

THE IVORY, HORN, PICTURE FRAME AND
FANCY ARTICLES TRADES.

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Introductory.*

The tables on pages 453 to 457 are based on returns received from firms in Great Britain and Northern Ireland whose business in 1924 consisted wholly or mainly in the working of ivory, horn, bone and their substitutes†, and in manufacturing picture frames and fancy articles. The number of such separate returns was 1,017. About 270 firms to which schedules were sent did not furnish returns, but these firms for the most part had very small establishments and

* See also the Notes on pages vii to xv.

† But excluding *buttons and studs*, which are dealt with in the report on the Needle, Pin, Fish-hook and Button Trades, pages 181-192 of the volume containing the reports on the Iron and Steel Trades.

they included some 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 750 persons in all and that their total net output probably did not exceed £130,000.

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 received in connexion with the Census of 1912, when details of output were not required from firms employing five persons or less, was not sufficiently complete to warrant its use for purposes of comparison.

Particulars.	Unit.	1924.	1907.
Value of goods made and work done (Gross output)	£'000	5,873	2,373
Cost of materials used	"	2,869	1,332
Paid for work given out to other firms	"	22	13
Net output	"	2,982	1,028
Average number of persons employed (excluding outworkers)	No.	16,882	13,275
Net output per person employed (excluding outworkers)	£	177	77
Mechanical power available :—			
Prime movers	H.P.	5,178	2,795
Electric motors driven by purchased electricity	"	4,025	(not recorded).

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

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

(2) The Census of 1907 covered Great Britain and the whole of Ireland, but that of 1924 applied only to Great Britain and Northern Ireland. The exclusion of Southern Ireland in 1924 does not, however, seriously affect the comparability of the figures.

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 page xiii, they over-state the value of the output of, and the cost of the materials used by, the Ivory, Horn, Picture Frame and Fancy Articles Trades considered as a whole. The matter is discussed on page 449, where it is estimated that the value, free from duplication, of the output of these trades in 1924 lay between £4,875,000 and £5,375,000, and the cost of the materials purchased from sources outside these trades and worked up into their products lay between £1,900,000 and £2,400,000.

Production.

Detailed information relating to the output of the Ivory, Horn, Picture Frame and Fancy Articles Trades in 1924 will be found in Table II on page 454.

Principal products.—The following table shows, for 1924 and 1907, the value of the principal classes of output returned, the aggregate figures for each year being inclusive of the output of similar products recorded on schedules for other trades.

Kind of goods.	1924.		1907.
	Returned on schedules for		Total.
	The Ivory, Horn, etc., Trades.	All trades.	
	Selling value.	Selling value.	
	£'000	£'000	£'000
Horn, ivory, bone, etc., cut, turned or polished	1,074	1,091	400*
Picture frames	1,140	1,238	694
Cases for jewellery, cutlery, etc.	475	501	141
Fancy goods, including combs, handles, etc. :—			
Of celluloid, xylonite and the like	752	799	} 493
Of ivory, bone, horn, amber, jet and the like	177	245	
Of other materials (except leather and artificial leather)	681	768	294
TOTAL—Fancy goods	1,610	1,812	787
Pipes for smoking tobacco	752	752	253
TOTAL VALUE	5,051	5,394	2,275

* Includes £216,000 recorded as materials for the manufacture of fancy articles.

In the absence of particulars of the quantity of the output of the various products, it is impossible to estimate the changes in the volume of output as between the two censal years. The number of persons employed was, however, 25 per cent. greater in 1924 than in 1907, and the mechanical power available was very much greater, so that there can be little doubt that there was a substantial increase in the output of the trade in the later year.

Other products.—In addition to the products set out in the above table, firms that made their returns on schedules for the Ivory, Horn, Picture Frame and Fancy Articles Trades in 1924 and 1907 recorded the following goods which, being of kinds mainly produced in other trades, are dealt with in the reports on those trades.

Kind of goods.	1924.	1907.
	Selling value.	Selling value.
	£'000	£'000
Fancy goods :—		
Of leather	381	} 145
Of artificial leather	57	
Boxes and cartons of paper or cardboard, including folding boxes	19	} 20
Brushes	194	
Mouldings	44	} 105
Other manufactures of wood	24	
Other goods made	39	
TOTAL VALUE	758	270

Repairs and work done for the trade.—In addition to the manufactured goods dealt with in the preceding tables, firms that made their returns on schedules for the Ivory, Horn, etc., Trades recorded the sum of £31,000 as the amount received by them in 1924 for repair work; the amount received for such work in 1907 was not separately recorded. The amount received for work done for the trade was £33,000 in 1924 and £24,000 in 1907.

Value of output free from duplication.—The value of the gross output of the firms that made their returns on schedules for the Ivory, Horn, etc., Trades in 1924 was £5,873,000. This total involves possible duplication in respect of horn, ivory, etc., cut, etc., valued at £1,074,000, in so far as such semi-finished materials were sold to other firms that made their returns on schedules for this trade and were used by them in the production of more finished goods. Some part also may have been exported or sold to firms in other trades, but no information is available as to the extent of such sales outside the trade. Further, the amount paid for work given out (£22,000) was probably mainly paid to other firms in this trade and is, therefore, duplicated, since firms in this trade reported that they did work for the trade to the value of £33,000. On the whole it seems reasonable to estimate the amount of duplication as lying between £500,000 and £1,000,000, and the value of the output of the trade, free from duplication, as lying between £4,875,000 and £5,375,000. The corresponding output value in 1907 was estimated to lie between £1,927,000 and £2,111,000.

Cost of materials and work given out.—The cost of materials used by firms that made their returns on schedules for the Ivory, Horn, Picture Frame and Fancy Articles Trades was returned as £2,869,000 in 1924, a sum which, by the exclusion of purchases of the products of other firms in the same trades, is reduced to an amount lying between £1,900,000 and £2,400,000; the corresponding net figure for 1907 lay between £951,000 and £1,116,000.

The amount paid to other firms for work given out to them was returned as £22,000 in 1924 and £13,000 in 1907.

Net output.—The net output in 1924 of the firms that made their returns on schedules for the Ivory, Horn, Picture Frame and Fancy Articles Trades (whose gross output was valued at £5,873,000) was £2,982,000, 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 (excluding outworkers) in the censal year 1924 was £177 as compared with £77 in 1907.

Exports and imports.—The exports and net imports in 1924 of the principal classes of articles covered by the above statement of production together with the recorded production of similarly described goods are shown below :—

Kind of goods.	Production.	Exports.	Net imports
	Value (at factory).	Value (f.o.b.).	Value (c.i.f.).
	£'000	£'000	£'000
Fancy goods :—			
Of celluloid, xylonite and the like ..	799	257	79
Of ivory, horn, amber, jet and the like ..	245	8	24
Of other materials (except leather and artificial leather)	768	403	2,041
Pipes for smoking tobacco	752	279	339
(<i>Th. gross</i>)	(33)	(63)	(60)

The fact that the number of tobacco pipes exported in 1924 (63,000 gross) very greatly exceeds the quantity recorded as manufactured in the year is probably due to the inclusion in the export figures of (a) clay tobacco pipes, and (b) imported bowls which were fitted with mouth-pieces in the United Kingdom and then exported. In this connexion it should be observed that the average value per gross of exports was somewhat lower than the corresponding value for imports and only about one-fifth of that of the home production recorded above.

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 Ivory, Horn, Picture Frame and Fancy Articles 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,

7,388 operatives, or 49 per cent. of the total of 15,208 operatives for the trades as a whole, and their net output totalled £1,437,000, or 48 per cent. of the aggregate net output of £2,982,000 for the trades as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was £699,000, representing about 49 per cent. of their aggregate net output.

Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 455 and 456. The following table sets out certain particulars for that year together with those relating to the 1907 Census. For the purpose of this comparison, the average numbers of operatives of each sex returned for 1924 have been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October.

Average number (excluding outworkers).	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
1924.						
Operatives	1,348	6,737	2,444	7,821	3,792	14,558
Administrative, etc. ..	74	1,570	127	754	201	2,324
TOTAL	1,422	8,307	2,571	8,575	3,993	16,882
1907.						
Wage earners	1,328	6,703	1,743	5,129	3,071	11,832
Salaried	78	1,152	46	291	124	1,443
TOTAL	1,406	7,855	1,789	5,420	3,195	13,275
Average number of outworkers :—						
1924	33		142		175	
1907	120		89		209	

The numbers of operatives recorded month by month in 1924 ranged from 541 below the average, in January, to 981 above the average, in December (see Table IIIB, page 456). The numbers showed a general upward tendency throughout the year, with a pause in July and August. The increase of 1,522 between January and December was made up of 457 males and 1,065 females. The expansion in operative staff between 1907 and 1924 was almost entirely among females.

Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 457. 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 ..	2,103	1,031	3,134	1,773
Steam turbines	866	—	866	—
Gas engines	1,002	43	1,045	} 909
Petrol and light oil engines ..	9	6	15	
Heavy oil engines	—	100	100	} 113
Water power	18	—	18	
TOTAL	3,998	1,180	5,178	2,795
ELECTRIC GENERATORS :—				
Driven by—	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines ..	1,130	600	1,730	495
Steam turbines	650	—	650	} 35
Gas engines	193	—	193	
Petrol and light oil engines ..	—	1	1	} 35
Heavy oil engines	—	90	90	
Water power	4	4	8	
TOTAL	1,977	695	2,672	530

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

Electric motors.	1924.		
	Ordinarily in use.	In reserve or idle.	Total.
	H.P.	H.P.	H.P.
Driven by—			
Electricity generated in own works	2,941	38	2,979
Purchased electricity	3,722	303	4,025

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 296,000.

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	5,668	191	5,859	14
Cost of materials used ..	"	2,783	79	2,862	7
Paid for work given out to other firms	"	22	*	22	*
Net output	"	2,863	112	2,975	7
Average number of persons employed (excluding out-workers)	No.	16,006	833	16,839	43
Net output per person employed (excluding out-workers)	£	179	135	177	150
Mechanical power available :—					
Prime movers	H.P.	4,593	585	5,178	—
Electric motors driven by purchased electricity ..	"	3,817	205	4,022	3

* Less than £500.

II.—Production.

Goods sold or added to stock and work done.	England and Wales.	Scotland.	United Kingdom.*
	Selling value.	Selling value.	Selling value.
	£'000	£'000	£'000
Horn, ivory, bone, etc., cut, turned or polished ..	1,074	—	1,074
Picture frames	1,061	65	1,140*
Cases for jewellery, cutlery, etc.	466	9	475
Fancy goods, including combs, handles, etc. :—			
Of leather	†	†	381
Of artificial leather	57	—	57
Of celluloid, xylonite and the like	752	—	752
Of ivory, bone, horn, amber, jet and the like ..	149	28	177
Of other materials	†	†	681
Pipes for smoking tobacco	752	—	752
<i>(Th. gross)</i>	<i>(33)</i>	<i>(—)</i>	<i>(33)</i>
Brushes	194	—	194
Boxes and cartons of paper and cardboard, including folding boxes	†	†	19
Mouldings	44	—	44
Other manufactures of wood	24	—	24
Other goods made	34	5	39
TOTAL VALUE OF GOODS MADE	5,608	187	5,809*
	Amount received.	Amount received.	Amount received.
Repair work	28	3	31
Work done for the trade	32	1	33
TOTAL VALUE OF WORK DONE	60	4	64
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT)	5,668	191	5,873*

* The only production recorded by firms in Northern Ireland was picture frames valued at £14,000, included in the sum of £1,140,000 shown in the table.

† In order to avoid the possible disclosure of information relating to individual firms figures are given only for Great Britain as a whole.

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	1,280	6,466	2,491	7,989	3,771	14,455
Administrative, etc.*	67	1,478	123	729	190	2,207
TOTAL	1,347	7,944	2,614	8,718	3,961	16,662
<i>Scotland :—</i>						
Operatives	104	440	96	282	200	722
Administrative, etc.*	7	84	4	21	11	105
TOTAL	111	524	100	303	211	827
<i>Great Britain :—</i>						
Operatives	1,384	6,906	2,587	8,271	3,971	15,177
Administrative, etc.*	74	1,562	127	750	201	2,312
TOTAL	1,458	8,468	2,714	9,021	4,172	17,489
<i>Northern Ireland :—</i>						
Operatives	1	16	3	15	4	31
Administrative, etc.*	—	8	—	4	—	12
TOTAL	1	24	3	19	4	43
<i>United Kingdom :—</i>						
TOTAL	1,459	8,492	2,717	9,040	4,176	71,532

* Administrative, technical and clerical staff.

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

England and Wales. (Annual average : Males, 6,277 ; Females, 7,522 ; Total, 13,799.)

Week ended.	Males.	Females.	Total.	Week ended.	Males.	Females.	Total.
Jan 12th ..	6,093	7,155	13,248	July 19th ..	6,187	7,352	13,539
Feb. 16th ..	6,180	7,164	13,344	Aug. 16th ..	6,141	7,396	13,537
Mar. 15th ..	6,180	7,166	13,346	Sept. 13th ..	6,229	7,652	13,881
April 12th ..	6,249	7,300	13,549	Oct. 18th ..	6,466	7,989	14,455
May 17th ..	6,255	7,317	13,572	Nov. 15th ..	6,524	8,235	14,759
June 21st ..	6,275	7,322	13,597	Dec. 13th ..	6,550	8,217	14,767

Scotland. (Annual average : Males, 444 ; Females, 284 ; Total, 728.)

Jan. 12th ..	448	289	737	July 19th ..	439	277	716
Feb. 16th ..	451	294	745	Aug. 16th ..	433	279	712
Mar. 15th ..	450	281	731	Sept. 13th ..	443	274	717
April 12th ..	435	276	711	Oct. 18th ..	440	282	722
May 17th ..	447	285	732	Nov. 15th ..	450	291	741
June 21st ..	443	286	729	Dec. 13th ..	449	292	741

Great Britain. (Annual average : Males, 6,721 ; Females, 7,806 ; Total, 14,527.)

Jan. 12th ..	6,541	7,444	13,985	July 19th ..	6,626	7,629	14,255
Feb. 16th ..	6,631	7,458	14,089	Aug. 16th ..	6,574	7,675	14,249
Mar. 15th ..	6,630	7,447	14,077	Sept. 13th ..	6,672	7,926	14,598
April 12th ..	6,684	7,576	14,260	Oct. 18th ..	6,906	8,271	15,177
May 17th ..	6,702	7,602	14,304	Nov. 15th ..	6,974	8,526	15,500
June 21st ..	6,718	7,608	14,326	Dec. 13th ..	6,999	8,509	15,508

Northern Ireland. (Annual average : Males, 16 ; Females, 15 ; Total, 31.)

Jan. 12th ..	17	15	32	July 19th ..	13	13	26
Feb. 16th ..	16	15	31	Aug. 16th ..	16	15	31
Mar. 15th ..	16	15	31	Sept. 13th ..	16	15	31
April 12th ..	16	15	31	Oct. 18th ..	16	15	31
May 17th ..	16	15	31	Nov. 15th ..	16	15	31
June 21st ..	16	15	31	Dec. 13th ..	16	15	31

C.—NUMBER OF OUTWORKERS AT TWO SPECIFIED PERIODS IN 1924.

Country.	January.			July.		
	Males.	Females.	Total.	Males.	Females.	Total.
England and Wales*	32	150	182	33	135	168

* No outworkers were returned for Scotland or Northern Ireland.

IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS.

Power equipment.	England and Wales.		Scotland.		United Kingdom.*	
	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	1,773	841	330	190	2,103	1,031
Steam turbines	866	—	—	—	866	—
Gas engines	937	43	65	—	1,002	43
Petrol and light oil engines	9	6	—	—	9	6
Heavy oil engines	—	100	—	—	—	100
Water power	18	—	—	—	18	—
TOTAL	3,603	990	395	190	3,998	1,180
TOTAL OF PRIME MOVERS INSTALLED	4,593		585		5,178	
ELECTRIC GENERATORS :—	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by—						
Reciprocating steam engines	1,103	600	27	—	1,130	600
Steam turbines	650	—	—	—	650	—
Gas engines	193	—	—	—	193	—
Petrol and light oil engines	—	1	—	—	—	1
Heavy oil engines	—	90	—	—	—	90
Water power	4	4	—	—	4	4
TOTAL	1,950	695	27	—	1,977	695
TOTAL OF ELECTRIC GENERATORS INSTALLED ..	2,645		27		2,672	
ELECTRIC MOTORS :—	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by—						
Electricity generated in own works ..	2,937	38	4	—	2,941	38
Purchased electricity	3,554	263	165	40	3,722*	303

* The only mechanical power recorded by firms in Northern Ireland consisted of electric motors of 3 H.P. capacity, driven by purchased electricity, and returned as ordinarily in use.