

SECTION IV.

METAL TRADES, OTHER THAN IRON AND STEEL.

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## SECTION IV.—METAL TRADES, OTHER THAN IRON AND STEEL.

### GENERAL REPORT.

The following Section deals with the trades engaged in the smelting, rolling, and casting of metals other than iron and steel, and with the manufacture of goods (such as finished brass goods, plate, jewellery, watches, clocks, &c.), whose principal materials consist of such metals in one form or another.

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 as a whole than the value of the goods ready for export or consumption manufactured by each trade.

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 unwrought copper shows only that portion of the unwrought copper, extracted in the year of return, which was either sold as unwrought copper or remained in stock at the end of the year as unwrought copper, and does not include unwrought copper made into plates, sheets, or otherwise wrought by the smelting firm. On the other hand, some firms have made two Returns for two separate establishments and have treated the goods transferred from one works to the other as sales and purchases. All such duplication, as well as that arising from goods being sold by one firm and worked up by another 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 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. — Selling Value or Value of Work Done (1)	Materials Used. — Cost. (2)	Work Given Out. — Amount Paid to Other Firms. (3)	Net Output. — Excess of Column (1) over Columns (2) and (3) (4)	Persons Employed (Except Out- workers). Average. (5)	Net Output per Person Employed (excluding Out- workers). (6)	Horse- Power of Engines at Factories. (7)
— Copper and Brass Trades (Smelting, Rolling, and Casting).	£ 17,285,000	£ 14,321,000	£ 34,000	£ 2,930,000	21,448	£ 137	H.-P. 43,853
— Finished Brass Trades ...	6,797,000	3,314,000	29,000	3,454,000	38,916	89	12,865
— Gold and Silver Refining Trade.	51,226,000	50,780,000	15,000	431,000	2,187	197	1,648
— Lead, Tin, Zinc, and Other Metal Trades (except Iron, Copper, Brass, Gold, and Silver).	8,985,000	7,878,000	10,000	1,097,000	8,233	133	18,498
— Plate and Jewellery Trades	8,559,000	4,829,000	131,000	3,599,000	38,388	94	6,560
— Watch and Clock Trades...	613,000	219,000	12,000	382,000	5,301	72	550
Total ... ..	93,465,000	81,341,000	231,000	11,893,000	114,473	—	83,974

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.	Fe- males.
	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.		
— Copper and Brass Trades (Smelting, Rolling, and Casting).	2,418	16,891	142	505	122	1,217	27	126	—	—
— Finished Brass Trades...	5,066	22,509	1,710	5,591	349	2,851	227	613	—	—
— Gold and Silver Refining Trade	84	1,724	18	53	17	249	7	35	—	—
— Lead, Tin, Zinc, and Other Metal Trades (except Iron, Copper, Brass, Gold, and Silver).	485	5,952	345	627	55	712	10	47	—	—
— Plate and Jewellery Trades ...	3,949	17,231	3,582	8,357	278	3,111	479	1,401	2,507	409
— Watch and Clock Trades ...	608	2,681	340	819	23	729	25	76	286	16
Total ... ..	12,610	66,988	6,137	15,952	844	8,869	775	2,298	2,793	425

In the whole group 88·8 per cent. of the persons employed were wage-earners and 11·2 per cent. were salaried persons (including principals). Of the wage-earners 78·3 per cent. were males and 21·7 per cent. were females; 15·8 per cent. of the males and 27·8 per cent. of the females were under 18 years of age. Of the salaried persons 76·0 per cent. were males and 24·0 per cent. were females; 8·7 per cent. of the males and 25·2 per cent. of the females were under 18 years of age.

The total of 3,218 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 in certain cases the persons actually working for a firm include members of outworkers' families, in addition to the outworkers actually on the firm's books. For these reasons, and as most outworkers are not in constant employment, outworkers 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 gross value of the products of the group as returned to the Census Office on the Schedules for the group is £93,465,000, to which should be added

£5,320,000, the value of similar products included in their statements of output by manufacturers that made their Returns on Schedules for other trades. The resulting total of £98,785,000, however, contains a considerable amount of duplication.

The following statement shows the output of those classes of products which are substantially free from duplication:—

	Value. £
Unwrought Copper (exported) ... ..	2,520,000
Wrought or Manufactured Copper ... ..	5,147,000
Brass and Copper Alloys ... ..	7,594,000
Machinery Parts of Brass and Copper ... ..	316,000
Coppersmiths' and Braziers' Work (less estimated value of copper used) ... ..	90,000
Sulphate of Copper ... ..	1,553,000
Finished Brass Goods ... ..	6,880,000
Cased Tubes ... ..	168,000
Brass Goods, repairs ... ..	44,000
Gold and Manufactures thereof (sheet, wire, &c.) ... ..	42,647,000
Silver and Manufactures thereof (sheet, wire, &c.) ... ..	6,669,000
Lead and Manufactures thereof ... ..	4,270,000
Tin and Manufactures thereof ... ..	2,202,000 to 2,232,000
Zinc and Manufactures thereof ... ..	1,380,000 to 1,507,000
Antimony, Arsenic, Aluminium, &c. ... ..	1,436,000
Total ... ..	82,916,000 to 83,073,000

From the statistics of output returned to the Census Office there have been omitted, in compiling the above Table, goods valued at £4,037,000, so as to eliminate duplication arising from the fact that unwrought copper, pig lead, &c., were returned as output in the crude form by certain firms and also as output in the shape of finished goods made by firms to whom these metals were sold as materials.

Another group of products consists of further manufactures of goods appearing in the preceding group, viz.:—

	Value. £
Gold Plate, Leaf, and Thread ... ..	598,000
Goods made wholly or in part of Silver ... ..	1,930,000
Electroplated and Unplated Goods ... ..	2,235,000
Jewellery ... ..	3,228,000
Watches, Clocks, Cases, and Parts ... ..	278,000 to 405,000
Solders ... ..	519,000
White Metals ... ..	351,000
Repairs to Plate, Jewellery, Watches, and Clocks ... ..	350,000
Total ... ..	9,489,000 to 9,616,000

Here again, from the amounts actually returned to the Census Office as the values of these classes of products there has been deducted £280,000, so as to eliminate duplication within the classes. There still remains, however, duplication in respect of the purchase of gold, silver, and other materials from firms whose output is included in the aggregate of £82,916,000 to £83,073,000. The total cost of materials used by the firms that made their Returns on the Schedules for the plate and jewellery trades is estimated, taken as a whole, at about £4,713,000, from which should be deducted the cost of gems and other non-metallic materials and the cost of fuel. The cost of the materials purchased from other trades by the firms that made their Returns on the Schedules for the watch and clock trades lies between £96,000 and £219,000. To these sums should be added the cost of materials used in the manufacture of plate, jewellery, watches, &c., and parts thereof returned on Schedules for other trades (the value of the output being £295,000). There should also be added £530,000, the estimated cost of materials used in the manufacture of solders and white metals. It may, consequently, be calculated that the cost of the materials used in the manufacture of this group of products and derived from the first group of products did not exceed £5,000,000, and was probably less.

Further, the sum of £324,000 was received for work done for merchants and others not making Returns in the production of goods, the selling value of which is not known. The details are as follows:—

	Amount Received. £
Copper and Brass Trades ... ..	91,000
Finished Brass Trades ... ..	29,000
Gold and Silver Refining Trades ... ..	8,000
Lead, Tin, Zinc, &c., Trades ... ..	97,000
Plate and Jewellery Trades ... ..	99,000

Lastly, the Returns include £617,000, the value of metallic scrap, dust, &c., which are mainly used again in manufacture and their value, consequently, is duplicated in the value of the goods made, and £838,000 the value of other products which are chiefly produced in other groups and dealt with in the Reports on the trades to which they properly belong.

It may, therefore, be estimated that the value of metallic products (other than those of iron and steel) including the amount received for work done for merchants, was approximately 87½ or 88 million pounds sterling. This sum does not include the cost of materials given out by merchants to be worked up (except in so far as these materials were produced by firms included in this group of trades) or the merchants' profits on such goods. The value of the exports of manufactures of metals (other than iron and steel) in 1907 was £11,886,000, free on board, and the value of the imports of similar goods retained in the United Kingdom in the same year was £22,411,000, at port of landing.

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. Net Output. £	Workshops. Net Output. £
Copper and Brass Trades (Smelting, Rolling and Casting) ... ..	2,802,000	128,000
Finished Brass Trades ... ..	3,248,000	206,000
Gold and Silver Refining Trade ... ..	431,000	—
Lead, Tin, Zinc, and Other Metal Trades (except Iron, Copper, Brass, Gold, and Silver) ... ..	1,067,000	30,000
Plate and Jewellery Trades ... ..	3,055,000	544,000
Watch and Clock Trades ... ..	217,000	165,000
Total ... ..	10,820,000	1,073,000

*Fuel Consumed.*—All firms with factories were asked to make a voluntary statement respecting the quantity of fuel consumed by them, and 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 workshops, 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.	Coal.	Coke.
Copper and Brass Trades (Smelting, Rolling, and Casting) ... ..	£ 2,496,000	85·2	Tons. 561,426	Tons. 90,466
Finished Brass Trades ... ..	2,379,000	68·9	42,071	23,499
Gold and Silver Refining Trade ... ..	427,000	90·1	45,718	16,797
Lead, Tin, Zinc, and Other Metal Trades (except Iron, Copper, Brass, Gold, and Silver) ... ..	897,000	81·8	291,562	37,115
Plate and Jewellery Trades ... ..	2,237,000	62·2	23,602	3,893
Watch and Clock Trades ... ..	198,000	51·8	3,099	459
Total ... ..	8,634,000	72·6	967,478	172,229

## DETAILED REPORTS.

## Copper and Brass Trades (Smelting, Rolling, and Casting).

*Output.*—The Tables on pages 264 to 266 are based on Returns received from factories and workshops mainly engaged in the smelting, rolling, and casting of copper, brass, and other copper alloys. The aggregate gross value of the output of the firms that made their Returns on the Schedule for the copper and brass trades (smelting, rolling, and casting) is returned as £17,285,000, to which should be added £3,381,000, 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 £20,666,000 contains, however, a certain amount of duplication.

(a) *Unwrought Copper.*—Firms engaged in the extraction of copper returned on the Schedule for the copper trade an output of 40,900 tons of "copper unwrought, in bars, blocks, slabs, cake, shot, ingots, or precipitate," valued at £3,422,000, those figures representing the unwrought copper not rolled or otherwise used by the extracting firms in the production of further manufactured goods, but exported, or sold in the United Kingdom as unwrought, or held in stock. A further quantity of 16,700 tons of unwrought copper valued at £1,487,000, was included in their statements of output by firms making their Returns on the Schedules for the chemical and other trades, and this was also exported, or warehoused as such, or sold to firms manufacturing plates, sheets, and other wrought copper. The total quantity of unwrought copper returned to the Census Office as such was thus 57,600 tons valued at £4,909,000. In the General Report on Mines and Quarries for 1907, Part III. (Cd. 4343), it is estimated that the quantity of metallic copper obtainable from British and imported copper ore, precipitate, and regulus, and from burnt cupreous pyrites retained in the United Kingdom in 1907 was 55,400 tons. Firms that made their Returns on the Schedule for the copper and brass trades were requested to make a voluntary statement as to their total make of refined copper, and firms with an output of 24,800 tons of unwrought copper, 28,400 tons of wrought copper, 19,600 tons of copper sulphate, and 13,600 tons of copper alloys stated that they produced 59,900 tons of refined copper. Firms with an output of 15,800 tons of unwrought copper, 9,200 tons of wrought copper, 3,300 tons of copper sulphate, and 2,700 tons of copper alloys did not state their make of refined copper. If it may be assumed that the same proportion of refined copper to copper goods holds in the two classes it would follow that the output of refined copper produced by smelters was about 85,000 tons. To this should be added copper made by the wet process, about 15,000 tons, making altogether 100,000 tons. It is, therefore, plain that a considerable quantity of the unwrought copper produced in the United Kingdom is refined from imported unwrought copper.

The total quantity of copper available for manufacture in the year of return appears to have been about 126,200 tons, *i.e.*, 55,400 tons made in the United Kingdom, 63,300 tons of imported unwrought copper retained in the United Kingdom, 2,500 tons of part-wrought copper imported and retained, and 5,000 tons of old copper imported and retained for re-manufacture. To this should be added some quantity of old copper of British origin for re-manufacture, but, on the other hand, 25,200 tons of unwrought copper were exported, leaving about 101,000 tons available for use in the United Kingdom. Manufactured copper has been returned to the Census Office amounting to 53,400 tons in weight; the copper in 63,000 tons of copper sulphate produced may be taken at 16,000 tons; there is, consequently, left at least 31,600 tons for manufacture into brass and other copper alloys. The quantity of brass and copper alloys returned to the Census Office as such is estimated on page 244 at about 95,000 tons, to which should be added the brass and other copper alloys made by engineering and finished brass firms for their own use. The proportion of copper in brass and other alloys is very variable, and in those cases (amounting to 15,000 tons of alloys) where information is given on the Census Schedules, the average proportion of copper was 45 per cent. It would, therefore, appear that a considerable quantity of old copper and brass of British origin, scrap brass,

and brass dust and filings is used in the manufacture of copper and of brass and other copper alloys. A small quantity of alloys may be made from "wrought" copper (sheets, &c.) instead of from "unwrought" copper (ingots, blocks, slabs, &c.).

The exports of unwrought copper in 1907 amounted to 25,200 tons valued at £2,520,000, or £100 per ton, which is much higher than the average value of the British production (£85.2 per ton) showing that mainly the more refined qualities are exported. The remainder of the British-made unwrought copper (not used in the manufacture of sulphate, wrought copper goods, or brass and alloys by the firms that produced the unwrought copper) was sold (a) to other firms for use in the production of sulphate, wrought copper goods, or brass and other copper alloys included in their Returns of output on the Schedule for the copper and brass trades, or (b) to finished brass and engineering firms for use in the manufacture of their alloys. The amount of duplication involved, taking the Returns of unwrought copper on all Schedules, did not exceed £2,400,000.

(b) *Wrought Copper, &c.*—The following statement shows the particulars furnished as to the value of wrought copper, copper sulphate, and brass and other copper alloys, and is believed to be substantially free from duplication, except in so far as any sheet or rod copper was used in the manufacture of alloys:—

	Returned on the Schedule for the Copper and Brass Trades.	Returned on Schedules for other Trades.	Total.
	£	£	£
Copper, Wrought or Manufactured (including Plates, Sheets, Rods, Tubes, Wire, &c.).	4,881,000	266,000	5,147,000
Copper, Sulphate of ... ..	925,000	628,000	1,553,000
Brass and other Copper Alloys (including Yellow Metal, Naval Brass, Brass Solder, Bronze, Phosphor Bronze, Delta Metal, Gun Metal, Britannia Metal, German Silver, &c.)	6,718,000	876,000	7,594,000
Machinery Parts of Brass, Copper, and Alloys ...	316,000	—	316,000
Coppersmiths' and Braziers' Work ... ..	96,000	124,000	220,000
Total ... ..	12,936,000	1,894,000	14,830,000

The quantity of wrought or manufactured copper included above is about 53,400 tons (*i.e.*, 50,600 tons on the Schedule for the copper and brass trades and 2,800 tons on Schedules for other Trades), and that of sulphate of copper about 63,000 tons (*i.e.*, 36,000 tons on the Schedule for the copper and brass trades and 27,000 tons on Schedules for other trades). The brass and copper alloys included above are exclusive of any quantities cast by engineers and other manufacturers for their own use. There is duplication between the headings of wrought copper and coppersmiths' and braziers' work to an amount not exceeding £130,000 for copper used by smiths and braziers.

In order to obtain particulars as to the character of the products included under the headings "copper wrought or manufactured" and "brass and other copper alloys" in greater detail than could, in conformity with the provisions of the Census of Production Act, 1906, be required in the compulsory part of the Schedule, all firms making their Returns on the Schedule for the copper and brass trades, were asked to make a voluntary statement as to the quantity and nature of their output. The information furnished is summarised in the following statement, from which is excluded brass and copper wire made by wire-drawing firms from rods purchased from copper and brass manufacturers (see pages 113 to 117):—

## A.—COPPER, WROUGHT OR MANUFACTURED.

	Value of Output.	Plates and Sheets.	Rods and Wire.	Tubes.	Other Manufactures.	Total.
	£	Tons.	Tons.	Tons.	Tons.	Tons.
Firms furnishing particulars ...	3,923,000	18,200	10,500	10,500	1,200	40,400
Firms not furnishing complete particulars.	958,000		Not stated			10,200

## B.—BRASS AND COPPER ALLOYS.

	Value of Output.	Plates and Sheets.	Rods and Wire.	Tubes.	Other Manufactures.	Kind not stated.	Total.
	£	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
I.							
Firms furnishing particulars of—							
Output of Brass ... ..	3,229,000	14,600	6,900	9,700	3,800	5,300	40,300
Output of other Copper Alloys	342,000	100	100	—	800	2,600	3,600
Output of Brass and other Copper Alloys, not separately distinguished.	817,000	4,000	1,700	2,000	600	1,200	9,500
Total ...	4,388,000	18,700	8,700	11,700	5,200	9,100	53,400
II.							
Firms not furnishing particulars	2,698,000		Not stated.				

The total output reviewed under Class B includes the following headings:—

	Value.
	£
Brass and Other Copper Alloys ... ..	6,718,000
Machinery Parts of Brass, Copper, and Alloys ... ..	316,000
Finished Brass Goods (see below) ... ..	52,000
	<u>7,086,000</u>

From an examination of the individual Returns it appears probable that the total tonnage of brass and copper alloys produced by firms making Returns on the Schedule for the copper and brass trades was about 82,000 tons, and that of firms showing an output of brass and copper alloys on all Schedules about 95,000 tons, irrespective of any brass made for their own use by firms in the engineering and finished brass trades.

The details furnished with regard to brass and other copper alloys, valued at about £4,400,000 out of a total of £7,962,000 returned to the Census Office, show that such brass and alloys are in the main not sold in ingots, but in forms for use by stampers, piercers, wire-drawers, and engineers. The brass used by firms in making cast brass articles returned on Schedules for the finished brass trades appears to have been mainly cast by the firms in those trades, but there is no information on which to base a reliable estimate of its quantity.

The following classes of goods, which are also included in their statements of output by firms that made their Returns on the Schedule for the copper and brass trades are mainly produced by other trades, and are dealt with in the Reports on those trades:—

	Value.
	£
Gold and Silver, Refined ... ..	446,000
Finished Brass Goods ... ..	52,000
Other Metals and Manufactures thereof ... ..	78,000
Metal Concentrates and Residues ... ..	97,000
Waste Products ... ..	10,000
Other Products ... ..	119,000
Total ... ..	<u>£802,000</u>

There was also included in the Returns the sum of £125,000 as the total of the amounts received for work done for the trade, the details being as follows:—

	Amount received for work done on Commission or for the Trade:—
	£
Casting of Brass and Other Copper Alloys ... ..	23,000
Rolling of Copper or Brass ... ..	52,000
Drawing of Copper or Brass Wire ... ..	4,000
Other Work on Copper or Brass ... ..	7,000
Work Done on Other Metals ... ..	39,000

As the firms that made Returns of their output of finished goods stated that they paid £34,000 for work which they gave out to be done, it follows that the balance—£91,000—of the amount received for work done for the trade was received either for

work done for merchants who were not called upon to make Returns, or for engineers and others who made their Returns on Schedules for trades other than the copper trades.

Taking together the exports of unwrought copper (valued at £2,520,000 free on board), the wrought copper and other goods (valued at £14,830,000 less about £130,000 for duplication in coppersmiths' work), and the amount received for work done on copper and brass goods for merchants, &c. (at least £52,000), the value, taken as a whole, of the output of the firms engaged in the smelting, rolling, and casting of copper and brass may be estimated at approximately 17½ million pounds sterling, after making some allowance for freight and charges on exported unwrought copper after leaving the works. To this there should be added £841,000 the value of classes of goods and work which form the main output of other trades.

The following statement shows the exports and net imports (*i.e.*, imports less re-exports) of unwrought and wrought copper and copper sulphate in 1907, in comparison with the quantities produced in the United Kingdom.

	Production.	Exports, 1907.	Net Imports, 1907 ( <i>i.e.</i> , imports less re-exports).
	Tons.	Tons.	Tons.
Unwrought Copper ... ..	55,400*	25,200	63,300
Wrought Copper ... ..	53,400	24,300	†
Copper, Sulphate of ... ..	63,000	45,300	‡

\* Exclusive of imported raw copper refined in the United Kingdom, part of which is probably included in the exports.  
† Not given by weight. Value of copper manufactures retained £715,000. Part wrought copper retained, 2,500 tons valued at £262,000.  
‡ Not separately specified.

The net imports of "manufactures of brass, bronze, and metal bronzed or lacquered" were valued in 1907 at £296,000 at port of landing, and the exports of "brass and manufactures thereof, not being ordnance" at £1,390,000, free on board, but finished brass goods are included in these amounts as well as the manufactures of brass and other alloys returned on the Schedule for the copper and brass trade.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 264 to 266 (whose gross output was valued at £17,285,000) was £2,930,000, 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 £11,750,000 and £13,250,000. The amount paid to other firms for work given out to them was £34,000.

The net output per head of persons employed in the censal year was a little over £136½.

*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 264 to 266 is returned as 21,448, viz., 19,956 wage-earners and 1,492 salaried persons, the total number being distributed by age and sex as follows:—

Males:—		Females:—	
Under 18 ... ..	2,540	Under 18 ... ..	169
Over 18 ... ..	18,108	Over 18 ... ..	631

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 ... ..	18,748	18,949	18,730	19,100
Salaried Persons ... ..	1,348	1,347	1,352	1,351
Total ... ..	20,096	20,296	20,082	20,451

There were also 1,074 wage-earners and 143 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 ... ..	16,792,000	20,181	43,853
Factories renting their Power ... ..	50,000	50	—
Workshops (not using Power) ... ..	443,000	1,217	—
Total ... ..	17,285,000	21,448	43,853

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

	Horse-Power.
Steam Engines :—	
Reciprocating ... ..	39,642
Steam Turbines ... ..	450
Total—Steam Engines ... ..	40,092
Internal Combustion Engines (gas, oil, &c.) ... ..	3,484
Water Power ... ..	277
Total ... ..	43,853

Precise details as to the amount and kind of the power rented by the firms employing 50 persons are not available.

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

	Kilowatts.
Capacity of Dynamos driven by :—	
Steam Engines : Reciprocating ... ..	6,678
Steam Turbines ... ..	402
Other Power ... ..	282
Total ... ..	7,362

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 quarter of the engine-power belonging to copper and brass 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 :—

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 ... ..	6,678	6,676	12,972,000
Steam Turbines ... ..	402	402	390,000
Other Power ... ..	282	207	599,000
Total ... ..	7,362	7,285	13,961,000

About 883,000 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.

### Finished Brass Trades.

*Output.*—The Tables on pages 267 to 269 are based on Returns received from factories and workshops engaged in the manufacture of finished brass goods. The aggregate gross output of the firms that made their Returns on the Schedules for the finished brass trades is returned as £6,797,000, to which should be added £954,000, 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 £7,751,000, contains, however, a certain amount of duplication.

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

	Returned on Schedules for the Finished Brass Trades.	Returned on Schedules for other Trades.	Total.
Finished Brass Goods :—	£	£	£
Engineers', Mechanics', and Plumbers' Goods, including Waterworks' Articles.	1,834,000	108,000	1,942,000
Builders' and Cabinet Makers' Goods (including house, shop, ship, office, hearth, and church furniture).	1,626,000	207,000	1,833,000
Lamps and Metal Fittings for Lighting Purposes ...	1,173,000	533,000	1,706,000
Gas Meters ... ..	916,000	77,000	993,000
Coffin Furniture ... ..	139,000	17,000	156,000
Carriage and Harness Goods ... ..	96,000	2,000	98,000
Other and Unspecified Brass Goods ... ..	142,000	10,000	152,000
Total—Finished Brass Goods ... ..	5,926,000	954,000	6,880,000
Cased Tubes ... ..	168,000	—	168,000
Brass Dust and other Waste Products ... ..	99,000	—	99,000
Repair Work ... ..	44,000	—	44,000
Total ... ..	6,237,000	954,000	7,191,000

In addition, the firms that made their Returns on the Schedules for the finished brass trades included in their statements the following classes of goods, which are chiefly produced by other trades and are dealt with in the Reports on those trades :—

	Value.
Copper and Brass, Wrought or Manufactured (including Tubes, &c., and Coppersmithing and Brazing Work) ...	106,000
Hardware and Bedsteads ... ..	104,000
Iron and Steel Manufactures, Tools, &c. ... ..	41,000
Machinery ... ..	33,000
Cycle Parts and Accessories ... ..	25,000
Other Products ... ..	22,000
Total ... ..	331,000

In addition, there was included in the Returns "Brass and other Copper Alloys, cast," valued at £61,000 and 9,000 tons of "Wrought Iron and Steel Tubes (including Close-joint Tubes)" valued at £110,000. These sums represent the quantities of brass and other alloys and of tubes made in the year of return but not converted by their makers into finished brass goods and cased tubes in that year. The total make of close-joint tubes, whether used by the makers or sold, was returned as about 9,700 tons and of this about 900 tons, valued at about £10,000, were sold to cased tube makers and are duplicated in the Returns of their output of cased tubes. The brass and alloys cast appear to have been mainly additions to the stock of brass and other alloys made by finished brass firms, and consequently their value is only to a slight extent, if at all, duplicated in the value of the finished goods made by those firms to whom such brass may have been sold.

The sum of £58,000 was also returned as the amount received for work done for the trade, mainly brass-finishing. Firms that made their Returns on the Schedule for the finished brass trades stated that the amount paid by them for finishing and other work given out by them was £29,000. The difference, £29,000, between the amount received for work

done and the amount paid for work given out represents work done for merchants who were not called upon to make Returns or for firms that made their Returns on other Schedules than those for the finished brass trades, and is an addition to the value of the output of brass factories and workshops as returned on Schedules for the finished brass trades.

Taking as a whole the factories and workshops included in the Tables on pages 267 to 269, their output may be estimated at about £6,758,000, this total being made up of the value of the finished goods included in the above statement (£6,193,000), the value of brass and other copper alloys cast (£61,000), the value of tubes not duplicated (£100,000), the amount received for repair work (£44,000), the value of other goods (£331,000), and the amount received for work done for merchants and for firms not in the finished brass trades (£29,000). The total output of finished brass goods, cased tubes, brass dust, repair work on brass goods, and work done for merchants, as returned on all Schedules, but exclusive of brass goods made by engineering firms for their own use, amounts to £7,220,000.

No comparison can be made between the exports and imports of finished brass goods and the goods produced in the United Kingdom, since brass and manufactures of brass are combined in one group for export purposes and manufactures of brass, bronze, and metal bronzed or lacquered are combined in one group for import purposes. The exports of brass and manufactures of brass, other than ordnance, in 1907, were valued at £1,390,000, free on board, while the net imports (*i.e.*, imports less re-exports) of manufactures of brass, bronze, and metal bronzed or lacquered were valued at £296,000 at port of landing.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 267 to 269 (whose gross output was valued at £6,797,000) was £3,454,000, 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 about £3,304,000. The amount paid to other firms for work given out to them was £29,000.

The net output per head of persons employed in the censal year was nearly £89.

*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 267 to 269 is returned as 38,916, *viz.*, 34,876 wage-earners and 4,040 salaried persons, the total number being distributed by age and sex as follows:—

Males:—		Females:—	
Under 18 ... ..	5,415	Under 18 ... ..	1,937
Over 18 ... ..	25,360	Over 18 ... ..	6,204

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 ... ..	33,237	32,943	32,845	33,393
Salaried Persons ... ..	3,805	3,803	3,810	3,821
Total ... ..	37,042	36,746	36,655	37,214

There were also, 1,771 wage-earners and 230 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 ... ..	6,445,000	36,745	12,865
Factories renting their Power ... ..	26,000	170	—
Workshops (not using Power) ... ..	326,000	2,001	—
Total ... ..	6,797,000	38,916	12,865

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

	Horse-Power.
Steam Engines, Reciprocating ... ..	3,759
Internal Combustion Engines (gas, oil, &c.)... ..	9,093
Water Power ... ..	13
Total ... ..	12,865

As shown above, whereas the total number of persons employed in factories in the finished brass trades was 36,915, firms employing 170 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 ... ..	...	342
Other Power ... ..	...	307
Total ... ..	...	649

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 7½ per cent. of the engine-power belonging to finished brass 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:—

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 ... ..	342	259	385,000
Other Power ... ..	307	133	37,000
Total ... ..	649	392	422,000

About 1,164,000 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, but the total quantity so estimated forms a very small proportion of the whole.

### Gold and Silver Refining Trade.

*Output.*—The Tables on pages 270 and 271 are based on Returns received from factories engaged in the refining, casting, and rolling of gold and silver. The aggregate gross value of the output of the firms that made their Returns on the Schedule for the gold and silver refining trade is returned as £51,226,000, to which should be added £751,000, the value of similar goods included in their statements of output by manufacturers that made their Returns on Schedules for other trades. The resulting total of £51,977,000, however, includes a small amount of duplication. The production carried on in the Royal Mint is not included.

The main work of the factories in this trade consists in the refining of imported gold and silver, and the extraction of the silver contents from argentiferous lead. From the nature of the trade it follows that the value of the "materials" bears an unusually high proportion to the value of the gross output, and that the gross output itself is extremely large in proportion to the number of persons engaged in the trade.

The following statement gives the particulars regarding the chief products of those factories :—

	Quantity.	Value.
Gold :—	oz. troy.	£
Refined ... ..	10,329,000	41,826,000
Manufactures (including coin, sheet, stampings, castings, wire, &c.)...	—	661,000
Total—Gold ... ..		42,487,000
Silver :—		
Bullion ... ..	40,065,000	5,558,000
Manufactures (including coin, sheet, stampings, castings, wire, &c.)...	—	593,000
Total—Silver ... ..		6,151,000
Lead :—	Tons.	
Pig ... ..	80,000	1,535,000
Manufactures ... ..	10,000	199,000
Total—Lead ... ..		1,734,000
Materials containing Gold and Silver ...	—	115,000
Copper, Unwrought ... ..	2,000	146,000
Copper, Sulphate of ... ..	1,000	26,000
Solders, other than Brass Solder ...	—	49,000
Other Metals ... ..	—	413,000
Chemicals, Paints, and Colours ...	—	82,000

The total value of these products amounts to £51,203,000, and is substantially free from duplication, with the exception of gold manufactures valued at £8,000 and silver manufactures valued at £5,000, the materials for which (valued at about £7,000 and £3,000 respectively) may have been purchased from refining firms who also included the refined gold and silver as part of their output. In addition, the sum of £23,000 is included in the Returns as the total amount received for casting, rolling, and other work done for the trade. Firms making Returns to the Census Office of the value of their finished products stated that they paid to other firms for work given out to them £15,000. The difference—£8,000—between the amount received and the amount paid for work done for the trade represents work done for non-manufacturing firms and is an addition to the value of the output included in the foregoing statement.

Firms that made their Returns on Schedules for other trades included therein gold and silver to the value of £751,000, raising the quantities and values of the several classes of output to the amounts shown in the following statement :—

	Quantity.	Value.
Gold :—	oz. troy.	£
Refined ... ..	10,368,000	41,993,000
Manufactures ... ..	—	661,000
Total—Gold ... ..		42,654,000
Silver :—		
Refined ... ..	43,979,000	6,079,000
Manufactures ... ..	—	593,000
Total—Silver ... ..		6,672,000
Materials containing Gold and Silver.		178,000

Deducting the sum of £10,000 referred to above as possibly duplicated and taking into account £8,000 received for work done for merchants, the value of refined gold and silver, manufactures thereof, and residues, as returned on all Schedules, was £49,502,000. The output of lead, copper, copper sulphate, solders, and other goods produced by gold and silver-refining firms (valued in all at £2,450,000) is dealt with in the Reports on the trades where those goods are chiefly produced.

*Net Output.*—The net output of the factories covered by the Tables on pages 270 and 271 (whose gross output was valued at £51,226,000) was £431,000, that sum representing the total amount by which the value of the output of those factories 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, taken as a whole, cannot be precisely stated but it may be estimated at a sum lying between £50,770,000 and £50,780,000. The amount paid to other firms for work given out to them was £15,000.

The net output per head of persons employed in the censal year was a little over £197.

*Persons Employed.*—The average number of persons employed on the last Wednesdays in January, April, July, and October in the factories covered by the Tables on pages 270 and 271 is returned as 2,187, viz., 1,879 wage-earners and 308 salaried persons, the total number being distributed by age and sex as follows :—

Males :—		Females :—	
Under 18 ... ..	101	Under 18 ... ..	25
Over 18 ... ..	1,973	Over 18 ... ..	88

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 ... ..	1,904	1,866	1,854	1,891
Salaried Persons ... ..	308	307	308	309
Total ... ..	2,212	2,173	2,162	2,200

*Power.*—The total horse-power of the engines in the factories covered by the Tables on pages 270 and 271 was 1,648 horse-power.

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

	Horse-Power.
Steam Engines, Reciprocating ... ..	1,484
Internal Combustion Engines (gas, oil, &c.) ... ..	116
Water Power ... ..	48
Total ... ..	1,648

The capacity of dynamos driven by factory engines was 43 kilowatts, those dynamos being driven by steam engines (included in the above statement) of approximately 65 horse-power, or about 4 per cent. of the total engine capacity. The total amount of electricity generated by those dynamos cannot be stated as Returns were received in respect of only a part of them, the capacity of that part being 8 kilowatts and the electricity generated 47,000 Board of Trade units.

The number of Board of Trade units of electricity purchased by manufacturers for power and lighting purposes was about 455,000 units. 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.

#### Lead, Tin, Zinc, and Other Metal Trades (except Iron, Copper, Brass, Gold, and Silver).

*Output.*—The Tables on pages 272 to 275 are based on Returns received from factories and workshops mainly engaged in the smelting, rolling, and casting of lead, tin, zinc, and other metals, except iron, copper, brass, gold, and silver. The aggregate gross value of the output of the firms that made their Returns on the Schedules for the lead, tin, zinc, and other metal trades (except iron, copper, brass, gold, and silver) is returned as £8,985,000, to which should be added £3,355,000, 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 £12,340,000, however, contains a certain amount of

duplication. Particulars as to the various classes of output are given in the following paragraphs.

## (a) Lead :—

	Returned on the Schedule for the Lead, &c. Trades.		Returned on Schedules for other Trades.		Total.	
	Tons.	£	Tons.	£	Tons.	£
Lead :—						
Pig .....	29,000	518,000	82,000	1,569,000	111,000	2,087,000
Manufactures :—						
Returned by Weight .....	119,000	2,437,000	11,000	241,000	130,000	2,678,000
Returned by Value only .....	—	92,000	—	24,000	—	116,000
White Lead .....	11,000	236,000	25,000	529,000	36,000	765,000
Total—Lead .....	—	3,283,000	—	2,363,000	—	5,646,000

The quantity (111,000 tons) of pig lead included above is exclusive of that used by the makers in their own works in the production of sheet, pipes, &c. All lead manufacturers in the United Kingdom were asked to state voluntarily the total quantity of pig lead made by them in the year of return, whether any part of it was used by them in further manufacture or not. From the replies to this question and other information in the Returns it appears that the total output of pig lead in the United Kingdom in the year of return was about 141,000 tons.

The quantity of metallic lead obtainable from the lead ore raised in 1907 in the United Kingdom and Isle of Man and retained was 19,000 tons (General Report on Mines and Quarries for the year 1907, Part III, Cd. 4,343), and as the average value of imported lead ore at port was about the same as that of British ore at mine it may be estimated that the metallic lead obtainable from imported lead ore retained in the United Kingdom was about 7,900 tons. As the total of 26,900 tons is much below the quantity of pig lead shown above, it follows that about 114,000 tons of British pig lead were produced by re-smelting old and scrap lead and part of the 191,000 tons of foreign pig and sheet lead imported in 1907 and retained in the United Kingdom.

Of the pig lead made or re-made in the United Kingdom in the year of return 27,000 tons were exported, and it is probable that the great bulk of the remaining 84,000 tons returned as made for sale was sold to firms that used it in the manufacture of sheets, pipes, white lead, &c., and included its value in their Returns of the value of their finished products.

The output of white lead shown above represents only the quantity returned as such, exclusive of that made into paint by white lead firms. All firms making white lead or paint were asked to make a voluntary statement as to their total make of white lead (whether made into paint by them or not) and firms employing 1,472 persons in the manufacture of white lead in the United Kingdom stated that their total make of white lead was 42,700 tons, while 265 other persons engaged in the manufacture of white lead were employed by paint manufacturers who did not furnish any information as to their make of white lead. If it may be assumed, however, that the output of white lead by these latter firms was in the same proportion to persons employed as in the case of firms that did furnish information, the total make of white lead in the United Kingdom in the year of return would be about 50,000 tons, and its value on the basis of the average value of white lead returned as made for sale would be about £1,060,000. In the manufacture of this white lead about 40,000 tons of lead would be used, and the total quantity of pig lead used in manufactures generally (including white lead) would be about 176,000 tons, without allowing for any loss in manufacture. The British production of pig lead (141,000 tons) and the net imports of pig and sheet lead (191,000 tons) amounted together to 332,000 tons. Allowing for the exports of British pig lead (27,000 tons), for the maximum quantity of imported pig and sheet lead which can have been re-smelted (not exceeding 115,000 tons), and for the manufactures of lead (176,000 tons), it follows that at least 14,000 tons of imported sheet lead were sold direct to builders, &c., for use. This last mentioned quantity will be greater by the amount of old and scrap lead which may have been re-smelted by British firms.

Taking as a whole the lead industry of the United Kingdom, the value of the output may be estimated at about £4,354,000, *i.e.*, exports of pig lead, the value of which at works is estimated to be about £500,000, manufactures of lead, £2,794,000, and white lead (including that used by the makers in manufacture of paints) £1,060,000.

Excluding the value of the white lead made by paint manufacturers and returned by them not as white lead but as paint, and including the value of the lead used in making such white lead, the value of the output of the lead industry may be estimated at, approximately, £4,270,000.

## (b) Tin :—

	Returned on Schedules for the Lead, Tin, &c. Trades.		Returned on Schedules for other Trades.		Total.	
	Tons.	£	Tons.	£	Tons.	£
Tin :—						
Tin Unwrought (including Ingots, Blocks, Bars, &c.) .....	13,000	2,177,000	100	18,000	13,100	2,195,000
Manufactures .....	—	37,000	—	—	—	37,000
Total .....	—	2,214,000	—	18,000	—	2,232,000

According to Part III of the General Report on Mines and Quarries the output of dressed tin ore in the United Kingdom in 1907 was 7,080 tons, valued at £99·8 per ton, and having a metallic content of 4,407 tons of tin or 62·2 per cent. The net imports (*i.e.*, imports less re-exports) of tin ore amounted to 18,000 tons valued at £1,391,000 or £77·3 per ton, so that their metallic content was probably about 48·2 per cent., or 8,700 tons. This would give a possible total output of metallic tin amounting to 13,100 tons, which agrees with the figure shown above, but as it is known that some imported tin is refined in the United Kingdom, the produce of the imported ore is probably somewhat less than that calculated above.

The aggregate value of tin unwrought and manufactures of tin (£2,232,000) involves a possible duplication of about £30,000, depending on the extent to which the manufactures of tin were made from tin ingots or bars produced in the United Kingdom.

The exports of unwrought tin in 1907 amounted to 8,700 tons, or 66·4 per cent. of the quantity produced in the United Kingdom, while the net imports were 17,000 tons, or nearly one-third more than the quantity produced in the United Kingdom.

## (c) Zinc :—

	Returned on Schedules for the Lead, Tin, Zinc, &c. Trades.		Returned on Schedules for other Trades.		Total.	
	Tons.	£	Tons.	£	Tons.	£
Zinc or Spelter :—						
Crude, in Cakes .....	38,000	918,000	10,000	298,000	48,000	1,216,000
Manufactures (including Sheet Zinc, Oxides, &c.) .....	10,000	243,000	2,000	48,000	12,000	291,000
Total .....	—	1,161,000	—	346,000	—	1,507,000

It is probable that the figures shown above do not include the whole production of zinc oxide and that part of it is included under the head of paints (see pages 563 to 566).

The quantity of zinc ore raised in the United Kingdom and the Isle of Man in 1907 was, according to the Home Office, 20,082 tons, valued at £5 per ton and having a metallic content of 7,600 tons of zinc or spelter. Deducting the exports (11,329 tons) the metallic content of the British ore retained would be 3,300 tons. The net imports of zinc ore were 61,500 tons, valued at £6·86 per ton, and, if it may be assumed that the price was proportionate to the richness of the ore, the metallic content of the net imports would be about 32,000 tons, making altogether 35,300 tons of spelter extracted from ore. The balance of the spelter shown in the above statement must have been obtained by refining imported cakes; this conclusion is supported by the higher average value of the British-made spelter (£25·04) compared with the imported spelter (£23·93).

Out of the total value of zinc manufactures (£291,000), goods valued at £120,000 were produced by manufacturers who also showed an output of crude zinc, and to that extent it may be assumed that there was no duplication. The goods representing the balance (£171,000) may have been made either from crude zinc produced in the United Kingdom or from imported crude zinc. It may, therefore, be estimated that the value of the output, taken as a whole, of crude zinc and zinc manufactures as returned on all Schedules was between £1,380,000 and £1,507,000. The difference between these two sums represents the approximate value of the crude zinc used in producing manufactures valued at £171,000.

The exports of crude zinc in 1907 were about 5,200 tons or 10·8 per cent. of the quantity made in the United Kingdom for sale as such, and the net imports (*i.e.*, imports less re-exports) were 89,000 tons or about four-fifths more than the quantity produced in the United Kingdom. The net imports of manufactures of zinc were 19,400 tons and of zinc oxide 14,300 tons, while the exports of zinc manufactures were about 1,400 tons and of zinc oxide about 4,400 tons.

(d) *Other Metals* :—

	Returned on Schedules for the Lead, Tin, Zinc, &c. Trades.		Returned on Schedules for other Trades.		Total.	
	Tons.	£	Tons.	£	Tons.	£
Antimony ... ..	6,000	431,000	1,000	84,000	7,000	515,000
Arsenic and its Oxides ... ..	1,000	25,000	2,000	55,000	3,000	80,000
Aluminium, Nickel, Bismuth, and other Metals (except Iron, Copper, Gold, and Silver).		506,000	—	379,000	—	885,000
Solders (other than Brass Solders) ...		468,000		51,000		519,000
White Metals :—						
Anti-friction ... ..		63,000		6,000		69,000
Other Sorts ... ..		229,000		53,000		282,000
Total—White Metals ... ..		292,000		59,000		351,000
Waste Products ... ..		24,000				24,000
Total ... ..		1,746,000		628,000		2,374,000

The following classes of goods, which are also produced by firms engaged in the manufacture of lead, tin, zinc, &c., are chiefly produced by other trades and the total output of such goods is dealt with in the Reports on those trades :—

	Value. £
Gold and Silver Refined ... ..	244,000
Paints ... ..	130,000
Chemicals ... ..	32,000
Copper and Brass ... ..	31,000
Iron and Steel Manufactures ... ..	26,000
Other Products ... ..	11,000
Total ... ..	474,000

In the case of the Returns made on Schedules for the lead, tin, zinc, &c., trades, there is duplication to the extent of £44,000 on account of metals included in both the raw and manufactured states under the heading "aluminium, nickel, bismuth, and other metals." There is also a possible duplication amounting to £530,000 at most under the headings "solders" and "white metals," the actual amount depending on the extent to which the raw materials were derived from metals smelted in the United Kingdom or were imported.

The exports of antimony (crude and regulus) in 1907 amounted to 5,500 tons or nearly 78·6 per cent. of the quantity produced in the United Kingdom, while the net imports (*i.e.*, imports less re-exports) amounted to 3,600 tons or a little more than one-half the quantity produced in the United Kingdom.

Further, the sum of £107,000 was received for casting, rolling, and other work done for the trade. Firms that made Returns to the Census Office of their output of finished goods stated that they paid £10,000 for work which they had given out to other firms. The difference—£97,000—between this sum and the amount received for work done for the trade represents the amount received for work done for merchants who were not asked to make Returns or for firms that made their Returns on Schedules for other trades. It is, consequently, an addition to the output of goods shown above as returned on the Schedule for the lead, tin, zinc, &c., trades.

Taking as a whole the output of manufactures of lead, tin, zinc, antimony, arsenic, aluminium, nickel, bismuth, solders, white metals, and other metals (except iron, copper, gold and silver), its value (including the amount received for work done for merchants) may be estimated at a sum lying between £9,749,000 and £10,436,000; the details of the calculation are shown in the preceding paragraphs.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 272 to 275 (whose gross output was valued at £8,985,000) was £1,097,000, 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 £6,696,000 and £7,834,000. The amount paid for work given out was £10,000.

The net output per head of persons employed in the censal year was a little over £133.

*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 272 to 275 is returned as 8,233, viz., 7,409 wage-earners and 824 salaried persons, the total number being distributed by age and sex as follows :—

Males :—		Females :—	
Under 18 ... ..	540	Under 18 ... ..	355
Over 18 ... ..	6,664	Over 18 ... ..	674

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 ... ..	7,045	7,130	7,088	7,051
Salaried Persons ... ..	725	727	730	745
Total ... ..	7,770	7,857	7,818	7,796

In addition, 330 wage-earners and 92 salaried persons were 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 ... ..	8,251,000	7,595	18,498
Factories renting their Power ... ..	35,000	216	—
Workshops (not using Power) ... ..	699,000	422	—
Total ... ..	8,985,000	8,233	18,498

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

	Horse-Power.
Steam Engines :—	
Reciprocating ... ..	8,538
Steam Turbines ... ..	20
Total—Steam Engines ... ..	8,558
Internal Combustion Engines (gas, oil, &c.) ... ..	2,589
Water Power ... ..	7,351
Total ... ..	18,498

As shown above, whereas the total number of persons employed in factories in the lead, tin, zinc, &c., trades was 7,811, firms employing 216 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 :—

	Kilowatts.
Capacity of Dynamos driven by :—	
Steam Engines, Reciprocating ... ..	621
Other Power ... ..	5,676
Total ... ..	6,297

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-half of the engine-power belonging to lead, tin, zinc, &c., 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 ... ..	621	343	333,000
Other Power ... ..	5,676	5,662	32,776,000
Total ... ..	6,297	6,005	33,109,000

About 279,000 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.

### Plate and Jewellery Trades.

*Output.*—The Tables on pages 276 to 278 are based on Returns received from factories and workshops engaged in the manufacture of gold, silver, and electroplated goods, and of jewellery. The aggregate gross value of the output of the firms that made their Returns on the Schedules for the plate and jewellery trades is returned as £8,559,000, to which should be added £286,000, the value of similar goods manufactured by firms that made their Returns on Schedules for other trades. The resulting total, £8,845,000, contains, however, some duplication.

(a) *Gold and Silver Plate and Electroplated Goods.*—The following statement shows the particulars furnished by firms that made their Returns on the Schedule for the plate and jewellery trades respecting the value of their output of gold and silver plate and electroplated goods, and is substantially free from duplication :—

	Value. £
Goods made wholly or in part of Gold (including mounted articles) ... ..	493,000
Gold Leaf and Gold Thread ... ..	105,000
Goods made wholly or in part of Silver (including mounted articles) ... ..	1,880,000
Electroplated Goods (including Plated Cutlery) and Unplated Goods of Britannia Metal, German Silver, and similar Metals ... ..	1,831,000
Steel Cutlery ... ..	72,000
Waste Products ... ..	102,000
Other Products ... ..	31,000

The total value of the above mentioned goods amounts to £4,514,000. In addition, the sum of £45,000 was stated to have been received for repairs to gold and silver plate and electroplate, but this sum does not represent the total charge for repairs, since firms whose output of goods was valued at £1,327,000 were not able to state separately the amount received for repairs and, accordingly, included it in the value of goods made by them. The amount so included is believed to be small. Further, retail firms that employed only men in their workshops, and, consequently, were not on the official list of workshops, were not required to make Returns, and the amount charged by them for repairs has thus escaped record.

Representations were made to the Census Office that firms that made both unplated and electroplated goods could not, as a rule, state separately the values of those two

classes of their output, and, accordingly, plated and unplated goods were included in the same heading in the Schedule. It is understood, however, that goods intended to be plated (other than the stampings mentioned below) are in the main made by electroplaters, who either plate them themselves or sell them to merchants for plating, so that there is little, if any, duplication of the value of such goods in the aggregate of £1,831,000 shown above. Firms that made their Returns on Schedules for other trades included in their statements of output finished silver goods valued at £42,000, and finished electroplated goods valued at £194,000, thus raising the value of "goods made wholly or in part of silver" to £1,922,000, and the value of "electroplated goods and unplated goods" to £2,025,000.

In addition, firms that made their Returns on the Schedules for the gold and silver plate and electroplate trades stated that they made stampings, handles, and other parts for silver goods to the value of £15,000, and stampings, handles, and other parts for electroplated goods to the value of £65,000; while firms that made their Returns on Schedules for other trades stated that they made silver stampings valued at £8,000, and unplated stampings and parts valued at £16,000. The total value of these semi-manufactured goods amounts to £104,000, and although part may have been sold to merchants, it is probable that the bulk was sold to other manufacturers to be used in the manufacture of finished goods whose value is included in the above statement.

Further, the sum of £393,000 was received for work done for the trade, £379,000 being included in the Returns for the plate trades summarized in Table I. on page 276 and £14,000 for work done on plated goods being included in Returns made on Schedules for other trades. The details are as follows :—

	Amount Received. £
Engraving and Finishing of Silver Goods ... ..	13,000
Electroplating and Finishing of Electroplated Goods ... ..	294,000
Nickelplating, Lacquering, Bronzing, &c., for Cycle, Brass, Hardware, Engineering, and other Trades ... ..	86,000

Firms that made Returns (on all Schedules) to the Census Office of their output of finished gold, silver, and electroplated goods stated that they paid to other firms for work given out to them £90,000, *i.e.*, about £5,000 on silver goods, £84,000 on plated goods and £1,000 on other goods. The difference—£303,000—between this sum and the amount received for work done for the trade represents : (a) £8,000, the amount received from merchants for work done for them in the engraving, chasing, &c., of silver goods, bought by them plain and included by the makers in the value of their output of finished goods; (b) £210,000, the amount received from merchants for work done for them in the plating and finishing of goods bought by them in an unplated state; and (c) £85,000, the amount received from other manufacturers and merchants for the nickel-plating, lacquering, bronzing, &c., of cycles, brassware, hardware, engineering goods, &c.

Adding in the first two items to the values of the silver goods (£1,922,000) and the electroplated and unplated goods (£2,025,000) as returned by manufacturers, the aggregate values of such goods, including the work done on them on merchants' orders, are as follows :—

	Value. £
Goods made wholly or in part of Silver ... ..	1,930,000
Electroplated and Unplated Goods ... ..	2,235,000

With regard to the third item of £85,000 received net for nickel-plating, lacquering, bronzing, &c., done by firms covered by the Tables on pages 276 to 278 it should be noted that that portion of this amount which was received from manufacturers who have made Returns to the Census Office of their output of finished goods on Schedules for other trades is already included in the selling value of goods recorded elsewhere, and only that portion received for work done for merchants is an addition to the output of the country as a whole. What that portion may be, however, cannot be stated.

The value, taken as a whole, of the output of gold and silver plate and electroplated goods, including also repair work, work done for the trade, and waste products as returned on all Schedules, may be estimated at, approximately, £4,995,000. Steel cutlery, valued at £72,000, and other products, valued at £31,000, are dealt with in the Reports on the trades in which such goods were chiefly manufactured.

The imports and exports of gold plate in 1907 were insignificant. The exports of silver plate in that year were valued at £69,000, free on board, or less than 4 per cent. of the value at works of the quantity made (including a small amount for

repairs) in the United Kingdom; and the net imports (*i.e.*, imports less re-exports) were valued at £17,000 at the port of landing. The exports of plated and gilt wares were valued at £710,000, free on board, but the exports of unplated goods and the imports of plated and of unplated goods are not stated separately in the Annual Statement of Trade of the United Kingdom.

On pages 144 and 148 particulars are given of the output of cutlery and tools in tenement factories in Sheffield. So far as can be ascertained the total value of the output of electroplated goods made by sub-occupiers of tenement factories in the Sheffield district included in the totals shown in the statement on page 256 was £68,000. The details are shown in the following statement:—

	Value. £
Electroplated Goods ... ..	52,000
Goods wholly or mainly of Silver ... ..	2,000
Steel Cutlery ... ..	1,000
<b>Total—Goods Made for Sale ... ..</b>	<b>55,000</b>
Work Done on Silver and Electroplated Goods ... ..	13,000

Goods made or work done by the principal occupiers of factories are not included in the foregoing statement.

(b) *Jewellery.*—The following statement shows the particulars furnished respecting the value of their output of finished goods by firms engaged in the manufacture of jewellery, that made their Returns on the Schedules for the plate and jewellery trades; it is free from duplication:—

	Value. £
<b>Chains:—</b>	
Gold ... ..	636,000
Silver ... ..	46,000
Imitation Gold and Silver ... ..	55,000
<b>Totals—Chains ... ..</b>	<b>737,000</b>
<b>Other Jewellery:—</b>	
Gold and Platinum ... ..	1,780,000
Silver ... ..	185,000
Imitation Gold and Silver ... ..	231,000
Gold, Silver, &c., not separately distinguished ... ..	160,000
<b>Total—Other Jewellery ... ..</b>	<b>2,356,000</b>
Chains and Other Jewellery, not separately distinguished	125,000
<b>Total—Jewellery of all kinds ... ..</b>	<b>3,218,000</b>
Waste Products ... ..	100,000
Other Products ... ..	16,000

The total value of the above products amounts to £3,334,000, and, in addition, £116,000 was received for repairs to jewellery by jewellery firms that did not include the sums received for repairs with the goods made by them. Firms with a total output of £498,000 included sums received for repairs with the value of goods made, but the amount so included is not likely to be large.

Further, the sum of £36,000 is included in the Returns as the value of "Materials and Tools for Jewellers," and is probably also included in the value of the finished goods shown in the above statement. The amount received for work done for the trade was £55,000. Firms that made Returns to the Census Office of the value of their finished goods stated that they paid £41,000 to other firms for work given out to them, and the difference—£14,000—between this sum and the amount received for work done for the trade represents the amount received for work done for merchants and retail jewellers. It is, therefore, an addition to the value of the finished goods included in the above statement.

Consequently, adding together the value of the finished jewellery (£3,218,000) and waste products (£100,000) the amount received for repairs (£116,000), and the amount

received for work done for merchants and retail jewellers (£14,000), the value, taken as a whole, of the main output of the jewellery factories and workshops covered by the Tables on pages 276 to 278 is about £3,448,000. It should be noted, however, that the actual selling value of the goods made for merchants, &c., is not included in that sum and that the amount received for repairs does not include the full sum paid by customers for such work, since retail jewellers who only employ one or two men in doing repairs are to a very large extent not on the official register of workshops and, consequently, were not required to furnish Returns. "Other Products," valued at £16,000, are dealt with in the Reports on the trades in which such goods were chiefly manufactured.

In addition, firms that made their Returns on Schedules for other trades included in their statements of output gold jewellery to the value of £3,000, silver jewellery valued at £7,000, and repairs to jewellery valued at £2,000, thus raising the total value of jewellery of all kinds to £3,228,000, and the amount received for repairs (so far as returned to the Census Office) to £118,000.

The exports of jewellery in 1907 were valued at £144,000 free on board, or nearly 4½ per cent. of the value at works of the jewellery made in the United Kingdom. The net imports (*i.e.*, imports less re-exports) of jewellery in the same year were valued at £405,000, or a little over one-eighth of the value at works of the jewellery made in the United Kingdom. It should be observed, however, that there is no record of the value (believed to be considerable) of jewellery imported in travellers' sample cases and sold in the United Kingdom, or of the value of goods similarly exported; nor is there any record of jewellery purchased in the United Kingdom and carried away in the luggage of passengers, or of jewellery purchased abroad and similarly brought into this country in the luggage of inward passengers.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 276 to 278 (whose gross output was valued at £8,559,000) was £3,599,000, 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 approximating to £4,713,000. The amount paid to other firms for work given out to them was £131,000.

The net output per head of persons employed (exclusive of outworkers) in the censal year was nearly £94.

*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 276 to 278 is returned as 38,388, viz., 33,119 wage-earners and 5,269 salaried persons, the total number being distributed by age and sex as follows:—

Males:—		Females:—	
Under 18 ... ..	4,227	Under 18 ... ..	4,061
Over 18 ... ..	20,342	Over 18 ... ..	9,758

In addition, the number of outworkers on the books of the employing firms on 1st February and 1st August, 1907, averaged 2,916, viz., 2,507 males and 409 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 ... ..	27,649	27,604	27,562	28,313
Salaried Persons ... ..	3,969	3,965	3,964	4,025
<b>Total ... ..</b>	<b>31,618</b>	<b>31,569</b>	<b>31,526</b>	<b>32,338</b>

There were also 5,337 wage-earners and 1,288 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 ... ..	7,000,000	30,660	6,495
Factories renting part of their Power ... ..	53,000	373	65
Factories renting all their Power ... ..	176,000	730	—
Workshops (not using Power) ... ..	1,330,000	6,625	—
Total ... ..	8,559,000	38,388	6,560

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

	Horse-Power.
Steam Engines :—	
Reciprocating ... ..	1,990
Steam Turbines ... ..	10
Total—Steam Engines ... ..	2,000
Internal Combustion Engines (gas, oil, &c.) ... ..	4,542
Water Power ... ..	18
Total ... ..	6,560

As shown above, whereas the total number of persons employed in factories in the plate and jewellery trades was 31,763, firms employing 1,103 persons rented all or part of 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 ... ..	203
Other Power ... ..	376
Total ... ..	579

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 13 per cent. of the engine-power belonging to plate and jewellery 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 :—

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 ... ..	203	156	287,000
Other Power ... ..	376	131	103,000
Total ... ..	579	287	390,000

About 1,011,000 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, but the total quantity so estimated forms a very small proportion of the whole.

## Watch and Clock Trades.

Output.—The Tables on pages 279 to 281 are based on Returns received from factories and workshops engaged in the manufacture of watches, clocks, and parts thereof. The aggregate gross value of the output of the firms that made their Returns on the Schedules for the watch and clock trades is returned as £613,000, to which should be added £9,000, the value of similar goods and work included in their statements of output by firms that made their Returns on Schedules for other trades. The resulting total (£622,000) includes, however, a certain amount of duplication.

The following statement shows the particulars furnished regarding the finished goods made and repairs executed in such factories and workshops, and is free from duplication :—

Watches, complete :—	Number.	Value. £
Of Gold ... ..	7,500	61,000
Of Silver ... ..	42,100	59,000
Of Other Metals ... ..	24,400	21,000
Total—Watches ... ..	74,000	141,000
Marine Chronometers ... ..	600	14,000
Turret Clocks ... ..	—	18,000
Other Clocks, complete ... ..	41,200	47,000
Other Products ... ..	—	19,000
Repairs of Watches, Clocks, and Jewellery ... ..	—	185,000

The total value of the above-mentioned products and work amounts to £424,000. Firms that made their Returns on Schedules for other trades included in their statements of output watches (unspecified) to the value of £1,000, and £4,000 as received for repairs to watches.

In addition, the firms making Returns on Schedules for the watch and clock-making trades included in their statements of output the value of parts of watches and clocks amounting to £180,000, and also £9,000 as the amount received for work done for the trade. Particulars of the output of parts are as follows :—

Watch Cases, Finished Movements, and other parts of	Value. £
Watches ... ..	122,000
Clock Parts, including Movements ... ..	39,000
Parts of Watches and Clocks, not separately distinguished ... ..	19,000

Clock parts to the value of £4,000 were made by firms that furnished Returns on Schedules for other trades.

The value of the watch cases of different metals cannot be stated separately without infringing the conditions laid down by the Census of Production Act, but altogether 163,000 cases of gold, silver, and other metals were made in the United Kingdom. Further, after allowing for re-exports, 58,900 watch cases were imported in the six months ended 31st December, 1907,\* and 66,300 in the twelve months ended 31st December, 1908. The number of watch cases manufactured in the United Kingdom or imported thus considerably exceeds the number of complete watches made and included in the above statement, while the exports of British-made watch cases were in comparison negligible. It follows, therefore, that in addition to the regular manufacture of complete watches, a considerable business is done by importers and retailers (who were not called upon to make Returns) in the fitting of British or imported movements into British or imported cases. It is not possible, however, to say what proportion of the watch and clock parts valued at £184,000 was sold to such firms, and how much was sold to watch and clock manufacturers who made their Returns of their finished products to the Census Office, but it appears that, after allowing for watchmaking firms that made their own cases, at least 89,000 cases must have been exported or sold to firms not making Returns, and their value may be estimated at about £57,000. The amount received for work done for the trade appears to be included in the value of the finished products, and the same is probably true of the value of the remaining clock and watch parts valued at

\* Imports of watch cases are only given separately from 1st July, 1907.

£127,000, though some of them may have been sold to retailers who did not make Returns. After allowing for the value of the cases sold to firms making Returns, it may be estimated that the value, taken as a whole, of the output of watches, clocks, cases, parts, and repair work (as returned on all Schedules) lay between £467,000 and £594,000. The output of other products valued at £19,000 is dealt with in the Reports on the trades concerned.

It is also to be observed that the amount received for repairs (£185,000) does not represent the total cost of all watch and clock repairs executed in the United Kingdom, since retailers who only employed one or two men on repair work are not as a rule on the official list of workshop proprietors, and, therefore, were not asked to furnish Returns.

For these reasons, it is not possible to make a satisfactory comparison of the production of watches and clocks in the United Kingdom with the exports and imports. Detailed figures regarding imports are not available for the whole of 1907, but it appears that in that year the net imports, *i.e.*, imports less re-exports, of complete watches amounted to 1,737,300 watches, valued at £673,000 at port of landing; of complete clocks 1,492,500, valued at £448,000; of watch cases and other parts £56,000; and of clock parts £23,000. The exports of watches, clocks, clock and watch movements, and parts thereof in 1907 were valued at £68,000 free on board.

*Net Output.*—The net output of the factories and workshops covered by the Tables on pages 279 to 281 (whose gross output was valued at £613,000) was £382,000, 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 was not less than £96,000 nor more than £219,000. The amount paid to other firms for work given out to them was £12,000.

The net output per head of persons employed (exclusive of outworkers) in the censal year was a little over £72.

*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 279 to 281, is returned as 5,301, *viz.*, 4,448 wage-earners and 853 salaried persons, the total number being distributed by age and sex as follows:—

Males:—				Females:—			
Under 18	...	...	631	Under 18	...	...	365
Over 18	...	...	3,410	Over 18	...	...	895

In addition, the number of outworkers on the books of employing firms on 1st February and 1st August, 1907, averaged 302, *viz.*, 286 males and 16 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 ... ..	2,658	2,595	2,625	2,559
Salaried Persons ... ..	214	213	218	216
Total ... ..	2,872	2,808	2,843	2,775

There were also 1,839 wage-earners and 638 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 ... ..	367,000	2,824	550
Workshops (not using Power) ... ..	246,000	2,477	—
Total ... ..	613,000	5,301	550

Classed according to kinds of power, the particulars are:—	Horse-Power.
Steam Engines, Reciprocating ... ..	264
Internal Combustion Engines (gas, oil, &c.) ... ..	286
Total ... ..	550

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 ... ..	16
Other Power ... ..	36
Total ... ..	52

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 14 per cent. of the engine-power belonging to watch and clock 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.
	Kilowatts.	Kilowatts.	Board of Trade Units.
Steam Engines, Reciprocating ... ..	16	16	1,000
Other Power ... ..	36	9	4,000
Total ... ..	52	25	5,000

About 85,000 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.

## TABLES.

## COPPER AND BRASS TRADES (SMELTING, ROLLING, AND CASTING).

TABLE I.—OUTPUT.

NOTE.—The figures of quantity in this Table are given to the nearest hundred in each case and those of value to the nearest thousand. Amounts lower than fifty in the case of quantity and five hundred in the case of value are not shown.

	England and Wales.	Scotland.	Ireland	United Kingdom.
	Quantity.			
	Tons.	Tons.	Tons.	Tons.
Copper :—				
Unwrought in Bars, Blocks, Slabs, Cakes, Shot, Ingots, or Precipitate.	40,800	100	—	40,900
Wrought or Manufactured (including Plates, Sheets, Rods, Tubes, Wire, &c.).	*	*	*	50,600
Copper, Sulphate of ... ..	36,300	—	—	36,300
	Value.			
	£	£	£	£
Copper :—				
Unwrought in Bars, Blocks, Slabs, Cakes, Shot, Ingots, or Precipitate.	3,414,000	8,000	—	3,422,000
Wrought or Manufactured (including Plates, Sheets, Rods, Tubes, Wire, &c.).	*	*	*	4,881,000
Copper, Sulphate of ... ..	925,000	—	—	925,000
Brass and other Copper Alloys (including Yellow Metal, Naval Brass, Brass Solder, Bronze, Phosphor Bronze, Delta Metal, Gun Metal, Britannia Metal, German Silver, &c.).	6,336,000	368,000	14,000	6,718,000
Coppersmiths' and Braziers' Work ... ..	*	*	*	96,000
Machinery Parts of Brass, Copper, and Alloys	316,000	—	—	316,000
Finished Brass Goods ... ..	49,000	3,000	—	52,000
Gold and Silver, Refined ... ..	446,000	—	—	446,000
Other Metals and Manufactures thereof ...	63,000	15,000	—	78,000
Metal Concentrates and Residues ... ..	*	*	—	97,000
Waste Products ... ..	10,000	—	—	10,000
Other Products ... ..	117,000	2,000	—	119,000
<b>TOTAL VALUE OF GOODS MADE ...</b>	<b>16,641,000</b>	<b>487,000</b>	<b>32,000</b>	<b>17,160,000</b>
Amount Received for Work Done on Commission or for the Trade :—				
Casting of Brass and other Copper Alloys	20,000	3,000	—	23,000
Rolling of Copper or Brass ... ..	52,000	—	—	52,000
Drawing of Copper or Brass Wire ... ..	4,000	—	—	4,000
Other Work on Copper or Brass ... ..	6,000	1,000	—	7,000
Work Done on Other Metals ... ..	39,000	—	—	39,000
<b>TOTAL VALUE OF WORK DONE ...</b>	<b>121,000</b>	<b>4,000</b>	<b>—</b>	<b>125,000</b>
<b>TOTAL VALUE OF GOODS MADE AND WORK DONE.</b>	<b>16,762,000</b>	<b>491,000</b>	<b>32,000</b>	<b>17,285,000</b>

\* 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.

## Copper and Brass Trades (Smelting, Rolling, and Casting)—continued.

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.	Scotland.	Ireland.	United Kingdom.
I.	£	£	£	£
Cost of Materials Used ... ..	13,931,000	369,000	21,000	14,321,000
Amount Paid to Other Firms for Work Given Out to them.	29,000	5,000	—	34,000
<b>TOTAL ... ..</b>	<b>13,960,000</b>	<b>374,000</b>	<b>21,000</b>	<b>14,355,000</b>
II.				
Value of Output :—				
Goods Made for Sale ... ..	16,641,000	487,000	32,000	17,160,000
Work Done on Commission or for the Trade.	121,000	4,000	—	125,000
<b>TOTAL ... ..</b>	<b>16,762,000</b>	<b>491,000</b>	<b>32,000</b>	<b>17,285,000</b>
III.				
Value of Output less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	2,802,000	117,000	11,000	2,930,000

TABLE III.—PERSONS EMPLOYED.

AVERAGE NUMBERS AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

	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>ENGLAND &amp; WALES :—</b>									
Wage-earners ... ..	2,226	15,930	18,156	138	494	632	2,364	16,424	18,788
Salaried Persons ... ..	112	1,128	1,240	25	109	134	137	1,237	1,374
<b>TOTAL ... ..</b>	<b>2,338</b>	<b>17,058</b>	<b>19,396</b>	<b>163</b>	<b>603</b>	<b>766</b>	<b>2,501</b>	<b>17,661</b>	<b>20,162</b>
<b>SCOTLAND :—</b>									
Wage-earners ... ..	169	824	993	4	11	15	173	835	1,008
Salaried Persons ... ..	6	74	80	1	15	16	7	89	96
<b>TOTAL ... ..</b>	<b>175</b>	<b>898</b>	<b>1,073</b>	<b>5</b>	<b>26</b>	<b>31</b>	<b>180</b>	<b>924</b>	<b>1,104</b>
<b>IRELAND :—</b>									
Wage-earners ... ..	23	137	160	—	—	—	23	137	160
Salaried Persons ... ..	4	15	19	1	2	3	5	17	22
<b>TOTAL ... ..</b>	<b>27</b>	<b>152</b>	<b>179</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>28</b>	<b>154</b>	<b>182</b>
<b>UNITED KINGDOM :—</b>									
Wage-earners ... ..	2,418	16,891	19,309	142	505	647	2,560	17,396	19,956
Salaried Persons ... ..	122	1,217	1,339	27	126	153	149	1,343	1,492
<b>TOTAL ... ..</b>	<b>2,540</b>	<b>18,108</b>	<b>20,648</b>	<b>169</b>	<b>631</b>	<b>800</b>	<b>2,709</b>	<b>18,739</b>	<b>21,448</b>

Copper and Brass Trades (Smelting, Rolling, and Casting)—*continued.*

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.*

	ENGLAND AND WALES.			SCOTLAND.		
	£	Number of Persons Employed.	Horse-Power.	£	Number of Persons Employed.	Horse-Power.
Factories with their own Engines	16,310,000	19,009	43,341	454,000	1,021	465
Factories renting their Power ...	50,000	50	—	—	—	—
Workshops (not using Power) ...	402,000	1,103	—	37,000	83	—
<b>TOTAL ...</b>	<b>16,762,000</b>	<b>20,162</b>	<b>43,341</b>	<b>491,000</b>	<b>1,104</b>	<b>465</b>
	IRELAND.			UNITED KINGDOM.		
	£	Number of Persons Employed.	Horse-Power.	£	Number of Persons Employed.	Horse-Power.
Factories with their own Engines	28,000	151	47	16,792,000	20,181	43,853
Factories renting their Power ...	—	—	—	50,000	50	—
Workshops (not using Power) ...	4,000	31	—	443,000	1,217	—
<b>TOTAL ...</b>	<b>32,000</b>	<b>182</b>	<b>47</b>	<b>17,285,000</b>	<b>21,448</b>	<b>43,853</b>

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 ...	39,544	88	10	39,642
Steam Turbines ...	450	—	—	450
Internal Combustion Engines (gas, oil, &c.)	3,070	377	37	3,484
Water Power ...	277	—	—	277
<b>TOTAL ...</b>	<b>43,341</b>	<b>465</b>	<b>47</b>	<b>43,853</b>
	Kilowatts.	Kilowatts.	Kilowatts.	Kilowatts.
Capacity of Dynamoes driven by :—				
Steam Engines, Reciprocating ...	6,678	—	—	6,678
Steam Turbines ...	402	—	—	402
Other Power ...	282	—	—	282
<b>TOTAL ...</b>	<b>7,362</b>	<b>—</b>	<b>—</b>	<b>7,362</b>

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 ...	759,000	120,000	4,000	883,000

## FINISHED BRASS 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.*

	England and Wales.	Scotland.	Ireland.	United Kingdom.
Finished Brass Goods :—	£	£	£	£
Engineers', Mechanics', and Plumbers' Goods, including Waterworks' Articles.	1,592,000	219,000	23,000	1,834,000
Builders and Cabinet Makers' Goods (including House, Shop, Ship, Office, Hearth, and Church Furniture).	1,608,000	10,000	8,000	1,626,000
Lamps and Metal Fittings for Lighting Purposes.	1,162,000	11,000	—	1,173,000
Gas Meters ...	*	*	*	916,000
Coffin Furniture ...	*	*	—	139,000
Carriage and Harness Goods ...	93,000	3,000	—	96,000
Other and Unspecified Brass Goods ...	*	*	*	142,000
<b>TOTAL—Finished Brass Goods ...</b>	<b>5,414,000</b>	<b>468,000</b>	<b>44,000</b>	<b>5,926,000</b>
Copper, Wrought or Manufactured (including Tubes, &c., and Coppersmithing and Braziers' Work).	*	*	*	106,000
Brass and Other Copper Alloys, cast ...	*	*	*	61,000
Cased Tubes ...	168,000	—	—	168,000
Hardware and Bedsteads ...	104,000	—	—	104,000
Iron and Steel Tubes (including Close Joint Tubes).	110,000†	—	—	110,000†
Iron and Steel Manufactures, &c. ...	41,000	—	—	41,000
Machinery ...	33,000	—	—	33,000
Cycle Parts and Accessories ...	25,000	—	—	25,000
Brass Dust and other Waste Products ...	93,000	6,000	—	99,000
Other Products ...	16,000	6,000	—	22,000
Repair Work ...	26,000	14,000	4,000	44,000
<b>TOTAL VALUE OF GOODS MADE (INCLUDING REPAIR WORK).</b>	<b>6,179,000</b>	<b>510,000</b>	<b>50,000</b>	<b>6,739,000</b>
Amount Received for Work Done for the Trade (Brass Finishing, &c.).	51,000	5,000	2,000	58,000
<b>TOTAL VALUE OF GOODS MADE AND WORK DONE.</b>	<b>6,230,000</b>	<b>515,000</b>	<b>52,000</b>	<b>6,797,000</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.*

	England and Wales.	Scotland.	Ireland.	United Kingdom.
	£	£	£	£
I.				
Cost of Materials Used ...	3,022,000	263,000	29,000	3,314,000
Amount Paid to Other Firms for Work Given Out to them.	25,000	2,000	2,000	29,000
<b>TOTAL ...</b>	<b>3,047,000</b>	<b>265,000</b>	<b>31,000</b>	<b>3,343,000</b>
II.				
Value of Output :—				
Goods Made for Sale (including Repair Work).	6,179,000	510,000	50,000	6,739,000
Work Done for the Trade ...	51,000	5,000	2,000	58,000
<b>TOTAL ...</b>	<b>6,230,000</b>	<b>515,000</b>	<b>52,000</b>	<b>6,797,000</b>
III.				
Value of Output, less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	3,183,000	250,000	21,000	3,454,000

\* 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.

† The quantity of Iron and Steel Tubes (including Close Joint Tubes) was returned as 9,000 Tons.

## Finished Brass Trades—continued.

TABLE III.—PERSONS EMPLOYED.

AVERAGE NUMBERS 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>ENGLAND AND WALES :—</b>									
Wage-earners ...	4,642	20,511	25,153	1,684	5,445	7,129	6,326	25,956	32,282
Salaried Persons ...	317	2,643	2,960	224	586	810	541	3,229	3,770
TOTAL ...	4,959	23,154	28,113	1,908	6,031	7,939	6,867	29,185	36,052
<b>SCOTLAND :—</b>									
Wage-earners ...	349	1,768	2,117	25	144	169	374	1,912	2,286
Salaried Persons ...	25	190	215	2	26	28	27	216	243
TOTAL ...	374	1,958	2,332	27	170	197	401	2,128	2,529
<b>IRELAND :—</b>									
Wage-earners ...	75	230	305	1	2	3	76	232	308
Salaried Persons ...	7	18	25	1	1	2	8	19	27
TOTAL ...	82	248	330	2	3	5	84	251	335
<b>UNITED KINGDOM :—</b>									
Wage-earners ...	5,066	22,509	27,575	1,710	5,591	7,301	6,776	28,100	34,876
Salaried Persons ...	349	2,851	3,200	227	613	840	576	3,464	4,040
TOTAL ...	5,415	25,360	30,775	1,937	6,204	8,141	7,352	31,564	38,916

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.

	ENGLAND AND WALES.			SCOTLAND.		
	£	Number of Persons Employed.	Horse-Power.	£	Number of Persons Employed.	Horse-Power.
Factories with their own Engines ...	5,894,000	33,985	11,924	512,000	2,504	872
Factories renting their Power ...	25,000	162	—	1,000	8	—
Workshops (not using Power) ...	311,000	1,905	—	2,000	17	—
TOTAL ...	6,230,000	36,052	11,924	515,000	2,529	872
<b>IRELAND.</b>						
<b>UNITED KINGDOM.</b>						
Factories with their own Engines ...	39,000	256	69	6,445,000	36,745	12,865
Factories renting their Power ...	—	—	—	26,000	170	—
Workshops (not using Power) ...	13,000	79	—	326,000	2,001	—
TOTAL ...	52,000	335	69	6,797,000	38,916	12,865

## Finished Brass 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.
Steam Engines, Reciprocating ...	Horse-Power. 3,534	Horse-Power. 217	Horse-Power. 8	Horse-Power. 3,759
Internal Combustion Engines (gas, oil, &c.) ...	8,385	647	61	9,093
Water Power ...	5	8	—	13
TOTAL ...	11,924	872	69	12,865
Capacity of Dynamos driven by :—				
Steam Engines, Reciprocating ...	Kilowatts. 304	Kilowatts. 38	Kilowatts. —	Kilowatts. 342
Other Power ...	307	—	—	307
TOTAL ...	611	38	—	649

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.
Amount of Electricity Purchased ...	Board of Trade Units. 1,031,000	Board of Trade Units. 120,000	Board of Trade Units. 13,000	Board of Trade Units. 1,164,000

**GOLD AND SILVER REFINING TRADE.**

The Factories covered by these Tables are all situated in England and Wales, but a small quantity of gold and silver refined in other parts of the United Kingdom is included in the Tables for the Lead, Tin, &c. Trades.

**TABLE I.—OUTPUT.**

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

	England and Wales.	
	Quantity.	Value.
<b>Gold :—</b>		
Refined ... ..	Oz. Troy. 10,329,000	£ 41,826,000
Manufactures (including Coin, Sheet, Stampings, Castings, Wire, &c.).	(Recorded by Value only.)	661,000
<b>TOTAL—Gold</b> ... ..	—	42,487,000
<b>Silver :—</b>		
Bullion ... ..	Oz. Troy. 40,065,000	5,558,000
Manufactures (including Coin, Sheet, Stampings, Castings, Wire, &c.).	(Recorded by Value only.)	593,000
<b>TOTAL—Silver</b> ... ..	—	6,151,000
<b>Lead :—</b>		
Pig ... ..	Tons. 80,000	1,535,000
Manufactures ... ..	10,000	199,000
<b>TOTAL—Lead</b> ... ..	—	1,734,000
Copper, Unwrought ... ..	Tons. 2,000	146,000
Copper, Sulphate of ... ..	1,000	26,000
Solders, other than Brass Solder ... ..		49,000
Materials containing Gold and Silver ... ..	(Recorded by Value only.)	115,000
Other Metals ... ..		413,000
Chemicals, Paints, and Colours ... ..		82,000
<b>TOTAL VALUE OF GOODS MADE</b> ... ..	—	51,203,000
<b>Amount Received for Work Done for the Trade :—</b>		
Casting ... ..	(Recorded by Value only.)	7,000
Rolling ... ..		10,000
Other Work ... ..		6,000
<b>TOTAL VALUE OF WORK DONE</b> ... ..	—	23,000
<b>TOTAL VALUE OF GOODS MADE AND WORK DONE</b> ... ..	—	51,226,000

**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.
<b>I.</b>	£
Cost of Materials Used ... ..	50,780,000
Amount Paid to Other Firms for Work Given Out to them ... ..	15,000
<b>TOTAL</b> ... ..	50,795,000
<b>Value of Output :—</b>	
<b>II.</b>	
Goods Made for Sale ... ..	51,203,000
Work Done for the Trade ... ..	23,000
<b>TOTAL</b> ... ..	51,226,000
<b>III.</b>	
Value of Output, less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	431,000

**Gold and Silver Refining Trade—continued.**

**TABLE III.—PERSONS EMPLOYED.**

AVERAGE NUMBERS AT WORK ON THE LAST WEDNESDAYS IN JANUARY, APRIL, JULY, AND OCTOBER.

	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>ENGLAND AND WALES:—</b>								
Wage-earners ... ..	84	1,724	1,808	18	53	71	102	1,777	1,879
Salaried Persons ... ..	17	249	266	7	35	42	24	284	308
<b>TOTAL</b> ... ..	101	1,973	2,074	25	88	113	126	2,061	2,187

**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.
	ENGLAND AND WALES.		
	£		Horse-Power.
Factories with their own Engines ... ..	51,226,000	2,187	1,648

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

	England and Wales.
	Horse-Power.
Steam Engines, Reciprocating ... ..	1,484
Internal Combustion Engines (gas, oil, &c.) ... ..	116
Water Power ... ..	48
<b>TOTAL</b> ... ..	1,648
	Kilowatts.
Capacity of Dynamos driven by Steam Engines, Reciprocating.	43

C.—AMOUNT OF ELECTRICITY PURCHASED.

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

	England and Wales.
	Board of Trade Units.
Amount of Electricity Purchased ... ..	455,000

LEAD, TIN, ZINC, AND OTHER METAL TRADES (EXCEPT IRON, COPPER, BRASS, GOLD, AND SILVER).

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.

	Quantity.		
	Tons.	Tons.	Tons.
Lead :—			
Pig ... ..	†	†	29,000
Manufactures :—			
Returned by Weight ... ..	†	†	119,000
Returned by Value only ... ..	(Recorded by Value only.)		
White Lead ... ..	11,000	—	11,000
Tin :—			
Unwrought (including Ingots, Blocks, Bars, &c.) ... ..	†	†	13,000
Manufactures ... ..	(Recorded by Value only.)		
Zinc or Spelter :—			
Crude in Cakes ... ..	†	†	38,000
Manufactures (including Sheet Zinc, Oxides, &c.) ... ..	†	†	10,000
Antimony ... ..	6,000	—	6,000
	Oz. Troy.	Oz. Troy.	Oz. Troy.
Gold and Silver, Refined ... ..	†	†	1,622,000
Solders (other than Brass Solder) ... ..	†	†	—
White Metals :—	(Recorded by Value only.)		
Anti-Friction... ..	†	†	—
Other Sorts ... ..	†	†	—
Arsenic and its Oxides ... ..	Tons.	—	Tons.
Aluminium, Nickel, Bismuth, and other Metals (except Iron, Steel, Copper, Gold, and Silver).	1,000	—	1,000
Iron and Steel Manufactures ... ..	(Recorded by Value only.)		
Copper and Brass ... ..	†	†	—
Paints ... ..	†	†	—
Chemicals ... ..	†	†	—
Waste Products ... ..	†	†	—
Other Products ... ..	†	†	—
Work Done for the Trade (Casting, Rolling, &c.) ... ..	†	†	—
	Value.		
	£	£	£
Lead :—			
Pig ... ..	†	†	518,000
Manufactures :—			
Returned by Weight ... ..	†	†	2,437,000
Returned by Value only ... ..	†	†	92,000
White Lead ... ..	236,000	—	236,000
TOTAL—Lead ... ..	2,953,000	330,000	3,283,000
Tin :—			
Unwrought (including Ingots, Blocks, Bars, &c.) ... ..	†	†	2,177,000
Manufactures ... ..	†	†	37,000
TOTAL—Tin ... ..	2,206,000	8,000	2,214,000
Zinc or Spelter :—			
Crude, in Cakes ... ..	†	†	918,000
Manufactures (including Sheet Zinc, Oxides, &c.) ... ..	†	†	243,000
TOTAL—Zinc ... ..	1,154,000	7,000	1,161,000

\* 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.

† 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.

Lead, Tin, Zinc, and Other Metal Trades (except Iron, Copper, Brass, Gold, and Silver)—continued.

TABLE I.—OUTPUT—continued.

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

	Value—continued.		
	England and Wales and Ireland.*	Scotland.	United Kingdom.
	£	£	£
Antimony ... ..	431,000	—	431,000
Gold and Silver Refined... ..	†	†	244,000
Solders (other than Brass Solder) ... ..	†	†	468,000
White Metals :—			
Anti-Friction ... ..	†	†	63,000
Other Sorts ... ..	†	†	229,000
TOTAL—White Metals ... ..	288,000	4,000	292,000
Arsenic and its Oxides ... ..	25,000	—	25,000
Aluminium, Nickel, Bismuth, and other Metals (except Iron, Copper, Gold, and Silver).	191,000	315,000	506,000
Iron and Steel Manufactures ... ..	26,000	—	26,000
Copper and Brass ... ..	31,000	—	31,000
Paints ... ..	†	†	130,000
Chemicals ... ..	32,000	—	32,000
Waste Products ... ..	24,000	—	24,000
Other Products ... ..	11,000	—	11,000
TOTAL VALUE OF GOODS MADE ... ..	8,206,000	672,000	8,878,000
Work Done for the Trade (Casting, Rolling, &c.) ... ..	106,000	1,000	107,000
TOTAL VALUE OF GOODS MADE AND WORK DONE	8,312,000	673,000	8,985,000

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 the Table are given to the nearest thousand in each case.

	England and Wales and Ireland.*		
	£	£	£
I.			
Cost of Materials Used ... ..	7,326,000	552,000	7,878,000
Amount Paid to Other Firms for Work Given Out to them	10,000	—	10,000
TOTAL ... ..	7,336,000	552,000	7,888,000
II.			
Value of Output :			
Goods Made for Sale ... ..	8,206,000	672,000	8,878,000
Work Done for the Trade ... ..	106,000	1,000	107,000
TOTAL ... ..	8,312,000	673,000	8,985,000
III.			
Value of Output, less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	976,000	121,000	1,097,000

\* 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.

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

Lead, Tin, Zinc, and Other Metal Trades (except Iron, Copper, Brass, Gold, and Silver)—*continued.*

TABLE III.—PERSONS EMPLOYED.

AVERAGE NUMBERS 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...	449	5,380	5,829	344	626	970	793	6,006	6,799
Salaried Persons ...	48	634	682	7	40	47	55	674	729
TOTAL ...	497	6,014	6,511	351	666	1,017	848	6,680	7,528
SCOTLAND :—									
Wage-earners...	36	572	608	1	1	2	37	573	610
Salaried Persons ...	7	78	85	3	7	10	10	85	95
TOTAL ...	43	650	693	4	8	12	47	658	705
UNITED KINGDOM :—									
Wage-earners...	485	5,952	6,437	345	627	972	830	6,579	7,409
Salaried Persons ...	55	712	767	10	47	57	65	759	824
TOTAL ...	540	6,664	7,204	355	674	1,029	895	7,338	8,233

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.
	£		Horse-Power.	£		Horse-Power.	£		Horse-Power.
ENGLAND AND WALES AND IRELAND.*									
Factories with their own Engines.	7,597,000	6,917	10,158	654,000	678	8,340	8,251,000	7,595	18,498
Factories renting their Power.	35,000	216	—	—	—	—	35,000	216	—
Workshops (not using Power).	680,000	395	—	19,000	27	—	699,000	422	—
TOTAL ...	8,312,000	7,528	10,158	673,000	705	8,340	8,985,000	8,233	18,498

\* 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.

Lead, Tin, Zinc, and other Metal Trades (except Iron, Copper, Brass, Gold, and Silver)—*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 ...	7,583	955	8,538
Steam Turbines ...	20	—	20
Internal Combustion Engines (gas, oil, &c.) ...	2,511	78	2,589
Water Power ...	44	7,307	7,351
TOTAL ...	10,158	8,340	18,498
Capacity of Dynamos driven by :—			
Steam Engines, Reciprocating ...	Kilowatts. 555	Kilowatts. 66	Kilowatts. 621
Other Power ...	676	5,000	5,676
TOTAL ...	1,231	5,066	6,297

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 ...	275,000	4,000	279,000

\* 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.

## PLATE AND JEWELLERY TRADES.

TABLE I.—OUTPUT.

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

	United Kingdom.*
Gold, Silver, and Electroplated Goods :—	£
Goods made wholly or in part of Gold (including mounted articles) ...	493,000
Gold Leaf and Gold Thread ...	105,000
Goods made wholly or in part of Silver (including mounted articles) ...	1,880,000
Stampings, Handles, and other Parts for Silver Goods ...	15,000
Electroplated Goods (including Plated Cutlery) and Unplated Goods of Britannia Metal, German Silver, and similar Metals.	1,831,000
Stampings, Handles, and other Parts for Electroplated Goods ...	65,000
Steel Cutlery ...	72,000
Waste Products ...	102,000
Other Products ...	31,000
Repairs to Gold and Silver Plate and Electroplate (not included with finished goods).	45,000
Amount Received for Work Done for the Trade :—	
Engraving and Finishing of Silver Goods ...	13,000
Electroplating and Finishing of Electroplated Goods ...	280,000
Nickelplating, Lacquering, Bronzing, &c., for Cycle, Brass, Hardware, Engineering, and Other Trades.	86,000
<b>TOTAL—GOLD, SILVER, AND ELECTROPLATED GOODS ...</b>	<b>5,018,000</b>
Jewellery :—	
Chains :—	
Gold ...	636,000
Silver ...	46,000
Imitation Gold and Silver ...	55,000
<b>TOTAL—Chains ...</b>	<b>737,000</b>
Other Jewellery :—	
Gold and Platinum ...	1,780,000
Silver ...	185,000
Imitation Gold and Silver ...	231,000
Gold, Silver, &c., not separately distinguished ...	160,000
<b>TOTAL—Other Jewellery... ..</b>	<b>2,356,000</b>
Chains and Other Jewellery, not separately distinguished ...	125,000
<b>TOTAL—Jewellery of all kinds ... ..</b>	<b>3,218,000</b>
Materials and Tools for Jewellers ...	36,000
Waste Products ...	100,000
Other Products ...	16,000
Repairs to Jewellery ...	116,000
Amount Received for Work Done for the Trade... ..	55,000
<b>TOTAL—JEWELLERY ... ..</b>	<b>3,541,000</b>
<b>TOTAL VALUE OF GOODS MADE AND WORK DONE IN THE UNITED KINGDOM.</b>	<b>8,559,000</b>
Total Value for England and Wales ...	8,464,000
Total Value for Scotland ...	71,000
Total Value for Ireland ...	24,000

\* 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 each Division of the United Kingdom.

## Plate and Jewellery Trades—continued.

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. Amounts lower than five hundred are not shown.

	England and Wales.	Scotland.	Ireland.	United Kingdom.
I.	£	£	£	£
Cost of Materials Used ...	4,789,000	28,000	12,000	4,829,000
Amount Paid to Other Firms for Work Given Out to them.	130,000	1,000	—	131,000
<b>TOTAL ... ..</b>	<b>4,919,000</b>	<b>29,000</b>	<b>12,000</b>	<b>4,960,000</b>
II.				
Value of Output :—				
Goods Made for Sale ...	7,904,000	39,000	21,000	7,964,000
Repairs and Work Done for the Trade ...	560,000	32,000	3,000	595,000
<b>TOTAL ... ..</b>	<b>8,464,000</b>	<b>71,000</b>	<b>24,000</b>	<b>8,559,000</b>
III.				
Value of Output less Cost of Materials Used and Amount Paid to Other Firms for Work Given Out to them.	3,545,000	42,000	12,000	3,599,000

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 :—									
Wage-earners ...	3,836	16,780	20,616	3,550	8,300	11,850	7,386	25,080	32,466
Salaried Persons ...	272	3,053	3,325	469	1,373	1,842	741	4,426	5,167
<b>TOTAL ... ..</b>	<b>4,108</b>	<b>19,833</b>	<b>23,941</b>	<b>4,019</b>	<b>9,673</b>	<b>13,692</b>	<b>8,127</b>	<b>29,506</b>	<b>37,633</b>
SCOTLAND :—									
Wage-earners ...	87	326	413	29	53	82	116	379	495
Salaried Persons ...	5	50	55	8	27	35	13	77	90
<b>TOTAL ... ..</b>	<b>92</b>	<b>376</b>	<b>468</b>	<b>37</b>	<b>80</b>	<b>117</b>	<b>129</b>	<b>456</b>	<b>585</b>
IRELAND :—									
Wage-earners ...	26	125	151	3	4	7	29	129	158
Salaried Persons ...	1	8	9	2	1	3	3	9	12
<b>TOTAL ... ..</b>	<b>27</b>	<b>133</b>	<b>160</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>32</b>	<b>138</b>	<b>170</b>
UNITED KINGDOM :—									
Wage-earners ...	3,949	17,231	21,180	3,582	8,357	11,939	7,531	25,588	33,119
Salaried Persons ...	278	3,111	3,389	479	1,401	1,880	757	4,512	5,269
<b>TOTAL ... ..</b>	<b>4,227</b>	<b>20,342</b>	<b>24,569</b>	<b>4,061</b>	<b>9,758</b>	<b>13,819</b>	<b>8,288</b>	<b>30,100</b>	<b>38,388</b>

## Plate and Jewellery Trades—continued.

TABLE III.—PERSONS EMPLOYED—continued.

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

	Males.	Females.	Males and Females.
ENGLAND AND WALES ..	2,494	408	2,902
SCOTLAND ..	8	—	8
IRELAND ..	5	1	6
UNITED KINGDOM ...	25,07	409	2,916

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.

	ENGLAND AND WALES.			SCOTLAND.		
	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.	Gross Value of Output.	Number of Persons Employed.	Total Capacity of Engines.
Factories with their own Engines ...	6,932,000	30,158	6,406	50,000	375	79
Factories renting part of their Power	53,000	373	65	—	—	—
Factories renting all their Power	176,000	730	—	—	—	—
Workshops (not using Power)	1,303,000	6,372	—	21,000	210	—
TOTAL ...	8,464,000	37,633	6,471	71,000	585	79
	IRELAND.			UNITED KINGDOM.		
Factories with their own Engines ...	18,000	127	10	7,000,000	30,660	6,495
Factories renting part of their Power	—	—	—	53,000	373	65
Factories renting all their power	—	—	—	176,000	730	—
Workshops (not using Power)	6,000	43	—	1,330,000	6,625	—
TOTAL ...	24,000	170	10	8,559,000	38,388	6,560

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

	England and Wales.	Scotland.	Ireland.	United Kingdom.
Steam Engines, Reciprocating ...	Horse-Power. 1,974	Horse-Power. 16	Horse-Power. —	Horse-Power. 1,990
Steam Turbines ...	10	—	—	10
Internal Combustion Engines (gas, oil, &c.)	4,469	63	10	4,542
Water Power ...	18	—	—	18
TOTAL ...	6,471	79	10	6,560
Capacity of Dynamoes driven by :—	Kilowatts.	Kilowatts.	Kilowatts.	Kilowatts.
Steam Engines, Reciprocating ...	203	—	—	203
Other Power ...	376	—	—	376
TOTAL ...	579	—	—	579

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.
Amount of Electricity Purchased ...	Board of Trade Units. 964,000	Board of Trade Units. 33,000	Board of Trade Units. 14,000	Board of Trade Units. 1,011,000

## WATCH AND CLOCK TRADES.

TABLE I.—OUTPUT.

NOTE.—The figures of quantity in this Table are given to the nearest hundred in each case, and those of value to the nearest thousand.

	United Kingdom.*	
	Number.	Value.
Watches, Complete :—		£
Of Gold ...	7,500	61,000
Of Silver ...	42,100	59,000
Of Other Metals ...	24,400	21,000
TOTAL—Watches ...	74,000	141,000
Watch Cases, Finished Movements, and other Parts of Watches...	{ (Recorded by Value only.) }	122,000
Marine Chronometers ...	600	14,000
Turret Clocks ...	{ (Recorded by Value only.) }	18,000
Other Clocks, Complete ...	41,200	47,000
Clock Parts, including Movements ...	{ (Recorded by Value only.) }	39,000
Parts of Watches and Clocks, not separately distinguished	{ (Recorded by Value only.) }	19,000
Other Products ...	{ (Recorded by Value only.) }	19,000
TOTAL VALUE OF GOODS MADE ...	—	419,000
Repairs of Watches, Clocks, and Jewellery...	{ (Recorded by Value only.) }	185,000
Amount Received for Work Done for the Trade ...	{ (Recorded by Value only.) }	9,000
TOTAL VALUE OF GOODS MADE AND WORK DONE	—	613,000

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.

	United Kingdom.*
I.	£
Cost of Materials Used ...	219,000
Amount Paid to Other Firms for Work Given Out to them	12,000
TOTAL ...	231,000
II.	
Value of Output :—	
Goods Made for Sale ...	419,000
Repairs and Work Done for the Trade ...	194,000
TOTAL ...	613,000
III.	
Value of Output, less Cost of Materials Used and Amount Paid to Other Firms for Work Given out to them.	382,000

\* 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.

Watch and Clock 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 ...	608	2,681	3,289	340	819	1,159	948	3,500	4,448
Salaried Persons ...	23	729	752	25	76	101	48	805	853
TOTAL ...	631	3,410	4,041	365	895	1,260	996	4,305	5,301

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

	Males.	Females.	Males and Females.
UNITED KINGDOM* ...	286	16	302

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 ...	367,000	2,824	550
Workshops (not using Power) ...	246,000	2,477	—
TOTAL ...	613,000	5,301	550

\* 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.

Watch and Clock 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.*
Steam Engines, Reciprocating ...	Horse Power. 264
Internal Combustion Engines (gas, oil, &c.) ...	286
TOTAL ...	550
Capacity of Dynamos driven by :—	Kilowatts.
Steam Engines, Reciprocating ...	16
Other Power ...	36
TOTAL ...	52

C.—AMOUNT OF ELECTRICITY PURCHASED.

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

	United Kingdom.*
Amount of Electricity Purchased ...	Board of Trade Units. 85,000

\* 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.