## THE BUILDING AND CONTRACTING TRADES.

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## Introductory.*

Scope of the Census.-Under the schedule to the Census of Production Act, 1906, a return is required from every person who, by way of trade or business, " undertakes the construction or alteration of a building or any part thereof " or "executes works of construction, alteration or repair of railroads, tramroads, harbours, docks, canals, sewers, roads, embankments, reservoirs or wells, or of laying or altering gas or water pipes, or telegraphic, telephonic or electric lines or works, or any other prescribed works."

The tables on pages 283 to 288 are based on returns received from persons or firms in Great Britain and Northern Ireland whose business in 1924 consisted wholly or mainly in work of these kinds, the number of returns received being about 37,000 . It is believed that returns were obtained from the great majority of firms of substantial importance and that those which failed to return the schedules sent to them, numbering about 13,000 , consisted almost exclusively of persons working single handed or with the assistance, from time to time, of two or three employees. On the basis of the information available, it is estimated that the total number of persons employed in the omitted businesses, including the proprietors, was not more than 40,000 , or less than 8 per cent. of the aggregate recorded in the

[^0]returns received. The net output of the firms in question was probably not in excess of $£ 5$ million and, in view of the intermittent nature of their employment, may have been considerably less.
In addition to the output of which particulars are given in these tables, a very important volume of work of similar descriptions was returned by firms that were classified, for Census purposes, as in the various manufacturing industries and also by Local Authorities, Government Departments and Railway and other Public Utility Services, carrying out work by direct labour. Particulars relating to this work are given in the reports dealing with the trades and services concerned but, for convenience of reference and for purposes of comparison with the aggregates returned by the Building and Contracting Trades only, total figures for this additional output are given in a later section of the present report.

The value of constructional, maintenance and repair work carried out on the buildings, etc., of private firms by their own employees is excluded from the figures given in this report. Details relating to such work were not required separately in the Census of 1924, being included (so far as manufacturing firms were concerned) in the expenditures incurred in connexion with the output of the trades concerned. In the Census of 1907 all such firms were required to show separately the amount expended on work of this kind, the total sum recorded being about $£ 5,000,000$.

Summary of results.-The following table shows the main results of the Censuses of 1924 and 1907 for the Building and Contracting Trades. The figures for each year are, as already explained, exclusive of a number of firms, mainly small (e.g., jobbing bricklayers, carpenters, paperhangers, painters, etc.), but the results for the two years may be taken to be reasonably comparable. The figures are also subject to the qualifications mentioned in the next paragraph. Building work was excluded from the scope of the Census of 1912 and no figures for that year are therefore available for comparison.

| Particulars. | Unit. | 1924. | 1907. |
| :---: | :---: | :---: | :---: |
| Value of work done and goods made (Gross output) | $£^{\prime} 000$ | 193,494 | 87,967 |
| Cost of materials used $\quad .$. |  |  |  |
| Paid for work given out to other firms Net output | ", | 96,517 | $\begin{array}{r} 6,422 \\ 42,926 \end{array}$ |
| Average number of persons employed | No. | 514, 353 | 513,993 |
| Net output per person employed | $\ddagger$ | 188 | 84 |
| Mechanical power available:Prime movers | H.P. | 102,478 | 170,522 |
| Electric motors driven by purchased electricity |  | 94,261 | $\begin{aligned} & \text { not } \\ & \text { recorded) } \end{aligned}$ |

Qualifications affecting comparisons.-In considering the above table and other tables in this report which show figures for the two 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. In the Census of 1907, the number of persons employed in the whole of Ireland in the Building and Contracting Trades was 14,330 , with a gross output of $£ 1,891,000$. Further, according to the Census of Production taken by the Government of the Irish Free State in respect of the year 1926, the total value of work done and goods made in the Building and Contracting Trades in that year was returned as $£ 3,021,000$ and the average number of persons employed was 10,635 .
(3) The results for 1924 are affected to some extent by the partial stoppage of work in the Building Trade, lasting for about six weeks, in the months of July and August.
Value of output and cost of materials (including amount paid for sub-contract work.)-The output in both years was valued on the basis of the net amount charged to customers for the work done. Where contracts were only partly completed within the censal year, the best possible estimate of the value of the completed part was required to be made. In the case of buildings erected for sale, the value stated was the net selling value, i.e., the amount for which they were sold, less agency and similar charges and discounts. Where buildings were unsold at the end of the censal year or were only partly constructed during the year, the best possible estimate was required of the value of the work done in the year.
Principal contractors were instructed to include in their statement of work done the value of the whole job, inclusive of that part, if any, which was given out to sub-contractors. Separate returns were also required from sub-contractors, the value of their work being returned as the total amount received by them for the work done. Owing to the inclusion of work done by sub-contractors in the statement of output of principal contractors, the gross output of the Building and Contracting Trades as a whole is overstated in the 1924 figure shown in the above table. Further, over-valuation of the gross output figure is caused by sales of materials from one firm to another and their inclusion by both in the statement of output. The matter is discussed on page 280, where it is estimated that the value, free from duplication, of the output of the Building and Contracting Trades in 1924 lay between $£ 175$ millions and £ 185 millions.

## Production.

Detailed information relating to the output of the Building and Contracting Trades in 1924 is given in Table II on pages 284 and 285. The following statements furnish a summary of the principal particulars and of comparable particulars for 1907 so far as available.
Construction, maintenance and repair of buildings and other works.The table given below shows the value of the work of construction, maintenance and repair carried out in 1924 and 1907 by firms that made their returns on schedules for the Building and Contracting Trades.
 *i.e., Buildings owned, occupied or used for the purposes and duties of public
authorities and the administration of justice, and all subsidiary buildings connected authorities and the administration or not just housing schemes which are included in the heading Working class dwellings.

Work of construction, maintenance and repair carried out by manufacturing trades.-The most important class of work carried out by other trades was that falling within the category of Constructional engineering, but substantial amounts were also returned by electrical engineers and by firms that were primarily concerned with the manufacture of building and roadmaking materials, such as timber, masonry, paving stone, asphalt, tarred macadam, etc. In the schedules relating to these various trades, it was generally provided that the value shown for constructional work should be exclusive of that of materials made by the firm carrying out the work and incorporated in the work; so that, where the great bulk of the materials used was produced by that firm, the amount recorded as the value of the constructional work represented only the labour cost, the cost of such materials as were not made by the firm, and incidental expenses attributable to the work, the value of the
materials made by the firm carrying out the work being, in the main, shown separately as goods made. But this method of return was not found to be uniformly practicable, and the aggregates recorded are known to include a certain number of composite statements of value covering the value of the materials made as well as the cost of those purchased.

Firms carrying out constructional work in iron and steel were not asked to distinguish between the different classes of buildings or undertakings on which the work was done. Consequently, the value of constructional engineering work (returned under the heading Iron and steel structural work) can only be stated in one sum and there are no means of allocating this sum to the various individual items in accordance with the output classification of the schedule for the Building and Contracting Trades. The total value of structural work of iron and steel carried out in 1924, as returned on the schedules for the principal trades concerned, was as follows :-

Iron and steel structural work returned by firms in the - a'000
Engineering Trades
£000
Iron and Steel (Smelting, Rolling and Founding) Trades
Other metal-using trades
570
Total .. .. .. .. .. $\overline{16,152}$
The general nature of the work to which these figures related may be suggested to some extent by the characteristic processes of the trades concerned. For example, the figure returned by firms in the heavy Iron and Steel Trades related in the main to such work as the erection of girders and steel frame-work for buildings, bridges, etc. ; work of a similar kind is included in the figure returned by the Engineering Trades, which also covers installation and fixing of machinery and plant in factories, gas works, etc.

The total amount returned under the heading Iron and steel structural work in the Census of 1907 by firms in the Engineering and the heavy Iron and Steel Trades was $£ 8,109,000$.

Particulars returned by manufacturing firms in regard to work of construction and repair, other than that classified as constructional engineering, are given below :-

| Trade. | Work done on |  |  |
| :---: | :---: | :---: | :---: |
|  | Buildings. | Highways, roads, bridges, etc. | Other work. |
|  | $¢^{\prime} 0000$ | ${ }^{\prime} 0000$ | $£^{\prime} 000$ |
| Building Materials and Monumental Masonry .. | 849 929 | 1,649 |  |
| Light Castings | 1,807 | - | - |
| Non-metalliferous (other than Slate) Quarries. . | - | 310 |  |
| Electrical Engineering ... .. ... .. | $\begin{aligned} & 851 \\ & 248 \end{aligned}$ | 二 | $\begin{array}{r} 3,239 \\ 82 \end{array}$ |
| Total . . | 4,684 | 1,959 | 3,321 |

As already explained, these figures are generally exclusive of the materials made by the firm carrying out the work but are inclusive of all materials purchased.

Total value of all work of construction, maintenance and repair carried out in the United Kingdom in 1924 and 1907.-In the following table, particulars of the chief kinds of constructional and repair work returned to the Census by private firms in all trades are shown, together with similar particulars returned by Local Authorities, Government Departments and Public Utility Services. In comparing the figures for each class of work, the different basis of valuation (i.e., the exclusion of the element of profit) of the work carried out by the latter group should not be ignored.

| Kind of work done. | 1924. |  |  |  | 1907. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Returned on schedules for |  |  |  | Total. |
|  | $\begin{aligned} & \text { The } \\ & \text { Building } \\ & \text { and } \\ & \text { Con- } \\ & \text { tracting } \\ & \text { Trades. } \end{aligned}$ | Other trades. | Public <br> Utilities, <br> Local <br> Authorities <br> and <br> Govern- <br> ment <br> Depts. | Total. |  |
| Construction, maintenance, and repair of | £'000 | ${ }_{\text {f }}{ }^{\prime} 000$ | $£^{\prime} 000$ | $\chi^{\prime} 000$ | $\AA^{\prime} 000$ |
| Buildings . . . . . | 168,240 | 4,684 | 10,440 | 183,364 | 80,918 |
| Railways and light railways | 168,238 | - | 22,171 | 25,009 |  |
| Tramways | 592 8,449 | 1,959 | 4,849 36,759 | 5,441 47,167 | $\int_{13,308}^{16,78}$ |
| Highways, etc. Sewers and sewage disposal | 8,449 | 1,959 | 36,759 | 47,167 | 13,308 |
| Sewers and sewage disposal works . | 2,645 | - | 2,954 | 5,599 | 3,844 |
| Harbours, wharves, docks and piers | 1,555 | 52 | 4,192 | 5,799 | 4,783 |
| Canals and waterways ... .. | 123 | - | 1,602 440 | 1,725 579 | 999 328 |
| Sea walls and embankments .. | 139 2,249 | 18 | 440 5,714 | 579 7,981 | 328 4,189 |
| Waterworks, etc. | 2,249 | 18 | 5,714 | 7,981 | 4,189 |
| Gas mains and works (other than buildings) | 832 | 12 | 15,914* | 16,758* | 1,609 |
| Telegraphic and telephonic lines and works | 676 | 545 | 11,400 | 12,621 | 4,699 |
| Electric lines and works . | 1,156 | 2,694 | 8,180 | 12,030 | 1,803 |
| Other work | 832 |  | 1,962 | 2,794 | 2,344 |
| Total of above | 190,326 | 9,964 | 126,577 | 326,867 | 135,604 |
| Iron and steel structural work | - | 16,152 | - | 16,152 | 8,109 |
| Total value .. .. | 190,326 | 26,116 | 126,577 | 343,019 | 143,713 |

* Includes a sum of $f 6,174,000$ for work done on buildings and plant by employees of gas works.
As already explained, the value of constructional engineering work ( $£ 16,152,000$ in 1924 and $£ 8,109,000$ in 1907) cannot be allocated to the particular classes of work mentioned in this statement and the value of work carried out on the buildings of private firms by their own employees (valued at about $£ 5,000,000$ in 1907) is also excluded; a further defect arises from the absence of returns from firms, mostly small, whose operations escaped record in both years. Making allowance for these omissions and disregarding differences in valuation, it is clear that the total value of all work to which this
report relates carried out in the United Kingdom in 1924, cannot have been less than $£ 350$ millions. The number of persons engaged in carrying out this work was in the near neighbourhood of one million, or nearly one-seventh of the aggregate number employed in the whole of the productive industry of the United Kingdom, as ascertained by the Census of 1924.
Other work done and goods made for sale or for stock.-In addition to the work shown in the preceding tables, firms that made their returns on schedules for the Building and Contracting Trades did a certain amount of other types of work, not connected with the construction or maintenance of buildings, etc., as set out in those tables. This work is summarised below under the heading Jobbing work and is dealt with in the reports on the appropriate trades. There was also recorded by these firms an output of goods, some of which were for use in the Building and Contracting Trades (but were not so used by the firms that produced them) and some for use in other trades ; these also are shown in the table below.

| Kind of work done and goods made. | 1924. | 1907. |
| :---: | :---: | :---: |
| Jobbing work- | £'000 | ¢'000 |
| Carpentry | 193 | 51 |
| Wheelwrighting | 56 | 30 |
| Engineering Smiths' work Other work | 135 16 | 23 |
| Other work | 112 | 11 |
| Total-Jobbing work | 512 |  |
| Goods made for sale or for stock- |  |  |
| For use in the Building and Contracting Trades : |  |  |
| Manufactured joinery .. .. .. .. | 785 |  |
| Deals, mouldings, etc. .. .. .. . . Shop fittings | 114 | 79 |
| Shop fittings Building stone . . . . . . | 242 | 18 |
| Building stone .. Bricks Mortar M | 81 | 52 |
| $\begin{array}{lllll}\text { Bricks } & \text { Mortar } & . & . & . \\ \text { Mor }\end{array}$ | 20 | 15 |
| Artificial stone, cement blocks, etc. | 34 95 |  |
| Other building materials Road-making materials | 75 | 75 |
| Road-making materials | 58 | 42 |
| Total | 1,504 | 443 |
| For use in other trades : |  |  |
| Stone dressed, carved, etc., for monumental purposes |  |  |
| Coffins .. .. .. .. .. | 151 |  |
| Heating and ventilating apparatus | 1 | 18 |
| Machinery .. .- | 1 | 17 |
| Furniture . . . ${ }^{\text {a }}$ | 91 | 25 |
| Boats (including repairs) Wood packing cases | 84 | 24 |
| Wood packing cases Other timber goods | 231 |  |
| Other metal goods | 371 111 | 134 |
| Other goods .. | 59 |  |
| Total | 1,152 | 312 |
| Total-Other work done and goods made | 3,168 | 883 |

Value of output free from duplication.-The gross value of $£ 193,494,000$ returned as the output of the firms that made returns for 1924 on schedules for the Building and Contracting Trades includes, as already explained, a double record of work done by subcontractors. In view of the great difficulty experienced by the majority of firms in furnishing separately the amount paid to other firms for work sub-let and the amount paid for purchased materials, a combined sum covering the two items was accepted, and it is impossible to apportion the total figure of $£ 96,977,000$ between them. The returns themselves afforded no means of distinguishing work done on sub-contract from that done for building owners; it is, in fact, of very common occurrence for one firm to be in the position of a principal contractor for one job and in that of a subcontractor for another. Further, a large proportion of the iron and steel structural work and other contract work returned on schedules for other trades probably consisted of work sub-let by main contractors whose output is included in the gross figure for the Building and Contracting Trades.
It is evident, therefore, that any estimate of the extent of the duplication in the gross output must be highly speculative. The only factor that bears on the question is the figure of about $£ 6,000,000$ which was the estimate taken for the purposes of the 1907 Census and was based on the total amount (recorded separately in that Census) returned as paid for all work sub-let, but there is little doubt that some part of this amount represented work carried out by constructional engineers and other firms whose returns were made on schedules for other trades
A further, but less serious, element of duplication consists in the possible sales within the trade of the goods described as "for use in the Building and Contracting Trades" and valued at $£ 1,504,000$. Part of these goods was, however, probably added to the makers' stocks.

On the whole, the total amount of duplication was probably not less than $£ 8,000,000$ and not greater than $£ 18,000,000$, but there are no means of indicating at what point within this somewhat wide range the true figure is likely to lie. The total value of the output of the firms that made returns on schedules for the Building and Contracting Trades, in 1924, free from duplication, is, therefore, estimated as lying between $£ 175,000,000$ and $£ 185,000,000$. The corresponding estimate for 1907 was between $\AA 81,000,000$ and $£ 82,500,000$.

Cost of materials and amount paid for sub-contract work.-The cost of the materials used and the amount paid for sub-contract work by firms that made their returns on schedules for the Building and Contracting Trades was returned as $£ 96,977,000$ in 1924. The extent of the duplication involved in this figure is discussed in the preceding paragraph.

Net output.-The net output in 1924 of the firms that made their returns on schedules for the Building and Contracting Trades (whose gross output was valued at $£ 193,494,000$ ) was $£ 96,517,000$, that sum representing, without duplication, the total amount by which the value of the aggregate output exceeded the cost of the materials used and the amount paid for sub-contract work.
The net output per head of persons employed in the censal year 1924 was $£ 188$ as compared with $£ 84$ in 1907 .

## 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 Building and Contracting Trades that made returns both to the Ministry of Labour and to the Census of Production office. According to the Census records this group of firms employed, in the week ended 18th October, 1924, 167,322 operatives, or 34 per cent. of the total of 491,817 operatives for the trades as a whole, and their net output totalled $£ 31,221,000$, or 32 per cent. of the aggregate net output of $£ 96,517,000$ for the trades as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was $£ 23,696,000$, representing about 76 per cent. of their aggregate net output. There are no means of determining whether this percentage is representative of the general condition of firms that did not furnish the amount of their wage payments.

## Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 286 and 287. 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 returned for 1924 have been divided between the two sex- and age- groups in the proportions shown by the data relating to the week ended 18th October.


The numbers of operatives recorded month by month in 1924 ranged from 76,064 below the average, in August, to 32,870 above the average, in October (see Table III B, page 287). It will be noted that in the months of July and August (when there was a partial stoppage of work) the aggregate numbers employed were about 90,000 fewer than the average for the other ten months and nearly 50,000 fewer than the smallest number recorded for any of those months (January).

## Mechanical Power.

The information relating to mechanical power in 1924 is summarised in Table IV on page 288. The following table sets out the particulars for 1924 and 1907 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. |
| Prime movers :-Reciprocating steam engines .. | H.P. | H.P. | H.P. | H.P. |
|  | 28,065 | 6,076 | 34,141 | 126,810 |
| Steam turbines .. ... | 156 | 32 | 188 | 260 |
| Gas engines | 38,624 | 3,055 | 41,679 |  |
| Petrol and light oil engines | 21,426 | 2,124 | 23,550 2,606 | \} 41,482 |
| Heavy oil engines | 2,483 314 | 123 | 2,606 314 | 1,928 |
| Water power Other |  | - |  | 42 |
| Total | 91,068 | 11,410 | 102,478 | 170,522 |
| Electric generators :- <br> Driven by- <br> Reciprocating steam engines. <br> Steam turbines <br> Gas engines <br> Petrol and light oil engines <br> Heavy oil engines <br> Water power <br> Other prime movers .. | Kw. | Kw. | Kw. | Kw. |
|  | 825 | 150 | 975 | 2,090 |
|  | 825 | 150 |  |  |
|  | 2,166 | 469 | 2,635 |  |
|  | 254 | - | 254 |  |
|  | 277 | - | 277 | 1,457 |
|  | 38 |  | 38 |  |
|  |  | - |  |  |
| Total | 3,560 | 619 | 4,179 | 3,697 |

The capacity of electric motors recorded in 1924 was as shown below

| Electric motors. |  | 1924. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Ordinarily } \\ & \text { in use. } \end{aligned}$ | $\begin{aligned} & \text { In reserve } \\ & \text { or idle. } \end{aligned}$ | Total. |
|  |  | H.P. | H.P. | H.P. |
| Driven by - <br> Electricity generated in own works |  |  |  |  |
| Purchased electricity .. | $\ldots$ | 84,603 | 9,658 | 94,261 |

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 $6,036,000$.

TABLES.
I.-Summary of results.

| Particulars. | Unit. | England and Wales | Scotland. | Great <br> Britain | Northern Ireland. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Value of work done and goods made (Gross output) | £'000 | 173,538 |  |  |  |
| Cost of materials used and amount paid for sub-contract work | $\pm 000$ | 173,538 87,259 | 17,132 8,283 | 190,670 95,542 | 2,824 1,435 |
| Net output .. .. .. | ", | 86,279 | 8,849 | 95,128 | 1,489 |
| Average number of persons employed | No. | 456,653 | 49,328 | 505,981 | 1,389 8,372 |
| Net output per person employed. . Mechanical power available : | $\star$ | 189 | 179 | $188$ | 166 |
| Prime movers Electric motors driven by pur- | H.P. | 91,588 | 8,021 | 99,609 | 2,869 |
| chased electricity .. | , | 84,401 | 9,014 | 93,415 | 846 |

II.-Production.

| Kind of work done and goods made for sale or stock. | England and Wales. | Scotland, | Great Britain. | Northern Ireland. |
| :---: | :---: | :---: | :---: | :---: |
|  | Value. | Value. | Value. | Value. |
| Building. <br> New constructional work:Public buildings* <br> Places of public worship and buildings connected therewith <br> Factories and workshops Working-class dwellings Other buildings (including shops, hotels, residential premises other than workingclass dwellings, etc.) <br> Buildings not separately distinguished .. | $£^{\prime} 000$ | $\ell^{\prime} 000$ | $f^{\prime} 000$ | £'000 |
|  |  |  |  |  |
|  | 8,145 | 977 | 9,122 | 219 |
|  | 1,773 | 195 | 1,968 | 66 |
|  | 10,986 | 1,195 | 12,181 | 202 |
|  | 23,803 | 2,511 | 26,314 | 406 |
|  | 44,692 | 3,504 | 48,196 | 690 |
|  | 3,780 | 71 | 3,851 | 23 |
| Jobbing and repair work on buildings (painting, decorating, plumbing, etc.) | 53,459 | 6,140 | 59,599 | 614 |
| Electric lighting and heating installation and repair (so far as separately recorded) | 1,245 | 112 | 1,357 | 9 |
| New work and repair work, not separately distinguished | 3,109 | 294 | 3,403 | 20 |
| Total-Building work | 150,992 | 14,999 | 165,991 | 2,249 |
| Other constructional work. <br> Work of new construction, maintenance or repair on : |  |  |  |  |
| Railways and light railways (permanent way, tunnels, bridges, signals, etc.) | 2,757 | 81 | 2,838 | - |
| Tramways (permanent way, overhead wires, etc.) | 203 | 8 | 211 | 381 |
| Highways (roads, bridges, footpaths, surface drains, etc.) . . | 7,405 | 971 | 8,376 | 73 |
| Sewers and sewage disposal works | 2,508 | 122 | 2,630 | 15 |
| Harbours, wharves, docks and piers | 1,460 | 95 | 1,555 |  |
| Canals and waterways .. | 122 | 1 | 123 |  |
| Sea walls and embankments | 132 | 7 | 139 |  |
| Waterworks (reservoirs, aqueducts, wells, mains, hydraulic works, etc.) | 1,976 $\dagger$ | 273 | 2,249 ${ }^{\text {¢ }}$ | $\dagger$ |
| Gas mains and works (other than buildings) | 816 | 16 | 832 | - |
| Telegraphic and telephonic lines and works | $619 \dagger$ | 57 | $676 \dagger$ |  |
| Electric lines and works | 1,122 $\dagger$ | 34 | 1,156 $\dagger$ | $\dagger$ |
| Other constructional work | 747 | 85 | 832 |  |
| TOTAL-Other constructional work | 19,774 | 1,750 | 21,524 | 562 |
| Jobbing work. |  |  |  | 3 |
| Carpentry ${ }^{\text {a }}$ |  |  |  |  |
| Wheelwrighting | 46 107 | 10 | r6 | - |
| Engineering . | 107 | 28 | -16 |  |
| Smiths' work .. Other jobbing work | 16 104 | 8 | 16 112 | - |
| Total-Jobbing work | 428 | 81 | 509 | 3 |

* Buildings owned, occupied or used for the purposes and duties of public authorities and the administration of justice, and all subsidiary buildings connected therewith, but not dwellings erected under housing schemes, which are included in the heading Working-class dwellings.
$\dagger$ In order to avoid the possible disclosure of information relating to individual firms, the figures for Northern Ireland have been included with those for England and Wales and for Great Britain.
II.-Production-continued.

| Kind of work done and goods madef or sale or | England and Wales | Scotland. | Great | Northern |
| :---: | :---: | :---: | :---: | :---: |
|  | Value. | Value. | Value. | Value. |
| Goods made for sale or for stock. <br> Mainly for use in the Building and Contracting Trades : | $\chi^{\prime} 000$ | $\AA^{\prime} 000$ | $£^{\prime} 000$ | $£^{\prime} 000$ |
| Manufactured joinery . . . . . | 719 | 65 | 784 | 1 |
| Deals, mouldings and other saw-mill products .. | 110 | 4 | 114 | - |
| Shop fittings .. | 212 | 30 | 242 |  |
| Building stone | 59 | 22 | 81 | - |
| Bricks | 20 | - | 20 | - |
| Mortar | 32 | - | 32 | 2 |
| Artificial stone, concrete blocks, etc. | 80 | 13 | 93 | 2 |
| Other building materials | 47 | 24 | 71 | 4 |
| Road-making materials | 58 | - | 58 | - |
| Total | 1,337 | 158 | 1,495 | 9 |
| Mainly for use in other trades:- |  |  |  |  |
| Stone, dressed, carved, etc., for monumental purposes .. | 40 | 11 | 51 | 1 |
| Coffins . . . . . . | 143 | 8 | 151 | - |
| Heating and ventilating apparatus | - | 1 | 1 | - |
| Furniture | 88 | 3 | 91 | - |
| Boats (including repair work) | 36 | 48 | 84 | - |
| Wood packing cases | 227 | 4 | 231 | - |
| Other timber goods | 337 | 35 | 372 | - |
| Other metal goods | 80 | 31 | 111 | - |
| Other goods | 56 | 3 | 59 |  |
| Total | 1,007 | 144 | 1,151 | 1 |
| $\begin{array}{cccc}\text { Total-Goods MADE } & \text { FOR } & \text { SALE } \\ \text { OR FOR Stock } & \ldots & \ldots & . .\end{array}$ | 2,344 | 302 | 2,646 | 10 |
| Total value of work done and goods made (Gross output) .. | 173,538 | 17,132 | 190,670 | 2,824 |

## III.-Employment.

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

| Kind of staff. | Males. |  | Females. |  | Males and females. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Under } \\ & 18 . \end{aligned}$ | $\begin{gathered} \text { All } \\ \text { ages. } \end{gathered}$ | Under $18 .$ | $\begin{gathered} \text { All } \\ \text { ages. } \end{gathered}$ | Under 18. | $\begin{aligned} & \text { All } \\ & \text { ages. } \end{aligned}$ |
| England and Wales :Operatives Administrative, etc.** | $\begin{array}{r} 32,542 \\ 1,995 \end{array}$ | $\begin{array}{r} 435,967 \\ 43,494 \end{array}$ | $\begin{aligned} & 182 \\ & 658 \end{aligned}$ | $\begin{array}{r} 750 \\ 4,930 \end{array}$ | $\begin{array}{r} 32,724 \\ 2,653 \end{array}$ | $\begin{array}{r} 436,717 \\ 48,424 \end{array}$ |
| Total | 34,537 | 479,461 | 840 | 5,680 | 35,377 | 485,141 |
| Scotland :Operatives Administrative, etc.* | $\begin{array}{r} 5,000 \\ 135 \end{array}$ | $\begin{array}{r} 46,625 \\ 4,735 \end{array}$ | 28 255 | $\begin{array}{r} 112 \\ 1,481 \end{array}$ | 5,028 390 | $\begin{array}{r} 46,737 \\ 6,216 \end{array}$ |
| Total | 5,135 | 51,360 | 283 | 1,593 | 5,418 | 52,953 |
| Great Britain :Operatives Administrative, etc.** | $\begin{array}{r} 37,542 \\ 2,130 \end{array}$ | $\begin{array}{r} 482,592 \\ 48,229 \end{array}$ | 210 913 | $\begin{array}{r} 862 \\ 6,411 \end{array}$ | $\begin{array}{r} 37,752 \\ 3,043 \end{array}$ | $\begin{array}{r} 483,454 \\ 54,640 \end{array}$ |
|  | 39,672 | 530,821 | 1,123 | 7,273 | 40,795 | 538,094 |
| Northern Ireland:Operatives Administrative, etc.** | $\begin{array}{r} 651 \\ 18 \end{array}$ | $\begin{array}{r} 8,359 \\ 659 \end{array}$ | -18 | $\begin{array}{r} 4 \\ 107 \end{array}$ | $\begin{array}{r} 651 \\ 36 \end{array}$ | $\begin{array}{r} 8,363 \\ 766 \end{array}$ |
| Total .. . | 669 | 9,018 | 18 | 111 | 687 | 9,129 |
| $\begin{gathered} \hline \text { United Kingdom :- } \\ \text { ToTAL } \quad . . \end{gathered}$ | 40,341 | 539,839 | 1,141 | 7,384 | 41,482 | 547,223 |

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

| England and Wales. (Annual average : 408,229.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Week | ended | Males and females. | Week |  | Males and females. |
| Jan. 12th . . |  | 384,829 | July 19th | .. .. | 338,754 |
| Feb. 16th | . | 400,903 | Aug. 16th | .. .. | 338,509 |
| Mar. 15th.. | $\cdots$ | 411,739 | Sept. 13th | .. .. | 432,144 |
| April 12th. . |  | 427,679 | Oct. 18th | $\ldots$ | 436,717 |
| May 17th.. | $\cdots$ | 432,773 | Nov. 15th | . | 432,208 |
| June 21st.. | . | 434,351 | Dec. 13th | . | 428,148 |


| Jan. 12th . |  |  | 38,127 | July 19th |  |  | 37,484 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Feb. 16th . |  | $\ldots$ | 40,433 | Aug. 16th | $\ldots$ | $\ldots$ | 36,555 |
| Mar. 15th . . | $\cdots$ | $\cdots$ | 42,885 | Sept. 13th | $\cdots$ |  | 46,625 |
| April 12th.. | $\cdots$ | $\ldots$ | 44,577 | Oct. 18th | $\ldots$ | $\cdots$ | 46,737 |
| May 17th.. | $\ldots$ | . | 45,932 | Nov. 15th | . |  | 45,857 |
| June 21st.. | . | . . | 47,049 | Dec. 13th | . |  | 45,081 |

Great Britain. (Annual average: 451,341.)

| Jan. 12th . |  |  | 422,956 | July 19th |  |  | 376,238 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Feb. 16th . | $\ldots$ | . | 441,336 | Aug. 16th | $\ldots$ |  | 375,064 |
| Mar. 15th . . | . | $\cdots$ | 454,624 | Sept. 13th | . | $\cdots$ | 478,769 |
| April 12th.. | . | . | 472,256 | Oct. 18th | $\cdots$ | . | 483,454 |
| May 17th | . | . . | 478,705 | Nov. 15th | $\ldots$ | $\ldots$ | 478,065 |
| June 21st | .. | .. | 481,400 | Dec. 13th |  | .. | 473,229 |

Northern Ireland. (Annual average : 7,606.)


## IV.-MIMechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS.

| (a) Ordinarily in use. <br> (b) In reserve oridle. | England and Wales. | Scotland. | Great Britain. | Northern Ireland. |
| :---: | :---: | :---: | :---: | :---: |
|  | H.P. | H.P. | H.P. | H.P. |
| Prime movers :- | 25,891 | 1,555 | 27,446 | 619 |
| Reciprocating steam engines $\left\{\begin{array}{l}(a) \\ (b)\end{array}\right.$ | 25,891 | 135 | 27,884 | 192 |
| Steam turbines .. .. ${ }^{\text {a }}$ (a) | 119 | 37 | 156 | - |
| Steam turbines $\quad \cdots \quad \cdots\{$ (b) | 32 | - | 32 | - |
| Gas engines . . . . $\left\{\begin{array}{l}(a) \\ (b)\end{array}\right.$ | 33,523 2,547 | 3,615 | 37,138 2,794 | 1,486 |
|  | 19,442 | 1,856 | 21,298 | 128 |
| Petrol and light oil engines $\left\{\begin{array}{l}\text { (b) }\end{array}\right.$ | 1,963 | 113 | 2,076 | 48 |
| Heavy oil engines .. .. $\{(a)$ | 1,973 | 425 | 2,398 | 85 |
| Heavy oil engines .. .. ${ }^{(b)}$ | 70 | 18 | 88 | 35 |
| Water power .. .. (a) | 279 | 20 | 299 | 15 |
| Totar ... $\{(a)$ | 81,227 | 7,508 | 88,735 | 2,333 |
| TOTAL .. .. .. $\{(b)$ | 10,361 | 513 | 10,874 | 536 |
| Total of prime movers installed | 91,588 | 8,021 | 99,609 | 2,869 |
|  | Kw. | Kw. | Kw. | Kw. |
| Electric generators :Driven by- |  |  |  |  |
| Reciprocating steam en- $\{(a)$ gines | 823 150 | 2 | 825 150 |  |
| Gine ... $\quad$ (a) | 1,867 | 37 | 1,904 | 262 |
| Gas engines .. .. ${ }_{\text {( }}$ ( $)$ | 394 | - | 394 | 75 |
| Petrol and light oil engines .. .. .. (a) | 249 | - | 249 | 5 |
| Heavy oil engines .. (a) | 277 | - | 277 | - |
| Water power .. .. (a) | 38 | - | 38 |  |
| Total .. .. .. ${ }^{(a)}$ | 3,254 | 39 | 3,293 | 267 |
| TOTAL . $\quad \cdots \quad \cdots\{(b)$ | 544 | - | 544 |  |
| Total of electric generators installed | 3,798 | 39 | 3,837 | 342 |
|  | H.P. | H.P. | H.P. | H.P. |
| Electric motors :- |  |  |  |  |
| Driven by- |  |  |  |  |
| Electricity generated in own works .. $\begin{aligned} & (a) \\ & (b)\end{aligned}$ | 4,810 396 | - | 4,810 396 | 127 |
| own works .. $\quad . \quad\}(a)$ | 75,317 | 8,502 | 83,819 | 784 |
| Purchased electricity $\cdots\left\{\begin{array}{l}\text { (b) }\end{array}\right.$ | 9,084 | 512 | 9,596 | 62 |


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

