

The Board of Public Works-Ireland-continued  
TABLE IV.-CAPACITY OF ENGINES OWNED

Capacity of Engines Owned Compared with Gross Value of Output and  
Number of Persons Employed

Table with multiple columns and rows, containing data related to engine capacity and employment. The text is faint and difficult to read.

Table with multiple columns and rows, containing data related to engine capacity and employment. The text is faint and difficult to read.

TABLE V.-PERSONS EMPLOYED  
IN THE MANUFACTURING AND CONSTRUCTION INDUSTRIES

Table with multiple columns and rows, containing data related to persons employed in manufacturing and construction industries. The text is faint and difficult to read.

SECTION XIII.

MISCELLANEOUS TRADES.

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## SECTION XIII.—MISCELLANEOUS TRADES.

## GENERAL REPORT.

The following Section deals with the trades engaged in the manufacture of scientific instruments, apparatus, and appliances, articles of ivory, bone, and horn, picture frames and fancy articles, musical instruments, billiard tables and sports requisites, toys and games, and wigs.

The "output" shown in the Tables is the gross output of each trade, *i.e.*, where goods pass through the hands of several manufacturers at different stages, their quantity and value have been registered at each stage. The value of this gross output is, therefore, greater in the aggregate than the value of the goods, taken as a whole, when ready for export or consumption.

In the Tables the quantities and values of the principal products are generally shown in the classification adopted in the Export and Import Lists, but in the case of some trades a different classification was adopted in order to suit the convenience of manufacturers and, in accordance with the limitations imposed by the Census of Production Act, 1906, values only were then required to be stated.

The figures entered against each class of product show the output of that product in the year of return, whether sold or not, after deducting any amount worked up in the same factory into goods of a kind separately classified. Thus, for example, the entry against cut ivory, bone, horn, &c., shows only that portion of the ivory, bone, horn, &c., cut in the year of return, which was either sold as cut ivory, bone, horn, &c., or remained in stock at the end of the year as cut ivory, bone, horn, &c., and does not include ivory, bone, horn, &c., made into handles, combs, or fancy goods by the firms that cut those materials. Duplication arising from goods being sold by some firms and worked up by others, is eliminated when the total cost of materials used is deducted from the value of the gross output in order to arrive at the net output (*see below*).

Where a firm makes goods for sale the value entered is the net selling value of the goods, including, of course, the value of any work done on the goods by other firms working on commission. Where a firm does work on commission or "for the trade," the value entered is the amount received for the work, exclusive of the value of the material worked upon. In so far as such work is done for firms also making Returns, the figures for gross output necessarily include twice over the payments for such work, and in order, therefore, to enable the Census Office to eliminate such duplication, the Schedules required a statement to be made showing the amount paid to other firms for work given out.

The result of deducting the total cost of materials and the amount paid to other firms for work given out from the value of the gross output for any industry or group of factories is to give a figure which may, for convenience, be called the "net output" of the industry or of the group. This figure expresses completely and without duplication the total amount by which the value of the products of the industry or of the group, taken as a whole, exceeded the value of the materials purchased from outside, *i.e.*, it represents the value added to the materials in the course of manufacture, and when added to the cost of those materials it would give the selling value of the products of the industry ready for export or for sale outside the industry. The net output constitutes for any industry the fund from which wages, salaries, rents, rates, taxes, depreciation, sales expenses, and other similar charges, as well as profits, have to be defrayed.

The following statement shows, for the trades covered by the present Section of the Report, the gross output, the cost of materials used, the amount paid for work given out to other firms, the net output as defined above, the number of persons employed, the net output per person employed, and the horse-power of engines at factories. The figures

relate to the United Kingdom as a whole. The horse-power shown does not include power rented from other establishments or the capacity of motors driven by purchased electricity.

Trade.	Gross Output.	Materials Used.	Work Given Out.	Net Output.	Persons Employed (except Out-workers).	Net Output per Person Employed (excluding Out-workers).	Horse-Power of Engines at Factories.
	Selling Value or Value of Work Done.	Cost.	Amount paid to other firms.	Excess of Column (1) over Columns (2) and (3).		(6)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Scientific Instruments, Apparatus, and Appliances Trades.	£ 2,574,000	£ 1,013,000	£ 26,000	£ 1,535,000	14,256	£ 108	H.-P. 2,894
Ivory, Bone, Horn, Picture Frame, and Fancy Articles Trades.	2,373,000	1,332,000	13,000	1,028,000	13,275	77	2,795
Musical Instruments Trades ...	1,865,000	786,000	23,000	1,056,000	10,101	105	2,178
Billiard Table and Sports Requisites Trades.	1,161,000	500,000	3,000	658,000	6,510	101	1,245
Toys and Games Trades ...	216,000	104,000	2,000	110,000	1,862	59	305
Wigmaking Trade ...	99,000	43,000	—	56,000	870	64	—
Total ...	8,288,000	3,778,000	67,000	4,443,000	46,874	—	9,417

In the following Table the number of persons employed in factories and workshops is distributed by sex and age and according as they are wage-earners or salaried persons; a column is also added showing the number of outworkers returned as borne on the books of the employing firms:—

Trade.	Average Number of Persons Employed in Factories and Workshops.								Average Number of Outworkers.	
	Wage-earners.				Salaried Persons.				Males.	Females.
	Males.		Females.		Males.		Females.			
	Under 18 years of age.	Over 18 years of age.	Under 18 years of age.	Over 18 years of age.	Under 18 years of age.	Over 18 years of age.	Under 18 years of age.	Over 18 years of age.		
Scientific Instruments, Apparatus, and Appliances Trades.	2,102	7,242	1,145	2,233	126	1,059	49	300	111	22
Ivory, Bone, Horn, Picture Frame, and Fancy Articles Trades.	1,328	5,375	1,743	3,386	78	1,074	46	245	120	89
Musical Instruments Trades ...	1,228	7,696	96	320	46	630	15	70	—	—
Billiard Table and Sports Requisites Trades.	604	3,550	590	1,018	54	546	39	109	70	394
Toys and Games Trades ...	230	466	447	573	4	99	7	36	3	62
Wigmaking Trade ...	21	152	227	360	1	65	2	42	—	—
Total ...	5,513	24,481	4,248	7,890	309	3,473	158	802	304	567

In the whole group 89·9 per cent. of the persons employed were wage-earners and 10·1 per cent. were salaried persons (including principals). Of the wage-earners 71·2 per cent. were males and 28·8 per cent. were females; 18·4 per cent. of the males and 35·0 per cent. of the females were under 18 years of age. Of the salaried persons 79·8 per cent. were males and 20·2 per cent. were females; 8·2 per cent. of the males and 16·5 per cent. of the females were under 18 years of age.

The total of 871 outworkers does not necessarily represent as many individual persons, many outworkers being on the books of more than one firm. On the other hand, it is probable that the persons actually working for a firm include in certain cases members of outworkers' families in addition to the outworkers recorded in the firm's books. For these reasons, and as most outworkers are not in constant employment, they have not been taken into account in calculating the net output per person employed, but in comparing the figures given above an allowance should be made for them.

The aggregate value of the products of this group of trades as returned to the Census of Production Office on the Schedules for the group is £8,288,000, to which should be added £1,519,000, the value of similar products included in their statements of output by manufacturers that made their Returns on Schedules for trades outside the group, thus raising the total to £9,807,000. This figure does not represent the actual value of the goods made as sold for export or consumption or as warehoused at the end of the year. In the first place, there is duplication within certain trades in respect of goods made by some firms and sold to others for further manufacture, the value being returned by the former as the value of their output and included by the latter in the value of the finished goods. The amount of such duplication lies between £255,000 and £796,000. Secondly, there is a similar duplication between the ivory, bone, horn, &c., trades and other trades in the group in respect of ivory, bone, horn, &c., cut and returned in the ivory, &c., trades and sold for further manufacture into billiard balls, piano keys, scientific apparatus, &c., by firms in other trades, by whom its value in the finished stage was returned. The extent of this duplication cannot be determined with any degree of precision, since the extent to which cut ivory, &c., is used in making handles, combs, and fancy articles, is not known; but the total sum involved is £184,000, and this has already been deducted as part of the possible duplication of £796,000 referred to above (*see also* page 803). Thirdly, the value of goods made on commission for merchants and retailers is not known, as they were not required to furnish Returns to the Census Office; only the amount received for such work by the firms making goods on commission was returned to the Census Office.

In the following statement the approximate value of each class of goods made and of repair or other work done is shown free from duplication within the class (*e.g.*, the value of cut ivory used in making fancy articles is not included, but only the value of the finished goods). In the case of the goods made on commission, only the amount received for the work done (£20,000) is taken into account:—

	Value.
	£
Scientific Instruments, Apparatus, and Appliances ...	2,890,000 to 2,986,000
Articles of Ivory, Bone, &c., Picture Frames, Pipes, Tobacco Pouches, &c., and other Fancy Articles (in- cluding Waste Products of manufacture) ...	1,927,000 to 2,111,000
Musical Instruments, Talking Machines, and Repairs...	1,582,000 to 1,843,000
Billiard Tables ...	338,000
Sports Requisites ...	1,463,000
Toys and Games ...	240,000
Wigs ...	99,000
Products of classes chiefly made by trades outside this group ...	472,000

The values of those products which are chiefly made by firms in the trades covered by this group have been calculated after making allowance for the value (£541,000) of the whole of those classes of goods or work which may be duplicated in the value of more finished articles. Some part, however, of the value of lenses, spectacle frames, parts of scientific instruments, and parts and accessories of musical instruments represents goods sold to merchants and private customers, and, therefore, the value, taken as a whole, of the products chiefly made within this group of trades may be estimated at between 8½ and 9 million pounds sterling.

As the trades in this group are not similar in character, the comparison of the exports and imports with the output in the United Kingdom is dealt with in the Reports on the individual trades.

The following statement shows the net output of factories and workshops separately in the several trades, so far as the Returns were made on the Schedules for the respective trades:—

	Factories.	Workshops.
	Net Output.	Net Output.
	£	£
Scientific Instruments, Apparatus, and Appliances Trades ...	1,364,000	171,000
Ivory, Bone, Horn, Picture Frame, and Fancy Articles Trades ...	706,000	322,000
Musical Instruments Trades ...	827,000	229,000
Billiard Tables and Sports Requisites Trades	496,000	162,000
Toys and Games Trades ...	61,000	49,000
Wigmaking Trade ...	—	56,000
Total ...	3,454,000	989,000

*Fuel Consumed.*—All firms with factories receiving the Schedules for this group of trades were asked to make a voluntary statement of the quantity of fuel consumed by them. The replies received are summarised below and shown in relation to the aggregate net output of the firms furnishing information; it should be remembered that information regarding fuel has not as a rule been furnished in respect of work-shops, where the quantity used is naturally much less than in factories in proportion to net output:—

Trade.	Net Output of Firms furnishing particulars.		Fuel consumed by Firms furnishing particulars.	
	Amount.	Percentage of Total Net Output of the Trade.	Coal.	Coke.
	£		Tons.	Tons.
Scientific Instruments, Apparatus, and Appliances Trades.	1,079,000	70·3	10,677	2,828
Ivory, Bone, Horn, Picture Frame, and Fancy Articles Trades.	479,000	46·6	16,324	541
Musical Instruments Trades ...	633,000	59·9	6,709	2,015
Billiard Table and Sports Requisites Trades ...	344,000	52·3	3,160	676
Toys and Games Trades ...	43,000	39·1	387	87
Wigmaking Trade ...	—	—	—	—
Total ...	2,578,000	58·0	37,257	6,147

## DETAILED REPORTS.

## Scientific Instruments, Apparatus, and Appliances Trades.

*Output.*—The Tables on pages 814 to 816 are based on Returns received from factories and workshops engaged in the manufacture and repair of scientific instruments, apparatus, and appliances, other than electrical instruments and apparatus, which are dealt with on page 126. The aggregate value of the output of the firms that made their Returns on the Schedules for the scientific instruments, apparatus, and appliances trades is returned as £2,574,000, to which should be added £633,000, the value of similar goods manufactured by firms that made their Returns on Schedules for other trades. The resulting total, £3,207,000, contains, however, a certain amount of duplication.

The following statement shows the value of the output of scientific instruments, apparatus, and appliances, other than electrical instruments and apparatus :—

	Returned on Schedules for the Scientific Instruments Trades.	Returned on Schedules for other Trades.	Total.
	£	£	£
Lenses, Optically Worked Glass, and Prisms of all kinds, when sold separately.	78,000	—	78,000
Telescopes, Binoculars, and Microscopes ... ..	76,000	—	76,000
Optical Instruments and Appliances (including Spectacles, Ophthalmoscopes, &c.).	243,000	—	243,000
Cameras (with or without Lenses) and other Photographic Apparatus, Lanterns, and Cinematographs.	158,000	3,000	161,000
Photographic Materials (Plates, Paper, Films, &c.) ...	320,000	589,000	909,000
Barometers, Thermometers, Hydrometers, and similar Instruments.	108,000	—	108,000
Indicators, Gauges, and Recorders ... ..	60,000	8,000	68,000
Land Surveying, Drawing, Mathematical, and Nautical Instruments, and Magnetic Compasses.	437,000	6,000	443,000
Surgical and Dental Instruments, Apparatus, and Appliances.	351,000	8,000	359,000
Artificial Teeth and Dentists' Materials ... ..	278,000	—	278,000
Surgical and Medical Bandages and Dressings ...	19,000	5,000	24,000
Other Instruments, Apparatus, Appliances, and Accessories.	174,000	14,000	188,000
Total—Scientific Instruments, &c., other than Electrical.	2,302,000	633,000	2,935,000
Repair Work, not included above ... ..	51,000	—	51,000
Total ... ..	2,353,000	633,000	2,986,000

The lenses and prisms valued at £78,000 were partly sold to merchants and private persons, but some were unquestionably sold to other manufacturers who included their value in the value of the finished goods made by them, thus causing duplication. The same is true of spectacle frames valued at £6,000 and parts of scientific instruments valued at £12,000, which are included under various headings in the foregoing statement. Making allowance for these possible cases of duplication, the total value of the scientific instruments, apparatus, and appliances (other than electrical instruments and apparatus) made in the United Kingdom in the year of return may be estimated as lying between £2,839,000 and £2,935,000, to which should be added £51,000 for repairs.

In addition, the firms that made their Returns on Schedules for the scientific instruments, apparatus, and appliances trades included in their statements of output the following classes of goods, the total output of which is dealt with in the Reports on the trades by which they are chiefly produced :—

Machinery :—	Value.
	£
Electrical of all kinds ... ..	58,000
Machine Tools ... ..	8,000
Other Sorts ... ..	15,000
Total—Machinery... ..	81,000

	Value.
	£
Electrical, Telegraphic, and Telephonic Instruments ...	79,000
Other Products ... ..	47,000
Total ... ..	207,000

In addition, £14,000 was received for work done for the trade, and is also included in the value of the complete instruments and apparatus made.

The aggregate gross value of the output of the firms that made their Returns on the Schedules for the scientific instruments trades is £2,574,000, and deducting the amount received for work done for the trade (£14,000) and allowing for the possible duplication of £96,000 in respect of lenses, spectacle frames, and parts of instruments, the value of the output of those firms, taken as a whole, may be estimated at a sum lying between £2,464,000 and £2,560,000.

The exports of scientific instruments and apparatus (other than electrical) and talking machines in 1907 were valued at £812,000, free on board, or 47 per cent. of the value at works of the scientific instruments and of talking machines (see page 806) produced in the United Kingdom, while the net imports (*i.e.*, imports less re-exports) were valued at £602,000 at the port of landing, or rather more than one-third of the value at works of those manufactured in the United Kingdom. The exports of "dentists' materials (except instruments)" in 1907 were valued at £133,000, free on board, or about 47·8 per cent. of the value at works of the quantity produced in the United Kingdom, while the net imports were valued at £18,000, or about one-sixteenth of the value at works of the output of the United Kingdom. The exports and imports of photographic materials (plates, paper, films, &c.), were included with unenumerated chemicals in 1907.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 814 to 816 (whose gross output was valued at £2,574,000) was £1,535,000, that sum representing the total amount by which the value of the output of those factories and workshops exceeded the cost of the materials used and the amount paid to other firms for work done by them on those materials for the principal firms. The actual cost of materials used by those factories and workshops, taken as a whole, cannot be precisely stated, but it may be estimated at a sum lying between £917,000 and £1,013,000. The amount paid to other firms for work given out to them was £26,000.

The net output per head of persons employed (exclusive of outworkers) in the censal year was nearly £108.

*Persons Employed.*—The average number of persons employed on the last Wednesdays in January, April, July, and October in the factories, together with the number ordinarily employed in the workshops, covered by the Tables on pages 814 to 816, is returned as 14,256, *viz.*, 12,722 wage-earners and 1,534 salaried persons, the total number being distributed by age and sex as follows :—

Males :—		Females :—	
Under 18 ... ..	2,228	Under 18 ... ..	1,194
Over 18 ... ..	8,301	Over 18 ... ..	2,533

In addition, the number of outworkers on the books of the employing firms on 1st February and 1st August, 1907, averaged 133, *viz.*, 111 males and 22 females.

The variation in employment in factories during the censal year is shown in the following statement :—

	Persons Employed on the last Wednesday in			
	January.	April.	July.	October.
Wage-earners ... ..	11,092	11,194	11,234	11,292
Salaried Persons ... ..	1,184	1,204	1,186	1,198
Total ... ..	12,276	12,398	12,420	12,490

There were also 1,519 wage-earners and 341 salaried persons ordinarily employed in workshops.

*Power.*—The particulars furnished with regard to power are summarised below, electricity purchased not being included :—

	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
	£		Horse-Power.
Factories with their own Engines ... ..	2,282,000	12,259	2,894
Factories renting their Power ... ..	23,000	137	—
Workshops (not using Power) ... ..	269,000	1,860	—
Total ... ..	2,574,000	14,256	2,894

Classed according to kinds of power, the particulars are :— Horse-Power.

Steam Engines, Reciprocating ... ..	837
Internal Combustion Engines (gas, oil, &c.) ... ..	1,947
Water Power ... ..	45
Other Power ... ..	65
Total ... ..	2,894

As already indicated, whereas the total number of persons employed in factories in the scientific instrument trades was 12,396, firms employing 137 persons rented their power. Precise details as to the amount and kind of such power are not available.

Firms using dynamos driven by their own engines were required to state their capacity, and the information furnished is summarised below :—

Capacity of Dynamos driven by :—	Kilowatts.
Steam Engines, Reciprocating ... ..	358
Other Power ... ..	232
Total ... ..	590

The capacity of those dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 30 per cent. of the engine-power belonging to scientific instrument factories was required for driving dynamos for the production of electric power and light.

Manufacturers were also required to state the quantity of electricity generated by their own dynamos, but owing to the insufficiency of their records a few of them were unable to do so. The following statement summarises the information furnished :—

Dynamos driven by	Total Capacity of Dynamos.	Electricity Generated, so far as particulars were returned.	
		Capacity of Dynamos.	Electricity Generated.
Steam Engines, Reciprocating ... ..	Kilowatts. 358	Kilowatts. 353	Board of Trade Units. 616,000
Other Power ... ..	232	195	202,000
Total ... ..	590	548	818,000

About 829,000 Board of Trade units of electricity were purchased by manufacturers for power and lighting purposes. This figure includes estimates made in the Census Office in respect of the quantities of electricity purchased by a number of small firms who were able to state only the amounts paid by them.

#### Ivory, Bone, Horn, Picture Frame, and Fancy Articles Trades.

*Output.*—The Tables on pages 817 to 819 are based on Returns received from factories and workshops engaged in working ivory, horn, bone, and their substitutes, and in manufacturing picture frames and fancy articles. The aggregate value of the output of the firms that made their Returns on the Schedules for the ivory, bone, horn, picture frame, and fancy articles trades is returned as £2,373,000, to which should be

added £196,000, the value of similar goods included in their statements of output by firms that made their Returns on Schedules for other trades. The resulting total of £2,569,000 contains, however, some duplication.

The following statement shows the particulars furnished respecting the output of finished goods and is believed to be substantially free from duplication :—

	Returned on Schedules for the Ivory, Bone, Horn, and Fancy Articles Trades.	Returned on Schedules for other Trades.	Total.
	£	£	£
Articles of Ivory, Bone, Horn, Jet, Celluloid, &c. (including handles, combs, and fancy goods).	487,000	6,000	493,000
Picture Frames ... ..	654,000	40,000	694,000
Pipes, Tobacco Pouches, Cigar and Cigarette Holders and Cases (excluding Clay Pipes).	208,000	45,000	253,000
Cases for Jewellery, Cutlery, &c. ... ..	137,000	4,000	141,000
Fancy Articles of Wood, Metal, Paper, Wax, Clay, Plaster, &c.	117,000	14,000	131,000
Lamp and Candle Shades ... ..	42,000	25,000	67,000
Cushions, Cosies, Pincushions, &c. ... ..	10,000	1,000	11,000
Other Fancy Articles ... ..	43,000	42,000	85,000
Waste Products ... ..	41,000	—	41,000
Total ... ..	1,739,000	177,000	1,916,000

In addition, the firms that made their Returns on the Schedules for the ivory, bone, horn, picture frame, and fancy articles trades included in their statements of output the following goods which are chiefly manufactured in other trades and are dealt with in the Reports on those trades :—

	Value.
	£
Fancy Leather Goods ... ..	145,000
Plain and Fancy Cardboard Boxes... ..	20,000
Goods of Silver, including Mounted Articles ... ..	18,000
Other Products ... ..	46,000
Total ... ..	229,000

Further, firms making Returns on the Schedules for the ivory, bone, horn, picture frame, and fancy articles trades stated that they had made "ivory, bone, horn, &c., cut" to the value of £165,000, and similar goods to the value of about £19,000 were included in their statements of output by firms that made their Returns on Schedules for other trades. Part of this semi-manufactured material may have been sold to firms that furnished to the Census Office Returns of the value of their goods as included in the foregoing statement, but part of it no doubt was sold to cutlery and other firms that made their Returns on Schedules for other trades. It is, consequently, not possible to say how far the sum of £184,000 may be duplicated in the £493,000 returned as the value of articles of ivory, bone, &c.

"Materials for the manufacture of fancy articles" were also returned on the Schedules for the ivory, &c., trades to the value of £216,000, but it is probable that by far the greater part of this sum is also included by the makers of fancy articles in the value of their output. The sum of £24,000 is also returned as received for work done for the trade. Firms that made Returns to the Census Office of the value of their finished goods stated that they paid £13,000 to other firms for work given out to them. The difference—£11,000—between this sum and the amount received for work done for the trade represents the amount received for work done for merchants and retailers who were not required to make Returns; the value of the goods so made is not known.

Taking together the value of the finished goods (£1,968,000) and the amount received for work done for merchants, &c. (£11,000), the value of the output of the firms that made their Returns on the Schedules for the ivory, bone, horn, picture frame and fancy articles trades is at least £1,979,000, and is greater by that portion of the cut ivory, &c., and other semi-manufactured materials, valued at £381,000, which was exported or sold to manufacturers whose output is not included in Table I on page 817. Including all Returns irrespective of the Schedules on which they were made, but

excluding £229,000, the value of fancy leather goods and other goods chiefly made in other trades, the value of the main products of this group of trades may similarly be estimated at a sum lying between £1,927,000 and £2,111,000.

A considerable portion of the output of goods of ivory, horn, bone, leather, and of other articles is not included in the statement on the previous page but was returned as part of the output of the cutlery, leather, and other trades.

No satisfactory comparison can be made between the production of the classes of goods enumerated in the statement on the previous page and the exports and imports, as the classification adopted for the purposes of the Census does not correspond with that followed in the Export and Import Lists. The following particulars may, however, be given:—

	Value.
Net Imports, 1907 ( <i>i.e.</i> , imports less re-exports):—	£
Fancy Articles, known as Paris Goods ... ..	1,107,000
Celluloid, Mica, and other similar Ware ... ..	237,000
Combs ... ..	75,000
Papier Maché Ware ... ..	18,000
Plaster Ware ... ..	29,000
Curios ... ..	194,000
Exports, 1907:—	
Fancy Goods ... ..	50,000
Xylonite and Celluloid Manufactures ... ..	109,000
Combs ... ..	70,000
Tobacco Pipes, except Clay Pipes ... ..	76,000
Tobacconists' Sundries ... ..	23,000
Ivory Manufactures, unenumerated ... ..	12,000

The value of the imports are taken at port of landing and those of exports as free on board. The imports of picture frames, other than fancy, are included under "wood manufactures" and those of fancy picture frames under "fancy goods." The exports of picture frames are entered under "furniture" in the Annual Statement of Trade.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 817 to 819 (whose gross output was valued at £2,373,000) was £1,028,000, that sum representing the total amount by which the value of the output of those factories and workshops exceeded the cost of the materials used and the amount paid to other firms for work done by them on those materials for the principal firms. The actual cost of materials (exclusive of the materials given out by merchants to be worked up) used by those factories and workshops, taken as a whole, cannot be precisely stated, but it may be estimated at a sum lying between £951,000 and £1,116,000. The amount paid to other firms for work given out to them was £13,000.

The net output per head of persons (exclusive of outworkers) employed in the censal year was a little over £77.

*Persons Employed.*—The average number of persons employed on the last Wednesdays in January, April, July, and October in the factories, together with the number ordinarily employed in the workshops, covered by the Tables on pages 817 to 819 is returned as 13,275, viz., 11,832 wage-earners and 1,443 salaried persons, the total number being distributed by age and sex as follows:—

Males:—		Females:—	
Under 18 ... ..	1,406	Under 18 ... ..	1,789
Over 18 ... ..	6,449	Over 18 ... ..	3,631

In addition, the average number of outworkers on the books of the employing firms on 1st February and 1st August, 1907, was 209, viz., 120 males and 89 females.

The variation in employment in factories during the censal year is shown in the following statement:—

	Persons Employed on the last Wednesday in			
	January.	April.	July.	October.
Wage-earners ... ..	8,097	8,049	7,966	8,338
Salaried Persons ... ..	695	702	699	712
Total ... ..	8,792	8,751	8,665	9,050

There were also 3,719 wage-earners and 741 salaried persons ordinarily employed in workshops.

*Power.*—The particulars furnished with regard to power are summarised below, electricity purchased not being included:—

	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
	£		Horse-Power.
Factories with their own Engines ... ..	1,518,000	8,229	2,795
Factories renting their Power ... ..	206,000	586	—
Workshops (not using Power) ... ..	649,000	4,460	—
Total ... ..	2,373,000	13,275	2,795

Classed according to kinds of power, the particulars are:—

	Horse-Power.
Steam Engines, Reciprocating ... ..	1,773
Internal Combustion Engines (gas, oil, &c.) ... ..	909
Water Power ... ..	113
Total ... ..	2,795

As shown above, whereas the total number of persons employed in factories in the ivory, bone, horn, picture frame, and fancy articles trades was 8,815, firms employing 586 persons rented their power. Precise details as to the amount and kind of such power are not available, since landlords frequently included in their special Returns power supplied to several firms engaged in different industries (see pages 15 to 18).

Firms using dynamos driven by their own engines were required to state their capacity, and the information furnished is summarised below:—

Capacity of Dynamos driven by:—	Kilowatts.
Steam Engines, Reciprocating ... ..	495
Other Power ... ..	35
Total ... ..	530

The capacity of those dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 28 per cent. of the engine-power belonging to ivory, bone, horn, picture frame and fancy articles factories was required for driving dynamos for the production of electric power and light.

Manufacturers were also required to state the quantity of electricity generated by their own dynamos, but owing to the insufficiency of their records some of them were unable to do so. The following statement summarises the information furnished:—

Dynamos driven by	Total Capacity of Dynamos.	Electricity Generated, so far as particulars were returned.	
		Capacity of Dynamos.	Electricity Generated.
	Kilowatts.	Kilowatts.	Board of Trade Units.
Steam Engines, Reciprocating ... ..	495	490	1,585,000
Other Power ... ..	35	—	—
Total ... ..	530	490	1,585,000

About 296,000 Board of Trade units of electricity were purchased by manufacturers for power and lighting purposes. This figure includes estimates made in the Census

Office in respect of the quantities of electricity purchased by some small firms who were able to state only the amounts paid by them.

### Musical Instruments Trades.

*Output.*—The Tables on pages 820 to 822 are based on Returns received from factories and workshops engaged in the manufacture of musical instruments.

The following statement shows the particulars furnished respecting the output of such factories and workshops :—

	Number.	Value. £
Harmoniums and American Organs ... ..	4,300	30,000
Pianofortes ... ..	58,100	972,000
Player Pianos and Piano Players ... ..	500	23,000
Pipe Organs, including Additions to existing Organs ... ..	—	275,000
Parts and Accessories of Organs, Pianofortes, Harmoniums, &c. ... ..	—	212,000
Other Musical Instruments, Parts, and Accessories :—		
Wind Instruments ... ..	—	73,000
Stringed Instruments ... ..	—	15,000
Percussion Instruments ... ..	—	9,000
Instruments, not separately distinguished	—	9,000
Talking Machines and Records for same ...	—	69,000
Other Products ... ..	—	20,000
Amount Received for Repairs, including Upkeep and Tuning ... ..	—	151,000
Amount Received for Work Done for the Trade	—	7,000

The total value of the above-mentioned products and work done amounts to £1,865,000. In addition, talking machines and records to the value of £5,000 were included in their statements of output by firms that made their Returns on Schedules for other trades, raising to £74,000 the total value of talking machines and records made in the United Kingdom in the year of return.

The heading "parts and accessories of organs, pianofortes, harmoniums, &c." (valued at £212,000) includes (1) parts which were made by certain firms and sold by them to makers who have included their value in the value of the complete organs, pianofortes, harmoniums, &c., made by them or in the value of their repair work; (2) parts made and exported or sold to retailers for use in repairs; and (3) accessories which are not included in the value of the complete instruments. Similarly, the heading "other musical instruments, parts, and accessories" (valued at £106,000) includes (1) complete instruments; (2) parts whose value has been returned twice to the Census Office, once by their makers and again by the makers of complete instruments to whom they were sold; (3) parts made and exported or sold to retailers for use in repairs; and (4) accessories not included in the value of instruments made. The total value, free on board, of parts of musical instruments exported in 1907 was £57,000, but the information at the disposal of the Census Office does not enable the balance of the sums of £212,000 and £106,000 to be allocated between these several classes, and consequently the amount of duplication involved cannot be precisely stated. The amount received for work done for the trade (£7,000) is included in the value of the complete instruments made.

Taking as a whole, therefore, the goods made and repairs executed in the factories and workshops included in the Tables on pages 820 to 822, their value may be estimated at a sum lying between £1,597,000 and £1,858,000. It should be noted, however, that the amount returned to the Census Office (£151,000) for repairs does not represent the total cost of all repairs executed on musical instruments in the United Kingdom, since dealers in musical instruments who only employed a few men in tuning, repairing, &c., were not asked to make returns. Taking together musical instruments, talking machines,

and repair work, as returned on all Schedules (but excluding the value of "other products," which are dealt with under the trades concerned), their value as a whole may be estimated at a sum lying between £1,582,000 and £1,843,000.

The following statement shows the production of musical instruments in the United Kingdom in comparison with the Exports and Imports :—

	Production.		Exports, 1907.		Net Imports,* 1907.	
	Number.	Value.	Number.	Value.	Number.	Value.
		£		£		£
Organs and Harmoniums ... ..	4,300†	30,000	700	21,000	7,000	91,000
Pianos ... ..	58,600‡	995,000	5,800	165,000	22,000	650,000
All other Musical Instruments ... ..	—	593,000§	—	50,000	—	64,000
Parts of Musical Instruments ... ..	—	—	—	57,000	—	239,000
Total ... ..	—	1,618,000	—	293,000	—	1,044,000

\* *I.e.*, imports less re-exports.

† American Organs and Harmoniums.

‡ Including Piano Players and Player Pianos.

§ Including Pipe Organs and Accessories to Musical Instruments.

After allowing (as already explained) for possible duplication in the value of the parts produced in the United Kingdom, the value of the exports of instruments and parts, free on board, may be estimated at between 18.1 and 21.6 per cent. of the value at works of the instruments and parts made in the United Kingdom, and the value, at port of landing, of the net imports of instruments and parts at about two-thirds of the value at works of the instruments and parts made in the United Kingdom. The exports and imports of talking machines are included with those of scientific instruments and apparatus.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 820 to 822 (whose gross output was valued at £1,865,000) was £1,056,000, that sum representing the total amount by which the value of the output of those factories and workshops exceeded the cost of the materials used and the amount paid to other firms for work done by them on those materials for the principal firms. The actual cost of materials used by those factories and workshops, taken as a whole, cannot be precisely stated but it may be estimated at a sum lying between £525,000 and £786,000. The amount paid to other firms for work given out to them was £23,000.

The net output per head of persons employed in the censal year was nearly £105.

*Persons Employed.*—The average number of persons employed on the last Wednesdays in January, April, July, and October in the factories, together with the number ordinarily employed in the workshops, covered by the Tables on pages 820 to 822 is returned as 10,101, viz. 9,340 wage-earners and 761 salaried persons, the total number being distributed by age and sex as follows :—

Males :—			Females :—		
Under 18 ... ..	1,274		Under 18 ... ..	111	
Over 18 ... ..	8,326		Over 18 ... ..	390	

The variation in employment in factories during the censal year is shown in the following statement :—

	Persons Employed on the last Wednesday in			
	January.	April.	July.	October.
Wage-earners ... ..	7,220	6,889	6,960	7,514
Salaried Persons ... ..	527	518	528	543
Total ... ..	7,747	7,407	7,488	8,057

There were also 2,194 wage-earners and 232 salaried persons ordinarily employed in workshops.

*Power.*—The particulars furnished with regard to power are summarised below, electricity purchased not being included :—

	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
	£		Horse-Power.
Factories with their own Engines ... ..	1,415,000	7,503	2,178
Factories renting their Power ... ..	33,000	172	—
Workshops (not using Power) ... ..	417,000	2,426	—
Total ... ..	1,865,000	10,101	2,178

Classed according to kinds of power, the particulars are :—

	Horse-Power.
Steam Engines, Reciprocating ... ..	771
Internal Combustion Engines (gas, oil, &c.) ... ..	1,402
Water Power ... ..	5
Total ... ..	2,178

Precise details as to the amount and kind of power rented are not available.

Firms using dynamos driven by their own engines were required to state their capacity, and the information furnished is summarised below :—

Capacity of dynamos driven by :—	Kilowatts.
Steam Engines, Reciprocating ... ..	176
Other Power ... ..	128
Total ... ..	304

The capacity of those dynamos should not, of course be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power, and allowing about 10 per cent. for loss of energy in conversion) about 21 per cent. of the engine-power belonging to musical instrument factories was required for driving dynamos for the production of electric power and light.

Manufacturers were also required to state the quantity of electricity generated by their own dynamos, but owing to the insufficiency of their records a number of them were unable to do so. The following statement summarises the information furnished :—

Dynamoes driven by	Total Capacity of Dynamoes.	Electricity Generated, so far as particulars were returned.	
		Capacity of Dynamoes.	Electricity Generated.
	Kilowatts.	Kilowatts.	Board of Trade Units.
Steam Engines: Reciprocating... ..	176	171	143,000
Other Power ... ..	128	14	5,000
Total ... ..	304	185	148,000

About 206,000 Board of Trade units of electricity were purchased by manufacturers for power and lighting purposes. This figure includes estimates made in the Census Office in respect of the quantities of electricity purchased by some small firms who were able to state only the amounts paid by them.

### Billiard Table and Sports Requisites Trades.

*Output.*—The Tables on pages 823 to 825 are based on Returns received from factories and workshops engaged in the manufacture of billiard and bagatelle tables and accessories and of requisites for outdoor and athletic games and sports. A large portion of the output of golf balls, tennis balls, and other rubber balls is not included in these Tables but in those dealing with india-rubber manufactures (see page 669). The

making and repairing of golf clubs, &c., by professional golfers is also excluded. The aggregate value of the output of the firms that made their Returns on the Schedules for the billiard table and sports requisites trades is returned as £1,161,000, to which should be added £683,000, the value of sports requisites, &c. included in their statements of output by firms that made their Returns on Schedules for other trades. The resulting total of £1,844,000 contains, however, a little duplication.

The following statement shows the particulars furnished respecting the output of finished goods, and is free from duplication :—

	Returned on Schedules for the Billiard Table and Sports Requisites Trades.	Returned on Schedules for other Trades.	Total.
	£	£	£
Billiard and Bagatelle Tables, Parts, and Accessories (including Billiard Room Furniture and Fittings, Setting-up and Repair Work, and the value added in Re-fitting Second-hand Tables).	337,000	1,000	338,000
Requisites for Outdoor and Athletic Games and Sports ( <i>i.e.</i> , for Cricket, Tennis, Fishing, Golf, Gymnastics, &c.) including Repair Work.	772,000	682,000	1,454,000
Other Products ... ..	40,000	—	40,000
Total ... ..	1,149,000	683,000	1,832,000

In addition, £12,000 was received for work done for the trade. Firms that furnished to the Census Office Returns of the value of their finished goods stated that they paid £3,000 for work given out to other firms. The difference (£9,000) between this sum and the total amount received for work done for the trade represents the amount received for work done for merchants or retailers who were not required to make Returns, and is an addition to the value of the finished goods made. The value of the goods made for merchants is not known.

Adding together the value of the finished goods made and the amount received for work done for merchants, the value of the output, taken as a whole, of the factories and workshops covered by the Tables on pages 823 to 825 is £1,158,000, and the value of the main products of the trade, as returned on all Schedules but exclusive of the value of "other products" which are dealt with under their respective trades, was £1,801,000.

The sports requisites returned on Schedules for other trades include golf balls, tennis balls, other rubber balls, rubber toys, &c., to the value of £499,000 and fishing tackle and fish-hooks to the value of £131,000.

— In addition, it is probable that a good deal of leather and wood-work for sports and games has been returned by the makers under general headings on other Schedules and cannot be identified.

Owing to the limitations imposed by the Census of Production Act it was not possible in the compulsory part of the Schedule to require manufacturers to state the number of the billiard tables and bagatelle boards made by them. All firms with factories were, accordingly, requested to furnish that information voluntarily, and firms with an output of billiard tables and bagatelle boards valued at £171,000, or 50.6 per cent. of the total, stated that their output of new complete tables consisted of 972 full-sized billiard tables, 631 small and miniature billiard tables (including convertible dining tables), and 259 bagatelle boards. Firms with an output valued at £77,000 did not furnish the desired statement, and firms owning workshops with an output of billiard tables and bagatelle boards valued at £89,000 were not asked for particulars as to numbers of tables made.

In the Import and Export Lists billiard and bagatelle tables and requisites for outdoor and athletic games and sports, such as golf, tennis, cricket, &c., are included with other articles under the general heading "toys and games." The exports of "toys and games" in 1907 were valued at £534,000, free on board, and the net imports (*i.e.*, imports less re-exports) at £1,210,000 at port of landing. The value at works of the billiard tables and sports requisites produced in the United Kingdom was, as stated above, £1,801,000 (including repairs and work done for merchants) and of toys and games £240,000 (*see* page 811), or altogether £2,041,000, but as this sum includes repairs and does not include goods made by professional golfers or by manufacturers who made their Returns on Schedules for other trades and included their output of sports requisites under general headings in which they cannot be identified, it is not possible to make a complete



comparison of the production of billiard tables, &c., in the United Kingdom with the exports and imports.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 823 to 825 (whose gross output was valued at £1,161,000) was £658,000, that sum representing the total amount by which the value of the output of those factories and workshops exceeded the cost of the materials used and the amount paid to other firms for work done by them on those materials for the principal firms. The actual cost of materials used by those factories and workshops, taken as a whole, was £500,000. The amount paid to other firms for work given out to them was £3,000.

The net output per head of persons employed (exclusive of outworkers) in the censal year was a little over £101.

*Persons Employed.*—The average number of persons employed on the last Wednesdays in January, April, July, and October in the factories, together with the number ordinarily employed in the workshops, covered by the Tables on pages 823 to 825 is returned as 6,510, viz., 5,762 wage-earners and 748 salaried persons, the total number being distributed by age and sex as follows:—

Males:—		Females:—	
Under 18 ... ..	658	Under 18 ... ..	629
Over 18 ... ..	4,096	Over 18 ... ..	1,127

In addition, the average number of outworkers on the books of the employing firms on 1st February and 1st August, 1907, was 464, viz., 70 males and 394 females.

The variation in employment in factories during the censal year is shown in the following statement:—

	Persons Employed on the last Wednesday in			
	January.	April.	July.	October.
Wage-earners ... ..	4,164	4,219	4,308	4,246
Salaried Persons ... ..	541	542	555	547
Total ... ..	4,705	4,761	4,863	4,793

There were also 1,528 wage-earners and 202 salaried persons ordinarily employed in workshops.

*Power.*—The particulars furnished with regard to power are summarised below, electricity purchased not being included:—

	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
	£		Horse-Power.
Factories with their own Engines ... ..	880,000	4,773	1,245
Factories renting their Power ... ..	1,000	7	—
Workshops (not using Power) ... ..	280,000	1,730	—
Total ... ..	1,161,000	6,510	1,245

Classed according to kinds of power, the particulars are:—

	Horse-Power.
Steam Engines, Reciprocating ... ..	433
Internal Combustion Engines (gas, oil, &c.) ... ..	797
Water Power ... ..	15
Total ... ..	1,245

Precise details as to the amount and kind of power rented are not available.

Firms using dynamos driven by their own engines were required to state their capacity, and the information furnished is summarised below:—

Capacity of Dynamos driven by:—		Kilowatts.
Steam Engines, Reciprocating ... ..		100
Other Power ... ..		81
Total ... ..		181

The capacity of those dynamos should not, of course, be added to that of the engines owned. What the information shows is that (taking 746 kilowatts as equivalent to 1,000 horse-power and allowing about 10 per cent. for loss of energy in conversion) about one-fifth of the engine-power belonging to factories engaged in the manufacture of billiard table and sports requisites was required for driving dynamos for the production of electric power and light.

Manufacturers were also required to state the quantity of electricity generated by their own dynamos, but owing to the insufficiency of their records a few of them were unable to do so. The following statement summarises the information furnished:—

Dynamos driven by	Total Capacity of Dynamos.	Electricity Generated, so far as particulars were returned.	
		Capacity of Dynamos.	Electricity Generated.
	Kilowatts.	Kilowatts.	Board of Trade Units.
Steam Engines, Reciprocating ... ..	100	100	115,000
Other Power ... ..	81	63	15,000
Total ... ..	181	163	130,000

About 205,000 Board of Trade units of electricity were purchased by manufacturers for power and lighting purposes. This figure includes estimates made in the Census Office in respect of the Quantities of electricity purchased by some small firms who were able to state only the amounts paid by them.

### Toys and Games Trades.

*Output.*—The Tables on pages 826 and 827 are based on Returns received from factories and workshops engaged in the manufacture of toys and games. The aggregate value of the output of the firms that made their Returns on the Schedules for the toys and games trades is returned as £216,000, to which should be added £51,000, the value of similar articles included in their statements of output by firms that made their Returns on Schedules for other trades. The resulting total of £267,000 involves, however, duplication to the extent of £2,000.

The following statement shows the particulars furnished respecting the output of finished articles, and is free from duplication:—

	Returned on Schedules for the Toys and Games Trades.	Returned on Schedules for other Trades.	Total.
	£	£	£
Dolls (Rag and Dressed) ... ..	18,000	—	18,000
Other Toys and Games ... ..	171,000	51,000	222,000
Other Products ... ..	25,000	—	25,000
Total ... ..	214,000	51,000	265,000

In addition, the sum of £2,000 was received for work done for the trade and is included in the value of the finished goods made.

The exports and imports of toys and games are included in the Export and Import Lists under the same heading as billiard tables and sports requisites and are dealt with on page 809.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 826 and 827 (whose gross output was valued at £216,000) was £110,000, that sum representing the total amount by which the value of the output of those factories and workshops exceeded the cost of the materials used and the amount paid to other firms for work done by them on those materials for the principal firms. The actual cost of materials used by those factories and workshops, taken as a whole, was £104,000. The amount paid to other firms for work given out to them was £2,000.

The net output per head of persons employed (exclusive of outworkers) in the censal year was a little over £59.

*Persons Employed.*—The average number of persons employed on the last Wednesdays in January, April, July, and October in the factories, together with the number ordinarily employed in the workshops, covered by the Tables on pages 826 and 827 is returned as 1,862, viz., 1,716 wage-earners and 146 salaried persons, the total number being distributed by age and sex as follows :—

Males :—				Females :—			
Under 18	...	...	234	Under 18	...	...	454
Over 18	...	...	565	Over 18	...	...	609

In addition, the average number of outworkers on the books of the employing firms on 1st February and 1st August, 1907, was 65, viz., 3 males and 62 females.

The variation in employment in factories during the censal year is shown in the following statement :—

	Persons Employed on the last Wednesday in			
	January.	April.	July.	October.
Wage-earners ... ..	852	854	864	1,016
Salaried Persons ... ..	66	66	65	69
Total ... ..	918	920	929	1,085

There were also 820 wage-earners and 79 salaried persons ordinarily employed in workshops.

*Power.*—The particulars furnished with regard to power are summarised below, electricity purchased not being included :—

	Gross Value of Output.	Average Number of Persons Employed.	Total Capacity of Engines.
	£		Horse-Power.
Factories with their own Engines ... ..	120,000	963	305
Workshops (not using Power) ... ..	96,000	899	—
Total ... ..	216,000	1,862	305

Classed according to kinds of power, the particulars are :—

	Horse-Power.
Steam Engines, Reciprocating ... ..	86
Internal Combustion Engines (gas, oil, &c.) ... ..	219
Total ... ..	305

One firm used a dynamo driven by an internal combustion engine included in the above total; its capacity was 8 kilowatts, and the total amount of electrical energy generated was 8,000 Board of Trade units.

About 25,000 Board of Trade units of electricity were purchased by manufacturers for power and lighting purposes.

### Wigmaking Trade.

*Output.*—The Tables on page 828 are based on Returns received from workshops where wigs and other manufactures of hair, and also hair pads and frames, were made. Wigmaking work done in barbers' and hairdressers' shops is not included.

The total value of the goods made in wigmakers' workshops amounted to £98,000, free from duplication, the details being as follows :—

	Value.
	£
Wigs and other Manufactures of Hair ... ..	80,000
Hair Pads and Frames ... ..	18,000

In addition £1,000 was received for work which appears to have been wholly done for hairdressers and others who were not required to make Returns, but the selling value of the goods so made is not known. Adding this sum to the value of the finished goods the value of the output of wigmakers' workshops, taken as a whole, is £99,000.

*Net Output.*—The net output of the workshops covered by the Tables on page 828 was £56,000, that sum representing the total amount by which the value of the output of such workshops (including the amount received for work done for hairdressers) exceeded the cost of materials used. The actual cost of materials (exclusive of those given out by hairdressers to be worked up) was £43,000.

The net output per head of persons employed in the censal year was a little over £64.

*Persons Employed.*—The average number of persons employed in the workshops covered by the Tables on page 828 is returned as 870, viz., 760 wage-earners and 110 salaried persons, the total number being distributed by age and sex as follows :—

Males :—				Females :—			
Under 18	...	...	22	Under 18	...	...	229
Over 18	...	...	217	Over 18	...	...	402



Scientific Instruments, Apparatus and Appliances Trades—*continued.*TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED—*continued.*

## B.—TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	England and Wales and Ireland.*	Scotland.	United Kingdom.
	Horse-Power.	Horse-Power.	Horse-Power.
Steam Engines, Reciprocating ... ..	737	100	837
Internal Combustion Engines (gas, oil, &c.) ... ..	1,787	160	1,947
Water Power ... ..	45	—	45
Other Power ... ..	65	—	65
<b>TOTAL</b> ... ..	<b>2,634</b>	<b>260</b>	<b>2,894</b>
	Kilowatts.	Kilowatts.	Kilowatts.
Capacity of Dynamos driven by :—			
Steam Engines, Reciprocating ... ..	282	76	358
Other Power ... ..	230	2	232
<b>TOTAL</b> ... ..	<b>512</b>	<b>78</b>	<b>590</b>

## C.—AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	England and Wales and Ireland.*	Scotland.	United Kingdom.
	Board of Trade Units.	Board of Trade Units.	Board of Trade Units.
Amount of Electricity Purchased ... ..	758,000	71,000	829,000

\* The figures for England and Wales and for Ireland have been combined in order to avoid the possible disclosure of particulars relating to the few firms in Ireland.

## IVORY, BONE, HORN, PICTURE FRAME, AND FANCY ARTICLES TRADES.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	United Kingdom.*
	£
Articles of Ivory, Bone, Horn, Jet, Celluloid, &c. (including handles, combs, and fancy goods).	487,000
Ivory, Bone, Horn, &c., Cut ... ..	165,000
Picture Frames ... ..	654,000
Pipes, Tobacco Pouches, Cigar and Cigarette Holders and Cases.	208,000
Fancy Leather Goods ... ..	145,000
Cases for Jewellery, Cutlery, &c. ... ..	137,000
Fancy Articles of Wood, Metal, Paper, Wax, Clay, Plaster, &c.	117,000
Lamp and Candle Shades ... ..	42,000
Plain and Fancy Cardboard Boxes ... ..	20,000
Goods of Silver, including Mounted Articles ... ..	18,000
Cushions, Cosies, Pincushions, &c. ... ..	10,000
Other Fancy Articles ... ..	43,000
Materials for the Manufacture of Fancy Goods ... ..	216,000
Waste Products... ..	41,000
Other Products ... ..	46,000
<b>TOTAL VALUE OF GOODS MADE</b> ... ..	<b>2,349,000</b>
Amount Received for Work Done for the Trade :—	
Cutting, Turning, Carving, &c., Ivory, Bone, Horn, &c.	6,000
Mounting, Fitting and Finishing Pipes, Cigar Tubes, &c.	11,000
Other Work ... ..	7,000
<b>TOTAL WORK DONE</b> ... ..	<b>24,000</b>
<b>TOTAL VALUE OF GOODS MADE AND WORK DONE.</b>	<b>2,373,000</b>

TABLE II.—COST OF MATERIALS USED AND AMOUNT PAID TO OTHER FIRMS FOR WORK GIVEN OUT TO THEM, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	United Kingdom.*
	£
I.	
Cost of Materials Used ... ..	1,332,000
Amount Paid to Other Firms for Work Given Out to them.	13,000
<b>TOTAL</b> ... ..	<b>1,345,000</b>
II.	
Value of Output :—	
Goods Made for Sale ... ..	2,349,000
Work Done for the Trade ... ..	24,000
<b>TOTAL</b> ... ..	<b>2,373,000</b>
III.	
Value of Output less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	1,028,000

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

Ivory, Bone, Horn, Picture Frame, and Fancy Articles  
Trades—continued.

TABLE III.—PERSONS EMPLOYED.

A.—AVERAGE NUMBER OF PERSONS (EXCEPT OUTWORKERS) AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

NOTE.—These figures include (a) the average number of persons at work on the last Wednesdays in January, April, July, and October in establishments where power is used; and (b) the numbers "ordinarily" employed in establishments where no power is used.

	Males.			Females.			Males and Females.		
	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
UNITED KINGDOM* :—									
Wage-earners ...	1,328	5,375	6,703	1,743	3,386	5,129	3,071	8,761	11,832
Salaried Persons ...	78	1,074	1,152	46	245	291	124	1,319	1,443
TOTAL ...	1,406	6,449	7,855	1,789	3,631	5,420	3,195	10,080	13,275

B.—AVERAGE NUMBER OF OUTWORKERS ON 1ST FEBRUARY AND 1ST AUGUST, 1907.

	Males.	Females.	Males and Females.
UNITED KINGDOM* ...	120	89	209

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
UNITED KINGDOM.*			
	£		Horse-Power.
Factories with their own Engines ...	1,518,000	8,229	2,795
Factories renting their Power ...	206,000	586	—
Workshops (not using Power) ...	649,000	4,460	—
TOTAL ...	2,373,000	13,275	2,795

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.

Ivory, Bone, Horn, Picture Frame, and Fancy Articles  
Trades—continued.

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED—continued.

B.—TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	United Kingdom.*
	Horse-Power.
Steam Engines, Reciprocating ...	1,773
Internal Combustion Engines (gas, oil, &c.) ...	909
Water Power ...	113
TOTAL ...	2,795
	Kilowatts.
Capacity of Dynamos driven by :—	
Steam Engines, Reciprocating ...	495
Other Power ...	35
TOTAL ...	530

C.—AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—The figure in this Table is given to the nearest thousand.

	United Kingdom.*
	Board of Trade Units.
Amount of Electricity Purchased ...	296,000

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for the United Kingdom as a whole.



Musical Instrument Trades—*continued.*TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED—*continued.*

## B.—TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	England and Wales.	Scotland.	Ireland.	United Kingdom.
	Horse-Power.	Horse-Power.	Horse-Power.	Horse-Power.
Steam Engines, Reciprocating ...	771	—	—	771
Internal Combustion Engines (gas, oil, &c.)	1,397	5	—	1,402
Water Power ... ..	5	—	—	5
TOTAL ... ..	2,173	5	—	2,178
	Kilowatts.	Kilowatts.	Kilowatts.	Kilowatts.
Capacity of Dynamos driven by :—				
Steam Engines, Reciprocating ...	176	—	—	176
Other Power ... ..	128	—	—	128
TOTAL ... ..	304	—	—	304

## C.—AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—*The figures in this Table are given to the nearest thousand in each case.*

	England and Wales.	Scotland.	Ireland.	United Kingdom.
	Board of Trade Units.	Board of Trade Units.	Board of Trade Units.	Board of Trade Units.
Amount of Electricity Purchased ...	193,000	12,000	1,000	206,000

## BILLIARD TABLE AND SPORTS REQUISITES TRADES.

TABLE I.—OUTPUT.

NOTE.—*The figures in this Table are given to the nearest thousand in each case. Amounts lower than five hundred are not shown.*

	United Kingdom.*
	£
Billiard and Bagatelle Tables and Accessories (including Billiard Room Furniture and Fittings, Setting-up and Repair Work, and value added in Re-fitting Second-hand Tables).	337,000
Requisites for Outdoor and Athletic Games and Sports ( <i>i.e.</i> , for Cricket, Tennis, Fishing, Golf, Gymnastics, &c.), including Repair Work.	772,000
Other Products ... ..	40,000
TOTAL VALUE OF GOODS MADE AND REPAIRS ... ..	1,149,000
Amount Received for Work Done for the Trade ... ..	12,000
TOTAL VALUE OF GOODS MADE AND WORK DONE :—	
Total Value, United Kingdom ... ..	1,161,000
Total Value, England and Wales and Ireland† ... ..	1,020,000
Total Value, Scotland ... ..	141,000

TABLE II.—COST OF MATERIALS USED AND AMOUNT PAID TO OTHER FIRMS FOR WORK GIVEN OUT TO THEM, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—*The figures in this Table are given to the nearest thousand in each case.*

	England and Wales and Ireland.†	Scotland.	United Kingdom.
	£	£	£
I.			
Cost of Materials Used ... ..	436,000	64,000	500,000
Amount Paid to Other Firms for Work Given Out to them...	2,000	1,000	3,000
TOTAL ... ..	438,000	65,000	503,000
II.			
Value of Output :—			
Goods Made for Sale (including Repairs) ... ..	1,008,000	141,000	1,149,000
Work Done for the Trade ... ..	12,000	—	12,000
TOTAL ... ..	1,020,000	141,000	1,161,000
III.			
Value of Output less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	582,000	76,000	658,000

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures as to the several classes of output can only be given for the United Kingdom as a whole. Separate totals are, however, shown for Scotland and for the rest of the United Kingdom.

† The figures for England and Wales and for Ireland have been combined in order to avoid the possible disclosure of particulars relating to the few firms in Ireland.

## Billiard Table and Sports Requisites Trades—continued.

TABLE III.—PERSONS EMPLOYED.

A.—AVERAGE NUMBER OF PERSONS (EXCEPT OUTWORKERS) AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

NOTE.—These figures include (a) the average number of persons at work on the last Wednesdays in January, April, July, and October in establishments where power is used; and (b) the numbers "ordinarily" employed in establishments where no power is used.

	Males			Females.			Males and Females.		
	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
ENGLAND AND WALES AND IRELAND* :—									
Wage-earners... ..	545	3,080	3,625	419	780	1,199	964	3,860	4,824
Salaried Persons ... ..	53	480	533	32	81	113	85	561	646
TOTAL ... ..	598	3,560	4,158	451	861	1,312	1,049	4,421	5,470
SCOTLAND :—									
Wage-earners... ..	59	470	529	171	238	409	230	708	938
Salaried Persons ... ..	1	66	67	7	28	35	8	94	102
TOTAL ... ..	60	536	596	178	266	444	238	802	1,040
UNITED KINGDOM :—									
Wage-earners... ..	604	3,550	4,154	590	1,018	1,608	1,194	4,568	5,762
Salaried Persons ... ..	54	546	600	39	109	148	93	655	748
TOTAL ... ..	658	4,096	4,754	629	1,127	1,756	1,287	5,223	6,510

B.—AVERAGE NUMBER OF OUTWORKERS ON 1ST FEBRUARY AND 1ST AUGUST, 1907

	Males.	Females.	Males and Females.
ENGLAND AND WALES AND IRELAND* ... ..	69	394	463
SCOTLAND ... ..	1	—	1
UNITED KINGDOM ... ..	70	394	464

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
	ENGLAND AND WALES AND IRELAND.*			SCOTLAND.			UNITED KINGDOM.		
	£		Horse-Power.	£		Horse-Power.	£		Horse-Power.
Factories with their own Engines.	801,000	4,268	1,020	79,000	505	225	880,000	4,773	1,245
Factories renting their Power.	1,000	7	—	—	—	—	1,000	7	—
Workshops (not using Power).	218,000	1,195	—	62,000	535	—	280,000	1,730	—
TOTAL ... ..	1,020,000	5,470	1,020	141,000	1,040	225	1,161,000	6,510	1,245

\* The figures for England and Wales and for Ireland have been combined in order to avoid the possible disclosure of particulars relating to the few firms in Ireland.

## Billiard Table and Sports Requisites Trades—continued.

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED—continued.

B.—TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	England and Wales and Ireland.*	Scotland.	United Kingdom.
Steam Engines, Reciprocating ... ..	Horse-Power. 387	Horse-Power. 46	Horse-Power. 433
Internal Combustion Engines (gas, oil, &c.) ... ..	633	164	797
Water Power ... ..	—	15	15
TOTAL ... ..	1,020	225	1,245
Capacity of Dynamos driven by :—	Kilowatts.	Kilowatts.	Kilowatts.
Steam Engines, Reciprocating ... ..	100	—	100
Other Power ... ..	78	3	81
TOTAL ... ..	178	3	181

C.—AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	England and Wales and Ireland.*	Scotland.	United Kingdom.
Amount of Electricity Purchased ... ..	Board of Trade Units. 165,000	Board of Trade Units. 40,000	Board of Trade Units. 205,000

\* The figures for England and Wales and for Ireland have been combined in order to avoid the possible disclosure of particulars relating to the few firms in Ireland.



## TOYS AND GAMES TRADES.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	Great Britain.*
	£
Dolls (Rag and Dressed) ... ..	18,000
Other Toys and Games ... ..	171,000
Other Products ... ..	25,000
<b>TOTAL VALUE OF GOODS MADE</b> ... ..	<b>214,000</b>
Amount Received for Work Done for the Trade ... ..	2,000
<b>TOTAL VALUE OF GOODS MADE AND WORK DONE.</b>	<b>216,000</b>

TABLE II.—COST OF MATERIALS USED AND AMOUNT PAID TO OTHER FIRMS FOR WORK GIVEN OUT TO THEM, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	Great Britain.*
	£
<b>I.</b>	
Cost of Materials Used ... ..	104,000
Amount Paid to Other Firms for Work Given Out to them ... ..	2,000
<b>TOTAL</b> ... ..	<b>106,000</b>
<b>II.</b>	
Value of Output:—	
Goods Made for Sale ... ..	214,000
Work Done for the Trade ... ..	2,000
<b>TOTAL</b> ... ..	<b>216,000</b>
<b>III.</b>	
Value of Output less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	110,000

TABLE III.—PERSONS EMPLOYED.

A.—AVERAGE NUMBERS OF PERSONS (EXCEPT OUTWORKERS) AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

NOTE.—These figures include (a) the average number of persons at work on the last Wednesdays in January, April, July, and October in establishments where power is used; and (b) the numbers "ordinarily" employed in establishments where no power is used.

	Males.			Females.			Males and Females.		
	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
<b>GREAT BRITAIN* :—</b>									
Wage-earners ... ..	230	466	696	447	573	1,020	677	1,039	1,716
Salaried Persons ... ..	4	99	103	7	36	43	11	135	146
<b>TOTAL</b> ... ..	<b>234</b>	<b>565</b>	<b>799</b>	<b>454</b>	<b>609</b>	<b>1,063</b>	<b>688</b>	<b>1,174</b>	<b>1,862</b>

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for Great Britain as a whole.

## Toys and Games Trades—continued.

TABLE III.—PERSONS EMPLOYED—continued.

B.—AVERAGE NUMBER OF OUTWORKERS ON 1ST FEBRUARY AND 1ST AUGUST, 1907.

	Males.	Females.	Males and Females.
<b>GREAT BRITAIN*</b> ... ..	<b>3</b>	<b>62</b>	<b>65</b>

TABLE IV.—CAPACITY OF ENGINES OWNED AND AMOUNT OF ELECTRICITY PURCHASED.

A.—CAPACITY OF ENGINES OWNED, COMPARED WITH GROSS VALUE OF OUTPUT AND NUMBER OF PERSONS EMPLOYED.

NOTE.—The Gross Value of Output in this Table is given to the nearest thousand pounds.

	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
			<b>GREAT BRITAIN.*</b>
	£		Horse-Power.
Factories with their own Engines ... ..	120,000	963	305
Workshops (not using Power) ... ..	96,000	899	—
<b>TOTAL</b> ... ..	<b>216,000</b>	<b>1,862</b>	<b>305</b>

B.—TYPE AND CAPACITY OF ENGINES AND CAPACITY OF DYNAMOS.

	Great Britain.*
	Horse-Power.
Steam Engines, Reciprocating ... ..	86
Internal Combustion Engines (gas, oil, &c.) ... ..	219
<b>TOTAL</b> ... ..	<b>305</b>
	Kilowatts.
Capacity of Dynamos driven by:—	
Steam Engines, Reciprocating ... ..	—
Other Power ... ..	8
<b>TOTAL</b> ... ..	<b>8</b>

C.—AMOUNT OF ELECTRICITY PURCHASED.

NOTE.—The figure in this Table is given to the nearest thousand.

	Great Britain.*
	Board of Trade Units.
Amount of Electricity Purchased ... ..	25,000

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for Great Britain as a whole.

## WIGMAKING TRADE.

TABLE I.—OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	Great Britain.*
Wigs and other Manufactures of Hair ... ..	£ 80,000
Hair Pads and Frames ... ..	18,000
TOTAL VALUE OF GOODS MADE FOR SALE...	98,000
Amount Received for Work Done for the Trade ..	1,000
TOTAL VALUE OF GOODS MADE AND WORK DONE.	99,000

TABLE II.—COST OF MATERIALS USED, SHOWN IN RELATION TO VALUE OF OUTPUT.

NOTE.—The figures in this Table are given to the nearest thousand in each case.

	Great Britain*
I. Cost of Materials Used ... ..	£ 43,000
II. Value of Output :— Goods Made for Sale ... ..	98,000
Amount Received for Work Done for the Trade ...	1,000
TOTAL ... ..	99,000
III. Value of Output less Cost of Materials Used ... ..	56,000

TABLE III.—PERSONS EMPLOYED.

NUMBER OF PERSONS "ORDINARILY" EMPLOYED IN YEAR OF RETURN.

	Males.			Females.			Males and Females.		
	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.	Under 18 years of age.	Over 18 years of age.	Total.
GREAT BRITAIN* :—									
Wage-earners ...	21	152	173	227	360	587	248	512	760
Salaried Persons ...	1	65	66	2	42	44	3	107	110
TOTAL ... ..	22	217	239	229	402	631	251	619	870

\* In order to avoid the possible disclosure of particulars relating to certain firms, figures can only be shown for Great Britain as a whole.

TABLE IV.—CAPACITY OF ENGINES OWNED.

No Engine Power.