

THE FINISHED BRASS TRADE

INTRODUCTORY

This trade comprises firms that were engaged wholly or mainly in the manufacture of finished brass goods of the kinds specified in Table V, the majority of which are foundry products. Other descriptions of brass manufactures are dealt with in the reports on various metal working trades, such as brass nails, screws, bolts, nuts, rivets and washers, etc., in the Chain, Nail, Screw, etc., Trades, manufactures of brass wire in the Wire Trade and smallwares of brass in the Needle, Pin, etc., Trade, while a large output of sheet brass articles was recorded on schedules for the Hardware, Hollow-ware, etc., Trades. It should be borne in mind that brass foundry products may also be manufactured by engineering firms, motor car manufacturers and other firms for use as parts of composite products such as machinery, vehicles, etc., and may thus escape separate record in the Census results, while some further output by firms in other trades has probably been included under general descriptions which did not enable the goods to be identified.

In the absence of quantitative figures of production and of detailed particulars of oversea trade, Table VI, dealing with the average values of goods produced, exported and imported, cannot be included for this trade.

Table I A.—General summary

Particulars	1935	1934	1933	1930	1924
	£'000	£'000	£'000	£'000	£'000
Value of products (Gross output)...	11,542	10,261	8,627	10,730	10,165
Cost of materials, fuel and electricity used	4,626	4,278	3,475	4,883	4,314
Amount paid for work given out	161	118	98	128	84
Net output	6,755	5,865	5,054	5,719	5,767
	No.	No.	No.	No.	No.
Average number of persons employed	34,824	31,571	27,980	32,439	32,335
	£	£	£	£	£
Net output per person employed	194	186	181	176	178
	No.	No.	No.	No.	No.
Number of returns	379	†	†	417	538
Number of establishments	387			443	†

* The figures relate to Great Britain only, separate particulars of the small production in Northern Ireland not being available.

† Not available.

Table I B.—Firms employing not more than ten persons on the average

Particulars	1935	1930*	1924
	No.	No.	No.
Number of returns received	186	218	413
Average number of persons employed:—			
Males	797	877	1,544
Females	128	179	226
TOTAL	925	1,056	1,770
Number of firms not making returns	3	19	80

* Great Britain only.

In 1924 the value of the gross output of the small firms making returns (including the few firms in Northern Ireland for which separate particulars cannot be given) was 4.8 per cent. of the total.

Table II.—Size of establishments in 1935

Size of establishment (average number employed)	Number of establishments	Gross output	Net output	Number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
11-24	107	633	371	1,883	197
25-49	103	1,161	662	3,571	185
50-99	81	1,879	1,063	5,954	179
100-199... ..	53	2,409	1,365	7,125	191
200-299... ..	21	1,814	1,035	5,431	191
300-399... ..	10	1,253	729	3,382	216
400-499... ..	5	634	412	2,224	185
500 and over	7	1,759	1,118	5,254	213
TOTAL	387	11,542	6,755	34,824	194

Table III.—Particulars of output, etc., in each of the principal areas of the United Kingdom

Area*	Number of establishments†	Gross output	Net output	Number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
1	1935 37 1930 44	1,114 1,260	687 613	3,214 2,828	214 217
2	1935 38 1930 43	534 541	310 281	1,691 1,889	183 149
3	1935 31 1930 33	1,204 973	728 510	4,070 3,408	179 150
4	1935 6 1930 12	93 226	56 129	338 781	167 165
5	1935 229 1930 231	7,769 6,887	4,470 3,754	23,071 21,060	194 178
14	1935 14 1930 20	196 237	100 103	518 678	193 153
15	1935 11 1930 10	258 231	154 111	479 440	321 252
6	1935 6	74	35	281	126
9	1935 7	97	68	432	157
7, 8 and 10	1935 8	203	147	730	201
6 to 10	1935 21 1930 24	374 375	250 218	1,443 1,355	173 161
TOTAL	1935 387 1930 417	11,542 10,730	6,755 5,719	34,824 32,439	194 176

* For particulars see page xviii.

† Number of returns for 1930.

Table IV.—No sub-divisions of this trade have been distinguished.

PRODUCTION

Table V.—Output of principal products

Finished brass goods	1935		1934
	Value	Entries	Value
	£'000	No.	£'000
Engineers' and mechanics' goods and fittings for water supply :—			
Cocks and valves, other than for motor vehicles	2,329	222	2,098
Sanitary, bathroom and other steam and water fittings	1,492	106	1,351
Other kinds of engineers' and mechanics' goods (except pressure gauges*) ...	128	50	90
Builders' and cabinet makers' goods (including house, shop, ship, office, hearth and church furniture), not elsewhere specified ...	1,932	156	1,764
Fittings for motor cars and chassis	636	55	492
Lamps, pendants, electroliers, brackets, taps and other fittings for lighting or heating purposes, whether oil, gas or electric, but not accessories included below	1,513	88	1,325
Switches, lampholders, cut-outs, and other accessories for electric lighting	330	27	313
Coffin furniture	147	20	149
Bar, brewery and distillery fittings	192	40	165
Fire extinguisher apparatus (including sprinklers)	62	17	65
Art metal work (including antique reproductions), not elsewhere specified†	253	41	347
Railway and tramway fittings‡	119	9	121
Ships' fittings (other than ships' furniture), including portholes, scuttles, etc.‡	137	22	108
Stampings and pressings of brass, not elsewhere specified	510	32	523
Other finished brass goods	935	183	1,158
Unspecified finished brass goods	537	70	420
TOTAL—Finished brass goods	11,252	...	10,489
Work done for the trade (japanning, lacquering, polishing, etc.)	26§	24	46§
Repair work	71§	81	60§
TOTAL—PRINCIPAL PRODUCTS	11,349	...	10,595

* For pressure gauges see the Mechanical Engineering Trade, page 239.

† Including some goods of metals other than brass.

‡ So far as recorded separately.

§ Amount received.

The figures shown in the preceding table include the following output recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I A.

Finished brass goods	1935		1934
	Value	Entries	Value
	£'000	No.	£'000
Engineers' and mechanics' goods and fittings for water supply :—			
Cocks and valves, other than for motor vehicles	580	119	457
Sanitary, bathroom and other steam and water fittings... ..	113	16	190
Other kinds of engineers' and mechanics' goods (except pressure gauges)	8	4	1
Builders' and cabinet makers' goods (including house, shop, ship, office, hearth and church furniture), not elsewhere specified	174	38	131
Fittings for motor cars and chassis	122	5	15
Lamps, pendants, electroliers, brackets, taps and other fittings for lighting or heating purposes, whether oil, gas or electric, but not accessories included below	214	12	193
Switches, lampholders, cut-outs and other accessories for electric lighting	6	4	1
Bar, brewery and distillery fittings	8	2	6
Fire extinguisher apparatus (including sprinklers)	12	5	48
Art metal work (including antique reproductions), not elsewhere specified	64	14	79
Railway and tramway fittings	6	1	13
Ships' fittings (other than ships' furniture), including portholes, scuttles, etc.	47	6	33
Other finished brass goods	711	144	1,048
Unspecified finished brass goods	202	26	150
Work done for the trade	—	—	7*
TOTAL	2,267	...	2,372

* Amount received.

Table VII.—Volume of Production, 1924-1935

Principal products	1924	1930	1933	1934	1935
	£'000	£'000	£'000	£'000	£'000
Value of output as returned ...	8,580	10,996	8,415	10,595	11,349
Estimated value at 1935 prices* ...	8,000	10,000	8,800	10,500	11,349
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Volume of production as a percentage of 1935	70	88	78	93	100

* In the absence of particulars of quantities, the estimates given are based on prices of materials used and other manufacturing costs.

Table VIII.—Exports and Imports

Apart from *cocks and valves, other than for motor vehicles*, which were distinguished separately, detailed particulars of the external trade in the classes of goods covered by this report are not available. The following figures relate to *Manufactures of brass and other alloys of copper, not elsewhere specified*, i.e., other than plates, sheets, strip, wire, rods, tubes and screws for wood. Machinery accessories and parts and similar goods, which are included in the trade returns under specific headings such as "Parts of road vehicles," "Electric lighting accessories and fittings," etc., are also excluded.

		Tons	£'000
Exports	1935	5,715	939
	1934	6,826	978
Retained imports	1935	1,255	288
	1934	1,134	255

Cocks and valves, other than for motor vehicles, of brass and alloys of copper, are included in the figures for both years. Exports of these goods in 1935 and 1934 amounted to £188,000 (1,085 tons) and £158,000 (923 tons), respectively, and retained imports to £45,000 (201 tons) and £42,000 (195 tons), production amounting to £2,329,000 and £2,098,000, respectively.

Table IX.—Other output of the Finished Brass Trade

The value of the gross output of the firms whose returns were made on schedules for the Finished Brass Trade was £11,542,000 in 1935 and £10,261,000 in 1934, of which £9,082,000 in 1935 and £8,223,000 in 1934 consisted of products included in Table V. Particulars of the remaining items are shown below.

Kind of output	1935	1934
Finished goods of metals other than brass :—	£'000	£'000
Builders' and cabinet makers' goods	259	217
Sanitary, bathroom and other steam and water fittings (including valves)	314	298
Coffin furniture :—		
Of zinc	110	99
Of other and unclassified metals	35	46
Other and unclassified finished goods :—		
Of copper	194	149
Of iron and steel	302	244
Of aluminium	27	43
Of zinc	141	109
Of other metals	49	35
Of unclassified metals	256	168
Bedsteads and parts, of brass	9	12
Castings and ingots of brass and other copper alloys	218	201
Electrical goods and apparatus	84	82
Other goods	223	114
Total	2,221	1,817
Scrap metal sold :—		
Brass (including dust)	187	178
Other metals	34	33
Total	221	211
Work done	18*	10*
TOTAL	2,460	2,038

* Amount received.

MATERIALS AND FUEL

Table X A.—Materials, fuel and electricity purchased and used

Kind of materials, etc.	1935		1934	
	Quantity	Cost	Quantity	Cost
	Th. tons	£'000	Th. tons	£'000
Copper*	5.7	253	6.4	269
Zinc*	4.7	122	4.8	120
Brass, unwrought, in blocks, ingots, etc.	11.4	384	13.9†	542†
Brass castings	4.0	244	4.2	269
Other kinds of brass	22.6	1,057		
Fuel and electricity used for all purposes :—				
Coal	17.9	19		
Coke	30.5	44		
Heavy fuel oil	1,049	19		
	Th. B.T.U. (Kw.-hrs.)			
Purchased electricity	27,122	96		
All other purchased materials and fuel		2,269		3,078
TOTAL		4,626		4,278

* In all forms.

† This figure probably includes some brass of "other kinds".

Table X B.—Consumption of coal, coke and electricity in 1935 and 1930

Kind of fuel	1935	1930
	Th. tons	Th. tons
Coal	17.9	14.8
Coke	30.5	21.4
	Th. B.T.U. (Kw.-hrs.)	Th. B.T.U. (Kw.-hrs.)
Electricity :—		
Generated in same works	2,200	2,251
Generated in other works under same ownership	—	16
Purchased	27,122	16,373
Total electricity consumed	29,322	18,640

EMPLOYMENT

Table XI A.—Average numbers employed in 1935 and 1934

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1935	4,324	21,071	2,585	9,698	6,909	30,769
	1934	3,420	18,677	2,101	9,133	5,521	27,810
Administrative, technical and clerical staff* ...	1935	202	2,523	320	1,532	522	4,055
	1934	135	2,342	256	1,419	391	3,761
TOTAL ...	1935	4,526	23,594	2,905	11,230	7,431	34,824
	1934	3,555	21,019	2,357	10,552	5,912	31,571

* As at 12th October, 1935, and 13th October, 1934.

Table XI B.—Operatives employed in one week in each month of 1934 and 1935 by firms furnishing returns in respect of the twelve months ended December

Mid week of*	Operatives employed		Monthly index†		
	1934	1935	1933	1934	1935
January ...	16,555	18,469	73.3	85.6	96.5
February ...	16,945	18,558	72.8	87.6	97.0
March ...	17,002	18,589	74.2	87.9	97.1
April ...	17,143	18,599	75.2	88.6	97.2
May ...	17,221	18,834	76.3	89.0	98.4
June ...	17,445	18,766	77.1	90.2	98.1
July ...	17,625	19,212	79.6	91.1	100.4
August ...	17,599	19,279	80.3	91.0	100.8
September ...	17,892	19,633	83.0	92.5	102.6
October ...	17,889	19,751	84.6	92.5	103.2
November ...	18,197	20,087	87.4	94.1	105.0
December ...	18,238	19,844	88.1	94.3	103.7
Average for the twelve months	17,479	19,135	79.3	90.4	100.0
Proportion of total operatives represented ...	62.85	62.19

* For the ending date of each week see page xiv.

† Based on the estimated average for the year 1935.

Table XI C.—Average numbers employed, 1924-1935

Year	Operatives	Administrative, technical and clerical staff	Total
1924* ...	28,570	3,765	32,335
1930 ...	28,330	4,109	32,439
1933 ...	24,407	3,573	27,980
1934 ...	27,810	3,761	31,571
1935 ...	30,769	4,055	34,824

* Great Britain only.

WAGES

Table XII.—Wages paid by firms furnishing returns of wages in 1935 and 1930

The aggregate amount of wages paid by firms furnishing returns of wages was £2,082,000 in 1935 representing 46.7 per cent. of the net output of these firms, the corresponding figures for 1930 being £1,780,000 and 63.4 per cent. The figures for these firms given below indicate the size of the sample and the extent of which it is representative.

Firms furnishing returns of wages	1935		1930	
	Aggregate	Proportion of trade	Aggregate	Proportion of trade
Gross output... ..	£'000	Per cent.	£'000	Per cent.
Net output	7,589	65.8	5,109	50.3
	4,456	66.0	2,808	49.1
Operative staff employed :—	No.		No.	
During mid-week of October :—				
Males	13,332	62.1	*	*
Females	6,545	66.3		
Total	19,877	63.4	14,307	51.1
Average for the year	19,557	63.6	14,518	51.2
Administrative, technical and clerical staff	2,530	62.4	*	*
Number of establishments	223	57.6

* Not recorded separately.

COUNTRY TABLES (1935)

Note.—The figures given in the following tables relate only to firms whose returns were made on schedules for the Finished Brass Trade. No output was recorded for Northern Ireland.

Table I.—General summary

Particulars	Unit	England and Wales	Scotland	Great Britain
Value of products (Gross output) ...	£'000	11,088	454	11,542
Cost of materials, fuel and electricity used	"	4,432	194	4,626
Amount paid for work given out	"	155	6	161
Net output	"	6,501	254	6,755
Average number of persons employed...	No.	33,827	997	34,824
Net output per person employed	£	192	255	194
Number of returns	No.	355	24	379
Number of establishments	"	302	25	327

Table II.—Output

Kind of output	Unit	England and Wales	Scotland	Great Britain
Finished brass goods :—				
Engineers' and mechanics' goods and fittings for water supply :—				
Cocks and valves, other than for motor vehicles	£'000	1,720	29	1,749
Sanitary, bathroom and other steam and water fittings	"	1,164	215	1,379
Other kinds of engineers' and mechanics' goods (except pressure gauges)	"	110	10	120
Builders' and cabinet makers' goods (including house, shop, ship, office, hearth and church furniture), not elsewhere specified	"	*	*	1,758
Fittings for motor cars and chassis	"			514
Lamps, pendants, electroliers, brackets, taps, and other fittings for lighting or heating purposes, whether oil, gas or electric, but not accessories included below	"	1,298	1	1,299
Switches, lampholders, cut-outs, and other accessories for electric lighting	"	324	†	324
Coffin furniture	"	*	*	147
Bar, brewery and distillery fittings	"			184
Fire extinguisher apparatus, including sprinklers	"	50	—	50
Art metal work (including antique productions), not elsewhere specified	"	*	*	189
Railway and tramway fittings†	"	113	—	113
Ships' fittings (other than ships' furniture), including portholes, scuttles, etc.	"	59	31	90
Stampings and pressings of brass, not elsewhere specified	"	510	—	510
Other finished brass goods	"	219	5	224
Unspecified finished brass goods	"	333	2	335
TOTAL—Finished brass goods	"	8,659	326	8,985

Kind of output	Unit	England and Wales	Scotland	Great Britain
Finished goods of metals other than brass :—				
Builders' and cabinet makers' goods...	£'000	259	—	259
Sanitary, bathroom and other steam and water fittings (including valves)	"	314	—	314
Coffin furniture :—				
Of zinc	"	91	19	110
Of other and unclassified metals	"	15	20	35
Other and unclassified finished goods :—				
Of copper	"	179	15	194
Of iron and steel	"	301	1	302
Of aluminium	"	27	†	27
Of zinc	"	141	—	141
Of other metals	"	49	—	49
Of unclassified metals	"	256	†	256
Bedsteads and parts of brass	"	9	—	9
Castings and ingots of brass and other copper alloys	"	162	56	218
Electrical goods and apparatus	"	84	—	84
Other goods	"	215	8	223
Scrap metal sold :—				
Brass (including dust)...	"	183	4	187
Other metals	"	33	1	34
Work done for the trade :—				
Japanning, lacquering, polishing, etc.	"	*	*	26§
Other work done	"	18§	—	18§
Repair work	"	*	*	71§
TOTAL—GOODS MADE AND WORK DONE	£'000	11,088	454	11,542

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

† Less than £500.

‡ So far as recorded separately.

§ Amount received.

Table III A.—Materials, fuel and electricity purchased and used

Kind of materials, etc.	Unit	England and Wales	Scotland	Great Britain
Copper*	Th. tons	5.4	0.3	5.7
	£'000	242	11	253
Zinc*	Th. tons	4.6	0.1	4.7
	£'000	118	4	122
Brass, unwrought, in blocks, ingots, etc.	Th. tons	10.7	0.7	11.4
	£'000	359	25	384
Brass castings	Th. tons	3.8	0.2	4.0
	£'000	231	13	244
Other kinds of brass :—	Quantity stated ...	19.8	0.6	20.4
	Quantity not stated	883	37	920
	Fuel and electricity used for all purposes :—	253	3	256
Coal	Th. tons	16.8	1.1	17.9
	£'000	18	1	19
Coke	Th. tons	28.5	2.0	30.5
	£'000	41	3	44
Heavy fuel oil	Th. galls.	1,021	28	1,049
	£'000	18	1	19
Purchased electricity	Th. B.T.U. (Kw.-hrs.)	26,578	544	27,122
	£'000	93	3	96
All other purchased materials and fuel...	£'000	2,176	93	2,269
	£'000	4,432	194	4,626

* In all forms.

Table III B.—Consumption of electricity

Electricity consumed	England and Wales	Scotland	Great Britain
	Th. B.T.U. (Kw.-hrs.)	Th. B.T.U. (Kw.-hrs.)	Th. B.T.U. (Kw.-hrs.)
Generated in same works	1,928	272	2,200
Purchased	26,578	544	27,122
TOTAL	28,506	816	29,322

Table IV A.—Numbers employed in week ended 12th October, 1935

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
England and Wales :—						
Operatives	4,273	20,626	2,601	9,806	6,874	30,432
Administrative, etc.*	193	2,442	312	1,488	505	3,930
Total	4,466	23,068	2,913	11,294	7,379	34,362
Scotland :—						
Operatives	130	832	31	70	161	902
Administrative, etc.*	9	81	8	44	17	125
Total	139	913	39	114	178	1,027
Great Britain :—						
Operatives	4,403	21,458	2,632	9,876	7,035	31,334
Administrative, etc.*	202	2,523	320	1,532	522	4,055
TOTAL	4,605	23,981	2,952	11,408	7,557	35,389

* Administrative, technical and clerical staff.

Table IV B.—Operatives employed in one week in each month of 1935

Week ended	Males and females		
	England and Wales	Scotland	Great Britain
January 19	29,378	800	30,178
February 16	29,469	836	30,305
March 16	29,477	843	30,320
April 13	29,168	864	30,032
May 18	29,529	874	30,403
June 15	29,470	867	30,337
July 13	29,966	905	30,871
August 17	29,942	851	30,793
September 14	30,323	893	31,216
October 12	30,432	902	31,334
November 16	30,898	913	31,811
December 14	30,715	911	31,626
Average for the twelve months	29,897	872	30,769

Table V.—Firms employing not more than ten persons on the average

Particulars	England and Wales	Scotland	Great Britain
	No.	No.	No.
Number of returns received	164	22	186
Average number of persons employed :—			
Males	697	100	797
Females	107	21	128
Total	804	121	925