## THE CUTLERY TRADE.

## Contents.

Page.
Introductory ..... 145
Summary of results ..... 145
Qualifications affecting comparisons ..... 146
Value of output and cost of materials ..... 146
Classes of firms engaged ..... 146
Production ..... 147
Principal products ..... 147
Other products ..... 147
Repair work and work done for the trade ..... 148
Value of output free from duplication .. ..... 148
Cost of materials and work given out ..... 149
Net output. ..... 149
Exports and imports ..... 150
Wages in 1924 ..... 150
Employment. . ..... 150
Mechanical Power ..... 151
Tables . ..... 153

## Introductory.*

The tables on pages 153 to 156 are based on returns received from firms in Great Britain whose business in 1924 consisted wholly or mainly in the manufacture of cutlery. The number of such separate returns was 561. About 500 firms to which schedules were sent did not furnish returns, but the great majority of them were tenement occupiers of factories in Sheffield (referred to at the top of page 147) and other small firms, while some had ceased operations before the end of the censal year. On the basis of the information available it is estimated that these firms did not employ more than 1,300 persons in all (including the working proprietors) and that their total net output was probably not in excess of $£ 140,000$. No production was recorded for Northern Ireland in 1924.

Summary of results.-The following table shows the main results of the Censuses of 1924 and 1907, comparisons between the figures for the two years being subject to the qualifications mentioned in the next paragraph. The information obtained in connexion with the Census of 1912, when details of output were not required from firms employing five persons or less, was not sufficiently complete to warrant its use for purposes of comparison.

[^0]| Particulars. |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
|  |  |  |  |  | Unit. |  | 1924. |

Qualifications affecting comparisons.-In considering the above table and the other tables in this report which show figures for different censal years, it should be borne in mind that :-
(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 Census of 1907 covered Great Britain and the whole of Ireland, but that of 1924 applied only to Great Britain and Northern Ireland. This difference of geographical scope does not, however, seriously affect the comparability of the figures, the manufacture of cutlery in the British Isles being practically confined to England. It may be noted that no output of cutlery was separately recorded in the reports published in connexion with the Census of Production taken by the Government of the Irish Free State in respect of the year 1926.
Value of output and cost of materials.-The figures in the above table representing the value of goods made and work done and the cost of materials used, are the aggregates of the figures recorded by the firms making returns, and, for the reasons explained in paragraphs (i) and (ii) on pages xii and xiii, they over-state the value of the output of, and the cost of materials used by, the Cutlery Trade considered as a whole. The matter is discussed on pages 148 and 149, where it is estimated that in 1924 the value, free from duplication, of the output of the Cutlery Trade was about $£ 3,250,000$, and the cost of the materials purchased from sources outside the trade and worked up into its products was about $£ 1,360,000$.
Classes of firms engaged.-The Cutlery Trade is carried on mainly, but not exclusively, in the Sheffield district and provision had to be made for three classes of firms or persons who were called on to make returns, viz.; (1) manufacturing firms proper who either conducted all the manufacturing processes in their own works or, in addition, gave øut materials to be completely or partially worked up by outside firms ; these firms had to include in their output the whole of the goods so made; (2) merchant firms that gave out materials to outside firms to be made into finished goods for them; so far as such firms were known they were required to give, as their
output, particulars of the goods so made ; and (3) tenement occupiers, being either sub-tenants of a principal factory-owner or tenants in public "wheels" or factories; these tenement occupiers were required to state as their output the amount received for work done on materials given out to them, and, if they also purchased materials and made therefrom goods which they sold, they were allowed the option of entering against the proper heading the quantity and selling value of the goods made or of entering against the heading Amount received for work done for the trade their gross receipts less the approximate cost of materials used. These " firms" of tenement occupiers are quite small and it is probable that, of the 500 firms that failed to complete and return the schedules sent to them, the majority came within this category.

## Production.

Detailed information as to the output of the Cutlery Trade in 1924 will be found in Table II on page 154.
Manufacturers were not required in 1907 to class their output according to kinds of goods made or to state the quantities made ; in 1924 they were required to give separate particulars of quantities of four chief classes of cutlery.
Principal products.-The following table shows the recorded output in 1924 of the principal products of the Cutlery Trade whether returned on schedules for that trade or on schedules for other trades, together with the aggregate figure recorded for 1907.

| Cutlery and cutlers' wares. | 1924. |  |  | 1907. <br> Total. |
| :---: | :---: | :---: | :---: | :---: |
|  | Returned on schedules for the Cutlery Trade. | Returned on schedules for other trades. | Total. |  |
|  | Selling value. | Selling value. | Selling value. | Selling value. |
| Knives, other than machine knives (including knife blades and blanks) (Thousand dozen) | Ł'000 | £ 000 | Ł'000 $^{\prime}$ | £'000 |
|  | $\begin{gathered} 1,794 \\ (3,459 \cdot 3) \end{gathered}$ | $\begin{gathered} 57 \\ (91 \cdot 0) \end{gathered}$ | $\begin{gathered} 1,851 \\ (3,550 \cdot 3) \end{gathered}$ |  |
| Scissors and shears (including blanks) <br> (Thousand dozen) | $\begin{gathered} 136 \\ (225 \cdot 4) \end{gathered}$ | $\begin{gathered} 1 \\ (0 \cdot 7) \end{gathered}$ | $\begin{array}{r} 137 \\ (226 \cdot 1) \end{array}$ |  |
| Razors (including blades and blanks) :- |  |  |  | $1,604 \dagger$ |
| Safety <br> (Thousand dozen) | $\begin{gathered} 404 \\ (2,921 \cdot 5) \end{gathered}$ | $\stackrel{28}{(71 \cdot 1)}$ | $\begin{gathered} 432 \\ (2,992 \cdot 6) \end{gathered}$ |  |
| Other than safety Other cutlers' wares, including handles and other parts. . Cutlery, not separately distinguished | $\begin{array}{r} 62 * \\ -\quad 333 \\ 61 \end{array}$ | - | (2,62* |  |
|  |  | 2 | 23561 |  |
|  |  | - |  |  |
| Total value .. .. | 2,690 | 88 | 2,778 | 1,604 |

[^1]It is impossible to say with any precision whether the volume of manufacture had increased or decreased in 1924 compared with 1907, but it is probable that there was some decrease, though perhaps not of great magnitude. There was a reduction of over one-fifth in the number of operatives returned as employed and the weekly hours of labour were less, but these causes of lower output may have been offset by an increase in the capacity of the electric motors installed.

Other products.-In addition to the cutlery and cutlers' wares dealt with in the preceding paragraphs, firms that made their returns on schedules for the Cutlery Trades recorded in 1924 and 1907 the output shown in the following table. The goods enumerated, being of kinds mainly produced by other trades, are dealt with in the reports on those trades.

| Kind of goods. | 1924. |  |  |  | 1907. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Recorded by |  |  | Total value. | Value. |
|  | Quantity and value. |  | Value only. |  |  |
| Electro-plated goods :Spoons and forks Other kinds | Th. doz. | $£^{\prime} 000$. | $£^{\prime} 000$. | $£^{\prime} 000$. | $\chi^{\prime} 000$. |
|  | 476 | 198 | 32 | 230 |  |
|  | 476 | 198 | 120 | 120 | ( 180 |
| Unplated goods (Britannia metal, etc.) | 87 | 25 | 12 | 37 | $\int 180$ |
| Tools and implements .. .. | 142 | 90 | 31 | 121 | 68 |
| Other metal manufactures | - | - | 149 | 149 | 24 |
| Other goods ... .. | - | - | 29 | 29 | - |
| Total value .. .. | . | 313 | 373 | 686 | 272 |

Repair work and work done for the trade. -In 1924, the sum of $£ 42,000$ was recorded on schedules for the Cutlery Trade as the value of the repair work done in the year. The value of repair work done in 1907 was required to be included with the value of the cutlery goods made, and separate particulars are, therefore, not available of the value of such work done. The amount returned as received for work done in 1924 by cutlery firms that worked for the trade was $£ 87,000$, of which $£ 83,000$ was for work done on cutlery. The amount received for work done for the trade in 1907 was $£ 171,000$.

Value of output free from duplication.-The gross value of the output in 1924 of firms furnishing returns on schedules for the Cutlery Trade was $£ 3,505,000$, but that sum includes some duplication. The output of knives, scissors and razors covers not only complete articles but also blades and blanks, and it may be that in some cases the blades and blanks which were returned by some
firms as their output were sold to other firms and returned by them in the value of complete articles. The amount of such duplication, if any, is not known, but it is not likely to be large. The heading of Other cutlers' wares, including handles and other parts in the table on page 147 , includes parts valued at $£ 165,000$, which were probably, in the main, sold to other manufacturers, their value being to that extent duplicated in the value of the completed goods returned; but in so far as they may have been exported, or sold to merchants who did not make returns to the Census, or added to makers' stocks, there was no duplication. Here, again, the precise amount of duplication cannot be stated. The amount, $£ 87,000$, received for work done for the trade is duplicated in the value of the complete articles made and returned, except in so far as the work may have been done for merchants who did not furnish returns or for firms in other trades. The firms that made returns of their output on schedules for the Cutlery Trade stated that in the aggregate they paid $£ 142,000$ for work given out by them to other firms. This sum probably covers at least the greater part of the above-mentioned $£ 87,000$, but it also, no doubt, includes some payments to tenement occupiers who did not furnish returns of their output ; to the extent to which this occurred the aggregate net output of the trade (ascertained by deducting the cost of materials used and the amount paid to other firms for work given out to them from the sale value of the output) is understated. On the whole, it may be estimated that the value of the output, free from duplication, of the Cutlery Trade in 1924 was not less than $£ 3,250,000$ and may have been somewhat more. The corresponding estimate for 1907 was $£ 1,736,000$.

Cost of materials and work given out. -The cost of materials used by firms that made their returns on schedules for the Cutlery Trade was returned as $£ 1,527,000$ in 1924 , a sum which, by the exclusion of purchases from other firms in the same trade, may be reduced to about $£ 1,360,000$; the corresponding net amount for 1907 was about $£ 655,000$.

The aggregate amount returned as paid to other firms for work given out to them was $£ 142,000$ in 1924 and $£ 139,000$ in 1907.
Net output. - The net output in 1924 of the firms that made their returns on schedules for the Cutlery Trade (whose gross output was valued at $£ 3,505,000$ ) was $£ 1,836,000$, 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 $£ 161$, as compared with $£ 73$ in 1907.
Exports and imports.-The following table shows the total value of the production of the main classes of cutlery goods in 1924 in
relation to the exports and imports of similarly described goods. Figures of quantity are not shown owing to the wide ranges of goods included under the various headings. The corresponding aggregates for 1907 are also shown.

| Cutlery and cutlers' wares. | Production. | Exports. | Net imports. |
| :---: | :---: | :---: | :---: |
|  | Value at factory. | Value f.o.b. | Value c.i.f. |
| Knives, other than machine knives (including knife blades and blanks) <br> Scissors and shears (including blanks). | $£^{\prime} 000$. | $£^{\prime} 000$. | $£^{\prime} 000$. |
|  | 1,851 | 691 | 80 |
|  | 137 | 61 | 90 |
| Safety .. | 432 | 119 | 78 |
| Other . . . | 62 | 42 | 40 |
| Other cutlers' wares . . . | 235 | 112 | 80 |
| Cutlery not separately distinguished . .Total value $\left\{\begin{array}{l}1924 \\ 1907\end{array}\right.$ | 61 | - |  |
|  | 2,778 | 1,025 | 368 |
|  | 1,604* | 770 | 117 |

Making a rough allowance for the different bases of valuation, exports in 1924 represented about one-third of the home production, while the share of the home market held by British-made goods was about five-sixths.

## 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 Cutlery Trade which made returns both to the Ministry of Labour and to the Census of Production office. According to the Census records this group of firms employed, in the week ended 18 th. October, $1924,6,080$ operatives, or 60 per cent. of the total of 10,110 operatives for the trade as a whole, and their net output totalled $£ 1,158,000$, or 63 per cent. of the aggregate net output of $£ 1,836,000$ for the trade as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was $£ 637,000$, representing about 55 per cent. of their aggregate net output.

## Employment.

The detailed information relating to employment in 1924 is summarised in Table III on page 155. The following table sets out certain particulars for that year together with those relating
to the 1907 Census. For the purpose of this comparison, the average numbers of operatives of each sex returned for 1924 have been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October :-

| Average number. | Males. |  | Females. |  | Males and females. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 18. | All ages. | Under 18. | All ages. | Under 18. | All ages. |
| $\text { Operatives } 1924 .$ | 884 | 6,337 | 1,100 | 3,561 | 1,984 | 9,898 |
| Administrative, etc. | 45 | 1,132 | 46 | 376 | 91 | 1,508 |
| Total | 929 | 7,469 | 1,146 | 3,937 | 2,075 | 11,406 |
| $\begin{array}{r} 190 \% \\ \text { Wage earners } \end{array}$ | 1,403 | 9,724 | 884 | 2,761 | 2,287 | 12,485 |
| Salaried .. | 85 | 2,050 | 83 | 296 | 168 | 2,346 |
| Total | 1,488 | 11,774 | 967 | 3,057 | 2,455 | 14,831 |

The numbers of operatives recorded month by month in 1924 ranged from 345 above the average, in November, to 512 below the average, in February (see Table III B, page 155).

## Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 156. The following table sets out the particulars for the two censal years relating to the capacity and kinds of prime movers and the capacity of electric generators installed.

| Power equipment. | 1924. |  |  | 1907. |
| :---: | :---: | :---: | :---: | :---: |
|  | Ordinarily in use | In reserve or idle. | Total. | Total. |
|  | H.P. | H.P. | H.P. | H.P. |
| Prime movers :Reciprocating steam engines | 1,365 | 389 | 1,754 | 3,315 |
| Gas engines ... | 2,877 | 292 | 3,169 | ) 1,818 |
| Petrol and light oil engines | 2 | - | 2 | 1,818 |
| Heavy oil engines Water power | 45 | - | -45 | 115 |
| Total | 4,289 | 681 | 4,970 | 5,248 |
|  | Kw. | Kw. | Kw. | Kw. |
| Electric generators :- Driven by- |  |  |  |  |
| - Reciprocating steam engines . . | 189 | 26 | 215 | 534 |
| - Gas engines .. .. . | 217 | 135 | 352 | 44* |
| Total .. .. .. | 406 | 161 | 567 | 578 |

[^2]The capacity of electric motors recorded in 1924 was as shown below :-

| Electric motors. |  | 1924. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Ordinarily in use. | In reserve or idle. | Total. |
|  |  | H.P. | H.P. | H.P. |
| Driven by- Electricity generated in own works | . | 545 | 35 | 580 |
| Purchased electricity . . .. | $\ldots$ | 7,613 | 801 | 8,414 |

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 283,000 .

In addition to the power generated at works, or purchased as electrical energy, some establishments were operated wholly by rented power. For 1924, such establishments in the Cutlery Trade returned 3.2 per cent. of the total value of output reported, and employed $5 \cdot 6$ per cent. of the total of persons employed in this trade. The proportion of output in 1907 reported by firms renting all the power they used was $8 \cdot 2$ per cent.
II.-Production.

| Goods sold or added to stock. | Great Britain*. |  |
| :---: | :---: | :---: |
|  | Quantity. | Selling value. |
| Cutlery : - | Th. doz. | $\chi^{\prime} 000$ |
| Knives, other than machine knives (including knife blades and blanks) |  |  |
| Scissors and shears (including blanks) .. .. .. $225 \cdot 4$ 136 <br> Razors (including blades and blanks) -    2  |  |  |
| Safety | 2,921.5 | 404 |
| Other than safety .. .. .. $\left\{\begin{array}{l}\text { Quantity stated . . } \\ \text { Ouantity }\end{array}\right.$ | $24 \cdot 3$ | 30 |
| Other cutlers' wares, including handles, scales, and other parts |  | 32 233 |
| Cutlery, not separately distinguished .. .. |  | 61 |
| Total-Cutlery | . | 2,690 |
| Electro-plated goods :- <br> Spoons and forks <br> \{Quantity stated <br> $475 \cdot 6$ <br> 198 |  |  |
| Spoons and forks .. .. $\left\{\begin{array}{l}\text { Quantity not stated }\end{array}\right.$ | $475 \cdot 6$ | 198 32 |
| Other sorts .. .. .. .. .. .. |  | 120 |
| Unplated goods .. .. .. $\left\{\begin{array}{l}\text { Quantity stated .. } \\ \text { Quantity not stated }\end{array}\right.$ | $86 \cdot 6$ | 25 12 |
| Tools and implements :- |  |  |
| Files and rasps .. | $99 \cdot 9$ | 39 |
| Axes, hatchets, adzes and matchets | $30 \cdot 0$ | 42 |
| Other sorts | $12 \cdot 3$ | 9 |
|  |  | 31 |
| Total-Tools and implements |  | 121 |
| Other metal manufactures Other goods made .. | . | 149 |
|  |  |  |
| Total value of goods made. | . | 3,376 |
|  |  | Amount received. |
| Repair work ... .. .. .. .. .. .. .Work done for the trade :- |  |  |
|  |  |  |
| On cutleryOn electro-plated goods | . | 83 |
|  |  | 2 |
| Other work .. .. .. .. .. |  | 2 |
| Total value of work done |  | 129 |
| Total value of goods made and work done (Gross output) | . | 3,505 |

## III.-Employment.

A.-Number employed in week ended 18th october, 1924.

| Kind of staff. | Males. |  | Females. |  | Males and females. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 18. | $\underset{\text { ages. }}{\text { all }}$ | Under $18 .$ | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 18 . \end{aligned}$ | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ |
| England and Wales :Operatives <br> Administrative, etc. | $\begin{array}{r} 895 \\ 45 \end{array}$ | $\begin{aligned} & 6,442 \\ & 1,122 \end{aligned}$ | $\begin{array}{r} 1,129 \\ 46 \end{array}$ | $\begin{array}{r} 3,655 \\ 376 \end{array}$ | 2,024 91 | $\begin{array}{r} 10,097 \\ 1,498 \end{array}$ |
| Total | 940 | 7,564 | 1,175 | 4,031 | 2,115 | 11,595 |
| Scotland :Operatives Administrative, etc.* | 5 | 12 | 二 | 1 | 5 | 13 10 |
| Total | 5 | 22 | - | 1 | 5 | 23 |
| Great Britain :Operatives Administrative, etc.* | 900 45 | $\begin{aligned} & 6,454 \\ & 1,132 \end{aligned}$ | 1,129 46 | 3,656 376 | $\begin{array}{r} 2,029 \\ 91 \end{array}$ | $\begin{array}{r} 10,110 \\ 1,508 \end{array}$ |
| Total .. | 945 | 7,586 | 1,175 | 4,032 | 2,120 | 11,618 |

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

Great Britain.* (Annual average: Males, 6,337; Females, 3,561; Total, 9,898.)

| Week ended. | Males. | Females. | Total. | Week ended. | Males. | Females. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 12th | 6012 | 3,451 | 9463 | July 19th | 6,399 | 3,551 | 9,950 |
| Feb. 16th | 5,994 | 3,392 | 9,386 | Aug. 16th | 6,352 | 3,571 | 9,923 |
| March 15th | 6,339 | 3,465 | 9,804 | Sept. 13th | 6,334 | 3,608 | 9,942 |
| April 12th | 6,350 | 3,466 | 9,816 | Oct. 18th | 6,454 | 3,656 | 10,110 |
| May 17th | 6,431 | 3,547 | 9,978 | Nov. 15th | 6,494 | 3,749 | 10,243 |
| June 21st | 6,392 | 3,537 | 9,929 | Dec. 13th | 6,497 | 3,737 | 10,234 |

* The number of operatives employed in Scotland in each month of 1924 were 12 males and 1 female ; total, 13.


## IV.-Mechanical Power.

Particulars of prime movers, electric generators and ELECTRIC MOTORS.

| Power equipment. | Great Britain.* |  | Power equipment. | Great Britain.* |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ordinarily in use. | In reserve or idle. |  | $\left\lvert\, \begin{gathered} \text { Ordinarily } \\ \text { in use. } \end{gathered}\right.$ | In reserve or idle. |
| Prime movers :Reciprocating steam engines $\qquad$ | H.P. | H.P. | Electric generators Driven byReciprocating steam | Kw. | Kw. |
|  | $\begin{aligned} & 1,365 \\ & 2,877 \end{aligned}$ | $\begin{aligned} & 389 \\ & 292 \end{aligned}$ |  |  |  |
| Gas engines <br> Petrol and light oil engines |  |  | Reciprocating steam engines | 189 | 26 |
|  | 245 | - | Gas engines ${ }^{\text {engines }}$ | 217 | 135 |
| Water power |  |  | Total .. <br> Total of electric GENERATORS INSTALLED .. | 406 | 161 |
|  |  |  |  | 567 |  |
| Total | 4,289 | 681 | Electric motors :Driven by- | H.P. | H.P. |
| Total of prime movers installed | 4,970 |  | Electricity generated in own works Purchased elec- | 545 | 35 |
|  |  |  | tricity . . . | 7,613 | 801 |

* The only mechanical power reported for Scotland, and included above, was as shown below. It was all described as being ordinarily in use.


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

[^1]:    * Including 24,300 dozens, valued at $£ 30,000$; particulars of quantity were not stated for the remainder.
    $\dagger$ Including repair work.
    (4461)

[^2]:    * Returned as driven by other prime movers.

