

BOARD OF TRADE

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*The Report on the  
Census of Production  
for 1954*

Volume 5: Industry F

BRASS MANUFACTURES



Presented by the Board of Trade to Parliament in pursuance of the  
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# The Report on the Census of Production for 1954

VOLUME 5 INDUSTRY F

## BRASS MANUFACTURES

THIS REPORT on the Brass Manufactures Industry relates to establishments engaged wholly or mainly in the manufacture of brass castings, stampings and pressings. Brass manufactures covered in the reports on other industries include brass nails, screws, bolts, rivets, washers, etc., in the Chain, Nail, Screw and Miscellaneous Forgings Industry; industrial valves of brass in the Mechanical Engineering (General) Industry; (in 1948 industrial valves of brass were not separately distinguished and establishments mainly manufacturing them were included in the Brass Manufactures Industry); brass wire in the Wire and Wire Manufactures Industry; and smallwares of brass in the Needles, Pins, Fish Hooks and Metal Smallwares Industry; while there is some output of brass articles in the Hardware, Hollow-ware, Metal Furniture and Sheet Metal Industry.

This industry corresponds to minimum list heading 95 in the Standard Industrial Classification.

There were no larger establishments in Northern Ireland in the register for this industry.

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IMPORTANT NOTES and definitions appear on the next page. In interpreting the data in the tables, it is essential to bear these in mind.

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The following notes describe terms in general use in the tables of the report. More detailed explanations of the terms used and a description of the scope and method of taking the census are given in the separate booklet entitled 'The Report on the Census of Production for 1954 - Introductory Notes' (price 1s. 6d. net).

**Industrial Classification:** Establishments are classified to industries according to the nature of their output and, as far as possible, in conformity with the Standard Industrial Classification. Certain products are identified as the principal products of individual industries, the principal products for a given industry being of a similar nature or commonly associated in production. The principle of classification normally followed is that an establishment is classified to an industry if its output of the principal products of that industry accounted for a greater proportion of the value of its output than did its output of the principal products of any other industry.

**Specialist producers** normally comprise those establishments 50 per cent. or more of whose total output by value is accounted for by the characteristic products of the specialist group.

**Intermediate products:** For some industries figures are given showing the total quantities made during the year of intermediate products, i.e., products which may be further processed in the establishments in which they are produced.

**Larger establishments:** The information given in the report relates mainly to 'larger establishments', i.e., establishments of firms employing on the average more than 10 persons. In most cases an establishment comprises the whole of the premises under the same ownership or management at a particular address (e.g., a mine or factory). Offices, warehouses, laboratories and other ancillary places of business situated apart from the producing works are not regarded as separate establishments and are included in the return for the works.

**Small firms** are those employing on the average 10 or fewer persons.

The estimates for the industry as a whole given in Table 1 are normally obtained by increasing the other items shown in the same proportion as total employment.

**Gross output (production)** is the total value of goods made and other work done during the year: it is obtained by adjusting the value of sales and work done during the year for changes in the value of stocks of products on hand for sale and work in progress.

**Net output** is the amount left after deducting from the value of gross output the aggregate of the cost of materials and fuel used, the amount paid for work given out, and, for 1951 and 1954, any transport payments made. This represents the value added to materials by the process of production, and constitutes the fund from which wages, salaries, rents; rates and taxes, advertising and other selling expenses and all other similar charges have to be met, as well as depreciation and profits.

**Sales** means sales during the year of goods made in the establishment covered by the return or made on commission for it, whether produced in the year or not. The value of sales is the net selling value, i.e., the amount charged to customers, whether on an ex-works or delivered basis, and net of any trade discounts, agents' commissions, allowances for returnable cases, purchase tax, etc. For goods charged on a delivered basis to customers overseas, firms were required to give the f.o.b. value.

**Materials and fuel:** The total cost of materials and fuel purchased includes all purchases during the year of materials for use in production, and of fuel (includ-

ing oil, gas and electricity) for all purposes; packing materials, including the full cost of returnable cases when first purchased; workshop and office materials; water charges; materials for repairs to buildings, plant and vehicles when carried out by firms' own work-people included in their returns; consumable tools; and parts for machinery purchased as replacements. Purchases of goods for merchandising are excluded. The cost of materials and fuel used, given in Table 2, is obtained by adjusting purchases for changes during the year in the value of stocks.

**Stocks:** Firms were required to give stocks of materials and fuel, products on hand for sale, and work in progress, at income tax values.

**Customs and Excise Duty** paid on materials purchased is normally included in the cost of materials. Finished goods are similarly valued as they were sold, duty-paid or duty-free. The net amount of any duty paid is deducted in arriving at net output.

**Employment:** Total employment includes working proprietors, administrative, technical and clerical employees, and operatives, but excludes outworkers, canteen employees and persons engaged in merchandising or any other activity not covered by a firm's return, who are shown separately as excluded employees. Employees are persons on the pay-roll (i.e., persons whose National Insurance cards were held by employers), whether employed full-time or part-time.

**Working proprietors** are proprietors of businesses other than limited companies, together with members of their families who worked in the business without receiving fixed wages or salaries. Any persons working less than half the normal hours are excluded. For Northern Ireland directors of limited companies (other than those paid by fee only) are also included.

**Administrative, technical and clerical employees** include directors, other than those paid by fee only (except in Northern Ireland); managers, superintendents and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; travellers; and office (including works office) employees.

**Operatives** include all other classes of employees, i.e., broadly speaking, all manual workers.

**Outworkers** are persons employed by the firm who work on materials supplied by the firm in their own homes.

**Wages and salaries** include all overtime payments, bonuses and commissions without any deductions for income tax, insurances, contributory pensions etc. They exclude payments to working proprietors.

**Capital expenditure** includes expenditure on new building work, and on plant, machinery and vehicles, charged to capital account during the year, including any transport and installation costs involved. It includes expenditure in respect of establishments in Great Britain which had not begun production before the end of the year (which has not previously been included in the Census of Production reports for individual industries).

**Symbols used:**

- .. for not available
- for nil or negligible (less than half the final digit shown).

Where figures are rounded, e.g., given to the nearest £ thousand, there may be apparent slight discrepancies between the sums of constituent items and the totals shown. In some cases, figures have been combined with others of a similar nature where publication of separate details might disclose information relating to an individual undertaking.

Industry summary  
Estimates for the industry as a whole

TABLE 1

	United Kingdom			Scotland 1954	Wales 1954
	1948	1951	1954		
Gross output (production)	£ million 56.6	£ million 78.5	£ million 76.2	£ million 6.56	£ million 1.27
Net output	29.6	33.9	33.6	2.84	0.35
Total stocks and work in progress					
At beginning of year	8.7	10.1	11.1	1.41	0.13
Change during year	+ 0.6	+ 4.1	+ 1.4	+ 0.02	+ 0.03
Capital expenditure less disposals (a)	1.7	1.7	2.7	0.16	0.02
Wages and salaries	16.2	17.0	19.8	1.83	0.20
Total employment (including working proprietors)	Thousands 53.2	Thousands 47.8	Thousands 46.9	Thousands 4.04	Thousands 0.57

(a) Capital expenditure on new building work, plant, machinery and vehicles (including (except in 1948) that incurred in Great Britain for establishments not yet in production), less amounts received for plant, machinery and vehicles disposed of.

## Summary of returns received

TABLE 2

	Unit	Great Britain	United Kingdom	
		1948	1951	1954
<b>FIRMS EMPLOYING ON AVERAGE MORE THAN 10 PERSONS</b>				
Number of establishments	No.	616	578	520
Total value of sales and work done	£'000	54,698	73,621	71,239
Products on hand for sale	"	4,380	4,985	5,992
and work in progress	"	+ 587	+ 1,672	+ 642
Gross output (production) (a)	"	54,966	75,293	71,881
Purchases of materials and fuel	"	25,600	43,699	39,414
Stocks of materials and fuel	"	4,076	4,656	4,491
Cost of materials and fuel used	"	+ 3	+ 2,239	+ 663
Payment for work done on materials given out	"	25,597	41,460	38,751
Excise Duty	"	681	800	848
Payment for transport (b)	"	9	-	-
Net output	"	318	547	610
Average number of employees	No.	28,678	32,487	31,672
Total employment (d)	"	44,427	38,996	37,054
Net output per person employed (d)	"	7,101 (c)	6,783	7,130
Wages and salaries	£'000	51,659	45,892	44,247
Capital expenditure	"	555	708	716
New building work (e)	"	12,352	12,642	14,308
Plant and machinery	"	3,333	3,666	4,365
Vehicles	"			
	"	368	427	631
	"	1,191	1,003	1,283
	"	87	48	77
	"	161	311	277
	"	32	84	105
<b>FIRMS EMPLOYING ON AVERAGE 10 OR FEWER PERSONS</b>				
Number of returns	No.	240	297	301
Total employment, including working proprietors	"	1,444	1,779	1,786

(a) For the year 1948 gross output excludes payments for transport services outwards on finished goods sold. For subsequent years gross output includes payments to other firms and undertakings and to firms' own separate transport organisations for transport services.

(b) Payments to other firms and undertakings and to firms' own separate transport organisations. For the year 1948 payments cover only transport outwards of finished goods sold. For subsequent years they cover payment for transport of both finished goods sold and materials and fuel purchased.

(c) Number in week ended September 25, 1948.

(d) Excluding outworkers and including working proprietors.

(e) Excluding expenditure for establishments not yet in production.

## BRASS MANUFACTURES

Analysis by size, 1954: Larger establishments in the United Kingdom

TABLE 3

Average number employed (a)	Estab-lish-ments	Gross output	Net output	Employees		Wages and salaries		Capital expenditure (b)	Net output per person employed (a)
				Operatives	Others	Operatives	Others		
	Number	£'000	£'000	Number	Number	£'000	£'000	£'000	£
11 - 24 (c)	171	4,444	2,108	2,392	491	971	310	85	725
25 - 49	131	6,914	3,103	4,008	684	1,513	452	182	658
50 - 99	93	9,474	4,472	5,211	1,016	2,016	663	195	717
100 - 199	67	14,151	6,342	7,695	1,369	2,837	871	354	699
200 - 299	27	11,476	4,943	5,747	1,131	2,210	672	470	719
300 - 399	18	10,796	4,595	5,027	1,117	1,983	618	427	748
400 - 499	6	4,884	2,157	1,980	581	922	359	239	842
500 - 749	4	3,692	1,240	1,859	266	651	136	83	583
750 - 999	-	-	-	-	-	-	-	-	-
1,000 - 1,499	3	6,050	2,713	3,135	475	1,207	285	157	752
Total	520	71,881	31,672	37,054	7,130	14,308	4,365	2,191	716

(a) Excluding outworkers and including working proprietors.

(b) Capital expenditure on new building work and on acquisition of plant, machinery and vehicles. Excluding expenditure for establishments not yet in production.

(c) Including a small number of establishments with fewer than 11 persons employed, particulars of which were included with those for larger establishments on a single return.

TABLE 4 - Analysis according to specialisation within the industry, 1954

Larger establishments in the United Kingdom

No specialisation within this industry was distinguished.

Sales of the principal products of the industry, including sales of these products by establishments classified to other industries

Larger establishments in the United Kingdom

TABLE 5

	1951		1954		Entries
	Quantity	Value	Quantity	Value	
	Th.cwt.	£'000	Th.cwt.	£'000	Number
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding other nickel alloys)					
Engineers' and mechanics' goods (including fittings for water supply)					
Draw off taps and cocks, and valves (other than metal to metal contact valves) and gas cocks	59.2	1,941	141.0	4,551	79
	..	1,029	..	2,498	
Sanitary, bathroom and other steam and water fittings (except taps, valves and cocks)	293.8	9,474(a)	156.8	4,984	90
	..	2,752	..	3,414	
Other kinds of engineers' and mechanics' goods	90.8	2,164	75.8	2,496	111
	..	1,059	..	1,182	
Builders' and cabinet makers' hardware (other than shop and office fittings), not elsewhere specified	60.5	2,780(b)	35.0	1,340	68
	..	368	..	884	
Fittings for motor cars and chassis	72.6	2,037	60.4	2,085	41
	..	1,121	..	564	
Stoves, pressure type, oil burning	Th. 471.7	573	Th. 218.3	422	14
	..	131	..	173	
Lamps (not electric), other than blow lamps and brazing lamps (c)	344.0	741	316.9	645	14
	..	302	..	144	
Parts of stoves, pressure type, oil burning, and lamps (not electric), other than blow lamps and brazing lamps (d)	Th.cwt. 0.8	36	Th.cwt. 0.3	10	6
	..	321	..	482	
Brass parts of switches, lampholders, cutouts and other accessories for electric lighting	10.0	426	4.6	157	31
	..	318	..	312	

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## BRASS MANUFACTURES

TABLE 5 (contd.)

	1951		1954		Entries
	Quantity	Value	Quantity	Value	
	Th.cwt.	£'000	Th.cwt.	£'000	Number
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding other nickel alloys) (contd.)					
Pendants, electroliers, brackets, taps and other fittings for lighting or heating purposes	50.4	1,617	14.0	522	35
	..	1,245	..	877	
Name plates, clock and other dials, instruction plates, etc.	12.3	918	7.2	664	36
	..	285	..	636	
Bar, brewery and distillery fittings	3.5	184	1.0	29	23
	..	782	..	655	
Fire extinguishing apparatus	9.0	311	1.2	29	23
	..	186	..	195	
Art metal work (including antique reproductions and other ornamental brassware, not elsewhere specified)	18.5	901	20.9	741	44
	..	448	..	1,285	
Bolts, hasps, blanks and parts therefor	3.3	149	1.1	50	15
	..	..	..	70	
Hinges, hinge blanks and parts therefor	13.3	427	8.6	372	33
	..	91	..	512	
Portholes, scuttles and similar fittings for ships	24.1	587	7.7	184	29
	..	65	..	491	
Propellers and propeller blades for ships	108.1	1,857	47.8	1,097	12
	..	..	..	1,478	
Railway and tramway fittings	10.0	170	7.9	136	120
	..	120	..	243	
Curtain rails and fittings	3.8	137	3.4	106	15
	..	659	..	1,055	
Sheet metal stampings and pressings of brass, not elsewhere specified	96.4	2,765	172.2	3,726	210
	..	944	..	1,468	
Hot brass pressings, not elsewhere specified	350.4	6,544	309.9	5,480	37
Castings in the rough (sold as such)	908.8	18,207	575.4	12,379	
Unclassified brass castings			86.3	1,688	127
Finished goods of brass, not elsewhere specified	56.0	2,124	61.5	2,135	
	..	975	..	2,288	114
Unspecified finished brass goods and parts	12.3	339	84.7	1,261	
	..	1,332	..	1,783	
Coffin furniture of all kinds (including brass)	19.0	833	3.8	154	10
	..	168	..	330	
Waste products other than scrap metals	..	77	..	87	66
Work done for the trade or on commission e.g., finishing, polishing, lacquering (e)		153		205	40
Repair work (e)		236		211	54
Total		73,408		70,969	..
Sales in other industries (see Table 6)		14,680		15,391	..
Principal products of this industry sold by establishments in the industry		58,728		55,577	486

(a) Including a small amount of domestic cocks and taps.

(b) Including shop and office furniture.

(c) For blow lamps and brazing lamps, see the Tool and Implement Industry, (Volume 5, Industry A). For hurricane lamps of metals other than copper alloys, see the Hardware, Hollow-ware, Metal Furniture and Sheet Metal Industry (Volume 5, Industry E).

(d) So far as recorded separately.

(e) Amount charged.

(83288)

## BRASS MANUFACTURES

Sales of principal products of the industry by establishments  
classified to other industries

Larger establishments in the United Kingdom

TABLE 6

	1954			Principal industries in which produced (a)
	Quantity	Value	Entries	
	Th.cwt.	£'000	Number	
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding other nickel alloys)				
Engineers' and mechanics' goods (including fittings for water supply)				
Draw off taps and cocks and valves (other than metal to metal contact valves) and gas cocks, and other valves and cocks	3.9	100	17	3C, 4I
Sanitary, bathroom and other steam and water fittings (except taps, valves and cocks)	43.3	1,720	17	3C, 3G, 5E, 12A
Other kinds of engineers' and mechanics' goods	11.3	335	20	3F, 3G, 4I
Builders and cabinet makers' hardware (other than shop and office fittings) not elsewhere specified	..	51	5	4M, 5C
Fittings for motor cars and chassis	1.2	24	..	3G, 4I, 5E, 5G
	Th.	31		
Stoves, pressure type, oil burning	55.3	122	7	5E
Lamps (not electric), other than blow lamps and brazing lamps, and parts of lamps and stoves	..	248	5	4I, 5E
	Th.cwt.			
Brass parts of switches, lampholders, cutouts and other accessories for electric lighting	2.0	34	6	4I, 4M, 5I
Pendants, electroliers, brackets, taps and other fittings for lighting or heating purposes	0.2	15	5	4I, 4K, 4M
Name plates, clock and other dials, instruction plates, etc.	0.6	39	5	3G, 4C, 5E, 5J
Art metal work (including antique reproductions and other ornamental brassware), not elsewhere specified	0.5	22	10	4F, 5E
	..	255		
Bolts, hasps, blanks and parts therefor	0.3	9	..	5E
	..	6		
Hinges, hinge blanks and parts therefor	2.1	77	13	5E
	..	380		
Portholes, scuttles and similar fittings for ships	3.0	62	..	4I, 5E
	..	15		
Sheet metal stampings and pressings of brass, not elsewhere specified	52.9	1,384	150	3F, 3G, 4I, 5E
	..	857		
Hot brass pressings, not elsewhere specified	2.2	65	..	3G, 3K, 5C
	..	144		
Castings in the rough (sold as such)	116.2	2,415	128	3B, 3G, 4B, 4I
	..	520		
Unclassified brass castings	86.3	1,688	127	3C
Finished goods of brass, not elsewhere specified	16.0	405	34	
	..	1,564		
Unspecified finished brass goods and parts	82.4	1,177	177	
	..	756		
Total		15,391	..	

(a) The volume number and industry references given are to the industries shown in the list at the back of this report.

## BRASS MANUFACTURES

Sales in the industry of other than principal products

Larger establishments in the United Kingdom

TABLE 7

	1954	
	Quantity	Value
	Th.doz.	£'000
Valves and cocks for the control of liquids, steam and gases (excluding inlet and exhaust valves for internal combustion engines)		
Industrial		
Wholly or mainly of iron or steel	..	287
Wholly or mainly of other metal and alloys, including copper alloys	..	3,012
Pressure gauges	0.3	13
	..	20
Blow lamps and brazing lamps	..	111
Hardware, hollow-ware, metal furniture and sheet metal products	..	483
Needles, pins and other metal smallwares	..	279
Machinery and parts thereof	..	797
Electrical goods and apparatus	..	140
Parts and accessories of motor vehicles	..	257
Metal manufactures, not elsewhere specified		
Of iron and steel	Th.cwt.	
Iron (including malleable) castings	123.9	591
	..	104
Stampings and pressings in the rough or machined	37.1	318
	..	218
Other manufactures	36.7	504
	..	467
Of copper		
Stampings and pressings	6.5	207
	..	78
Other manufactures	16.9	494
	..	241
Of aluminium		
Aluminium castings	24.1	975
	18.0	621
Other manufactures	..	353
	2.4	75
Of zinc	..	125
	11.9	255
Of other metals and alloys	..	70
Scrap metals		
Brass (including dust)	269.5	2,743
	..	613
Copper	6.7	58
	..	20
Other metals	78.3	123
	..	41
Other goods	..	758
Work done (a)	..	210
Total		15,662

(a) Amount charged.

TABLE 8 - Total make of intermediate products

Larger establishments in the United Kingdom

This table is not applicable to the industry.

Purchases of materials and fuel, 1954

Larger establishments in the United Kingdom

TABLE 9

	Quantity	Cost
	Th. tons	£'000
<b>Materials</b>		
Brass and other copper alloys including nickel silver and cupro-nickel but excluding all other nickel alloys		
Ingots, blocks, slabs, billets, bars and cast strip	63.2	14,253
Castings in the rough	2.8	963
Plates, sheets, strip, discs and circles and foil	5.8	1,619
Wire	1.1	276
Other descriptions, except finished parts and scrap	12.0	2,993
<b>Copper</b>		
Unwrought: ingots, blocks, slabs, bars, billets, cakes, cathodes and anodes, including rough copper of 94% content or over	5.3	1,330
Plates, sheets, strip, discs and circles (other than high conductivity)	0.8	232
Other descriptions, except finished parts and scrap	1.5	505
<b>Iron and steel</b>		
Iron castings in the rough or machined	2.0	143
Iron and steel not specified above except finished parts and scrap	15.2	769
<b>Aluminium and aluminium alloys in all forms except finished parts and scrap</b>	4.7	887
<b>Zinc and zinc alloys in all forms except finished parts and scrap</b>	2.7	286
<b>Scrap metal</b>		
Brass and other copper alloys, including nickel silver and cupro-nickel, but excluding all other nickel alloys	12.1	2,124
Copper	1.8	394
<b>Purchased components</b>	..	2,651
<b>Packing materials</b>	Th.cwt.	
Cardboard boxes, cartons and fibreboard packing cases	3.0	20
Other packing materials	..	124
Packing cases (wood or mainly of wood)	80.2	37
Other packing materials	..	111
Other packing materials	..	131
<b>Replacement parts for firms own machinery, plant and vehicles</b>	..	630
<b>Consumable tools bought as replacement including engineers' small tools, jigs, fixtures and measuring instruments</b>	..	537
<b>All other purchased materials</b>	..	2,487
<b>Unclassified materials</b>	..	1,693

TABLE 9 (contd.)

	Quantity	Cost
	Th. tons	£'000
<b>Fuel and electricity</b>		
Coal	21.1	88
Coke	..	11
Liquid fuel (including creosote/pitch mixtures)	47.4	317
For use in internal combustion engines	Th.gal.	
Motor spirit (petrol) for use in road vehicles and derv. fuel	612	129
Other	122	7
For burning in furnaces, boilers, kilns, etc.	..	1
For burning in furnaces, boilers, kilns, etc.	4,773	218
<b>Gas purchased</b>	Th.therms	
From Gas Boards	6,369	338
From other sources, including other departments of the same firms	-	-
<b>Electricity purchased (a)</b>	Th.kWh.	
From Electricity Boards	74,979	444
From other sources, including other departments of the same firms	330	2
<b>All other purchased fuel</b>	..	13
<b>Total cost</b>		39,414

(a) The total quantity of electricity generated in firms own establishments in this industry in 1954 was 1,156 Th.kWh.

Average number of employees, and wages, salaries and superannuation payments (a)

Larger establishments in the United Kingdom

TABLE 10

	1951	1954
	Number	Number
<b>Average number of employees</b>		
Operatives	38,996	37,054
Administrative, technical and clerical employees	6,783	7,130
Total	45,779	44,184
<b>Wages and salaries paid to</b>	£'000	£'000
Operatives	12,642	14,308
Administrative, technical and clerical employees	3,666	4,365
Total	16,308	18,673
<b>Wages and salaries per head</b>	£	£
Operatives	324	386
Administrative, technical and clerical employees	540	612

## BRASS MANUFACTURES

TABLE 10 (contd.)

	1951	1954
		£'000
Superannuation and other pension funds for employees and dependents		196
Employers' contributions	..	Number
Employees covered	..	6,297
		£'000
Pension, etc. payments to former employees and dependents	..	93

(a) The following persons, not included above, were also employed by larger establishments in this industry ('other workers' includes, for example, employees engaged in merchanting):

	1951	1954
	Number	Number
Canteen workers		
Males	31	19
Females	364	334
Total	395	353
Other workers		
Males	118	86
Females	107	118
Total	225	204
Total excluded employees	620	557

Outworkers. The firms in this industry employed 18 male and 111 female outworkers in 1951 and 31 male and 71 female outworkers in 1954, the amounts paid to them being £9,000 for each year.

## Employment in a specified week (a)

## Larger establishments in the United Kingdom

TABLE 11

	1951			1954		
	Males	Females	Total	Males	Females	Total
Working proprietors	108	5	113	55	8	63
Operatives	25,454	13,573	39,027	23,841	14,360	38,201
Administrative, technical and clerical employees	4,027	2,842	6,869	4,162	2,988	7,150
Total employees	29,481	16,415	45,896	28,003	17,348	45,351

(a) Week ended September 22, 1951, or October 30, 1954.

## LIST OF INDUSTRY REPORTS

## VOLUME 1

- A. Coal Mines
- B. Non-Metalliferous Mines and Quarries (other than Coal, Salt and Slate)
- C. Salt Mines, Brine Pits and Salt Works
- D. Slate Quarries and Mines
- E. Metalliferous Mines and Quarries
- F. Brick and Fireclay
- G. China and Earthenware
- H. Glass Containers
- I. Glass (other than Containers)
- J. Cement
- K. Abrasives
- L. Building Materials
- M. Manufactured Fuel

## VOLUME 2

- A. Coke Ovens and By-products
- B. Dyes and Dyestuffs
- C. Fertiliser, Disinfectant, Insecticide and Allied Industries
- D. Coal Tar Products
- E. Chemicals (General)
- F. Drugs and Pharmaceutical Preparations
- G. Toilet Preparations and Perfumery
- H. Explosives and Fireworks
- I. Paint and Varnish
- J. Soap, Candles and Glycerine
- K. Polishes
- L. Ink
- M. Match
- N. Mineral Oil Refining
- O. Oils and Greases
- P. Seed Crushing and Oil Refining
- Q. Glue, Gum, Paste and Allied Industries
- R. Plastics Materials

## VOLUME 3

- A. Blast Furnaces
- B. Iron and Steel (Melting and Rolling)
- C. Iron Foundries
- D. Steel Sheets
- E. Tinplate
- F. Wrought Iron and Steel Tubes
- G. Non-Ferrous Metals (Smelting, Rolling, etc.)
- H. Scrap Metal Processing
- I. Motor Vehicles and Cycles (Manufacturing)
- J. Motor Vehicles and Cycles (Repairing)
- K. Aircraft Manufacture and Repair
- L. Railway Locomotive Shops and Locomotive Manufacturing
- M. Railway Carriages and Wagons and Trams
- N. Carts, Perambulators, etc.

## VOLUME 4

- A. Shipbuilding and Ship Repairing
- B. Marine Engineering
- C. Machine Tools
- D. Textile Machinery and Accessories
- E. Small Arms
- F. Constructional Engineering
- G. Mechanical Handling Equipment

## VOLUME 4 (contd.)

- H. Printing and Bookbinding Machinery
- I. Mechanical Engineering (General)
- J. Mechanical Engineering (Repairing)
- K. Electrical Engineering (General)
- L. Electric Wires and Cables
- M. Radio and Telecommunications
- N. Batteries and Accumulators
- O. Electric Lighting Accessories and Fittings

## VOLUME 5

- A. Tool and Implement
- B. Cutlery
- C. Chain, Nail, Screw and Miscellaneous Forgings
- D. Wire and Wire Manufactures
- E. Hardware, Hollow-ware, Metal Furniture and Sheet Metal
- F. Brass Manufactures
- G. Needles, Pins, Fish Hooks and Metal Smallwares
- H. Scientific, Surgical and Photographic Instruments, etc.
- I. Watch and Clock
- J. Jewellery and Plate
- K. Precious Metals Refining
- L. Musical Instruments

## VOLUME 6

- A. Cotton Spinning and Doubling
- B. Cotton Weaving
- C. Woolen and Worsted
- D. Rayon, Nylon, etc. Production
- E. Rayon, Nylon, etc. Weaving, and Silk
- F. Flax Processing
- G. Linen and Soft Hemp
- H. Jute
- I. Rope, Twine and Net
- J. Hosiery and Other Knitted Goods
- K. Lace
- L. Carpets
- M. Narrow Fabrics
- N. Canvas Goods and Sacks
- O. Textile Converting
- P. Made-up Household Textiles
- Q. Textile Finishing
- R. Textile Packing

## VOLUME 7

- A. Asbestos
- B. Flock and Rag
- C. Hair, Fibre and Kindred Industries
- D. Leather (Tanning and Dressing)
- E. Feltmongery
- F. Leather Goods
- G. Fur
- H. Tailoring, Dressmaking, etc.
- I. Hats, Caps and Millinery
- J. Glove
- K. Umbrella and Walking Stick
- L. Boot and Shoe

## VOLUME 8

- A. Grain Milling
- B. Bread and Flour Confectionery
- C. Biscuit
- D. Bacon Curing and Sausage

## VOLUME 8 (contd.)

- E. Preserved Meat
- F. Milk Products
- G. Ice Cream
- H. Sugar and Glucose
- I. Cocoa, Chocolate and Sugar Confectionery
- J. Preserved Fruit and Vegetables

## VOLUME 9

- A. Margarine
- B. Fish Curing
- C. Cattle, Dog and Poultry Foods
- D. Vinegar and Other Condiments
- E. Starch
- F. Ice
- G. Miscellaneous Preserved Foods
- H. Brewing and Malting
- I. Wholesale Bottling
- J. Spirit Distilling
- K. Spirit Rectifying and Compounding
- L. Soft Drinks, British Wines and Cider
- M. Tobacco

## VOLUME 10

- A. Timber
- B. Furniture and Upholstery
- C. Soft Furnishings
- D. Shop and Office Fitting
- E. Wooden Containers and Baskets
- F. Paper and Board
- G. Wallpaper
- H. Cardboard Box, Carton and Fibre-board Packing Case
- I. Manufactured Stationery, Paper Bag and Kindred Industries
- J. Newspaper and Periodical Printing and Publishing
- K. Printing and Publishing, Bookbinding, Engraving, etc.

## VOLUME 11

- A. Rubber
- B. Linoleum, Leathercloth and Allied Industries
- C. Brushes and Brooms
- D. Toys and Games
- E. Sports Requisites
- F. Miscellaneous Stationers Goods
- G. Cinematograph Film Production
- H. Cinematograph Film Printing
- I. Plastic Goods and Fancy Articles
- J. Incandescent Mantles

## VOLUME 12

- A. Building and Contracting
- B. Local Authorities (Building and Civil Engineering)
- C. Railways (Civil Engineering)
- D. Tramway, Trolley Bus and Omnibus Undertakings (Civil Engineering)
- E. Canal, Dock and Harbour Undertakings (Civil Engineering)
- F. Gas Supply Industry
- G. Electricity Supply Industry
- H. Water Undertakings

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