

THE MUSICAL INSTRUMENTS TRADE.

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Introductory.*

The tables on pages 403 to 408 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 pianos, organs and other musical instruments. The number of such separate returns was 576. About 150 firms to which schedules were sent did

* See also the Notes on pp. vii to xv.

not furnish returns, but these firms for the most part had very small establishments and they included a number which 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 800 persons in all and that their total net output probably did not exceed £150,000.

Summary of results.—The following table shows the main results of the Censuses of 1924, 1912 and 1907, comparisons between the figures for the three years being subject to the qualifications mentioned in the next paragraph :—

Particulars.	Unit.	1924.	1912.	1907.
Value of goods made and work done (Gross output)	£'000	8,301	2,969	1,865
Cost of materials used	"	3,810	1,382	786
Paid for work given out to other firms	"	17	9	23
Net output	"	4,474	1,578	1,056
Average number of persons employed	No.	20,137	12,310	10,101
Net output per person employed	£	222	128	105
Mechanical power available :—				
Prime movers	H.P.	5,359	4,968	2,178
Electric motors driven by purchased electricity	"	8,940	1,463	(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 Censuses of 1907 and 1912 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.

(3) The Censuses of 1907 and 1924 extended to all firms, however small, but in 1912 firms employing not more than five persons (excluding the proprietors) were merely required to state the average number of persons employed by them in the year. According to the information so furnished, the number of persons employed in the establishments thus excluded was 680, or 5.5 per cent. of the number employed by the remaining firms, as shown in the above table.

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 materials used by, the Musical Instruments Trade considered as a whole. The matter is discussed on page 399, where it is estimated that the value, free from duplication, of the output of the Musical Instruments Trade in 1924 lay between £7,125,000 and £7,500,000, and the cost of the materials purchased from sources outside the trade and worked up into its products lay between £2,650,000 and £3,025,000.

Divisions of the industry.—The firms that made returns for the year 1924 on schedules for the Musical Instruments Trade may be divided into three groups, mainly engaged (a) in the manufacture of pianos and organs, (b) in the manufacture of gramophones and gramophone records, and (c) in the manufacture of other musical instruments or in repairing musical instruments. The following table shows the main particulars for each of these three groups :—

Particulars.	Unit.	Firms mainly engaged in the manufacture of		
		Pianos and organs.	Gramophones and records.	Other musical instruments and repair work.
Value of goods made and work done (Gross output)	£'000	5,484	2,261	556
Cost of materials used and work given out	"	2,527	1,149	151
Net output	"	2,957	1,112	405
Average number of persons employed	No.	12,208	5,536	2,393
Net output per person employed	£	242	201	169

Apart from repair and similar work, these three groups are practically self-contained. Firms mainly engaged in the manufacture of pianos and organs made practically the whole of the output of these instruments and parts thereof returned by firms in the Musical Instruments Trade; and about 97 per cent. of the value of all goods made by them consisted of pianos and organs and parts thereof.

Firms mainly engaged in the manufacture of gramophones and parts thereof and of records made 98 per cent. of the value of these products returned by firms in the Musical Instruments Trade; about 95 per cent. of all goods made by them consisted of gramophones and parts thereof and of records.

Production.

Detailed information relating to the output of the Musical Instruments Trade in 1924 will be found in Table II on pages 404 and 405.

Principal products.—The following statement shows, for the three censal years, the value and (where recorded) the quantity of the principal classes of output, including not only the pianos, organs, etc. manufactured by firms that made their returns on schedules for the Musical Instruments Trade, but also those made by firms whose returns were furnished on schedules for other trades.

Kind of goods.	Unit.	1924.		1912.	1907.
		Returned on schedules for		Total.	Total.
		The Musical Instruments Trade.	All trades.		
Organs and pianos, complete :—		Quantity and selling value.			
Automatic—					
Organs	Number	67	67	..	—
	£'000	72	72	3	—
Pianos	Number	2,400	2,400	..	500
	£'000	252	252	324	23
Non-automatic—					
Pipe organs	Number	464	464	..	..
	£'000	245	245	259	275
Reed organs and harmoniums	Number	680	680	2,900	4,300
	£'000	15	15	20	30
Pianos	Number	95,010	95,010	79,600	58,100
	£'000	3,341	3,341	1,292	972
TOTAL VALUE—Organs and pianos	£'000	3,925	3,925	1,898	1,300
Parts of organs and pianos :—					
For automatic instruments (including perforated rolls and electric motors)	£'000	92	98	252	212
For non-automatic instruments :—					
Parts and fittings for organs ..	£'000	69	69		
Parts of pianos :—					
Keyboard sets	Number	91,890	91,890		
	£'000	268	268		
Other parts (including actions)	£'000	680	735		
TOTAL VALUE—Parts of organs and pianos	£'000	1,109	1,170	252	212
Gramophones and phonographs :—					
Complete	Number	277,400	279,500	595	74
	£'000	900	907		
Records	Th. doz.	1,865	1,865		
	£'000	992	992		
Parts (other than needles)	£'000	297	399		
TOTAL VALUE—Gramophones, phonographs and parts ..	£'000	2,189	2,298	595	74
Stringed musical instruments and parts	£'000	66	66	4	15
Wind musical instruments and parts .. .. .	..	157	158	56	73
Other musical instruments and parts .. .. .	..	99	99	13	18
TOTAL VALUE—MUSICAL INSTRUMENTS AND PARTS ..	£'000	7,545	7,716	2,818	1,692

The output of all products, except automatic pianos and non-automatic organs, appears to have been substantially greater in

1924 than in 1912 or 1907. The number of pianos (non-automatic) made increased by 37 per cent. between 1907 and 1912 and again by over 19 per cent. between 1912 and 1924.

Other products.—In addition to the musical instruments and parts shown in the above table, firms that made their returns on schedules for the Musical Instruments Trade recorded an output of other goods valued at £184,000 in 1924, £20,000 in 1912 and £20,000 in 1907. These goods, being of kinds mainly produced in other trades, are dealt with in the reports on those trades.

Repair work and work done for the trade.—Firms that made their returns on schedules for the Musical Instruments Trade stated that they received £565,000 in 1924 for repairs (including upkeep, renovations and tuning). In addition, £7,000 was recorded as received for work done for the trade in 1924. The corresponding figures for 1912 were £147,000 in respect of repairs, etc., and £11,000 in respect of work done for the trade and, for 1907, £151,000 in respect of repairs, etc., and £7,000 in respect of work done for the trade. The figures for repair, etc., work are not exhaustive, since returns were not required from dealers in musical instruments that employed only a few men in tuning, repairing, etc.

Value of output free from duplication.—The total value of the gross output of the Musical Instruments Trade was £8,301,000, but this amount involves some duplication. Firstly, there is duplication in so far as parts of musical instruments were sold by the firms that made them to other firms in the same trade. Excluding perforated rolls for organs and strings for stringed instruments, exports of such parts in 1924 were valued at £249,000, f.o.b., equivalent to a value of about £225,000 at factory. Of the remainder, a proportion was probably sold to retailers for use in repair work. Secondly, the work done for the trade (£7,000) was probably done for firms in the same trade, and is, therefore, duplicated in the gross value of the output.

The total amount of duplication involved cannot have exceeded about £1,175,000 and may have been less. On the whole, it appears reasonable to estimate the value, free from duplication, of the output of the Musical Instruments Trade in 1924 as lying between £7,125,000 and £7,500,000. The corresponding figure for 1907 was estimated to lie between £1,597,000 and £1,858,000.

Cost of materials and work given out.—The cost of materials used by firms that made their returns on schedules for the Musical Instruments Trade was returned as £3,810,000 in 1924, a sum which, by the exclusion of purchases of the products of other firms in the same trade, is reduced to between £2,650,000 and £3,025,000. The corresponding figure for 1907 lay between £525,000 and £786,000.

The amount paid to other firms for work given out to them was returned as £17,000 in 1924, £9,000 in 1912, and £23,000 in 1907.

Net output.—The net output in 1924 of the firms that made their returns on schedules for the Musical Instruments Trade (whose gross output was valued at £8,301,000) was £4,474,000, 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 £222, as compared with £128 in 1912, and £105 in 1907.

Exports and imports.—The following table, relating to the year 1924, shows the total production of the main classes of musical instruments in relation to the exports and imports of similarly described goods :—

Kind of goods.	Production.	Exports.	Net imports.	Available for use in the United Kingdom.
	Number.	Number.	Number.	Number.
Organs and pianos, complete :—				
Automatic :—				
Organs	67	31	14	50
Pianos	2,400	345	505	2,560
Non-automatic :—				
Pipe organs	464	16	2	450
Reed organs and harmoniums	680	185	280	775
Pianos	95,010	6,180	9,700	98,530
Parts and accessories of organs and pianos :—				
Keyboard sets for pianos	91,890	1,230	520	91,180
Other parts and fittings (including perforated rolls and piano actions)	£902,000	£91,000	£167,000	£978,000
Gramophones and phonographs :—				
Complete	279,500	87,500	64,500	256,500
Records	1,865	577	6	1,294
Parts (including motors)	£399,000	£156,000	£223,000	£466,000
Stringed musical instruments :—				
Complete	30,050	15,100	61,100	76,050
Parts (including strings)	£23,000	£6,000	£32,000	£49,000
Wind musical instruments :—				
Complete	57,900	20,300	139,300	176,900
Parts	£8,000	£2,000	£4,000	£10,000
Other musical instruments and parts	£99,000	£29,000	£24,000	£94,000

Taking together pianos and organs and parts thereof, the value (£431,000, f.o.b.) of the exports was about 8·5 per cent. of that of the total production, while the value (£685,000, c.i.f.) of the imports represented 13·4 per cent. of the production. For gramophones and parts thereof, and records, the corresponding percentages of the total production were 48·1 per cent. for exports and 13·0 per cent. for imports.

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 Musical Instruments Trade 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, 13,015 operatives, or 64 per cent. of the total of 20,272 operatives for the trade as a whole, and their net output totalled £2,934,000, or 66 per cent. of the aggregate net output of £4,474,000 for the trade as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was £1,794,000, representing about 61 per cent. of their aggregate net output.

Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 406 and 407. The following table sets out certain particulars for that year together with those relating to the two previous censal years. 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	2,535	15,612	664	2,566	3,199	18,178
Administrative, etc.	92	1,391	61	568	153	1,959
TOTAL	2,627	17,003	725	3,134	3,352	20,137
1912.						
Wage earners	1,260	10,551	185	593	1,445	11,144
Salaried	62	960	24	206	86	1,166
TOTAL	1,322	11,511	209	799	1,531	12,310
1907.						
Wage earners	1,228	8,924	96	416	1,324	9,340
Salaried	46	676	15	85	61	761
TOTAL	1,274	9,600	111	501	1,385	10,101

The numbers of operatives recorded month by month in 1924 ranged from 2,045 below the average, in June, to 2,957 above the average, in November (see Table IIIB, page 407).

Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 408. The following table sets out the particulars for the three censal years relating to the capacity and kinds of *prime movers* and the capacity of *electric generators* installed.

Power equipment.	1924.			1912.	1907.
	Ordinarily in use.	In reserve or idle.	Total.	Total.	Total.
	H.P.	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS :—					
Reciprocating steam engines	1,093	1,378	2,471	2,609	771
Steam turbines	1,340	30	1,370	—	—
Gas engines	633	323	956	2,339	} 1,402
Petrol and light oil engines	12	—	12	—	
Heavy oil engines	50	480	530	—	
Water power	20	—	20	20	5
TOTAL	3,148	2,211	5,359	4,968	2,178
ELECTRIC GENERATORS :—					
Driven by—	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines	701	890	1,591	1,494	176
Steam turbines	1,000	19	1,019	—	—
Gas engines	29	165	194	} 875	} 128
Petrol and light oil engines	—	—	—		
Heavy oil engines	32	340	372		
Water power	—	—	—	—	—
TOTAL	1,762	1,414	3,176	2,369	304

The capacity of *electric motors* recorded in 1924 and in 1912 was as shown below :—

Electric motors.	1924.			1912.
	Ordinarily in use.	In reserve or idle.	Total.	Total.
	H.P.	H.P.	H.P.	H.P.
Driven by—				
Electricity generated in own works	4,438	1,406	5,844	1,980
Purchased electricity	8,152	788	8,940	1,463

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 206,000.

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	8,226	62	8,288	13
Cost of materials used	„	3,788	18	3,806	4
Paid for work given out to other firms	„	17	—	17	—
Net output	„	4,421	44	4,465	9
Average number of persons employed	No.	19,802	296	20,098	39
Net output per person employed	£	223	147	222	248
Mechanical power available :—					
Prime movers	H.P.	5,359	—	5,359	—
Electric motors driven by purchased electricity	„	8,837	89	8,926	14

II.—Production.

Goods sold or added to stock and work done.	Unit.	England and Wales and Northern Ireland.*	Scotland.	United Kingdom.
		Quantity and selling value.		
Organs and pianos, complete :—				
Automatic—				
Organs	Number	67	—	67
	£'000	72	—	72
Pianos	Number	2,400	—	2,400
	£'000	252	—	252
Non-automatic—				
Pipe organs*	Number	403	61	464
	£'000	237	8	245
Reed organs and harmoniums	Number	680	—	680
	£'000	15	—	15
Pianos	Number	†	†	95,010
	£'000	†	†	3,341
TOTAL VALUE—Organs and pianos	£'000	†	†	3,925
Parts of organs and pianos :—				
For automatic instruments (including perforated rolls and electric motors)	£'000	92	—	92
For non-automatic instruments :				
Parts and fittings for organs* } Quantity stated	Cwts.	†	†	565
	£'000	†	†	16
} Quantity not stated	£'000	53	—	53
Parts of pianos—				
Keyboard sets	Number	91,890	—	91,890
	£'000	268	—	268
Other parts (including actions)	£'000	680	—	680
TOTAL VALUE—Parts of organs and pianos	£'000	†	†	1,109
Gramophones and phonographs :—				
Complete	Number	277,400	—	277,400
	£'000	900	—	900
Records	Th. doz.	1,865	—	1,865
	£'000	992	—	992
Parts (including motors)	£'000	297	—	297
TOTAL VALUE—Gramophones, etc.	£'000	2,189	—	2,189
Stringed musical instruments :—				
Complete	Number	30,050	—	30,050
	£'000	43	—	43
Strings	£'000	21	—	21
Other parts	„	2	—	2
TOTAL VALUE—Stringed instruments and parts	£'000	66	—	66

*† For notes see page 405.

II.—Production—continued.

Goods sold or added to stock and work done.	Unit.	England and Wales and Northern Ireland.*	Scotland.	United Kingdom.
Wind musical instruments of wood or metal, not specified above :—				
Complete	Number	56,660	1,040	57,700
	£'000	143	7	150
Parts	£'000	4	3	7
TOTAL VALUE—Wind instruments and parts	£'000	147	10	157
Musical instruments not elsewhere specified :—				
Complete	Number	†	†	514,800
	£'000	†	†	79
Parts and accessories	£'000	19	1	20
TOTAL VALUE—MUSICAL INSTRUMENTS AND PARTS	£'000	7,519	26	7,545
Other manufactures of wood	£'000	25	—	25
Other manufactures of metal (including wireless apparatus)	„	121	3	124
Other goods made	„	35	—	35
Repair work (including renovation, upkeep and tuning)*	„	532†	33†	565†
Work done for the trade	„	7†	—	7†
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT)	£'000	8,239	62	8,301

* In order to avoid the possible disclosure of information relating to individual firms, the particulars for Northern Ireland have been combined with those for England and Wales: the items affected are also marked, thus (*).

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

‡ Amount received for work done.

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	2,764	16,965	783	3,019	3,547	19,984
Administrative, etc.*..	92	1,348	61	555	153	1,903
TOTAL	2,856	18,313	844	3,574	3,700	21,887
<i>Scotland</i> :—						
Operatives	31	240	3	16	34	256
Administrative, etc.*..	—	37	—	13	—	50
TOTAL	31	277	3	29	34	306
<i>Great Britain</i> :—						
Operatives	2,795	17,205	786	3,035	3,581	20,240
Administrative, etc.*..	92	1,385	61	568	153	1,953
TOTAL	2,887	18,590	847	3,603	3,734	22,193
<i>Northern Ireland</i> :—						
Operatives	4	31	—	1	4	32
Administrative, etc.*..	—	6	—	—	—	6
TOTAL	4	37	—	1	4	38
<i>United Kingdom</i> :—						
TOTAL	2,891	18,627	847	3,604	3,738	22,231

* Administrative, technical and clerical staff.

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

England & Wales. (Annual average : Males, 15,351 ; Females, 2,548 ; Total, 17,899.)

Week ended.	Males.	Females.	Total.	Week ended.	Males.	Females.	Total.
Jan. 12th ..	15,515	2,493	18,008	July 19th ..	13,912	2,190	16,102
Feb. 16th ..	15,146	2,455	17,601	Aug. 16th ..	14,429	2,306	16,735
March 15th ..	15,059	2,415	17,474	Sept. 13th ..	15,584	2,633	18,217
April 12th ..	14,610	2,254	16,864	Oct. 18th ..	16,965	3,019	19,984
May 17th ..	14,081	2,166	16,247	Nov. 15th ..	17,624	3,228	20,852
June 21st ..	13,703	2,154	15,857	Dec. 13th ..	17,586	3,264	20,850

Scotland. (Annual average : Males, 229 ; Females, 17 ; Total, 246.)

Jan. 12th ..	226	22	248	July 19th ..	224	16	240
Feb. 16th ..	229	22	251	Aug. 16th ..	227	16	243
March 15th ..	228	17	245	Sept. 13th ..	238	16	254
April 12th ..	223	17	240	Oct. 18th ..	240	16	256
May 17th ..	215	17	232	Nov. 15th ..	238	17	255
June 21st ..	228	16	244	Dec. 13th ..	233	16	249

Great Britain. (Annual average : Males, 15,580 ; Females, 2,565 ; Total, 18,145.)

Jan. 12th ..	15,741	2,515	18,256	July 19th ..	14,136	2,206	16,342
Feb. 16th ..	15,375	2,477	17,852	Aug. 16th ..	14,656	2,322	16,978
March 15th ..	15,287	2,432	17,719	Sept. 13th ..	15,822	2,649	18,471
April 12th ..	14,833	2,271	17,104	Oct. 18th ..	17,205	3,035	20,240
May 17th ..	14,296	2,183	16,479	Nov. 15th ..	17,862	3,245	21,107
June 21st ..	13,931	2,170	16,101	Dec. 13th ..	17,819	3,280	21,099

Northern Ireland. (Annual average : Males, 32 ; Females, 1 ; Total, 33.)

Jan. 12th ..	35	1	36	July 19th ..	31	1	32
Feb. 16th ..	34	1	35	Aug. 16th ..	31	1	32
March 15th ..	34	1	35	Sept. 13th ..	32	1	33
April 12th ..	35	1	36	Oct. 18th ..	31	1	32
May 17th ..	33	1	34	Nov. 15th ..	27	1	28
June 21st ..	31	1	32	Dec. 13th ..	27	1	28

IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND
ELECTRIC MOTORS.

Power equipment.	United Kingdom.*	
	Ordinarily in use.	In reserve or idle.
	H.P.	H.P.
PRIME MOVERS :—		
Reciprocating steam engines	1,093	1,378
Steam turbines	1,340	30
Gas engines	633	323
Petrol and light oil engines	12	—
Heavy oil engines	50	480
Water power	20	—
TOTAL	3,148	2,211
TOTAL OF PRIME MOVERS INSTALLED ..	5,359	
ELECTRIC GENERATORS :—	Kw.	Kw.
Driven by—		
Reciprocating steam engines	701	890
Steam turbines	1,000	19
Gas engines	29	165
Heavy oil engines	32	340
TOTAL	1,762	1,414
TOTAL OF ELECTRIC GENERATORS INSTALLED	3,176	
ELECTRIC MOTORS :—	H.P.	H.P.
Driven by—		
Electricity generated in own works	4,438	1,406
Purchased electricity	8,152	788

* The only power recorded for Scotland, and included above, was in respect of *electric motors driven by purchased electricity*—89 horse-power (all ordinarily in use).

Similarly, the only power recorded for Northern Ireland, also included above, was in respect of *electric motors driven by purchased electricity*—14 horse-power (all ordinarily in use).