ |  |

These totals include the value of the work done on piece-goods by firms in the Textile Finishing Trade, and in 1924 charges made by packing warehouses for packing and making-up, which
in that year were estimated at about $£ 2$ million. The total for 1930 may be in excess or defect by $£ 1,000,000$ to $£ 2,000,000$.

Deducting the charges made for the finishing processes (£16.1 million), the total for 1930 is reduced to $£ 101.9$ million. This sum includes a total of $£ 1.7$ million in respect of goods of cotton which were returned on schedules for trades other than Cotton Spinning and Weaving, but there is excluded the value of goods not of cotton which were produced by the Cotton Trade amounting to £8.1 million. Making adjustment for these figures, the value free from duplication of the total output of the firms making returns on schedules for the Cotton Spinning and Weaving trades appears to have been about $£ 108$ million, which may be compared with the corresponding figure of $£ 225$ million for 1924.

## Value of total production in relation to exports and imports.

In the previous section the total value of the production in 1930 of yarns, piece-goods and other manufactures of cotton falling within the scope of the Cotton Spinning and Weaving trades has been estimated at about $£ 118$ million free from duplication, to which should be added a sum of possibly $£ 1$ million for packing charges. The total value of the exports of goods of the same descriptions in that year amounted to $£ 87,505,000$ f.o.b., and the factory value of these goods may be estimated to have been between $£ 78$ million and $£ 81$ million. From these figures it would appear that the value of the exports represented between 66 per cent. and 69 per cent. of the total value of the production of these goods. For 1924 the corresponding percentage range was estimated to have been between 70 per cent. and 72 per cent.
The total value of retained imports of goods of these classes in 1930 was $£ 10,130,000$, or about one twelfth of the estimated value of similar goods manufactured in this country. This proportion compares with the estimate of one thirtieth made in connection with the 1924 Census.

## Summary.

The following table shows the principal figures for the trade as a whole in 1930 and 1924 :-

| Particulars. | Unit. | 1930. | 1924. |
| :---: | :---: | :---: | :---: |
| Estimated value of output free from duplication | $£^{\prime} 000$ | 108,000 | 225,000 |
| Estimated proportion of production exported ... <br> Net output | Per cent. £'000 | 66-69 | $70-72$ 83,588 |
| Wages as a proportion of net output (approximate)... | Per cent. | , 339 71 | 83,588 55 |
| Average number of persons employed | No. | 389,389 | 527,777 |
| Net output per person employed Total power in use* | £ | $\begin{array}{r} \text { 00v,00y } \\ 111 \\ 1250 \end{array}$ | -158 |
| Power in use* per operative employed | H.P. | 1,350 $3 \cdot 59$ | 1,451 $2 \cdot 83$ |

B. - OUTPUT SOLD OR ADDED TO STOCK.

TABLES.

## COTTON SPINNING.

I.-Summary of results.

| Particulars. | Unit. | England and Wales. | Scotland. | Great <br> Britain. |
| :---: | :---: | :---: | :---: | :---: |
| Value of goods made and work done (Gross output) | $£^{\prime} 000$. | 74,371 | 4,253 | 78,624 |
| Cost of materials used ... ... ... | , | 56,023 | 2,561 | 58,584 |
| Paid for work given out to other firms... | , | 188 | 24 | 212 |
| Net output |  | 18,160 | 1,668 | 19,828 |
| Average number of persons employed... | No. | 180,584 | 10,152 | 190,736 |
| Net output per person employed ... | , | 101 | 164 | 104 |
| Mechanical power available :Prime movers ... | H.P. | 927,879 | 20,553 | 948,432 |
| Electric motors driven by purchased electricity | " | 197,121 | 991 | 198,112 |

II.-Production.
A.-Total make of single Cotton Yarn in 1930, as returned on schedules for the Cotton Spinning Trade.


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

* Owing to the possible disclosure of information relating to individual firms, separate particulars for England and Wales and for Scotland cannot be given.
III.-Employment.
A. - Numbers employed in week ended 18th Ootober, 1930.

| Persons employed. | Males. |  | Females. |  | Males and females. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 18. | $\begin{gathered} \text { All } \\ \text { ages. } \end{gathered}$ | Under 18. | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ | Under 18. | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ |
| England and Wales :Operatives ... ... Administrative, etc.* | $\begin{array}{r} 11,367 \\ 329 \end{array}$ | $\begin{array}{r} 69,260 \\ 5,159 \end{array}$ | $\begin{array}{r} 20,049 \\ 136 \end{array}$ | $\begin{array}{r} 101,260 \\ 873 \end{array}$ | 31,416 465 | $\begin{array}{r} 170,520 \\ 6,032 \end{array}$ |
| Total | 11,696 | 74,419 | 20,185 | 102,133 | 31,881 | 176,552 |
| Scotland:- <br> Operatives <br> Administrative, etc.* | $\begin{aligned} & 52 \\ & 14 \end{aligned}$ | $\begin{array}{r} 1,201 \\ 308 \end{array}$ | $\begin{array}{r} 1,876 \\ 8 \end{array}$ | $\begin{array}{r} 8,504 \\ 126 \end{array}$ | $\begin{array}{r} 1,928 \\ 22 \end{array}$ | $\begin{array}{r} 9,705 \\ \hline 434 \end{array}$ |
| Total | 66 | 1,509 | 1,884 | 8,630 | 1,950 | 10,139 |
| Great Britain :Operatives Administrative, etc.* | $\begin{array}{r} 11,419 \\ \quad 343 \end{array}$ | $\begin{gathered} 70,461 \\ 5,467 \end{gathered}$ | $\begin{array}{r} 21,925 \\ 144 \end{array}$ | $\begin{array}{\|r} 109,764 \\ 999 \end{array}$ | $\begin{array}{r} 33,344 \\ 487 \end{array}$ | $\begin{array}{r} 180,225 \\ 6,466 \end{array}$ |
| Total | 11,762 | 75,928 | 22,069 | 110,763 | 33,831 | 186,691 |

* 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. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { England } \\ & \text { and } \\ & \text { Wales. } \end{aligned}$ | Scotland. | Great Britain |  | England and Wales. | Scotland. | Great Britain. |
| Jan. 18th | 193,891 | 9,784 | 203,675 | July 19th | 162,998 | 9,732 | 172,730 |
| Feb. 15th | 186,173 | 9,787 | 195,960 | Aug. 16th | 158,871 | 9,739 | 168,610 |
| Mar. 15th | 185,674 | 9,737 | 195,411 | Sept. 13th | 162,379 | 9,728 | 172,107 |
| Apl. 12th | 190,936 | 9,757 | 200,693 | Oct. 18th | 170,520 | 9,705 | 180,225 |
| May 17th | 177,262 | 9,719 | 186,981 | Nov. 15th | 176,405 | 9,639 |  |
| June 21st | 156,644 | 9,721 | 166,365 | Dec. 13th | 172,871 | 9,568 | 182,439 |
| Average for the 12 months ... |  |  |  | $\ldots$ | 174,552 | 9,718 | 184,270. |

COTTON SPINNING
IV. - Power.

Particulars of prime movers, hleotric generators and ELECTRIC MOTORS.

| Power equipment. | England and Wales. |  | Scotland. |  | Great Britain. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Ordinarily } \\ \text { in } \\ \text { use. } \end{array}$ | In reserve or idle. | $\begin{gathered} \text { Ordinarily } \\ \text { in } \\ \text { use. } \end{gathered}$ | In reserve or idle. | $\left\lvert\, \begin{gathered} \text { Ordinarily } \\ \text { in } \\ \text { use. } \end{gathered}\right.$ | In reserve or idle. |
| Prime movers. <br> Reciprocating steam engines | H.P. | H.P. | H.P. 5,095 | H.P. 1,800 | H.P. 813,977 | H.P. 35,524 |
| Steam turbines ... Internal combustion engines :- | 71,152 | 4,434 | 7,350 | 4,400 | 78,502 | 8,834 |
| Gas ... ... | 1,024 | 873 | - | 50 | 1,024 | 923 |
| Petrol, kerosene or other light oils ... Heavy oils | 33 842 | 13 | 378 | $\overline{0}$ | 33 | 13 |
| Heavy oils Water engines | 842 | 25 | 378 | 100 | 1,220 | 125 |
| Water engines ... | 4,136 | 522 | 1,280 | 100 | 5,416 | 622 |
| Other... ... | 2,172 | 47 | - | - | 2,172 | 47 |
| Total | 888,241 | 39,638 | 14,103 | 6,450 | 902,344 | 46,088 |
| Total of prine movers installed | 927,879 |  | 20,553 |  | 948,432 |  |
| Electric generators Driven by | Kw. | Kw. | Kw. | Kw. | Kw. | Kw. |
| Reciprocating steam engines <br> Steam turbines | 43,585 | 3,278 | $\begin{array}{r}612 \\ \hline\end{array}$ | - | 44,197 | $3,278$ |
| Steam turbines ... Internal combustion engines :- | 35,348 | 4,309 | 15,700 | 8,000 | 51,048 | $12,309$ |
| Gas ... ... <br> Heavy oils | 212 100 | 242 | $\overline{250}$ | 75 | 212 | 242 |
| Water engines ... | 1,030 | 71 | 660 | 133 | 350 1,690 | 75 204 |
| Other prime movers | 45 | - | 660 | 133 | 1,690 |  |
| Total | 80,320 | 7,900 | 17,222 | 8,208 | 97,542 | 16,108 |
| Total of eleotric generators INSTALLED ... ... | 88,220 |  | 25,430 |  | 113,650 |  |
| Eleotric motors. Driven by | H.P. | H.P. | H.P. | H.P. | H.P. | H.P. |
| Electricity generated in same works | 66,675 | 6,177 | 23,993 | 50 | 90,668 | 6,227 |
| Electricity generated in other works under same ownership | $1,581$ |  | 23,003 | 50 | 00,668 1,581 | 6,27 79 |
| Purchased electricity ... ... | $177,345$ | $19,776$ | 424 | 567 | $177,769$ | 20,343 |
| Total | 245,601 | 26,032 | 24,417 | 617 | 270,018 | 26,649 |
| Total of electric motors installed | 271,633 |  | 25,034 |  | 296,667 |  |

Consumption of fuel.

| Kind of fuel used. | England and Wales. | Scotland. | Great Britain. |
| :---: | :---: | :---: | :---: |
| $\begin{array}{lll}\text { Coal used for power* } & & \\ \text { Coke used for power* } & \text {... ... ... } \\ \end{array}$ | Tons. $1,415,753$ $63$ | Tons. 10,146 | $\begin{aligned} & \text { Tons. } \\ & 1,425,899 \\ & 63 \end{aligned}$ |
|  | B.T.U. <br> (Kw.-hrs.) '000. | $\begin{aligned} & \text { B.T.U. } \\ & \text { (Kw.-hrs.) } \end{aligned}$ | $\begin{aligned} & \text { B.T.U. } \\ & \text { (Kw.-hrs.) } \\ & \text { '000. } \end{aligned}$ |
| Electricity used for all purposes :Generated in same works | 98,096 | 26,438 | 124,534 |
| Generated in other works under same ownership <br> Purchased | $\begin{array}{r} 944 \\ 283,504 \end{array}$ | $489$ | $\begin{array}{r} 944 \\ 283,993 \end{array}$ |
| Total-Electricity ... | 382,544 | 26,927 | 409,471 |

* In addition, 17,975 tons of coal and 6 tons of coke (all in England and Wales) were recorded as used for power and for other purposes, not separately distinguished.

COTTON WEAVING.
I.-Summary of results.

| Particulars. | Unit. | England and Wales. | Scotland. | Great Britain. |
| :---: | :---: | :---: | :---: | :---: |
| Value of goods made and work done (Gross output) | £'000. $^{\text {d }}$ | 78,199 | 1,432 | 79,631 |
| Cost of materials used ... ... ... | ,, | 54,961 | 813 | 55,774 |
| Paid for work given out to other firms... | ", | 318 | 28 | 346 |
| Net output ... ... ... ... |  | 22,920 | 591 | 23,511 |
| Average number of persons employed... | No. | 194,742 | 3,911 | 198,653 |
| Net output per person employed ... | £ |  |  | 118 |
| Mechanical power available :Prime movers ... | H.P. | 293,928 | 3,463 | 297,391 |
| Electric motors driven by purchased electricity | ," | 55,428 | 1,115 | 56,543 |

II.-Production.

parate particulars for England and Wales and for Scotland cannot
II.-Production-continued.

| Goods sold or added to stock and work done. | Unit. | England and Wales. | Scotland. | Great <br> Britain. |
| :---: | :---: | :---: | :---: | :---: |
| Woollen and worsted manufactures: | £'000. | Quantities and net selling values. |  |  |
| Tissues ...... ... ... |  | 7713 | - 86 | 16313 |
| Other manufactures ... |  |  |  |  |
| Silk manufactures :- <br> Piece goods:- <br> Of silk or of silk mixed with other materials, if known as "silks":- |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Pile fabrics | Th. sq. yds. | 2,829 | - | 2,829 |
|  | Th.lbs. | 403 |  | 403 |
|  | £'000. | 230 | - | 230 |
| Other sorts | Th. sq. yds. |  | * | 793 |
|  | Th. lbs. | * | * | 130 |
|  | £'000. | * | * | 76 |
| Ribbons ... ... ... | £'000. | * 6 | * | 6 |
| Smallwares... $\ldots$...... | ", |  |  | 12 |
| Artificial silk manufactures other than apparel:- |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Piece-goods :- |  |  |  |  |
| Pile fabrics | Th. sq. yds. | * | * | 4,682 |
|  | Th. lbs. |  |  | 747 |
|  | £'000. | * | * | 377 |
| Other tissues | Th. sq. yds. | 23,386 | 168 | 23,554 |
|  | Th. lbs. | 3,485 | 28 | 3,513 |
|  | £'000. | 1,835 | 25 | 1,860 |
| Other sorts . | Th. sq. $y d s$. | 2,153 |  | 2,153 |
|  | Th. lbs.$£^{\prime} 000 .$ | $\begin{aligned} & 395 \\ & 160 \end{aligned}$ | - |  |
|  |  |  |  | 160 |
| Of artificial silk mixed with other materials :- |  |  |  |  |
| Tissues | Th. sq. yds. | 86,054 | $\begin{aligned} & 976 \\ & 169 \end{aligned}$ | $\begin{aligned} & 87,030 \\ & 15,108 \end{aligned}$ |
|  | Th. lbs. | 14,939 |  |  |
|  | £'000. | 4,017 | 85 | 4,102 |
| Smallwares... | £'000. | * |  | 47 |
| Other sorts | Th. lbs. | * | * | 1,420 |
|  | £'000. |  |  | 426 |
| Waste sold | Th. lbs. | 183 | - | 183 |
|  | £'000. | 3 | 7 | 3203 |
| Other textile manufactures |  | $\begin{aligned} & 196 \\ & 184 \end{aligned}$ |  |  |
| Other products |  |  | - | 184 |
| Total value of goods made... | £'000. | 77,954 | 1,392 | 79,346 |
|  |  |  |  |  |

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


## II.-Production-continued.

\begin{tabular}{|c|c|c|c|c|}
\hline Goods sold or added to stock and work done. \& Unit. \& England and Wales. \& Scotland. \& \begin{tabular}{l}
Great \\
Britain.
\end{tabular} \\
\hline \begin{tabular}{l}
Goods made and work done on commission. \\
Piece-goods (of cotton or of cotton mixed with other materials) including flags, handkerchiefs and shawls in the piece :- \\
Unbleached grey (including bordered grey dhooties in which the proportion of coloured threads did not exceed 5 per cent. of the total). Manufactured wholly or in part of dyed yarn and commonly known as coloured cottons.
\end{tabular} \& \begin{tabular}{l}
Th. lin. yds. Th. sq. yds. Th. cwts. \(£^{\prime} 000\). \\
Th. lin. \(y d s\). Th. sq. yds. Th. cwts. \(£^{\prime} 000\).
\end{tabular} \& (Quant receive \& \begin{tabular}{l}
ties and an d for work \\
* * * * * *
\end{tabular} \& ounts done).
\[
\begin{array}{r}
5,538 \\
5,306 \\
13 \\
45 \\
17,946 \\
18,042 \\
45 \\
125
\end{array}
\] \\
\hline Total-Cotton piece-goods \(\{\) \& Th. lin. yds. Th. sq. \(y d s\). Th. cwts. £'000. \& \[
\begin{array}{r}
21,378 \\
20,916 \\
52 \\
143
\end{array}
\] \& \[
\begin{array}{r}
2,106 \\
2,432 \\
6 \\
27
\end{array}
\] \& \[
\begin{array}{r}
23,484 \\
23,348 \\
58 \\
170
\end{array}
\] \\
\hline \begin{tabular}{l}
Woollen and worsted tissues Artificial silk manufactures other than apparel :- \\
Wholly of artificial silk :-Piece-goods :- \\
Pile fabrics... \\
Other tissues \\
Of artificial silk mixed with other materials :- \\
Tissues ... \\
Other sorts \\
Other textile manufactures...
\end{tabular} \& \begin{tabular}{l}
Th. sq. \(y d s\). Th. lbs. £'000. \\
Th. \(s q . y d s\). Th. lbs. \\
\(£^{\prime} 000\). \\
Th. sq. \(y d s\). Th. lbs. \(£^{\prime} 000\). \\
Th. \(s q . y d s\). Th. lbs. £'000. £'000.
\end{tabular} \& 5

611
96
8
1,580
274
18
6,305
1,091
65
333
62
4

2 \& $$
13
$$ \& 18 <br>

\hline Total amount received for WORK DONE \& $£^{\prime} 000$. \& 245 \& 40 \& 285 <br>
\hline Total value of goods made and work done (Gross output) \& £'000. \& 78,199 \& 1,432 \& 79,631 <br>
\hline
\end{tabular}

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


## III.-Employment.

A.-Numbers employed in week ended 18th October, 1930.

| Persons employed. | Males. |  | Females. |  | Males and females. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 18. | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ | Under 18. | All ages. | Under 18. | All ages. |
| England and Wales :Operatives ... Administrative, etc.* | $\begin{array}{r} 5,044 \\ 369 \end{array}$ | $\begin{array}{r} 54,363 \\ 5,596 \end{array}$ | $\begin{array}{\|r} 16,678 \\ 195 \end{array}$ | $\begin{array}{r} 116,640 \\ 1,239 \end{array}$ | $\begin{array}{r} 21,722 \\ 564 \end{array}$ | $\begin{array}{r} 171,003 \\ 6,835 \end{array}$ |
| Total | 5,413 | 59,959 | 16,873 | 117,879 | 22,286 | 177,838 |
| Scotland :- <br> Operatives <br> Administrative, etc.* | $\begin{aligned} & 85 \\ & 10 \end{aligned}$ | $\begin{aligned} & 818 \\ & 153 \end{aligned}$ | $\begin{array}{r} 533 \\ 15 \end{array}$ | $\begin{array}{r} 2,620 \\ 86 \end{array}$ | $\begin{array}{r} 618 \\ 25 \end{array}$ | 3,438 239 |
| Total | 95 | 971 | 548 | 2,706 | 643 | 3,677 |
| Great Britain :- <br> Operatives Administrative, etc.* | $\begin{array}{r} 5,129 \\ 379 \end{array}$ | $\begin{array}{r} 55,181 \\ 5,749 \end{array}$ | $\begin{array}{r} 17,211 \\ 210 \end{array}$ | $\begin{array}{r} 119,260 \\ 1,325 \end{array}$ | $\begin{array}{r} 22,340 \\ \quad 589 \end{array}$ | $\begin{array}{\|r} 174,441 \\ 7,074 \\ \hline \end{array}$ |
| Total | 5,508 | 60,930 | 17,421 | 120,585 | 22,929 | 181,515 |

* 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. 18th | 214,046 | 4,171 | 218,217 | July 19th | 172,655 | 3,557 | 176,212 |
| Feb. 15th | 208,316 | 4,084 | 212,400 | Aug. 16th | 166,113 | 3,600 | 169,713 |
| Mar. 15th | 208,552 | 3,921 | 212,473 | Sept. 13th | 164,055 | 3,515 | 167,570 |
| April 12th | 211,357 | 3,834 | 215,191 | Oct. 18th | 171,003 | 3,438 | 174,441 |
| May 17th | 202,470 | 3,507 | 205,977 | Nov. 15th | 174,716 | 3,532 | 178,248 |
| June 21st | 181,721 | 3,397 | 185,118 | Dec. 13th | 179,879 | 3,504 | 183,383 |
| Average for the 12 months ... |  |  |  |  | 187,907 | 3,672 | 191,579 |

## IV.-Power.

Particulars of Prime Movers, Electric Generators and Electric Motors.


IV.-Power-continued.

| Power equipment. | England and Wales. |  | Scotland. |  | Great Britain. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ordinarily in use. | In reserve or idle. | Ordinarily in use. | $\begin{aligned} & \text { In } \\ & \text { reserve } \\ & \text { or idle. } \end{aligned}$ | Ordinarily in use. | In reserve or idle. |
| Electric motors. Driven by <br> Electricity generated in same works ... ... | H.P. | H.P. | H.Р. | H.P. | H.P. | H.P. |
|  |  |  |  |  |  |  |
|  | 18,518 | 1,359 | 666 | - | 19,184 | 1,359 |
| Electricity generated in other works under same ownership | 80 | 15 | - | - | 80 | 15 |
| Purchased electricity | 49,733 | 5,695 | 1,018 | 97 | 50,751 | 5,792 |
| Total | 68,331 | 7,069 | 1,684 | 97 | 70,015 | 7,166 |
| Total of electRIC motors installed ... |  | 400 |  |  |  | 181 |

Consumption of fuel.


[^3]
[^0]:    Northern Ireland.-Owing to the possible disclosure of information relating to individual firms, no particulars are available for 1930 or for 1924 regarding the small production in Northern Ireland.

[^1]:    * Including $1,048,000 \mathrm{lbs}$. returned on 3 schedules for other trades.

[^2]:    * The 1924 production figures include the output of small firms and of firms in

[^3]:    * In addition to the quantities shown, 12,877 tons of coal (10,773 tons in England and Wales and 2,104 tons in Scotland) and 30 tons of coke (all in England and Wales) were recorded as used for power and other purposes, not separately distinguished.

