

THE HARDWARE, HOLLOW-WARE AND BEDSTEAD
TRADES.

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Introductory.*

The tables on pages 139 to 144 are based on returns received from firms in Great Britain and Northern Ireland whose business in 1924 consisted wholly or mainly in the manufacture of hardware and hollow-ware, chiefly of iron or steel, metallic bedsteads, locks and safes, etc. The number of such separate returns was 2,667. About 450 firms to which schedules were sent did not furnish returns, but these firms for the most part had very small establishments and they included a number which had ceased operations before the end of the censal year. On the basis of the information available it is estimated that they did not employ more than 1,500 persons in all and that their total net output probably did not exceed £200,000.

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 being used for purposes of comparison.

Particulars.	Unit.	1924.	1907.
Value of goods made and work done (Gross output)	£'000	25,138	17,000
Cost of materials used	"	12,366	9,722
Paid for work given out to other firms.. .. .	"	136	91
Net output	"	12,636	7,187
Average number of persons employed	No.	73,923	82,699
Net output per person employed	£	171	87
Mechanical power available :—			
Prime movers	H.P.	19,194	29,624
Electric motors driven by purchased electricity	"	38,831	(not recorded).

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

(1) The comparability of figures relating to value or cost is affected by the changes which have taken place in the general purchasing power of money.

(2) The Census of 1907 covered Great Britain and the whole of Ireland, but that of 1924 applied only to Great Britain and

* See also the Notes on pages vii to xv.

Northern Ireland. The exclusion of Southern Ireland in 1924 does not seriously affect the comparability of the figures since, according to the Census of Production taken by the Government of the Irish Free State in respect of the year 1926, the total output of castings and manufactures of iron and steel, tinplate and japanned goods, ornamental metal work (including gates, railings and fencing materials), wire mattresses on wooden frames and other mattresses, was valued at £231,000 only, or less than 1 per cent. of the gross output of the Hardware, Hollow-ware and Bedstead Trades of the United Kingdom.

(3) Comparison of the results for the two years is rendered difficult by the changes which have been made in the composition of the Hardware, Hollow-ware and Bedstead Trades for the purposes of the Census of Production. The most important of these changes are :—

(a) In 1907, 44 per cent. of the total production of galvanised sheets was returned on the schedules for the Hardware, etc., Trades, whereas in 1924 it was returned almost entirely on the schedules for the Iron and Steel (Smelting, Rolling and Founding) Trades.*

(b) In 1907, 83 per cent. of the total production of grates, ranges, stoves and hearth furniture was returned on the schedules for the Hardware, etc., Trades; in 1924 only stoves and ranges of sheet metal were considered as products of the Hardware Trades, those of cast-iron being recorded mainly on the schedules for the Light Castings Trade.†

Value of output and cost of materials.—The figures in the above table representing the value of goods made and work done, and the cost of materials used, are the aggregates of the figures recorded by the firms that made returns, and, for the reasons explained in paragraphs (i) and (ii) on pages xii and xiii, they over-state the value of the output of, and the cost of materials used by, the Hardware, Hollow-ware and Bedstead Trades considered as a whole. The matter is discussed on page 134, where it is estimated that the value, free from duplication, of the output of these trades in 1924 lay between £23,900,000 and £24,400,000, and the cost of the materials purchased from sources outside the trade and worked up into its products lay between £11,250,000 and £11,750,000.

Divisions of the trade.—The firms that made their returns on the schedules for the Hardware, Hollow-ware, and Bedstead Trades in respect of the year 1924 may be divided into four main groups, covering four-fifths of the total output, in which the kinds of

* See page 39. † See page 79.

manufacture carried on are to a large extent independent of each other. These groups are :—

- (a) Locks and safes ;
- (b) Bedsteads and hearth furniture ;
- (c) Metal boxes and containers ; and
- (d) Hollow-ware.

The following table shows the main results of the Census of 1924 for each of these four groups :—

Particulars.	Unit.	Firms mainly engaged in the manufacture of			
		Locks and safes.	Bedsteads and hearth furniture.	Metal boxes and containers.	Hollow-ware.
Value of goods made and work done (Gross output)	£'000	1,884	2,040	6,437	9,927
Cost of materials used	"	646	1,018	3,748	4,651
Paid for work given out to other firms	"	8	11	30	56
Net output	"	1,230	1,011	2,659	5,220
Average number of persons employed	No.	7,388	4,596	16,575	30,682
Net output per person employed ..	£	166	220	160	170
Mechanical power available :—					
Prime movers	H.P.	1,265	1,745	4,090	7,172
Electric motors driven by purchased electricity	"	3,168	2,460	8,273	17,448

Production.

Detailed information as to the output of the Hardware, Hollow-ware and Bedstead Trades in 1924 will be found in Table II on page 139.

In addition to the output dealt with in this report, lamps, lanterns and fittings, and other goods, valued, on a cost basis, at £217,000 were produced in 1924, mainly by Railway Companies.*

Amount of output.

The following statement compares the particulars returned for 1924 on the schedules for the Hardware, etc., Trades with those returned for 1907 on schedules for the Galvanised Sheet, Hardware, etc., Trades and on schedules for the Lock and Safe Trades, except that the output of galvanised sheets, valued at £3,152,000, has been omitted from the 1907 figures. The various kinds of goods have been grouped into broad classes in order to minimise as far as possible the lack of comparability arising from the different classifications adopted at the two Censuses and mentioned above (page 125) ; in several cases, however, the contents of a class are not the same for both years.

* Such production falls within the scope of the report on Public Utility Services, which forms part of a separate volume.

Kind of goods.	1924.		1907.	
	Returned on schedules for		Returned on schedules for	
	The Hardware, etc., Trades.	All Trades.	The Hardware, etc., Trades.	All Trades.
Locks, latches and keys	£'000. 1,231	£'000. 1,317	£'000. 586	£'000. 597
Safes	529	533	319	332
Bedsteads and parts	1,094	1,305	1,413	1,478
Hollow-ware and metal containers (including boxes, trunks, tanks, cisterns, drums, kegs, etc.)	12,579	15,248	6,364	7,093
Enamelled signs	428	450	226	232
Waste products	245	245	162	162
Jobbing ironmongery and repairs	767	772	529	542
Other goods made	6,040	7,607	2,218*	2,606*
Work done for the trade	581	581	481	481
TOTAL VALUE OF GOODS MADE AND WORK DONE	23,494	28,058	12,298	13,523

* Including cast-iron stoves and ranges.

In addition to the above, an output of goods of kinds mainly produced in other trades was returned in each year on the schedules for these trades ; the value of such goods in 1924 was £1,644,000 and in 1907, £1,550,000.

Locks and safes.—The firms mainly engaged in the manufacture of locks and safes in 1924 had an output of these goods valued at £1,719,000 and of other goods valued at £164,000, together with £1,000 for work done for the trade, making a total of £1,884,000. Details of the output of locks and safes are shown below, including locks and safes made by other firms :—

Kind of goods.	Output returned by			
	Lock and safe makers.	Other hardware firms.	Firms in other trades.	All firms.
Locks, latches and keys	£'000. 1,190	£'000. 41	£'000. 86	£'000. 1,317
Safes	529*	—	4†	533
TOTAL	1,719	41	90	1,850

* £390,000 represented safes weighing 4,300 tons ; weight not stated for the remainder.

† Weight returned as 100 tons.

The firms that were mainly lock- and safe-makers manufactured 92·9 per cent. of the total output of locks and safes, while 91·2 per cent. of their output consisted of locks and safes. Manufacturers

were not required to state the quantity of their output in 1907, nor the quantity of locks, latches, and keys made by them in 1924. It is, therefore, difficult to estimate the increase or decrease in production, but as the value of locks, latches, and keys made in 1924 was 121 per cent. greater than the value of the output in 1907, while the output of safes showed only a 61 per cent. increase in value, it is probable that there was a moderate increase in the quantity of locks, latches, and keys made and perhaps some reduction in the output of safes. Particulars of the tonnage of safes made in 1924 were required, but were furnished in respect of only about three-fourths of the total value of the output.

Locks, latches and keys were not separately specified in the Import and Export List either in 1907 or in 1924, and safes were not so specified in the List for 1907. In 1924, however, safes weighing 1,524 tons, valued at £156,400 f.o.b., were exported and 47 tons, valued at £3,800 c.i.f., were imported and retained.

Bedsteads and hearth furniture.—The following table shows the output of bedsteads, wire mattresses, and hearth furniture, the output of firms mainly engaged in the production of these goods, of other firms in the Hardware, etc., Trades, and of firms in other trades being shown separately.

Kind of goods.	Output returned by			
	Bedstead and hearth furniture makers.	Other hardware firms.	Firms in other trades.	All firms.
	£'000.	£'000.	£'000.	£'000.
Metal bedsteads and finished parts thereof ..	1,090	4	211	1,305
Wire mattresses	339	—	707	1,046
Hearth furniture and art metal work (mainly of iron and steel)	432	46	1	479
TOTAL	1,861	50	919	2,830

Firms mainly engaged in making the above goods also made other goods valued at £176,000 and did work for the trade valued at £3,000, making their total output £2,040,000. Thus about 91·2 per cent. of the output of bedstead and hearth furniture makers was composed of bedsteads, wire mattresses, and hearth furniture, while they were responsible for 83·5 per cent. of the output of metal bedsteads and 90·2 per cent. of the output of hearth furniture.

Particulars of quantity were required for these goods, but the information obtained was not complete. It was stated, however, that the weight of metal bedsteads, valued at £701,000, was 20,600 tons, and that the weight of wire mattresses, valued at £362,000, was 11,200 tons.

About 18,400 tons of metal bedsteads and parts thereof (valued at £549,000 f.o.b.) were exported in 1907, but exports declined, in quantity, by about one-third to 12,600 tons (£679,000) in 1924. Retained imports were not separately recorded in 1907 but were 77 tons (£8,500) in 1924.

Metal boxes and containers.—The value of the metal boxes and containers made by the group of firms mainly engaged in the manufacture of these goods is set out in the following table, together with the value of similar goods made by firms mainly engaged in the production of other goods :—

Kind of goods.	Output returned by			
	Box and container makers.	Other hardware firms.	Firms in other trades.	All firms.
	£'000.	£'000.	£'000.	£'000.
Boxes, containers, etc., of tinsplate :—				
Plain or lacquered	2,036	24	44	2,104
Printed or decorated	1,939	28	1,309	3,276
Metal boxes, containers, tanks, cisterns, drums, kegs, etc., not separately distinguished	1,855	178	925	2,958
TOTAL	5,830	230	2,278	8,338

In addition, firms mainly engaged in the manufacture of metal boxes and containers made other goods valued at £484,000 and did work for the trade valued at £123,000. Thus their total output was valued at £6,437,000, of which about 90·6 per cent. consisted of boxes and containers of various kinds. These firms produced 69·9 per cent. of the recorded output of metal boxes and containers, but it is probable that boxes and containers made by distributing firms for their own use often escaped separate record. Quantities were stated in respect of only 19,000 tons of plain boxes, valued at £1,008,000, and 26,000 tons of printed or decorated boxes, valued at £1,324,000.

The most nearly corresponding output in 1907 was described as *Tinsplate and japanned goods (including hollow-ware, boxes, trays and other stamped goods)*. If to the above output of boxes and containers in 1924, there be added hollow-ware of tinsplate (£1,382,000 in the Hardware Trades and £16,000 in other trades); cash and deed boxes, trunks, etc. (£339,000 in the Hardware Trades and £3,000 in other trades); and some part (if not the whole) of the sheet metal work, including stampings, pressings, spinings, etc. (£2,291,000 in the Hardware Trades and £419,000 in other trades), possible totals of £10,072,000 (for the Hardware, etc., Trades) and £12,788,000 (for all trades) are obtained to set against the 1907 totals of £4,846,000 and £5,231,000 respectively.

Exports and imports of the above classes of goods were not recorded separately, except in so far as the class of metal boxes, tanks, cisterns, etc., includes sanitary cisterns (flushing tanks) of which 3,308 tons, valued at £120,300, were exported, and 4 tons valued at £450 were imported and retained in 1924.

Hollow-ware.—The following table gives details of the hollow-ware, cash and deed boxes, and enamelled signs made by firms that were chiefly engaged in the manufacture of those goods, by other firms in the Hardware, etc., Trades, and by firms in other trades :—

Kind of goods.	Output returned by			
	Hollow-ware manufacturers.	Other hardware firms.	Firms in other trades.	All firms.
	£'000.	£'000.	£'000.	£'000.
Hollow-ware (household, kitchen, etc., utensils) :—				
(1) Of iron or steel :—				
(i) Cast :—				
Not enamelled, etc.	97	5	13	115
Enamelled	48	16	8	72
Tinned	151	23	1	175
(ii) Wrought :—				
Not enamelled, etc.	246	—	—	246
Enamelled	1,176	1	—	1,177
Galvanised	1,151	16	6	1,173
(iii) Cast and wrought, not distinguished	337	13	54	404
(iv) Of tinplate	1,265	117	16	1,398
(2) Of aluminium :—				
Domestic	554	15	84	670
Industrial (vats, tanks)	8	9	—	17
(3) Not separately distinguished	758	174	290	1,222
TOTAL	5,791	389	472	6,652
Cash and deed boxes, trunks, etc., of sheet-iron or steel	328	11	3	342
Enamelled signs and tablets	322	106	22	450
TOTAL	6,441	506	497	7,444

In addition, hollow-ware manufacturers also made other goods valued at £3,295,000 and did work for the trade valued at £191,000. Thus their total output was £9,927,000, of which about 58·3 per cent. consisted of hollow-ware and 6·5 per cent. of cashboxes, etc., and signs and tablets. Their output was much more varied than that of any of the preceding groups, but they produced about 87·1 per cent. of the total output of hollow-ware, the remainder being fairly equally divided between other hardware firms and firms in other trades. Although particulars of the quantity of these classes of output were required, firms that produced over one-third (by value) of the output of hollow-ware and cash boxes, trunks, etc., were

unable to supply these particulars. The extent of the information given for the different kinds of hollow-ware varied considerably and is set out below :—

Hollow-ware.	Information furnished by firms giving particulars of weight.		Value of total output.
	Quantity.	Value.	
	Th. tons.	£'000.	£'000.
Of iron and steel :—			
Cast :—			
Not enamelled, etc.	5·6	115	115
Enamelled	1·1	38	72
Tinned	2·9	175	175
Wrought :—			
Not enamelled, etc.	4·6	246	246
Enamelled	14·0	1,177	1,177
Galvanised	28·6	1,173	1,173
Cast and wrought, not distinguished	1·9	109	404
Of tinplate	13·8	959	1,398
Of aluminium :—			
Domestic	1·1	405	670
Industrial	—	—	1,222
Not distinguished	—	—	—
TOTAL	73·6	4,441	6,652
Cash and deed boxes, trunks, etc.	2·3	207	342
	75·9	4,648	6,994

The output of hollow-ware returned by all trades in 1907 was as follows :—

	£
Cast hollow-ware and builders' and other ironmongery	1,398,000
Tanks, cisterns, sheet metal work and wrought hollow-ware, not galvanised	740,000
Enamelled wrought hollow-ware	193,000
Hardware and hollow-ware, not distinguished	271,000
TOTAL	2,602,000

It is impossible to compare the magnitude of the output in 1907 with that in 1924, since hardware was not completely separated from hollow-ware in the earlier year, but even when allowance has been made for the increase in the level of values there appears to have been a considerable increase in output; in enamelled wrought hollow-ware the aggregate value of output in 1924 was six times that in 1907.

Since about one-quarter of the value of the total output of hollow-ware in 1924 represented goods which were not distinguished by kind, no close comparison between production and exports and imports is possible. The following table, however, gives particulars of

quantities of exports and of retained imports in 1908 and in 1924 ; previously to 1908 exports and imports were not shown in detail :—

Hollow-ware.	Exports.		Net imports.	
	1924.	1908.	1924.	1908.
	Th. tons.	Th. tons.	Th. tons.	Th. tons.
Of iron or steel :—				
Cast :—				
Not enamelled, etc.	6.0	10.0	*	0.2
Tinned	0.8			
Enamelled	1.1	1.7	0.2	1.4
Wrought :—				
Not enamelled, etc.	0.9	10.5	0.1	0.4
Galvanised	4.2			
Enamelled	2.7	1.3	5.8	10.3
Of tinplate	3.1	3.9	0.1	0.9
TOTAL	18.8	27.4	6.2	13.2
Of aluminium	0.4	†	0.2	†
Cash and deed boxes, etc., of sheet iron or steel	1.4	†	*	†

* Less than 50 tons. † Not shown separately.

In 1907 exports of hollow-ware were 30,800 tons (of which 28,000 tons were not enamelled) and retained imports were 12,900 tons.

Other goods characteristic of the Hardware, etc., Trades.—Other classes of goods, as shown below, were made in 1924 by firms in the Hardware, Hollow-ware and Bedstead Trades ; an important part of this output was returned by firms in the preceding groups whose business was more specialised :—

Kind of goods.	Returned on schedules for	
	The Hardware, etc., Trades.	All trades.
	£'000.	£'000.
Stoves of sheet metal	245	272
Metallic furniture for offices and hospitals (except aseptic hospital furniture)	165	229
Fire extinguishers and sprayers	236	430
Vermin traps	53	55
Hardware, not elsewhere specified	137	158
Sheet metal work, not separately distinguished*	2,291	2,710
Stampings and forgings of iron or steel, not elsewhere specified	900	900
Other goods (lamps, lanterns, etc.)	664	796
Waste products	245	245
TOTAL	4,936	5,795

* Including stampings, pressings, piercings, spinnings, etc.

In addition to the goods enumerated, builders' ironmongery and hardware, valued at £532,000, was recorded in schedules for the Hardware, etc., Trades in 1924.

Comparable data for 1907 are not available. Stoves and ranges of sheet metal were in 1907 classed with grates, ranges, stoves, and hearth furniture of all kinds, valued at £2,053,000. For grates, etc., not of sheet metal, see page 79. The exports and imports of these classes of goods cannot be shown separately either for 1907 or for 1924.

Other products.

The firms that made their returns on schedules for the Hardware, etc., Trades, also included in their output certain classes of goods which, being of kinds mainly manufactured in other trades, are dealt with in the reports on those trades. The chief classes of such goods were as follows :—

	£
Cast-iron stoves, grates, and ranges	330,000
Cast-iron cisterns, baths, boilers, etc.	118,000
Other manufactures of iron and steel	646,000
Other manufactures of non-ferrous metals	395,000
Goods not of metal	155,000

TOTAL 1,644,000

Repairs and work done for the trade.

The amounts returned as received in 1924 for repair and jobbing work and for work done for the trade were as follows :—

	£
Repairs and jobbing work	767,000
Work done for the trade :—	
Galvanising	376,000
Japanning, lacquering, enamelling, etc.	109,000
Polishing, plating, and finishing	14,000
Tinning	30,000
Other work done	52,000

Total—Work done for the trade 581,000

TOTAL—Repairs and work done 1,348,000

In addition, £5,000 was returned on schedules for other trades in respect of jobbing work. In 1907, £542,000 was returned on all schedules in respect of repairs and jobbing work, and £481,000 (of which £356,000 was for galvanising) on schedules for the Hardware, etc., Trades in respect of work done for the trade. Considering the increase in wages since 1907 and the changed level of values it is probable that the greater amounts recorded in 1924 did not represent, in the aggregate, any increased volume of work.

Value of output free from duplication.

The gross value of the output (£25,138,000) returned on schedules for the Hardware, Hollow-ware, and Bedstead Trades for 1924 contains some duplication, though it is difficult to estimate its amount. The value returned for bedsteads and parts (£1,094,000) and lamps, lanterns, and parts (£653,000) may include some duplication in respect of parts made by some firms and sold to others. Sheet metal work (£2,291,000), stampings and forgings of iron and steel (£900,000), and iron castings (£186,000) may include semi-finished material passed on to other firms for completion or they may include articles finished in themselves (e.g., brass parts) but sold to other firms for the ornamentation of bedsteads, hearth furniture, etc., or for use in repairs; on the other hand, all the semi-manufactured material cannot be regarded as duplicated, since, apart from possible increases in makers' stocks, account has to be taken of sales to firms in other trades and of an unknown amount of exports included in the manufactures of iron or steel, unenumerated, valued at £5,267,000, exported in 1924. Finally, out of the £581,000 received for work done for the trade only that part representing work done for firms furnishing returns on schedules for the Hardware, etc., Trades, was duplicated, and as those firms reported that they paid only £136,000 for work given out by them to other firms, the latter sum represents the maximum amount of duplication in this item, the remaining £445,000 being received for work done for merchants, etc. About £500,000 was the estimated amount of duplication in 1907 and, all things considered, it would appear reasonable to estimate the duplication in 1924 as lying between £750,000 and £1,250,000, making the value of the output of the Hardware, etc., Trades, in that year between £23,900,000 and £24,400,000, free from duplication.

Cost of materials and work given out.

The cost of materials used by firms that made their returns on schedules for the Hardware, Hollow-ware, and Bedstead Trades was returned as £12,366,000 for 1924, a sum which, by the exclusion of the products of other firms in the trade, is reduced to an amount lying between £11,250,000 and £11,750,000.

The amount paid to other firms for work given out to them was returned as £136,000 in 1924, and £81,000 in 1907.

Net output.

The net output in 1924 of the firms that made their returns on schedules for the Hardware, Hollow-ware and Bedstead Trades (whose gross output was valued at £25,138,000) was £12,636,000, 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 £171 as compared with £87 in 1907.

Quantities of various materials used.

Voluntary information regarding the kinds and quantities of materials used in the Hardware, Hollow-ware and Bedstead Trades in 1924, was furnished by a certain number of manufacturers. The output of these firms is summarised in the following table:—

Kind of goods made.	Selling value.	Proportion of total output of trade.
	£'000.	Per cent.
Safes	163	30·8
Cash and deed boxes, trunks, suit-cases, etc., of sheet iron or steel	233	68·7
Metallic furniture for hospitals and office use, etc. (except aseptic hospital furniture)	122	73·8
Hollow-ware (household, kitchen, etc., utensils) of iron or steel:—		
Cast	251	73·7
Wrought	1,746	67·4
Cast and wrought, not separately distinguished	176	50·4
Hollow-ware of tinned plate	791	57·2
Hollow-ware of aluminium	310	52·9
Hollow-ware, not separately distinguished	193	20·7
Boxes, containers, etc., of tinplate	1,816	45·1
Metal boxes and containers, tanks, cisterns, drums, kegs, etc., not separately distinguished	859	42·2
Lamps, lanterns and parts	406	62·2
Enamelled signs and tablets	212	49·5
Locks, latches and keys	259	21·0
Sheet metal work, not separately distinguished (including stampings, pressings, piercings, spinings, etc.)	1,043	45·5
Hearth furniture and art metal work	200	42·0
Stoves and ranges of sheet metal	84	34·5
Fire extinguishers, sprayers, etc.	119	50·5
Other goods made and work done	1,565	24·8
TOTAL VALUE	10,548	42·0

The quantities of the principal materials used in the production of the goods shown in the above table were as follows:—

	Tons.
Galvanized sheets	2,221
Tinplates	55,733
Black plates and sheets	58,460
Aluminium	958

Exports and imports.

The following table, relating to the year 1924, shows the total production of certain of the main classes of hardware, hollow-ware, etc., in relation to the exports and imports of similarly described goods. As quantities of total production are available for some items of hollow-ware only (in which cases they are shown in italics in the table), the remaining items are given by value alone. It should be remembered, however, that these values are not strictly comparable since they are based on factory value in the case of production, f.o.b. value in the case of exports and c.i.f. value in the case of imports.

Kinds of goods.	Production.	Exports.	Net imports.
	Value at factory. £'000.	Value f.o.b. £'000.	Value c.i.f. £'000.
Safes	533	156	4
Bedsteads, complete and finished parts thereof (including finished tubes)	1,305	679	9
Wire mattresses	1,046	33	3
Hollow-ware (household, kitchen, etc., utensils) of iron or steel :—			
<i>Cast :—</i>			
Not enamelled	115	199	1
<i>(Th. tons)</i>	<i>(5.6)</i>	<i>(6.0)</i>	<i>(*)</i>
Enamelled	72	111	13
Tinned	175	69	†
<i>(Th. tons)</i>	<i>(2.9)</i>	<i>(0.8)</i>	<i>(*)</i>
<i>Wrought :—</i>			
Not enamelled	246	63	6
<i>(Th. tons)</i>	<i>(4.6)</i>	<i>(0.9)</i>	<i>(0.1)</i>
Enamelled	1,177	335	
<i>(Th. tons)</i>	<i>(14.0)</i>	<i>(2.7)</i>	<i>(5.8)</i>
Galvanized	1,173	221	1
<i>(Th. tons)</i>	<i>(28.6)</i>	<i>(4.2)</i>	<i>(*)</i>
Cast and wrought, not distinguished	404	—	—
Hollow-ware of tinned plate	1,398	286	15
Hollow-ware of aluminium :—			
Domestic	569	215	60
Vats, tanks, etc., for industrial purposes	17	3	†
Hollow-ware, not distinguished	1,222	—	—
Cash and deed boxes, trunks, suit-cases, etc., of sheet iron or steel	342	160	3
Metallic furniture for hospitals and office use, etc. (except aseptic hospital furniture)	229	88	97

* Less than 50 tons. † Less than £500.

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 Hardware, Hollow-ware and Bedstead Trades which made

returns both to the Ministry of Labour and to the Census of Production office. According to the Census records this group of firms employed, in the week ended 18th October, 1924, 38,279 operatives or 57 per cent. of the total of 67,364 operatives for the trades as a whole, and their net output totalled £7,170,000 or 57 per cent. of the aggregate net output of £12,636,000 for the trades as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was £3,776,000, representing about 53 per cent. of their aggregate net output.

Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 142 and 143. The following table sets out certain particulars for that year together with those relating to the year 1907. For the purpose of this comparison, the average numbers of operatives of each sex returned for 1924 have been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October.

Average number.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
1924.						
Operatives	7,406	39,698	8,980	26,269	16,386	65,967
Administrative, etc.	438	5,821	385	2,135	823	7,956
TOTAL	7,844	45,519	9,365	28,404	17,209	73,923
1907.						
Wage earners	9,722	57,157	5,621	18,347	15,343	75,504
Salaried	593	6,299	167	896	760	7,195
TOTAL	10,315	63,456	5,788	19,243	16,103	82,699

The numbers of operatives recorded month by month in 1924 ranged from 1,961 above the average, in December, to 2,165 below the average, in January (see Table III B, page 143). The numbers increased from month to month throughout the year, except for a pause in July and August. The average for the last three months of the year was more than 5 per cent. in excess of that for the first three months.

Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 144. 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.
	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS :—				
Reciprocating steam engines ..	3,886	946	4,832	16,399
Steam turbines	200	—	200	—
Gas engines	11,764	1,511	13,275	12,985
Petrol and light oil engines ..	122	33	155	
Heavy oil engines	604	50	654	
Water power	72	6	78	240
TOTAL	16,648	2,546	19,194	29,624
ELECTRIC GENERATORS :—				
Driven by—	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines..	640	367	1,007	2,300
Steam turbines	150	—	150	—
Gas engines	1,415	457	1,872	1,456
Petrol and light oil engines ..	5	5	10	
Heavy oil engines	122	37	159	
Water power	6	—	6	
TOTAL	2,338	866	3,204	3,756

The capacity of *electric motors* recorded for 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	2,048	194	2,242
Purchased electricity	33,910	4,921	38,831

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 3,290,000.

TABLES.

I.—Summary of results.

Particulars.	Unit.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
Value of goods made and work done (Gross output)	£'000	24,233	857	25,090	48
Cost of materials used	"	11,902	439	12,341	25
Paid for work given out to other firms	"	131	4	135	1
Net output	"	12,200	414	12,614	22
Average number of persons employed	No.	71,157	2,594	73,751	172
Net output per person employed ..	£	171	160	171	125
Mechanical power available :—					
Prime movers	H.P.	18,656	505	19,161	33
Electric motors driven by purchased electricity	"	37,277	1,530	38,807	24

II.—Production.

Goods sold or added to stock.	Unit.	England and Wales and Northern Ireland.†	Scotland.	United Kingdom.	
Locks, latches and keys	Quantity and selling value.	£'000	*	*	1,231
Safes	Quantity stated	Th. tons	4.3	—	4.3
Bedsteads, complete, and finished parts thereof (including finished tubes)..	Quantity not stated	£'000	390	—	390
Wire mattresses	Quantity stated	Th. tons	17.9	—	17.9
Hearth furniture and art metal-work, mainly of iron or steel	Quantity not stated	£'000	602	—	602
Boxes, containers, etc., of tinsplate :—	Quantity stated	Th. tons	10.5	—	10.5
Plain (including lacquered) only	Quantity not stated	£'000	271	—	271
Printed and decorated	Quantity not stated	£'000	*	*	68
Metal boxes and containers, tanks, cisterns, drums, kegs, etc., not separately distinguished ..	Quantity stated	Th. tons	*	*	478
	Quantity not stated	£'000	*	*	19.0
	Quantity stated	Th. tons	*	*	1,008
	Quantity not stated	£'000	*	*	1,052
	Quantity stated	Th. tons	*	*	26.0
	Quantity not stated	£'000	*	*	1,324
	Quantity not stated	£'000	*	*	643
	Quantity stated	Th. tons	1,882	151	2,033

*† See notes on p. 141.

II.—Production—continued.

Goods sold or added to stock.	Unit.	England and Wales and Northern Ireland.†	Scotland.	United Kingdom.
	Quantity and		selling	value.
Hollow-ware (household, kitchen, etc., utensils) of iron or steel :—				
<i>Cast :—</i>				
Not enamelled	<i>Th. tons</i> *	*	*	5.0
	<i>£'000</i> *	*	*	102
Enamelled	<i>Th. tons</i> *	*	*	1.1
	<i>£'000</i> *	*	*	38
Tinned	<i>Th. tons</i> *	26	—	26
	<i>£'000</i> *	*	*	174
<i>Wrought :—</i>				
Not enamelled	<i>Th. tons</i> *	*	*	4.6
	<i>£'000</i> *	*	*	246
Enamelled	<i>Th. tons</i> *	*	*	14.0
	<i>£'000</i> *	*	*	1,177
Galvanized	<i>Th. tons</i> 28.4	0.1	—	28.5
	<i>£'000</i> 1,162	5	—	1,167
Cast and wrought, not distinguished	<i>Th. tons</i> 1.7	0.2	—	1.9
	<i>£'000</i> 104	5	—	109
	<i>£'000</i> 241	—	—	241
Hollow-ware of tinned plate	<i>Th. tons</i> 13.4	0.2	—	13.6
	<i>£'000</i> 926	20	—	946
	<i>£'000</i> 433	3	—	436
Hollow-ware of aluminium :—				
For domestic use	<i>Tons</i> 908	—	—	908
	<i>£'000</i> 348	—	—	348
For industrial use (vats, tanks, etc.)	<i>Tons</i> 221	§	—	221
	<i>£'000</i> *	*	—	48
	<i>£'000</i> *	*	—	17
Hollow-ware, not separately distinguished	<i>£'000</i> 863	69	—	932
Hardware, not elsewhere specified	" 128	9	—	137
Cash and deed boxes, trunks, suit-cases, etc., of sheet iron or steel	<i>Th. tons</i> 2.3	†	—	2.3
	<i>£'000</i> 207	§	—	207
Stoves and ranges of sheet metal	<i>£'000</i> 132	§	—	132
Metallic furniture for hospitals and office use, etc. (except aseptic hospital furniture)	<i>£'000</i> 165	§	—	165
Fire extinguishers and sprayers, etc.	" *	*	—	236
Lamps, lanterns and parts	<i>Thous.</i> 740	12	—	752
	<i>£'000</i> 218	3	—	221
	<i>£'000</i> 426	6	—	432
Sheet metal-work, not separately distinguished (including stampings, pressings, piercings, spinings, etc.)	<i>£'000</i> 2,215	76	—	2,291
Enamelled signs and tablets	" *	*	—	428
Stampings and forgings of iron or steel, not elsewhere specified	" 892	8	—	900
Vermin traps	" 53	—	—	53
Pewter ware	" 11	—	—	11
Waste products :—				
Scrap iron and steel	<i>Th. tons</i> 34.7	0.6	—	35.3
	<i>£'000</i> 106	2	—	108
Spelter	<i>£'000</i> 89	7	—	96
Other	" 39	2	—	41

*†‡§ See notes on p. 141.

II.—Production—continued.

Goods sold or added to stock.	Unit.	England and Wales and Northern Ireland.†	Scotland.	United Kingdom.
	Quantity and		selling	value.
Manufactures of cast iron :—				
Cast-iron sanitary cisterns (flushing tanks)	<i>Th. tons</i> 2.5	—	—	2.5
	<i>£'000</i> 78	—	—	78
Cast-iron baths (porcelain-enamelled or other finish)	<i>Th. tons</i> 0.4	—	—	0.4
	<i>£'000</i> 32	—	—	32
Other sanitary cast iron goods, enamelled or not	<i>£'000</i> 4	—	—	4
Cooking and washing boilers of cast iron	<i>Th. tons</i> 0.1	0.1	—	0.2
	<i>£'000</i> 2	2	—	4
Cast-iron stoves, grates and ranges for domestic cooking and heating :—				
For coal and other solid fuel	<i>Th. tons</i> 2.4	0.7	—	3.1
	<i>£'000</i> 74	23	—	97
For gas	<i>Th. tons</i> 2.5	—	—	2.5
	<i>£'000</i> 129	—	—	129
Builders' ironmongery and hardware (including hinges), n.s.d.	<i>Th. tons</i> 0.8	—	—	0.8
	<i>£'000</i> 35	—	—	35
Fencing material (other than fencing wire) of cast or wrought iron	<i>Th. tons</i> 489	8	—	497
Wire manufactures	<i>£'000</i> 0.2	†	—	0.2
Manufactures of iron and steel, not elsewhere specified	<i>£'000</i> 12	§	—	12
	<i>£'000</i> 38	—	—	38
Iron castings, not elsewhere specified	<i>£'000</i> 49	—	—	49
	" 341	20	—	361
Manufactures of non-ferrous metals, not elsewhere specified	<i>Th. tons</i> 1.4	†	—	1.4
	<i>£'000</i> 35	§	—	35
Furniture	<i>£'000</i> 147	4	—	151
Other goods (not of metal)	<i>£'000</i> 384	11	—	395
	" 50	—	—	50
	" 93	12	—	105
TOTAL VALUE OF GOODS MADE	<i>£'000</i>	23,023	767	23,790
Repair and jobbing work and work done for the trade.		Amount received.		
Jobbing work and repairs	<i>£'000</i>	712	55	767
Galvanizing	"	347	29	376
Japanning, lacquering, enamelling, etc.	"	109	—	109
Polishing, plating and finishing	"	14	—	14
Tinning	"	30	—	30
Other work	"	46	6	52
TOTAL VALUE OF WORK DONE	<i>£'000</i>	1,258	90	1,348
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT)	<i>£'000</i>	24,281	857	25,138

* In order to avoid the possible disclosure of information relating to individual firms, figures are given only for the United Kingdom as a whole.

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

‡ Less than 50 tons.

§ Less than £500.

III.—Employment.

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

Kind of staff.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
<i>England and Wales</i> :—						
Operatives	7,126	38,596	8,975	26,284	16,101	64,880
Administrative, etc.*..	409	5,538	366	2,048	775	7,586
TOTAL	7,535	44,134	9,341	28,332	16,876	72,466
<i>Scotland</i> :—						
Operatives	401	1,782	205	566	606	2,348
Administrative, etc.*..	24	255	18	82	42	337
TOTAL	425	2,037	223	648	648	2,685
<i>Great Britain</i> :—						
Operatives	7,527	40,378	9,180	26,850	16,707	67,228
Administrative, etc.*..	433	5,793	384	2,130	817	7,923
TOTAL	7,960	46,171	9,564	28,980	17,524	75,151
<i>Northern Ireland</i> :—						
Operatives	30	129	1	7	31	136
Administrative, etc.*..	5	28	1	5	6	33
TOTAL	35	157	2	12	37	169
<i>United Kingdom</i> :—						
TOTAL	7,995	46,328	9,566	28,992	17,561	75,320

* Administrative, technical and clerical staff.

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

England and Wales. (Annual average : Males, 37,879 ; Females, 25,692 ; Total, 63,571.)

Week ended	Males.	Females.	Total.	Week ended	Males.	Females.	Total.
Jan. 12th ..	36,866	24,711	61,577	July 19th ..	38,019	25,642	63,661
Feb. 16th ..	36,955	24,860	61,815	Aug. 16th ..	37,837	25,601	63,438
March 15th ..	37,221	25,227	62,448	Sept. 13th ..	38,072	25,921	63,993
April 12th ..	37,384	25,580	62,964	Oct. 18th ..	38,596	26,284	64,880
May 17th ..	37,756	25,727	63,483	Nov. 15th ..	38,856	26,444	65,300
June 21st ..	37,980	25,870	63,850	Dec. 13th ..	38,999	26,445	65,444

Scotland. (Annual average : Males, 1,687 ; Females, 570 ; Total, 2,257.)

Jan. 12th ..	1,547	536	2,083	July 19th ..	1,707	585	2,292
Feb. 16th ..	1,608	564	2,172	Aug. 16th ..	1,696	555	2,251
March 15th ..	1,636	579	2,215	Sept. 13th ..	1,722	568	2,290
April 12th ..	1,628	580	2,208	Oct. 18th ..	1,782	566	2,348
May 17th ..	1,663	577	2,240	Nov. 15th ..	1,782	566	2,348
June 21st ..	1,690	599	2,289	Dec. 13th ..	1,783	562	2,345

Great Britain. (Annual average : Males, 39,566 ; Females, 26,262 ; Total, 65,828.)

Jan. 12th ..	38,413	25,247	63,660	July 19th ..	39,726	26,227	65,953
Feb. 16th ..	38,563	25,424	63,987	Aug. 16th ..	39,533	26,156	65,689
March 15th ..	38,857	25,806	64,663	Sept. 13th ..	39,794	26,489	66,283
April 12th ..	39,012	26,160	65,172	Oct. 18th ..	40,378	26,850	67,228
May 17th ..	39,419	26,304	65,723	Nov. 15th ..	40,638	27,010	67,648
June 21st ..	39,670	26,469	66,139	Dec. 13th ..	40,782	27,007	67,789

Northern Ireland. (Annual average : Males, 132 ; Females, 7 ; Total, 139.)

Jan. 12th ..	135	7	142	July 19th ..	126	6	132
Feb. 16th ..	142	7	149	Aug. 16th ..	131	6	137
March 15th ..	134	7	141	Sept. 13th ..	122	7	129
April 12th ..	134	7	141	Oct. 18th ..	129	7	136
May 17th ..	136	7	143	Nov. 15th ..	131	7	138
June 21st ..	138	7	145	Dec. 13th ..	132	7	139

IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS.

Power equipment.	England and Wales.		Scotland.		Great Britain.	
	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS :—						
Reciprocating steam engines	3,779	946	107	—	3,886	946
Steam turbines	200	—	—	—	200	—
Gas engines	11,363	1,481	368	30	11,731	1,511
Petrol and light oil engines ..	122	33	—	—	122	33
Heavy oil engines	604	50	—	—	604	50
Water power	72	6	—	—	72	6
TOTAL	16,140	2,516	475	30	16,615	2,546
TOTAL OF PRIME MOVERS INSTALLED	18,656		505		19,161	
	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
ELECTRIC GENERATORS :—						
Driven by :—						
Reciprocating steam engines	640	367	—	—	640	367
Steam turbines	150	—	—	—	150	—
Gas engines	1,415	457	—	—	1,415	457
Petrol and light oil engines	5	5	—	—	5	5
Heavy oil engines	122	37	—	—	122	37
Water power	6	—	—	—	6	—
TOTAL	2,338	866	—	—	2,338	866
TOTAL OF ELECTRIC GENERATORS INSTALLED	3,204		—		3,204	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
ELECTRIC MOTORS :—						
Driven by :—						
Electricity generated in own works	2,048	194	—	—	2,048	194
Purchased electricity ..	32,417	4,860	1,469	61	33,886	4,921

The power equipment recorded for Northern Ireland was as follows :—

Gas engines : 33 h.p., all ordinarily in use.

Electric motors driven by purchased electricity : 24 h.p., all ordinarily in use.