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# REPORT ON THE IMPORT DUTIES ACT INQUIRY: (1933)

## PART I THE TEXTILE TRADES THE LEATHER AND CLOTHING TRADES THE FOOD TRADES THE CHEMICAL AND ALLIED TRADES MISCELLANEOUS TRADES

*Presented to Parliament in pursuance of the Import  
Duties Act, 1932 [22 Geo. 5, Ch. 8]*

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**IMPORT DUTIES ACT, 1932**  
**INDUSTRIAL PRODUCTION IN 1933**

**Introduction**

1. **Statutory authority for Inquiries.**—Under Section 1 of the Import Duties Act, 1932, a customs duty of 10 per cent. *ad valorem* was imposed as from 1st March, 1932, on all goods imported into the United Kingdom, with the following exceptions :—

(a) Goods for the time being chargeable with duty by or under any other enactment (not including composite goods so dutiable in respect of some, but not all, of their components) ;

(b) Goods specifically exempted by the First Schedule to the Act.

Section 9 of the Act provides that " With a view to obtaining information as to the condition and progress of trades and industries engaged in the manufacture in the United Kingdom of goods of a class or description which, if they were imported into the United Kingdom, would be chargeable with a duty of customs under this Part of this Act ", the Board of Trade may require information from occupiers or managers of factories or workshops engaged in such trades and industries. The matters as to which information may be required are prescribed as follows :—

(a) The quantity and value of output ;

(b) The quantity and cost of materials used ;

(c) The quantity and cost of fuel and electricity consumed ;

(d) The number of persons employed.

The Board of Trade are required, by Section 9 (6) of the Act, to present to Parliament a summary of the information obtained by them under this section in respect of any year.

2. The first Inquiry conducted under these powers was in respect of the year 1933 and the present volume contains a summary of the information furnished in respect of 44 trades. The summary will be completed in a second volume dealing with the remaining trades (30) to which the Inquiry related.

3. **Scope of the Inquiry for 1933.**—The data by reference to which the progress of the trades and industries concerned could be measured were the results of the Census of Production of 1930 and, for the industries selected for investigation, the scope of the Inquiry was designed to correspond as closely as possible with that of the 1930 Census. Returns were, therefore, required only in respect of establishments at which more than ten persons were employed, on the average, during 1933.

In addition to the limitations imposed specifically by Section 1 of the Import Duties Act, the Inquiry was confined to those trades for which the results, on the restricted basis mentioned, would be reasonably comprehensive and comparable with those of the 1930



Census. The Census showed that restriction to firms employing more than ten persons on the average, though not of serious consequence in the majority of industries, had the effect in certain cases of excluding so large a proportion of the aggregate that the results could not be used with certainty as a basis for general conclusions. The Bread Baking, Tailoring, Dressmaking, etc., Joinery and Wood-working, and Furniture Trades are the most important cases of this kind among the manufacturing industries. There were also certain trades, of which three of the four mentioned are examples, for which the records of production are for the most part stated only in terms of value and are not, therefore, readily comparable over a period of years when considerable price changes have taken place, and these trades have likewise been excluded:

4. According to the industrial classification used for the Census of Production the number of trades that were included in the Inquiry for 1933 was 71, with those others, viz. Cycle, Biscuit, and Coke and By-Products, which at the Census were combined with three of the trades listed below. The total number of factory trades (i.e. trades engaged in the manufacture or processing of goods) listed for the purposes of the 1930 Census was 107. The following trades were not included in the Inquiry:—

Motor Vehicles.	Wholesale Bottling.
Shipbuilding.	Tobacco.
Carriage, Cart and Wagon.	Petroleum Refining.
Watch and Clock.	Match.
Flock and Rag.	Printing, Bookbinding, Stereo-
Textile Packing.	typing, Engraving, etc.
Fellmongery.	Printing and Publication of
Tailoring, Dressmaking, Mil-	Newspapers and Periodicals.
linery, etc.	Manufactured Stationery.
Fur.	Cardboard Box.
Bread, Cakes and Pastries.	Pens, Pencils and Artists'
Cocoa and Sugar Confectionery.	Materials.
Bacon Curing and Sausage.	Furniture and Upholstery.
Sugar and Glucose.	Cane and Wicker Furniture
Fish Curing.	and Basketware.
Ice.	Wooden Crates, Cases, Boxes
Brewing and Malting.	and Trunks.
Spirit Distilling.	Coopering.
Spirit Rectifying, Compound-	Manufactured Fuel.
ing and Methylating.	Scientific Instruments, Appli-
Aerated Waters, Cider, Vine-	ances and Apparatus.
gar and British Wine.	Musical Instruments.
	Cinematograph Film Printing.

In addition, certain trades were included in respect only of particular classes of output; for example, the Timber Trade, for the purposes of the Inquiry, was confined to firms engaged in the manufacture for sale of saw-mill products.

The trades included in the 1933 Inquiry covered about 62 per cent. of the total net output (excluding Excise duties) and 69 per cent. of the total number of persons employed in the factory industries of the United Kingdom in 1930. A list of the trades surveyed is given in Appendix I (page xi).

**5. Degree of completeness of the survey.**—The trades that were principally affected by the exclusion of firms employing not more than ten persons on the average were, as already stated, omitted from the Inquiry entirely, but among some of the trades included the omission of these smaller firms may have led to important deficiencies in the recorded output of particular classes of goods. No information of any kind was required from the smaller firms for 1933 and it cannot be assumed with certainty that their relative importance in any trade was the same as in 1930, since an increase or decrease in individual businesses may have resulted in their inclusion in one year and exemption in another.

Another cause of deficiency arises from the total exclusion of trades. While the Inquiry was not concerned with the principal classes of production in which these trades were engaged, their secondary output frequently included goods that were covered by the Inquiry and this output has escaped record. Information was not required in respect of firms whose business consisted primarily of repair work or of workshops that were chiefly engaged in carrying out work on materials supplied by other firms. Though these establishments contributed some output of new goods at the 1930 Census, the loss resulting from their exclusion had no appreciable effect on the results of the Inquiry as a whole.

The omissions referred to above, which are inherent in a partial survey, are of serious importance only in a comparatively few classes of products. The possible extent of the deficiencies due to the exclusion of these classes of firms is indicated in the individual reports, in which particulars are given of the output in 1930 of the firms concerned. The results given for 1930 in this series of summaries, though incomplete in many instances, are comparable with those recorded for 1933. The particulars given throughout the report relate to the United Kingdom except where otherwise specified.

**6. Contents of the summaries.**—For convenience of reference, the results are aggregated as far as possible in groups of associated trades, and general statistical tables are given for each group, comparing the principal results, the volume of production and the employment data in each year. The summaries for the individual trades consist of a series of seven tables, with one additional table in cases where information was obtained as to the consumption of particular classes of materials. The information contained in these tables is as follows:—

*Table I.*—The principal results recorded by all firms that made returns on schedules for the trade concerned.

*Table II.*—The total selling values and (where available) quantities of the principal products of the trade, whether recorded on schedules for that trade or on schedules for other trades; particulars of the output returned on schedules for other trades are given separately in a following statement.

*Table III.*—The values per unit of the principal products manufactured, with the average values of exports and imports of goods falling under the same descriptions. In comparing the figures for production with those for exports and imports it should be noted that almost any specified class of goods covers a range of varied grades or qualities and that differences between the average values shown for the same class of goods may be due largely to differences in the qualities of goods included in the class. The fact that the average values of goods produced are those "at factory", while those for exports and imports are f.o.b. and c.i.f., respectively, should also not be overlooked.

*Table IV.*—The estimated volume of production of the principal products. Wherever practicable, these calculations are based on the average values of goods manufactured, as shown in Table III. For those classes of output which were not measured by quantity, the estimates are based on such information as is available regarding changes in prices of materials used and other manufacturing costs.

*Table V.*—The quantities of the principal classes of goods manufactured, compared with those of exports and retained imports. Particulars of value are given in certain cases where records of quantity are not available. The qualifications mentioned in connection with Table III should be borne in mind in comparing the figures given in this table also.

*Table VI.*—(A) The average number of Operatives employed in the year and the number of Administrative, Technical and Clerical Staff employed in one week in October, classified in each category between males and females and between employees over and under 18 years of age. The sex and age distribution of the operatives are as recorded for the week ended 14th October, 1933. This table relates to all firms in the trade concerned.

The number of the outworkers reported as at work on two dates in the year are shown for those trades in which such workpeople are employed.

(B) The number of Operatives at work in a specified week in each month of 1933. This table relates only to firms whose returns covered a period of twelve months ended in December, 1933.

*Table VII.*—The values and (where available) the quantities of the secondary output of the trade concerned, i.e., all goods manufactured or work done other than those included in Table II as "principal products".

*Table VIII.*—For a limited number of trades, particulars are given in this table of the quantity and cost of important classes of

materials purchased and used. These details are available only for the year 1933.

Separate particulars of the quantity and cost of fuel and electricity consumed were not ascertained. The cost of these items is, however, included in the total cost of materials used.

The numbering given above has been followed throughout the trade tables, unless otherwise stated in the introductory notes thereto.

**7. Instructions for making Returns.**—The following notes explain the meanings of the terms used in the tables and outline the general instructions given to firms as to the manner in which their returns were to be completed.

(i) **Period covered.**—Firms were required to make returns for the calendar year 1933, but if the calendar year was not their year of account, a return for a business year ending not later than 7th April, 1934, and not earlier than 8th April, 1933, was accepted.

(ii) **Valuation of output.**—The values to be shown were the net selling values of all deliveries of goods (as packed for sale) within the year of return, plus the book value of stocks at the end and less that of stocks at the beginning of the year. In determining the net selling value, firms were instructed to deduct from the amounts charged to customers such items as discounts, payments to transport firms, railway companies, etc., for carriage outwards, and allowances for returnable cases, etc. Where separate returns were made for different departments of the same firm, and goods produced in one department were used in another department in the production of more finished goods, such goods were required to be included in the output of the first (producing) department, and in the materials of the second (using) department, at the value at which they were transferred in the firm's books.

(iii) **Valuation of work done by firms working "on commission", etc.**—Firms working "on commission" or "for the trade" on materials given out to them by other firms were required to state, as the value of their output, only the amounts received by them for the work, less discounts and payments to transport firms, railway companies, etc., for carriage outwards, and to exclude the value of the materials supplied to them by the firms for which the work was done. Where the work was done on goods supplied by manufacturing firms, its value is included in the final selling value of the goods as recorded by those firms. In the case of goods made on commission for merchants or other persons who made no returns to the Inquiry, the selling value of the goods has escaped record.

(iv) **Distinction between "Goods made for sale" and "Total make."**—The output recorded as "made for sale"

represents goods in the form in which they were sold during the year of account or held in stock at the end of the year. Where goods were used for further manufacturing purposes in the establishments in which they were made, the output for sale falls short of the total quantities made. For certain classes of products a return of total make was required in addition to that of the output for sale and this additional information is shown separately.

(v) Work in progress at beginning or end of year.—In order to determine the output properly attributable to the year covered by their returns, firms engaged in certain industries were required to state the value of work in progress at the beginning and end of that year. If the statement of output included any goods which were in course of construction at the beginning of the year the value of the work done in the previous year was estimated, and returned separately; similarly, the value of goods in course of construction at the end of the year was estimated and returned separately. Allowance for the difference in these aggregates has been made where necessary.

(vi) Exclusion of merchanting.—Where firms, in addition to their manufacturing business, also bought goods and re-sold them in the same condition as that in which they were purchased, they were instructed to omit such goods from their statements of output and of materials, and to exclude from their statements of persons employed those members of their staff who were wholly or mainly required in connection with their merchanting business.

(vii) Materials.—The total "cost of materials used" was required to include all raw and other materials purchased and used in the production of the output recorded in the firm's return; all fuel, oil, gas and electricity purchased; packing and workshop materials; and materials for repairs to the firm's own buildings or plant carried out by their own workpeople. The book value of stocks of materials at the beginning of the year was included and that of stocks at the end of the year deducted from the total purchases in the year. The figure was not to include wages, salaries, rent, rates, insurance, depreciation, and similar charges, or the cost of new machinery and plant. Where separate returns were made for different departments of the same firm, goods produced in one department and used in another department were required to be treated as purchased by the second (using) department, and included in that department's total cost of materials at the amount credited to the producing department. Firms working on commission or for the trade were instructed to return, as materials, only goods which they themselves purchased and

used, and not the goods given out to them by the firms for which they worked.

The particulars for 1933 in respect of special classes of materials represent the total purchases in the year, adjusted for stock variations in the manner described in the previous paragraph.

(viii) Work given out.—Firms giving out work to other firms were requested to state the aggregate amount paid to such firms for work done in the year. The amount thus returned was not to include the cost of any items accounted for under the heading of "Materials". This information, which is believed to be complete, was furnished voluntarily by manufacturers at the 1933 Inquiry, as the Import Duties Act does not provide for a compulsory return of such payments.

(ix) Net output.—The net output of a trade is the figure which results from deducting the aggregate of the "Cost of materials used" and amount paid for "Work given out" from the value of the gross output. This figure represents the value added to materials by the industrial processes and, after allowance for a sum sufficient to cover the depreciation of plant and machinery, constitutes the fund from which wages, salaries, rent, royalties, rates and taxes, advertisement and selling expenses, and all other similar charges have to be provided, as well as profits.

(x) Persons employed.—Firms were required to classify persons employed by them under the two headings of (i) Operatives (wage-earners), and (ii) Administrative, technical and clerical staff. The numbers of "Operatives" relate to all wage-earners (including foremen, van and lorry drivers and warehousemen) employed by the firm in or about the factory or works, or in outside work of construction or repair, and "Administrative, technical and clerical staff" to the office and management staff (i.e., working proprietors, managing directors, managers, designers, salesmen, travellers, etc.), all clerks, typists and other persons engaged primarily in office work being recorded under this heading and not as operatives. Where outworkers were employed, the number of these was recorded separately and not included in the number of operatives. Persons required wholly or mainly in connection with any merchanting business carried on were to be excluded.

The particulars required related to the persons employed (i.e., on the pay sheets) in certain specified weeks, with the proviso that, in the event of a strike or lock-out, holiday or special cessation of work in any of these weeks, the nearest ordinary week (of which the ending date should be stated) was to be taken.

## INTRODUCTION

Firms were required to state :—

(a) The numbers employed in the week ending 14th October, 1933 (or 15th October, 1932, if the return covered a period ended before 14th October, 1933), divided under the two main headings defined above, and also according to their sex and to their age (as over and under 18 years of age).

(b) The number of operatives actually at work in the specified week (one of the middle weeks) in each month of the period covered by the return.

(xi) Outworkers.—In those trades employing outworkers (i.e., workpeople doing work off the firm's premises on materials supplied by the firm) particulars were required of the number of outworkers employed at two dates in the year covered by the return, viz., at or about 1st February and 1st August, 1933.

## Appendix I

## LIST OF TRADES COVERED BY THE IMPORT DUTIES ACT INQUIRY (1933)

## PART I

*Textile Trades:*

Cotton (Spinning).  
Cotton (Weaving).  
Woollen and Worsted.  
Silk and Artificial Silk.  
Linen and Hemp.  
Jute.  
Hosiery.  
Textile Finishing.  
Lace.  
Rope, Twine and Net.  
Canvas Goods and Sack.  
Asbestos Goods and Engine and Boiler Packing.  
Elastic Webbing.  
Coir Fibre, Horsehair and Feather.  
Roofing Felts.

*Leather and Clothing Trades:*

Leather (Tanning and Dressing).  
Leather Goods.  
Boot and Shoe.  
Hat and Cap.  
Glove.  
Umbrella and Walking Stick.

*Food Trades:*

Grain Milling.  
Biscuit.  
Preserved Foods.  
Butter, Cheese, Condensed Milk and Margarine.  
Cattle, Dog and Poultry Foods.

*Chemical and Allied Trades:*

Chemicals, Dyestuffs and Drugs.  
Fertiliser, Disinfectant, Glue, etc.  
Soap, Candle, and Perfumery.  
Paint, Colour and Varnish.  
Seed Crushing.  
Oil and Tallow.  
Explosives and Fireworks.  
Starch and Polishers.  
Ink, Gum and Sealing Wax.

*Miscellaneous Trades:*

Rubber.  
Fancy Articles.  
Linoleum and Oilcloth.  
Coke and By-Products.  
Brush.  
Games and Toys.  
Sports Requisites.  
Manufactured Abrasives.  
Incandescent Mantles.



## PART II

*Iron and Steel Trades:*

Iron and Steel (Blast Furnaces).  
Iron and Steel (Smelting and Rolling).  
Iron and Steel (Foundries).  
Tinplate.  
Hardware, Hollow-ware, Metallic Furniture and Sheet Metal.  
Chain, Nail, Screw and Miscellaneous Forgings.  
Wrought Iron and Steel Tube.  
Wire.  
Tool and Implement.  
Cutlery.  
Needle, Pin, Fish-hook and Metal Smallwares.  
Small Arms.

*Engineering and Vehicles Trades:*

Mechanical Engineering.  
Electrical Engineering.  
Cycle.  
Aircraft.  
Railway Carriage and Wagon Building

*Non-Ferrous Metals Trades:*

Copper and Brass (Smelting, Rolling, etc.).  
Lead, Tin, Aluminium and other Non-Ferrous Metals (Smelting, Rolling, etc.).  
Gold and Silver Refining.  
Finished Brass.  
Plate and Jewellery.

*Paper Trades:*

Paper.  
Wallpaper.

*Timber, Clay and Building Materials Trades:*

Timber (Sawmilling).  
Brick and Fireclay.  
China and Earthenware.  
Glass.  
Cement.  
Building Materials.

**TEXTILE TRADES**  
**GENERAL TABLES**

Table I.—General summary

Trade (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average numbers of persons em- ployed (except out- workers) (5)	Net output per person em- ployed (6)
	£'000	£'000	£'000	No.	£
Cotton (Spinning) ...	1933	67,575	47,986	19,589	183,779
	1930†	78,624	58,796	19,328	190,736
Cotton (Weaving) ...	1933	65,126	45,074	20,052	175,985
	1930†	73,913	51,848	22,065	188,699
Woollen and Worsted	1933	101,897	62,984	39,913	233,785
	1930	103,598	66,134	37,464	223,596
Silk and Artificial Silk	1933	32,690	17,725	11,815*	67,739
	1930	28,730	16,436	10,644*	69,330
Linen and Hemp ...	1933	19,877	13,556	6,121	65,777
	1930	22,673	15,958	6,715	71,537
Jute ...	1933	7,155	4,651	2,504	22,547
	1930	9,605	6,965	2,640	28,727
Hosiery ...	1933	38,831	22,220	16,611	110,867
	1930†	39,444	23,090	16,354	105,410
Textile Finishing ...	1933	29,375	11,879	17,496	97,374
	1930	30,379	11,132	19,247	105,254
Lace ...	1933	4,515	2,457	2,060	12,731
	1930	5,294	3,044	2,250	13,448
Rope, Twine and Net	1933	4,861	2,881	1,980	14,244
	1930	6,799	4,506	2,293	16,441
Canvas Goods and Sack ...	1933	3,897	2,899	998	6,481
	1930	4,961	3,717	1,244	7,009
Asbestos Goods and Engine and Boiler Packing ...	1933	3,398	1,407	1,991	6,917
	1930†	4,460	2,217	2,243	7,901
Elastic Webbing ...	1933	1,930	978	952	6,540
	1930	1,770	868	902	5,799
Coir Fibre, Horsehair and Feather ...	1933	1,478	813	665	3,456
	1930†	1,933	1,229	704	3,781
Roofing Felts ...	1933	1,056	586	470	1,396
	1930	1,034	593	441	1,227
Unclassified trades ... (Northern Ireland)	1933	259	154	105	745
	1930	259	154	105	745
TOTAL ...	1933	383,461	237,094	143,217*	1,009,618
	1930	413,476	266,737	145,139*	1,045,140*

\* Excluding Excise duty estimated as £3,150,000 in 1933 and £1,600,000 in 1930.

† The figures for 1930 relate to Great Britain only. Owing to the risk of disclosure of information relating to individual firms, the particulars for Northern Ireland are included with those for "Unclassified trades (Northern Ireland)."

Table II.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Cotton yarns ... ..	79,822	68,321	89,883	113	127
Cotton manufactures (except lace and ropes, twine and nets) ... ..	71,420	61,862	78,337	110	165
Woollen and worsted ... ..	100,991	98,559	128,735	127	130
Silk and artificial silk ... ..	29,764	35,960	53,708	180	41
Linen and hemp ... ..	21,235	17,907	22,860	108	118
Jute ... ..	8,982	6,858	9,324	104	126
Hosiery ... ..	39,640	39,176	53,062	134	96
Textile finishing ... ..	31,023	29,747	35,264	114	128
Lace ... ..	4,664	3,912	4,244	91	112
Ropes, twine and nets ... ..	6,233	4,617	6,177	99	90
Canvas goods and sacks ... ..	5,080	4,064	4,619	91	103
Asbestos goods and engine and boiler packing ... ..	4,473	3,354	3,758	84	59
Elastic webbing ... ..	1,210	1,392	1,709	141	103
Coir fibre, horsehair and feathers ... ..	1,883	1,421	1,851	98	92
Roofing felts ... ..	952	858	978	103	83
Unclassified output (Northern Ireland)	259	—	—	—	—
<b>TOTAL ... ..</b>	<b>407,631</b>	<b>378,008</b>	<b>494,509</b>	<b>121</b>	<b>123</b>

Table III.—Employment

A.—AVERAGE NUMBERS (EXCLUDING OUTWORKERS) EMPLOYED IN  
1933 AND 1930

(i) Operatives

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Cotton	1933	8,088	68,008	16,009	109,765	24,097	153,676	177,773
(Spinning)	1930*	11,675	72,042	22,417	112,228	34,092	150,178	184,270
Cotton	1933	3,485	63,620	12,318	115,678	15,803	153,495	169,298
(Weaving)	1930*	5,035	57,314	17,436	124,753	22,471	159,596	182,067
Woolen and	1933	9,487	89,303	19,713	131,178	29,200	191,281	220,481
Worsted ...	1930	10,902	86,676	22,700	129,052	33,602	182,126	215,728
Silk and Arti-	1933	1,768	24,206	7,019	38,497	8,787	53,916	62,703
ficial Silk...	1930	1,958	26,555	8,616	37,779	10,574	53,760	64,334
Linen and	1933	2,012	15,251	7,762	47,196	9,774	52,673	62,447
Hemp ...	1930	2,558	17,217	10,393	50,733	12,951	54,999	67,950
Jute ...	1933	1,369	7,569	1,872	14,058	3,241	18,386	21,627
	1930	1,879	9,140	3,253	18,765	5,132	22,773	27,905
Hosiery ...	1933	2,277	19,436	16,484	81,931	18,761	82,606	101,367
	1930*	2,307	17,349	18,273	78,993	20,580	75,762	96,342
Textile	1933	5,787	67,145	4,069	19,935	9,856	77,224	87,080
Finishing...	1930	7,424	73,204	4,524	20,818	11,948	82,074	94,022
Lace ...	1933	340	4,795	1,019	6,605	1,359	10,041	11,400
	1930	447	4,853	1,503	7,188	1,950	10,091	12,041
Rope, Twine	1933	1,022	4,325	2,288	8,616	3,310	9,631	12,941
and Net ...	1930	1,157	4,866	2,842	10,228	3,999	11,095	15,094
Canvas Goods	1933	158	1,617	1,009	3,914	1,167	4,364	5,531
and Sack...	1930	171	1,812	1,106	4,223	1,277	4,758	6,035
Asbestos								
Goods and	1933	373	3,830	250	1,656	623	4,863	5,486
Engine and	1930*	359	4,660	231	1,772	590	5,842	6,432
Boiler								
Packing ...								
Elastic Web-	1933	310	1,822	1,074	4,261	1,384	4,699	6,083
bing ...	1930	307	1,627	1,181	3,752	1,488	3,891	5,379
Coir Fibre,	1933	146	1,447	361	1,594	507	2,534	3,041
Horsehair	1930*	223	1,562	435	1,831	658	2,735	3,393
and Feather								
Roofing Felts	1933	51	885	11	135	62	958	1,020
	1930	71	794	5	125	76	843	919
Unclassified								
trades	1930	19	263	74	415	93	585	678
(Northern								
Ireland) ...								
TOTAL ...	1933	36,673	363,259	91,258	585,019	127,931	820,347	948,278
	1930	46,492	379,934	114,989	602,655	161,481	821,108	982,589

\* See note (†) to Table I

(ii) *Administrative, technical and clerical staff*

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Cotton (Spinning) {	1933	234	4,885	165	1,121	399	5,607	6,006
	1930*	343	5,467	144	999	487	5,979	6,466
Cotton (Weaving) {	1933	242	5,257	191	1,430	433	6,254	6,687
	1930*	365	5,408	191	1,224	556	6,076	6,632
Woolen and Worsted ... {	1933	453	10,129	429	3,175	882	12,422	13,304
	1930	571	10,083	353	2,785	924	11,944	12,868
Silk and Artificial Silk... {	1933	160	3,638	178	1,398	338	4,698	5,036
	1930	262	3,906	232	1,590	494	5,002	5,496
Linen and Hemp ... {	1933	104	2,371	77	959	181	3,149	3,330
	1930	173	2,582	99	1,005	272	3,315	3,587
Jute ... {	1933	50	716	12	204	62	858	920
	1930	84	682	19	140	103	719	822
Hosiery ... {	1933	438	5,693	622	3,807	1,060	8,440	9,500
	1930*	549	5,575	640	3,493	1,189	7,879	9,068
Textile Finishing ... {	1933	412	7,737	416	2,557	828	9,466	10,294
	1930	495	8,728	374	2,504	869	10,363	11,232
Lace ... {	1933	37	865	67	466	104	1,227	1,331
	1930	41	916	67	491	108	1,299	1,407
Rope, Twine and Net ... {	1933	48	871	42	432	90	1,213	1,303
	1930	71	916	67	431	138	1,209	1,347
Canvas Goods and Sack... {	1933	40	651	41	299	81	869	950
	1930	55	640	47	334	102	872	974
Asbestos Goods and Engine and Boiler Packing ... {	1933	66	915	65	516	131	1,300	1,431
	1930*	125	933	120	536	245	1,224	1,469
Elastic Webbing ... {	1933	11	265	20	192	31	426	457
	1930	11	281	25	139	36	384	420
Coir Fibre, Horsehair and Feather {	1933	13	281	19	134	32	383	415
	1930*	18	266	15	122	33	355	388
Roofing Felts {	1933	21	293	2	83	23	353	376
	1930	15	230	4	78	19	289	308
Unclassified trades (Northern Ireland) ... {	1930	2	45	2	22	4	63	67
TOTAL ... {	1933	2,329	44,567	2,346	16,773	4,675	56,665	61,340
	1930	3,180	46,658	2,399	15,893	5,579	56,972	62,551

\* See note (†) to Table I

## B.—AVERAGE NUMBERS OF OUTWORKERS EMPLOYED

Trade	1933			1930		
	Males	Females	Total	Males	Females	Total
Silk and Artificial Silk...	13	59	72	37	90	127
Linen and Hemp ...	104	1,372	1,476	290	2,687	2,977
Hosiery ... ..	70	869	939	81	1,274	1,355
Lace ... ..	1	742	743	2	814	816
Rope, Twine and Net ...	33	542	575	6	551	557
Canvas Goods and Sack	10	28	38	30	51	81
Coir Fibre, Horsehair and Feathers... ..	10	1	11	13	29	42
<b>TOTAL ... ..</b>	<b>241</b>	<b>3,613</b>	<b>3,854</b>	<b>459</b>	<b>5,496</b>	<b>5,955</b>

Table IV

A.—RETURNS COVERING THE TWELVE MONTHS ENDED DECEMBER,  
• 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Per cent. of total
Cotton (Spinning)	183,779	86,394	47	190,736	90,109	47
Cotton (Weaving)	175,985	87,314	50	188,699	92,425	49
Woollen and Worsted ...	233,785	105,831	45	227,736	108,270	48
Silk and Artificial Silk ... ..	67,739	45,041	66	69,830	36,175	52
Linen and Hemp	65,777	28,952	44	16,077	6,254	39
Jute ... ..	22,547	6,169	27	28,727	16,014	56
Hosiery ... ..	110,867	73,307	66	105,410	65,661	62
Textile Finishing	97,374	57,765	59	99,613	55,201	55
Lace ... ..	12,731	8,318	65	13,448	7,914	59
Rope, Twine and Net ... ..	14,244	6,805	48	14,191	6,810	48
Canvas Goods and Sack ...	6,481	3,541	55	6,791	3,730	55
Asbestos Goods and Engine and Boiler Packing ...	6,917	2,154	31	7,901	3,677	47
Elastic Webbing	6,540	5,392	82	5,799	4,176	72
Coir Fibre, Horse- hair and Feather ... ..	3,456	2,241	65	3,781	2,521	67
Roofing Felts ...	1,396	788	56	964	562	58
<b>TOTAL ... ..</b>	<b>1,009,618</b>	<b>520,012</b>	<b>52</b>	<b>979,703</b>	<b>499,499</b>	<b>51</b>

\* Great Britain.

**B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930**

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ... ..	479,791	525,551
February ... ..	479,111	514,766
March ... ..	476,497	506,301
April* ... ..	466,569	500,403
May ... ..	476,108	464,997
June ... ..	477,628	453,193
July ... ..	482,591	451,791
August ... ..	489,587	442,332
September ... ..	495,311	439,734
October ... ..	504,545	447,905
November ... ..	510,509	449,865
December ... ..	507,898	445,351
<b>AVERAGE FOR THE TWELVE MONTHS ...</b>	<b>487,179</b>	<b>470,182</b>

\* Great Britain. The average number of operatives employed by *all* firms in Northern Ireland in 1930 was 61,806.

### Amendments of certain aggregates for 1930

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production. In cases where it has been necessary to revise the 1930 particulars, owing to the exclusion of certain groups of firms from the 1933 Inquiry or to changes in the classification of groups of products, indications are given in the notes preceding Table I of the trades affected or in a footnote to Table II.

Woolen and Worsted Trade:—

Woolen tissues, all wool:—

Weighing 16 ozs. and over to the square yard

Woolen tissues of wool mixed with other materials, if known as "woollens":—

Weighing 16 ozs. and over to the square yard

Weighing 12 and under 16 ozs. to the square yard

Weighing 8 and under 12 ozs. to the square yard

Weighing under 8 ozs. to the square yard

**GENERAL SUMMARY**

**7**

**Silk and Artificial Silk Trade:—**

- Piece-goods of silk mixed with other materials, if known as "silks"
- Other tissues of artificial silk mixed with other materials

**Hosiery Trade:—**

- Stockings and hose, including half-hose and children's socks:—
  - Of silk
  - Of materials not separately distinguished

**Canvas Goods and Sack Trade:—**

- New sacks and bags:—
  - Of jute
  - Of cotton

**Elastic Webbing Trade:—**

- Elastic cords and braids



**THE COTTON TRADE****Introductory**

The Cotton Trade is dealt with in two sections, viz., Spinning (including doubling and the manufacture of sewing cotton) and Weaving. Spinning includes the spinning departments of weaving firms, separate returns being made in respect of these departments for both years. Weaving comprises firms whose principal output in 1933, measured by value, consisted of woven goods of cotton. Firms manufacturing goods of artificial silk as well as of cotton are included in the Silk and Artificial Silk Trade if the weaving of artificial silk was the more important section of their business. With a view to securing comparability of the figures for the two years, the results for 1930 published in the Final Report on the Fourth Census of Production in respect of the Cotton Weaving Trade have been adjusted by transferring to the Silk and Artificial Silk Trade the returns made by these firms. The adjustments affect Tables I and VI to VIII inclusive in the Cotton Weaving Trade. The principal particulars for this group of firms are given below.

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,750	5,718
Cost of materials used ... ..	"	5,843	4,210
Amount paid for work given out ... ..	"	71	62
Net output ... ..	"	1,836	1,446
Average number of persons employed ... ..	No.	12,683	9,954
Net output per person employed ... ..	£	145	145

## COTTON SPINNING

*Note.*—The figures for 1930 relate to Great Britain only, particulars of the small production in Northern Ireland not being available for that year. Comparison between the two years is not affected by the omission to any appreciable extent.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	67,575	78,624
Cost of materials used ... ..	"	47,701	58,584
Amount paid for work given out ... ..	"	285	• 212
Net output ... ..	"	19,589	19,828
Average number of persons employed ... ..	No.	183,779	190,736
Net output per person employed ... ..	£	107	104

Table II A.—Total make of single cotton yarn

Single cotton yarn	1933	1930
	Th. lbs.	Th. lbs.
Counts spun:—		
Up to 20's ... ..	465,298	} 821,600†
Over 20's and up to 40's ... ..	483,728*	
" 40's " " 56's ... ..	112,610	
" 56's " " 80's ... ..	78,242	
" 80's " " 120's ... ..	36,616	
" 120's ... ..	3,129	36,835
		3,504
<b>TOTAL</b> ... ..	<b>1,179,623</b>	<b>1,047,103</b>

\* Including 5,150,000 lbs. returned on schedules for other trades.

† Including 1,048,000 lbs. returned on schedules for other trades.

The average weight of single yarn produced in 1933 per head of the persons employed in the Cotton Spinning Trade was 6,391 lbs., an increase of 907 lbs., or about 16½ per cent., over the corresponding average for 1930. This large increase may be associated with the greater amount of short time worked in 1930 and with the proportionately larger volume of coarse counts spun in 1933, while the relative decline in the employment of young persons (see Table VI) may also have been a contributory factor.

Firms that made returns on schedules for the Cotton Spinning Trade consumed, in 1933, an aggregate of 1,286 million lbs. of raw cotton (Table VIII), and produced 1,174½ million lbs. of single yarn. Of this output, about 87 million lbs. consisted of waste yarns, leaving 1,087½ million lbs. as the yield of yarn from the recorded quantity of raw cotton used. The proportion of yarn produced to raw cotton used was thus about 84½ per cent. in 1933. A similar calculation cannot be made for 1930 as spinners were not required to state their consumption of raw cotton for that year.

**Table II B.—Consumption of Yarn**

Particulars of the amounts of cotton yarn returned as consumed in certain trades in 1933 are given below.

Trade	Quantity	Cost
	Th. lbs.	£'000
Cotton Trade (Weaving) ... ..	802,881	35,633
Woollen and Worsted Trades ... ..	26,223	1,378
Hosiery Trade ... ..	60,041	3,865
Lace Trade ... ..	13,724	1,051
Elastic Webbing Trade ... ..	4,648	262
Incandescent Mantles Trade ... ..	37	3
<b>TOTAL</b> ... ..	<b>907,554</b>	<b>42,192</b>

The amounts of yarn used in the Silk and Artificial Silk Trade and in the manufacture of sewing cotton, ropes and twine, etc., were not ascertained. The total quantity shown above represents about 87 per cent. of the aggregate weight of single cotton yarn available for consumption in the United Kingdom in 1933 (see Table V).

**Table II C.—Goods made for sale or on commission**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<i>Goods made for sale</i>	Th. lbs.	£'000	Th. lbs.	£'000
Cotton yarns, including sewing cotton :—				
Single ... ..	1,132,293	48,774	} 1,167,931	76,264
Doubled ... ..	167,656	15,869		
Cotton waste, unmanufactured ...	234,576	2,102	202,589	2,342
Cotton yarns, reeled, wound, warped, etc. ... ..	25,168	1,576	{ 12,947	1,160
			{ ...	56
<b>TOTAL—Goods made for sale</b> ...	...	68,321	...	79,822
<i>Goods made on commission</i>		Amount received		Amount received
Cotton yarns, including sewing cotton :—				
Single ... ..	1,079	13	} 9,639	248
Doubled ... ..	13,333	229		
Cotton waste, unmanufactured ...	11	*	22	1
Cotton yarns, reeled, wound, warped, etc. ... ..	38,696	303	{ 13,618	159
			{ ...	30
<b>TOTAL—Work done on commission</b> ... ..	...	545	...	438
<b>TOTAL—Principal products</b> ...	...	68,866	...	80,260

\* Under £500.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. lbs.	£'000	Th. lbs.	£'000
<i>Goods made for sale</i>				
Cotton yarns, including sewing cotton:—				
Single ... ..	1,455	80	} 9,120	• 690
Doubled ... ..	1,744	242		
Cotton waste, unmanufactured ...	34,447	355	28,589	399
Cotton yarns, reeled, wound, warped, etc. ... ..	15,659	881	{ 8,311	608
			...	8
TOTAL—Goods made for sale ...	...	1,558	...	1,705
<i>Goods made on commission</i>				
Cotton yarns, reeled, wound, warped, etc. ... ..	24,006	191	{ 6,928	96
			...	26
TOTAL—Work done on commission ... ..	...	191	...	122

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	Pence per lb.	Pence per lb.	Per cent.	Pence per lb.	Pence per lb.	Pence per lb.	Pence per lb.
Cotton yarns, including sewing cotton:—							
Single ...	10·34	...	...	17·35*	25·42*	10·04*	16·89*
Doubled ...	22·72	...	...	63·22†	82·73†	49·89†	60·11†
Total ...	11·93	15·67	76·1	22·73‡	32·05‡	21·91‡	18·75‡
Cotton waste, unmanufactured ... ..	2·15	2·78	77·3	3·22	3·88	3·38	4·92
Cotton yarns, reeled, wound, warped, etc. ...	15·03	21·50	69·9	§	§	· §	· §

\* Cotton yarns, grey, unbleached.

† Finished thread of cotton, for sewing, crocheting, etc.

‡ See notes (\*) and (†) above.

§ Not separately distinguished.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Cotton yarns (including sewing cotton) single or doubled ... ..	76,264	64,643	84,911	111	128
Cotton waste, unmanu- factured ... ..	2,342	2,102	2,718	116	111
Cotton yarns, reeled, wound, warped, etc.	1,216	1,576	2,254	185	79
<b>TOTAL ... ..</b>	<b>79,822</b>	<b>68,321</b>	<b>89,883</b>	<b>113</b>	<b>127</b>

Table V.—Production in relation to Exports and Imports

Counts of yarns	Produ- tion	Exports	Propor- tion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods	
					Th. lbs.	Per cent.	Th. lbs.
Up to 40's ...	1933	949,026	71,802	7·6	1,843	879,067	99·8
	1930	821,600	65,901	8·0	9,922	765,621	98·7
Over 40's and up to 80's ...	1933	190,852	45,047	23·6	115	145,920	99·9
	1930	185,164	50,679	27·4	1,697	136,182	98·7
Over 80's and up to 120's ...	1933	36,616	16,456	44·9	2	20,162	100·0
	1930	36,835	17,819	48·4	57	19,073	99·7
Over 120's ...	1933	3,129	1,807	57·7	11	1,333	99·2
	1930	3,504	2,589	73·9	9	924	99·0
<b>TOTAL ... ..</b>	1933	<b>1,179,623</b>	<b>135,112</b>	<b>11·4</b>	<b>1,971</b>	<b>1,046,482</b>	<b>99·8</b>
	1930	<b>1,047,103</b>	<b>136,988</b>	<b>13·1</b>	<b>11,685</b>	<b>921,800</b>	<b>98·7</b>

The following tables relate only to firms whose returns were made on schedules for the Cotton Spinning Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	8,088	68,008	16,009	109,765	24,097	177,773
	1930	11,675	72,042	22,417	112,228	34,092	184,270
Administrative, technical and clerical staff*	1933	234	4,885	165	1,121	399	6,006
	1930	343	5,467	144	999	487	6,466
TOTAL ...	1933	8,322	72,893	16,174	110,886	24,496	183,779
	1930	12,018	77,509	22,561	113,227	34,579	190,736

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	85,189	July 15 ...	82,997
February 18 ...	83,418	August 19 ...	83,608
March 18 ...	81,661	September 16 ...	85,246
April 15 ...	75,711	October 14 ...	85,817
May 13 ...	83,047	November 18 ...	86,791
June 17 ...	80,828	December 16 ...	85,820
AVERAGE FOR THE TWELVE MONTHS...			83,344

**Table VII.—Other output of the Cotton Spinning Trade**

The value of the gross output of the firms whose returns were made on schedules for the Cotton Spinning Trade was £67,575,000 in 1933 and £78,624,000 in 1930, of which £67,117,000 in 1933 and £78,433,000 in 1930 consisted of products included in Table II.C. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. lbs.	£'000		£'000
Yarns, spun, doubled or otherwise worked :—				
Of artificial silk ... ..	1,094	204	} ...	75
Of artificial silk mixed with other materials ... ..	1,038	163		
Woollen and worsted yarns ... ..	104	18	...	8
Other goods made ... ..	...	42	...	91
Work done on commission (bleaching, dyeing, winding, warping, etc.) ... ..	...	26*	...	17*
<b>TOTAL ... ..</b>	...	458	...	191

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. lbs.	£'000
Raw cotton ... ..	1,285,978	33,211
All other materials used (including fuel) ... ..	...	14,490
<b>TOTAL ... ..</b>	...	47,701

## COTTON WEAVING

*Note.*—The figures for 1930 relate to Great Britain only, particulars of the small production in Northern Ireland not being available for that year. Comparison between the two years is not affected by the omission to any appreciable extent.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	65,126	73,913
Cost of materials used ... ..	"	44,553	51,564
Amount paid for work given out ... ..	"	521	284
Net output ... ..	"	20,052	22,065
Average number of persons employed ... ..	No.	175,985	188,699
Net output per person employed ... ..	£	114	117

Table II.—Output of principal products

Kind of goods	Unit	1933		1930	
		Quantity	Value	Quantity	Value
			£'000		£'000
<i>Piece-goods made for sale:—</i>					
Unbleached, grey†	Th. lin. yds.	2,782,121	42,902	2,812,840	53,515
	Th. sq. yds.	3,098,622		3,054,585	
	Th. cwts.	6,063		5,895	
Coloured cottons‡	Th. lin. yds.	326,479	8,473	289,833	9,092
	Th. sq. yds.	336,573		272,836	
	Th. cwts.	796		643	
Woven from bleached yarn	Th. lin. yds.	3,967	134	16,299	610
	Th. sq. yds.	3,204		17,520	
	Th. cwts.	12		68	
File fabrics ...	Th. lin. yds.	25,486	995	35,378	1,547
	Th. sq. yds.	20,081		28,771	
	Th. cwts.	96		121	
TOTAL—Piece-goods made for sale ...	Th. lin. yds.	3,138,053	52,504	3,154,350	64,764
	Th. sq. yds.	3,458,480		3,373,712	
	Th. cwts.	6,967		6,727	
<i>Piece-goods made on commission:—</i>					
Unbleached, grey†	Th. lin. yds.	9,519	58§	6,823	55§
	Th. sq. yds.	9,744		6,720	
	Th. cwts.	28		16	
Coloured cottons‡	Th. lin. yds.	35,536	211§	18,148	127§
	Th. sq. yds.	35,868		18,317	
	Th. cwts.	94		47	
TOTAL—Piece-goods made on commission	Th. lin. yds.	45,055	269§	24,971	182§
	Th. sq. yds.	45,612		25,037	
	Th. cwts.	122		63	



Kind of goods	Unit	1933		1930	
		Quantity	Value	Quantity	Value
<i>Other cotton manufactures :—</i>			£'000		£'000
Machinery belting:—					
Of cotton ...	Th. cwts.	12·0	140	15·2	170
Of woven hair ...	„	11·0	170	18·0	317
Of other and unclassified textile materials	„	9·9	102	...	50 §§
Made-up cotton goods ¶:—					
Handkerchiefs	Th. doz.	3,881	} 351		
	Th. cwts.	9			
Quilts, counterpanes and other bed coverings ...	Th. doz.	508	} 864	...	} 1,117**
	Th. cwts.	100			
Towels of all descriptions	Th. doz.	4,822	} 1,868	...	
	Th. cwts.	249			
Other made-up cotton goods ...	...	...	722		
<b>TOTAL—Made-up cotton goods ¶ ...</b>	...	...	3,805	...	1,117**
Cotton smallwares, including ribbons, trimmings, tapes, webbings, etc. ...	...	...	1,507	...	1,719
Cotton wool and wadding ...	...	...	506	...	518
Manufactured cleaning waste ...	Th. lbs.	34,450	325	29,877	404
Surgical bandages and dressings ††	...	...	1,024	...	904
Other cotton manufactures ...	...	...	1,510	...	1,275 ††
<b>TOTAL—Other cotton manufactures</b>	...	...	9,089	...	6,474 ††
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	...	61,862	...	71,420 ††

\* Not including knitted fabric returned as such, for which see the Hosiery Trade. (Page 70.)

† Unbleached, grey (including bordered grey dhooties in which the proportion of coloured threads did not exceed 5 per cent. of the total).

‡ Manufactured wholly or in part of dyed yarn, and commonly known as coloured cottons.

§ Amount received.

|| Not recorded separately.

§§ Of cotton and woven hair, not separately distinguished.

¶ The particulars shown for "Made-up cotton goods" for 1933 represent the output of firms engaged in weaving textile fabrics; similar goods made up by non-weavers are not included. The output of handkerchiefs in particular is known to be seriously defective.

\*\* So far as recorded separately.

†† As returned by firms in the Cotton Weaving Trade.

‡‡ In addition £26,069 was returned on schedules for trades not covered by the

The following output recorded by firms whose returns were made on schedules for other trades is included in the above table :—

Kind of goods	Unit	1933		1930			
		Quantity	Value	Quantity	Value		
Piece-goods made for sale :—			£'000		£'000		
Unbleached, grey	Th. lin. yds. Th. sq. yds. Th. cwts.	35,632 35,965 109	1,015	45,013 47,796 108	1,636 •		
Coloured cottons	Th. lin. yds. Th. sq. yds. Th. cwts.	12,486 12,992 33		540		4,899 5,024 12	238
Woven from bleached yarn	Th. lin. yds. Th. sq. yds. Th. cwts.	645 649 3				30	
Pile fabrics	Th. lin. yds. Th. sq. yds. Th. cwts.	3,627 1,435 11	142		240 195 1		
TOTAL—Piece-goods made for sale	Th. lin. yds. Th. sq. yds. Th. cwts.	52,390 51,041 156		1,727	50,935 53,707 124		1,936
Piece-goods made on commission :—							
Unbleached, grey	Th. lin. yds. Th. sq. yds. Th. cwts.	335 461 1	3*		1,321 1,445 3	10*	
Coloured cottons	Th. lin. yds. Th. sq. yds. Th. cwts.	292 403 1		2*	310 381 2		3*
TOTAL—Piece-goods made on commission ...	Th. lin. yds. Th. sq. yds. Th. cwts.	627 864 2			5*		
Other cotton manufactures :—							
Machinery belting:—							
Of cotton ...	Th. cwts.	2.8	29	4.3	43		
Of woven hair ...	Th. cwts.	1.3	18	—	—		
Of other and unclassified textile materials	Th. cwts.	0.3	12	...	29		
Made-up cotton goods :—							
Handkerchiefs	Th. doz. Th. cwts.	3,408 8.2	316	†	†		
Quilts, counterpanes and other bed coverings ...	Th. doz. Th. cwts.	125 6.6		69	...	7	
Towels of all descriptions	Th. doz. Th. cwts.	180 3.4	38		...		7
Other made-up cotton goods...	...	...		412	†	†	
TOTAL—Made-up cotton goods ...	...	...	835	...	7		

Kind of goods	Unit	1933		1930	
		Quantity	Value	Quantity	Value
Cotton smallwares, including trimmings, tapes, ribbons, webbing, etc. ...	...	...	222	...	161
Manufactured cleaning waste ...	Th. lbs.	132	1	—	—
Other cotton manufactures ...	...	...	93	...	278
<b>TOTAL</b> ...	...	...	2,942	...	2,467

\* Amount received.

† Not recorded separately.

**Cotton piece-goods.**—Following the revision of the official Import and Export List, specific headings for the four classes of "Made-up cotton goods" shown in Table II were introduced in the Cotton Weaving schedule for 1933. No such headings were specified in the schedule for 1930, and some manufacturers recorded their output of these goods separately, while others included them under the headings for "Cotton piece-goods". Examination of the individual returns shows that about 285,000 cwts. of made-up goods, valued at £2,200,000, were recorded for 1933 by manufacturers who returned the whole of their output as "Cotton piece-goods" for 1930. Assuming that the piece-goods recorded for 1930 by the firms in question contained the same proportion of made-up goods as was shown in their returns for 1933, the output of made-up goods so included for 1930 may be estimated as 250,000 cwts., value at about £2,500,000. With these adjustments, and consequent amendments to the linear and square yardage figures, making some allowance for those goods being heavier than the average, the aggregate output of piece-goods, including goods made on commission, in the two years was as follows:—

Cotton piece-goods:—	1933	1930
Thousand linear yards ...	3,183,108	3,100,000
Thousand square yards ...	3,504,092	3,320,000
Thousand cwts. ...	7,089	6,540

The heading most affected is that relating to goods woven from bleached yarn, over 80 per cent. of the output of these goods in 1930 being returned by the manufacturers mentioned above.

The quantities of cotton piece-goods bleached, printed or dyed in 1933 were as follows:—

	Th. lin. yds.	Th. sq. yds.
* Cotton piece-goods:—		
Bleached, but not dyed or printed ...	971,327	1,038,412
Dyed, but not printed ...	860,074	881,434
Printed, whether dyed or not	622,647	639,180
<b>TOTAL</b> ...	<b>2,454,048</b>	<b>2,559,026</b>

The total value of piece-goods returned as made for sale in 1933 was £52,504,000 and the selling value of goods made by commission firms, estimated at the same average value, was about £1,100,000; the aggregate value of the total production at manufacturers' works was thus about £53.6 million. Adding the charges for bleaching, dyeing and finishing (£14,032,000), the value of the output of piece-goods as finished was approximately £67.6 million, apart from any addition required in respect of transport or other charges incurred before the goods were finished. The corresponding figure for 1930 was £79.1 million.

**Other cotton manufactures.**—As stated in the previous paragraph, an addition of at least £2,500,000 is probably required to the value shown for 1930 in respect of "Made-up goods of cotton". The particulars shown for the remaining items in Table II are believed to be comparable.

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Unit	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
		Average value		1933 as a percentage of 1930	Average value		Average value	
		1933	1930		1933	1930	1933	1930
							Per cent.	
Cotton piece-goods:—	d. per lin. yd.	3.69	4.57	80.7	3.29	4.39	4.35	7.91
Unbleached grey	d. per sq. yd.	3.31	4.20	78.8	3.13	4.14	4.36	7.49
	£ per cwt.	7.03	9.08	77.4	8.36	10.95	8.03	9.87
Coloured cottons	d. per lin. yd.	6.23	7.53	82.7	5.44	7.33	13.20	12.46
	d. per sq. yd.	6.23	8.00	74.9	6.24	8.46	11.88	11.39
	£ per cwt.	10.65	14.14	75.3	11.69	16.45	12.09	15.97
Woven from bleached yarn	d. per lin. yd.	8.06	8.98	}	†	†	†	†
	d. per sq. yd.	9.98	8.36					
	£ per cwt.	11.30	8.97					
Fine fabrics ...	d. per lin. yd.	9.37	10.50	89.2	14.49	}	19.52	†
	d. per sq. yd.	11.89	12.91	92.1	17.30			
	£ per cwt.	10.33	12.79	80.8	21.39			
Machinery								
belting:—								
Of cotton ...	£ per cwt.	11.75	11.18	105.2	10.45	13.24	11.11	21.20
Of woven hair...	"	15.35	17.61	87.2	11.95	16.50	8.14	15.16
Handkerchiefs ...	"	39.70			25.88	†	26.50	
Quilts, counterpanes and other bed coverings...	"	8.58	†	...	10.40	†	6.86	†
Towels of all descriptions ...	"	7.49			8.71	†	11.66	
Manufactured cleaning waste	d. per lb.	2.26	3.25	69.7	2.97	4.24	4.55	4.34

\* The average values for 1930 and 1933 are not comparable (see page 18).

† Not recorded.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Made for sale :—					
Cotton piece-goods* ...	64,764	52,504	66,484	103	172
Machinery belting ...	537	412	483	90	131
Cotton smallwares ...	1,719	1,507	1,911	111	75
Manufactured cleaning waste ... ..	404	325	466	115	185
Cotton wool and wadding	518	506	642	124	52
Surgical bandages and dressings ... ..	904	1,024	1,296	143	†
Other cotton manufactures	2,392	5,315	6,728	*	*
Total—Made for sale ...	71,238	61,593	78,010	110	165
Piece-goods made on com- mission ... ..	182	269	327	180	196
TOTAL ... ..	71,420	61,862	78,337	110	165

\* See page 18.

† Not recorded separately.

Table V.—Production, Exports and Imports

## A.—PIECE-GOODS

Cotton piece-goods	1933			1930		
	Mill. lin. yds.	Mill. sq. yds.	Th. cwts.	Mill. lin. yds.	Mill. sq. yds.	Th. cwt
Production ... ..	3,183	3,504	7,089	3,100*	3,320*	6,540*
Exports ... ..	2,117	2,031	3,500	2,491	2,407	4,163
Retained imports ...	18	16	64	68	78	283
Available for consumption in United Kingdom	1,084	1,489	3,653	677	991	2,660
Proportion of production exported ... ..	Per cent. 66·5	Per cent. 58·0	Per cent. 49·4	Per cent. 80·4	Per cent. 72·5	Per cent. 63·7
Share of home market held by British goods	98·3	98·9	98·2	90·0	92·1	89·4

\* See page 18.

The relation between production and exports and the quantities calculated as available for consumption in 1930 are considerably affected by the lag between the time of manufacture and the time of exportation of the goods. The following table shows the effect of relating the recorded output of piece-goods (which represents substantially output in the calendar year) to the exports of twelve monthly periods ending one month and two months after the end of the calendar year 1930. The figures for 1933 are not affected to any considerable extent by this factor.

Period taken for exports	Exports		Available for consumption	
	Quantity	Proportion of production	Quantity	Increase in 1933 compared with 1930
Year 1930 ... ..	Mill. sq. yds. 2,407	Per cent. 72.5	Mill. sq. yds. 991	Per cent. 50.2
Feb. 1930—Jan. 1931 ...	2,250	69.2	1,148	20.0
March 1930—Feb. 1931	2,096	64.5	1,302	14.4

## B.—OTHER COTTON MANUFACTURES

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.
Machinery belting of cotton and woven hair ...	1933 23.0	20.4	88.7	0.1	2.7	96.3
1930 36.6*	29.9	81.7	0.1	6.8	98.5	
Manufactured cleaning waste	1933 307.6	87.1	28.3	0.4	220.9	99.8
1930 266.8	139.0	52.1	4.9	132.7	96.3	
Made-up cotton goods:—						
Quilts, counterpanes and other bed coverings ...	1933 100.0†	31.7	31.7	5.7	74.0	92.3
Towels of all descriptions	1933 249.0†	44.0	17.7	0.4	205.4	99.8
	Value (at factory)	Value (f.o.b.)		Value (c.i.f.)		
	£'000	£'000	...	£'000	...	...
Cotton smallwares	1933 1,507	225	...	207	...	...
1930 1,719	245	...	701	...	...	

\* Including an estimate in respect of belting returned by value only.

† The production figures may be defective (see note (¶) on page 16).

The following tables relate only to firms whose returns were made on schedules for the Cotton Weaving Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	3,485	53,620	12,318	115,678	15,803	169,298
	1930	5,035	57,314	17,436	124,753	22,471	182,067
	1933	242	5,257	191	1,430	433	6,687
Administrative, technical and clerical staff*	1933	365	5,408	191	1,224	556	6,632
	1930						
TOTAL ...	1933	3,727	58,877	12,509	117,108	16,236	175,985
	1930	5,400	62,722	17,627	125,977	23,027	188,699

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER :**

Week ended	Total number	Week ended	Total number
January 14 ...	87,416	July 15 ...	81,985
February 18 ...	86,916	August 19... ..	82,719
March 18 ...	84,042	September 16 ...	82,382
April 15 ...	81,626	October 14 ...	84,317
May 13 ...	82,499	November 18 ...	85,284
June 17 ...	81,823	December 16 ...	84,874
AVERAGE FOR THE TWELVE MONTHS ...			83,824

**Table VII.—Other output of the Cotton Weaving Trade**

The value of the gross output of the firms whose returns were made on schedules for the Cotton Weaving Trade was £65,126,000 in 1933 and £73,913,000 in 1930, of which £58,920,000 in 1933 and £68,953,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
<b>Goods made for sale :—</b>	<b>£'000</b>	<b>£'000</b>
Cotton yarns (single or doubled), including yarns reeled, wound, etc. ... ..	879	1,035
Woollen and worsted manufactures ... ..	130	151
Silk manufactures ... ..	8	69
Artificial silk manufactures, other than apparel :—		
Wholly of artificial silk :—		
Piece-goods ... ..	1,547	766
Other sorts (including smallwares) ... ..	88	89
Of artificial silk mixed with other materials :—		
Tissues ... ..	2,632	1,654
Other sorts (including smallwares) ... ..	143	382
Other textile manufactures ... ..	182	356
Other goods made ... ..	177	34
<b>TOTAL—Goods made for sale ... ..</b>	<b>5,786</b>	<b>4,536</b>
<b>Goods made on commission :—</b>		
Woollen and worsted tissues ... ..	15*	18*
Artificial silk manufactures ... ..	33*	23*
Other textile manufactures ... ..	23*	2*
<b>TOTAL—Goods made on commission ... ..</b>	<b>71*</b>	<b>43*</b>
<b>Waste :—</b>		
Cotton waste other than manufactured cleaning waste	347†	380†
Artificial silk waste ... ..	2‡	1‡
<b>TOTAL ... ..</b>	<b>6,206</b>	<b>4,960</b>

\* Amount received.

† The quantity returned was 33,353,000 lbs. in 1933 and 27,099,000 lbs. in 1930.

‡ The quantity returned was 60,000 lbs. in 1933 and 76,000 lbs. in 1930.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. lbs.	£'000
Cotton yarn ... ..	802,881	35,633
Artificial silk yarn ... ..	13,016	2,566
Woollen yarn ... ..	507	43
Worsted yarn ... ..	532	51
All other materials used (including fuel) ... ..	...	6,260
<b>TOTAL ... ..</b>	<b>...</b>	<b>44,553</b>



## THE COTTON TRADE AS A WHOLE

### Value of cotton goods free from duplication

The following are estimates of the aggregate value of the output of cotton goods in 1933 and 1930 free from the duplication arising from the multiple record of yarns and other goods produced by one firm and used by others.

Particulars	1933	1930
	Million £	Million £
Cotton yarn exported, value at mill ... ..	9.5	13.7
Cotton piece goods made, as finished ... ..	67.6	79.1
Other cotton goods made ... ..	14.0	14.7
Estimated value of cotton yarns and waste used in other trades ... ..	8.5	10.0
Cotton waste exported, value at mill ... ..	0.4	0.5
<b>TOTAL</b> ... ..	<b>100.0</b>	<b>118.0</b>

In order to arrive at the total output of the firms making returns on schedules for the Cotton Spinning and Weaving Trades, it is necessary to deduct the value of the work done on piece goods by firms in the Textile Finishing Trade (£14.0 million in 1933 and £16.6 million in 1930) and to make allowance for the cotton goods made by firms in other trades and for the goods not of cotton produced by the Cotton Trade. The resulting value free from duplication of the output of the firms classed as in the Cotton Trade was about £88 million in 1933 and £102 million in 1930.

### Summary

Particulars	Unit	1933	1930
Estimated value of cotton goods made (as finished) free from duplication ... ..	£ mill.	100	118
Estimated value, at mill, of cotton yarns and manufactures exported ... ..	£ mill.	53-54	79-81*
Proportion of production exported ... ..	Per cent.	53-54	67-69
Estimated value of output of firms in the Cotton Trade free from duplication ... ..	£ mill.	88	102
Net output ... ..	£'000	39,641	41,893
Average number of persons employed ... ..	No.	359,764	379,435
Net output per person employed ... ..	£	110	110

\* Later information as to the relation between export and factory values, indicates that the allowance made in the report on the 1930 Census was too large.

## THE WOOLLEN AND WORSTED TRADE

*Notes.*—(a) Returns were not required for 1933 from merchants that purchased wool and gave it out to be combed, etc. by firms working on commission. For purposes of comparison, the results published in Part I of the Final Report on the 1930 Census for the Woollen and Worsted Trade have been adjusted to exclude the particulars furnished by this class of firm. The following are the general particulars for 1930 in respect of these firms:—

	£'000
Value of products (Gross output) ... ..	11,235
Cost of materials used ... ..	9,866
Amount paid for work given out ... ..	1,281
Net output ... ..	88
	No.
Average number of persons employed ... ..	1,746
	£
Net output per person employed ... ..	50

The output of these firms was as follows:—

	Quantity Th. lbs.	Value £'000
Wool sorted, blended, or scoured, but not otherwise treated ... ..	28,040	1,490
Tops ... ..	96,041	9,112
Noils ... ..	9,619	582
Other products ... ..	...	2
Wool waste ... ..	2,732	49
<b>TOTAL</b> ... ..	...	11,235

The figures for the total make of tops and noils given in Table II A are not affected by the exclusion of the output of this group of firms.

(b) The numbering of the tables throughout this report does not agree with that indicated in the Introductory Notes (see page v).

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	101,897	103,598
Cost of materials used ... ..	"	58,739	63,619
Amount paid for work given out ... ..	"	3,245	2,515
Net output ... ..	"	39,913	37,464
Average number of persons employed ... ..	No.	233,785	228,596
Net output per person employed ... ..	£	171	164

## INTERMEDIATE PRODUCTS

Table II A.—Total make of certain Intermediate Products

Kind of goods	1933	1930
Recovered wool (shoddy or mungo) ... ..	Th. lbs. 117,773	Th. lbs. 87,698*
Tops or slubbing (first combed) :—		
Weight in oil :—		
Merino ... ..	150,528	98,159
* Other ... ..	153,070	119,144
Not separately distinguished ... ..	1,785	4,171
Dry combed ... ..	4,177	2,943
TOTAL—Tops ... ..	309,560	224,417
Noils ... ..	36,234	26,163
Yarns (single) :—		
Woollen (carded only)† ... ..	283,416	200,349
Worsted (combed)† ... ..	223,282	162,409
Alpaca ... ..	893	1,208
Mohair ... ..	6,395	7,035
Cashmere ... ..	235	219
Alpaca, mohair and cashmere, not separately distinguished ... ..	425	804
Camels' hair ... ..	740	816
Other hair ... ..	6,530	10,120
Unclassified (including mixed yarns)... ..	134	3,029
TOTAL—Yarns ... ..	522,050	385,989

\* In addition, 2,919,000 lbs. were recorded on schedules for trades not covered by the 1933 Inquiry.

† The quantities of intermediate products returned on schedules for other trades included in the above totals were as follows :—

Yarns :—	1933 Th. lbs.	1930 Th. lbs.
Woollen ... ..	—	136
Worsted ... ..	105	8

Table II B.—Deliveries of Intermediate Products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<i>Made for sale</i>	Th. lbs.	£'000	Th. lbs.	£'000
Woollen rags, carbonised, dyed, etc. ... ..	2,639	50	5,077	71
Wool flocks ... ..	4,587	27	4,664	42
Waste ... ..	34,150	926	21,592	585
Recovered wool (shoddy or mungo)	50,918	1,330	41,785*	1,406*
Tops ... ..	35,799	3,179	23,092†	2,313
Noils ... ..	12,621	705	9,761†	678
<b>Yarns (all wool or wool mixed with other materials) :—</b>				
Woollen (carded only) ... ..	54,585	3,461	47,973‡	4,028‡
Worsted (combed) ... ..	201,975†	28,176†	148,413‡	25,710‡
Alpaca, mohair and cashmere ...	6,972	754	7,844	1,518
Other hair or wool ... ..	7,733	750	7,697	648
<b>Total—Yarns ... ..</b>	<b>271,265</b>	<b>33,141</b>	<b>211,927</b>	<b>31,904</b>
<b>Total value—Goods made for sale ... ..</b>	<b>...</b>	<b>39,358</b>	<b>...</b>	<b>36,699</b>
<i>Made on commission</i>		Amount received		Amount received
Woollen rags, carbonised, dyed, etc. ... ..	4,516	14	7,395	53
Recovered wool (shoddy or mungo)	7,538	47	4,931	28
Tops ... ..	228,965	} 3,127	161,856	} 2,117
Noils ... ..	25,432		20,250	
<b>Yarns (all wool or wool mixed with other materials) :—</b>				
Woollen (carded only) ... ..	15,834	247	10,665	203
Worsted (combed) ... ..	12,891	367	9,002	303
Other yarns ... ..	532	9	152	2
<b>Total—Yarns ... ..</b>	<b>29,257</b>	<b>623</b>	<b>19,819</b>	<b>508</b>
<b>Total amount received—Goods made on commission ... ..</b>	<b>...</b>	<b>3,811</b>	<b>...</b>	<b>2,706</b>

\* In addition, 2,919,000 lbs. (£47,000) of recovered wool was recorded on schedules for trades not covered by the 1933 Inquiry.

† These figures represent for tops 19·4 per cent., and for noils 50·4 per cent. of the output for sale as returned at the 1930 Census.

‡ Including 105,000 lbs. (£18,000) of worsted yarns for 1933, and 136,000 lbs. (£17,000) of woollen yarns and 8,000 lbs. (£1,000) of worsted yarns for 1930, returned on schedules for other trades.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	d. per lb.	d. per lb.	Per cent.	d. per lb.	d. per lb.	d. per lb.	d. per lb.
Woolen rags, carbonised, dyed, etc. ... ..	4.58	3.36	136.2	...	...	...	...
Wool waste ... ..	6.51	6.50	100.1	11.42	15.50	5.12	8.89
Recovered wool (shoddy or mungo) ... ..	6.27	6.19	101.3	5.44	9.69	4.76	5.40
	s. per lb.	s. per lb.		s. per lb.	s. per lb.	s. per lb.	s. per lb.
Tops ... ..	1.78	2.00	89.0	1.49	1.96	2.09	2.46
Noils ... ..	1.12	1.39	80.6	1.24	2.01	1.05	1.58
Woolen yarns ... ..	1.27	1.68	75.5	2.50	3.26	3.61	3.79
Worsted yarns ... ..	2.79	3.46	80.6	2.41	2.96	3.65	4.78
Alpaca, mohair and cash- mere yarns ... ..	2.16	3.87	55.9	2.26	3.86	2.82	4.82
Other yarns ... ..	1.94	1.68	115.5	1.70	2.12	4.39	4.15

The average amounts charged for combing on commission were:—

					d. per lb. of tops produced
1933	...	...	...	...	3.28
1930	...	...	...	...	3.14
					Per cent.
1933 as a percentage of 1930	...	...	...	...	104.5

**Table IV.—Production of Intermediate Products in relation to Exports and Imports**

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. lbs.	Th. lbs.	Per cent.	Th. lbs.	Th. lbs.	Per cent.	
Recovered wool (shoddy or mungo) ...	1933	117,773	9,849	8·4	20	27,176	99·9
	1930	90,617	4,161	4·6	363	86,819	99·6
Tops ...	1933	309,560	45,832	14·8	1,123	264,851	99·6
	1930	224,417	28,836	12·9	2,080	197,661	98·9
Noils ...	1933	36,234	16,047	41·5	1,667	22,854	92·7
	1930	26,163	12,837	49·1	1,043	14,369	92·7
Wool waste ...	1933	34,150	17,318	50·2	6,668	23,500	71·6
	1930	24,324	11,707	48·1	2,816	15,433	81·8
<b>Yarns :—</b>							
Woollen yarns (carded) ...	1933	233,416	7,594	2·7	517	276,339	99·8
	1930	200,349	5,388	2·7	16,363	211,324	92·3
Worsted yarns (combed) ...	1933	223,282	35,820	16·0	218	187,680	99·9
	1930	162,409	31,919	19·7	2,257	132,747	98·3
Alpaca, mohair and cashmere yarns	1933	7,948	4,466	56·2	—	3,482	100·0
	1930	9,266	5,901	63·7	7	3,372	99·8
Other yarns ...	1933	7,404*	5,936	...	268	...	...
	1930	13,965*	6,365	...	241	...	...
<b>TOTAL—Yarns</b>	1933	522,050	53,816	10·3	1,003	469,237	99·8
	1930	385,989	49,573	12·8	18,868	355,284	94·7

\* Including unclassified and mixed yarns.

## FABRICS

Table V.—Output of principal products

Kind of goods	1933			1930		
	Quantity	Weight	Value	Quantity	Weight	Value
	Th. sq. yds.	Th. lbs.	£'000	Th. sq. yds.	Th. lbs.	£'000
<i>Made for sale</i>						
Woolen tissues, all wool— Weight per square yard:—						
16 ozs. and over ...	12,996	16,443	2,829	9,014	10,993	2,946*
12 ozs. and under 16 ozs. ...	22,040	19,351	2,360	12,658	10,736	2,184
12 ozs. and over, not included above ...	—	—	—	925	880	169
8 ozs. and under 12 ozs. ...	47,904	29,985	5,536	30,781	19,553	5,335
Under 8 ozs. ...	21,782	8,892	1,781	6,141	2,612	815
Under 12 ozs., not included above ...	—	—	—	398	228	67
<b>TOTAL—Woolen tis- sues, all wool ...</b>	<b>104,782</b>	<b>74,671</b>	<b>12,506</b>	<b>59,917</b>	<b>45,002</b>	<b>11,516*</b>
Woolen tissues of wool mixed with other materials, if known as "woollens":— Weight per square yard:—						
16 ozs. and over ...	28,872	21,758	2,020	25,197	29,971	3,416*
12 ozs. and under 16 ozs. ...	23,287	19,812	1,862	29,499	24,252	2,789*
8 ozs. and under 12 ozs. ...	60,241	38,703	4,606	48,956	31,575	5,437*
Under 8 ozs. ...	18,544	7,601	1,168	21,258	8,409	1,598*
<b>TOTAL—Woolen tis- sues of wool mixed with other materials</b>	<b>120,944</b>	<b>87,874</b>	<b>9,656</b>	<b>124,910</b>	<b>94,207</b>	<b>13,240*</b>
<b>TOTAL—Woolen tis- sues ...</b>	<b>225,726</b>	<b>162,545</b>	<b>22,162</b>	<b>184,827</b>	<b>139,209</b>	<b>24,756</b>

Kind of goods	1933			1930		
	Quantity	Weight	Value	Quantity	Weight	Value
	Th. sq. yds.	Th. lbs.	£'000	Th. sq. yds.	Th. lbs.	£'000
<i>Made for sale—cont.</i>						
Worsted tissues, all wool:—						
Linings, lastings, etc.	445	223	37	809	315	70
Other tissues:—						
Weighing 12 ozs. and over per square yard ... ..	8,171	6,818	1,772	11,319	9,825	3,010
Weighing under 12 ozs. per square yard ... ..	72,534	38,816	9,896	57,984	31,428	10,413
TOTAL—Worsted tissues, all wool ...	81,150	45,857	11,705	70,112	41,568	13,493
Worsted tissues of wool mixed with other materials, if known as "worsted":—						
Linings, lastings, etc.	10,485	3,056	443	9,894	3,045	692
Other tissues:—						
Weighing 12 ozs. and over per square yard ... ..	2,705	2,251	591	2,243	1,845	636
Weighing under 12 ozs. per square yard ... ..	34,360	18,200	4,804	26,254	13,184	4,963
TOTAL—Worsted tissues of wool mixed with other materials	47,550	23,507	5,838	38,391	18,074	6,291
TOTAL—Worsted tissues ... ..	128,700	69,364	17,543	108,503	59,642	19,784
Unclassified woollen and worsted tissues ...	...	...	90	...	...	192
Tissues wholly or mainly of mohair, alpaca and cashmere, not being pile fabrics ... ..	5,470	1,328	304	7,279	1,864	588
Damaaks, tapestries, brocades and the like ...	629	416	113	1,097	877	322
Wool and mohair plushes and other pile fabrics	6,689	7,948	1,571	4,439	5,284	1,241
Flannels and delaines ...	13,600	5,719	999	15,721	6,352	1,301



Kind of goods	1933			1930			
	Quantity	Weight	Value	Quantity	Weight	Value	
<i>Made for sale—cont.</i>	Th. sq. yds.	Th. lbs.	£'000	Th. sq. yds.	Th. lbs.	£'000	
Carpets, carpeting and rugs of wool (including carpets and rugs on a wool or jute base):—							
Printed tapestry and tapestry velvet carpets and rugs ...	6,039	13,750	1,034	6,273	...	1,274	
Brussels and Wilton carpets and rugs, known as such ...	3,548	12,338	1,591	2,735	...	1,766	
Axminster (including chenille axminster) carpets and rugs, known as such ...	18,188	55,465	5,783	11,779	...	5,245	
Carpets and rugs of wool (including copies of Oriental carpets and rugs), not elsewhere specified...	853	3,006	312	671	...	379	
<b>TOTAL—Carpets and rugs ...</b>	<b>28,628</b>	<b>84,559</b>	<b>8,720</b>	<b>21,458</b>	<b>...</b>	<b>8,664</b>	
Blankets ...	Th. pairs 3,583	24,684	2,064	Th. pairs 2,983	21,508	2,597	
Shawls, other than knitted	Thous. 236	†	43	Thous. 198	...	77	
Coverlets, travelling rugs and wrappers ...	Th. sq. yds. 596 ...	674 ...	101 15	Thous. 367 ...	...	210 36½	
<b>TOTAL—Fabrics made for sale ...</b>	<b>...</b>	<b>...</b>	<b>53,725</b>	<b>...</b>	<b>...</b>	<b>59,768</b>	
Felts, not elsewhere specified:—	Th. sq. yds.			Th. sq. yds.			
Returned by yardage and weight ...	4,925	5,898	309	} 4,690	...	341	
Returned by yardage only ...	2,078	...	84				
Returned by weight only ...	...	1,554	204		...		504
No quantity stated ...	...	...	214		...		
<b>TOTAL—Felts ...</b>	<b>...</b>	<b>...</b>	<b>811</b>	<b>...</b>	<b>...</b>	<b>845</b>	

Kind of goods	1933			1930		
	Quantity	Weight	Value	Quantity	Weight	Value
<i>Made for sale—cont.</i>	Thous.	Th. lbs.	£'000	Thous.	Th. lbs.	£'000
Cloth and rag rugs and mats ... ..	236	...	107	...	...	162
Wool and mohair braids and other smallwares	...	...	112	}	...	370
Other manufactures of wool ... ..	...	...	97			
<b>TOTAL—Goods made for sale ... ..</b>	...	...	54,852	...	...	61,145
<i>Made on commission</i>	Th. sq. yds.		Amount received	Th. sq. yds.		Amount received
Woolen tissues, all wool :-						
Weight per sq. yd. :-						
16 ozs. and over ...	1,624	1,813	25	854	1,030	24
12 ozs. and under						
16 ozs. ... ..	1,414	1,189	29	1,658§	1,237§	28§
8 ozs. and under						
12 ozs. ... ..	4,614	2,654	83	1,462	866	32
Under 8 ozs. ...	1,782	680	38	1,605§	646§	23§
Woolen tissues of wool mixed with other materials, if known as "woollens" :-						
Weight per sq. yd. :-						
16 ozs. and over ...	465	511	8	159	244	4
12 ozs. and under						
16 ozs. ... ..	467	380	9			
8 ozs. and under						
12 ozs. ... ..	1,420	843	25	385	235	9
Under 8 ozs. ...	673	267	9			
<b>TOTAL—Woolen tissues</b>	12,459	8,337	224	6,123	4,258	120
Worsted tissues, all wool :-						
Linings, lastings, etc.	934	497	8	461§	210§	4§
Other tissues weighing 12 ozs. and over per sq. yd. ... ..	2,176	1,722	41	3,764§	3,385§	95§
Other tissues weighing under 12 ozs. per sq. yd. ... ..	9,691	5,345	140	7,944	4,313	133
Worsted tissues of wool mixed with other materials, if known as "worsteds" :-						
Linings, lastings, etc.	1,438	446	11			
Other tissues—						
Weighing 12 ozs. and over per sq. yd. ...	656	486	24			
Weighing under 12 ozs. per sq. yd. ...	4,337	2,176	65	3,656	2,464	63
<b>TOTAL—Worsted tissues</b>	19,232	10,672	289	15,825	10,372	285

Kind of goods	1933			1930		
	Quantity	Weight	Value	Quantity	Weight	Value
<i>Made on commission—</i> <i>cont.</i>	Th. sq. yds.	Th. lbs.	Amount received	Th. sq. yds.	Th. lbs.	Amount received
Tissues wholly or mainly of mohair, alpaca and cashmere, not being pile fabrics ... ..	—	—	—	} 329 Th. pairs	193	3
Flannels and delaines ...	21 Th. pairs	127	6			
Blankets ... ..	100	854	19	113	874	23
Other and unclassified manufactures of wool	—	—	—	...	...	10
<b>TOTAL—Goods made on commission ... ..</b>	...	...	538	...	...	441

\* See page 6.

† The weight of 185,000 shawls was returned as 157,000 lbs. (value £32,000).

‡ In addition, £10,000 was returned on schedules for trades not covered by the 1933 inquiry.

§ Including mixtures.

|| Included with "all wool" tissues.

¶ Returned as "Damasks, tapestry and other furniture stuffs."

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

Kind of goods	1933			1930		
	Quantity		Value	Quantity		Value
<i>Made for sale</i>	Th. sq. yds.	Th. lbs.	£'000	Th. sq. yds.	Th. lbs.	£'000
Woolen tissues ... ..	1,068	420	92	746	303	96
Worsted tissues ... ..	480	256	42	284	140	38
Damasks, tapestries, brocades and the like ... ..	158	41	24	12	9	6
Carpets and rugs ... ..	32	96	15	2	...	1
Blankets ... ..	Th. prs. 6	25	6	Th. prs. 9	65	8
Wool felts ... ..	Th. sq. yds. 231	318	9	—	—	—
Other and unclassified manu- factures of wool ... ..	...	...	164	...	...	182
<b>TOTAL—Made for sale ...</b>	...	...	352	...	...	331
<i>Made on commission</i>						
Woolen tissues ... ..	684	236	13*	652	260	13*
Worsted tissues ... ..	247	106	2*	327	183	4*
Other and unclassified manu- factures of wool ... ..	—	—	—	...	...	5*
<b>TOTAL—Made on commis- sion ... ..</b>	...	...	15*	...	...	22*

Table VI.—Average values of fabrics produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per sq. yd.	s. per sq. yd.	Per cent.	s. per sq. yd.	s. per sq. yd.	s. per sq. yd.	s. per sq. yd.
Woolen tissues, all wool:—							
16 oza. and over ...	4.33	6.54	66.3	5.05	6.13	3.50	5.34
12 oza. and under 16 oza.	2.14	3.45	62.1	4.76	6.13	3.49	4.44
8 oza. and under 12 oza.	2.31	3.47	66.5	3.49	5.28	2.80	3.61
Under 8 oza. ...	1.63	2.65	61.7	2.03	3.09	1.62	2.93
Woolen tissues, mixtures:—							
16 oza. and over ...	2.14	2.71	79.0	2.79	3.31	3.30	4.77
12 oza. and under 16 oza.	1.60	1.89	84.6	3.34	3.80	2.74	3.65
8 oza. and under 12 oza.	1.53	2.22	68.9	2.64	4.09	2.58	2.83
Under 8 oza. ...	1.26	1.50	84.0	1.67	2.61	1.22	2.13
Worsted tissues, all wool:—							
Linings, lastings, etc. ...	1.66	1.73	96.1	1.34	2.44	—	3.34
Other tissues of 12 oza. and over ...	4.34	5.32	81.6	4.67	5.78	7.15	5.14
Other tissues under 12 oza. ...	2.73	3.59	76.0	3.09	4.27	2.63	3.37
Worsted tissues, mix- tures:—							
Linings, lastings, etc. ...	0.84	1.40	60.3	1.18	1.64	5.00	3.69
Other tissues of 12 oza. and over ...	4.37	5.67	77.1	4.25	4.41	3.54	3.92
Other tissues under 12 oza. ...	2.80	3.79	73.8	2.47	3.45	2.99	2.77
Tissues of mohair, etc., not pile fabrics ...	1.11	1.62	68.7	1.75	2.69	4.52	6.49
Damaaks, tapestries, bro- cades and the like ...	3.58	5.87	61.1	4.87	6.85	3.52	4.18
Wool and mohair plushes and other pile fabrics ...	4.70	5.59	84.0	4.23	6.84	3.78	4.38
Flannels and delaines ...	1.47	1.66	88.5	1.45	1.89	3.43	2.69
Carpets, etc. :—							
Printed tapestry and tapestry velvet ...	3.43	4.06	84.4	3.52	4.88	5.89	7.05
Brussels and Wilton ...	8.97	12.91	69.5	8.68	13.14	2.58	5.39
Axminster ...	6.36	8.91	71.4	6.61	9.70	3.25	5.06
Other sorts ...	7.32	11.30	64.8	5.58	7.83	8.09	13.17
Blankets ...	s. per pair	s. per pair		s. per pair	s. per pair	s. per pair	s. per pair
	11.53	17.41	66.2	12.85	18.30	3.92	8.44
Shawls, other than knitted	s. each	s. each		s. each	s. each	s. each	s. each
	3.62	7.77	46.6	4.86	6.51	3.90	2.82
	*	11.43	...	*	12.61	*	7.83
Coverlets, travelling rugs and wrappers ...	s. per sq. yd.	s. per sq. yd.		s. per sq. yd.	s. per sq. yd.	s. per sq. yd.	s. per sq. yd.
	3.38	*	...	3.09	4.13	2.46	3.33
Felts, not elsewhere speci- fied ...	1.12	1.45	77.2	3.00	3.80	1.86	4.16

\* Not recorded.

Table VII.—Production of fabrics in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. sq. yds.	Th. sq. yds.	Per cent.	Th. sq. yds.	Th. sq. yds.	Per cent.
Woolen tissues, all wool:—						
16 ozs. and over {	1933 14,620	2,100	14.4	112	12,632	99.1
1929 9,868*	2,318	28.6	718	7,768	90.8	
12 ozs. and under 16 ozs. {	1933 23,454	4,261	18.2	267	19,460	98.6
1930 14,316*†	4,795	33.5	1,878	11,399	83.5	
Woolen tissues, mixed:—						
16 ozs. and over {	1933 19,337	1,777	9.2	91	17,651	99.5
1930 25,356	4,238	16.7	461	21,579	97.9	
12 ozs. and under 16 ozs. ... {	1933 23,754	3,311	13.9	88	20,531	99.6
1930 29,499	4,258	14.4	1,662	26,903	93.8	
Worsted tissues, all wool:—						
Linings, lastings, etc. ... {	1933 1,379	278	20.2	—	1,101	100.0
1930 1,270†	461	36.3	†	809	100.0	
Other tissues, 12 ozs. and over ... {	1933 10,347	1,425	13.8	6	9,128	99.9
1930 15,033†	2,194	14.6	8	12,897	99.9	
Worsted tissues, mixed:—						
Linings, lastings, etc. ... {	1933 11,923	2,222	18.6	†	9,701	100.0
1930 9,894	2,920	29.5	4	6,978	99.9	
Other tissues, 12 ozs. and over ... {	1933 3,361	703	20.9	§	—	100.0
1930 2,243	1,045	46.6	15	1,213	98.8	
Woolen and worsted tissues:—						
All wool, under 12 ozs. ... {	1933 158,367	40,807	25.8	5,161	122,721	95.8
1930 106,315†	46,344	43.6	19,248	79,219	75.7	
Mixtures, under 12 ozs. ... {	1933 119,575	37,317	31.2	744	83,002	99.1
1930 100,509	44,680	44.5	11,229	67,058	83.3	
Total—Woolen and worsted tissues ... {	1933 386,861	94,201	24.4	6,465	299,125	97.8
1930 316,478	113,753	35.9	35,223	237,948	85.2	
Tissues wholly or mainly of mohair, alpaca and cashmere, not being pile fabrics ... {	1933 5,470	1,193	21.8	†	4,277	100.0
1930 7,608¶	1,697	22.3	2	5,913	100.0	
Damasks, tapes, tries, brocades and the like ... {	1933 629	77	12.2	52	604	91.4
1930 1,097	167	15.2	1,091	2,021	46.0	

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. sq. yds.	Th. sq. yds.	Per cent.	Th. sq. yds.	Th. sq. yds.	Per cent.
Wool and mohair plushes and other pile fabrics ...	1933 6,689	292	4.4	152	6,549	97.7
	1930 4,439	519	11.7	524	4,444	98.2
Flannels and delaines ...	1933 13,621	3,888	28.5	§ 9,733	100.0	
	1930 15,721	2,334	18.0	142 13,029	98.9	
Blankets ...	1933 3,683	369	10.0	Th. prs. 14	3,328	99.6
	1930 3,096**	596	19.3	61	2,561	97.6
	Th. sq. yds.	Th. sq. yds.	•	Th. sq. yds.	Th. sq. yds.	
Coverlets, travelling rugs and wrappers ...	1933 684‡	321	46.9	21	384	94.5
	1930 447**	181	40.5	45	311	85.5
Shawls, other than knitted ...	1933 236	56	23.7	2	182	98.9
	1930 198	125	63.1	210	283	25.8
	Th. sq. yds.	Th. sq. yds.		Th. sq. yds.	Th. sq. yds.	
Carpets, etc. :—						
Printed tapestry and tapestry velvet ...	1933 6,039	630	10.4	4	5,413	99.9
	1930 6,273	1,017	16.2	47	5,303	99.1
Brussels and Wilton ...	1933 3,548	305	8.6	966	4,209	77.0
	1930 2,735	500	18.3	2,176	4,411	50.7
Axminster ...	1933 18,188	2,571	14.1	100	15,717	99.4
	1930 11,779	2,347	19.9	3,654	13,086	72.1
Other sorts ...	1933 853	569††	...	1,920	...	...
	1930 671	763††	...	1,997	...	...
Total—Carpets, etc. ...	1933 28,628	4,075	14.2	2,990	27,543	89.1
	1930 21,458	4,627	21.6	7,874	24,705	68.0

\* Excluding the output in Northern Ireland recorded as 925,000 sq. yds. weighing 12 ozs. and over per sq. yd.

† Including a small quantity of mixtures made on commission.

‡ Under 500 sq. yds.

§ Re-exports in excess of imports.

|| Including the output of Northern Ireland and an estimate in respect of piece goods returned by value only.

¶ Including a small quantity of flannels and delaines made on commission.

‡ Including an estimate in respect of output returned by value only.

\*\* Including estimated production in Northern Ireland.

†† Exports of "other sorts" probably included items inadequately classified in both years.

Table VIII.—Volume of Production of principal products

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
<b>Goods made for sale :—</b>					
Recovered wool (shoddy or mungo) ... ..	1,106	1,330	1,313	119	163
Waste ... ..	585	926	925	158	121
Tops ... ..	2,313	3,179	3,572	154	126
Noils ... ..	678	705	875	129	142
Yarns ... ..	31,904	33,141	41,540	130	125
Woollen-tissues... ..	24,756	22,162	32,112	130	135
Worsted tissues ... ..	19,784	17,543	23,243	117	131
Carpets and rugs ... ..	8,664	8,720	12,096	140	103
Other woven fabrics of wool ... ..	6,564	5,300	7,125	109	146
Other manufactures of wool ... ..	1,490	1,204	1,505	101	130
<b>Total—Goods made for sale ... ..</b>	<b>97,844</b>	<b>94,210</b>	<b>124,306</b>	<b>127</b>	<b>130</b>
<b>Goods made on commis- sion :—</b>					
Recovered wool (shoddy or mungo) ... ..	28	47	42	150	139
Tops and noils ... ..	2,117	3,127	2,998	142	123
Yarns ... ..	508	623	744	146	133
Woollen tissues... ..	120	224	239	199	121
Worsted tissues ... ..	285	289	349	122	87
Other manufactures of wool ... ..	89	39	57	64	142
<b>Total—Goods made on commission ... ..</b>	<b>3,147</b>	<b>4,349</b>	<b>4,429</b>	<b>141</b>	<b>121</b>
<b>TOTAL—Woollen and worsted manufac- tures ... ..</b>	<b>100,991</b>	<b>98,559</b>	<b>128,735</b>	<b>127</b>	<b>130</b>

The following tables relate only to firms whose returns were made on schedules for the Woollen and Worsted Trade and are summarised in Table I.

Table IX.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	9,487	89,303	19,713	131,178	29,200	220,481
	1930	10,902	86,676	22,700	129,052	33,602	215,728
	1933	453	10,129	429	3,175	882	13,304
Administrative, technical and clerical staff*	1930	571	10,083	353	2,785	924	12,868
TOTAL ...	1933	9,940	99,432	20,142	134,353	30,082	233,785
	1930	11,473	96,759	23,053	131,837	34,526	228,596

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	95,582	July 15 ...	100,335
February 18 ...	96,168	August 19 ...	101,099
March 18 ...	97,563	September 16 ...	102,103
April 15 ...	98,841	October 14 ...	103,010
May 13 ...	99,236	November 18 ...	104,167
June 17 ...	99,993	December 16 ...	103,966
AVERAGE FOR THE TWELVE MONTHS...			100,172



**Table X.—Other output of the Woollen and Worsted Trade.**

The value of the gross output of the firms whose returns were made on schedules for the Woollen and Worsted Trade was £101,897,000 in 1933 and £103,598,000 in 1930, of which £98,174,000 in 1933 and £100,620,000 in 1930 consisted of products included in Tables II B and V. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
<i>Made for sale :—</i>		
Wool, sorted, blended, carbonised, etc. ...	788 (14,119 th. lbs.)	417 (5,730 th. lbs.)
<i>Piece-goods :—</i>		
Of cotton ... ..	613	354
Of natural silk (including mixtures) ...	93	197
Of artificial silk (including mixtures) ...	1,524	1,304
<i>Other manufactures :—</i>		
Of cotton ... ..	35	158
Of natural silk ... ..	20	5
Of artificial silk ... ..	81	24
Other goods ... ..	26	105
<b>Total ... ..</b>	<b>3,180</b>	<b>2,564</b>
	<b>Amount received</b>	<b>Amount received</b>
<i>Made on commission :—</i>		
Cotton goods ... ..	7	6
Silk and artificial silk goods ... ..	22	16
<i>Other work done :—</i>		
Wool sorting, carbonising, etc. ... ..	146	105
Recombing ... ..	101	99
Burling and mending ... ..	33	37
Winding and warping ... ..	29	35
Dyeing, finishing and other work done ...	205	116
<b>Total ... ..</b>	<b>543</b>	<b>414</b>
<b>TOTAL ... ..</b>	<b>3,723</b>	<b>2,978</b>

**Table XI.—Value of output free from duplication**

The following are estimates of the aggregate value of the output of woollen and worsted goods free from the duplication arising from the multiple record of semi-finished products produced by one firm and used by others.

Particulars	1933	1930
	Million £	Million £
Exports of semi-finished products (including wool waste), estimated value at mill ... ..	12·1	12·5
Woollen and worsted goods made, as finished* ... ..	63·4	69·5
Sales of woollen and worsted yarns, for consumption outside the trade ... ..	10·5	8·0
Total ... ..	86·0	90·0

\* Including estimated selling value of fabrics made on commission.

In order to arrive at the total output of firms making returns on schedules for the Woollen and Worsted Trade it is necessary to deduct the value of the work done on wool and woollen goods by firms in the Textile Finishing Trade (£4·1 million in 1933 and £4·2 million in 1930) and to make allowance for the woollen and worsted goods made by firms in other trades and for the goods not of wool produced by the Woollen and Worsted Trade. The resulting value, free from duplication, of the output of the firms classed as in the Woollen and Worsted Trade was £80 million in 1933 and £83 million in 1930.

### THE SILK AND ARTIFICIAL SILK TRADE

*Note.*—Firms manufacturing goods of cotton as well as of artificial silk have been included in the Silk and Artificial Silk Trade if the weaving of artificial silk was the more important section of their business. With a view to securing comparability of the figures for the two years, the results for 1930 published in the Final Report on the Fourth Census of Production in respect of the Silk and Artificial Silk Trade have been adjusted by transferring from the Cotton Weaving Trade to that trade the returns made by those firms. The extent of the adjustments is shown in the table given in the introduction to the Cotton Trade (see page 8), and affects Tables I, VI and VII inclusive in the Silk and Artificial Silk Trade.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	32,690	28,730
Cost of materials used ... ..	"	16,952	15,830
Amount paid for work given out ... ..	"	773	656
Estimated Excise duty ... ..	"	3,150	1,600
Net output (excluding estimated Excise duty)	"	11,815	10,644
Average number of persons employed (excluding outworkers) ... ..	No.	67,739	69,830
Net output per person employed (excluding outworkers) ... ..	£	174*	152*

\* Exclusive of estimated Excise duty.

### Production

Table II A.—Total make of Silk Yarn and Artificial Silk

Kind of goods	1933	1930
	Th. lbs.	Th. lbs.
<b>Thrown silk :—</b>		
Wholly of silk, undischarged ... ..	2,124	1,059
Of silk mixed with other materials, undischarged ... ..	592	305
<b>TOTAL—Thrown silk</b> ... ..	<b>2,716</b>	<b>1,364</b>
<b>Spun silk yarn :—</b>		
Wholly of silk (including noil yarn) ... ..	1,500	1,344
Of silk mixed with other materials ... ..	18	7
<b>TOTAL—Spun silk yarn</b> ... ..	<b>1,518</b>	<b>1,351</b>
<b>Artificial silk :—</b>		
Singles yarn and straw ... ..	82,336	49,975
Waste (including staple fibre) ... ..	4,497	2,650
<b>TOTAL—Artificial silk</b> ... ..	<b>86,833</b>	<b>52,625</b>

Table II B.—Goods sold or added to stock

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Thrown silk :—	Th. lbs.	£'000	Th. lbs.	£'000
Wholly of silk :—				
Undischarged ... ..	1,844	1,407	} 796	} 2,007
Discharged ... ..	86	113		
Of silk mixed with other materials (undischarged and discharged)	580	218	304	158
TOTAL—Thrown silk ... ..	2,510	1,738	1,100	1,165
Spun silk yarn (including noil yarn) :—				
Wholly of silk ... ..	1,147	588	1,101	796
Of silk mixed with other materials	18	10	7	5
TOTAL—Spun silk yarn ... ..	1,165	598	1,108	801
Artificial silk yarn (yarn and straw)	63,724	9,871	45,530	10,177
Artificial silk doubled or twisted thread advanced beyond the stage of singles yarn* :—		:		
Wholly of artificial silk ...	13,757	2,796	} 1,007	} 236
Of artificial silk mixed with other materials ... ..	645	128		
TOTAL VALUE OF YARNS ... ..	...	15,131	...	12,379
Sewing and embroidery silks :—				
Of natural silk and mixtures ...	321	399	} 193	} 258
Of artificial silk and mixtures...{	243	69		
... ..	...	10	... 110	51
TOTAL—Sewing and embroidery silks ... ..	...	478	...	557

Kind of goods	1933			1930		
	Quantity		Value	Quantity		Value
	Th. sq. yds.	Th. lbs.	£'000	Th. sq. yds.	Th. lbs.	£'000
Piece-goods wholly of silk :—						
Natural undyed tissues:—						
Undischarged ...	742	95	145	} 1,177 ... 3,002 741 ... 2,422	121	256
Discharged ...	3,087	473	708		320	30
Discharged ...					...	633
Discharged ...				...	...	164
Discharged ...				...	...	40
Pile fabrics (dyed or not dyed) ...	209	28	53	} 2,422	398	626
Other tissues ...	1,395	185	303			
TOTAL—Piece-goods wholly of silk ...	5,433	781	1,209	...	...	1,749
Piece-goods of silk mixed with other materials, if known as "silks" :—						
Pile fabrics ...	221	74	57	} 5,291† 328	1,148† ...	868† 45
Damasks, tapestries, brocades and the like ...	34	12	13			
Other tissues ...	2,241	416	337			
TOTAL — Piece - goods of silk mixed with other materials ...	2,496	502	407	5,619†	...	913†
Piece-goods of artificial silk :—						
Wholly of artificial silk, including pile and hosiery fabrics†						
Of artificial silk mixed with other materials:—						
Damasks, tapestries, brocades and the like ...	42,368	10,830	1,765	} 120,912†	22,500†	6,717†
Other tissues, including pile fabrics ...	179,389	34,487	7,193			
TOTAL—Piece-goods of artificial silk, pure or mixed ...	369,128	71,160	17,441	180,244†	32,922†	13,093†
TOTAL VALUE—Piece-goods of silk and artificial silk (including mixtures) ...	...	...	19,057	...	...	15,755

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. lbs.	£'000	Th. lbs.	£'000
Other manufactures of silk, and artificial silk :—				
Ribbons :—				
Wholly of natural silk	1	2	§	2
Of natural silk mixed with other materials	51	70	12	26
Wholly of artificial silk... ..	109	57	2	2
Of artificial silk mixed with other materials	476	207	...	44
TOTAL—Ribbons...	636	336	...	112
Smallwares :—				
Of natural silk and mixtures ... ..	...	60	...	197
Of artificial silk and mixtures ... ..	...	466	...	243
Not separately distinguished ... ..	—	—	...	111
TOTAL—Smallwares	...	526	...	551
Other manufactures of natural silk and mixtures (excluding lace and net) ... ..	...	20	...	126
Other manufactures of artificial silk and mixtures (excluding lace and net) ... ..	...	79	...	93
Waste products sold :—				
Silk waste, noils, etc....	531	31	482	37
Artificial silk waste (including staple fibre)...	6,278	302	2,191	154
TOTAL—PRINCIPAL PRODUCTS ... ..	...	35,960	...	29,764

\* The figures do not represent for either year the total deliveries of yarn in these forms, as such particulars could not be furnished in the detail required for a considerable portion of the output. The output in question was returned as artificial silk singles yarn and is included in the figures given against that heading. The added value resulting from the doubling, twisting and other work of processing carried out thereon is included in Table VII (see page 52). The figures for 1930 are particularly understated.

† See page 7.

‡ See note (§) on page 70.

§ Less than 500 lbs.

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

Kind of goods	1933		1930			
	Quantity	Value	Quantity	Value		
	Th. lbs.	£'000	Th. lbs.	£'000		
Thrown silk and spun silk yarn ... ..	9	5	2	4		
Artificial silk yarn (yarn and straw) ... ..	1,272	161	71	15		
Artificial silk doubled or twisted thread advanced beyond the stage of singles yarn :—						
Wholly of artificial silk ... ..	950	188	68	18		
Of artificial silk mixed with other materials ...	363	66				
TOTAL—Yarns ...	2,594	420	141	37		
Sewing and embroidery silks :—						
Of natural silk and mixtures ...	15	19	64	19	11	
Of artificial silk and mixtures ...	...	10				...
TOTAL—Sewing and embroidery silks	...	29	...	43		
Piece-goods wholly of silk ... ..	Th. sq. yds.	Th. lbs.	Th. sq. yds.	Th. lbs.		
128	18	24	410	59	86	
Piece-goods of silk mixed with other materials :—						
Pile fabrics ...	61	15	5	864	138	52
Other tissues, including damasks, tapestries, brocades and the like ...	705	120	72	734	115	107
11						
Piece-goods of artificial silk :—						
Wholly of artificial silk, including pile fabrics ... ..	39,777	7,148	2,187	17,590	2,796	1,449
Of artificial silk mixed with other materials :—						
Damasks, tapestries, brocades, and the like ...	20,570	5,242	782	52,685	10,097	2,758
Other tissues ...	73,665	15,098	2,901			
TOTAL—Piece-goods ...	134,906	27,641	5,971	72,294	...	4,456

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. lbs.	£'000	Th. lbs.	£'000
Other manufactures of silk, artificial silk, or mixtures :—				
Ribbons ... ..	81	42	1	7
Smallwares :—				
Of natural silk and mixtures ... ..	...	2	...	28
Of artificial silk and mixtures... ..	...	117	...	39
Other manufactures of silk and artificial silk... ..	...	14	...	28
Waste products sold :—				
Silk waste, noils, etc.	16	1	—	—
Artificial silk waste (including staple fibre) ... ..	991	37	704	63
<b>TOTAL ... ..</b>	...	<b>6,633</b>	...	<b>4,701</b>

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Thrown silk :—	s. per lb.	s. per lb.	Per cent.	s. per lb.	s. per lb.	s. per lb.	s. per lb.
Wholly of silk :—							
Undischarged ... ..	15·27	*	...	12·85	17·31	10·80	18·06
Discharged ... ..	26·30	*	...	27·85	38·88	12·68	20·66
Thrown silk, wholly of silk ... ..	15·76	25·31	62·2	25·09	36·38	11·13	18·11
Of silk mixed with other materials ... ..	7·52	10·38	72·4	9·40	6·96	7·38	9·42
Spun silk yarn (including noil yarn :—							
Wholly of silk ... ..	10·25	14·46	70·9	5·74	10·92	10·89	11·15
Of silk mixed with other materials ... ..	11·74	13·96	84·1	8·28	4·37	7·54	9·88
Artificial silk yarn and straw	3·10	4·47	69·4	1·76	3·23	3·30	5·81
Artificial silk doubled or twisted thread advanced beyond the stage of singles yarn :—							
Wholly of artificial silk ... ..	4·06	*	...	2·10	5·08	2·44	0·65
Of artificial silk mixed with other materials	3·98	*	...	4·83	6·40	0·81	12·89
Artificial silk doubled etc.	4·06	4·67	86·9	2·14	5·22	2·83	8·34



Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per sq. yd.	s. per sq. yd.	Per cent.	s. per sq. yd.	s. per sq. yd.	s. per sq. yd.	s. per sq. yd.
Piece-goods wholly of silk:—							
Natural undyed tissues	4.45	4.28	104.0	†	†	0.88	1.30
Other tissues (including pile fabrics) ...	4.44	5.17	85.9	3.02	3.70	2.14	3.44
Piece-goods of silk mixed with other materials:—							
Pile fabrics ...	5.19	4.18	124.1	3.83	4.86	5.80	6.46
Damasks, tapestries, etc. ...	7.87	*	...	3.32	*	8.45	*
Other tissues ...	3.00	*	...	1.77	*	3.19	*
Tissues other than pile fabrics ...	3.08	3.11	98.9	1.78	2.37	3.21	2.87
Piece-goods of artificial silk:—							
Wholly of artificial silk	1.15	2.15	53.5	1.32	2.34†	1.58	2.33†
Of artificial silk mixed with other mat- erials:—							
Damasks, tapestries, etc. ...	0.83	*	...	1.17	*	1.80	*
Other tissues ...	0.80	*	...	0.93	*	2.55	*
Artificial silk piece- goods, mixed ...	0.81	1.11	72.7	0.94	1.15†	2.50	2.25†

\* Not recorded separately.

† Exports relatively insignificant.

‡ Including ribbons and other tissues.

It should be borne in mind when comparing prices for the two years that, in each year, Customs duties were imposed on imports of natural and artificial silk and Excise duties on home-made artificial silk. It is not possible to make allowance for these duties except for artificial silk yarn and straw; if allowance is made in that case for Excise duty at the rate of 1s. per lb. in each year, the average value in 1933 would have been 60.5 per cent. of 1930. As regards piece-goods, the varying content of silk in the mixed fabrics, and changes that may have occurred between 1930 and 1933 in the quality or type of the goods included under the specified descriptions are also factors which may affect price comparisons.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Thrown silk	£'000 1,165	£'000 1,738	£'000 2,743	235	16
Spun silk yarn	801	598	841	105	116
Artificial silk yarn and straw	10,177	9,871	14,223	140	46
Artificial silk doubled or twisted thread advanced beyond the stage of singles yarn ... ..	236	2,924	3,365*	...	324
Sewing and embroidery silks	557	473	488	88	150
Piece-goods wholly of silk (including pile fabrics) ...	1,749	1,209*	1,240	71	76
Piece-goods of silk mixed with other materials ...	913	407	400	44	110
Piece-goods of artificial silk :—					
Wholly of artificial silk ...	6,376	8,483	15,856	249	} 11
Of artificial silk mixed with other materials ...	6,717	8,958	12,327	182	
Ribbons and smallwares and other silk and artificial silk goods ... ..	882	961	1,695	192	78
Waste products sold :—					
Silk waste, noils, etc. ...	37	31	41	111	103
Artificial silk waste (in- cluding staple fibre) ...	154	302	489	317	20
<b>TOTAL ... ..</b>	<b>29,764</b>	<b>35,960</b>	<b>53,708</b>	<b>180</b>	<b>41</b>

\* See note (\*) to Table II B (page 45).

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. lbs.	Th. lbs.	Per cent.	Th. lbs.	Th. lbs.	Per cent.
<b>Thrown silk :—</b>						
Wholly of silk, undischarged	1933 2,124	132	6·2	186	2,178	91·5
	1930 1,059	102	9·6	643	1,600	59·8
Of silk mixed with other materials, undischarged ...	1933 592	4	0·7	7	595	98·8
	1930 305	2	0·7	6	309	98·1
Spun silk yarn ...	1933 1,518	659	43·4	66	925	92·9
	1930 1,351	294	21·7	367	1,424	74·2
Artificial silk (singles yarn and straw) ...	1933 82,326	5,347	6·5	2,159	79,148	97·3
	1930 49,975	5,816	11·6	530	44,689	93·8
	Th. sq. yds.	Th. sq. yds.		Th. sq. yds.	Th. sq. yds.	
Piece-goods wholly of silk ...	1933 5,433	1,594	29·3	20,223	24,062	16·0
	1930 7,665*	2,971	38·8	41,050	45,744	10·3
Piece-goods of silk mixed with other materials, if known as "silks" (including pile fabrics, damasks, etc., and other tissues) ...	1933 2,496	1,002	40·1	3,612	5,106	29·3
	1930 5,619	2,321	41·3	20,828	24,126	13·7
Piece-goods wholly of artificial silk, including pile fabrics and knitted fabrics	1933 147,371	10,842	7·4	18,105	154,634	88·3
	1930 59,332	7,398†	12·5	27,654†	79,588	65·3
Piece-goods of artificial silk mixed with other materials :—						
Damasks, tapestries, brocades and the like	1933 42,368	813	1·9	529	42,084	98·7
Other tissues ...	1933 179,389	42,560	23·7	7,143	143,972	95·0
<b>TOTAL —</b>						
Piece-goods of artificial silk mixed with other materials ...	1933 221,757	43,373	19·6	7,672	186,056	95·9
	1930 120,912	58,111†	48·1	25,776†	88,577	70·9

\* Including an estimate in respect of output returned by value only.

† Including ribbons and other tissues.

The following tables relate only to firms whose returns were made on schedules for the Silk and Artificial Silk Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	1,768	24,206	7,019	38,497	8,787	62,703
... 1930	1,958	26,555	8,616	37,779	10,574	64,334
Administrative, technical and clerical staff* ...	160	3,838	178	1,398	338	5,036
... 1930	262	3,906	232	1,590	494	5,496
TOTAL ...	1,928	27,844	7,197	39,895	9,125	67,739
... 1930	2,220	30,461	8,848	39,369	11,068	69,830
Average number of outworkers ...	13		59		72	
... 1930	37		90		127	

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	39,402	July 15 ...	41,317
February 18 ...	39,143	August 19 ...	41,782
March 18 ...	39,230	September 16 ...	42,875
April 15 ...	39,469	October 14 ...	44,152
May 13 ...	39,771	November 18 ...	44,642
June 17 ...	40,667	December 16 ...	44,704
AVERAGE FOR THE TWELVE MONTHS...			41,430

**Table VII.—Other output of the Silk and Artificial Silk Trade**

The value of the gross output of the firms classified as in the Silk and Artificial Silk Trade was £32,690,000 in 1933 and £28,730,000 in 1930, of which £29,327,000 in 1933 and £25,063,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
<b>Articles of clothing :—</b>		
Women's costumes, dresses, blouses and the like, of woven fabrics ... ..	68	12
Stockings and hose ... ..	69	148
Fancy hosiery ... ..	113	90
Neckties, cravats, etc. ... ..	182	187
Other articles of clothing (including hosiery underwear) ... ..	540	410
Cotton yarns ... ..	228	197
Cotton piece-goods ... ..	1,005	1,433
Other manufactures of cotton ... ..	137	57
Manufactures of wool ... ..	70	51
Other goods made ... ..	64	112
<b>Total—Goods made ... ..</b>	<b>2,476</b>	<b>2,697</b>
	Amount received	Amount received
<b>Work done on silk or artificial silk goods :—</b>		
Throwing and spinning ... ..	29	41
Winding and doubling ... ..	546	614
Weaving ... ..	133	105
Warping, beaming, sizing, etc. ... ..	63	20
Dyeing, printing and finishing, etc. ... ..	110	188
Other work done on commission ... ..	6	2
<b>TOTAL ... ..</b>	<b>3,363</b>	<b>3,667</b>

### THE LINEN AND HEMP TRADES

*Note.*—The returns for the Irish Linen Trade were made on a departmental basis, transfers of material from one department (e.g., spinning) to another in the same factory (e.g., threadmaking or weaving) being treated as sales and purchases, respectively; for factories in Great Britain, the goods manufactured were valued only at the stage at which they were sold, or remained in stock at the end of the year. In view of these differences in method, figures for Great Britain and for Northern Ireland are shown separately.

Table I.—General summary

Particulars	Unit	Great Britain		Northern Ireland	
		1933	1930	1933	1930
Value of products (Gross output)	£'000	3,559	4,911	16,118	17,762
Cost of materials used ... ..	"	2,087	3,084	11,096	12,200
Amount paid for work given out ...	"	64	90	309	584
Net output ... ..	"	1,408	1,737	4,713	4,978
Average number of persons employed (excluding outworkers)...	No.	11,770	16,077	54,007	55,460
Net output per person employed (excluding outworkers) ... ..	£	120	108	87	90

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Production

#### II A.—Total make of Flax Yarns

Kind of yarns		Great Britain	Northern Ireland	United Kingdom
		Cwts.	Cwts.	Cwts.
Flax line yarns ... ..	1933	100,155	216,663	316,818
	1930	118,190	188,260	306,450
Flax tow yarns ... ..	1933	132,097	335,199	467,296
	1930	150,570	215,080	365,650
TOTAL—Flax yarns ... ..	1933	232,252	551,862	784,114
	1930	268,760	403,340	672,100

The above figures include the following output recorded by firms whose returns were made on schedules for other trades:—

	1933.	1930.
	cwts.	cwts.
Flax line yarns ... ..	9,139	8,260
Flax tow yarns ... ..	9,691	17,310
<b>TOTAL ... ..</b>	<b>18,830</b>	<b>25,570</b>

**Table II B.—Principal products**

(i) *Great Britain (output sold or added to stock)*

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Flax, dressed (line), and flax tow ...	11·4	24	21·3	102
Hemp, dressed (line) ... ..	2·8	11	0·6	2
Hemp tow ... ..	2·6	5	4·4	5
Yarns:—				
Flax line yarns ... ..	40·5	247	55·0	379
Flax tow yarns ... ..	84·9	282	86·8	372
Hemp line yarns:—				
Manila and other hard hems ...	11·1	14	} 17·7	58
Italian and other soft hems ...	16·1	75		9
Hemp tow yarns:—				
Manila and other hard hems ...	1·7	2	} 33·8	104
Italian and other soft hems ...	46·9	142		14
Hemp yarns, not separately distinguished ... ..	1·1	5	...	4
Finished thread ... ..	17·2	420	14·7	461
	Th. sq. yds.		Th. sq. yds.	
Piece-goods of linen and hemp* :—				
Sailcloth and heavy canvas ... ..	13,432	893	14,987†	1,210†
Towelling ... ..	1,367	53	} 20,182	1,325
Plain, unbleached:—				
Weighing 8 ozs. and over to the sq. yd. ... ..	2,238	122		
Weighing under 8 ozs. to the sq. yd. ... ..	1,074	16		
Plain, made from bleached yarn:—				
Weighing 8 ozs. and over to the sq. yd. ... ..	3,144	188		
Weighing under 8 ozs. to the sq. yd. ... ..	2,194	95		
Damask ... ..	408	31		
Printed or dyed (including ticking) ...	934	51		
Not separately distinguished... ..	131	7		
<b>TOTAL—Piece-goods of linen and hemp</b>	<b>24,922</b>	<b>1,456</b>	<b>35,169</b>	<b>2,535</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<b>Other manufactures of linen and hemp :—</b>	Th. lin. yds.	£'000		£'000
Canvas hose-pipes ... ..	2,160	220	...	328
<b>Made-up goods of linen and union cloth :—</b>				
<b>Household articles :—</b>				
Damask table linen ... ..	...	102	}	• 382†
Towels ... ..	Th. cwts. 10·3	105		
Quilts, counterpanes and other bed coverings ... ..	...	2		
Other ... ..	...	80		
<b>TOTAL—Made-up goods of linen and union cloth ... ..</b>	...	289	...	382†
Other manufactures of linen ... ..	...	28	...	10
Other manufactures of hemp (except cordage, sacks and bags) ... ..	...	5	...	26
<b>TOTAL—PRINCIPAL PRODUCTS ... ..</b>	...	3,225	...	4,791†

\* Including manufactures of linen mixed with other materials if known as "linens."

† Specified as sailcloth or canvas.

‡ In addition, £22,000 was returned on schedules for trades not covered by the 1933 Inquiry.



The figures in respect of Great Britain shown above include the following output recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I:—

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Flax, dressed (line), and flax tow ...	—	—	0·9	2
Yarns:—				
Flax line ... ..	—	—	0·8	8
Flax tow ... ..	—	—	1·6	8
Hemp line:—				
Manila and other hard hems ...	11·1	14	} 11·8	28
Italian and other soft hems ...	0·6	2		
Hemp tow:—				
Manila and other hard hems ...	1·2	2	} 9·9	25
Italian and other soft hems ...	10·9	24		
Hemp yarns, not separately distinguished ... ..	1·1	5	...	4
	Th. sq. yds.		Th. sq. yds.	
Piece-goods of linen and hemp:—				
Sailcloth and heavy canvas ... ..	1,339	116	} 2,355	252
Towelling ... ..	241	8		
Plain, unbleached:—			} 2,615	130
Weighing 8 ozs. or over to the sq. yd.	237	17		
Weighing under 8 ozs. to the sq. yd.	869	7		
Plain, bleached:—				
Weighing 8 ozs. or over to the sq. yd.	19	1		
Weighing under 8 ozs. to the sq. yd.	156	8		
Damask ... ..	3	1		
Not separately distinguished... ..	132	7		
Total—Piece-goods of linen and hemp ...	2,996	165	4,970	382
	Th. lin. yds.			
Other manufactures of linen and hemp:—				
Canvas hose-pipes ... ..	194	26	...	176
Made-up goods of linen and union cloth:—				
Household articles:—			} ...	25
Damask table linen ... ..	...	7		
Other (except towels, quilts, counterpanes and other bed coverings) ... ..	...	5		
Other manufactures of linen ... ..	...	19	...	2
Other manufactures of hemp, except cordage, sacks and bags ... ..	...	5	...	14
TOTAL ... ..	...	274	...	677

(ii) Northern Ireland (output sold, added to stock or transferred to other departments of the same firm)

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
<b>Spinning Department :—</b>				
Flax, dressed (line) ... ..	29·1	163	44·6	295
Flax tow ... ..	50·0	115	49·6	126
Hemp, dressed (line) ... ..	0·3	1	0·6	• 3
Hemp tow ... ..	0·4	1	0·9	2
Flax line yarns ... ..	213·0	2,271	188·2	2,327
Flax tow yarns ... ..	331·7	1,686	212·7	1,317
Hemp line yarns :—				
Manila and other hard hems ...	1·4	2	} 10·5	73
Italian and other soft hems ...	12·5	73		
Hemp tow yarns :—				
Manila and other hard hems ...	1·2	3	} 21·4	107
Italian and other soft hems ...	31·9	127		
Mixed flax and hemp line and tow yarns ... ..	0·5	4	8·7	50
<b>TOTAL—Spinning Department ...</b>	<b>672·0</b>	<b>4,446</b>	<b>537·2</b>	<b>4,300</b>
<b>Thread-making Department :—</b>				
Finished linen thread ... ..	28·0	521	36·0	706
	Th. sq. yds.		Th. sq. yds.	
<b>Weaving Department :—</b>				
Linen and union piece-goods—loom state :—				
Towelling (viz. huck, diaper, crash, glass, tea, etc.) ... ..	15,343	477	} 116,348*	5,770*
Plain, made from grey or boiled yarns :—				
Weighing 8 ozs. and over to the sq. yd. ... ..	5,915	202		
Weighing under 8 ozs. to the sq. yd. ... ..	66,827	2,229		
Plain, made from bleached or dyed yarns :—				
Weighing 8 ozs. and over to the sq. yd. ... ..	3,806	170		
Weighing under 8 ozs. to the sq. yd. ... ..	30,946	1,057		
Damask ... ..	15,737	874		
Drills and other goods made on more than two leaves of heddles	3,253	212		
<b>TOTAL—Weaving Department ...</b>	<b>141,827</b>	<b>5,221</b>		

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<b>Making-up Department:—</b>		£'000		£'000
Goods made-up from linen or union cloth:—				
Household articles:—				
Damask table linen ... ..	... ..	795	}	3,621
Towels of all descriptions ...	Th. doz. 1,066 Th. cwts. 29·8	471		
Quilts, counterpanes, sheets and other bed coverings ... ..	... ..	468		
Other ... ..	... ..	417		
<b>Total—Household articles ...</b>	... ..	2,151	... ..	3,621
Linen piece-goods “made-up”...	... ..	1,558	... ..	787†
<b>Handkerchiefs:—</b>	Th. doz.		Th. doz.	
Plain (including checked or corded, unhemmed or hem-stitched) ... ..	2,148	430	}	1,260
Printed (including reversed or with open work, embroidered or initialled) ... ..	1,048	255		
<b>Total—Handkerchiefs ...</b>	3,196	685	... ..	1,260
Linen canvas stiffening hollands ...	... ..	100	—	—
<b>TOTAL—Making-up Department</b>	... ..	4,494	... ..	5,668
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	... ..	14,682	... ..	16,444

\* Classified as follows:—

	Th. sq. yds.	£'000
<b>Linen piece-goods, loom state:—</b>		
Plain ... ..	90,074	3,933
Diapers, drills, huckabacks, etc. (heddle woven) ...	3,532	285
Damask and/or Jacquard-woven fabrics ... ..	11,265	828
Damask and diaper, not separately distinguished	11,477	724

† So far as recorded separately.

The figures in respect of Northern Ireland shown above include the following output recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I:—

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Spinning Department:—	Th. cwts.	£'000		
Hemp line yarns:—			}	*
Manila and other hard hems ...	1.4	2		
Italian and other soft hems ...	1.6	8		
Hemp tow yarns:—				
Italian and other soft hems ...	2.2	5		
TOTAL ... ..	...	15	*	*

\* Not available.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Flax line yarns ...	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
	G.B. 6.11	6.89	88.7	}	—	—	—
	N.I. 10.66	12.36	86.3				
U.K.	9.94	11.13	89.3	10.15	14.19	4.27	8.83
Flax tow yarns ...	G.B. 3.32	4.29	77.5	}	—	—	—
	N.I. 5.08	6.19	82.1				
	U.K.	4.73	5.64	83.8	5.91	7.17	2.73
Hemp line yarns ...	G.B. 3.24	3.30	98.3	}	—	—	—
	N.I. 5.44	6.95	78.3				
	U.K.	3.98	4.65	85.8	4.99	6.95	2.95
Hemp tow yarns ...	G.B. 2.96	3.11	95.3	}	—	—	—
	N.I. 3.91	5.00	78.2				
	U.K.	3.35	3.82	87.6	4.39	5.55	2.34
Finished linen thread	G.B. 24.43	31.39	77.8	}	—	—	*
	N.I. 18.60	19.61	94.8				
	U.K.	20.82	23.02	90.4	23.60	28.18	7.04

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)		
	Average value		1933 as a percentage of 1930	Average value		Average value		
	1933	1930		1933	1930	1933	1930	
	£ per th. sq.yds.	£ per th. sq.yds.	Per cent.	£ per th. sq.yds.	£ per th. sq.yds.	£ per th. sq.yds.	£ per th. sq.yds.	
Piece-goods of linen and hemp:— Sailcloth and heavy canvas ... .. G.B.	66·51	80·71	82·4	46·40	69·07	26·62	63·45	
Other classes of piece-goods ... .. G.B.	49·00	65·65	74·6	}	—	—	—	
	N.I.	36·81	49·59					74·2
	U.K.	37·73	51·97					72·6
				47·47	63·60	27·09	47·75	

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930	
	1930	1933				
	As returned	As returned	At 1930 average values			
	£'000	£'000	£'000	Per cent.	Per cent.	
Flax line yarns ... ..	2,706	2,518	2,910	108	114	
Flax tow yarns ... ..	1,689	1,968	2,417	143	159	
Hemp line yarns ... ..	140	164	187	134	71	
Hemp tow yarns ... ..	225	274	317	141	102	
Flax dressed line and flax tow ... ..	523	302	358	69	154	
Finished linen thread ...	1,167	941	1,090	93	106	
Piece-goods of linen and hemp ... ..	8,305	6,677	8,831	106	132	
Other manufactures of linen and hemp... ..	6,480	5,063	6,750	104	89	
TOTAL ... ..	G.B.	4,791	3,225	3,924	82	120
	N.I.	16,444	14,682	18,927	115	118
	U.K.	21,235	17,907	22,860	108	118

**Table V.—Production in relation to Exports and Imports**

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.	
Flax line yarns...	1933	316.8	50.0	15.8	9.3	276.1	96.6
	1930	306.5	40.7	13.3	38.8	304.6	87.3
Flax tow yarns	1933	487.3	34.3	7.3	27.6	460.6	94.0
	1930	365.6	25.8	7.1	51.2	391.0	86.9
Finished linen thread	1933	45.2	17.0	37.6	1.1	29.3	96.2
	1930	50.7	17.6	34.7	0.9	40.0	82.8
Piece-goods of linen and hemp:—	Th	Th		Th	Th		
	sq. yds.	sq. yds.		sq. yds.	sq. yds.		
Sailcloth and heavy canvas*	1933	13,432	12,753	94.9	212	891	76.2
	1930	14,987	13,659	91.1	1,727	3,055	43.5
Other descriptions	1933	153,317	64,107	41.8	3,010	92,220	96.7
	1930	136,530	47,792	35.0	9,873	98,611	90.0

\* The figures for production in 1930 and for exports and retained imports in both years were recorded as "sailcloth or canvas."

The following tables relate only to firms whose returns were made on schedules for the Linen and Hemp Trades and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

(i) *Great Britain*

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	439	2,987	1,576	8,036	2,015	11,023
	1930	578	4,047	2,760	11,268	3,338	15,315
Administrative, technical and clerical staff* ...	1933	24	557	19	190	43	747
	1930	38	579	21	183	59	762
TOTAL ...	1933	463	3,544	1,595	8,226	2,058	11,770
	1930	616	4,626	2,781	11,451	3,397	16,077
Average number of out-workers ...	1933	—	—	4	—	4	—
	1930	—	—	8	—	8	—

\* As at 14th October, 1933, and 18th October, 1930.

## (ii) Northern Ireland

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All Ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	1,573	12,264	6,186	39,160	7,759	51,424
	1930	1,980	13,170	7,633	39,465	9,613	52,635
Administrative, technical and clerical staff* ...	1933	80	1,814	58	769	138	2,583
	1930	135	2,003	78	822	213	2,825
o TOTAL ... ..	1933	1,653	14,078	6,244	39,929	7,897	54,007
	1930	2,115	15,173	7,711	40,287	9,826	55,460
Average number of out-workers ... ..	1933	104		1,368		1,472	
	1930	290		2,679		2,969	

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER.

Week ended	Total number		Week ended	Total number	
	Great Britain	Northern Ireland		Great Britain	Northern Ireland
January 14 ...	4,075	22,162	July 15 ...	4,065	22,324
February 18 ...	3,817	22,362	August 19 ...	4,194	24,193
March 18 ...	4,052	22,376	September 16...	4,345	24,460
April 15 ...	4,093	21,138	October 14 ...	4,505	25,223
May 13 ...	4,057	21,569	November 18	4,604	25,620
June 17 ...	3,943	23,077	December 16 ...	4,610	25,525
AVERAGE FOR THE TWELVE MONTHS			Great Britain ...	4,197	
			Northern Ireland ...	23,336	

**Table VII.—Other output of the Linen and Hemp Trades**

The values of the gross output of the firms whose returns were made on schedules for the Linen and Hemp Trades in 1933 and 1930 were as follows:—

		1933	1930
		£'000	£'000
Great Britain ... ..	...	3,559	4,911
Northern Ireland ... ..	...	16,118	17,762

of which the following amounts represent the values of products included in Tables II B (i) and II B (ii):—

		1933	1930
		£'000	£'000
Great Britain ... ..	...	2,951	4,114
Northern Ireland ... ..	...	14,667	16,444

Particulars of the remaining items are shown below :—

Kind of goods	1933		1930	
	Great Britain	Northern Ireland	Great Britain	Northern Ireland
	£'000	£'000	£'000	£'000
Cordage, cables, ropes, twine and nets ... ..	101	141	50	124
Cotton piece-goods ... ..	55	126	127	121
Made-up goods of cotton ... ..	63	767	145	674
Jute yarns and manufactures ... ..	216	—	214	—
Other textile manufactures ... ..	85	21	123	7
Other goods made ... ..	32	—	36	1
Waste sold ... ..	30	22	55	45
Work done on commission ... ..	26*	374*	47*	344*
<b>TOTAL ... ..</b>	<b>608</b>	<b>1,451</b>	<b>797</b>	<b>1,318</b>

\* Amount received.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Great Britain		Northern Ireland	
	Quantity	Cost	Quantity	Cost
	Tons	£'000	Tons	£'000
<b>Flax—</b>				
Undressed... ..	7,396	387	16,878	1,188
Dressed ... ..	1,490	112	4,605	437
Tow ... ..	4,406	148	20,670	685
<b>Hemp—</b>				
Undressed... ..	3,017	132	843	38
Dressed ... ..	170	13	475	41
Tow ... ..	1,449	37	1,337	54
All other materials (including fuel)	...	1,258	...	8,653
<b>TOTAL ... ..</b>	<b>...</b>	<b>2,087</b>	<b>...</b>	<b>11,096</b>



## THE JUTE TRADE

### Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,155	9,605
Cost of materials used ... ..	"	4,629	6,946
Amount paid for work given out ... ..	"	22	19
Net output ... ..	"	2,504	2,640
Average number of persons employed ... ..	No.	22,547	28,727
Net output per person employed ... ..	£	111	92

### Table II A.—Total make of Jute Yarns

Year	Th. cwts.
1933 ... ..	2,979
1930 ... ..	2,889

Apart from 3,000 cwts. for 1933 and 9,000 cwts. for 1930, the above amounts represent the total quantities of jute yarns spun by firms that made returns on schedules for the Jute Trade, whether used for further manufacturing purposes by the spinners or not.

### Table II B.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Jute yarns ... ..	Th. cwts. 2,093	£'000 2,880	Th. cwts. 2,049	£'000 3,981
	Th. sq. yds. 341,381	} 3,625	Th. sq. yds. 330,771	} 4,677
Jute piece-goods* ... ..	Th. cwts. 1,773		Th. cwts. 1,769	
	Th. sq. yds. 2,293	} 200	Th. sq. yds. 2,771	} 249
Jute carpets and rugs ... ..	Th. cwts. 49		Th. cwts. 44	
	Th. sq. yds. 4,528	87	} 7	} 22
Other woven jute goods ... ..	Th. cwts. .15	54		
	...	12		
Other manufactures of jute, except cordage, sacks and bags	...	...	...	...
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	6,858	...	8,982

\* Exclusive of piece-goods made up into sacks, bags and other goods by the firms that wove them.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Jute yarns ... ..	Th. cwts. 2	£'000 3	Th. cwts. 6	£'000 10
Jute piece-goods ... ..	Th. sq. yds. 10,524	} 193	Th. sq. yds. 6,541	} 154
	Th. cwts. 47		Th. cwts. 44	
Jute carpets and rugs ...	Th. sq. yds. 41	} 6	Th. sq. yds. 32	} 8
	Th. cwts. 1		Th. cwts. 1	
Other manufactures of jute	Th. cwts. 5	14	...	53
	...	12	...	
<b>TOTAL</b> ... ..	...	228	...	225

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			*Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Jute yarns ... ..	£ per cwt. 1.38	£ per cwt. 1.94	Per cent. 70.9	£ per cwt. 1.60	£ per cwt. 2.24	£ per cwt. 1.58	£ per cwt. 1.99
	£ 2.04	£ 2.64	77.2	£ 2.26	£ 2.90	£ 1.63	£ 2.40
Jute piece-goods	£ per th. sq. yds. 10.6	£ per th. sq. yds. 14.2	74.8	£ per th. sq. yds. 11.2	£ per th. sq. yds. 15.0	£ per th. sq. yds. 8.83	£ per th. sq. yds. 13.4
	£ per cwt. 4.08	£ per cwt. 5.64	72.4	£ per cwt. 6.91	£ per cwt. 8.72	£ per cwt. 6.09	£ per cwt. 7.65
Jute carpets and rugs	£ per th. sq. yds. 87.1	£ per th. sq. yds. 90.1	96.7	£ per th. sq. yds. 111.7	£ per th. sq. yds. 109.2	£ per th. sq. yds. 110.4	£ per th. sq. yds. 124.2

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Jute yarns ... ..	£'000 3,981	£'000 2,880	£'000 4,062	102	122
Jute piece-goods ... ..	4,677	3,625	4,846	104	124
Jute carpets and rugs ... ..	249	200	207	83	210
Other woven jute goods and manufactures of jute, except cordage, sacks and bags ... ..	75	153	209	279	224
<b>TOTAL</b> ... ..	<b>8,982</b>	<b>6,858</b>	<b>9,324</b>	<b>104</b>	<b>126</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods	
					Th. cwts.	Th. cwts.	Per cent.
Jute yarns ... {	1933	2,979	217	7·3	2	2,764	99·9
	1930	2,889	320	11·1	25	2,594	99·0
Jute piece goods {	1933	Th. sq. yds.	Th. sq. yds.		Th. sq. yds.	Th. sq. yds.	
	1930	341,381*	104,247	30·5	55,831	292,965	80·9
Jute carpets and rugs ... {	1933	2,293	295	12·9	173	2,171	92·0
	1930	2,771	305	11·0	1,914	4,380	56·3

\* See footnote to Table II B.

The following tables relate only to firms whose returns were made on schedules for the Jute Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	1,369	7,569	1,872	14,058	3,241	21,627
	1930	1,879	9,140	3,253	18,765	5,132	27,905
Administrative, technical and clerical staff* ...	1933	50	716	12	204	62	920
	1930	84	632	19	140	103	822
TOTAL ...	1933	1,419	8,285	1,884	14,262	3,303	22,547
	1930	1,963	9,822	3,272	18,905	5,235	28,727

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	5,527	July 15 ...	6,045
February 18 ...	5,832	August 19 ...	6,091
March 18 ...	5,794	September 16 ...	6,079
April 15 ...	5,737	October 14 ...	6,081
May 13 ...	5,686	November 18 ...	6,115
June 17 ...	5,953	December 16 ...	6,138
AVERAGE FOR THE TWELVE MONTHS...			5,923

**Table VII.—Other output of the Jute Trade**

The value of the gross output of the firms whose returns were made on schedules for the Jute Trade was £7,155,000 in 1933 and £9,605,000 in 1930, of which £6,630,000 in 1933 and £8,757,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
Linen and hemp piece-goods ...	Th. sq. yds.	£'000	Th. sq. yds.	£'000
	1,263	24	1,991	89
Made-up sacks and bags of jute ...	Th. doz.	337	Th. doz.	463
	1,267		1,318	
Cordage, cables, ropes and twine of jute ...	Th. cwts.	82	Th. cwts.	136
	42		55	
Other goods chiefly of linen and hemp, including flax and oakum waste ...		38		49
	...		...	
Jute waste :—				
	Mill dust ...	3	90	3
Other waste (threads, ropes, jute cuttings, etc.) ...		38	128	64
	139			
Work done for the trade or on commission ...		3*		44*
	...		...	
TOTAL ...	...	525	...	848

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. cwts.	£'000
Raw jute ...	2,953	2,435
All other materials used (including fuel) ...	...	2,194
TOTAL ...	...	4,629

**THE HOSIERY TRADE**

*Note.*—The figures for 1930 relate to Great Britain only, particulars of the small production in Northern Ireland not being available for that year. Comparison between the two years is not affected by the omission to any appreciable extent.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	38,831	39,444
Cost of materials used ... ..	"	21,265	22,201
Amount paid for work given out ... ..	"	955	889
Net output ... ..	"	16,611	16,354
Average number of persons employed (excluding outworkers) ... ..	No.	110,867	105,410
Net output per person employed (excluding outworkers) ... ..	£	150	155

**Table II.—Output of principal products**

Hosiery (knitted, netted or crocheted goods)	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz. prs.	£'000	Th. doz. prs.	£'000
<b>Stockings and hose, including half-hose and children's socks :—</b>				
Of cotton ... ..	4,403	1,437	3,302	1,504
Of wool ... ..	13,178	6,642	11,999	8,330
Of silk ... ..	2,894	3,404	1,144*	2,126*
Of artificial silk ... ..	8,883	4,659	6,690	4,619
Not separately distinguished ...	—	—	{ 734* ... }	340* 113
<b>TOTAL—Stockings and hose ...</b>	<b>29,358</b>	<b>16,142</b>	<b>{ 23,869* ... }</b>	<b>16,919* 113</b>
<b>Underwear :—</b>	Th. doz.		Th. doz.	
Of cotton ... ..	6,912	4,585	5,227	4,714
Of wool ... ..	2,856	4,154	1,913	4,316
Of silk ... ..	36	144	24	104
Of artificial silk ... ..	1,594	1,998	{ 496 ... }	871 336
Not separately distinguished ...	—	—	{ 657 ... }	743
<b>TOTAL—Underwear ... ..</b>	<b>11,398</b>	<b>10,881</b>	<b>{ 8,317 ... }</b>	<b>10,748 336</b>

Hosiery (knitted, netted or crocheted goods)	1933		1930	
	Quantity	Value	Quantity	Value
Fancy hosiery†:—	Th. doz.	£'000	Th. doz.	£'000
Of cotton ... ..	798	795	489	633
Of wool ... ..	4,201	8,301	3,352	7,886
Of silk and artificial silk ...	169	244	260	664
Not separately distinguished ...	79	96	228	163
			405	405
TOTAL—Fancy hosiery ...	5,247	9,436	4,329	9,588
			...	163
Gloves of textile materials, other than fabric gloves:—	Th. doz. prs.		Th. doz. prs.	
Of wool ... ..	415	225	425	290
Of other textile materials ...	2	1		
Neckties, cravats, etc. (knitted) ..	Th. doz.		Th. doz.	
	457	305	393†	273‡
Knitted fabric, sold as such or added to stock§:—	Th. lbs.		Th. lbs.	
Wholly or mainly of cotton¶ ...	5,581	402	4,919§	463§
Wholly or mainly of wool ...	2,777	596	718§	185§
Wholly or mainly of silk ...	4	7	...	106
Wholly or mainly of artificial silk	3,735	1,181	1,005	450
Of other and unspecified materials	—	—	...	6§
TOTAL—Knitted fabric ... ..	12,097	2,186	6,642§	1,098§
			...	112§
TOTAL—PRINCIPAL PRODUCTS ...	...	39,176	...	39,640

\* See page 7.

† Including such goods as cardigans, fancy vests, jerseys, sweaters, knitted shawls, ladies' and children's knitted goods not being underwear, etc.

‡ In addition to the value shown above, £187,000 of neckties, cravats, etc., was returned on schedules for the Silk and Artificial Silk Trades in 1930. It is not known what proportion of this amount represented knitted neckties, etc. For 1933, out of a corresponding total of £182,000, the value of the knitted neckties was £60,000; the latter amount is included in the output for 1933 recorded above.

§ So far as recorded separately. The output of piece-goods, tissues, etc., returned on schedules for the Cotton Weaving, Woollen and Worsted, Silk and Artificial Silk, etc., Trades includes a proportion of knitted fabrics. The output returned as such for both years in trades other than the Hosiery Trade has been treated as a principal product of the trades concerned; the 1930 output for the entries indicated differs, therefore, from that published in the final report on the Fourth Census of Production (1930).

¶ Including some stockinet and similar fabrics.

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

Hosiery	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz. prs.	£'000	Th. doz. prs.	£'000
Stockings and hose, including half-hose and children's socks :—				
Of wool ... ..	—	—	3	2
Of silk ... ..	87	57	46	59
Of artificial silk ... ..	16	12	115	93
<b>TOTAL—Stockings and hose ...</b>	<b>103</b>	<b>69</b>	<b>164</b>	<b>154</b>
	Th. doz.		Th. doz.	
Underwear :—				
Of wool ... ..	—	—	4	8
Of artificial silk ... ..	346	530	144	409
Not separately distinguished ...	—	—	20	2
<b>TOTAL—Underwear ... ..</b>	<b>346</b>	<b>530</b>	<b>168</b>	<b>440</b>
			...	2
Fancy hosiery :—				
Of wool ... ..	2	3	9	26
Of silk and artificial silk ...	70	110	31	52
Not separately distinguished ...	12	18	—	38
<b>TOTAL—Fancy hosiery ... ..</b>	<b>84</b>	<b>131</b>	<b>40</b>	<b>78</b>
			...	38
	Th. doz. prs.		Th. doz. prs.	
Gloves of textile materials, other than fabric gloves :—				
Of wool ... ..	14	7	} 15	20
Of other textile materials ...	2	1		
Neckties, cravats, etc. (knitted) ...	81	60	Th. doz.	17
<b>TOTAL ... ..</b>	<b>...</b>	<b>798</b>	<b>...</b>	<b>749</b>



Table III.—Average values of goods produced, exported and imported

Hosiery	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per doz. prs.	s. per doz. prs.	Per cent.	s. per doz. prs.	s. per doz. prs.	s. per doz. prs.	s. per doz. prs.
Stockings and hose:—							
Of cotton ...	6.53	9.11	71.8	7.49	12.46	5.19	8.35
Of wool ...	10.09	13.88	72.6	11.25	17.03	17.11	18.92
Of silk ...	23.54	37.17	63.3	26.11	44.36	30.82	41.74
Of artificial silk	10.50	13.81	76.0	8.61	14.38	11.40	15.41
	s. per doz.	s. per doz.		s. per doz.	s. per doz.	s. per doz.	s. per doz.
Underwear:—							
Of cotton ...	13.27	18.04	73.7	12.72	20.95	5.46	9.90
Of wool ...	29.09	45.12	64.5	27.59	47.87	25.29	25.99
Of silk ...	78.00	83.71	93.2	91.73	*	45.40	*
Of artificial silk	25.07	35.12	71.4	15.88	*	21.20	*
Of silk and artificial silk	26.17	37.35	70.1	16.37	19.76	25.95	17.74
Fancy hosiery:—							
Of cotton ...	19.92	25.89	76.9	15.49	24.57	8.06	20.24
Of wool ...	39.52	47.05	83.9	37.59	57.15	29.81	49.14
Of other textile materials ...	28.72	51.50	55.8	29.67	56.33	28.58	27.01
Neckties, cravats, etc. (knitted) ...	13.32	13.89	95.8	*	*	*	*
	s. per doz. prs.	s. per doz. prs.		s. per doz. prs.	s. per doz. prs.	s. per doz. prs.	s. per doz. prs.
Gloves, other than fabric gloves:—							
Of wool ...	10.83	13.53	80.1	12.35	15.11	5.27	7.58
	s. per lb.	s. per lb.					
Knitted fabric, sold as such or added to stock:—							
Wholly or mainly of cotton ...	1.44	1.88	76.6	}	*	*	*
Wholly or mainly of wool ...	4.29	5.17	83.0				
Wholly or mainly of artificial silk	6.32	8.08	78.3				

\* Not recorded separately.

Table IV.—Volume of Production

Hosiery	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Stockings and hose :—	£'000	£'000	£'000	Per cent.	Per cent.
Of cotton ... ..	1,504	1,437	2,001	133	132
Of wool ... ..	8,330	6,642	9,149	110	129
Of silk ... ..	2,126	3,404	5,378	253	76
Of artificial silk ...	4,619	4,659	6,130	133	
Not separately distinguished ...	453	—	—	—	—
<b>TOTAL—Stockings and hose ...</b>	<b>17,032</b>	<b>16,142</b>	<b>22,658</b>	<b>133</b>	<b>105</b>
Underwear :—					
Of cotton ... ..	4,714	4,585	6,221	132	75
Of wool ... ..	4,316	4,154	6,440	149	124
Of silk ... ..	104	144	155	149	31
Of artificial silk ...	1,207	1,998	2,798	232	
Not separately distinguished ...	743	—	—	—	—
<b>TOTAL—Underwear</b>	<b>11,084</b>	<b>10,881</b>	<b>15,614</b>	<b>140</b>	<b>84</b>
Fancy hosiery :—					
Of cotton ... ..	633	795	1,034	163	91
Of wool ... ..	7,886	8,301	9,894	125	96
Of silk and artificial silk ... ..	827	244	437	53	97
Not separately distinguished ...	405	96	68	—	—
<b>TOTAL—Fancy hosiery ...</b>	<b>9,751</b>	<b>9,436</b>	<b>11,433</b>	<b>117</b>	<b>92</b>
Gloves of textile materials, other than fabric gloves	290	226	284	98	178
Neckties, cravats, etc. (knitted) ... ..	273	305	318	116	171
Knitted fabrics, sold as such or added to stock :—					
Wholly or mainly of cotton ... ..	463	402	525	113	66
Wholly or mainly of wool ... ..	291	596	718	247	
Wholly or mainly of silk or artificial silk ... ..	450	1,188	1,512	336	
Of other and unspecified materials	6	—	—	—	—
<b>TOTAL—Knitted fabric ... ..</b>	<b>1,210</b>	<b>2,186</b>	<b>2,755</b>	<b>228</b>	<b>66</b>
<b>TOTAL ... ..</b>	<b>39,640</b>	<b>39,176</b>	<b>53,062</b>	<b>134</b>	<b>96</b>

Table V.—Production in relation to Exports and Imports

Hosiery	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. doz. prs.	Th. doz. prs.	Per cent.	Th. doz. prs.	Th. doz. prs.	Per cent.
Stockings and hose:—						
Of cotton ... { 1933	4,403	407	9·2	1,490	5,486	72·8
... { 1930	3,429	434	12·7	4,211	7,206	41·6
Of wool ... { 1933	13,178	1,346	10·2	16	11,848	99·9
... { 1930	12,461	2,117	17·0	67	10,411	99·4
Of silk ... { 1933	2,894	125	4·3	60	2,829	97·9
... { 1930	1,192	67	5·6	133	1,258	89·4
Of artificial silk... { 1933	8,883	581	6·5	1,111	9,413	88·2
... { 1930	6,947	691	9·9	1,811	8,067	77·6
Total—Stockings and hose { 1933	29,358	2,459	8·4	2,677	29,576	90·9
... { 1930	24,029	3,309	13·8	6,222	26,942	76·9
Underwear:—	Th. doz.	Th. doz.		Th. doz.	Th. doz.	
Of cotton ... { 1933	6,912	396	5·7	607	7,123	91·5
... { 1930	5,664	232	4·1	2,497	7,929	68·5
Of wool ... { 1933	2,856	140	4·9	6	2,722	99·8
... { 1930	2,073	141	6·8	41	1,973	97·9
Of silk and artificial silk { 1933	1,630	124	7·6	15	1,521	99·0
... { 1930	772	43	5·6	172	901	80·9
Total—Underwear ... { 1933	11,398	660	5·8	628	11,366	94·5
... { 1930	8,509	416	4·9	2,710	10,803	74·9
Fancy hosiery*:—						
Of cotton ... { 1933	810	38	4·7	195	967	79·8
... { 1930	516	41	7·9	350	825	57·6
Of wool ... { 1933	4,265	344	8·1	118	4,039	97·1
... { 1930	3,537	334	9·4	211	3,414	93·8
Of other textile materials { 1933	172	16	9·3	6	162	96·3
... { 1930	339	43	12·7	11	307	96·4
Total—Fancy hosiery ... { 1933	5,247	398	7·6	319	5,168	93·8
... { 1930	4,392	418	9·5	572	4,546	87·4
Gloves of textile materials, other than fabric gloves ... { 1933	Th. doz. prs.	Th. doz. prs.		Th. doz. prs.	Th. doz. prs.	
... { 1930	417	113	27·1	124	428	71·0
... { 1930	425	136	32·0	275	564	51·2

\* Knitted neckties are excluded from production but included in overseas trade figures.

For the purpose of the above table estimates have been made in respect of hosiery returned by value only and the unclassified output has been distributed amongst the various items in the same proportions as the classified output.

The following tables relate only to firms whose returns were made on schedules for the Hosiery Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	2,277	19,436	16,484	81,931	18,761	101,367
... { 1933	2,307	17,349	18,273	78,993	20,580	96,342
Administrative, technical and clerical staff* ...	438	5,693	622	3,807	1,060	9,500
... { 1933	549	5,575	640	3,493	1,189	9,068
TOTAL ...	2,715	25,129	17,106	85,738	19,821	110,867
... { 1933	2,858	22,924	18,913	82,486	21,769	105,410
Average number of outworkers ...	70		869		939	
... { 1933	81		1,274		1,355	
... { 1930						

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	63,798	July 15 ...	65,656
February 18 ...	64,428	August 19 ...	67,728
March 18 ...	64,320	September 16 ...	69,275
April 15 ...	62,629	October 14 ...	71,765
May 13 ...	62,469	November 18 ...	73,181
June 17 ...	64,225	December 16 ...	72,509
AVERAGE FOR THE TWELVE MONTHS...			66,832

**Table VII.—Other output of the Hosiery Trade**

The value of the gross output of the firms whose returns were made on schedules for the Hosiery Trade was £38,831,000 in 1933 and £39,444,000 in 1930, of which £38,378,000 in 1933 and £38,891,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz. prs.	£'000	Th. doz. prs.	£'000
Fabric gloves ... ..	23	13	28	15
Silk and artificial silk manufactures ...	...	68	...	89
Other textile manufactures ...	...	16	...	33
Clothing, not separately distinguished ... ..	...	19	...	33
	Th. lbs.		Th. lbs.	
Waste products sold :—				
Cotton ... ..	4,481	34	3,270	44
Wool ... ..	5,596	149	3,794	130
Silk ... ..	52	1	30	1
Artificial silk ... ..	677	11	1,161	28
Not separately distinguished ...	6,016	85	3,895	74
<b>Total—Waste sold</b> ... ..	<b>16,822</b>	<b>280</b>	<b>12,150</b>	<b>277</b>
Work done for the trade or on commission :—				
Knitting ... ..	...	34*	...	59*
Finishing ... ..	...	15*	...	16*
Other work ... ..	...	8*	...	31*
<b>TOTAL—Work done for the trade or on commission</b> ...	...	<b>57*</b>	...	<b>106*</b>
<b>TOTAL</b> ... ..	...	<b>453</b>	...	<b>553</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. lbs.	£'000
Cotton yarns ... ..	60,041	3,865
Woollen and worsted yarns ... ..	66,721	8,683
Silk yarns ... ..	1,826	1,296
Artificial silk yarns ... ..	16,591	3,222
All other materials used (including fuel) ... ..	...	4,199
<b>TOTAL</b> ... ..	...	<b>21,265</b>

**THE TEXTILE FINISHING TRADE**

Note.—Table V relating to exports and imports is not included for this trade

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of work done (Gross output) ... ..	£'000	29,375	30,379
Cost of materials used ... ..	"	11,376	10,524
Amount paid for work given out ... ..	"	603	608
Net output ... ..	"	17,496	19,247
Average number of persons employed ... ..	No.	97,374	105,254
Net output per person employed ... ..	£	180	183

**Table II.—Output**

Kind of goods finished	1933		1930	
	Quantity	Value of work done	Quantity	Value of work done
<i>Cotton and cotton goods</i>	Th. lbs.	£'000	Th. lbs.	£'000
Raw cotton ... ..	9,787	59	4,482	74
Cotton waste ... ..	10,691	100	8,975	89
Raw cotton and cotton waste, not separately distinguished ...	130	1	473	5
<b>Cotton yarns :—</b>				
Bleached, not mercerised ... ..	48,367	319	45,282	307
Dyed, not mercerised ... ..	76,979	2,017	59,351	1,661
Mercerised, whether bleached or not ... ..	26,436	658	15,132	420
Not separately distinguished ... ..	229	5	5,925	161
<b>TOTAL—Cotton yarns ...</b>	<b>152,011</b>	<b>2,999</b>	<b>125,690</b>	<b>2,549</b>
<b>Cotton piece-goods (excluding artificial silk mixtures):—</b>				
Bleached, but not dyed or printed* ...	971,327	3,106	1,104,774	3,856
Dyed or printed* ...	1,035,422		1,162,989	
Dyed, but not printed* ...	860,074	4,797	756,936	5,517
Printed* ...	881,434		766,451	
Printed, whether dyed or not* ...	622,647	5,354	610,820	6,437
Dyed or not* ...	639,180		602,604	
" Finished " only ...	440,546	775	385,662	765
... ..	426,794		368,400	
<b>TOTAL—Cotton piece-goods ...</b>	<b>2,894,594</b>	<b>14,032</b>	<b>2,858,192</b>	<b>16,575</b>
... ..	2,985,820		2,900,444	
<b>Other and unclassified manufactures of cotton ... ..</b>	...	167	—	—
<b>TOTAL—Cotton and cotton goods ...</b>	...	<b>17,358</b>	...	<b>19,292</b>

Kind of goods finished	1933		1930	
	Quantity	Value of work done	Quantity	Value of work done
<i>Wool and wool goods</i>	Th. lbs.	£'000	Th. lbs.	£'000
Raw wool, including slubbing ...	44,043	715	32,341†	552†
Woolen and worsted yarns (pure or mixed), alpaca, mohair and kindred yarns ...	34,431	749	20,577	490
Woolen and worsted tissues:—				
Flannels and delaines:—				
Quantity stated { <i>Th. lin. yds.</i> 10,608 } 90 { <i>Th. sq. yds.</i> 11,440 }				113
Quantity not stated ...	—	—	...	9
Other tissues, pure or mixed:—				
Quantity stated { <i>Th. lin. yds.</i> 148,351 } 2,540 { <i>Th. sq. yds.</i> 211,426 }				2,762
Quantity not stated ...	—	—	...	253
Other and unclassified manufactures of wool, including tops but not blankets ...	...	33	...	45†
<b>TOTAL—Wool and wool goods ...</b>	...	<b>4,127</b>	...	<b>4,224</b>
<i>Silk and silk goods</i>	Th. lbs.		Th. lbs.	
Thrown silk ...	413	73	412	72
Spun silk yarns ...	510	55	594	79
Silk piece-goods, pure or mixed ...	{ <i>Th. lin. yds.</i> 14,090 } 358 { <i>Th. sq. yds.</i> 14,018 }		{ 20,342 } 478 { 19,741 }	
<b>TOTAL—Silk and silk goods ...</b>	...	<b>486</b>	...	<b>629</b>
<i>Artificial silk and artificial silk goods</i>	Th. lbs.		Th. lbs.	
Artificial silk yarn, thread and straw ...	4,049	124	3,838	169
Artificial silk piece-goods, pure or mixed, including all mixtures of artificial silk and cotton ...	{ <i>Th. lin. yds.</i> 265,014 } 3,065 { <i>Th. sq. yds.</i> 284,873 }		{ 176,103 } 2,029 { 181,085 }	
Silk and artificial silk piece-goods, not separately distinguished ...	...	105	...	189
<b>TOTAL—Artificial silk and artificial silk goods ...</b>	...	<b>3,294</b>	...	<b>2,387</b>
<i>Linen yarns and piece-goods†</i>	Th. lbs.	£'000	Th. lbs.	£'000
Linen yarns ...	43,216	301	37,970	302
Linen piece-goods, pure or mixed:—				
Bleached and finished... { <i>Th. lin. yds.</i> 90,277 } 492 { <i>Th. sq. yds.</i> 93,236 }				554
Dyed and printed { <i>Th. lin. yds.</i> 43,791 } 383 { <i>Th. sq. yds.</i> 40,477 }				325
<b>TOTAL—Linen yarns and piece-goods ...</b>	...	<b>1,176</b>	...	<b>1,181</b>

Kind of goods finished	1933		1930	
	Quantity	Value of work done	Quantity	Value of work done
<i>Jute yarns and piece-goods</i>	Th. lbs.	£'000	Th. lbs.	£'000
Jute yarns ... ..	3,799	40	3,337	32
Jute piece-goods { <i>Th. lin. yds.</i>	42,932	93	...	29
{ <i>Th. sq. yds.</i>	62,165		24,761	67
			28,542	
<b>TOTAL—Jute yarns and piece-goods ... ..</b>	...	133	...	128
<i>Hosiery and knitted fabrics</i>	Th. doz. prs.		Th. doz. prs.	
<b>Stockings and socks :—</b>				
Wholly or mainly of cotton ...	2,916	121	2,646	143
Wholly or mainly of wool ...	8,429	386	9,258	497
Wholly or mainly of silk ...	2,616	233	1,374	141
Wholly or mainly of artificial silk	6,457	317	5,023	292
Of silk and artificial silk, not separately distinguished ...	—	—	60	8
	Th. doz.		Th. doz.	
<b>Undergarments and fancy hosiery:—</b>				
Wholly or mainly of cotton ...	160	6	104	9
Wholly or mainly of wool ...	640	80	714	68
Wholly or mainly of other textile materials ... ..	6	3	...	10
			78	14
	Th. lbs.		Th. lbs.	
<b>Knitted fabrics :—</b>				
Wholly or mainly of cotton ...	11,947	163	8,493	148
Wholly or mainly of wool ...	13,358	282	9,812	261
Wholly or mainly of artificial silk	5,438	163	1,831	61
Not separately distinguished ...	2,003	51	1,151	30
<b>TOTAL—Hosiery and knitted fabrics ... ..</b>	...	1,805	...	1,682
<i>Other and unclassified textile manufactures</i>	Th. prs.		Th. prs.	
Blankets ... ..	1,980	76	850	36
Lace ... ..	...	326	...	151
Lace net ... ..	...	68	...	80
Lace curtains, curtain nets and other goods made on lace curtain machines... ..	...	228	...	387
Other and unclassified textile manufactures ... ..	...	46	...	218
<b>TOTAL VALUE OF FINISHING WORK DONE ... ..</b>	...	29,123	...	30,395



Kind of goods finished	1933		1930	
	Quantity	Value of work done	Quantity	Value of work done
		£'000		£'000
<i>Other work done</i>				
Cutting of pile fabrics, including velvets, velveteens, corduroys, moleskins and similar goods:—				
Of cotton :—				
Quantity stated { <i>Th. lin. yds.</i>	15,114	} 103	{ 12,208	} 119
Quantity not stated ... { <i>Th. sq. yds.</i>	11,300		{ 8,339	
Of other textiles ...	...	5	...	34
Engraving for calico printers ...	...	314	...	324
Shrinking and proofing cloth ...	...	109	...	61§
Other work ...	...	93	...	78
<b>TOTAL VALUE OF WORK DONE ...</b>	...	<b>29,747</b>	...	<b>31,023§</b>

\* The value shown for bleached goods includes the value of mercerising and finishing if this work was done by the bleaching firms; the value for dyed goods includes the value of bleaching, mercerising and finishing if done by the dyers; and the value for printed goods includes the value of all process work incidental to the production of prints. Self-coloured linings are included with dyed goods and printed linings with printed goods.

† In the report on the 1930 Census, tops were included with raw wool and blankets with unclassified manufactures of wool.

‡ Of these amounts the output of firms in Northern Ireland was :—

Linen yarns and piece-goods.	1933		1930	
	Th. lbs.	£'000	Th. lbs.	£'000
Linen yarns ...	28,811	210	17,781	171
Linen piece-goods pure or mixed :—				
Bleached and finished ... { <i>Th. lin. yds.</i>	86,035	} 433	{ 68,017	} 432
... { <i>Th. sq. yds.</i>	88,255		{ 69,862	
Dyed and printed { <i>Th. lin. yds.</i>	37,976	} 249	{ 33,734	} 207
... { <i>Th. sq. yds.</i>	34,442		{ 28,821	

§ In addition, £6,000 was returned on Schedules for trades not covered by the 1933 Inquiry.

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

Kind of goods finished	1933		1930	
	Quantity	Value of work done	Quantity	Value of work done
<i>Cotton and cotton goods</i>				
Raw cotton ... ..	6	*	363	6
Cotton yarns :—				
Bleached ... ..	3	*	—	—
Dyed, not mercerised ... ..	702	16	35	1
Not separately distinguished ... ..	102	3	—	—
<b>TOTAL—Cotton and cotton goods ... ..</b>	...	19	...	7
<i>Wool and wool goods</i>				
Raw wool, including slubbing	301	5	—	—
Woollen and worsted yarns (pure or mixed), alpaca, mohair and kindred yarns ... ..	786	19	617	18
Woollen and worsted tissues :—				
Flannels and delaines ... ..	—	—	...	9
Other tissues, pure or mixed :—				
Quantity stated { <i>Th. lin. yds.</i>	1,497	} 26 {	} 333	} 7
<i>Th. sq. yds.</i>	2,154			
Quantity not stated ... ..	—	—	...	57
<b>TOTAL—Wool and wool goods</b>	...	50	...	91
<i>Artificial silk and artificial silk goods</i>				
Artificial silk yarn, thread and straw ... ..	32	1	46	2
Artificial silk piece-goods, pure or mixed, including all mixtures of artificial silk and cotton ... ..	—	—	1,728 1,777	20
Silk and artificial silk piece-goods, not separately distinguished ... ..	...	105	...	189
<b>TOTAL—Artificial silk and artificial silk goods ... ..</b>	...	106	...	211

Kind of goods finished	1933		1930	
	Quantity	Value of work done	Quantity	Value of work done
		£'000		£'000
Linen piece - goods, bleached and finished ...	<i>Th. lin. yds.</i> <i>Th. sq. yds.</i>	—	1,320	13
Jute yarns ...	—	—	...	29
Jute piece-goods ...	<i>Th. lin. yds.</i> <i>Th. sq. yds.</i>	881 1,276 Th. lbs.	370 426	1
Knitted fabrics, wholly or mainly of artificial silk ...	87	3	—	—
Lace ...	...	235	...	148
Lace net ...	...	68	...	78
Lace curtains, curtain nets and other goods made on lace curtain machines ...	...	203	...	340
Other and unclassified manufactures of other textiles ...	...	4	...	1
Shrinking and proofing cloth ...	...	1	—	—
<b>TOTAL ...</b>	...	<b>691</b>	...	<b>919</b>

\* Under £500.

Table III.—Average charges for work done

Kind of work done	Average charge		1933 as a percentage of 1930
	1933	1930	
	£ per th. lbs.	£ per th. lbs.	Per cent.
Raw materials and yarns :—			
Raw cotton (bleached, dyed, etc.) ...	6.00	16.43	36.5
Cotton waste (bleached, dyed, etc.) ...	9.37	9.91	94.6
Raw wool, including slubbing, (bleached, dyed, etc.) ...	16.23	17.06	95.1
Thrown silk (bleached, dyed, etc.) ...	176.00	174.07	101.1
Cotton yarns :—			
Bleached, not mercerised...	6.60	6.77	97.5
Dyed, not mercerised ...	26.20	28.24	92.8
Mercerised, whether bleached or not...	24.87	27.75	89.6
Woollen and worsted yarns (pure or mixed), alpaca, mohair and kindred yarns, (stoved, dyed, finished, etc.)	21.74	23.67	91.8

Kind of work done	Average charge				1933 as a percentage of 1930	
	1933		1930		Per cent.	
	£ per th. lbs.		£ per th. lbs.		Per cent.	
<b>Raw materials and yarns—cont.</b>						
<b>Linen yarns (bleached, dyed, printed and finished):—</b>						
Great Britain ... ..	6.29		6.53		96.3	
Northern Ireland ... ..	7.30		9.60		76.0	
United Kingdom ... ..	6.96		7.93		87.8	
<b>Jute yarns (bleached, dyed, etc.)... ..</b>	10.46		9.47		110.5	
<b>Spun silk yarns (bleached, dyed, etc.) ... ..</b>	108.59		133.32		81.5	
<b>Artificial silk yarn, thread and straw (bleached, dyed, etc.)</b>	30.57		43.92		69.6	
	£ per th. lin. yds.	£ per th. sq. yds.	£ per th. lin. yds.	£ per th. sq. yds.	(a)	(b)
<b>Piece-goods:—</b>						
<b>Of cotton (excluding artificial silk mixtures):—</b>						
Bleached, but not dyed or printed ... ..	3.20	2.99	3.46	3.33	92.4	89.8
Dyed, but not printed ... ..	5.58	5.44	7.34	7.21	76.0	75.5
Printed, whether dyed or not "Finished" only ... ..	8.60	8.38	10.52	10.74	81.7	78.0
"Finished" only ... ..	1.76	1.81	1.97	2.09	89.3	86.6
<b>Flannels and delaines, (stoved, dyed, etc.) ... ..</b>	8.45	7.84	10.37	11.46	81.5	68.4
<b>Other woollen and worsted tissues, pure or mixed (stoved, dyed, etc.) ... ..</b>	17.12	11.89	16.54	12.40	103.5	95.9
<b>Of linen, pure or mixed:—</b>						
Bleached and finished:—						
Great Britain ... ..	13.84	11.79	14.06	13.13	98.4	89.8
Northern Ireland ... ..	5.03	4.90	6.35	6.18	79.2	79.3
United Kingdom ... ..	5.44	5.27	7.18	6.96	75.8	75.7
Dyed and printed:—						
Great Britain ... ..	23.03	22.19	80.38	73.51	28.7	30.2
Northern Ireland ... ..	6.57	7.25	6.14	7.18	107.1	100.9
United Kingdom ... ..	8.76	9.47	9.23	10.68	94.8	88.7
<b>Of jute (bleached, dyed, etc.)</b>	2.16	1.49	2.70	2.34	80.1	63.9
<b>Of silk, pure or mixed (bleached, dyed, etc.) ... ..</b>	25.44	25.57	23.77	24.51	107.0	104.3
<b>Of artificial silk, pure or mixed, including all mixtures of artificial silk and cotton (dyed, printed, etc.)</b>	11.59	10.76	11.52	11.30	100.6	95.2

Kind of work done	Average charge		1933 as a percentage of 1930
	1933	1930	
	£ per th. lbs.	£ per th. lbs.	Per cent.
Knitted fabrics (bleached, dyed, etc.) :—			
Wholly or mainly of cotton...	13·68	17·44	78·4
Wholly or mainly of wool ...	21·14	26·56	79·6
Wholly or mainly of artificial silk ... .. . . .	29·94	33·58	89·2
Hosiery (bleached, dyed, finished, etc.) :—	£ per th. doz. prs.	£ per th. doz. prs.	
Stockings and socks :—			
Wholly or mainly of cotton	41·35	54·04	76·5
Wholly or mainly of wool...	45·58	53·62	85·0
Wholly or mainly of silk ...	88·55	102·90	86·1
Wholly or mainly of artificial silk ... .. . . .	48·85	58·24	83·9
Blankets (bleached, dyed, etc.)	£ per th. prs.	£ per th. prs.	
	38·54	42·21	91·3

(a) Measured by linear yards.

(b) Measured by square yards.

Table IV.—Volume of Production

Kind of work done	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Raw materials and yarns (bleached, dyed, etc.) :—	£'000	£'000	£'000	Per cent.	Per cent.
Raw wool (including slubbing) ... .. .	552	715	752	136	112
Cotton yarns ... .. .	2,549	2,999	3,239	127	145
Woollen and worsted yarns	490	749	816	167	140
Artificial silk yarn, thread and straw ... .. .	169	124	178	105	209
Linen yarns ... .. .	302	301	370	123	129
Other raw materials and yarns ... .. .	381	332	448	118	122
<b>TOTAL—Raw materials and yarns</b> ... .. .	<b>4,443</b>	<b>5,220</b>	<b>5,803</b>	<b>131</b>	<b>140</b>

Kind of work done	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Piece-goods :—	£'000	£'000	£'000	Per cent.	Per cent.
Of cotton :—					
Bleached, but not dyed or printed ... ..	3,856	3,106	3,459	90	169
Dyed, but not printed...	5,517	4,797	6,354	115	129
Printed, whether dyed or not ... ..	6,437	5,354	6,864	107	140
" Finished " only ... ..	765	775	895	117	184
Of wool (stoved, dyed etc.) :—					
Flannels and delaines ...	122	90	132	108	175
Other tissues ... ..	3,015	2,540	2,649	88	121
Of silk, pure or mixed, (bleached, dyed, etc.) ...	478	358	343	72	108
Of artificial silk, pure or mixed, including all mix- tures of artificial silk and cotton (dyed, printed, etc.) ... ..	2,029	3,065	3,220	159	25
Silk and artificial silk piece- goods not separately distinguished ... ..	189	105	109	—	—
Of linen :—					
Bleached and finished...	554	492	607	110	168
Dyed and printed ... ..	325	383	699	215	127
Of jute (bleached and dyed) ... ..	67	93	146	218	88
TOTAL—Piece-goods ... ..	23,354	21,158	25,477	109	129
Other manufactured goods:—					
Hosiery (bleached, dyed, finished, etc.) ... ..	1,182	1,146	1,338	113	106
Knitted fabrics (bleached, dyed, etc.) ... ..	500	659	809	162	53
Blankets (bleached, dyed, etc.) ... ..	36	76	83	231	—
Other goods finished and work done ... ..	1,508	1,488	1,754	116	110
TOTAL ... ..	31,023	29,747	35,264	114	128

The following tables relate only to firms whose returns were made on schedules for the Textile Finishing Trade and are summarised in Table I.

**Table VI.—Employment****A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	5,787	67,145	4,069	19,935	9,856	87,080
	1930	7,424	73,204	4,524	20,818	11,948	94,022
Administrative, technical and clerical staff* ... ..	1933	412	7,737	416	2,557	828	10,294
	1930	495	8,728	374	2,504	869	11,232
TOTAL ... ..	1933	6,199	74,882	4,485	22,492	10,684	97,374
	1930	7,919	81,932	4,898	23,322	12,817	105,254

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	51,163	July 15 ... ..	51,784
February 18 ... ..	51,067	August 19 ... ..	52,070
March 18 ... ..	51,217	September 16 ... ..	52,551
April 15 ... ..	51,303	October 14 ... ..	53,454
May 13 ... ..	51,316	November 18 ... ..	53,581
June 17 ... ..	51,013	December 16 ... ..	53,374
AVERAGE FOR THE TWELVE MONTHS ... ..			51,991

**Table VII.—Other output of the Textile Finishing Trade**

The value of the gross output of the firms whose returns were made on schedules for the Textile Finishing Trade was £29,375,000 in 1933 and £30,379,000 in 1930, of which £29,056,000 in 1933 and £30,104,000 in 1930 consisted of output included in Table II. Particulars of the remaining items are shown below.

Kind of goods finished and work done	1933	1930
	£'000	£'000
Winding, sizing and beaming :—		
Of cotton yarn ... ..	175	119
Of artificial silk yarn ... ..	82	56*
Other output ... ..	62	100
TOTAL ... ..	319	275

\* Includes some silk yarn.

### THE LACE TRADE

*Note.*—The particulars for both years exclude establishments at which the operations carried out were confined to the finishing processes (lace warehouses), these being largely workshops.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	4,515	5,294
Cost of materials used ... ..	"	2,353	2,941
Amount paid for work given out ... ..	"	102	103
Net output ... ..	"	2,060	2,250
Average number of persons employed (excluding outworkers) ... ..	No.	12,731	13,448
Net output per person employed (excluding outworkers) ... ..	£	162	167

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Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. sq. yds.	£'000	Th. sq. yds.	£'000
Cotton net ... ..	39,128	776	30,664	622
Cotton lace curtains, in the piece or not, made on curtain machines ... ..	...	1,028	}	1,831
Cotton piece-goods (other than lace) made on curtain machines ... ..	...	46		
Other cotton lace goods made on curtain machines ... ..	...	111	...	35
Cotton lace and articles thereof (made on machines other than net or curtain machines) ... ..	...	350	...	375
<b>TOTAL—Cotton net, lace, etc. ...</b>	...	<b>2,311</b>	...	<b>2,863</b>



Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. lbs.	£'000	Th. lbs.	£'000
Silk lace and articles thereof (except embroidery), of silk mixed with other materials ... ..	323 Th.	148	205 Th.	123
Silk net ... ..	2,630 sq. yds.	49	3,186 sq. yds.	79
Artificial silk lace and articles thereof (except embroidery) :—	...	15	...	63
Wholly of artificial silk ... ..	57 Th. lbs.	18	65 Th. lbs.	38
Of artificial silk mixed with other materials ... ..	712 Th. lbs.	246	851 Th. lbs.	344
Artificial silk net :—	...	60	...	115
Wholly of artificial silk ... ..	1,966 sq. yds.	42	2,879 sq. yds.	104
Of artificial silk mixed with other materials ... ..	5,581 sq. yds.	257	3,889 sq. yds.	172
TOTAL—Silk and artificial silk lace and net ... ..	...	893	...	1,218
Muslin curtains, in the piece or not ... ..	...	75	...	105
Artificial silk curtains ... ..	...	119	...	62
Embroidery and needlework on net and dissoluble fabrics ... ..	...	149	...	126
Value of finishing work ... ..	...	365*	...	290*
TOTAL PRINCIPAL PRODUCTS ... ..	...	3,912	...	4,664

\* Added value of finishing work carried out by manufacturers.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. sq. yds.	£'000	Th. sq. yds.	£'000
Cotton net ... ..	1,047	27	1,006	26
Silk net ... ..	2,245	39	2,359	60
Artificial silk net (including net of artificial silk mixed with other materials) ... ..	359	12	649	27
TOTAL ... ..	...	78	...	113

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Cotton net ... ..	£ per th. sq. yds. 19·8	£ per th. sq. yds. 20·3	Per cent. 97·5	£ per th. sq. yds. 19·37	£ per th. sq. yds. 26·74	£ per th. sq. yds. 61·22	£ per th. sq. yds. 72·13
Silk lace and articles thereof ... ..	£ per lb. 0·46	£ per lb. 0·60	76·2	*	*	} 2·05	£ per lb. 1·75
Silk net ... ..	£ per th. sq. yds. 17·0	£ per th. sq. yds. 24·8	68·5	*	*		
Artificial silk lace and net, etc.:—							
Wholly of artificial silk:—							
Lace... ..	£ per lb. 0·32	£ per lb. 0·59	53·9	} 0·48	£ per lb. 0·89	0·88	0·76
Net ... ..	£ per th. sq. yds. 21·2	£ per th. sq. yds. 36·3	58·5				
Of artificial silk mixed with other materials:—							
Lace ... ..	£ per lb. 0·35	£ per lb. 0·40	85·6	} 0·37	0·63	1·42	1·11
Net ... ..	£ per th. sq. yds. 46·0	£ per th. sq. yds. 44·1	104·2				

\* Recorded by value only.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Cotton net ... ..	£'000 622	£'000 776	£'000 796	128	145
Cotton lace and articles thereof, curtains and other articles made on curtain machines ...	2,241	1,535	1,575	70	
Silk lace and articles thereof (except embroidery) ... ..	123	148	194	158	22
Silk net ... ..	142	64	93	66	
Artificial silk lace and articles thereof (except embroidery):—					
Wholly of artificial silk	48	18	33	69	
Of artificial silk mixed with other materials...	459	306	357	78	
Artificial silk net:—					
Wholly of artificial silk	196	71	121	62	
Of artificial silk mixed with other materials...	250	286	275	110	
Other principal products...	293	343	370	126	159
Value of finishing work ...	290†	365†	430	148	*
<b>TOTAL</b> ... ..	<b>4,664</b>	<b>3,912</b>	<b>4,244</b>	<b>91</b>	<b>112</b>

\* Not available.

† See note (†) to Table II.

Table V.—Exports and Imports

Kind of goods	Value of exports (f.o.b.)		Value of retained imports (c.i.f.)	
	1933	1930	1933	1930
Cotton net ... ..	£'000 644 (33,260,000 sq. yds.)	£'000 597 (22,312,000 sq. yds.)	£'000 *	£'000 †
Cotton lace curtains ... ..	175	251	9	4
Cotton lace ... ..	237	290	90	197
Silk lace and net ... ..	74	140	54	170
Artificial silk lace and net:—				
Wholly of artificial silk ... ..	24	37	2	39
Of artificial silk mixed with other materials ... ..	259	408	77	60
Embroidery and needlework on net or dissoluble fabrics ... ..	3	*	17	9

The above figures exclude exports by parcel post, other than exports on drawback, and include imports by parcel post of dutiable articles. The articles specified in the table were all dutiable except during the period July to December, 1930, when there was no duty on cotton lace and net or on embroidery and needlework of materials other than silk and artificial silk.

In view of the omission from the production aggregates of particulars of the value of finishing work, the values given in Table II cannot be compared with those shown in the above table.

The following tables relate only to firms whose returns were made on schedules for the Lace Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... { 1933	340	4,795	1,019	6,805	1,359	11,400
... { 1930	447	4,853	1,503	7,188	1,950	12,041
Administrative, technical and clerical staff* ... { 1933	37	865	67	466	104	1,331
... { 1930	41	916	67	491	108	1,407
TOTAL ... { 1933	377	5,660	1,086	7,071	1,463	12,731
... { 1930	488	5,769	1,570	7,679	2,058	13,448
Average number of out-workers ... { 1933	1		742		743	
... { 1930	2		814		816	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	7,349	July 15 ... ..	7,350
February 18 ... ..	7,498	August 19 ... ..	7,425
March 18 ... ..	7,501	September 16 ... ..	7,550
April 15 ... ..	7,540	October 14 ... ..	7,784
May 13 ... ..	7,648	November 18 ... ..	7,727
June 17 ... ..	7,480	December 16 ... ..	7,607
AVERAGE FOR THE TWELVE MONTHS ... ..			7,537

**Table VII.—Other output of the Lace Trade**

The value of the gross output of the firms whose returns were made on schedules for the Lace Trade was £4,515,000 in 1933 and £5,294,000 in 1930, of which £3,834,000 in 1933 and £4,551,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below :—

Kind of goods made or work done	1933	1930
	£'000	£'000
<b>Goods made :—</b>		
Embroidery and needlework on fabrics other than net and dissoluble fabrics ... ..	69	93
Clothing ... ..	5	32
Manufactures of artificial silk, other than clothing ...	24	10
Other goods ... ..	18	11
<b>TOTAL—Goods made</b> ... ..	<b>116</b>	<b>146</b>
	Amount received	Amount received
<b>Work done for the trade or on commission :—</b>		
Embroidering on customers' materials ... ..	23	20
Bleaching, dyeing and dressing of lace ... ..	235	148
Bleaching, dyeing and dressing of net ... ..	68	78
Bleaching, dyeing and finishing lace curtains, curtain nets and other goods made on lace curtain machines	203	340
Other work ... ..	36	11
<b>TOTAL—Work done</b> ... ..	<b>565</b>	<b>597</b>
<b>TOTAL</b> , ... ..	<b>681</b>	<b>743</b>

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. lbs.	£'000
Cotton yarns ... ..	13,724	1,051
Silk yarns ... ..	73	47
Artificial silk yarns ... ..	2,251	366
Woollen and worsted yarns ... ..	53	9
All other materials used (including fuel) ... ..	...	880
<b>TOTAL</b> ... ..	<b>...</b>	<b>2,353</b>

### THE ROPE, TWINE AND NET TRADE

*Note.*—The figures given below for 1930 differ from those given in the Final Report on the 1930 Census in that they relate to the output in Great Britain and Northern Ireland, exclusive of the output in workshops, and include certain amendments in the total make of hemp yarns received in the course of the 1933 Inquiry.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	4,861	6,799
Cost of materials used and amount paid for work given out ... ..	"	2,881	4,506
Net output ... ..	"	1,980	2,293
Average number of persons employed (excluding outworkers) ... ..	No.	14,244	16,441
Net output per person employed (excluding outworkers) ... ..	£	139	139

### Production

**Table II A.—Total make of Hemp Yarns**

Kind of yarns	1933			1930
	Returned on schedules for		Total	Total
	The Rope, Twine and Net Trade	Other trades		
	Cwts.	Cwts.	Cwts.	Cwts.
Hemp line yarns :—				
Manila and other hard hems ...	1,093,910	—	1,093,910	1,079,850
Italian and other soft hems ...	17,260	35,780	53,040	67,850
Total—Hemp line yarns ...	1,111,170	35,780	1,146,950	1,147,700
Hemp tow yarns :—				
Manila and other hard hems ...	61,040	1,800	62,840	64,660
Italian and other soft hems ...	135,390	74,830	210,220	171,480
Total—Hemp tow yarns ...	196,430	76,630	273,060	236,140

Table II B.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Cordage, cables, ropes and twine :—				
Under $\frac{1}{4}$ inch diameter :—				
Of hemp :—				
Binder and reaper twine... ..	273·2	412	200·4	497
Other cordage, etc. of hard hemp:—				
Twine ... ..	149·6	320	} 191·6	537
Ropes, cords and lines ... ..	185·1	272		
Other cordage, etc. of soft hemp:—				
Twine ... ..	144·2	566	} 167·6	776
Ropes, cords and lines ... ..	17·7	97		
Other twine* :—				
Of cotton ... ..	144·8	613	115·2	717
Of jute ... ..	75·7	169	82·7	224
Of flax ... ..	16·8	115	} 13·7	68
Of other materials (including mixtures) ... ..	12·5	70		
Ropes, cords and lines, of materials other than hemp ... ..	24·5	47	†	†
Total—Twine, ropes, cords and lines, of materials other than hemp ... ..	274·3	1,014	211·6	1,009
TOTAL—Cordage, etc., under $\frac{1}{4}$ inch diameter ... ..	1,044·1	2,681	771·2	2,819
Of $\frac{1}{4}$ inch diameter and over :—				
Of hemp :—				
Of Manila and other hard hems	540·6	851	746·7	1,742
Of Italian and other soft hems	30·6	131	74·1	293
Of cotton ... ..	46·5	257	47·4	288
Of jute ... ..	50·9	76	68·4	133
Of other materials (including flax and mixtures) ... ..	19·2	17	40·5	55
TOTAL—Cordage, etc. of $\frac{1}{4}$ inch diameter and over ... ..	687·8	1,332	977·1	2,511
TOTAL—Cordage, cables, ropes and twine ... ..	1,731·9	4,013	1,748·3	5,330

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
<b>Nets:—</b>				
Of hemp ... ..	42·8	281	41·1†	308‡
			...	36‡
Of cotton ... ..	13·1	223	17·2	332
			...	120‡
Of flax ... ..	1·1	53	1·6	107
Of unclassified materials ... ..	2·0	47	—	—†
<b>TOTAL—Nets</b> ... ..	59·0	604	59·9	747
			...	156‡
<b>TOTAL—PRINCIPAL PRODUCTS</b> ... ..	...	4,617	...	6,233‡

\* Including for 1930, ropes, cords and lines.

† Not recorded separately.

‡ In addition to the figures shown for 1930, the following output of nets was returned by firms that were not required to make returns in connection with the 1933 Inquiry:—

	Th. cwts.	£'000
<b>Nets:—</b>		
Of hemp ... ..	23·8	161
	...	32
Of cotton ... ..	...	3
Of unclassified materials ... ..	...	86
<b>TOTAL</b> ... ..	...	282

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
<b>Cordage, cables, ropes and twine:—</b>				
<b>Under ½ inch diameter:—</b>				
Of soft hemp ... ..	7·7	42	3·6	23
Of cotton ... ..	1·0	9	0·6	4
Of jute ... ..	33·8	73	46·2	122
Of flax ... ..	13·5	91	2·7	24
Of other materials, including mixtures	9·3	61		
<b>Over ½ inch diameter:—</b>				
Of jute ... ..	11·2	12	9·2	11
Of all other materials ... ..	13·6	8	24·1	9
<b>Nets:—</b>				
Of cotton ... ..	—	—	0·2	22
Of unclassified materials ... ..	2·0	47	—	—
<b>TOTAL</b> ... ..	...	343	...	215



Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Cordage, cables, ropes and twine :—							
Under $\frac{1}{4}$ inch diameter :—							
Of hemp :—							
Binder and reaper twine	1.51	2.48	60.9	1.44	2.59	1.26	2.46
Other cordage, etc. of hard hemp :—							
Twine ... ..	2.14	2.80	63.1	}	*	*	*
Ropes, cords and lines	1.47						
Other cordage, etc., of soft hemp :—							
Twine ... ..	3.93	4.62	87.8				
Ropes, cords and lines	5.47						
Other cordage etc. of hard and soft hemp	2.53	3.65	69.2	4.26	5.72	1.70	3.17
Other twine† :—							
Of cotton ... ..	4.23	6.22	68.0	5.55	*	4.98	*
Of jute ... ..	2.23	2.71	82.4	}	*	*	*
Of other materials (in- cluding flax and mix- tures) ... ..	4.30	4.92	87.4				
Ropes, cords and lines, of materials other than hemp ... ..	1.93	*	...	*	*	*	*
Twine, ropes, cords and lines, of materials other than hemp ... ..	3.70	4.77	77.6	5.26	6.75	1.48	3.66
Of $\frac{1}{4}$ inch diameter and over :—							
Of Manila and other hard hemps... ..	1.57	2.33	67.5	}	*	*	*
Of Italian and other soft hemps ... ..	4.30	3.96	108.6				
Of hard and soft hemps	1.72	2.48	69.4	1.75	2.57	2.05	3.05
Of cotton ... ..	5.52	6.06	91.1	}	6.34	8.58	4.71
Of jute ... ..	1.49	1.94	77.0				
Of other materials ...	0.89	1.48	61.3				
Net:—							
Of hemp... ..	6.58	7.50	87.7	}	*	*	*
Of cotton ... ..	16.97	19.33	87.8				
Of flax ... ..	45.96	65.71	69.9				
Nets of all materials ...	10.22	12.73	80.3	12.62	15.62	2.11	3.97

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Cordage, cables, ropes and twine :—	£'000	£'000	£'000	Per cent.	Per cent.
Under ½ inch diameter :—					
Of hemp :—					
Binder and reaper twine ... ..	497	412	677	136	137
Other cordage, etc. of hard hemp ... ..	537	592	938	175	} 79
Other cordage, etc. of soft hemp ... ..	776	663	755	97	
Other cordage, etc. of hard and soft hemp	1,313	1,255	1,693	129	79
Twine and ropes, cords and lines, of materials other than hemp ... ..	1,009	1,014	1,307	136	92
Of ½ inch diameter and over :—					
Of hemp :—					
Manila and other hard hems ... ..	1,742	851	1,261	72	} 68
Italian and other soft hems ... ..	293	131	121	41	
Of cotton ... ..	288	257	282	98	153
Of jute ... ..	133	76	99	74	} 67
Of other materials ... ..	55	17	28	51	
Nets of all materials ... ..	903	604	709	79	72
<b>TOTAL ... ..</b>	<b>6,233</b>	<b>4,617</b>	<b>6,177</b>	<b>99</b>	<b>90</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.
Hemp line yarns ... { 1933	1,147.0	4.9	0.4	10.0	1,152.1	99.1
... { 1930	1,147.7	2.9	0.3	11.4	1,156.2	99.0
Hemp tow yarns ... { 1933	273.1	3.2	1.2	20.6	290.5	92.9
... { 1930	236.1	3.8	1.6	39.5	271.8	84.5
Cordage, cables, ropes and twine:—						
Under ¼ inch diameter:—						
Of hemp:—						
Binder and reaper twine ... { 1933	273.2	140.8	51.5	75.9	208.3	63.6
... { 1930	200.4	54.7	27.3	82.4	223.1	63.9
Other twine ... 1933	293.8	35.4	12.1	37.8	296.2	87.3
Ropes, cords and lines 1933	202.8	18.9	9.3	2.5	186.4	98.7
Other twine and ropes, cords and lines ... { 1933	496.6	54.3	10.9	40.3	482.6	91.6
... { 1930	359.2	46.4	12.9	143.9	456.7	63.5
Of cotton ... 1933	144.8	30.8	21.3	0.1	114.1	99.9
Of other materials ... 1933	129.5	24.5	18.9	14.4	119.4	87.9
Of cotton and other materials ... { 1933	274.3	55.3	20.2	14.5	233.5	93.8
... { 1930	211.6	51.7	24.4	11.3	171.2	93.4
Of ¼ inch diameter and over:—						
Of hemp ... { 1933	571.2	145.9	25.5	3.6	428.9	99.2
... { 1930	820.8	201.9	24.6	31.2	650.1	95.2
Of cotton ... { 1933	46.5	7.1	15.3	0.3	39.7	99.3
... { 1930	47.4	9.3	19.6	1.1	39.2	97.2
Of other materials ... { 1933	70.1	7.2	10.3	3.9	66.8	94.2
... { 1930	108.9	10.4	9.6	5.6	104.1	94.7
TOTAL — Cordage, cables, etc. ... { 1933	1,731.9	410.6	23.7	138.5	1,459.8	90.5
... { 1930	1,748.3	374.4	21.4	275.5	1,649.4	83.7
Nets ... { 1933	59.0	20.8	*	1.0	*	*
... { 1930	70.9	31.9	*	4.0	*	*

\* In view of the deficiency in recorded output, no comparison between production and overseas trade is practicable.

The following tables relate only to firms whose returns were made on schedules for the Rope, Twine and Net Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	1,022	4,325	2,288	8,616	3,310	12,941
	1930	1,157	4,866	2,842	10,228	3,999	15,094
Administrative, technical and clerical staff* ...	1933	48	871	42	432	90	1,303
	1930	71	916	67	431	138	1,347
TOTAL ... ..	1933	1,070	5,196	2,330	9,048	3,400	14,244
	1930	1,228	5,782	2,909	10,659	4,137	16,441
Average number of outworkers ... ..	1933	33		542		575	
	1930	6		551		557	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	6,111	July 15 ... ..	6,189
February 18 ... ..	6,346	August 19 ... ..	6,238
March 18 ... ..	6,420	September 16 ... ..	6,075
April 15 ... ..	6,129	October 14 ... ..	6,082
May 13 ... ..	6,348	November 18 ... ..	6,156
June 17 ... ..	6,163	December 16 ... ..	6,229
AVERAGE FOR THE TWELVE MONTHS ... ..			6,207

**Table VII.—Other output of the Rope, Twine and Net Trade**

The value of the gross output of the firms whose returns were made on schedules for the Rope, Twine and Net Trade was £4,861,000 in 1933 and £6,799,000 in 1930, of which £4,274,000 in 1933 and £6,018,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Hemp line yarns ... ..	14·7	26	12·6	27
Hemp tow yarns ... ..	14·3	31	11·4	28
	Th. tons		Th. tons	
Wire cables and rope ... ..	5·2	230	6·2	266
Made-up canvas goods, bags, etc. ...	...	59	...	66
Other textile manufactures (including cotton yarn)* ... ..	...	210	...	349
Other goods made ... ..	...	4	...	8
Waste products sold ... ..	...	8	...	18
Work done for the trade or on com- mission:—				
Fixing and splicing driving ropes ...	...	12†	...	9†
Other work, including repair work ...	...	7†	...	10†
<b>TOTAL</b> ... ..	...	587	...	781

\* The total make of cotton yarn (counts up to 40's) recorded on schedules for the Rope, Twine and Net Trade was 2,137,000 lbs. in 1933.

† Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Hard hemp ... ..	53,679	941
Soft hemp:—		
True hemp ... ..	4,205	151
Indian hemp ... ..	3,478	56
Raw cotton ... ..	665	36
Raw jute ... ..	1,214	21
All other materials used (including fuel) ...	...	1,674
<b>TOTAL</b> ... ..	...	2,879

## THE CANVAS GOODS AND SACK TRADE

*Note.*—(a) The particulars shown both for 1933 and 1930 exclude firms engaged in reconditioning sacks and bags solely for their own use.

(b) Except for Tables I and VI the particulars for 1930 relate to production in Great Britain only.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	3,897	4,961
Cost of materials used and amount paid for work given out ... ..	"	2,899	3,717
Net output ... ..	"	998	1,244
Average number of persons employed (excluding outworkers) ... ..	No.	6,481	7,009
Net output per person employed (excluding outworkers) ... ..	£	154	177

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
New sacks and bags :—		£'000		£'000
Of jute :—	Th. cwts. 698·1	1,614	Th. cwts. 643·9*	1,717*
<i>Weight and number stated</i>	Th. doz. 6,090		Th. doz. 5,610*	
<i>Number only stated</i> ... ..	—	—	359	92
Of cotton :—	Th. cwts. 63·7	368	Th. cwts. 20·1*	111*†
<i>Weight and number stated</i>	Th. doz. 4,503		Th. doz. 656*	
<i>Number only stated</i> ... ..	—	—	3,518	211
Of hemp :—	Th. cwts. 11·9	50	Th. cwt. 0·8	9
<i>Weight and number stated</i>	Th. doz. 18		Th. doz. 2	
<i>Number only stated</i> ... ..	—	—	12	36
<i>Value only stated</i> ... ..	...	3	...	27
Of other and unclassified textiles :—				
<i>Number stated</i> ... ..	10	5	9	8
<i>Number not stated</i> ... ..	—	—	...	19
Total—New sacks and bags	...	2,040	...	2,230*†

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Second-hand sacks and bags repaired and sold or added to stock	...	£'000 1,048	...	£'000 1,181†
Made-up canvas goods, including sails, tents, marquees, awnings, tarpaulins, rickcloths, wagon covers, motor-hoods, flags, bunting, etc. ... ..	...	630	...	1,122†
Brattice cloth :—	Th. cwts. 75·1	} 97	} ...	} 135
<i>Weight and sq. yardage stated</i>	Th. sq. yds. 6,758			
<i>Sq. yardage only stated</i> ... ..	1,172			
Cotton, canvas and paper, water-proofed for packing and other purposes ... ..	...	231	...	412
TOTAL—PRINCIPAL PRODUCTS ...	...	4,064	...	5,080*†

\* See page 7.

† In addition, New sacks and bags of cotton (£11,000) and Made-up canvas goods (£52,000) were recorded on schedules for trades that were not covered by the 1933 Inquiry; firms engaged in reconditioning sacks for use in their own works returned an output of £375,000 in respect of Second-hand sacks and bags, and of £3,000 in respect of Made-up canvas goods.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
New sacks and bags :—		£'000		£'000
Of jute :—	Th. cwts. 153·1	} 346	Th. cwts. 146·8	} 402
<i>Weight and number stated</i>	Th. doz. 1,293		Th. doz. 1,083	
<i>Number only stated</i> ... ..	—		255	
Of hemp ... ..	Th. cwts. 2·3	} 11	3	} 13
	Th. doz. 3			
Of other and unclassified textiles	—	—	...	8
Second-hand sacks and bags repaired and sold or added to stock	—	—	...	2
Made-up canvas goods, including sails, tents, marquees, awnings, tarpaulins, rickcloths, wagon covers, motor hoods, flags, bunting, etc. ... ..	...	84	...	135
Brattice cloth ... ..	Th. cwts. 7·2	} 12	—	—
	Th. sq. yds. 917			
Cotton, canvas and paper, water-proofed for packing and other purposes ... ..	...	14	—	—

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
New sacks and bags :—	s. per doz.	s. per doz.	Per cent.	s. per doz.	s. per doz.	s. per doz.	s. per doz.
Of jute ... ..	5·28 £ per cwt.	6·06 £ per cwt.	87·2	5·22 £ per cwt.	7·32 £ per cwt.	4·81 £ per cwt.	7·35 £ per cwt.
	2·30	2·67	86·4	2·27	2·86	1·40	1·88
Of cotton ... ..	1·63 £ per cwt.	1·55 £ per cwt.	105·7	* * * *	* * * *	* * * *	* * * *
	5·78	5·54	104·5				
Of hemp ... ..	54·9	65·5	83·8				

\* Not recorded.

Table IV.—Volume of Production

Kind of goods	Total production *			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
New sacks and bags :—	£'000	£'000	£'000	Per cent.	Per cent.
Of jute ... ..	1,809	1,614	1,853	102	71
Of cotton ... ..	322	368	348	108	69
Of hemp ... ..	72	53	63	88	48
Of other and unclassified textiles...	27	5	8	...	...
Second-hand sacks and bags repaired and sold or added to stock... ..	1,181	1,048	1,170	99	153
Brattice cloth ... ..	135	115	1,177	77	111
Made-up canvas goods	1,122	630			
Cotton, canvas and paper, waterproofed	412	231			
TOTAL ... ..	5,080	4,064	4,619	91	103



**Table V.—Production in relation to Exports and Imports**

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. doz.	Th. doz.	Per cent.	Th. doz.	Th. doz.	Per cent.
New sacks and bags of jute ...	6,090	933	15.3	2,857	8,014	64.3
... { 1933 1930	5,969	1,194	20.0	3,253	8,028	59.5

The following tables relate only to firms whose returns were made on schedules for the Canvas Goods and Sack Trade and are summarised in Table I.

**Table VI.—Employment****A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	158	1,617	1,009	3,914	1,167	5,531
... { 1933 1930	171	1,812	1,106	4,223	1,277	6,035
Administrative, technical and clerical staff* ...	40	651	41	299	81	950
... { 1933 1930	55	640	47	334	102	974
<b>TOTAL</b> ...	198	2,268	1,050	4,213	1,248	6,481
... { 1933 1930	226	2,452	1,153	4,557	1,379	7,009
Average number of out-workers ...	10		28		38	
... { 1933 1930	30		51		81	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	2,807	July 15 ...	3,211
February 18 ...	2,900	August 19 ...	3,073
March 18 ...	3,059	September 16 ...	2,957
April 15 ...	3,028	October 14 ...	2,909
May 13 ...	3,098	November 18 ...	3,066
June 17 ...	3,185	December 16 ...	3,004
<b>AVERAGE FOR THE TWELVE MONTHS</b> ...			<b>3,025</b>

**Table VII.—Other output of the Canvas Goods and Sack Trade**

The value of the gross output of the firms whose returns were made on schedules for the Canvas Goods and Sack Trade was £3,897,000 in 1933 and £4,780,000\* in 1930, of which £3,597,000 in 1933 and £4,449,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	Amount received	Amount received
	£'000	£'000
<b>Work done :—</b>		
Baling of goods in hessian and sacking ... ..	20	54
Making of bags, sacks and other canvas goods from customers' materials ... ..	62†	92
Cleaning and repairing bags, sacks and other canvas goods for customers ... ..	23	14
Other work done ... ..	91	40
<b>Total amount received for work done ... ..</b>	<b>196</b>	<b>200</b>
<b>Other goods made ... ..</b>	<b>104‡</b>	<b>131‡</b>
<b>TOTAL ... ..</b>	<b>300</b>	<b>331</b>

\* This amount excludes £181,000, the gross output of firms in Northern Ireland.

† Number of goods made-up 2,071,000 doz. (302,000 cwts.).

‡ Net selling value.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. sq. yds.	£'000
Jute piece-goods ... ..	90,105	1,079
Cotton piece-goods ... ..	26,525	420
Hemp piece-goods ... ..	574	31
Linen canvas and sailcloth ... ..	1,926	110
All other materials used (including fuel) ... ..	...	1,255
<b>TOTAL ... ..</b>	<b>...</b>	<b>2,895</b>

### THE ASBESTOS GOODS AND ENGINE AND BOILER PACKING TRADE

*Notes.*—(a) For purposes of comparison, adjustments have been made throughout the tables to the particulars for 1930 published in the Final Report on the Fourth Census of Production.

(b) The figures for 1930 relate to Great Britain only, particulars of the relatively small production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	3,398	4,460
Cost of materials used and amount paid for work given out ... ..	"	1,407	2,217
Net output ... ..	"	1,991	2,243
Average number of persons employed ... ..	No.	6,917	7,901
Net output per person employed ... ..	£	288	284

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
<b>Asbestos manufactures :—</b>				
Sheets, slates, etc. of asbestos cement ... ..	107,227	748	105,720	852
Packing, lagging and jointing of asbestos* ... ..	6,117	552	2,070	477
Yarn and cloth of asbestos ... ..	1,928	241	†	†
Other asbestos manufactures ... ..	13,950	1,282	15,144	1,475
Asbestos manufactures, not separately distinguished ... ..	—	—	...	826
<b>Total—Asbestos manufactures</b>	<b>129,222</b>	<b>2,823</b>	<b>126,904</b>	<b>2,946</b>
Engine and boiler packing (not including asbestos packing) ... ..	1,142	183	1,460	203
Metallic packing, not included elsewhere ... ..	273	94	...	23
...	...	19	290	105
...	...	...	...	63
Coverings and computations, not included elsewhere ... ..	21,104	235	...	307
<b>TOTAL—PRINCIPAL PRODUCTS</b>	<b>...</b>	<b>3,354</b>	<b>...</b>	<b>4,473</b>

\* Engine and boiler packing of asbestos in 1930.

† Not recorded separately.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
<b>Asbestos manufactures :—</b>				
Packing, lagging and jointing of asbestos ... ..	2,005	64	—	—
Yarn and cloth of asbestos ...	14	2	344	28
Other asbestos manufactures ...	579	140	...	175
<b>Total—Asbestos manufactures</b>	<b>2,598</b>	<b>206</b>	<b>...</b>	<b>203</b>
Engine and boiler packing (not including asbestos packing) ...	47	9	100	20
Metallic packing, not included elsewhere ... ..	—	—	...	5
Coverings and compositions, not included elsewhere ... ..	979	16	...	201
<b>TOTAL ... ..</b>	<b>...</b>	<b>231</b>	<b>...</b>	<b>452</b>

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
<b>Asbestos manufactures:</b>							
Sheets, slates, etc. of asbestos cement	6·97	8·06	86·5	13·8	9·98	4·53	7·75
Packing, lagging and jointing ... ..	90·3	}	*	94·4	}	264·0	}
Yarn and cloth ...	125·1			114·7		107·3	
Engine and boiler packing (not including asbestos packing) ...	160·6	139·4	115·2	}	*	*	*
Metallic packing ...	343·7	364·6	94·3				
Engine and boiler packing (not including asbestos packing) and metallic packing ...	195·9	176·6	110·9	52·6	73·0	227·9	205·1

\* Not recorded.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
Asbestos manufactures: Sheets, slates, etc. of asbestos cement...	852	748	865	102	} 49
All other asbestos manufactures ...	2,920	2,075	2,313	79	
Total—Asbestos manu- factures ... ..	3,772	2,823	3,178	84	49
Engine and boiler pack- ing (not including asbestos packing) ...	226	183	159	70	153
Metallic packing, not included elsewhere...	168	113	120	71	68
Coverings and composi- tions, not included elsewhere ... ..	307	235	301	98	170
TOTAL ... ..	4,473	3,354	3,758	84	59

Table V.—Production in the year 1933 in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Tons	Tons	Per cent.	Tons	Tons	Per cent.
Asbestos manufactures: Sheets, slates, etc. of asbestos cement ...	107,227	9,371	8.7	9,954	107,810	90.8
Packing, lagging and jointing ... ..	6,117	3,570	58.4	20	2,567	99.2
Yarn and cloth ...	1,928	503	26.1	33	1,458	97.7
Other asbestos manu- factures ... ..	13,950	2,887	20.7	1,004	12,070	91.7
TOTAL—Asbestos manufactures ...	129,222	16,331	12.6	11,011	123,905	91.1

Owing to differences of classification, particulars similar to those shown above cannot be given in respect of 1930. The following table shows the quantities and values of asbestos goods and engine and boiler packing exported from the United Kingdom in 1933 and in 1930, together with the quantities and values of similar products imported and retained :—

Kind of goods	Exports		Retained imports	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Asbestos manufactures ...	1933 16,331	840	11,011	95
... { 1930 28,088	1,265	34,099	422	
Engine and boiler packing (including metallic packing, but excluding asbestos packing) ...	1933 2,514	132	10	2
... { 1930 2,339	169	71	14	

The following tables relate only to firms whose returns were made on schedules for the Asbestos Goods and Engine and Boiler Packing Trades and are summarised in Table I.

Table VI.—Employment

A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	1933 373	3,830	250	1,656	623	5,486
... { 1930 359	4,660	231	1,772	590	6,432	
Administrative, technical and clerical staff* ...	1933 66	915	65	516	131	1,431
... { 1930 125	933	120	536	245	1,469	
TOTAL ...	1933 439	4,745	315	2,172	754	6,917
... { 1930 484	5,593	351	2,308	835	7,901	

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY  
FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS  
ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	1,680	July 15 ... ..	1,771
February 18 ...	1,706	August 19 ... ..	1,790
March 18 ... ..	1,743	September 16 ...	1,864
April 15 ... ..	1,714	October 14 ... ..	1,889
May 13 <sup>3</sup> ... ..	1,741	November 18 ...	1,954
June 17 ... ..	1,755	December 16 ...	1,888
AVERAGE FOR THE TWELVE MONTHS... ..			1,791

**Table VII.—Other output of the Asbestos Goods and Engine  
and Boiler Packing Trades**

The value of the gross output of the firms whose returns were made on schedules for the Asbestos Goods and Engine and Boiler Packing Trades was £3,398,000 in 1933 and £4,460,000 in 1930, of which £3,123,000 in 1933 and £4,021,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Machinery belting of balata, cotton, etc. ... ..	64	93
Metal goods (valves, boiler mountings, castings, etc.)	17	17
Other goods ... ..	56	35
Work done on commission ... ..	133*	294*
<b>TOTAL ... ..</b>	<b>275</b>	<b>439</b>

\* Amount received.

## THE ELASTIC WEBBING TRADE

Table I.—General summary

Particulars.	Unit.	1933	1930
Value of products (Gross output) ... ..	£'000	1,930	1,770
Cost of materials used ... ..	"	948	842
Amount paid for work given out ... ..	"	30	26
Net output ... ..	"	952	902
Average number of persons employed ... ..	No.	6,540	5,799
Net output per person employed ... ..	£	146	156

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. linear yds.	£'000	Th. linear yds.	£'000
Elastic cords and braids ... ..	293,103	511	192,731*	525*†
Elastic webs :—				
Up to 2 inches ... ..	46,540	582	36,112	460
Above 2 inches ... ..	7,171	299	5,055	225
<b>TOTAL—PRINCIPAL PRODUCTS</b> ... ..	...	1,392	...	1,210†

\* See page 7.

† This figure includes goods to the value of £1,000 recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I.

Table III.—Average values of products\*

Kind of goods	Production (at factory)		
	Average value		1933 as a percentage of 1930
	1933	1930	
	£ per th. linear yds.	£ per th. linear yds.	Per cent.
Elastic cords and braids ... ..	1.74	2.72	64.1
Elastic webs :—			
Up to 2 inches ... ..	12.50	12.74	98.1
Above 2 inches ... ..	41.68	44.51	93.6

\* Average values of exports and imports cannot be calculated (see Table V).



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Elastic cords and braids ...	£'000 525	£'000 511	£'000 797	Per cent. 152	Per cent. 79
Elastic webs up to 2 inches	460	582	593	129	138
Elastic webs above 2 inches	225	299	319	142	88
<b>TOTAL</b> ... ..	<b>1,210</b>	<b>1,392</b>	<b>1,709</b>	<b>141</b>	<b>103</b>

Table V.—Exports and Imports

The value of *elastic cords, webs, braids and fabrics* exported from the United Kingdom in 1933 and 1930 is shown below, together with the value of similar goods imported and retained.

	1933	1930
	£'000	£'000
Exports ... ..	194	237
Retained imports ...	83	293

As corresponding particulars of quantity are not recorded and separate particulars for cords and braids and for webs are not available, no comparison between production and overseas trade is practicable for either year.

The following tables relate only to firms whose returns were made on schedules for the Elastic Webbing Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males.		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	310	1,822	1,074	4,261	1,384	6,083
	1930	307	1,627	1,181	3,752	1,488	5,379
Administrative, technical and clerical staff* ...	1933	11	265	20	192	31	457
	1930	11	281	25	139	36	420
<b>TOTAL</b> ... ..	1933	321	2,087	1,094	4,453	1,415	6,540
	1930	318	1,908	1,206	3,891	1,524	5,799

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933  
BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE  
MONTHS ENDED DECEMBER.**

Week ended	Total number	Week ended	Total number
January 14 ... ..	5,091	July 15 ... ..	5,047
February 18 ... ..	5,047	August 19 ... ..	5,050
March 18 ... ..	5,061	September 16 ... ..	5,059
April 15 ... ..	5,085	October 14 ... ..	5,000
May 13 ... ..	5,111	November 18 ... ..	5,011
June 17 ... ..	5,048	December 16 ... ..	5,038
AVERAGE FOR THE TWELVE MONTHS ... ..			5,054

**Table VII.—Other output of the Elastic Webbing Trade**

The value of the gross output of the firms whose returns were made on schedules for the Elastic Webbing Trade was £1,930,000 in 1933 and £1,770,000 in 1930, of which £1,392,000 in 1933 and £1,209,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Braces, suspenders, belts, etc. ... ..	70	62
Surgical and medical bandages and dressings and surgical hosiery ... ..	118	176
Other elastic goods ... ..	117	40
Cotton webbing, tapes and other small-wares ... ..	67	91
Silk and artificial silk, woollen and other non-elastic tapes, braids, etc. ... ..	75	74
Other textile manufactures ... ..	12	15
Other goods made... ..	75	102
Waste sold ... ..	4	1
<b>TOTAL ... ..</b>	<b>538</b>	<b>561</b>

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. lbs.	£'000
Rubber ... ..	1,443	250
Cotton yarns ... ..	4,648	262
Silk yarns ... ..	8	9
Artificial silk yarns ... ..	1,282	207
Woollen and worsted yarns ... ..	14	2
All other materials used (including fuel) ... ..	...	218
<b>TOTAL ... ..</b>	<b>...</b>	<b>948</b>

**THE COIR FIBRE, HORSE-HAIR AND FEATHER TRADES**

Notes.—(a) The figures for 1930 relate to Great Britain only, particulars of the relatively small production for Northern Ireland for that year not being available for publication.

(b) In order to preserve comparability with 1933, the returns made by certain individual firms for 1930 have been re-classified and the figures published in the Final Report on the Fourth Census of Production have been adjusted accordingly.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	1,478	1,933
Cost of materials used and amount paid for work given out ... ..	"	813	1,229
Net output ... ..	"	665	704
Average number of persons employed (excluding outworkers) ... ..	No.	3,456	3,781
Net output per person employed (excluding outworkers) ... ..	£	192	186

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. sq. yds.	£'000	Th. sq. yds.	£'000
Coir matting ... ..	1,509	165	1,899	230
	Doz.		Doz.	
Coir mats ... ..	31,184	67	36,400	94
	Cwts.		Cwts.	
Hair cleaned or dressed, for sale as such ... ..	3,175	52	9,080	140
			...	31*
Hair curled ... ..	79,262	327	82,910	430
Horse-hair seating and cloth of horse-hair, fibre or spun horse-hair (mixed or not with wool, cotton, silk or artificial silk) ... ..	50,589	200	...	238
	...	32		
Fibres dressed for brush-making ...	19,055	56	11,580	56
			...	15
Other fibres and bristles, dressed †	19,411	49	28,311	60
			...	53*
Feathers or down, for beds, cushions, etc., purified or dressed	86,075	473	...	518*
Yarn of coir fibre and hair, not separately distinguished ...	—	—	3,040	18
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	1,421	...	1,883*

\* In addition, the following output was returned on schedules for trades that were not covered by the 1933 Inquiry :—

	£'000
Hair, cleaned or dressed, for sale as such ... ..	10
Other fibres and bristles, dressed ... ..	4
Feathers or down, purified or dressed ... ..	54
	—
	68
	—

† Including kapok and vegetable down, so far as returned separately.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Coir matting ... ..	—	£'000 —	Th. sq. yds. 65	£'000 3
Coir mats ... ..	—	—	Doz. 110	1
Horse-hair seating, etc. ... ..	...	12	...	30
Fibres dressed for brush making	Cwts. 2,172	6	...	...
Other fibres and bristles, dressed	—	—	Cwts. 13,740	29
Yarn of coir fibre and hair, not separately distinguished ...	—	—	...	18
<b>TOTAL ... ..</b>	...	18	...	81

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Coir matting ... ..	£ per th. sq. yds. 109.22	£ per th. sq. yds. 121.12	90.2	} 109.54	} 153.85	} 63.56	} 99.13
Coir mats ... ..	£ per doz. 2.16	£ per doz. 2.58	83.6				
Hair cleaned or dressed ... ..	£ per cwt. 16.30	£ per cwt. 19.42	83.9	} *	} *	} *	} *
Hair curled ... ..	4.12	5.19	79.4				
Fibres dressed for brushmaking ...	2.97	4.84	61.4				

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Coir mats and matting ...	£'000 324	£'000 232	£'000 263	81	128
Hair cleaned, dressed or curled ... ..	601	379	474	79	104
Horse-hair seating and cloth	238	232	250	105	97
Fibres for brushmaking ...	71	56	91	130	158
Other fibres and bristles dressed* ... ..	113	49	63	56	91
Feathers or down, purified or dressed ... ..	518	473	710	137	50
Yarn of coir fibre and hair, not separately distinguished	18	—	—	—	—
<b>TOTAL ... ..</b>	<b>1,883</b>	<b>1,421</b>	<b>1,851</b>	<b>98</b>	<b>92</b>

\* Including kapok and vegetable down, so far as returned separately.

Table V.—Exports and Imports

Owing to the exclusion from the Inquiry of firms employing not more than ten persons and of philanthropic institutions, and also to differences of classification, no comparison of the recorded production figures with exports and retained imports is practicable. The exports and retained imports of coir mats and matting in 1933 and 1930 were as under :—

	Quantity Th. sq. yds.	Value £'000
Exports ... ..	{ 1933 89	10
	{ 1930 134	21
Retained imports ... ..	{ 1933 8,435	533
	{ 1930 5,910	578

The following tables relate only to firms whose returns were made on schedules for the Coir Fibre, Horse-hair and Feather Trades and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... ..	1933	146	361	1,594	507	3,041
	1930	223	435	1,831	658	3,393
	1933	13	19	134	32	415
	1930	18	266	15	122	33
Administrative, technical and clerical staff* ...	1933	13	19	134	32	415
	1930	18	266	15	122	33
TOTAL ... ..	1933	159	380	1,728	539	3,456
	1930	241	450	1,953	691	3,781
Average numbers of outworkers ... ..	1933	10	1		11	
	1930	13	29		42	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	1,941	July 15 ... ..	1,944
February 18 ... ..	1,929	August 19 ... ..	1,957
March 18 ... ..	1,922	September 16 ... ..	1,924
April 15 ... ..	1,967	October 14 ... ..	1,995
May 13 ... ..	1,944	November 18 ... ..	2,034
June 17 ... ..	1,922	December 16 ... ..	2,044
AVERAGE FOR THE TWELVE MONTHS... ..			1,960

**Table VII.—Other output of the Coir Fibre, Horse-hair and Feather Trades**

The value of the gross output of the firms whose returns were made on schedules for the Coir Fibre, Horse-hair and Feather Trades was £1,478,000 in 1933 and £1,933,000 in 1930, of which £1,403,000 in 1933 and £1,802,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Bedding, bed-coverings, cushions, hatters' fur, roofing felts, etc. ... ..	40	102
Waste products sold ... ..	3	6
Work done for the trade or on commission ... ..	32*	23*
<b>TOTAL ... ..</b>	<b>75</b>	<b>131</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Coir yarn ... ..	2,808	69
Coir fibre ... ..	838	8
	Cwts.	
Woollen yarns for mat making ... ..	1,448	9
	Tons	
Jute ... ..	1,077	12
All other materials used (including fuel) ... ..	...	715
<b>TOTAL ... ..</b>	<b>...</b>	<b>813</b>

**THE ROOFING FELTS TRADE**

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products and work done (Gross output)	£'000	1,056	1,034
Cost of materials used and amount paid for work given out... ..	"	586	593
Net output ... ..	"	470	441
Average number of persons employed ... ..	No.	1,396	1,227
Net output per person employed ... ..	£	337	359

**Table II.— Output of principal products**

Kind of goods	1933			1930*	
	Quantity		Value	Quantity	Value
	Th. cwts.	Th. sq. yds.	£'000	Th. sq. yds.	£'000
Roofing felts (including all felts used for sarking and sheathing):—					
Tarred flax felts ...	91.7	6,161	104	{ 2,435	56
Paper felts:—				{ ...	25
Bituminous self-finished felts ...	556.9	27,175	499	22,863	509
Tarred and sanded or similar finish felts ...	108.4	3,546	53	3,593	60
Hair felts ... ..	18.6	855	50	{ 527	31
				{ ...	9
<b>TOTAL—Roofing felts ...</b>	<b>775.6</b>	<b>37,737</b>	<b>706</b>	<b>{ 29,438</b>	<b>656</b>
Output in Northern Ireland	†	†	†	{ ...	34
				{ ...	145
Dampcourses and similar fabrics ... ..	177.1	3,573	152	...	117
<b>TOTAL—Principal products</b>	<b>952.7</b>	<b>41,310</b>	<b>858</b>	<b>...</b>	<b>952</b>

\* The detailed particulars in respect of Roofing felts for 1930 relate to Great Britain only.

† Included under previous headings.



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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. sq. yds.	£'000	Th. sq. yds.	£'000
Roofing felts (including all felts used for sarking and sheathing):—				
Tarred flax felts ... ..	251	5	}	34
Tarred and sanded or similar finish paper felts ... ..	612	8		
Hair felts ... ..	—	—		
Dampcourses and similar fabrics ...	133	6	...	4
TOTAL ... ..	...	19	...	38

Table III.—Average values of goods produced, exported and imported.

Kind of goods	Production (at factory)				Exports (f.o.b.)	Imports (c.i.f.)
	Average value		1933 as a percentage of 1930	1933		
	1933	1930				
	£ per th. sq. yds.	£ per th. sq. yds.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.
Roofing felts (including all felts used for sarking and sheathing):—						
Tarred flax felts ... ..	16.9	22.8	74.1	1.14	}	*
Paper felts:—						
Bituminous self-finished felts ... ..	18.4	22.3	82.5	0.89		
Tarred and sanded or similar finish felts ... ..	15.0	16.8	89.3	0.49		
Hair felts ... ..	59.0	58.2	101.4	2.72		
Roofing felts—all descriptions ... { 1933	18.7	—	} 86.2 {	0.91	0.88	1.09
... { 1930	—	21.7		*	0.96	0.80
Dampcourses and similar fabrics ... ..	42.6	*	...	0.86	*	*

\* Not separately distinguished.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Roofing felts (including all felts used for sarking and sheathing) ... ..	£'000	£'000	£'000	99	86
Dampcourses and similar fabrics ... ..	117	152	152	132	59
<b>TOTAL</b> ... ..	952	858	978	103	83

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available	Share
					for use in the United Kingdom	of home market held by British goods
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.
Roofing felts ... { 1933	775.6	104.0	13.4	3.7	675.3	99.5
1930	*	159.9	*	11.5	*	*

\* As production in 1930 was not recorded by weight, figures cannot be inserted here.

The following tables relate only to firms whose returns were made on schedules for the Roofing Felts Trade and are summarised in Table I.

Table VI.—Employment

A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... { 1933	51	885	11	135	62	1,020
1930	71	794	5	125	76	919
Administrative, technical and clerical staff* ... { 1933	21	293	2	83	23	376
1930	15	230	4	78	19	308
<b>TOTAL</b> ... { 1933	72	1,178	13	218	85	1,396
1930	86	1,024	9	203	95	1,227

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	498	July 15 ... ..	571
February 18 ...	534	August 19 ... ..	570
March 18 ... ..	536	September 16 ...	548
April 15 ... ..	559	October 14 ... ..	562
May 13 ... ..	568	November 18 ...	576
June 17 ... ..	573	December 16 ...	568
AVERAGE FOR THE TWELVE MONTHS... ..			555

Table VII.—Other output of the Roofing Felts Trade

The value of the gross output of the firms whose returns were made on schedules for the Roofing Felts Trade was £1,056,000 in 1933 and £1,034,000 in 1930, of which £839,000 in 1933 and £914,000 in 1930 consisted of products included in Table II. The values of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Building and contracting work, floor coverings, paints and other goods ... ..	217	120

## LEATHER AND CLOTHING TRADES GENERAL TABLES

Table I.—General summary

Trade  (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average numbers of persons em- ployed (except out- worker) (5)	Net output per person em- ployed (6)
	£'000	£'000	£'000	No.	£
Leather (Tanning and Dressing) {	1933 23,326	16,386	6,940	28,842	241
{ 1930 27,829	20,459	7,370	28,651	257	
Leather Goods ... {	1933 4,629	2,514	2,115	14,861	142
{ 1930* 4,876	2,641	2,235	14,727	152	
Boot and Shoe ... {	1933 38,073	20,731	17,342	113,926	152
{ 1930 45,196	25,568	19,628	116,471	169	
Hat and Cap ... {	1933 10,295	5,681	4,614	30,097	153
{ 1930* 12,291	7,297	4,994	30,628	163	
Glove ... {	1933 2,694	1,480	1,214	8,135	149
{ 1930 2,940	1,683	1,257	7,270	173	
Umbrella and Walking Stick {	1933 924	572	352	2,903	121
{ 1930* 1,636	1,062	574	3,713	154	
TOTAL ... {	1933 79,941	47,364	32,577	198,764	164
{ 1930 94,768	58,710	36,058	201,460	179	

\* The figures for 1930 relate to Great Britain only. Owing to the risk of disclosure of information relative to individual firms, particulars for the Leather Goods Trade in Northern Ireland are included in those given for the Leather (Tanning and Dressing) Trade; separate details for Northern Ireland are not available for the Hat and Cap Trade or for the Umbrella and Walking Stick Trade.

Table II.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Leather (tanned and dressed)	£'000 26,234	£'000 22,091	£'000 26,997	Per cent. 103	Per cent. 109
Leather goods ...	4,794	4,537	5,100	106	107
Boots and shoes ...	44,996	37,977	48,705	108	95
Hats and caps ...	11,892	9,855	12,893	108	87
Gloves ...	2,887	2,684	3,425	119	64
Umbrellas and walking sticks	1,548	886	1,064	69	95
TOTAL ...	92,351	78,030	98,184	106	97

Table III.—Employment

A.—AVERAGE NUMBERS (EXCLUDING OUTWORKERS) EMPLOYED IN  
1933 AND 1930

(i) Operatives.

Trade	Males		Females		Total		
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total
Leather (Tanning and Dressing) ...	1933	2,233	562	2,875	2,795	22,943	25,738
	1930	2,216	691	3,063	2,907	22,535	25,442
Leather Goods	1933	912	2,802	8,816	3,714	9,342	13,056
	1930*	729	2,534	8,741	3,263	9,805	13,068
Boot and Shoe	1933	9,034	9,598	45,081	18,632	87,604	106,236
	1930	9,359	9,976	44,865	19,335	88,947	108,282
Hat and Cap...	1933	1,438	2,702	16,907	4,140	23,018	27,158
	1930*	1,455	1,372	17,419	4,706	23,020	27,726
Glove ...	1933	448	1,507	4,810	1,955	5,583	7,538
	1930	369	1,372	4,266	1,741	5,015	6,756
Umbrella and Walking Stick	1933	141	271	1,566	412	2,057	2,469
	1930*	238	431	1,918	669	2,454	3,123
TOTAL ...	1933	14,206	17,442	80,055	31,648	150,547	182,195
	1930	14,366	18,255	80,272	32,621	151,776	184,397

\* See note (\*) to Table I.

(ii) Administrative, technical and clerical staff

Trade	Males		Females		Total		
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total
Leather (Tanning and Dressing) ...	1933	84	81	718	165	2,939	3,104
	1930	99	89	748	188	3,021	3,209
Leather Goods	1933	67	123	729	190	1,615	1,805
	1930*	90	134	680	224	1,435	1,659
Boot and Shoe	1933	187	646	3,193	833	6,857	7,690
	1930	324	742	3,224	1,066	7,123	8,189
Hat and Cap...	1933	134	173	1,108	307	2,632	2,939
	1930*	190	216	1,029	406	2,496	2,902
Glove ...	1933	7	61	278	68	529	597
	1930	11	27	191	38	476	514
Umbrella and Walking Stick	1933	19	25	151	44	390	434
	1930*	38	51	209	89	501	590
TOTAL ...	1933	498	1,109	6,177	1,607	14,962	16,569
	1930	752	1,259	6,081	2,011	15,052	17,063

\* See note (\*) to Table I.

## B.—AVERAGE NUMBERS OF OUTWORKERS EMPLOYED

Trade	1933			1930		
	Males	Females	Total	Males	Females	Total
Leather Goods ... ..	29	91	120	19	157	176
Boot and Shoe ... ..	432	1,232	1,664	950	1,452	2,402
Hat and Cap ... ..	34	673	707	29	890	919
Glove ... ..	60	4,731	4,791	61	5,905	5,966
Umbrella and Walking Stick ... ..	18	59	77	31	158	180
<b>TOTAL ... ..</b>	<b>573</b>	<b>6,786</b>	<b>7,359</b>	<b>1,090</b>	<b>8,553</b>	<b>9,643</b>

Table IV

A.—RETURNS COVERING THE TWELVE MONTHS ENDED  
DECEMBER, 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Number
Leather (Tanning and Dressing)...	28,842	16,239	56	28,506	16,619	58
Leather Goods ...	14,861	10,644	72	14,727	9,778	66
Boot and Shoe ...	113,926	80,702	71	116,121	82,548	71
Hat and Cap ...	30,097	14,925	50	30,628	15,742	51
Glove ... ..	8,135	6,002	74	7,270	5,526	76
Umbrella and Walking Stick	2,903	1,459	51	3,713	1,906	51
<b>TOTAL ... ..</b>	<b>198,764</b>	<b>129,971</b>	<b>65</b>	<b>200,965</b>	<b>132,119</b>	<b>66</b>

\* Great Britain.

B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ... ..	109,890	124,179
February ... ..	113,659	125,406
March ... ..	116,888	125,878
April ... ..	119,409	125,645
May... ..	122,212	126,080
June ... ..	122,640	124,674
July ... ..	121,966	123,142
August ... ..	119,575	120,501
September ... ..	121,304	122,890
October ... ..	121,648	123,493
November ... ..	121,742	122,719
December ... ..	119,156	119,820
<b>AVERAGE FOR THE TWELVE MONTHS</b>	<b>119,174</b>	<b>123,702</b>

\* Great Britain. The average number of operatives employed by *all* firms in Northern Ireland in 1930 was 418.

### Amendments of certain aggregates for 1930

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production. In cases where it has been necessary to revise the 1930 particulars, owing to the exclusion of certain groups of firms from the 1933 Inquiry or to changes in the classification of groups of products, indications are given in the notes preceding Table I of the trades affected or in a footnote to Table II.

#### Leather (Tanning and Dressing) Trade:—

Skin leather, undressed:—

Sheep skins (rough tanned)—Table II A.

Sheep, whole or split—Table II B.

#### Boot and Shoe Trade:—

Boots and shoes of other materials (except rubber).

Other parts of boots and shoes.

## THE LEATHER (TANNING AND DRESSING) TRADE

Table I.—General summary

Particulars	Unit	1933	1930*
Value of products (Gross output) ... ..	£'000	23,326	27,829
Cost of materials used ... ..	"	16,134	20,228
Amount paid for work given out ... ..	"	252	231
Net output ... ..	"	6,940	7,370
Average number of persons employed ... ..	No.	29,842	28,651
Net output per person employed ... ..	£	241	257

\* The particulars for 1930 include the Leather Goods Trade for Northern Ireland; comparison between the two years is not appreciably affected thereby.

Table II A.—Total make of undressed leather

Kind of undressed leather	Quantity*			
	1933		1930	
	Tons	Dozens	Tons	Dozens
Hide leather for soles (including rolled and pinned offal):—				
Bends and butts ... ..	37,868	—	71,074	—
Bellies and shoulders ... ..	30,419	—		
Hide leather, other than for soles:—				
Ox and cow—				
Whole hides, bends and butts	12,688	—	16,311	—
Bellies, shoulders, etc., ...	2,827	—		
Calf ... ..	719	—	1,949	661
Other sorts ... ..	3,508	—	2,636	—
TOTAL—Hide leather ...	88,029	—	91,970	661
Sheep skins (rough tanned) ...	5,773	30,720	4,587†	257,645
TOTAL—Hide and sheepskin leather ... ..	93,802	30,720	96,557†	258,306

\* Firms were asked to record their output of undressed leather in tons, wherever possible, but a statement in dozens was accepted in those cases in which output was usually recorded by number.

† See page 126.



Table II B.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Leather, undressed :—	Tons	£'000	Tons	£'000
Hide leather :—				
For soles :—				
Bends and butts ... ..	37,833	5,257	} 71,054	9,263
Bellies and shoulders ... ..	30,229	1,998		
Other than for soles :—				
Ox and cow :—				
Whole hides, bends and butts ... ..	9,312	1,570	} 13,480	2,204
Bellies, shoulders, etc. ... ..	2,509	217		
Calf ... ..	142	46	152	68
Other sorts ... ..	2,249	184	1,691	205
Total—Hide leather ... ..	82,274	9,272	86,377	11,740
Skin leather :—	Tons		Tons	
Sheep, whole or split ... ..	1,723	485	1,729*	583
	Dozens		Dozens	
	135,200	111	171,020	257
	Tons		Tons	
	76	20	122	37
Other sorts (including goat and reptile) ... ..	Dozens		Dozens	
	18,029	42	3,216	18
Total—Skin leather ... ..	...	658	...	895
TOTAL—Undressed leather ... ..	...	9,930	...	12,635
Leather, dressed :—				
Upper leather (other than reptile, patent, varnished, japanned and enamelled) :—	Th. sq. ft.		Th. sq. ft.	
Box and willow calf ... ..	13,327	551	24,190†	783†
Box sides and other hide upper leather ... ..	46,306	1,085	†	†
Glacé kid ... ..	35,598	1,401	22,621	992
Other sorts :—				
Chrome tanned ... ..	5,839	228	14,230†	545†
Other... ..	42,447	916	72,869†	2,193†
Total—Upper leather, dressed ... ..	143,517	4,181	133,910	4,513
Hide, calf and kip (other than upper leather) ... ..	Tons		Tons	
	392	72	370	114
	Th. sq. ft.		Th. sq. ft.	
	39,895	1,185	38,358	1,507
	Th. sq. ft.		Th. sq. ft.	
	144,916	3,329	113,281	3,544
Sheep, goat and kid (other than upper leather) ... ..	Dozens		Dozens	
	152,628	215	302,695	628
Patent, varnished, japanned and enamelled ... ..	Th. sq. ft.		Th. sq. ft.	
	24,970	886	16,724	837
	Th. sq. ft.			
	1,529	124		
Reptile ... ..	Dozens		Tons	
	13,000	60	351	87
	Th. sq. ft.		Th. sq. ft.	
			14,355	671

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Hides and skins, pickled, etc. ...	4,126	182	1,745 Dozens	118
Parchment and vellum ... ..	...	43	69,422 ...	63
Machinery belting of leather ...	Tons 1,267	665	Tons 1,383	868
Machinery accessories of leather or hide ... ..	...	477	...	513
Hat leathers... ..	Th. gross 151	230	§ Tons	§
Splits   ... ..	Tons 1,903	118	§ Tons 943	57 17
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	22,091	...	26,234¶

\* See page 126.

† Including some *Box sides*.

‡ Not recorded separately.

§ Included in dressed leather.

|| So far as recorded separately.

¶ In addition, undressed and dressed leather valued at £13,000 was returned on schedules for trades not covered by the 1933 Inquiry.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Leather, undressed:—	Tons	£'000	Tons	£'000
Skin leather:—				
Other sorts, i.e., excluding sheep but including goat ...	—	—	8	2
Leather, dressed (other than upper leather):—				
Sheep, goat and kid ... ..	Th. sq. ft. 419	10	Th. sq. ft. 444	14
Other sorts ... ..	174	7	—	—
Machinery belting of leather ...	Tons 14	8	Tons 2	1
Machinery accessories of leather or hide ... ..	...	28	...	6
<b>TOTAL</b> ... ..	...	53	...	23

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Leather undressed:—							
Hide leather:—							
For soles							
Bends and butts	139.0	*	...	140.7	*	147.5	*
Bellies and shoulders ...	66.1	*	...	78.3	*	63.8	*
For soles ...	106.6	130.4	81.7	104.9	179.2	105.9	151.6
Other than for soles:—							
Ox and cow:—							
Whole hides, bends and butts ...	168.6	*	...	116.1	*	118.5	*
Bellies, shoulders, etc. ...	86.5	*	...	77.6	*	51.7	*
Ox and cow	151.2	163.5	92.5	101.4	161.2	114.6	162.4
Calf ...	321.5	448.3	71.7	340.0	234.9	152.2	241.3
Other sorts ...	81.9	121.3	67.4	134.1	234.0	73.4	82.6
Skin leather:—							
Sheep, whole or split ...	281.2	337.2	83.4	185.1	431.3	225.9	345.6
Other sorts ...	264.9	303.3	87.3	250.5	453.0	315.4	446.5
	£ per th. sq. ft.	£ per th. sq. ft.		£ per th. sq. ft.	£ per th. sq. ft.	£ per th. sq. ft.	£ per th. sq. ft.
Leather dressed:—							
Upperleather (other than reptile, patent, varn- ished, japanned and enamelled):—							
Box and willow calf	41.3	32.4†	127.6	38.7	36.9	40.8	58.3
Box sides and other hide upper leather ...	23.4	*	...	23.0	*	29.7	*
Glacé kid ...	39.4	43.9	89.6	38.4	48.2	50.1	56.8
Other sorts:—							
Chrome tanned	39.0	38.3†	101.8	40.5	57.5	32.5	45.1
Other ...	21.6	30.1†	71.8	21.9	31.1	29.7	52.0
Other sorts ...	23.7	31.5	75.2	23.1	32.6	30.6	49.2

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
<i>Leather dressed—cont.</i>	£ per th. sq. ft.	£ per th. sq. ft.	Per cent.	£ per th. sq. ft.	£ per th. sq. ft.	£ per th. sq. ft.	£ per th. sq. ft.
Hide, calf and kip (other than upper leather) ...	30.5	39.3	77.5	32.8	49.2	42.6	62.3
Sheep, goat and kid (other than upper leather) ...	23.0	31.3	73.4	26.3	45.6	18.8	40.1
Patent, varnished, japanned and enamelled ...	35.5	50.1	70.8	39.2	54.6	39.9	54.3
Reptile ...	81.1	} 46.7	...	106.1	} 43.5	140.6	} 51.0
Other sorts ...	40.8			£ per ton		30.8	
Hides and skins, pickled, etc. ...	44.2	67.7	65.2	*	*	*	*
Machinery belting of leather ...	522.6	627.7	83.3	484.7	559.7	454.8	392.8
	£ per gross	£ per gross		£ per gross	£ per gross	£ per gross	£ per gross
Hat leathers ...	1.5	*	...	1.3	*	0.7	*

\* Not recorded.

† See note (†) to Table II B.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
<i>Leather, undressed :—</i>	£'000	£'000	£'000	Per cent.	Per cent.
Hide leather for soles ...	9,263	7,255	8,880	100	109
Hide leather, other than for soles :—					
Ox and cow ...	2,204	1,787	1,932	88	105
Calf ...	68	46	64	94	169
Other sorts ...	205	184	273	133	90
Skin leather :—					
Sheep, whole or split...	840	596	715	85	82
Other sorts (including goat and reptile) ...	55	62	122	222	493
<b>TOTAL—Undressed leather</b>	<b>12,635</b>	<b>9,930</b>	<b>11,986</b>	<b>95</b>	<b>108</b>

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Leather, dressed :—					
Upper leather (other than reptile, patent, varnished, japanned and enamelled) :—					
Box and willow calf ...	783	551	432	*	117
Box sides and other hide upper leather ...	—	1,085	851	*	†
Glacé kid ...	992	1,401	1,566	158	108
Other sorts :—					
Chrome tanned ...	545	228	224	41	} 110
Other ...	2,193	916	1,276	58	
Hide, calf and kip (other than upper leather) ...	1,621	1,257	1,622	107	92
Sheep, goat and kid (other than upper leather) ...	4,172	3,544	4,855	116	71
Patent, varnished, japanned and enamelled...	837	886	1,251	150	100
Other descriptions ...	758	578	662	87	227
TOTAL—Dressed leather	11,901	10,446	12,739	107	101
Hides and skins, pickled, etc. ...	181	182	279	154	170
Parchment and vellum ...	62	43	59	95	116
Machinery belting of leather ...	868	665	798	96	175
Machinery accessories of leather or hide ...	513	477	708	133	79
Hat leathers ...	†	230	313	...	...
Splits ...	74	118	115	156	†
TOTAL ...	26,234	22,091	26,997	103	109

\* See footnote (†) to Table II B.

† Not recorded separately.

‡ See footnote (§) to Table II B.

Table V.—Production in relation to Exports and Imports.

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Tons	Tons	Per cent.	Tons	Tons	Per cent.
<b>Leather, undressed :—</b>						
<b>Hide leather :—</b>						
For soles ... { 1933	68,287	4,919	7.2	3,309	66,677	95.0
{ 1930	71,074	3,933	5.5	6,403	73,544	91.3
Other than for soles:—						
Ox and cow { 1933	15,515	2,257	14.5	12,014	25,272	52.5
{ 1930	16,311	2,267	13.9	13,559	27,603	50.9
Calf ... { 1933	719	4	0.6	683	1,398	51.1
{ 1930	1,960†	44	2.2	526	2,442	78.5
Other sorts { 1933	3,508	531	15.1	361	3,338	89.2
{ 1930	2,636	484	18.4	6,711	3,863	24.3
<b>TOTAL—Hide leather ... { 1933</b>	<b>88,029</b>	<b>7,711</b>	<b>8.8</b>	<b>16,367</b>	<b>96,665</b>	<b>83.1</b>
{ 1930	<b>91,981</b>	<b>6,728</b>	<b>7.3</b>	<b>27,199</b>	<b>112,452</b>	<b>75.8</b>
<b>Skin leather :—</b>						
Sheep, whole or split ... { 1933	5,910*	527	8.9	3,418	3,801	61.2
{ 1930	5,710*	648	11.4	3,957	9,019	56.1
Other sorts, including goat and reptile ... { 1933	240†	151	62.9	1,489	1,578	5.6
{ 1930	180†	240	...	1,133	1,073	...
<b>TOTAL—Undressed leather ... { 1933</b>	<b>94,179</b>	<b>8,389</b>	<b>8.9</b>	<b>21,274</b>	<b>107,064</b>	<b>80.1</b>
{ 1930	<b>97,871</b>	<b>7,616</b>	<b>7.8</b>	<b>32,289</b>	<b>122,544</b>	<b>73.7</b>

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. sq. ft.	Th. sq. ft.	Per cent.	Th. sq. ft.	Th. sq. ft.	Per cent.
Leather, dressed :—						
Upper leather (other than reptile, patent, varnished, japanned and enamelled) :—						
Box and wile	1933 13,327	828	6.2	37,658	50,157	24.9
low calf	1930 24,190§	4,097	16.9	33,326	58,419	34.4
Box sides and other hide upper leather† ...	1933 46,306	2,051	4.4	9,514	53,769	82.3
Glacé kid ...	1933 35,568	9,505	26.7	6,775	32,868	79.4
	1930 22,621	5,223	23.1	18,407	35,805	48.6
Other sorts :—						
Chrome tanned	1933 5,839	2,279	39.0	3,804	7,364	48.3
	1930 14,230§	1,700	11.9	12,800	25,330	49.5
Other ...	1933 42,447	31,746	74.8	8,134	18,835	56.8
	1930 72,869§	23,936	39.7	18,612	62,545	70.2
Hide, calf and kip (other than upper leather) ...	1933 39,895	2,883	7.2	1,326	38,338	96.5
	1930 38,358	2,659	6.9	1,272	36,971	96.6
Sheep, goat and kid (other than upper leather) ...	1933 154,275†	10,047	6.5	6,170	150,398	95.9
	1930 133,350†	10,378	7.8	10,245	133,217	92.3
Patent, varnished, japanned and enamelled ...	1933 24,970	432	1.7	18,265	42,803	57.3
	1930 16,724	763	4.6	15,557	31,518	50.6
Reptile† ...	1933 2,270†	421	18.5	250	2,099	88.1
Other sorts ...	1933 9,657	11,622	...	2,379	...	...
	1930 16,220†	8,649	53.3	4,459	12,030	62.9
TOTAL—Dressed leather ...	1933 374,584	71,814	19.2	94,275	397,045	76.3
	1930 338,562	62,405	18.4	119,678	395,835	69.8
Machinery belting of leather	1933 Tons 1,267	Tons 440	34.7	Tons 42	Tons 869	95.2
	1930 1,333	575	41.6	157	965	83.7
Hat leathers†	Gross 1933 150,811	Gross 60,921	40.4	Gross 642	Gross 90,532	99.3

\* Production figures relate to sheep skins, rough tanned, including an estimate in respect of a portion of the output returned by number only.

† Includes an estimate of the weight of the output returned by number only.

§ Includes some box sides.

‡ Particulars for 1930 were not recorded separately.

The following tables relate only to firms whose returns are summarised in Table I, the returns being made on schedules for the Leather (Tanning and Dressing) Trade, except for the inclusion in the 1930 figures of the Leather Goods Trade for Northern Ireland.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	2,233	22,863	562	2,875	2,795	25,738
	1930	2,216	22,379	691	3,063	2,907	25,442
Administrative, technical and clerical staff*	1933	84	2,386	81	718	165	3,104
	1930	99	2,461	89	748	188	3,209
TOTAL	1933	2,317	25,249	643	3,593	2,960	28,842
	1930	2,315	24,840	780	3,811	3,095	28,651

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	13,572	July 15	14,743
February 18 ...	13,724	August 19	14,774
March 18 ...	13,860	September 16	14,842
April 15 ...	13,944	October 14	15,105
May 13 ...	14,142	November 18	15,343
June 17 ...	14,507	December 16	15,255
AVERAGE FOR THE TWELVE MONTHS ... ..			14,494



**Table VII.—Other output of the Leather (Tanning and Dressing) Trade**

The value of the gross output of the firms whose returns were made on schedules for the Leather (Tanning and Dressing) Trade was £23,326,000 in 1933 and £27,829,000 in 1930, of which £22,038,000 in 1933 and £26,211,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Other goods of leather ... ..	...	147	...	199
Machinery belting of materials other than leather ... ..	243	89	390	154
	Th. lbs.		Th. lbs.	22
Wool ... ..	4,958	205	3,213	144
	Tons		Tons	
Glue ... ..	...	4	641	12
Gelatine ... ..	81	5	1,058	82
Other goods made ... ..	...	25	...	37
Waste products sold :—				
Hair ... ..	14,353	92	14,914	163
Glue pieces ... ..	2,551	7	1,165	7
Other waste products ... ..	...	220	...	350
Work done for the trade :—				
Tanning ... ..	...	76*	...	59*
Tanning and dressing ... ..	...	67*	...	21*
Dressing and finishing ... ..	...	337*	...	359*
Other work done, not further distinguished ... ..	...	14*	...	9*
<b>TOTAL ... ..</b>	...	<b>1,288</b>	...	<b>1,618</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity		Cost £'000
	Thous.	Tons	
Raw hides and skins :—			
Cattle hides :—			
Native ... ..	2,442	67,296	2,713
Imported :—			
Wet salted... ..	1,536	39,170	1,561
Dry and dry salted ... ..	2,517	21,700	1,070
Calf skins ... ..	862	3,589	240
Sheep and lamb skins ... ..	16,408	...	1,104
Goat skins ... ..	9,095	...	841
All other materials used (including fuel)	...	...	8,605
<b>TOTAL ... ..</b>	...	...	<b>16,134</b>

### THE LEATHER GOODS TRADE

Notes.—(a) The figures for 1930 relate to Great Britain only, but comparison between the two years is not materially affected by the omission of the small production in Northern Ireland.

(b) In the absence of information regarding quantities of goods produced, exported and imported, Table III is omitted.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	4,629	4,876
Cost of materials used and amount paid for work given out... ..	"	2,514	2,641
Net output ... ..	"	2,115	2,235
Average number of persons employed (excluding outworkers) ... ..	No.	14,861	14,727
Net output per person employed (excluding outworkers) ... ..	£	142	152

Table II.—Output of principal products

Kind of goods	1933	1930
	£'000	£'000
Trunks, bags and other solid leather goods :—		
Light leather work (travelling bags, etc.) ... ..	341	506
Heavy leather work (portmanteaux, trunks, sample cases, etc.) ... ..	65	319
Travelling bags, trunks and cases of materials other than leather ... ..	927	900
Trunks, bags and cases of leather and of materials other than leather, not separately distinguished ... ..	—	45
TOTAL—Trunks, travelling bags and cases ... ..	1,333	1,770
Leather straps, belts, braces, dog collars, etc. ... ..	309	359
Fancy goods (ladies' hand-bags, purses, pocket books, etc.) :—		
Of leather ... ..	2,401	2,180
Of artificial leather ... ..	168	122
Saddlery and harness ... ..	153	199
Horse clothing ... ..	33	45
Whips ... ..	14	20
Other leather goods* ... ..	126	99
TOTAL—PRINCIPAL PRODUCTS ... ..	4,537	5,794

\* Except apparel, machinery belting and sports goods.

In addition to the figures shown for 1930 the following goods were returned by firms that were not required to make returns in connection with the 1933 Inquiry, including occupiers of workshops in this trade:—

	£'000
Light leather work (travelling bags, etc.) ... ..	15
Heavy leather work (portmanteaux, trunks, etc.) ...	17
Travelling bags, trunks and cases of materials other than leather ... ..	39
Travelling bags, trunks and cases of leather and of materials other than leather, not separately distinguished	5
Leather straps, belts, braces, etc. ... ..	2
Fancy goods of leather ... ..	109
Fancy goods of artificial leather ... ..	20
Saddlery and harness ... ..	13
Whips ... ..	9
Other leather goods ... ..	3
<b>TOTAL</b> ... ..	<b>232</b>

The figures in Table II above include the following output recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I:—

Kind of goods	1933	1930
	£'000	£'000
Light leather work (travelling bags, etc.) ... ..	—	28
Heavy leather work (portmanteaux, trunks, sample cases, etc.) ... ..	10	9
Leather straps, belts, braces, dog collars, etc. ... ..	30	50
Fancy goods (ladies' hand-bags, purses, pocket books, etc.) :—		
Of leather ... ..	128	140
Of artificial leather ... ..	22	—
Horse clothing ... ..	5	6
Other leather goods ... ..	72	48
<b>TOTAL</b> ... ..	<b>267</b>	<b>281</b>

**Table IV.—Volume of Production**

Principal products	1933	1930		1924
		Firms included in		
		1933 Inquiry	1930 Census	
Value of output as returned ...	£'000 4,537	£'000 4,794	£'000 5,026	£'000 5,392
Estimated value at 1930 prices*...	5,100	4,794	5,026	5,392
Volume of production as a percentage of 1930 ... ..	106	100	100	107

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

Table V.—Production, Exports and Imports

Kind of goods	Production* (value at factory)		Exports (f.o.b.)		Retained imports (c.i.f.)	
	1933	1930	1933	1930	1933	1930
	£'000	£'000	£'000	£'000	£'000	£'000
Trunks, bags and other solid leather goods ... ..	1,333	1,846	46	97	5	28
Fancy goods :—						
Of leather ... ..	2,401	2,289	205	371	305	1,117
Of artificial leather ... ..	168	142	12	13	18	110
Saddlery and harness ... ..	153	212	63	152	1	3

\* Owing to the deficiencies referred to on page 138 the figures for 1933 are not precisely comparable with those for 1930.

The following tables relate only to firms whose returns were made on schedules for the Leather Goods Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for { 1933 the year) ... .. { 1930	912 729	4,240 4,327	2,802 2,534	8,816 8,741	3,714 3,263	13,056 13,068
Administrative, technical and clerical staff* ... { 1933 { 1930	67 90	1,076 979	123 134	729 680	190 224	1,805 1,659
TOTAL ... .. { 1933 { 1930	979 819	5,316 5,306	2,925 2,668	9,545 9,421	3,904 3,487	14,861 14,727
Average number of out- workers ... .. { 1933 { 1930	29 19		91 157		120 176	

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	8,489	July 15 ... ..	9,407
February 18 ...	8,765	August 19 ... ..	9,567
March 18 ... ..	8,839	September 16 ...	9,811
April 15 ... ..	9,031	October 14 ... ..	10,105
May 13 ... ..	9,138	November 18 ...	10,303
June 17 ... ..	9,199	December 16 ...	9,914
AVERAGE FOR THE TWELVE MONTHS... ..			9,381

Table VII.—Other output of the Leather Goods Trade

The value of the gross output of the firms whose returns were made on schedules for the Leather Goods Trade was £4,629,000 in 1933 and £4,876,000 in 1930, of which £4,270,000 in 1933 and £4,513,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Leather or canvas sports goods ... ..	215	227
Other goods made ... ..	113	87
Repair work and work done for the trade ... ..	31*	49*
TOTAL ... ..	359	363

\* Amount received.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
Heavy leather ... ..	Th. lbs.	£'000
	1,659	106
	...	31
Light leather ... ..	Th. sq. ft.	725
	22,003	145
All other materials used (including fuel) ... ..	...	1,494
TOTAL ... ..	...	2,501

**THE BOOT AND SHOE TRADE**

*Note.*—The following tables exclude the output of firms mainly engaged in repair work.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	38,073	45,196
Cost of materials used ... ..	"	20,668	25,531
Amount paid for work given out ... ..	"	63	37
Net output ... ..	"	17,342	19,628
Average number of persons employed (excluding outworkers) ... ..	No.	113,226	116,471
Net output per person employed (excluding outworkers) ... ..	£	152	169

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz. prs.	£'000	Th. doz. prs.	£'000
Boots and shoes other than slippers, wholly or mainly of leather :—				
Men's :—				
With soles of leather ... ..	2,005	10,922	1,806	12,361*
With soles of rubber, composition, etc. ... ..	396	1,613	280	1,869
Not separately distinguished...	—	—	165	1,177
TOTAL—Men's ... ..	2,401	12,535	2,251	15,407*
Women's ... ..	3,612	15,476	3,082	17,238
Youths' and boys' (sizes 7 to 5)... ..	647	1,717	730	2,456
Girls' and maids' (sizes 7 to 3) ... ..	1,137	2,300	1,025	2,898
Infants' (sizes up to 6) ... ..	649	755	737	1,021*
Men's, women's and children's boots and shoes of leather, not separately distinguished ... ..	—	—	164	605
TOTAL—Boots and shoes of leather ... ..	8,446	32,783	7,989	39,625*
Boots and shoes of other materials, except rubber† ... ..	386	931	489†	1,135†
Slippers and house shoes, other than of rubber ... ..	1,599	2,250	1,445*	2,130*
TOTAL—Boots, shoes and slippers (other than of rubber) ... ..	10,431	35,964	9,923	42,890*

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
		£'000		£'000
Clogs ... ..	...	35	...	63*
Clog blocks and clog irons...	...	47	...	35
Leggings and gaiters ... ..	...	78	...	224
Socks for boots and shoes :—				
Of cork or fibre ... ..	...	76	...	97
Of other materials ... ..	...	62	...	37*
Boot and shoe laces§ ... ..	...	103	...	113*
Parts of boots and shoes :—				
Boot and shoe uppers ... ..	...	45	...	73
Soles of leather ... ..	...	362	...	320*
Heels ... ..	...	462	...	417
Stiffeners ... ..	...	461	...	533
Other parts of boots and shoes...	...	282	...	194†
<b>TOTAL—Parts of boots and shoes</b>	...	<b>1,612</b>	...	<b>1,537*</b>
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	...	<b>37,977</b>	...	<b>44,996*</b>

\* In addition the following output was returned on schedules for trades not covered by the 1933 Inquiry and by firms mainly engaged in repairing boots and shoes :—

		<i>Other trades</i>	<i>Repairers</i>
		£'000	£'000
Men's boots and shoes, with soles of leather ... ..	...	—	3
Infants' boots and shoes (sizes up to 6) ... ..	...	3	—
Slippers and house shoes, other than of rubber ... ..	...	27	—
Clogs ... ..	...	—	6
Socks, other than of cork or fibre ... ..	...	1	—
Boot and shoe laces ... ..	...	1	—
Soles of leather ... ..	...	—	3
<b>Total ... ..</b>	...	<b>32</b>	<b>12</b>

† Particulars of the production of boots and shoes of rubber (including shoes of canvas uppers and rubber soles) will be found in the Report on the Rubber Trade (page 276).

‡ See page 126.

§ So far as recorded separately.

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

Kind of goods	1933	1930
	£'000	£'000
Boots and shoes of materials other than leather or rubber. ... ..	7 (8,000 doz. prs.)	—
Slippers and house shoes, other than of rubber ...	6 (3,000 doz. prs.)	—
Leggings and gaiters ... ..	17	38
Socks of cork or fibre ... ..	—	4
Boot and shoe laces ... ..	26	30
Soles of leather ... ..	—	8
Stiffeners ... ..	74	70
Heels ... ..	3	—
Other parts of boots and shoes ... ..	22	8
<b>TOTAL ... ..</b>	<b>155</b>	<b>158</b>

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
<b>Boots and shoes other than slippers, wholly or mainly of leather:—</b>	<b>£ per doz.</b>	<b>£ per doz.</b>	<b>Per cent.</b>	<b>£ per doz.</b>	<b>£ per doz.</b>	<b>£ per doz.</b>	<b>£ per doz.</b>
<b>Men's:—</b>							
With soles of leather	5.38	6.84	78.6	5.40	*	6.74	*
With soles of rubber, composition, etc. ...	4.07	6.68	60.9	3.18	*	2.41	*
With soles of leather, rubber, composition, etc. ... ..	5.16	6.85	75.3	5.35	6.39†	3.44	4.93†
<b>Women's ... ..</b>	<b>4.29</b>	<b>5.59</b>	<b>76.7</b>	<b>3.89</b>	<b>4.46†</b>	<b>4.74</b>	<b>5.96†</b>
<b>Youths' and boys' (sizes 7 to 5) ... ..</b>	<b>2.65</b>	<b>3.37</b>	<b>78.9</b>	}	*	*	*
<b>Girls' and maids' (sizes 7 to 3) ... ..</b>	<b>2.03</b>	<b>2.83</b>	<b>71.6</b>				
<b>Infants' (sizes up to 6)... ..</b>	<b>1.16</b>	<b>1.39</b>	<b>83.8</b>				
<b>Youths' and boys', girls' and maids' and infants'</b>	<b>1.96</b>	<b>2.56</b>	<b>76.7</b>	<b>1.41</b>	<b>2.02†</b>	<b>0.97</b>	<b>2.21†</b>
<b>Boots and shoes of other materials, except rubber</b>	<b>2.41</b>	<b>2.32</b>	<b>103.9</b>	<b>1.54</b>	<b>1.70†</b>	<b>2.95</b>	<b>1.36†</b>
<b>Slippers and house shoes, other than of rubber ...</b>	<b>1.41</b>	<b>1.47</b>	<b>95.9</b>	<b>1.36</b>	<b>*</b>	<b>0.68</b>	<b>*</b>



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Boots and shoes other than slippers, wholly or mainly of leather :—	£'000	£'000	£'000		
Men's :—					
With soles of leather	12,361	10,922	13,896	112	114
With soles of rubber, composition, etc. ...	1,869	1,613	2,649	142	20
Not separately distin- guished ... ..	1,177	—	—	—	—
Women's ... ..	17,238	15,476	20,177	117	90
Youths' and boys' (sizes 7 to 5) ... ..	2,456	1,717	2,176	89	104
Girls' and maids' (sizes 7 to 3) ... ..	2,898	2,300	3,212	111	78
Infants' (sizes up to 6)...	1,021	755	901	88	103
Men's, women's and child- ren's, not separately distinguished... ..	605	—	—	—	—
Boots and shoes of other materials, except rubber	1,135	931	896	79	137
Slippers and house shoes, other than of rubber ...	2,130	2,250	2,346	110	81
<b>TOTAL—Boots, shoes and slippers, (other than of rubber) ... ..</b>	<b>42,890</b>	<b>35,964</b>	<b>46,253</b>	<b>108</b>	<b>95</b>
Clogs, clog blocks and clog irons ... ..	98	82	105	107	203
Leggings and gaiters ...	224	78	102	46	109
Socks for boots and shoes:—					
Of cork or fibre ...	97	76	52	54	114
Of other materials ...	37	62	43	116	
Boot and shoe laces ...	113	103	137	121	256
Parts of boots, shoes, etc.:—					
Uppers ... ..	73	45	52	71	155
Soles of leather ...	320	362	443	138	65
Heels ... ..	417	462	565	135	126
Stiffeners ... ..	533	461	591	111	91
Other parts of boots and shoes ... ..	194	282	362	187	79
<b>TOTAL—Parts of boots, shoes, etc. ... ..</b>	<b>1,537</b>	<b>1,612</b>	<b>2,013</b>	<b>131</b>	<b>96</b>
<b>TOTAL ... ..</b>	<b>44,996</b>	<b>37,977</b>	<b>48,705</b>	<b>108</b>	<b>95</b>

**Table V.—Production in relation to Exports and Imports**

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. doz. pairs	Th. doz. pairs	Per cent.	Th. doz. pairs	Th. doz. pairs	Per cent.
<b>Boots and shoes other than slippers, wholly or mainly of leather:—</b>						
Men's ...	1933 2,401	165	6.9	2	2,238	99.9
	1930 2,251	312*	13.9	14*	1,953	99.3
Women's ...	1933 3,612	204	5.6	126	3,534	96.4
	1930 3,082	359*	11.6	229*	2,952	92.2
Children's ...	1933 2,433	153	6.3	2	2,282	99.9
	1930 2,494	226*	9.1	15*	2,283	99.3
<b>Total—Boots and shoes of leather ...</b>	1933 8,446	522	6.2	130	8,054	98.4
	1930 7,991†	897*	11.2	258*	7,352†	96.5
<b>Boots and shoes of other materials, except rubber</b>	1933 386	37	9.6	11	360	96.9
	1930 489	79*	16.2	264*	674	60.8
<b>Slippers and house shoes, other than of rubber ...</b>	1933 1,599	54	3.4	51	1,596	96.8

\* Including slippers and house shoes.

† Including 164,000 doz. pairs returned as men's, women's and children's boots and shoes, not separately distinguished.

The following tables relate only to firms whose returns were made on schedules for the Boot and Shoe Trade and are summarised in Table 1.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	1933 9,034	61,155	9,598	45,081	18,632	106,236
	1930 9,359	63,417	9,976	44,865	19,335	108,282
Administrative, technical and clerical staff* ...	1933 187	4,497	646	3,193	833	7,690
	1930 324	4,965	742	3,224	1,066	8,189
<b>TOTAL ...</b>	1933 9,221	65,652	10,244	48,274	19,465	113,926
	1930 9,683	68,382	10,718	48,089	20,401	116,471
<b>Average number of out-workers ...</b>	1933 432		1,232		1,664	
	1930 950		1,452		2,402	

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES EMPLOYED (EXCLUDING OUTWORKERS) IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	69,144	July 15 ... ..	77,434
February 18 ...	71,765	August 19 ... ..	75,175
March 18 ... ..	74,189	September 16 ...	75,876
April 15 ... ..	75,689	October 14 ... ..	75,625
May 13 ... ..	77,680	November 18 ...	76,217
June 17 ... ..	78,044	December 16 ...	74,882
AVERAGE FOR THE TWELVE MONTHS... ..			75,143

Table VII.—Other output of the Boot and Shoe Trade

The value of the gross output of the firms whose returns were made on schedules for the Boot and Shoe Trade was £38,073,000 in 1933 and £45,196,000 in 1930, of which £37,822,000 in 1933 and £44,838,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Leather and leather manufactures, rubber boots and shoes, etc. ... ..	131	158
Repair work ... ..	72*	160*
Work done for the trade ... ..	48*	40*
TOTAL ... ..	251	358

\* Amount received.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
	Th. cwts.	£'000
Bottom materials :—		
Sole leather ... ..	709	3,594
	..	747
Composite soling materials (excluding rubber)	27	95
	..	116
Rubber ... ..	58	251
	..	98
Upper leathers :—	Th. sq. ft.	
Glacé kid ... ..	33,023	1,515
Patent, varnished, japanned and enamelled ...	18,517	843
Box and willow calf ... ..	78,371	3,213
All other materials used (including fuel) ... ..	..	10,196
TOTAL ... ..	..	20,668

## THE HAT AND CAP TRADE

*Note.*—The figures for 1930 relate to Great Britain only, particulars of the small production in Northern Ireland not being available for that year. Comparison between the two years is not affected by the omission to any appreciable extent.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	10,295	12,291
Cost of materials used ... ..	"	5,640	7,240
Amount paid for work given out ... ..	"	41	57
Net output ... ..	"	4,614	4,994
Average number of persons employed (excluding outworkers)... ..	No.	26,097	30,628
Net output per person employed (excluding outworkers) ... ..	£	153	163

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Hats, caps and other headgear, trimmed and untrimmed :—				
Of straw ... ..	944	1,920	1,109	2,560
Of wool felt (including bodies) ...	1,382	2,143	1,716	3,049
Of fur felt (including bodies) ...	712	2,836	818	3,395
Of cloth ... ..	1,148	1,090	1,536*	1,561*
Of other materials ... ..	230	347	148	396
Of straw, felt or other materials not separately distinguished ...	16	27	36	111
TOTAL—Hats, caps, etc. ...	...	8,363	...	11,072
Hoods :—				
Of straw and the like ... ..	29	43	} †	†
Of wool ... ..	844	461		
Of fur ... ..	289	437		
Hatters' fur ... ..	Th. cwts. 9·6	339	...	452*
Hat linings ... ..	Th. gross 181	155	...	333
Other hatters' wares, trimmings, etc. ... ..	...	57	...	35
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	<b>9,855</b>	...	<b>11,892</b>

\* In addition the following output was returned on schedules for trades not covered by the 1933 Inquiry :—

	Th. doz.	£'000
Hats and caps of cloth ... ..	113	125
Hatters' fur ... ..	...	16

† Included with "Hats, caps and other headgear."

No principal products of the Hat and Cap Trade were recorded by firms whose returns were made on schedules for other trades.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per doz.	£ per doz.	Per cent.	£ per doz.	£ per doz.	£ per doz.	£ per doz.
Hats, etc., of straw ...	2.03						
Hoods of straw and the like ...	2.02	2.31	87.4	1.53	1.97	0.97	1.25
Hats, etc., of wool felt (including bodies) ...	1.48						
Hats, etc., of wool felt (including bodies) ...	1.55	1.78	65.7	1.51	1.78	0.48	1.04
Hoods of wool ...	0.55						
Hats, etc., of fur felt (including bodies) ...	3.98	4.15	78.8	4.48	6.04	1.66	3.57
Hoods of fur ...	1.51						
Hats and caps of cloth ...	0.95	1.02	93.0	0.60	0.86	0.41	0.80
Hats, caps, etc., of other materials ...	1.50	2.67	56.4	1.53	2.24	0.94	1.28

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000		
Hats, caps and other head- gear, trimmed and un- trimmed (including hoods)-					
Of straw ...	2,560	1,963	2,246	88	75
Of wool felt (including bodies) ...	3,049	2,604	3,963	130	76
Of fur felt (including bodies) ...	3,395	3,273	4,154	122	64
Of cloth ...	1,561	1,090	1,172	75	107
Of other materials ...	396	347	615	155	167
Of straw, felt or other materials, not separately distinguished ...	111	27	35	—	—
Hatters' fur ...	452	339	430	95	101
Hat linings ...	333	155	203	61	108
Other hatters' wares, trim- mings, etc....	35	57	75	214	
TOTAL ...	11,892	9,855	12,893	108	87

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. doz.	Th. doz.	Per cent.	Th. doz.	Th. doz.	Per cent.
Hats, caps and other head-gear, trimmed and untrimmed (including hoods):—						
Of straw ... { 1933	973	140	14.4	48	881	94.6
{ 1930	1,109	221	19.9	128	1,016	87.4
Of wool felt (including bodies) { 1933	2,226	160	7.2	813	2,879	71.8
{ 1930	1,716	288	16.8	1,352	2,780	51.4
Of fur felt (including bodies) ... { 1933	1,001	113	11.3	99	987	90.0
{ 1930	818	117	14.3	114	815	86.0
Of cloth ... { 1933	1,148	122	10.6	400	1,426	71.9
{ 1930	1,649	195	11.8	209	1,663	87.4

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... { 1933	1,438	10,251	2,702	16,907	4,140	27,158
{ 1930	1,455	10,307	3,251	17,419	4,706	27,726
Administrative, technical and clerical staff* ... { 1933	134	1,831	173	1,108	307	2,939
{ 1930	190	1,873	216	1,029	406	2,902
TOTAL ... { 1933	1,572	12,082	2,875	18,015	4,447	30,097
{ 1930	1,645	12,180	3,467	18,448	5,112	30,628
Average number of out-workers ... { 1933	34		673		707	
{ 1930	29		890		919	

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	12,262	July 15 ... ..	13,532
February 18 ... ..	13,044	August 19 ... ..	13,285
March 18 ... ..	13,527	September 16 ... ..	13,865
April 15 ... ..	14,212	October 14 ... ..	13,694
May 13 ... ..	14,602	November 18 ... ..	12,598
June 17 ... ..	14,123	December 16 ... ..	11,915
AVERAGE FOR THE TWELVE MONTHS ... ..			13,388

Table VII.—Other output of the Hat and Cap Trade

The value of the gross output of the firms whose returns were made on schedules for the Hat and Cap Trade was £10,295,000 in 1933, and £12,291,000 in 1930, of which £9,855,000 in 1933 and £11,892,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Buckram and other shapes ... ..	*	28
Other goods made (including waste products) ... ..	199	52
Work done for the trade or on commission :—		
Bleaching and dyeing of straw plait, chip braids and hats ... ..	119†	166†
Other work done ... ..	122†	153†
TOTAL ... ..	440	399

\* Less than £500.

† Amount received.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
Wool ... ..	Th. lbs. 2,799	£'000 251
Fur ... ..	Th. cwts. 15	407
Straw and the like ... ..	...	242
Hoods made of :—	Th. doz.	
Wool ... ..	1,170	631
Fur ... ..	357	639
Straw and the like ... ..	659	646
All other materials used (including fuel) ... ..	...	2,824
TOTAL ... ..	...	5,640

## THE GLOVE TRADE

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	2,694	2,940
Cost of materials used and amount paid for work given out... ..	"	1,480	1,683
Net output ... ..	"	1,214	1,257
Average number of persons employed (excluding outworkers) ... ..	No.	8,135	7,270
Net output per person employed (excluding outworkers) ... ..	£	149	173

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz. prs.	£'000	Th. doz. prs.	£'000
Gloves of leather and of leather and fur, lined or unlined :—				
Table-cut ... ..	916	2,235	806*	2,541*
Block-cut... ..	118	214	61	96
TOTAL—Leather, etc. gloves ...	1,034	2,449	867*	2,637*
Fabric gloves :—				
Of cotton or of which the chief value is cotton ... ..	109	82	167	144
Of other textile materials ... ..	89	79	81	74
Gloves for household, sporting, etc. purposes (not included elsewhere) {	61	62	15*	22*
... ..	...	12	...	10*
TOTAL—PRINCIPAL PRODUCTS {	1,293	2,672	1,130*	2,877*
... ..	...	12	...	10*

\* In addition the following output was returned on schedules for trades not covered by the 1933 Inquiry.

	Th. doz. prs.	£'000
Gloves of leather, table cut ... ..	2	6
Gloves for household, sporting, etc., purposes {	23	8
... ..	...	2
... ..	—	—
TOTAL ... ..	...	16
... ..	—	—



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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz. prs.	£'000	Th. doz. prs.	£'000
Gloves of leather and of leather and fur, lined or unlined ... ..	6	13	2	6
Fabric gloves :—				
Of cotton or of which the chief value is cotton ... ..	25	10	26	14
Of other textile materials ... ..	5	4	2	1
Gloves for household, sporting, etc. purposes (not included elsewhere) { ... .. }	2 ...	2 12	— —	— —
<b>TOTAL</b> ... ..	...	41	...	21

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	shillings per doz. prs.	shillings per doz. prs.	Per cent.	shillings per doz. prs.	shillings per doz. prs.	shillings per doz. prs.	shillings per doz. prs.
Gloves of leather and of leather and fur, lined or unlined ... ..	47.39	60.83	77.90	51.58	74.60	24.98	29.38
Fabric gloves :—							
Of cotton or of which the chief value is cotton ... ..	14.99	17.30	86.64	18.24	19.40	8.98	11.30
Of other textile materials ... ..	17.82	18.30	97.38	19.08	19.58	9.96	13.02

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Gloves of leather and of leather and fur, lined or unlined ... ..	£'000	£'000	£'000	Per cent.	Per cent.
	2,637	2,449	3,144	119	64
Fabric gloves :—					
Of cotton or of which the chief value is cotton ... ..	144	82	95	66	81
Of other textile materials	74	79	81	109	82
Gloves for household, sporting, etc. purposes (not included elsewhere) ...	32	74	105	328	26
<b>TOTAL</b> ... ..	<b>2,887</b>	<b>2,684</b>	<b>3,425</b>	<b>119</b>	<b>64</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. doz. prs.	Th. doz. prs.	Per cent.	Th. doz. prs.	Th. doz. prs.	Per cent.
Gloves of leather and of leather and fur, lined or unlined ... } 1933	1,034	51	5.0	685	1,668	58.9
... } 1930	869	49	5.6	497	1,317	62.3
Fabric gloves :—						
Of cotton or of which the chief value is cotton } 1933	109	18	16.5	723	814	11.2
... } 1930	167	21	12.6	602	748	19.5
Of other textile materials ... } 1933	89	5	5.6	89	173	48.6
... } 1930	81	7	8.6	86	160	46.2

The following tables relate only to firms whose returns were made on schedules for the Glove Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	448	2,728	1,507	4,810	1,955	7,538
	1930	369	2,490	1,372	4,266	1,741	6,756
Administrative, technical and clerical staff* ...	1933	7	319	61	278	68	597
	1930	11	323	27	191	38	514
TOTAL ...	1933	455	3,047	1,568	5,088	2,023	8,135
	1930	330	2,813	1,399	4,457	1,779	7,270
Average number of outworkers ...	1933	60		4,731		4,791	
	1930	61		5,905		5,966	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	5,168	July 15 ...	5,659
February 18 ...	5,182	August 19 ...	5,603
March 18 ...	5,319	September 16 ...	5,764
April 15 ...	5,409	October 14 ...	5,886
May 13 ...	5,501	November 18 ...	5,978
June 17 ...	5,565	December 16 ...	5,944
AVERAGE FOR THE TWELVE MONTHS ...			5,582

Table VII.—Other output of the Glove Trade

The value of the gross output of the firms whose returns were made on schedules for the Glove Trade was £2,694,000 in 1933 and £2,940,000 in 1930, of which £2,643,000 in 1933 and £2,866,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
Skins, dressed ... ..	...	£'000 16	...	£'000 15
Leather manufactures other than gloves ... ..	...	2	...	12
	Th. doz. prs.		Th. doz. prs.	
Knitted gloves ... ..	16	8	15	19
Other goods made ... ..	...	2	—	—
Waste products sold ... ..	...	1	...	2
Work done for the trade ... ..	...	22*	...	26*
<b>TOTAL</b> ... ..	...	51	...	74

\* Amount received.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
	Thousands	£'000
Undressed skins :—		
Goat skins ... ..	40	6
Sheep and lamb skins ... ..	2,093	330
All other materials used (including fuel) ... ..	...	1,130
<b>TOTAL</b> ... ..	...	1,466

### THE UMBRELLA AND WALKING STICK TRADE

*Notes.*—(a) For purposes of comparison, adjustments have been made throughout the tables to the particulars for 1930 published in the Final Report on the Fourth Census of Production.

(b) The figures for 1930 relate to Great Britain only, particulars of the small production in Northern Ireland not being available for that year. Comparison between the two years is not affected by the omission to any appreciable extent.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	924	1,636
Cost of materials used and amount paid for work given out... ..	"	572	1,062
Net output ... ..	"	352	574
Average number of persons employed (excluding outworkers) ... ..	No.	2,903	3,713
Net output per person employed (excluding outworkers) ... ..	£	121	154

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Umbrellas, complete ... ..	217	608	{ 330	1,096
Umbrella covers ... ..	19	43	{ ...	35
Umbrella sticks ... ..	...	48	{ ...	50
Other parts and fittings of umbrellas ...	...	147	{ ...	90
Walking sticks and canes, finished {	71	31	{ 69	50
Umbrellas and parts and walking sticks, not separately distinguished ... ..	...	3	{ ...	4
	...	6	{ ...	33
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	886	...	1,548

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

	1933 £'000	1930 £'000
Umbrella sticks ... ..	1	3
Walking sticks and canes, finished ...	3	1
Other parts and fittings of umbrellas ...	10	19
<b>TOTAL ... ..</b>	<b>14</b>	<b>23</b>

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per doz.	£ per doz.	Per cent.	£ per doz.	£ per doz.	£ per doz.	£ per doz.
Umbrellas, complete ...	2·80	3·32	84·5	2·06	2·18	0·91	1·87
Walking sticks and canes, finished ...	0·43	0·72	60·0	0·09	0·14	0·05	0·05

**Table IV.—Volume of Production**

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Umbrellas, complete ...	£'000 1,131	£'000 608	£'000 719	Per cent. 64	Per cent. 85
Walking sticks and canes, finished ...	54	34	57	106	156
Parts of umbrellas (covers, sticks, &c.) ...	330	238	281	85	120
Umbrellas and parts and walking sticks, not separately distinguished ...	33	6	7	...	...
<b>TOTAL ... ..</b>	<b>1,548</b>	<b>886</b>	<b>1,064</b>	<b>69</b>	<b>95</b>

Table V.—Exports and Imports

Kind of goods	Exports		Retained Imports	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Umbrellas, complete ... ..	1933 24	50	5	4
	1930 55	121	23	44
Parts and fittings of umbrellas	1933 *	53	*	42
	1930 *	72	*	135
Walking sticks and canes, finished ... ..	1933 5	5	2	1
	1930 10	17	3	2

\* Recorded by value only.

Owing to the deficiencies caused by the exclusion of firms employing not more than ten persons and of occupiers of workshops, the production aggregates (Table II) are not precisely comparable with figures of exports and imports.

The following tables relate only to firms whose returns were made on schedules for the Umbrella and Walking Stick Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... ..	1933 141	903	271	1,566	412	2,469
	1930 238	1,205	431	1,918	669	3,123
Administrative, technical and clerical staff* ... ..	1933 19	283	25	151	44	434
	1930 38	381	51	209	89	590
TOTAL ... ..	1933 160	1,186	296	1,717	456	2,903
	1930 276	1,586	482	2,127	758	3,713
Average number of out-workers ... ..	1933 18		59		77	
	1930 31		149		180	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	1,255	July 15 ... ..	1,191
February 18 ... ..	1,179	August 19 ... ..	1,171
March 18 ... ..	1,154	September 16 ... ..	1,146
April 15 ... ..	1,124	October 14 ... ..	1,233
May 13 ... ..	1,149	November 18 ... ..	1,303
June 17 ... ..	1,202	December 16 ... ..	1,246
<b>AVERAGE FOR THE TWELVE MONTHS</b> ... ..			1,196

**Table VII.—Other output of the Umbrella and Walking Stick Trade**

The value of the gross output of the firms whose returns were made on schedules for the Umbrella and Walking Stick Trade was £924,000 in 1933 and £1,636,000 in 1930, of which £872,000 in 1933 and £1,525,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods made and work done	1933	1930
	£'000	£'000
Manufactures of timber ... ..	—	4
Lampshades, fancy goods, &c. ... ..	14	16
Other goods made, repair work and work done for the trade ... ..	38	91
<b>TOTAL</b> ... ..	52	111

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. sq. yds.	£'000
<b>Piece goods :—</b>		
Wholly of silk ... ..	116	29
Wholly of artificial silk ... ..	1,208	114
Of silk or artificial silk mixed with cotton ... ..	806	69
Of cotton ... ..	769	31
All other materials used (including fuel) ... ..	...	326
<b>TOTAL</b> ... ..	...	569



**THE FOOD TRADES**  
**GENERAL TABLES**

Table I.—General summary

Trade  (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average numbers of persons em- ployed (5)	Net output per person em- ployed (6)
	£'000	£'000	£'000	No.	£
Grain Milling ... {	1933 56,206	45,163	11,043	28,297	390
1930	69,526	60,200	9,326	26,536	351
Biscuit ... {	1933 14,654	6,421	8,233	37,975	217
1930*	14,851	6,688	8,163	36,095	226
Preserved Foods ... {	1933 35,389	19,906	15,483	48,305	321
1930	33,649	19,535	14,114	42,733	330
Butter, Cheese, Con- densed Milk and Margarine {	1933 20,577	14,927	5,650	11,124	508
1930	27,887	22,174	5,713	11,733	487
Cattle, Dog, and Poultry Foods {	1933 7,602	4,925	2,677	7,542	355
1930	6,173	4,191	1,982	6,286	315
TOTAL ... {	1933 134,428	91,342	43,086	133,243	323
1930	152,086	112,788	39,298	123,383	319

\* Great Britain only, separate particulars in respect of Northern Ireland not being available.

Table II.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Flour and other milled cereals	69,278	56,266	75,961	110	106
Biscuits ... ..	14,414	13,813	16,973	118	78
Preserved foods ... ..	31,196	31,857	36,216	116	87
Butter, cheese, condensed milk and margarine ...	25,283	18,768	25,821	102	80
Cattle, dog and poultry foods	6,887	8,223	9,204	134	88
TOTAL ... ..	147,058	128,927	164,175	112	93

Table III.—Employment

AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

## (i) Operatives

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Grain Milling	1933	682	20,075	224	1,519	906	20,688	21,594
	1930	647	19,066	235	1,468	882	19,652	20,534
Biscuit... ..	1933	1,440	10,168	6,622	21,335	8,062	23,441	31,503
	1930*	1,731	10,006	6,668	19,899	8,399	21,506	29,905
Preserved Foods	1933	754	11,494	6,486	27,457	7,240	31,711	38,951
	1930	833	10,706	6,381	24,722	7,214	28,214	35,428
Butter, Cheese, Condensed Milk and Mar- garine.	1933	449	5,655	794	3,296	1,243	7,708	8,951
	1930	422	6,101	1,038	3,552	1,460	8,193	9,653
Cattle, Dog and Poultry Foods	1933	286	3,875	260	1,075	546	4,404	4,950
	1930	291	3,244	334	1,085	625	3,704	4,329
TOTAL ...	1933	3,611	51,267	14,386	54,682	17,997	87,952	105,949
	1930	3,924	49,123	14,656	50,726	18,580	81,269	99,849

\* See note (\*) to Table I.

## (ii) Administrative, technical and clerical staff

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Grain Milling	1933	239	5,381	91	1,322	330	6,373	6,703
	1930	282	4,871	119	1,131	401	5,601	6,002
Biscuit... ..	1933	123	3,739	352	2,733	475	5,997	6,472
	1930*	69	3,637	409	2,553	478	5,712	6,190
Preserved Foods	1933	205	6,223	401	3,131	606	8,748	9,354
	1930	231	4,898	466	2,407	697	6,608	7,305
Butter, Cheese, Condensed Milk and Mar- garine.	1933	105	1,450	107	723	212	1,961	2,173
	1930	98	1,359	101	691	199	1,881	2,080
Cattle, Dog and Poultry Foods	1933	83	2,100	39	492	122	2,470	2,592
	1930	83	1,517	71	440	154	1,803	1,957
TOTAL ...	1933	755	18,893	990	8,401	1,745	25,549	27,294
	1930	763	16,312	1,166	7,222	1,929	21,605	23,534

\* See note (\*) to Table I.

Table IV

A.—RETURNS COVERING THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Per cent. of total
	Number	Number	Percent.	Number	Number	Per cent.
Grain Milling ...	28,297	6,720	24	25,611	7,543	30
Biscuit ...	37,975	29,036	76	36,095	27,792	77
Preserved Foods ...	48,305	21,418	44	42,525	20,307	48
Butter, Cheese, Condensed Milk and Margarine ...	11,124	6,200	56	11,544	7,303	63
Cattle, Dog and Poultry Foods ...	7,542	4,288	57	6,211	3,125	50
<b>TOTAL ...</b>	<b>133,243</b>	<b>67,662</b>	<b>51</b>	<b>121,986</b>	<b>66,070</b>	<b>54</b>

\* Great Britain.

B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ... ..	52,168	53,256
February ... ..	51,964	53,066
March ... ..	52,176	52,743
April ... ..	52,421	52,661
May ... ..	52,885	53,413
June ... ..	54,392	54,009
July ... ..	55,846	54,249
August ... ..	55,027	53,771
September ... ..	55,165	53,432
October ... ..	55,921	54,087
November ... ..	56,436	53,900
December ... ..	55,077	52,905
<b>AVERAGE FOR THE TWELVE MONTHS</b>	<b>54,123</b>	<b>53,458</b>

\* Great Britain. The average number of operatives employed by all firms (excluding the Biscuit Trade) in Northern Ireland in 1930 was 1,096.

**Amendments of certain aggregates for 1930**

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production.

**Preserved Foods Trade:—**

- Preserved meat in tins, glasses, etc.
- Meat and fish pastes in tins or glasses.
- Pickles, sauces and condiments.
- Soups, tinned or bottled.

**Butter, Cheese, etc., Trades:—**

- Cheddar cheese made in creameries.
  - Cheese processed for sale.
-

### THE GRAIN MILLING TRADE

*Note.*—Under the Wheat Act, 1932, quota payments have been made by millers to the Wheat Commission since the 19th June, 1932, in respect of their output of flour as defined in the Act. The amount of the quota payments made by millers in 1933 is excluded from the value of the output of wheatmeal and flour as shown throughout the following tables. The total amount of such payments as returned by millers for the purposes of the present Inquiry was about £4,610,000.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	56,206	69,526
Cost of materials used and amount paid for work given out ... ..	"	45,163	60,200
Net output ... ..	"	11,043	9,326
Average number of persons employed ... ..	No.	28,297	26,536
Net output per person employed ... ..	£	390	351

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Wheat products :—</b>				
Meal and flour* ... ..	3,878	} 43,291	3,850	} 58,552
Bran and pollard ... ..	748		749	
Sharps and middlings... ..	918		863	
Other by-products ... ..	33		42	
<b>TOTAL—Wheat products</b> ... ..	<b>5,577</b>	<b>43,291</b>	<b>5,504</b>	<b>58,552</b>
<b>Oat products :—</b>				
Meal ... ..	42·3	} 1,146	42·4	} 1,026
Groats, rolled oats and similar products	49·7		27·6	
By-products ... ..	21·3		18·2	
<b>TOTAL—Oat products</b> ... ..	<b>113·3</b>	<b>1,146</b>	<b>88·2</b>	<b>1,026</b>
<b>Barley products :—</b>				
Meal and flour ... ..	202·8	1,267	175·8	1,188
Pearled barley ... ..	2·8	42	3·5	41
<b>TOTAL—Barley products</b> ... ..	<b>205·6</b>	<b>1,309</b>	<b>179·3</b>	<b>1,229</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons.	£'000	Th. tons.	£'000
Maize meal and flour and other milled products of maize (excluding maize starch) ... ..	1,142.5	6,051	} 638.5†	4,622‡
Flaked maize† ... ..	19.5	114		
<b>TOTAL—Maize products</b> ...	<b>1,162.0</b>	<b>6,165</b>	<b>638.5†</b>	<b>4,622‡</b>
Rice products ... ..	49.8	513	44.7†	617‡
Bean meal and flour† ... ..	13.9	106	15.8	152
Pea products:—				
Meal and flour† ... ..	6.0	52	4.3	42
Split peas ... ..	8.3	98	4.5	72
Rye meal and flour ... ..	0.7	5	1.1	8
Other meal, flour and by-products ...	22.6	156	43.2	302
Crushed oats† ... ..	69.5	466	} 278.6	2,313
Cattle and pig meals† ... ..	197.9	1,295		
Poultry foods and mashees† ... ..	148.1	1,121		
Crushed oats and other animal and poultry feeding stuffs, not elsewhere specified ... ..	39.6	272		
Screenings, not included elsewhere ...	6.6	24	15.2	56
Other manufactured cereals, not specified above ... ..	12.6	127	6.2	108
<b>TOTAL—Milled products</b> ...	<b>...</b>	<b>56,146</b>	<b>...</b>	<b>69,099‡</b>
Hay and straw, chopped ... ..	14.9	56	23.2	112
Peat and moss litter† ... ..	52.3	64	51.3	67
<b>TOTAL—PRINCIPAL PRODUCTS</b> ...	<b>...</b>	<b>56,266</b>	<b>...</b>	<b>69,278‡</b>

\* Including 80,000 tons of self-raising flour, valued at £1,213,000, in 1933 and 74,000 tons, valued at £1,332,000, in 1930. The output of self-raising flour by firms not engaged in milling was excluded from the 1933 Inquiry and has not been included in the total for 1930.

† So far as recorded separately.

‡ In addition, the undermentioned goods were returned on schedules for trades not covered by the 1933 Inquiry:—

	Th. tons	£'000
Maize products ... ..	7.3	89
Rice products ... ..	0.3	6
	—	—
	...	95
	—	—

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Wheat by-products ... ..	2·0	11	4·0	25
Oat products ... ..	1·3	14	2·0	5
Barley products ... ..	5·9	50	—	—
Maize products ... ..	27·2	158	4·7	42
Rice products ... ..	—	—	3·6	51
Other goods ... ..	...	43	...	9
<b>TOTAL</b> ... ..	...	276	...	132

Millers were required to enter the quantities of each specified kind of wheat and oat product separately, but a combined figure of value was accepted in cases where separate values could not be given. Separate particulars of both quantities and values were furnished in respect of the following output:—

Kind of goods	1933			1930		
	Quantity	Value	Average value	Quantity	Value	Average value
	Th. tons	£'000	£ per ton	Th. tons	£'000	£ per ton
<b>Wheat products:—</b>						
Meal and flour, excluding self-raising flour	1,548	13,694	8·85	1,251	15,203	12·15
Bran and pollard ...	168	948	5·65	293	1,555	5·31
Sharps and middlings ...	215	1,186	5·52	247	1,372	5·56
Other by-products ...	8	42	5·03	16	102	6·38
<b>TOTAL—Wheat products</b>	1,939	15,870	8·19	1,807	18,232	10·09
<b>Oat products:—</b>						
Meal ... ..	34	313	9·16	35	401	11·46
Groats, rolled oats and similar products	44	616	13·88	24	407	16·96
By-products ... ..	19	51	2·75	14	35	2·50
<b>TOTAL—Oat products</b>	97	980	10·09	73	843	11·55

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Wheat products ...	7.88	10.63	74.1	*	*	*	*
Oat products ...	10.11	11.55	87.6	*	*	*	*
Barley products :—							
Meal and flour ...	6.25	6.76	92.4	31.63	19.89	4.97	5.88
Pearled barley ...	15.00	11.88	126.3	46.46	49.49	6.77	11.20
Maize meal and flour and other milled products of maize (excluding maize starch) ...	5.31	7.30	72.7	6.30	9.09	4.95	6.37
Rice products :—							
Flour ...	9.17	12.81	71.6	12.72	19.86	10.86	15.51
Meal and dust ...	3.84	3.59	107.0	7.14	5.76	3.51	5.01
Cleaned, whole ...	14.13	17.20	82.1	10.34	16.01	10.57	15.72
Cleaned, broken, and mixtures of whole and broken	9.71	11.71	82.9	17.18	17.41	6.06	10.33
Bean meal and flour	7.65	9.62	79.6	†	†	†	†
Pea products :—							
Meal and flour ...	8.62	9.57	90.0	†	†	†	†
Split peas... ...	11.72	16.06	73.0	11.72	15.32	13.92	17.21
Rye meal ...	6.27	7.13	87.9	7.04	12.51	3.62	6.08
Crushed oats and other animal and poultry feeding stuffs, not elsewhere specified ...	6.93	8.27	83.8	†	†	†	†

\* In the absence of complete information regarding the net selling value of each class of wheat and oat product specified in Table II, it is not possible to make a direct comparison of average production values with those of exports and imports. The average values of the exports and imports of the principal classes of wheat and oat products were as follows :—

	Exports (f.o.b.)		Imports (c.i.f.)	
	1933	1930	1933	1930
	£ per ton	£ per ton	£ per ton	£ per ton
Wheat products :—				
Meal and flour ...	8.56	13.88	7.23	11.33
Bran and pollard ...	6.46	6.16	3.96	4.67
Sharps and middlings ...	7.36	6.85	4.07	5.09
Oat products :—				
Meal ...	35.33	32.10	7.72	11.99
Other sorts (including groats and rolled oats) ...	33.15	31.47	16.02	23.82

† Not recorded separately.



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Wheat products ... ..	58,552	43,291	59,400	101	107
Oat products ... ..	1,026	1,146	1,375	134	121
Barley products :—					
Meal and flour ... ..	1,188	1,267	1,371	115	112
Pearled barley ... ..	41	42	33	80	246
Maize products ... ..	4,622	6,165	8,480	183	78
Rice products ... ..	617	513	668	108	120
Bean meal and flour ...	152	106	133	87	112
Pea products :—					
Meal and flour ... ..	42	52	58	138	264
Split peas ... ..	72	98	134	186	258
Rye meal and flour ...	8	5	6	75	} 124
Other meal, flour and by-products... ..	302	156	158	52	
Screenings, not elsewhere included ... ..	56	24	24	43	139
Crushed oats and other feeding stuffs for animals	2,313	3,154	3,764	163	96
Other manufactured cereals	108	127	218	202	165
<b>TOTAL—Milled products</b>	<b>69,099</b>	<b>56,146</b>	<b>75,822</b>	<b>110</b>	<b>106</b>
Hay and straw, chopped...	112	56	71	63	67
Peat and moss litter ...	67	64	68	101	72
<b>TOTAL ... ..</b>	<b>69,278</b>	<b>56,266</b>	<b>75,961</b>	<b>110</b>	<b>106</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Wheat products :—						
Meal and flour ... ..	1933 3,878	155	4.0	487	4,210	88.4
Bran and pollard ... ..	1930 3,850	201	5.2	578	4,227	86.3
Sharps and middlings	1933 748	4	0.5	348	1,092	68.1
	1930 749	32	4.3	86	803	89.3
	1933 918	1	0.1	249	1,166	78.9
	1930 863	3	0.3	67	927	92.8

For products of other descriptions of grain the output recorded for both years is probably seriously deficient by reason of the omission of the small firms from the scope of the Inquiry and Census.

For these products, therefore, only the figures for exports and imports are given.

Kind of goods		Exports	Retained Imports
		Th. tons	Th. tons
<b>Oat products :—</b>			
Meal ... ..	{ 1933	0·7	5·9
	{ 1930	1·3	7·6
Groats, rolled oats and similar products ...	{ 1933	1·1*	29·7*
	{ 1930	1·7*	21·2*
<b>Barley products :—</b>			
Meal and flour ... ..	{ 1933	0·1	1·9
	{ 1930	0·3	0·6
Pearled barley ... ..	{ 1933	0·4	8·1
	{ 1930	0·7	7·6
Maize meal and flour and other milled products of maize (excluding maize starch) ... ..	{ 1933	6·8	90·4
	{ 1930	45·9	117·2
Rice products ... ..	{ 1933	2·6	297·0
	{ 1930	6·4	288·7
Split peas ... ..	{ 1933	3·2	2·8
	{ 1930	3·3	4·2

\* Described as " Other Sorts " of oat products.

The following tables relate only to firms whose returns were made on schedules for the Grain Milling Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All Ages	Under 18	All ages	
Operatives (average for the year) ... ..	{ 1933	682	20,075	224	1,519	906	21,594
	{ 1930	647	19,066	235	1,468	882	20,534
Administrative, technical and clerical staff* ...	{ 1933	239	5,381	91	1,322	330	6,703
	{ 1930	282	4,871	119	1,131	401	6,002
<b>TOTAL</b> ... ..	{ 1933	921	25,456	315	2,841	1,236	28,297
	{ 1930	929	23,937	354	2,599	1,283	26,536

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933  
BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE  
MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	5,139	July 15 ... ..	5,232
February 18 ... ..	5,205	August 19 ... ..	5,267
March 18 ... ..	5,235	September 16 ... ..	5,252
April 15 ... ..	5,315	October 14 ... ..	5,358
May 13 ... ..	5,247	November 18 ... ..	5,301
June 17 ... ..	5,215	December 16 ... ..	5,305
AVERAGE FOR THE TWELVE MONTHS ...			5,256

**Table VII.—Other output of the Grain Milling Trade**

The value of the gross output of the firms whose returns were made on schedules for the Grain Milling Trade was £56,206,000 in 1933 and £69,526,000 in 1930, of which £55,990,000 in 1933 and £69,146,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Oil and seed cake and meal (ground or mixed) ... ..	9	76	20	196
Other output ... ..	...	110	...	113
Milling and other work done on commission ... ..	...	30*	...	71*
<b>TOTAL</b> ... ..	...	216	...	380

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials				Quantity	Cost
				Th. tons	£'000
Wheat	{	home-grown ... ..	...	506	2,558
		imported ... ..	...	4,968	29,119
Oats	{	home-grown ... ..	...	125	686
		imported ... ..	...	84	449
Barley	{	home-grown ... ..	...	20	121
		imported... ..	...	206	991
All other materials used (including fuel) ...				...	11,234
<b>TOTAL</b> ... ..				...	45,158

### THE BISCUIT TRADE

*Note.*—The 1933 Inquiry did not cover the Bread, Cakes, etc., and certain other trades in which biscuits are made as secondary products; the value of biscuits made in 1930 by those trades was £1,346,000, or 8.6 per cent. of the total recorded output.

**Table I.—General summary**

Particulars	Unit	1933	1930*
Value of products (Gross output) ... ..	£'000	14,654	14,851
Cost of materials used ... ..	"	6,421	6,688
Net output ... ..	"	8,233	8,163
Average number of persons employed ...	No.	37,975	36,095
Net output per person employed ... ..	£	217	226

\* Great Britain only.

**Table II.—Output of principal product**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Biscuits for human consumption ...	Th. cwts. 3,551	£'000 13,813	Th. cwts. 2,982 ... ...	£'000 14,260 154
<b>TOTAL ... ..</b>	<b>3,551</b>	<b>13,813</b>	<b>...</b>	<b>14,414</b>

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Biscuits for human consumption ...	Th. cwts. 54	£'000 64	Th. cwts. 29 ... ...	£'000 31 21
<b>TOTAL ... ..</b>	<b>54</b>	<b>64</b>	<b>...</b>	<b>52</b>

**Table III.—Average values of biscuits produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percent- age of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Biscuits for human consumption ...	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
	3·89	4·78	81·4	5·75*	5·77	3·17†	3·72

\* Comprising "Sweetened," £6·23 per cwt., and "Unsweetened," £4·37 per cwt.  
 † Comprising "Sweetened," £3·33 per cwt., and "Unsweetened," £3·06 per cwt.

**Table IV.—Volume of Production**

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Biscuits for human consumption ...	£'000	£'000	£'000	Per cent.	Per cent.
	14,414	13,813	16,973	118	78

**Table V.—Exports and Imports**

Biscuits for human consumption	Exports		Retained imports	
	1933	1930	1933	1930
Sweetened ...	Th. cwts. 72	} 168	Th. cwts. 32	Th. cwts. *
Unsweetened ...	25		49	60
TOTAL ...	97	168	81	...

\* Not available.

As complete particulars of output are not available for 1933 (see note on page 171), a precise comparison between production and exports and imports cannot be made.

The following tables relate only to firms whose returns were made on schedules for the Biscuit Trade and are summarised in Table I:—

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (aver- age for the year)	1933	1,440	10,168	6,622	21,335	8,062	31,503
	1930†	1,731	10,006	6,668	19,899	8,399	29,905
Administrative, technical and clerical staff*	1933	123	3,739	352	2,733	475	6,472
	1930†	69	3,637	409	2,553	478	6,190
TOTAL	1933	1,563	13,907	6,974	24,068	8,537	37,975
	1930†	1,800	13,643	7,077	22,452	8,877	36,095

\* As at 14th October, 1933, and 18th October, 1930.

† Great Britain only.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY  
FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS  
ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	23,551	July 15 ...	24,556
February 18 ...	23,535	August 19... ..	24,757
March 18 ...	23,873	September 16 ...	25,320
April 15 ...	23,934	October 14 ...	25,525
May 13 ...	24,200	November 18 ...	25,916
June 17 ...	24,432	December 16 ...	25,663
AVERAGE FOR THE TWELVE MONTHS ...			24,605

**Table VII.—Other output of the Biscuit Trade**

The value of the gross output of the firms whose returns were made on schedules for the Biscuit Trade was £14,654,000 in 1933 and £14,851,000\* in 1930, of which £13,749,000 in 1933 and £14,227,000\* in 1930 consisted of products included in Table II; particulars of the remaining items are shown below :—

Kind of goods	1933	1930
	£'000	£'000
Cakes, pastry, buns, scones, etc. ... ..	541	242
Bread and other bakery products (including Christmas puddings, mincemeat, etc.)... ..	226	36
Cocos and sugar confectionery (including chocolate confectionery) ... ..	81	197
Animal and poultry foods (chiefly dog biscuits) ... ..	7	107
Other goods (mainly food products) ... ..	50	42
<b>TOTAL</b> ... ..	<b>905</b>	<b>624</b>

\* Great Britain only.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of material	Quantity	Cost
	Sacks of 280 lbs.	£'000
Flour ... ..	1,043,317	1,207
All other materials used (including fuel) ... ..	...	5,214
<b>TOTAL</b> ... ..	...	<b>6,421</b>

## THE PRESERVED FOODS TRADE

Table I.—General summary

Particulars.	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	35,389	33,649
Cost of materials used ... ..	"	19,906	19,535
Net output ... ..	"	15,483	14,114
Average number of persons employed ...	No.	48,305	42,733
Net output per person employed ... ..	£	321	330

Table II A.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Preserved meat in tins, glasses, etc.	138	988	121	878
Meat extracts and essences ... ..	105	3,019	98	3,003
Fish, canned :—				
Herrings ... ..	104	220	111	249
Other fish (including shell fish)	20	55	21	78
Meat and fish pastes in tins or glasses	110	1,128	96	1,263
<b>TOTAL—Preserved meat and fish</b>	<b>477</b>	<b>5,410</b>	<b>447</b>	<b>5,471</b>
Pickles, sauces and condiments (excluding table salt) :—				
Pickles and vegetables preserved in vinegar ... ..	268	781	382†	1,097†
Other sorts, including mustard	603	3,068	552	3,356
<b>TOTAL—Pickles, sauces, etc ...</b>	<b>871</b>	<b>3,849</b>	<b>934</b>	<b>4,453</b>
Preserved vegetables :—				
Dried ... ..	96	120	} 314	768
Canned :—				
Peas ... ..	499	895		
Other ... ..	434	775		
Bottled ... ..	9	33		
Preserved in salt or brine ...	9	14		
<b>TOTAL—Vegetables dried, canned, bottled, etc. ... ..</b>	<b>1,047</b>	<b>1,837</b>	<b>314</b>	<b>768</b>
Ground spices ... ..	100	457	90	669
Preserved fruit :—				
Marmalade, jams and fruit jellies	3,405	7,064	3,229	7,684
Fruit preserved in thin or thick syrup, canned or bottled :—				
Plums* ... ..	37	62	} 190	557
Raspberries*	22	67		
Strawberries* ... ..	22	77		
Gooseberries* ... ..	4	5		
Loganberries* ... ..	2	7		
Cherries* ... ..	8	27		
Other kinds* ... ..	44	112		
Not separately distinguished	252	638		
<b>TOTAL—Preserved in syrup, canned or bottled</b>	<b>301</b>	<b>995</b>	<b>190</b>	<b>557</b>



Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<i>Preserved fruit—cont.</i>	Th. cwts.	£'000	Th. cwts.	£'000
Fruit preserved without sugar, canned or bottled :—				
Plums* ... ..	9	17	} 125	302
Raspberries* ... ..	1	2		
Gooseberries* ... ..	7	12		
Other kinds* ... ..	42	108		
Not separately distinguished	100	220		
TOTAL—Preserved without sugar, canned or bottled ...	159	359	125	302
Crystallised, glacé or Metz ...	24	122	†	†
Candied or drained peel... ..	176	396	166	443
Other and unclassified preserved fruit ... ..	24	69	28	107
TOTAL—Preserved fruit ...	4,179	9,005	3,738	9,093
Farinaceous preparations § :—				
Of wheat ... ..	286	1,015	} 399	795
Other descriptions ... ..	153	392		
Vegetarian preparations (potato crisps, yeast foods, nut foods, etc.)	160	897	} 29	94
Jelly squares, powders and crystals	...	1,159		
Bottled jellies (not including fruit jellies) ... ..	7	56	9	61
Baking powder ... ..	67	412	77	454
Blanc-mange, custard and similar powders ... ..	310	1,244	} 264	1,150
Lemon curd and lemon cheese ...	123	317		
Nuts, ground, prepared, etc. ...	155	930	...	245
Cake mixtures ... ..	152	519	...	865
Sugar, ground and otherwise prepared for icing, fondants, etc. ...	699	794	...	444
Coffee and chicory extracts and essences ... ..	114	973	...	706
Powders and essences for beverages, etc. (excluding fruit juices) ...	...	854	...	1,165
Soups, tinned or bottled (including soup squares and powders) ...	...	717	...	286
Grocers' sundries ... ..	...	803	...	412
Preserved foods, not separately distinguished ... ..	—	—	...	583
TOTAL—PRINCIPAL PRODUCTS	...	31,857	...	163¶
				31,196

\* So far as recorded separately.

† Recorded as *pickles*.

‡ Not recorded separately.

§ Including patent and proprietary goods, not specifically medicinal.

¶ Output in Northern Ireland.

In addition to the foregoing figures for 1930, the following items were recorded on schedules for trades that were not covered by the 1933 Inquiry.

Table II B

Kind of goods	1930
	£'000
Preserved meat in tins, glasses, etc. ... ..	852*
	(145,000 cts.)
Meat extracts and essences ... ..	77*†
Fish, canned :—	3
Herrings ... ..	8
Other (including shell fish) ... ..	21
Meat and fish pastes in tins or glasses ... ..	15*
Pickles, sauces and condiments ... ..	47*
Ground spices ... ..	97
Preserved fruit :—	
Marmalade, jams and fruit jellies ... ..	385
	(148,000 cts.)
Fruit preserved in thin or thick syrup, canned or bottled ... ..	117
	(26,000 cts.)
Fruit preserved without sugar, canned or bottled ... ..	71
	(28,000 cts.)
Candied or drained peel ... ..	75
Other and unclassified preserved fruit ... ..	17
Farinaceous preparations, other than of wheat ... ..	86
Vegetarian preparations ... ..	38
Jelly squares, powders and crystals ... ..	162
Baking powder ... ..	1
Blanc-mange, custard and similar powders ... ..	26
Lemon curd and lemon cheese ... ..	23
Nuts, ground, prepared, etc. ... ..	68
Cake mixtures ... ..	12
Sugar, ground and otherwise prepared for icing, fondants, etc. ... ..	3
Coffee and chicory extracts and essences ... ..	185
Powders and essences for beverages, etc. (excluding fruit juices) ... ..	5
Soups, tinned or bottled ... ..	13*
<b>TOTAL</b> ... ..	<b>2,407</b>

\* See page 163.

† Weight not stated.

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

Table II C

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Preserved meat in tins, glasses, etc.	—	—	5	35
Meat and fish pastes in tins or glasses	—	—	1	10
Pickles, sauces and condiments, (excluding table salt) ... ..	1	4	—	—
Ground spices ... ..	7	27	—	—
Preserved fruit—other kinds ...	—	—	2	12
Farinaceous preparations:—				
Of wheat ... ..	8	54	} 7	3
Other descriptions ... ..	2	6		... 217
Vegetarian preparations ... ..	10	40		... 317
Jelly squares, powders and crystals	...	11	...	31
Baking powder ... ..	2	2	4	15
Blanc-mange, custard and similar powders ... ..	3	13	} 8	26
Coffee and chicory extracts and essences ... ..	1	7		... 2
Powders and essences for beverages, etc. (excluding fruit juices) ...	...	51	...	14
Grocers' sundries ... ..	...	61	...	49
Other principal products ... ..	—	—	...	56
<b>TOTAL</b> ... ..	...	493	...	10
				848

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Preserved meat in tins, glazes, etc. ...	7.15	7.22	98.9	5.67	6.72	2.96	4.51
Meat extracts and es- sences ...	28.74	30.64	93.8	21.76	24.65	6.95	15.48
Fish, canned :—							
Herrings ...	2.11	2.24	94.3	2.47	2.43	2.55	3.47
Other fish (including shell fish) ...	2.80	3.66	76.4	3.08	3.98	4.11	5.17
Meat and fish pastes ...	10.24	13.16	77.8	*	*	*	*
Pickles and vegetables preserved in vinegar	2.91	2.87	101.4	s. per gall. 8.74	s. per gall. 8.73	s. per gall. 3.51	s. per gall. 2.29
Preserved vegetables :—				£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Dried ...	1.25	1.75	71.7	9.14	7.97	2.66	3.28
Canned and bottled ...	1.81			2.20	3.47	1.15	1.26
Preserved in salt or brine ...	1.59			2.28	2.05	0.64	0.65
Ground spices ...	4.59	7.43	61.8	*	*	*	*
Preserved fruit :—							
Marmalade, jams and fruit jellies ...	2.07	2.38	87.2	2.64	3.09	2.19	3.49
Fruit preserved with- out sugar, canned or bottled ...	2.26	2.42	93.3	4.14	4.69	1.20	1.31
Fruit in thin or thick syrup, canned or bottled ...	2.54	2.96	86.2	3.40	4.02	1.61	2.21
Candied or drained peel ...	2.25	2.66	84.6	2.85	3.65	2.52	2.65
Baking powder ...	6.18	5.90	105.0	*	*	*	*
Blanc-mange, custard and similar powders	4.01	4.36	92.0	*	*	*	*

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Preserved meat in tins, glasses, etc. ... ..	878	988	999	114	} 97
Meat extracts and essences	3,003	3,019	3,219	107	
Fish, canned :—					
Herrings ... ..	249	220	233	94	} 113
Other fish (including shell fish) ... ..	78	55	72	92	
Meat and fish pastes in tins or glasses ... ..	1,263	1,128	1,450	115	63
Pickles, sauces and condi- ments (except table salt):—					
Pickles and vegetables preserved in vinegar ...	1,097	781	770	70	} 93
Other sorts (including mustard) ... ..	3,356	3,068	3,665	109	
Preserved vegetables ... ..	768	1,837	2,562	334	14
Ground spices ... ..	669	457	740	111	127
Preserved fruit :—					
Marmalade, jams and fruit jellies ... ..	7,684	7,064	8,101	105	111
Fruit in thin or thick syrup, canned or bottled	557	995	1,154	207	33
Fruit preserved without sugar, canned or bottled	302	359	385	127	47
Candied or drained peel ...	443	396	468	106	114
Other kinds of preserved fruit ... ..	107	191	260	243	199
Jelly squares, powders and crystals and bottled jellies	1,210	1,215	1,469	121	80
Baking powder ... ..	454	412	392	86	164
Farinaceous preparations	1,984	1,624	1,171	59	} 71
Blanc-mange, custard and and similar powders ...	1,297	1,244	1,352	104	
Coffee and chicory extracts and essences ... ..	1,165	973	1,142	98	
Powders and essences for beverages, etc. (excluding fruit juices) ... ..	286	854	968	339	
Other goods ... ..	4,346	4,977	5,644	130	
TOTAL ... ..	31,196	31,857	36,216	116	87

Table V.—Exports and Imports

Owing to the limited scope of the 1933 Inquiry, the production figures recorded for the majority of the commodities specified cannot be compared with the figures of exports and imports.

Kind of goods	Exports		Retained imports	
	1933	1930	1933	1930
	Th. cwts.	Th. cwts.	Th. cwts.	Th. cwts.
Preserved meat in tins, etc. ...	15	20	1,102	1,292
Meat extracts and essences ...	11	14	60	85
<b>TOTAL—Preserved meat and meat extracts ...</b>	<b>26</b>	<b>34</b>	<b>1,162</b>	<b>1,377</b>
<b>Fish, canned :—</b>				
Herrings ... ..	53	86	6	7
Other fish ... ..	17	19	999	1,289
<b>TOTAL—Canned fish ...</b>	<b>70</b>	<b>105</b>	<b>1,005</b>	<b>1,296</b>
Vegetables, dried ... ..	*	1	6	4
Vegetables, preserved in salt or brine	*	*	209	283
Vegetables, preserved by canning or bottling, with no sweetening matter :—				
Tomatoes ... ..	*	*	734	641
Peas ... ..	13	7	15	106
Other descriptions ... ..	7		62	
<b>Fruit, preserved without sugar :—</b>				
<b>Tinned or bottled :—</b>				
Apricots ... ..	4	5	112	118
Other sorts ... ..			204	199
<b>Other than tinned or bottled :—</b>				
Blackcurrants ... ..			87	568
Raspberries ... ..	10	21	33	
Strawberries ... ..			221	
Other sorts ... ..			410	
<b>Fruit, preserved in sugar, tinned or bottled, in syrup :—</b>				
Apricots ... ..			223	208
Peaches ... ..			676	608
Pears ... ..			718	497
Pineapples ... ..			786	691
Plums, including greengages, damsons and mirabelles ...	5	3	13	
Currants, gooseberries, loganberries, raspberries and strawberries ... ..			60	399
Other sorts ... ..			516	
Fruit pulp, preserved in syrup ...	*	1	4	1
Marmalade, jams and fruit jellies...	76	102	10	3
Candied or drained peel ... ..	5	5	—	1

\* Under 500 cwts.

The following tables relate only to firms whose returns were made on schedules for the Preserved Foods Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	754	11,494	6,486	27,457	7,240	38,951
	1930	833	10,706	6,381	24,722	7,214	35,428
Administrative, technical and clerical staff* ...	1933	205	6,223	401	3,131	606	9,354
	1930	231	4,898	466	2,407	697	7,305
TOTAL ...	1933	959	17,717	6,887	30,588	7,846	48,305
	1930	1,064	15,604	6,847	27,129	7,911	42,733

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	15,723	July 15 ...	18,363
February 18 ...	15,452	August 19 ...	17,496
March 18 ...	15,471	September 16 ...	17,033
April 15 ...	15,449	October 14 ...	17,771
May 13 ...	15,832	November 18 ...	18,054
June 17 ...	17,150	December 16 ...	16,877
AVERAGE FOR THE TWELVE MONTHS ...			16,723

**Table VII.—Other output of the Preserved Foods Trade**

The value of the gross output of the firms whose returns were made on schedules for the Preserved Foods Trade was £35,389,000 in 1933 and £33,649,000 in 1930, of which £31,364,000 in 1933 and £30,348,000 in 1930 consisted of products included in Table IIA. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Cocoa and sugar confectionery ... ..	1,447	947
Mincedmeat and fruit puddings ... ..	664	489
Meat pies, sausages, brawn, etc....	579	111
Vinegar (bottled) and vinegar and acetic acid for table use ... ..	220	165
Fruit juices and syrups ... ..	111	72
Other food and drink products, including table salt ...	597	724
Drugs, medicines and medicinal preparations ... ..	285	580
Culinary essences ... ..	94	132
Other goods ... ..	—	61
Work done for the trade or on commission ... ..	28*	20*
<b>TOTAL</b> ... ..	<b>4,025</b>	<b>3,301</b>

\* Amount received.



### THE BUTTER, CHEESE, CONDENSED MILK AND MARGARINE TRADES

*Note.*—The following tables relate to factories and creameries and do not include particulars of output, etc. on farms or at dairies chiefly engaged in the distribution of milk.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	20,577	27,887
Cost of materials used ... ..	"	14,927	22,174
Net output ... ..	"	5,650	5,713
Average number of persons employed ... ..	No.	11,124	11,733
Net output per person employed ... ..	£	508	487

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<b>Butter :—</b>	Th. cwts.	£'000	Th. cwts.	£'000
Made in creameries ... ..	72·6	384	46·9	377
Blended for sale ... ..	1,118·7	5,241	958·2	7,022
Not separately distinguished... ..	—	—	38·0	271
<b>TOTAL—Butter</b> ... ..	<b>1,191·3</b>	<b>5,625</b>	<b>1,043·1</b>	<b>7,670</b>
<b>Cheese :—</b>				
Made in creameries :—				
Cheddar ... ..	48·2	128	99·4*	445*
Cheshire ... ..	62·2	166	36·5	125
Caerphilly ... ..	7·2	23	} 27·5	124
Stilton ... ..	10·3	67		
Colwick (soft), Wensleydale and Derby ... ..	10·1	39		
Other and unclassified (including cream cheese and margarine cheese)	16·0	139	} 223·2*	1,860*
Processed for sale ... ..	225·3	1,292		
<b>TOTAL—Cheese</b> ... ..	<b>379·3</b>	<b>1,854</b>	<b>386·6</b>	<b>2,554</b>
<b>Cream</b> ... ..	Th. galls.		Th. galls.	
Separated milk, sold ... ..	2,387	1,084	1,381	768
	8,318	75	5,041	50
<b>Condensed milk :—</b>	Th. cwts.		Th. cwts.	
Sweetened, whole ... ..	432·7	1,189	446·0	1,670
Sweetened, separated or skimmed ... ..	501·4	619	163·8	189
Not sweetened, whole... ..	233·5	497	264·5	656
<b>TOTAL—Condensed milk</b> ... ..	<b>1,167·6</b>	<b>2,305</b>	<b>874·3</b>	<b>2,515</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Milk powder, sweetened or not... ..	Th. cwts. 130·6	£'000 701	Th. cwts. 134·0	£'000 787
Margarine ... ..	3,451·4	6,875	4,033·0	10,803
Other milk products ... ..	40·2	154	} ...	136
Butter blended on commission ... ..	569·9	95†		
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	...	18,768	...	25,283

\* See page 163.

† Amount received.

The figures shown above include the output of cheese, cream and margarine recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I. The aggregate value of the output of these items amounted to £24,000 in 1933 and £6,000 in 1930.

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
<b>Butter:—</b>	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Made in creameries	5·28	8·05	65·6	} *	}	}	}
Blended for sale...	4·69	7·33	64·0				
<b>TOTAL—Butter ...</b>	4·72	7·35	64·2	5·63	7·72	3·89	6·87
<b>Cheese:—</b>							
Made in creameries:				} *	}	}	}
Cheddar ... ..	2·67	4·48	57·5				
Cheshire ... ..	2·67	3·42	78·2				
Caerphilly ... ..	3·25	} 4·50	103·7				
Stilton ... ..	6·47						
Colwick (soft), Wensleydale and Derby ... ..	3·84						
Other and un- classified (includ- ing cream cheese and margarine cheese) ... ..	8·67	} 8·33	71·2				
Processed for sale	5·73						
<b>TOTAL—Cheese</b>	4·89	6·59	74·2	5·12	6·40	2·50	4·05

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per gall.	s. per gall.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Cream ... ..	9.08	11.12	81.7	*	*	2.96	4.63
	d. per gall.	d. per gall.					
Separated milk ...	2.16	2.36	91.5	*	*	*	*
	£ per cwt.	£ per cwt.				£ per cwt.	£ per cwt.
Condensed milk:—							
Sweetened:—							
Whole ... ..	2.75	3.75	73.3	2.71	3.28	1.64	2.15
Separated or skimmed ...	1.23	1.16	106.4	1.30	2.09	1.09	1.43
Not sweetened ...	2.13	2.48	85.8	3.06	3.54	2.00	2.48
Milk powder, sweet- ened or not ...	5.36	5.87	91.4	11.45	11.82	1.73	2.69
Margarine ... ..	1.99	2.68	74.3	2.67	3.23	1.61	2.86

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930*
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Butter:—					
Made in creameries ...	377	384	585	155	76
Blended for sale ...	7,022	5,241	8,189	117	66
Not separately distin- guished ... ..	271	—	—	—	—
TOTAL—Butter ...	7,670	5,625	8,774	114	66
Cheese ... ..	2,554	1,854	2,498	98	21
Cream, sold ... ..	768	1,084	1,328	173	125
Separated milk, sold ...	50	75	82	164	163
Condensed milk ... ..	2,515	2,305	2,783	111	96
Milk powder, sweetened or not... ..	787	701	767	97	89
Margarine ... ..	10,803	6,875	9,253	86	93
Other milk products (in- cluding butter blended on commission) ...	136	249	336	247	329
TOTAL ... ..	25,283	18,768	25,821	102	80

\* Great Britain only.

**Table V.—Production in relation to Exports and Imports**

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.	
Butter ...	1933	12	...	8,746	*	*	
	1930	916	10	6,648	7,554	12.0	
Cheese ...	1933	31	...	3,016	*	*	
	1930	979	50	3,082	4,011	23.2	
Margarine ...	1933	35	1.0	32	3,448	99.1	
	1930	4,033	93	843	4,783	82.4	
<b>Condensed milk:—</b>							
<b>Sweetened:—</b>							
Whole ...	1933	433	125	28.9	144	452	68.1
	1930	446	149	33.4	225	522	56.9
Separated or skimmed ...	1933	501	23	4.6	1,918	2,396	19.9
	1930	164	4	2.4	1,972	2,132	7.5
Not sweetened, whole ...	1933	234	26	11.1	379	587	35.4
	1930	264	45	17.0	399	618	35.4
<b>TOTAL—</b>							
Condensed Milk	1933	1,168	174	14.9	2,441	3,435	28.9
	1930	874	198	22.7	2,596	3,272	20.7
Milk powder, sweetened or not	1933	131	8	6.1	278	401	30.0
	1930	134	14	10.3	247	367	32.7

\* In the absence of particulars of production at farms in 1933, no figures can be inserted here.

The following tables relate only to firms whose returns were made on schedules for the Butter, Cheese, Condensed Milk and Margarine Trades and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	449	5,655	794	3,296	1,243	8,951
	1930	422	6,101	1,038	3,552	1,460	9,653
Administrative, technical and clerical staff* ...	1933	105	1,450	107	723	212	2,173
	1930	98	1,389	101	691	199	2,080
<b>TOTAL</b> ...	1933	554	7,105	901	4,019	1,455	11,124
	1930	520	7,490	1,139	4,243	1,659	11,733

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	5,062	July 15 ...	5,154
February 18 ...	5,066	August 19 ...	5,077
March 18 ...	4,862	September 16 ...	4,974
April 15 ...	5,013	October 14 ...	4,595
May 13 ...	4,992	November 18 ...	4,422
June 17 ...	5,064	December 16 ...	4,427
AVERAGE FOR THE TWELVE MONTHS ...			4,892

**Table VII.—Other output of the Butter, Cheese, Condensed Milk and Margarine Trades**

The value of the gross output of the firms whose returns were made on schedules for the Butter, Cheese, Condensed Milk and Margarine Trades was £20,577,000 in 1933 and £27,887,000 in 1930, of which £18,744,000 in 1933 and £25,277,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Lard and lard compound ...	1,557	2,113
Oils, fats and greases (including suet and dripping)...	182	381
Soups, potted and cooked meats, bacon, etc. ...	27	72
Other goods ...	67	44
Total ...	1,833	2,610

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
Milk... ..	Th. galls.	£'000
	81,976	1,935
Milk powder ... ..	Th. cwts.	5
	3	
Butter purchased and blended :—		
Imported ... ..	1,122	4,365
Home-made ... ..	10	45
Cheese purchased and processed :—		
Imported ... ..	168	474
Home-made ... ..	42	117
Hard oils ... ..	2,183	2,471
Soft oils ... ..	704	841
All other materials used (including fuel) ... ..	...	4,674
TOTAL ... ..	...	14,927

**THE CATTLE, DOG AND POULTRY FOODS TRADES**

*Note.*—For details of production of oil-seed cake by seed-crushing firms and of cereal feeding stuffs by grain milling firms, see pages 245 and 165, respectively.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,602	6,173
Cost of materials used and amount paid for work given out ... ..	"	4,925	4,191
Net output ... ..	"	2,677	1,982
Average number of persons employed ... ..	No.	7,542	6,286*
Net output per person employed ... ..	£	355	315*

\* See note (†) to Table VI.

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Oil-seed cake and meal (ground or mixed)* ... ..	75.5	561	108.3	974
Dog foods :—				
Biscuits... ..	41.3	1,014	} 50.1	1,382
Other dog foods ... ..	10.2	221		
Other feeding stuffs for animals* :—				
Sweetened (i.e. containing molasses)	285.8	2,057	211.2†	1,713†
Not sweetened... ..	115.1	924	70.4†	574†
Poultry foods (including grit and bird seeds prepared and mixed) ...	191.7	1,904	...	1,066
Feeding stuffs for animals and poultry, not separately distinguished :—				
Fish meal ... ..	51.6	689	34.4‡	552‡
Other ... ..	43.3	378	8.1	77
Medicines, spices and condiments for animals ... ..	...	475	...	385
Products characteristic of the trade, not separately distinguished ... ..	—	—	...	164§
<b>TOTAL—PRINCIPAL PRODUCTS</b> ... ..	...	8,223	...	6,887†

\* These headings are not mutually exclusive. About 70 per cent. of the combined output under these headings is estimated to have consisted of compound cake and meal in 1933.

† In addition to the output for 1930 recorded above, "Other feeding stuffs for animals," valued at £97,000, (14,200 tons, £96,000, of sweetened and 100 tons, £1,000, of unsweetened) were returned on schedules for trades that were not covered by the 1933 Inquiry.

‡ So far as recorded separately.

§ Output of firms in Northern Ireland, separate particulars in respect of which cannot be stated.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Oil-seed cake and meal (ground or mixed)	9.7	78	20.7	178
Dog foods :—				
Biscuits... ..	0.5	6	4.0	108
Other dog foods ... ..	—	—		
Other feeding stuffs for animals :—				
Sweetened (i.e. containing molasses)	12.1	87	—	—
Not sweetened ... ..	2.2	30	2.2	22
Poultry foods (including grit and bird seeds prepared and mixed)... ..	42.2	349	...	221
Feeding stuffs for animals and poultry, not separately distinguished :—				
Fish meal ... ..	9.3	125	8.9	149
Other ... ..	20.5	159	7.9	74
Medicines, spices and condiments for animals ... ..	...	12	...	2
Products characteristic of the trade, not separately distinguished ... ..	—	—	...	67*
<b>TOTAL ... ..</b>	<b>...</b>	<b>846</b>	<b>...</b>	<b>821</b>

\* See note (\$) to Table II.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Oil-seed cake and meal (ground or mixed)* ...	7.43	8.99	82.7	†	†	†	†
Dog foods :—							
Biscuits ... ..	24.56	†	...	} †	} †	} †	} †
Other dog foods...	21.77	†	...				
Dog foods ... ..	24.01	27.57	87.1				
Other feeding stuffs for animals* :—							
Sweetened (i.e. containing molasses) ...	7.20	8.11	88.7	4.88	9.95	4.57	5.32
Not sweetened ...	8.03	8.15	98.5	10.82	13.03	5.89	8.27
Feeding stuffs for animals and poultry, not separately distinguished :—							
Fish meal ... ..	13.36	16.04	83.3	†	†	†	†
Other ... ..	8.73	9.54	91.4	†	†	†	†

\* See note (\*) to Table II.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Oil-seed cake and meal (ground or mixed)* ... ..	974	561	678	70	28
Dog foods ... ..	1,382	1,235	1,418	103	59
Other feeding stuffs for animals* :—					
Sweetened (i.e. containing molasses) ... ..	1,713	2,057	2,319	135	144
Not sweetened ... ..	574	924	938	163	216
Poultry foods (including grit and bird seeds prepared and mixed) ... ..	1,066	1,904	2,080	195	59
Feeding stuffs for animals and poultry, not separately distinguished :—					
Fish meal ... ..	552	689	827	150	59
Other ... ..	77	378	414	537	59
Medicines, spices and condiments for animals ... ..	385	475	530	138	59
Products characteristic of the trade, not separately distinguished ... ..	164	—	—	—	—
<b>TOTAL</b> ... ..	<b>6,887</b>	<b>8,223</b>	<b>9,204</b>	<b>134</b>	<b>88</b>

\* See note (\*) to Table II.

Table V.—Exports and Imports

Kind of goods		Exports	Retained imports
		Th. tons	Th. tons
Feeding stuffs for animals :—			
Sweetened (i.e. containing molasses)	... { 1933	2.1	0.1
	... { 1930	20.0	*
Not sweetened	... { 1933	39.9	54.4
	... { 1930	81.0	45.8

\* Re-exports in excess of imports.

Owing to differences in classification the above figures cannot be compared with those of production.



The following tables relate only to firms whose returns were made on schedules for the Cattle, Dog and Poultry Foods Trades and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	286	3,875	260	1,075	546	4,950
	1930	291	3,244	334	1,085	625	4,329
Administrative, technical and clerical staff* ...	1933	83	2,100	39	492	122	2,592
	1930†	83	1,517	71	440	154	1,957
TOTAL ... ..	1933	369	5,975	299	1,567	668	7,542
	1930†	374	4,761	405	1,525	779	6,286

\* As at 14th October, 1933, and 18th October, 1930.

† Information received in the course of the 1933 Inquiry has necessitated adjustment of the particulars given in the Final Report on the 1930 Census.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	2,693	July 15 ... ..	2,541
February 18 ... ..	2,706	August 19... ..	2,430
March 18 ... ..	2,735	September 16 ... ..	2,586
April 15 ... ..	2,710	October 14 ... ..	2,672
May 13 ... ..	2,614	November 18 ... ..	2,743
June 17 ... ..	2,531	December 16 ... ..	2,805
AVERAGE FOR THE TWELVE MONTHS ... ..			2,647

**Table VII.—Other output of the Cattle, Dog and Poultry Foods Trades**

The value of the gross output of the firms whose returns were made on schedules for the Cattle, Dog and Poultry Foods Trades was £7,602,000 in 1933 and £6,173,000 in 1930, of which £7,377,000 in 1933 and £6,066,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Oils, fats and greases ... ..	44	} 107
Manufactured cereals ... ..	90	
Biscuits for human consumption ... ..	64	
Other output ... ..	27	
<b>TOTAL ... ..</b>	<b>225</b>	<b>107</b>

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Rice meal ... ..	63,746	265
Wheat offals ... ..	37,297	185
Oil seed cake ... ..	92,425	554
All other materials used (including fuel) ... ..	...	3,919
<b>TOTAL ... ..</b>	<b>...</b>	<b>4,923</b>

## THE CHEMICAL AND ALLIED TRADES

## GENERAL TABLES

Table I.—General summary

Trade (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average number of persons employed (5)	Net output per person employed (6)
	£'000	£'000	£'000	No.	£
Chemicals, Dyestuffs and Drugs { 1933	59,064	27,349	30,905*	68,335	452
{ 1930†	52,653	26,528	24,985*	70,475	355
Fertiliser, Disinfectant, Glue, etc. { 1933	5,136	2,688	2,448	8,696	282
{ 1930†	5,717	3,116	2,601	8,548	304
Soap, Candle and Perfumery { 1933	25,051	13,168	11,883	26,381	450
{ 1930	29,105	16,200	12,905	27,010	478
Paint, Colour and Varnish { 1933	17,851	9,179	8,672	21,991	394
{ 1930†	19,528	10,895	8,633	21,292	405
Seed Crushing ... { 1933	17,568	14,964	2,604	10,671	244
{ 1930	21,824	19,407	2,417	10,992	220
Oil and Tallow ... { 1933	13,867	9,422	4,445	7,926	561
{ 1930†	16,446	11,496	4,950	8,081	613
Explosives and Fireworks { 1933	4,870	1,978	2,892	8,966	323
{ 1930	4,998	2,151	2,847	8,697	327
Starch and Polishes { 1933	6,404	2,601	3,803	7,753	491
{ 1930	6,997	2,997	4,000	7,962	502
Ink, Gum and Sealing Wax { 1933	3,214	1,300	1,914	4,089	468
{ 1930	3,468	1,464	2,004	4,029	497
Unclassified trades (Northern Ireland) 1930	436	212	224	633	354
TOTAL ... { 1933	153,025	82,649	69,566*	164,808	422
{ 1930	161,172	94,466	65,566*	167,719	391

\* Exclusive of Excise duty estimated at £810,000 in 1933 and £1,140,000 in 1930.

† The figures for 1930 relate to Great Britain only. Owing to the risk of disclosure of information relating to individual firms, the particulars for Northern Ireland are included with those for "Unclassified trades (Northern Ireland)."



(ii) *Administrative, technical and clerical staff*

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Chemicals, Dyestuffs and Drugs	1933	466	10,607	572	4,782	1,038	14,351	15,389
	1930	703	10,205	773	4,484	1,476	13,213	14,689
Fertiliser, Disinfectant, Glue, etc.	1933	89	1,476	54	506	143	1,839	1,982
	1930	85	1,124	50	382	135	1,371	1,506
Soap, Candle and Perfumery	1933	145	4,994	314	2,738	459	7,273	7,732
	1930	257	5,134	483	2,687	740	7,081	7,821
Paint, Colour and Varnish	1933	300	6,035	317	2,173	617	7,591	8,208
	1930	340	5,039	257	1,830	597	6,272	6,869
Seed Crushing	1933	52	1,303	29	462	81	1,684	1,765
	1930	51	1,347	35	354	86	1,615	1,701
Oil and Tallow	1933	98	2,186	72	712	170	2,728	2,898
	1930	191	2,454	122	831	313	2,972	3,285
Explosives and Fireworks	1933	15	910	42	479	57	1,332	1,389
	1930	34	642	28	367	62	947	1,009
Starch and Polishes	1933	24	1,305	60	625	84	1,846	1,930
	1930	40	1,252	118	571	158	1,665	1,823
Ink, Gum and Sealing Wax	1933	53	1,018	56	464	109	1,373	1,482
	1930	74	946	81	453	155	1,244	1,399
Unclassified trades (Northern Ireland)	1930	2	61	—	17	2	76	78
TOTAL ...	1933	1,242	29,834	1,516	12,941	2,758	40,017	42,775
	1930	1,777	28,204	1,947	11,976	3,724	36,456	40,180

Table IV

A.—RETURNS COVERING THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Per cent. of total
Chemicals, Dyestuffs and Drugs	68,335	Number 51,920	Percent. 76	70,475	Number 55,932	Percent. 79
Fertiliser, Disinfectant, Glue, etc. ...	8,696	1,918	22	8,548	2,185	26
Soap, Candle and Perfumery ...	26,381	21,773	83	26,789	21,311	80
Paint, Colour and Varnish ...	21,991	16,105	73	21,292	15,027	71
Seed Crushing ...	10,671	9,751	91	10,992	9,599	87
Oil and Tallow ...	7,926	6,224	79	8,081	5,863	73
Explosives and Fireworks ...	8,966	8,841	99	8,697	8,266	95
Starch and Polishes	7,753	5,997	77	7,962	6,469	81
Ink, Gum and Sealing Wax ...	4,089	2,734	67	4,029	2,670	66
TOTAL ...	164,808	125,263	76	166,865	127,322	76

**B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930**

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ... ..	90,164	100,904
February ... ..	91,779	99,858
March ... ..	91,931	99,559
April ... ..	92,169	98,853
May ... ..	92,328	98,445
June ... ..	91,666	96,827
July ... ..	91,370	96,110
August ... ..	91,561	95,113
September ... ..	93,380	94,655
October ... ..	94,532	93,570
November ... ..	96,154	92,723
December ... ..	95,893	92,093
<b>AVERAGE FOR THE TWELVE MONTHS...</b> ...	<b>92,744</b>	<b>96,559</b>

\* Great Britain. The average number of operatives employed by *all* firms in Northern Ireland in 1930 was 725.

### Amendments of certain aggregates for 1930

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production. In cases where it has been necessary to revise the 1930 particulars, owing to the exclusion of certain groups of firms from the 1933 Inquiry or to changes in the classification of groups of products, indications are given in the notes preceding Table I of the Trades affected or in a footnote to Table II.

Chemicals, Dyestuffs and Drugs Trades :—

Other and unclassified sodium compounds.

Boiler composition and disincrustants.

Explosives and Fireworks Trade :—

Fuses and blasting accessories (including detonators, cables, etc.).

Starch and Polishes Trade :—

Ink, stains, etc., for the Leather and Allied Trades.

Ink, Gum and Sealing Wax Trades :—

Gum-mucilage, paste, etc.

**THE CHEMICALS, DYESTUFFS AND DRUGS TRADES**

*Notes.*—(a) In view of the large number of products falling within the range of these trades, the results concerning particular classes (i.e. details of goods produced, exported and imported, and their average values) are divided into four separate sections, viz.

- (i) Drugs, medicines and medicinal preparations.
- (ii) Dyes and dyestuffs.
- (iii) Coal tar products (other than dyes and dyestuffs).
- (iv) Other chemical manufactures.

(b) The figures for 1930 relate to Great Britain only, particulars of the relatively small output in Northern Ireland for that year not being available for publication.

(c) The numbering of the tables throughout this report differs from that indicated in the Introductory Notes (see page v).

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	59,064	52,653
Cost of materials used and amount paid for work given out ... ..	"	27,349	26,528
Estimated Excise duty ... ..	"	810	1,140
Net output (excluding estimated Excise duty)	"	30,905	24,985
Average number of persons employed ... ..	No.	68,335	70,475
Net output per person employed ... ..	£	452*	355*

\* Excluding estimated Excise duty.

**(i) DRUGS, MEDICINES AND MEDICINAL PREPARATIONS****Table II.—Output of principal products**

Drugs, medicines and medicinal preparations	1933		1930	
	Quantity	Value	Quantity	Value
Glycero-phosphates ... ..	Th. lbs.	£'000	Th. lbs.	£'000
	121·9	8	73·6	6
Quinine and quinine salts ... ..	Th. ozs.	181	...	385
	1,831			
Acetyl-salicylic acid (aspirin) ... ..	Th. lbs.	152	...	385
	1,231			
Salvarsan and neo-salvarsan and other organo-arsenic compounds of like medicinal application ... ..	2·4	93	...	...
Novocain, eucain and like local anaesthetics ... ..	32·1	56	...	...

Drugs, medicines and medicinal preparations	1933		1930	
	Quantity	Value	Quantity	Value
Ointments and liniments ... ..	Th. cwts. 43·3	606	Th. cwts. 26·6	285
Infants' and invalids' foods, etc.†:—				
Malted foods, including malt extracts ... ..	...	1,937	...	2,882*
Other, including medicated wines	...	1,144	...	
Proprietary medicines, not included elsewhere... ..	...	4,341	...	4,290
Pills and medicated lozenges, capsules and tablets, not included above ... ..	...	3,135	...	2,147
Medical plasters‡ ... ..	...	268	...	4,529*
Other and unclassified drugs and medicinal preparations, not elsewhere specified ... ..	...	•4,575	...	
<b>TOTAL—Drugs, medicines and medicinal preparations ...</b>	...	16,496	...	14,524*

\* In addition the following output was returned on schedules for trades that were not covered by the 1933 Inquiry; Infants' and invalids' foods (including malt extracts, medicated wines, etc.), £551,000; Other (including unclassified) drugs and medicinal preparations, £2,000.

† Patent and proprietary foods not specifically medicinal, are dealt with in the Report on the Preserved Foods Trade (page 176).

‡ So far as recorded separately.

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

Drugs, medicines and medicinal preparations	1933	1930
Ointments and liniments ... ..	£'000 50 (7,500 cwt.)	£'000 9 (1,400 cwt.)
Infants' and invalids' foods (including malt extracts, medicated wines, etc.) ... ..	7	538
Proprietary medicines, not elsewhere specified ...	59	2
Pills and medicated lozenges, capsules and tablets, not included above ... ..	22	4
Other and unclassified drugs and medicinal preparations, not elsewhere specified ... ..	79	121
<b>TOTAL ... ..</b>	<b>217</b>	<b>674</b>



Table III.—Average values of goods produced, exported and imported

Drugs, medicines and medicinal preparations.	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per lb.	s. per lb.	Per cent.	s. per lb.	s. per lb.	s. per lb.	s. per lb.
Glycero-phosphates	1.29	1.65	78.3	2.89	3.27	2.21	3.09
	s. per oz.	s. per oz.		s. per oz.	s. per oz.	s. per oz.	s. per oz.
Quinine and quinine salts ...	1.98	1.78	111.3	2.19	2.01	1.67	1.50
	s. per lb.	s. per lb.		s. per lb.	s. per lb.	s. per lb.	s. per lb.
Acetyl-salicylic acid (aspirin) ...	2.46	2.42	101.8	8.70	7.99	2.42	1.78
Salvarsan and neo-salvarsan and other organo-arsenic compounds of like medicinal application ...	£ per lb.	£ per lb.		£ per lb.	£ per lb.	£ per lb.	£ per lb.
	38.66	77.90	49.6	18.66	21.74	47.79	47.56
Novocain, eucaïn and like local anaesthetics ...	1.75	4.34	40.2	0.96	3.39	1.52	1.65
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Ointments and liniments ...	13.99	10.74	130.2	10.29	11.42	43.01	10.63

Table IV.—Production in relation to Exports and Imports

Drugs, medicines and medicinal preparations	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. lbs.	Th. lbs.	Per cent.	Th. lbs.	Th. lbs.	Per cent.	
Glycero-phosphates	1933	121.9	3.4	2.8	75.3	193.8	61.1
	1930	73.6	2.7	3.7	65.4	136.3	52.0
Quinine and quinine salts ...	1933	1,831	1,087	59.4	1,159	1,903	39.1
	1930	*	1,614	...	1,614	...	...

Drugs, medicines and medicinal preparations	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. lbs.	Th. lbs.	Per cent.	Th. lbs.	Th. lbs.	Per cent.
Acetyl - salicylic acid (aspirin) ...	1933 1,231	134	10.9	45	1,142	96.1
	1930 *	80	...	72	...	...
Salvarsan and neo-salvarsan and other organo-arsenic compounds of like medicinal application ...	1933 2.4	0.1	4.2	0.1	2.4	95.8
	1930 *	1.1	...	0.1	...	...
Novocain, eucain, and like local anaesthetics	1933 32.1	1.2	3.7	2.9	33.8	91.4
	1930 *	0.3	...	0.9	...	...
Ointments and liniments ...	Th. cwts.	Th. cwts.		Th. cwts.	Th. cwts.	
	1933 43.3	5.4	12.5	0.1	38.0	99.7
	1930 26.6	6.2	23.3	5.6	26.0	78.5
	Value (at factory)	Value (f.o.b.)	—	Value (c.i.f.)	—	—
	£'000	£'000		£'000		
Proprietary medicines, not elsewhere specified	1933 4,341	1,139	...	339	...	...
	1930 4,290	1,103	...	389	...	...
Other and unclassified drugs and medicinal preparations, not elsewhere specified, including pills, medicated lozenges, capsules and tablets ...	1933 7,978	1,278	...	401	...	...
	1930 6,678	1,414	...	764	...	...

\* Not recorded separately.

## (ii) DYES AND DYESTUFFS

Table V.—Output of principal products

Dyes and dyestuffs	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Dye intermediates made from coal tar primary products ... ..	315.4	1,204	257.1	921
Finished dyestuffs obtained from coal tar ... ..	458.3	4,104	356.1	2,764
Extracts for dyeing :—				
Logwood ... ..	10.4	16	66.2	97
Other sorts (including fustic) ... ..	49.6	73		
Extracts for tanning (solid or liquid) :—				
Quebracho ... ..	210.3	108	160.7	132
Other sorts ... ..	835.3	482	1,116.9	715
<b>TOTAL—Dyes and dyestuffs ...</b>	...	5,987	...	4,629

No output of these goods in either year was returned by firms whose returns were made on schedules for other trades.

Table VI.—Average values of goods produced, exported and imported

Dyes and dyestuffs	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Dye intermediates made from coal tar primary products ... ..	3.82	3.58	106.6	4.58	3.52	6.62	11.66
Finished dyestuffs obtained from coal tar ... ..	8.96	7.76	115.5	11.34	9.04	23.80	23.09
Extracts for dyeing :—							
Logwood ... ..	1.58	1.44	109.2	3.01	2.39	3.49	3.23
Other sorts (including fustic)... ..	1.46	1.46	99.8	4.61	3.50	1.64	2.14
Extracts for tanning :—							
Quebracho ... ..	0.51	0.82	62.5	0.66	0.98	0.59	1.23
Other sorts ... ..	0.58	0.64	90.2	0.81	0.89	0.74	0.91

Table VII.—Production in relation to Exports and Imports

Dyes and dyestuffs.	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.
Dye intermediates made from coal tar primary products ...	1933 315.4	15.3	4.9	2.2	302.3	99.3
	1930 257.1	14.6	5.7	1.1	243.6	99.5
Finished dyestuffs from coal tar ...	1933 458.3	81.3	17.7	43.1	420.1	89.7
	1930 356.1	91.5	25.7	47.1	311.7	84.9
Extracts for dyeing :—						
Logwood ...	1933 10.4	1.7	16.3	26.2	34.9	24.9
	1930 *	0.4	...	20.7	...	...
Other sorts (including fustic)	1933 49.6	5.1	10.3	23.7	68.2	65.2
	1930 *	3.4	...	35.6	...	...
Total ...	1933 60.0	6.8	11.3	49.9	103.1	51.6
	1930 66.2	3.8	5.7	56.3	118.7	52.6
Extracts for tanning :—						
Quebracho ...	1933 210.3	98.9	47.0	392.1	503.5	22.1
	1930 160.7	47.4	29.5	294.9	408.2	27.8
Other sorts ...	1933 835.3	105.1	12.6	654.9	1,385.1	52.7
	1930 1,116.9	63.4	5.7	807.6	1,861.1	56.6

\* Not recorded separately.

## (iii) COAL TAR PRODUCTS (OTHER THAN DYES AND DYESTUFFS)

The Gas Industry was excluded from the 1933 Inquiry and a considerable part of the output of coal tar products accordingly escaped record. The aggregates for 1930 as published in Part III of the Final Report on the Fourth Census of Production have been adjusted to correspond with the more limited scope of the figures for 1933. For this reason, no comparison of production with exports or imports is made in Table X, and particulars of the total make of the various products, as recorded, is omitted.

Table VIII.—Output of principal products

Coal tar products	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Anthracene (excluding anthracene oil)...	14.3	7	9.6	5
	Th. galls.		Th. galls.	
Benzol :—				
Crude ... ..	16,132	727	17,741	813
Refined ... ..	26,910	1,923	29,728	2,208
Carbolic acid :—				
Crude ... ..	1,064	111	1,596	133
	Th. cwts.		Th. cwts.	
Crystals ... ..	45.9	159	46.8	140
	Th. galls.		Th. galls.	
Cresylic acid ... ..	3,506	258	4,340	392
Naphtha, in terms of crude naphtha	3,062	121	3,995	196
Naphtha, solvent ... ..	1,524*	97*		
	Th. cwts.		Th. cwts.	
Naphthalene (excluding naphthalene oil), in terms of crude naphthalene ... ..	408.4	100	369.7	94
	Th. galls.		Th. galls.	
Pyridine ... ..	145	23	100	15
Tar oil, creosote oil, anthracene oil and other heavy coal tar oils ...	61,767	821	67,797	929
Toluol ... ..	1,258	134	1,182	108
Other coal tar products† ...	1,671	54	...	220
	...	102		
TOTAL—Coal tar products ...	...	4,637	...	5,253

\* So far as recorded separately.

† Excluding pitch and coal tar.

In addition to the output for 1930 recorded above, the under-mentioned coal tar products were returned on schedules for trades (mainly Gas Undertakings) that were not covered by the 1933 Inquiry :—

	Th. galls.	£'000
Benzol, refined ... ..	4,603	341
Cresylic acid ... ..	531	45
Naphtha ... ..	569	28
	Th. cwts.	
Naphthalene ... ..	91.1	26
	Th. galls.	
Tar oil, creosote oil, anthracene oil and other heavy coal tar oils ... ..	16,182	284
Toluol ... ..	262	26
All other coal tar products ... ..	...	83
TOTAL ... ..	...	833

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

Coal tar products.	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Anthracene (excluding anthracene oil) ... ..	2·0	1	2·2	2
	Th. galls.		Th. galls.	
Benzol, crude and refined ... ..	35,170	2,095	37,873	2,292
Carbolic acid, crude ... ..	167	16	131	13
Cresylic acid ... ..	85	4	236	22
Naphtha ... ..	562	24	815	41
Naphtha, solvent ... ..	147	11		
	Th. cwts.		Th. cwts.	
Naphthalene ... ..	138·7	28	170·4	35
	Th. galls.		Th. galls.	
Pyridine ... ..	7	1	—	—
Tar oil, creosote oil, anthracene oil and other heavy coal tar oils ...	15,751	249	16,249	195
Toluol ... ..	770	81	840	75
Other (including unclassified) coal tar products ... ..	...	20	...	21
<b>TOTAL ... ..</b>	...	<b>2,530</b>	...	<b>2,696</b>

**Table IX.—Average values of goods produced, exported and imported**

Coal tar products	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Anthracene (excluding anthracene oil) ... ..	s. per cwt. 9·95	s. per cwt. 10·20	Per cent. 97·5	s. per cwt. 8·12	s. per cwt. 6·45	s. per cwt. 16·47	s. per cwt. 34·51
Benzol:—	s. per gall. 0·90	s. per gall. 0·91	99·1	s. per gall. }	s. per gall. }	s. per gall. }	s. per gall. }
Crude ... ..	0·90	0·91		99·1	*	*	*
Refined ... ..	1·43	1·48	96·6	*	*	*	*
<b>TOTAL ... ..</b>	<b>1·23</b>	<b>1·29</b>	<b>95·6</b>	<b>2·04</b>	<b>2·03</b>	<b>1·02</b>	<b>1·13</b>

Coal tar products	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Carbolic acid :—	s. per gall.	s. per gall.	Per cent.	s. per gall.	£. per cwt.		£ per cwt.
Crude ... ..	2.09	1.66	125.5	2.64	1.52	—	3.53
	£ per cwt.	£ per cwt.		£ per cwt.		£ per cwt.	
Crystals ... ..	3.48	2.98	116.7	4.16	3.21	3.10	—
	s. per gall.	s. per gall.		s. per gall.	s. per gall.	s. per gall.	
Cresylic acid ... ..	1.47	1.79	82.1	1.78	2.32	2.26	—
Naphtha ... ..	0.79	} *	...	*	*	*	*
Naphtha, solvent ... ..	1.28						
TOTAL ... ..	0.95	0.98	96.9	1.43	2.21	3.20	—
Naphthalene ... ..	s. per cwt.	s. per cwt.	93.4	s. per cwt.	s. per cwt.	s. per cwt.	s. per cwt.
	4.88	5.23		5.81	6.19	8.84	10.69
	s. per gall.	s. per gall.		*	*	*	*
Pyridine ... ..	3.17	3.03	104.8				
Tar oil, creosote oil, anthra- cene oil and other heavy coal tar oils ... ..	d. per gall.	d. per gall.		d. per gall.	d. per gall.	d. per gall.	d. per gall.
	3.19	3.48	91.7	3.46	5.89	8.68	19.88
	s. per gall.	s. per gall.		s. per gall.	s. per gall.		
Toluol ... ..	2.13	1.86	114.7	2.40	2.23	—	—

\* Not recorded separately.

Table X.—Exports and Imports

Coal tar products							Exports	Retained imports
Anthracene ... ..	1933	1930	...	...	...	...	Th. cwts.	Th. cwts.
							0.3	16.4
Benzol ... ..	1933	1930	...	...	...	...	Th. galls.	Th. galls.
							375*	577*
Carbolic acid :— Crude ... ..	1933	1930	...	...	...	...	135	—
							†	†





Kind of goods	Unit	1933	1930
Cobalt salts ... ..	Th. cwts.	1·6	†
Collodion ... ..	Th. galls.	4·6	9·3
Ether, acetic (Ethyl acetate) ... ..	Th. lbs.	3,047·3	†
Ether, butyric (Ethyl butyrate) ... ..	"	7·1	†
Ether, sulphuric ... ..	Th. galls.	112·4	104·0
Formaldehyde ... ..	Th. cwts.	154·6	72·5
Gases, compressed (including liquefied and solidified) :—			
Carbonic acid ... ..	"	194·0	†
Sulphur dioxide ... ..	"	122·7	58·1
Iodine and iodides, not elsewhere specified...	Th. lbs.	193·6	188·3
Lead compounds :—			
Litharge ... ..	Th. cwts.	102·3	78·6
Other sorts, including red and orange lead	"	318·8	302·9
Lime, acetate of ... ..	Th. tons	0·7	1·0
Magnesium compounds (including chloride and sulphate) ... ..	"	17·2	12·4
Methyl alcohol ... ..	Th. galls.	2,058	†
Potassium compounds :—			
Chloride (muriate) ... ..	Th. cwts.	23·1	28·6
Cyanide ... ..	"	1·5	†
Iodide ... ..	"	2·4	2·4
Sulphate ... ..	"	40·6	37·7
Other sorts, including chromate and bichromate ... ..	"	88·1	54·9
Sodium compounds :—			
Carbonate (including soda crystals, soda ash and bicarbonate) and caustic soda	Th. tons	1,144·3	1,100·1
Sulphate (including salt cake) ... ..	"	119·1	111·5
Chromate and bichromate ... ..	"	7·5	} 93·3§
Phosphate ... ..	"	2·4	
Other and unclassified sodium compounds	"	182·1	
Synthetic organic chemicals for tanning (except dyes) and photographic purposes, not elsewhere specified ... ..	Th. cwts.	54·3	86·0
Tin salts ... ..	"	14·6	23·2
Wood distillation products, not elsewhere specified :—			
Charcoal (other than decolorising and activated carbons) ... ..	Th. tons	6·9	†
Acetate of iron ... ..	Th. galls.	109·6	†
Zinc oxide ... ..	Th. tons	37·6	18·3
Zinc sulphate ... ..	"	1·8	†
Fine chemicals not elsewhere specified :—			
Re-agents ... ..	Th. lbs.	949	} †
Technical fine chemicals ... ..	"	6,513	
Synthetic perfumery chemicals and isolates and their derivatives ... ..	"	667	
Medicinal fine chemicals ... ..	"	5,159	
Research and other fine chemicals... ..	"	3,942	

\* The output recorded for 1933 is deficient to the extent of the production of firms not covered by the 1933 Inquiry. The output of these firms in 1930 was 35,600 tons and the total output 791,800 tons. According to information supplied by the National Sulphuric Acid Association, the output in the year 1933 was 752,700 tons, their corresponding figure for 1930 being 794,300 tons.

† Not recorded, separately.

‡ Excluding ground barytes produced at mines and quarries.

Firms that made returns on schedules for trades other than the Chemicals, etc., Trades were not generally required to state their total make of chemical products and the table on page 213 shows the quantities of those products sold or added to stock, which are included in Table XI. For other products the figures shown above include the following output recorded by firms whose returns were made on schedules for other trades.

Kind of goods	1933	1930
	Th. tons	Th. tons
Sulphuric acid* ... ..	133·9	163·7
Sodium carbonate and caustic soda ... ..	36·8	48·6

\* See note (\*) to Table XI.

Table XII.—Principal products sold or added to stock

Other chemical manufactures	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Chemicals :—</b>				
<b>Acids :—</b>				
Acetic ... ..	8·2	291	4·5	154
Hydrochloric (1·14 S.G.) ...	134·9	429	159·5	490
Nitric (as 100 per cent. acid)...	13·7	223	6·9	124
	Th. lbs.		Th. lbs.	
Salicylic (including salicylates, not elsewhere specified) ...	1,944	119	1,447	78
	Th. tons		Th. tons	
Sulphuric (as 100 per cent. acid) ... ..	455·4	1,588	525·3	1,773
Other acids ... ..	25·5	935	20·3	1,037
<b>TOTAL—Acids ... ..</b>	...	3,585	...	3,646
	Th. tons		Th. tons	
<b>Aluminium compounds :—</b>				
Sulphate of alumina ... ..	51·3	246	49·3	223
Alum (soda alum, potash alum and ammonia alum) ...	6·7	52	} 36·1	442
Other sorts (including alumina, but excluding bauxite and abrasives) ... ..	51·4	701		
<b>Ammonium compounds :—</b>				
Carbonate and bicarbonate ...	3·3	63	4·7	105
Other sorts (including chloride and liquid ammonia, but ex- cluding anhydrous am- monia and ammonium sul- phate*) ... ..	55·7	516	32·4	609
<b>TOTAL—Ammonium compounds</b>	59·0	579	37·1	714

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Chemicals :—(cont.)	Th. tons	£'000	Th. tons	£'000
Arsenic compounds, not elsewhere specified ... ..	1·5	39	1·4 ...	34 11
Barium compounds (including natural sulphate and blanc fixe)† ... ..	19·4	160	33·5	165
Bleaching materials (bleaching powder, hydrosulphites, peroxides, perborates, etc.) ...	96·2	1,119	106·2 Th. galls. 249·7	960 11
Bromine and bromides ... ..	8·5	58	4·8	39
Camphor ... ..	0·6	9	0·9	15
Chloroform ... ..	675	94	610	107
Cobalt salts ... ..	1·6	37	†	†
Collodion ... ..	4·6	5	9·3	8
Copper sulphate ... ..	52·4	686	39·1	835
Ether, acetic (ethyl acetate) ...	3,047	89	†	†
Ether, sulphuric ... ..	111·3	51	103·6	40
Formaldehyde ... ..	138·9	168	48·5	71
Gases, compressed (including liquefied and solidified) :—	Th. cwts.		Th. cwts.	
Carbonic acid ... ..	180·3	173	93·6	86
Sulphur dioxide ... ..	29·2	22	17·2	17
Other ... ..	...	1,224	...	592
Iodine and iodides, not elsewhere specified ... ..	193	94	188	156
Lead compounds :—	Th. cwts.		Th. cwts.	
Litharge ... ..	102·3	106	78·6	123
Other sorts (including red and orange lead) ... ..	318·8	344	302·4	447
Lime, acetate of ... ..	0·7	6	0·8	7
Magnesium compounds (including chloride and sulphate) ...	15·9	237	12·3	214
Methyl alcohol (synthetic or from wood distillation processes) ...	1,997	160	†	†
Potassium compounds :—	Th. cwts.		Th. cwts.	
Chloride (muriate) ... ..	23·1	15	25·0	13
Iodide ... ..	2·4	128	2·4	218
Sulphate ... ..	40·6	22	37·7	17
Cyanide ... ..	1·5	11	...	...
Other sorts, including chromate and bichromate ... ..	87·8	194	54·4	117
Total—Potassium compounds	155·4	370	119·5	365

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Chemicals :—(cont.)	Th. tons	£'000	Th. tons	£'000
Sodium compounds :—				
Carbonate (including soda crystals, soda ash and bicarbonate) and caustic soda ... ..	966·8	6,565	954·1	6,511
Chromate and bichromate ... ..	7·5	237	‡	‡
Phosphate ... ..	2·4	33	‡	‡
Sulphate (including salt cake) ... ..	96·8	234	98·8	239
Other and unclassified sodium compounds ... ..	159·0	1,731	88·3§	1,419§
Total—Sodium compounds ... ..	1,232·5	8,800	1,141·2§	8,169
	Th. cwts.	.	Th. cwts.	
Synthetic organic chemicals for tanning (except dyes) and photographic purposes, not elsewhere specified ... ..	53·4	85	81·6	111
Tin salts ... ..	14·5	69	23·0	110
Wood distillation products (except acetic acid, acetone, acetic anhydride, acetate of lime, methyl alcohol and naphtha) :—	Th. tons		Th. tons	
Charcoal (other than decolorising and activated carbons)	6·8	48	6·8	45
Acetate of iron ... ..	Th. galls.		‡	‡
Other sorts ... ..	109·1	4	...	55
	Th. tons		Th. tons	
Zinc oxide ... ..	37·6	670	18·3	422
Zinc sulphate ... ..	1·8	15	‡	‡
	Th. lbs.		Th. lbs.	
Fine chemicals, not elsewhere specified :—				
Reagents ... ..	928	37	700	21
Technical fine chemicals ... ..	6,513	300	...	43
Synthetic perfumery chemicals and isolates and their derivatives ... ..	317	138	4,483	228
Medicinal fine chemicals ... ..	5,120	587	581	80
Research and other fine chemicals	3,942	194	921§	185§
			...	402§
TOTAL—Fine chemicals, not elsewhere specified ... ..	16,820	1,256	1,656	108
			8,341	622
			...	445
Chemicals, not elsewhere specified	...	5,769	...	5,640
TOTAL—Chemicals ... ..	...	27,155	...	24,947

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Other chemical products :—	Th. cwts.	£'000	Th. cwts.	£'000
Sulphur ... ..	275·1	108	247·7	86
	Th. lbs.		Th. lbs.	
Essential oils ... ..	356·6	123	259·2	143
Finishing materials for the Textile Trades, other than oils (including gums, starch, etc.), not elsewhere specified ...	...	111	...	101
Flavouring essences, including colours for the Confectionery, etc., Trades ... ..	...	1,088	...	1,211
Boiler composition and disin-crustants ... ..	...	75	...	114¶
Brewers' finings, etc. ... ..	...	79	...	93
Powders and essences for beverages, other than fruit juices§	...	854	...	287
Bituminous coverings (including insulating compounds and cements), other than road dressings§ ... ..	Th. tons 16·2	165	...	96
Other chemical products ...	...	108	...	49
Total—Other chemical products	...	2,711	...	2,180
TOTAL—Chemical manufactures	...	29,866	...	27,127

\* For particulars of the output of sulphate of ammonia, so far as recorded, see page 224.

† Excluding ground barytes produced at mines and quarries.

‡ Not recorded separately.

§ So far as separately recorded.

¶ See page 197.

In addition to the output for 1930 recorded above, the under-mentioned goods were returned on schedules for trades that were not covered by the 1933 Inquiry :—

	Quantity	Value
	Th. tons	£'000
Sulphuric acid ... ..	35·6	111
Ammonium compounds, other sorts ...	1·4	24
Carbonic acid gas, compressed ... ..	Th. cwts.	
	33·9	18
	...	38
	Th. tons	
Sodium compounds, other sorts ... ..	0·1	2
Wood distillation products (other than charcoal) ... ..	...	5
Chemicals, not elsewhere specified ... ..	...	63
Flavouring essences, etc. ... ..	...	62
Brewers' finings ... ..	...	17
Powders and essences for beverages ... ..	...	4
Bituminous coverings ... ..	...	77
TOTAL ... ..	...	421

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Chemicals :—</b>				
<b>Acids :—</b>				
Nitric ... ..	1·7	25	0·4	5
Sulphuric ... ..	35·1	105	58·1	187
Other acids ... ..	0·4	4	—	—
Aluminium compounds ... ..	1·5	6	0·1	*
Ammonium compounds, other sorts	0·3	2	0·4	4
Arsenic compounds, not elsewhere specified ... ..	0·7	19	...	11
Barium compounds (including natural sulphate) ... ..	6·9	40	1·8	19
Bleaching materials ... ..	0·4	5	—	—
Collodion ... ..	0·6	*	—	—
Gases, compressed :—	Th. cwts.			
Carbonic acid ... ..	5·4	31	—	—
Other gases ... ..	...	6	—	—
Iodine and iodides ... ..	Th. lbs.		Th. lbs.	
	11	6	8	6
Lead compounds... ..	Th. cwts.		Th. cwts.	
	237·5	246	293·8	429
Potassium compounds, other sorts ... ..	10·3	12	—	—
Sodium compounds :—	Th. tons		Th. tons	
Carbonate and caustic ... ..	23·4	324	19·1	291
Other sorts ... ..	24·3	251	15·6	226
Tin salts ... ..	Th. cwts.		Th. cwts.	
	1·2	7	0·4	3
Zinc oxide ... ..	Th. tons		Th. tons	
	2·6	45	—	—
Research and other fine chemicals	Th. lbs.		Th. lbs.	
	333	28	—	—
Miscellaneous chemicals... ..	...	642	...	809
<b>Total—Chemicals</b> ... ..	...	1,804	...	1,990
<b>Other chemical products :—</b>				
Finishing materials for the Textile Trades ... ..	...	15	...	14
Powders and essences for beverages, other than fruit juices ... ..	...	807	...	238
Bituminous coverings, other than road dressings ... ..	14·3	144	...	39
Other chemical products ... ..	...	18	...	160
<b>Total—Other chemical products</b>	...	984	...	451
<b>TOTAL—Chemical manufactures</b>	...	2,788	...	2,441

\* Less than £500.

Table XIII.—Average values of goods produced, exported and imported.

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Acetic anhydride ...	£ per cwt. 3·69	£ per cwt. 5·96	Per cent. 62·0	£ per cwt. 2·35	£ per cwt. 5·84	£ per cwt. 2·66	£ per cwt. 3·37
Acetone ...	£ per ton 51·33	£ per ton 65·68	78·1	£ per ton 73·04	£ per ton 86·91	£ per ton 43·21	£ per ton 64·91
Acids :— Acetic ...	35·43	34·31	103·3	53·34	84·17	33·06	37·80
Boric ...	£ per cwt. 1·37	£ per cwt. 1·29	105·6	£ per cwt. 1·78	£ per cwt. 1·68	£ per cwt. 0·96	£ per cwt. 1·04
Citric ...	3·47	8·67	40·0	3·38	8·90	3·11	8·21
Formic ...	2·15	1·60	134·2	2·40	2·17	1·49	1·28
Hydrochloric ...	£ per ton 3·18	£ per ton 3·01	105·4	£ per ton 25·29	£ per ton 26·48	—	—
Lactic ...	£ per cwt. 1·23	£ per cwt. 1·43	86·0	£ per cwt. 4·70	£ per cwt. 2·08	£ per cwt. 1·16	£ per cwt. 1·74
Nitric ...	£ per ton 16·30	£ per ton 17·82	91·5	*	*	*	*
Pyrogallic ...	s. per lb. 6·44	s. per lb. 6·56	98·1	s. per lb. 5·35	s. per lb. 6·15	—	—
Salicylic ...	1·22	1·08	113·0	1·42	1·93	s. per lb. 1·33	s. per lb. 1·22
Sulphuric ...	£ per ton 3·49	£ per ton 3·36	103·8	£ per ton 7·28	£ per ton 5·81	£ per ton 5·67	£ per ton 3·97
Tartaric ...	£ per cwt. 4·50	£ per cwt. 6·10	73·8	£ per cwt. 4·58	£ per cwt. 6·45	£ per cwt. 3·77	£ per cwt. 5·85

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
<b>Aluminium compounds :—</b>							
Alum ... ..	7.77	6.90	112.6	7.98	8.05	12.13	8.54
Alumina (oxide of aluminium)	15.42	15.17	101.7	11.44	15.19	8.42	11.87
Sulphate of alu- mina ...	4.78	4.52	105.7	4.89	4.88	4.41	5.51
<b>Ammonium com- pounds :—</b>							
Carbonate and bicarbonate ...	19.34	22.30	86.7	21.61	25.91	—	—
Chloride (muriate)	16.04	17.77	90.3	17.42	18.10	11.43	16.26
Arsenic compounds	25.73	23.97	107.3	25.96	28.90	16.04	15.52
Barium binoxide ...	27.70	25.71	107.7	32.84	31.06	—	—
<b>Bleaching materials :—</b>							
Bleaching powder (chloride of lime)	4.99	5.15	97.0	5.81	5.73	6.50	6.18
Hydro-sulphite and like compounds	77.05	79.76	96.6	52.11	61.87	57.94	61.67
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Borax ... ..	0.69	0.66	103.8	1.35	1.06	0.55	0.61
Bromine and bromides	6.90	8.24	83.7	6.07	10.95	4.91	6.42
Camphor ... ..	16.36	16.12	101.5	20.68	19.25	7.71	11.10
	s. per lb.	s. per lb.		s. per lb.	s. per lb.		
Chloroform ... ..	2.79	3.50	79.6	3.54	4.67	—	—
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Cobalt oxide ... ..	33.66	31.62	106.5	25.66	42.12	25.92	36.34
Cobalt salts ... ..	23.84	22.51	105.9	*	*	*	*
	£ per gall.	£ per gall.		£ per gall.	£ per gall.	£ per gall.	
Collodion ... ..	1.16	0.91	127.8	1.63	1.98	2.00	—
	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
Copper sulphate ...	13.10	21.37	61.3	14.61	22.30	15.94	21.45
	s. per lb.	s. per lb.		s. per lb.	s. per lb.	s. per lb.	s. per lb.
Ether, acetic (ethyl acetate) ... ..	0.58	0.60	96.7	2.23	2.42	5.45	3.53
	£ per lb.	£ per lb.		s. per gall.	s. per gall.	s. per gall.	s. per gall.
Ether, butyric (ethyl butyrate) ... ..	0.17	0.19	92.9	19.82	25.47	60.00	32.81



Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per gall.	s. per gall.	Per cent.	s. per gall.	s. per gall.	s. per gall.	s. per gall.
Ether, sulphuric ...	9.23	7.77	118.8	17.84	17.30	40.00	10.00
	s. per lb.	s. per lb.					
Ethyl chloride ...	3.06	2.97	102.9	37.61	98.45	64.92	67.03
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Formaldehyde ...	1.21	1.47	82.4	1.56	1.89	0.85	1.49
	s. per cwt.	s. per cwt.		s. per cwt.	s. per cwt.	s. per cwt.	s. per cwt.
Gases, compressed :—							
Carbonic acid ...	19.22	16.34	117.6	46.16	48.56	15.45	26.38
Sulphur dioxide ...	15.06	19.82	76.0	60.99	108.49	29.70	23.93
Iodine and iodides...	9.73	16.64	58.5	10.24	16.13	5.39	10.26
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Lead compounds :—							
Litharge ...	1.03	1.60	64.5	1.23	1.57	1.01	1.48
Other, including red and orange lead ...	1.08	1.48	73.1	1.26	1.61	1.03	1.57
	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
Lime, acetate of ...	9.14	8.85	103.3	11.40	13.04	12.21	16.79
Magnesium compounds	14.96	17.44	85.8	23.44	28.09	3.88	3.63
	s. per gall.	s. per gall.		s. per gall.	s. per gall.	s. per gall.	s. per gall.
Methyl alcohol ...	1.60	2.20	73.0	3.72	6.17	2.55	2.80
	s. per cwt.	s. per cwt.		s. per cwt.	s. per cwt.	s. per cwt.	s. per cwt.
Potassium compounds :—							
Chloride ...	12.66	10.16	124.7	11.30	11.45	8.60	8.17
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Chromate and bichromate	2.12	1.84	115.6	2.42	1.99	1.90	1.61
Cyanide ...	7.22	9.23	78.3	6.59	4.66	—	6.31
Ferro and ferri- cyanides ...	3.72	4.03	92.3	3.46	4.87	3.19	3.11
Iodide ...	54.16	90.47	59.9	64.09	89.40	56.13	75.80
Sulphate ...	10.59	9.00	117.7	8.87	10.52	9.46	9.70
	s. per lb.	s. per lb.		s. per lb.	s. per lb.	s. per lb.	s. per lb.
Rare earth com- pounds :—							
Cerium fluoride...	2.41	2.02	119.4	0.32	5.71	2.69	1.73
Thorium nitrate...	6.94	7.53	92.2	15.30	—	4.28	4.96
Other rare earth compounds ...	6.66	9.32	71.5	16.49	4.80	7.31	6.78
Silver nitrate ...	18.51	17.61	105.1	18.21	19.96	15.00	—

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
<b>Sodium compounds:—</b>							
Carbonate ...	5.57	5.68	98.1	5.49	5.42	6.29	6.05
Caustic ...	10.91	11.32	96.4	13.14	13.36	11.48	15.52
Chromate and bichromate	31.39	28.88	108.7	36.40	31.41	29.04	30.09
Cyanide ...	74.65	68.61	108.8	71.77	72.47	47.79	60.89
Ferro and ferri- cyanides ...	41.50	40.63	102.1	49.16	41.70	33.50	51.30
Phosphate ...	14.06	18.54	75.9	36.00	44.15	9.97	11.54
Silicate ...	9.22	10.85	85.0	6.21	8.04	26.00	9.30
Sulphate ...	2.41	2.42	99.7	2.36	2.50	3.99	3.65
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
<b>Synthetic organic chemicals for tanners' use ...</b>	0.94	1.20	77.9	5.31	4.83	—	—
Tartar, cream of ...	3.76	4.42	85.1	3.94	5.00	3.16	4.49
Tin salts ...	4.76	4.78	99.6	5.97	6.99	8.07	7.35
	£ per ton	£ per ton			£ per ton		£ per ton
<b>Wood distillation products:—</b>							
Charcoal ...	7.06	6.58	107.3	*	26.89	*	10.17
	s. per gall.	s. per gall.					
Acetate of iron ...	0.80	0.78	102.2	}	*	*	*
Acetate of alumina	0.76	0.73	104.5				
	£ per ton	£ per ton					
Zinc oxide ...	17.84	23.04	77.4	£ per ton		£ per ton	
Zinc sulphate ...	8.80	9.27	95.0	10.76	12.42	7.23	8.98
	s. per cwt.	s. per cwt.					
Sulphur ...	7.86	6.92	113.7	*	*	*	*

\* Not recorded separately.

Table XIV.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Acids :—						
Acetic ...	1933 21.6 1930 4.5	0.3 0.1	1.6 1.8	8.3 10.0	29.6 14.4	71.9 30.7
Hydrochloric ...	1933 151.2 1930 173.0	0.2 0.2	0.1 0.1	— —	150.0 172.8	100.0 100.0
	Th. lbs.	Th. lbs.		Th. lbs.	Th. lbs.	
Salicylic (including salicylates not elsewhere specified) ...	1933 3,899 1930 2,581	500 75	12.8 2.9	137 108	3,536 2,614	96.1 95.9
	Th. tons	Th. tons		Th. tons	Th. tons	
Sulphuric ...	1933 752.7 1930 791.8	5.6 7.5	0.7 1.0	* 1.0	747.1 785.3	100.0 99.9
Aluminium compounds:—						
Sulphate ...	1933 51.4 1930 49.3	10.9 8.1	21.2 16.4	23.7 23.6	64.2 64.8	63.1 63.6
Other sorts :—						
Alum (soda alum, potash alum and ammonia alum) 1933	6.7	3.3	49.3	*	3.4	99.6
Other... 1933	54.2	17.2	31.7	1.2	38.2	96.9
TOTAL—	1933 60.9 1930 46.2	20.5 18.2	33.7 39.4	1.2 1.6	41.6 29.6	97.1 94.6
Ammonium carbonate and bicarbonate ...	1933 3.3 1930 4.7	2.0 2.5	60.5 53.9	— —	1.3 2.2	100.0 100.0
Arsenic compounds ...	1933 1.5 1930 †	0.1 0.3	5.2 ...	4.0 3.2	5.4 ...	26.4 ...
Barium compounds (including blanc fixe)	1933 42.5 1930 54.2	7.3 5.4	17.2 10.0	2.4 4.0	37.6 52.8	93.6 92.4
Bleaching materials (bleaching powder, hydro-sulphites, peroxides, perborates, etc.) ...	1933 98.7 1930 121.5	33.2 33.4	33.6 27.5	2.7 4.7	68.2 92.8	96.0 94.9
	Th. cwts.	Th. cwts.		Th. cwts.	Th. cwts.	
Bromine and bromides ...	1933 8.5 1930 4.8	2.5 0.2	29.5 3.6	10.6 7.3	16.6 11.9	36.0 38.8
Camphor...	1933 0.6 1930 0.9	0.1 0.1	12.5 14.0	8.2 5.1	8.7 5.9	5.6 13.9

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. lbs.	Th. lbs.	Per cent.	Th. lbs.	Th. lbs.	Per cent.	
Chloroform ...	1933	680	100	14.7	—	580	100.0
	1930	618	87	14.2	*	531	100.0
Collodion ...	1933	4.6	1.6	34.6	*	3.0	99.9
	1930	9.3	1.1	11.8	—	8.2	100.0
Copper sulphate...	1933	52.4	40.6	77.3	0.1	12.0	99.6
	1930	39.1	42.4	...	0.2	...	...
Ether, acetic (ethyl acetate)	1933	3,047	28	0.9	*	3,019	100.0
	1930	↑	23	...	*	...	...
Ether, sulphuric...	1933	112.4	6.8	6.0	*	105.6	100.0
	1930	104.0	3.3	3.2	*	100.7	100.0
Formaldehyde ...	1933	154.6	8.8	5.7	12.3	158.1	92.2
	1930	72.6	5.2	7.2	16.3	83.6	80.5
Gases, compressed (including liquefied and solidified) :—							
Carbonic acid...	1933	194.0	3.1	1.6	0.8	191.7	99.6
	1930	†	2.8	...	0.8	...	...
Sulphur dioxide	1933	122.7	0.7	0.6	*	122.0	100.0
	1930	58.1	0.1	0.2	1.8	59.8	97.0
Iodine and iodides, not elsewhere specified ...	1933	193.6	52.1	26.9	§	141.5	100.0
	1930	188.3	36.6	19.4	§	151.7	100.0
Lead compounds :—							
Litharge ...	1933	102.3	42.6	41.6	22.8	82.5	72.4
	1930	78.6	53.3	67.9	22.2	47.5	53.3
Other (including red and orange lead) ...	1933	318.8	109.4	34.3	24.4	233.8	89.6
	1930	302.9	149.5	49.4	67.7	221.1	69.4
Lime, acetate of...	1933	0.7	0.1	9.6	0.3	0.9	66.5
	1930	1.0	*	...	0.2	1.2	81.4
Magnesium compounds ...	1933	17.2	5.1	29.5	19.3	31.4	38.6
	1930	12.4	3.7	29.5	26.0	34.7	25.2
Methyl alcohol ...	1933	2,058	9	0.4	270	2,319	88.4
	1930	↑	3	...	365	...	...
Potassium compounds :—							
Chloride (muriate)	1933	23.1	0.7	3.0	717.2	739.6	3.0
	1930	28.6	2.7	9.4	547.8	573.7	4.5
Iodide ...	1933	2.4	0.7	27.8	*	1.7	99.2
	1930	2.4	0.9	38.2	§	1.5	100.0
Sulphate ...	1933	40.6	27.4	67.5	551.2	564.4	2.3
	1930	37.7	19.8	52.6	292.3	310.2	5.8



Table XV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000		
<b>Acids :—</b>					
Acetic ... ..	154	291	282	183	56
Hydrochloric ... ..	480	429	407	85	130
Sulphuric ... ..	1,773	1,588	1,530	87	107
Nitric ... ..	124	223	244	197	} 74
Other ... ..	1,115	1,054	1,435	129	
Aluminium compounds ... ..	665	999	977	147	82
Ammonium compounds (in- cluding liquid ammonia)... ..	714	579	1,217	170	120
Barium compounds ... ..	165	160	104	63	*
Bleaching materials (bleach- ing powder, hydrosulphites, peroxides, etc.) ... ..	971	1,119	980	101	77
Carbonic acid gas, com- pressed ... ..	86	173	147	171	63
Chloroform ... ..	107	94	118	110	89
Copper sulphate ... ..	835	686	1,119	134	97
Formaldehyde ... ..	71	168	204	287	24
Iodine and iodides, not else- where specified ... ..	156	94	161	103	106
Lead compounds ... ..	570	450	635	111	137
Magnesium compounds ... ..	214	237	276	129	172
Potassium compounds ... ..	365	370	452	124	201
Sodium compounds ... ..	8,169	8,800	9,101	111	126
Synthetic organic chemicals for tanning and photo- graphic purposes ... ..	111	85	82	74	91
Zinc oxide ... ..	422	670	866	205	} 62
Fine chemicals, not elsewhere specified ... ..	1,067	1,256	1,168	109	
Other chemicals ... ..	6,613	7,630	9,333	141	
<b>Total—Chemicals ... ..</b>	<b>24,947</b>	<b>27,155</b>	<b>30,838</b>	<b>124</b>	<b>97</b>
Drugs, medicines and medi- cinal preparations ... ..	13,394‡	15,686‡	16,400	123	92
Dyes and dyestuffs ... ..	4,629	5,987	5,807	125	102
Coal tar products† ... ..	5,253	4,637	4,797	91	100
Other chemical products ... ..	2,180	2,711	3,000	138	82
<b>TOTAL ... ..</b>	<b>50,393‡</b>	<b>56,176‡</b>	<b>60,842</b>	<b>121</b>	<b>96</b>

\* Included with *Other chemicals*.

† Excluding coal tar (crude and refined) and pitch.

‡ Excluding estimated Excise duty.

The following tables relate only to firms whose returns were made on schedules for the Chemicals, Dyestuffs and Drugs Trades and are summarised in Table I.

**Table XVI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	2,006	42,883	2,619	10,063	4,625	52,946
	1930	2,511	46,192	2,520	9,594	5,031	55,786
Administrative, technical and clerical staff* ...	1933	466	10,607	572	4,782	1,038	15,389
	1930	703	10,205	773	4,484	1,476	14,689
TOTAL ... ..	1933	2,472	53,490	3,191	14,845	5,663	68,335
	1930	3,214	56,397	3,293	14,078	6,507	70,475

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	38,989	July 15 ... ..	40,224
February 18 ... ..	39,631	August 19 ... ..	40,298
March 18 ... ..	39,699	September 16 ... ..	40,966
April 15 ... ..	39,671	October 14 ... ..	41,509
May 13 ... ..	39,751	November 18 ... ..	42,272
June 17 ... ..	40,048	December 16 ... ..	42,364
AVERAGE FOR THE TWELVE MONTHS... ..			40,452

**Table XVII.—Other output of the Chemicals, Dyestuffs and Drugs Trades**

The value of the gross output of the firms whose returns were made on schedules for the Chemicals, Dyestuffs and Drugs Trades was £59,064,000 in 1933 and £52,653,000 in 1930, of which £51,451,000 in 1933 and £45,722,000 in 1930 consisted of products included in Tables II, V, VIII and XII. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Coal tar:—	Th. tons	£'000	Th. tons	£'000
Crude ... ..	11·4	27	13·6	22
	6·1	19	136·8	467
Refined ... ..	Th. galls.		Th. galls.	
	74,644	1,334	59,121	1,008
	Th. tons		Th. tons	
Fitch ... ..	262·2	935	267·4	543
Tar macadam, asphalt and bitumen	38·6	216	...	122
	Th. cwts.		Th. cwts.	
Disinfectants, insecticides, weed-killers, etc. ... ..	160·4	249	128·0	240
	Th. galls.		...	
	141·0	11	...	41
Fertilisers:—	Th. tons		Th. tons	
Sulphate of ammonia ... ..	406·3	1,823	351·7	2,120
Superphosphates ... ..	18·6	49	14·9	42
Other fertilisers (including compound manures) ... ..	62·2	363	73·4	266
Paints, enamels, varnishes, etc. ... ..	...	253	...	203
Perfumery, cosmetics, etc. ... ..	...	818	...	412
Perfumed spirits ... ..	Th. galls.		...	
	74·2	90	...	55
	Th. cwts.		Th. cwts.	
Soap ... ..	65·9	103	28·0	50
	...		...	7
Farinaceous preparations ... ..	...	267	...	535
Other goods ... ..	...	946	...	754
Work done for other firms ... ..	...	110*	...	44*
<b>TOTAL ... ..</b>	...	<b>7,613</b>	...	<b>6,931</b>

\* Amount received.



## THE FERTILISER, DISINFECTANT, GLUE AND ALLIED TRADES

*Note.*—The figures for 1930 relate to Great Britain only, particulars of production in Northern Ireland not being available for that year. The classes of goods affected by this omission are noted in Table II.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	5,136	5,717
Cost of materials used and amount paid for work given out ... ..	"	2,688	3,116
Net output ... ..	"	2,448	2,601
Average number of persons employed ... ..	No.	8,696	8,548
Net output per person employed ... ..	£	282	304

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>FERTILISERS</b>				
Simple manures* :—				
Basic slag ... ..	189·5	217	253·7	294
Superphosphates† ... ..	383·7	949	357·0	933
Sulphate of ammonia ... ..	527·0	2,356	531·0‡	3,142‡
Other nitrogenous fertilisers (including phosphate of ammonia, nitrolim, cyanamide, etc.) ... ..	44·6	206	33·6	199
Phosphate rock, ground for sale as such, but not for dissolving† ... ..	38·0	76	61·0	134
Other manufactured fertilisers (guano, bonemeal, fishmeal, etc.), including manufactured fertilisers not separately distinguished ... ..	75·4	483	117·4	460
<b>TOTAL—Simple manures* ...</b>	<b>1,258·2</b>	<b>4,287</b>	<b>1,353·7‡</b>	<b>5,162‡</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Compound manures ... ..	Th. tons	£'000	Th. tons	£'000
	... ..	109§	... ..	111§
DISINFECTANTS, GLUE, GELATINE, ETC.	... ..	600	... ..	646
	Th. tons		Th. tons	
Disinfectants, insecticides, weed killers and sheep and cattle dressings ...	57.3	1,493	31.3	1,515
	Th. galls. 357	35	Th. galls. 1,613	174
Glue and size ... ..	Th. tons		Th. tons	
	35.9	753	30.8	1,002
Gelatine ... ..	4.4	392	2.4	272
	Bones and horns for manufacturing purposes ... ..	13.4	83	16.3
Bone by-products, not included else- where, including bones for manure ...	...	45	...	92
	TOTAL—Disinfectants, etc. ...	...	2,801	...
TOTAL—PRINCIPAL PRODUCTS ...	...	7,797	...	9,094‡

\* The figures given for each class represent the total output, i.e. including amounts used for making compound manures in the same works.

† The figures for 1930 exclude production in Northern Ireland.

‡ In addition to the output for 1930 recorded above, 141,900 tons of sulphate of ammonia valued at £749,000 were returned on schedules for trades that were not covered by the 1933 Inquiry. The Return relating to Gas Undertakings shows a total of 125,443 tons manufactured in 1930 and 65,827 tons in 1933 by all Gas Undertakings, including those employing not more than ten persons.

§ These figures represent the selling value of the manures manufactured.

|| These figures represent the value of the compounding work done, i.e. the selling value of the manures compounded in the year less the value of the fertilisers used as ingredients.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Simple manures:—	Th. tons	£'000	Th. tons	£'000
	Basic slag ... ..	75.4	71	115.5
Superphosphates ... ..	18.5	50	15.0	43
Sulphate of ammonia ... ..	524.9	2,347	529.5*	3,131*
Other nitrogenous fertilisers (including phosphate of ammonia, nitrolim, cyanamide, etc.) ... ..	31.7	171	20.7	143
Phosphate rock, ground for sale as such, but not for dissolving ...	0.4	1	2.7	5
Other manufactured fertilisers (guano, bonemeal, fishmeal, etc.), including manufactured fertilisers not separ- ately distinguished ... ..	20.9	139	‡2.5	85
TOTAL—Simple manures ...	671.8	2,779	745.9	3,523

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Compound manures† ... ..	...	£'000 109	...	£'000 111
Disinfectants, insecticides, weed killers, and sheep and cattle dressings ...	Th. tons 10·5	274	Th. tons 7·9	309
	Th. galls. 341	30	Th. galls. 326	23
Glue and size ... ..	Th. tons 8·7	109	Th. tons 2·7	85
Gelatine ... ..	0·1	6	1·1	82
Bones and horns for manufacturing purposes ... ..	8·8	54	9·3	72
Bone by-products, not included else- where, including bones for manure ...	...	29	...	32
TOTAL—Disinfectants, etc. ...	...	502	...	603
TOTAL ... ..	...	3,390	...	4,237

\* See note (†) to Table II.

† See note (§) to Table II.

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£	£	Per cent.	£	£	£	£
	per ton	per ton		per ton	per ton	per ton	per ton
Basic slag ... ..	1·14	1·16	98·5	2·20	2·38	1·69	2·41
Superphosphates ... ..	2·47	2·61	94·7	2·70	3·54	2·15	2·55
Sulphate of ammonia ... ..	4·47	5·92	75·5	5·98	7·92	6·00	9·04
Glue and size ... ..	21·0	32·5	64·7	37·0	50·9	36·0	62·4
Gelatine ... ..	88·3	114·1	77·4	169·8	202·6	105·5	126·7

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Basic slag ... ..	£'000 294	£'000 217	£'000 220	Per cent. 78	Per cent. 119
Superphosphates ... ..	933	949	1,002	107	98
Sulphate of ammonia ... ..	3,142	2,356	3,121	99	62
Other nitrogenous fertilisers (including phosphate of ammonia, nitrolim, cyanamide, etc.) ... ..	199	206	263	132	} 117
Phosphate rock, ground for sale as such, but not for dissolving ... ..	134	76	83	62	
Other manufactured fertilisers (guano, bonemeal, fishmeal, etc.), including manufactured fertilisers not separately distinguished ... ..	460	483	519	113	
Compound manures {	111	109	93	} 80	
Disinfectants, insecticides, weed-killers and sheep and cattle dressing ...	646*	600*	510		
Diinfectants, insecticides, weed-killers and sheep and cattle dressing ...	1,689	1,528	2,830	168	116
Glue and size ... ..	1,002	753	1,164	116	78
Gelatine ... ..	272	392	506	186	63
Bones and horns for manufacturing purposes ... ..	120	83	99	83	109
Bone by-products not included elsewhere, including bones for manure ...	92	45	60	65	116
<b>TOTAL ... ..</b>	<b>9,094</b>	<b>7,797</b>	<b>10,470</b>	<b>115</b>	<b>88</b>

\* See note (ii) to Table II.

Table V.—Production in relation to Exports and Imports

Kind of goods		Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
		Th. tons	Th. tons	Per cent	Th. tons	Th. tons	Per cent
Basic slag ...	1933	189.5	30.1	15.9	1.5	160.9	99.1
	1930	253.7	11.6	4.6	22.3	264.4	91.6
Superphosphates ...	1933	383.7	20.2	5.3	32.9	396.4	91.7
	1930	357.0	17.8	5.0	101.1	440.3	77.0
Sulphate of ammonia ...	1933	527.0*	324.1	...	1.8	...	...
	1930	672.9	557.9	82.9	2.0	117.0	93.3
Disinfectants, insecticides, weed-killers and sheep and cattle dressings	1933	58.6†	18.2†	31.1	0.3†	40.7	99.3
	1930	34.9†	19.5†	55.9	1.0†	16.4	94.1
Glue and size ...	1933	35.9	3.7	10.3	5.2	37.4	86.1
	1930	30.8	4.8	15.6	9.0	35.0	74.3
Gelatine... ..	1933	4.4	0.4	9.1	3.1	7.1	56.3
	1930	2.4	0.3	12.5	2.5	4.6	45.7

\* Incomplete. See note (†) to Table II.

† Excluding tobacco offal.

‡ Includes an estimate of the weight of the output returned in gallons.

The following tables relate only to firms whose returns were made on schedules for the Fertiliser, Disinfectant, Glue and Allied Trades and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	304	5,649	231	1,065	535	6,714
	1930	353	5,889	312	1,153	665	7,042
Administrative, technical and clerical staff* ...	1933	89	1,476	54	506	143	1,982
	1930	85	1,124	50	382	135	1,506
TOTAL ...	1933	393	7,125	285	1,571	678	8,696
	1930	433	7,013	362	1,535	800	8,548

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	1,358	July 15 ... ..	1,421
February 18 ... ..	1,429	August 19 ... ..	1,361
March 18 ... ..	1,464	September 16 ... ..	1,447
April 15 ... ..	1,457	October 14 ... ..	1,499
May 13 ... ..	1,497	November 18 ... ..	1,486
June 17 ... ..	1,470	December 16 ... ..	1,487
AVERAGE FOR THE TWELVE MONTHS ...			1,448

**Table VII.—Other output of the Fertiliser, Disinfectant, Glue and Allied Trades**

The value of the gross output of the firms whose returns were made on schedules for the Fertiliser, Disinfectant, Glue and Allied Trades was £5,136,000 in 1933 and £5,717,000 in 1930, of which £4,407,000 in 1933 and £4,857,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Sulphuric acid* (as 100 per cent. acid)...	Th. tons	£'000	Th. tons	£'000
Animal oils, fats and greases :—				
Refined ... ..	2·8	52	1·9	43
Not refined ... ..	16·1	270	15·5	442
Feeding stuffs, etc., for animals and poultry...	22·2	187	6·8	67
Chemical products ... ..	...	52	...	68
Soap, perfumery, etc. ... ..	...	64	...	74
Other goods ... ..	...	61	...	79
<b>TOTAL ... ..</b>	...	<b>729</b>	...	<b>860</b>

\* The total make of sulphuric acid recorded on schedules for the Fertiliser, etc. Trades was 123,170 tons in 1933 and 128,312 tons in 1930, both in terms of 100 per cent. acid.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
Phosphate rock (mineral phosphates of lime) ... ..	Th. tons	£'000
Pyrites ... ..	244·4	339
Spent oxide ... ..	78·4	94
White arsenic ... ..	10·0	10
	2·0	32
Cresylic acid ... ..	Th. galls.	
All other materials used (including fuel) ... ..	405	29
	...	2,183
<b>TOTAL ... ..</b>	..	<b>2,687</b>

### THE SOAP, CANDLE AND PERFUMERY TRADE

*Notes.*—(a) The output in Northern Ireland in 1933 is included throughout the Report. For 1930 this output, returned at £136,000, is included in Tables I and VI only. Comparison between the two years is not materially affected by its omission from other tables.

(b) The particulars recorded for 1930 under the heading "Textile and other industrial soaps" in the Report on the Fourth Census of Production have been re-classified in accordance with information received for the year 1933. The headings affected are indicated by a footnote to Table II B.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	25,051	29,105
Cost of materials used and amount paid for work given out ... ..	"	13,168	16,200
Net output ... ..	"	11,883	12,905
Average number of persons employed ... ..	No.	26,381	27,010
Net output per person employed ... ..	£	450	478

Table II A.—Total make of Crude Glycerine

		Th. cwts.
Crude glycerine ...	{ 1933... ..	335
	{ 1930... ..	406

Table II B.—Principal products sold or added to stock

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
<i>Intermediate products</i>				
Glycerine :—				
Crude ... ..	271	317	354	504
Distilled* ... ..	98	170	100	242
Waxes, refined, blended, bleached, etc.	29	81	40	118
Soap made for sale to other soap and perfumery manufacturers for further processing ... ..	372	403	255	354

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
<i>Finished products</i>				
<b>Soap :—</b>				
<b>Soft :—</b>				
For household and domestic purposes	257	282	} 321	431
For industrial purposes (including laundries) ... ..	95	93		
<b>Hard, in bars and tablets, excluding toilet, shaving and abrasive :—</b>				
For household and domestic purposes	5,048	7,774	} 5,895†	11,265†
For industrial purposes (including laundries) ... ..	476	542		
Toilet (except shaving) in bars and tablets ... ..	573	2,325	401	2,480‡
Shaving soap and cream ... ..	32	388	22	427
<b>Abrasive, hard or in powder :—</b>				
For household and domestic purposes	394	308	} 375	957
For industrial purposes (including laundries) ... ..	2	3		
<b>Powder and dry soap, other than abrasive and shampoos :—</b>				
For household and domestic purposes	1,635	3,274	} 1,983	4,221
For industrial purposes (including laundries) ... ..	101	106		
<b>Flakes and chips :—</b>				
For household and domestic purposes	523	1,394	} 1,983	4,221
For industrial purposes (including laundries) ... ..	124	191		
<b>Other soaps :—</b>				
For household and domestic purposes	67	82	} 167†	350†
For industrial purposes (including laundries)§ ... ..	59	68		
<b>TOTAL—Soap :—</b>				
For household and domestic purposes	8,529	15,827	} 9,164	20,131
For industrial purposes (including laundries) ... ..	857	1,003		
Candles and night-lights ... ..	703	1,274	} 783	1,581
Tapers ... ..	9	36		
Perfumed spirits ... ..	Th. galls. 293	828	Th. galls. 86	596



Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. galls.	£'000		£'000
<i>Finished products (cont.)</i>				
Perfumery, cosmetics and toilet preparations (other than perfumed spirits, essential oils and soap):—				
Toilet waters and lotions (excluding Eau de Cologne and lavender waters)	120	134		
	Th. fl. ozs.			
Hair preparations (including brillian-tine):—				
Liquid ... ..	86,615	480		
	Th. lbs.			
Other ... ..	824	117		
	...	189		
Face powders and rouges (including compressed face powders) ... ..	1,560	517		
Talcum and toilet powders, other than face powders ... ..	4,992	303		
Face and skin creams ... ..	2,672	648	Th. lbs.	
Tooth paste, solid dentifrice and tooth powder (including camphorated chalk sold as dentifrice) ... ..	6,476	1,305	14,560	3,106
	Th. galls.		...	988†
Shampoos:—				
Liquid ... ..	95	41		
	Th. lbs.			
Other ... ..	814	210		
Perfumed bath salts (including compressed salts and cubes, but excluding household water softeners) ... ..	5,459	221		
Other perfumery, cosmetics and toilet preparations ... ..	2,154	380		
TOTAL—Perfumery, cosmetics and toilet preparations... ..	...	4,545	...	4,088†
TOTAL—PRINCIPAL PRODUCTS ... ..	...	24,484	...	27,614

\* Not including glycerine distilled on commission.

† See note (b) on page 230.

‡ In addition the following output was returned on schedules for trades not covered by the 1933 Inquiry—

	£'000
Toilet soap ... ..	1
Perfumery, cosmetics and toilet preparations ...	86

§ Including some unclassified industrial soaps.

|| Including Eau de Cologne and lavender waters.

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

Kind of goods	1933		1930		
	Quantity	Value	Quantity	Value	
Glycerine :—	Th. cwts.	£'000	Th. cwts.	£'000	
Crude ... ..	1	1	1	1	
Distilled ... ..	49	93	26	59	
Waxes, refined, etc. ... ..	2	3	—	—	
Soap :—					
Soft :—					
For household and domestic purposes	23	27	} 16	27	
For industrial purposes ... ..	1	2			
Hard, in bars and tablets, excluding toilet, shaving and abrasive :—					
For household and domestic purposes	5	4	} 7	19	
For industrial purposes ... ..	4	4			
Toilet (except shaving) in bars and tablets... ..	3	17	2	15	
Shaving soap, including shaving cream	1	21	*	13	
Powder and flake, other than abrasive :—					
For household and domestic purposes	2	2	} 32	33	
For industrial purposes ... ..	1	1			
Other soaps :—					
For household and domestic purposes	54	59	} 27	62	
For industrial purposes ... ..	27	30			
TOTAL—Soap ... ..	121	167	84	169	
Candles and night-lights ... ..	2	3	*	1	
Perfumed spirits ... ..	Th. galls. 74†	90†	Th. galls. 11	55	
Perfumery, cosmetics and toilet preparations (other than perfumed spirits, essential oils and soap) :—					
Toilet waters and lotions ... ..	42	28	} Th. lbs. 1,731 ... 384 122		
Hair preparations (including brillian-tine) :—					
Liquid ... ..	Th. fl. oz. 20,864	111			
Other ... ..	Th. lbs. 88	7			
Face powders and rouges (including compressed face-powders) ... ..	126	21			
Talcum and toilet powders ... ..	1,372	84			
Face and skin creams ... ..	1,047	110			
Tooth paste, solid dentifrice and tooth powder (including camphorated chalk sold as dentifrice) ... ..	1,919	391			
Shampoos :—					
Liquid ... ..	Th. galls. 25	14			
Other ... ..	Th. lbs. 86	7			
Perfumed bath salts (including compressed salts and cubes but excluding household water softeners) ... ..	1,987	104			
Other perfumery, cosmetics and toilet preparations ... ..	124	36			
TOTAL ... ..	...	1,270	...	791	

\* Less than 500 cwts.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per cwt.	s. per cwt.	Per cent.	s. per cwt.	s. per cwt.	s. per cwt.	s. per cwt.
Glycerine :—							
Crude ... ..	23·4	28·5	82·0	26·3	35·0	26·6	33·4
Distilled ... ..	34·8	48·7	71·4	40·0	50·8	36·5	45·6
Waxes refined, blended, etc.	54·9	59·9	91·7	*	*	*	*
Soap made for sale to other soap and perfumery manufacturers for further processing ... ..	21·7	27·6	77·9	*	*	*	*
Soap :—							
Soft ... ..	21·3	26·8	79·4	22·7	24·3	12·5	22·9
Hard, in bars and tablets, excluding toilet, shav- ing and abrasive ...	30·1	38·2	78·8	25·7	35·6	36·1	39·6
Toilet (except shaving) in bars and tablets ...	81·1	123·6	65·6	112·0	148·3	42·3	59·1
Shaving soap, including shaving cream... ..	245·7	383·3	64·1	285·0	381·1	143·9	175·2
Abrasive ... ..	15·7	51·0	30·8	37·7	45·8	17·8	22·9
Powder, other than abrasive, and flake ...	41·7	42·6	97·9	64·9	78·5	37·9	33·4
Other sorts ... ..	23·8	42·1	56·5	44·7	61·2	71·3	34·4
Candles, night-lights and tapers ... ..	36·8	40·4	91·1	40·9	49·3	113·2	93·5
	s. per lb.	s. per lb.		s. per lb.	s. per lb.	s. per lb.	s. per lb.
Perfumery, cosmetics and toilet requisites ...	2·96	4·27	69·3	2·07	2·23	4·36	3·63
	£ per gall.	£ per gall.		£ per gall.	£ per gall.	£ per gall.	£ per gall.
Perfumed spirits... ..	2·82†	6·95	40·6	6·32	4·33	8·13	8·94

\* Not recorded separately.

† Including Eau de Cologne and lavender waters.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Glycerine :—					
Crude ... ..	504	317	387	77	62
Distilled... ..	242	170	238	98	251
Waxes, refined, blended, etc. ... ..	118	81	88	75	157
Soap made for sale to other soap and perfumery manufacturers for further processing ... ..	354	403	517	146	83
Soap :—					
Soft ... ..	431	375	472	110	93
Hard, in bars and tablets (excluding toilet, shaving and abrasive) ...	11,265	8,316	10,553	94	110
Toilet (except shaving) in bars and tablets ...	2,480	2,325	3,544	143	119
Shaving soap and cream	427	388	605	142	65
Abrasive... ..	957	311	1,010	106	*
Other sorts, including powder and flake ...	4,571	5,115	5,328	117	83
Candles, night-lights and tapers ... ..	1,581	1,310	1,438	91	117
Perfumery, cosmetics, etc. and perfumed spirits ...	4,684	5,373	8,597	184	62
<b>TOTAL... ..</b>	<b>27,614</b>	<b>24,484</b>	<b>32,777</b>	<b>119</b>	<b>97</b>

\* Not recorded separately.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.
Glycerine:—						
Crude ... ..	1933 335	26	7·8	43	352	87·8
	1930 406	29	7·1	13	390	96·7
Distilled ... ..	1933 *	177	...	7	...	...
	1930 *	100	...	16	...	...
Soap:—						
Soft ... ..	1933 352	21	6·0	36	367	90·2
	1930 321	34	10·6	54	341	84·2
Hard, in bars and tablets, excluding toilet, shaving and abrasive	1933 5,524	808	14·6	71	4,787	98·5
	1930 5,895	1,101	18·7	190	4,984	96·2
Toilet (except shaving) in bars and tablets ...	1933 573	73	12·7	67	567	88·2
	1930 401	75	18·7	46	372	87·6
Shaving soap, including shaving cream ...	1933 32	2	6·3	2	32	93·8
	1930 22	2	9·1	6	26	76·9
Abrasive ... ..	1933 396	30	7·6	8	374	98·0
	1930 375	28	7·5	11	358	96·9
Powder and flake, other than abrasive ...	1933 2,383	22	0·9	1	2,362	100·0
	1930 1,983	25	1·3	19	1,977	99·0
Other sorts ... ..	1933 126	8	6·3	1	119	99·2
	1930 167	8	4·8	7	166	95·8
TOTAL—Soap ... ..	1933 9,386	964	10·3	186	8,608	97·8
	1930 9,164	1,273	13·9	333	8,224	96·0
Candles, night-lights and tapers ... ..	1933 712	110	15·4	1	603	99·8
	1930 783	96	12·3	4	691	99·4

\* The recorded output was less than the exports (see note (\*) to Table II B.)

The following tables relate only to firms whose returns were made on schedules for the Soap, Candle and Perfumery Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... ..	1933 687	9,552	3,055	9,097	3,742	18,649
	1930 843	10,784	2,796	8,405	3,639	19,189
Administrative, technical and clerical staff* ...	1933 145	4,994	314	2,738	459	7,732
	1930 257	5,134	483	2,687	740	7,821
TOTAL ... ..	1933 832	14,546	3,369	11,835	4,201	26,381
	1930 1,100	15,918	3,279	11,092	4,379	27,010

\* As at 14th October 1933 and 18th October 1930

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	14,554	July 15 ... ..	14,810
February 18 ... ..	14,814	August 19 ... ..	15,178
March 18 ... ..	14,603	September 16 ... ..	15,319
April 15 ... ..	14,562	October 14 ... ..	15,415
May 13 ... ..	14,627	November 18 ... ..	15,562
June 17 ... ..	14,605	December 16 ... ..	15,439
AVERAGE FOR THE TWELVE MONTHS ...			14,957

**Table VII.—Other output of the Soap, Candle and Perfumery Trade**

The value of the gross output of the firms whose returns were made on schedules for the Soap, Candle and Perfumery Trade was £25,051,000 in 1933 and £28,969,000\* in 1930, of which £23,214,000 in 1933 and £26,823,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Animal oils, fats and greases ... ..	201	371
Other oils, including lubricating oil and oil seed-cake and meal ... ..	554	910
Chemical compounds (including soda compounds, disinfectants and chemists' sundries) ... ..	683	605
Washing and scouring materials, other than soap ... ..	258	94
Work done for the trade or on commission ... ..	81†	} 166
Other output ... ..	60	
TOTAL ... ..	1,837	2,146

\* Exclusive of the output in Northern Ireland (£136,000).

† Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. cwts.	£'000
Paraffin wax and paraffin scale ... ..	694	660
Tallow ... ..	1,542	1,604
Stearine (stearic acid) ... ..	46	74
Hardened whale oil ... ..	435	379
Other hard oils ... ..	910	829
Soft oils ... ..	2,036	1,859
Caustic soda ... ..	1,305	578
All other materials used (including fuel) ... ..	...	7,180
TOTAL ... ..	...	13,161

### THE PAINT, COLOUR AND VARNISH TRADE

*Note.*—The figures for 1930 relate to Great Britain only, particulars of the relatively small output in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	17,851	19,528
Cost of materials used and amount paid for work given out. ... ..	"	9,179	10,895
Net output ... ..	"	8,672	8,633
Average number of persons employed ... ..	No.	21,991	21,292
Net output per person employed ... ..	£	394	405

**Table II A.—Total make of White Lead.**

White lead	1933	1930
Basic carbonate, dry ... ..	Th. cwts. 368*	Th. cwts. 310*†
In paste or pulp, e.g. ground in oil ... ..	322	261†

\* Includes 120,000 cwts. in each year recorded by firms engaged in the smelting, etc. of lead.

† See note (\*) to Table II B.

**Table II B.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
White lead, basic carbonate, dry ...	Th. cwts. 343	£'000 425	Th. cwts. 299*	£'000 480*
White lead, in paste or pulp, e.g. ground in oil ... ..	299	425	237*	420*
Paints and colours :—				
Ochre, oxides and earth colours, burnt, ground or levigated, dry ... ..	545	381	613	478
Chemical colours (pure or reduced), including lakes, dry or in pulp form, and dry distemper ... ..	399	1,211	510	1,222
Vegetable, lamp and bone blacks ...	33	42	41	66
Paints in paste or mixed for use† :—				
White lead ... ..	405	934	528*	1,310*
Other descriptions ... ..	3,466	8,274	3,714†	9,003†
Potters' colours, dry ... ..	56	163	...	182
<b>TOTAL—Paints and colours ...</b>	...	11,005	...	12,261

# INDEX

*Note.*—The paging indicated refers to particulars of *output* (normally Table II). Particulars of average prices, volume of production, and exports and imports of similar goods are generally given in Tables III-V in the same series.

	<i>Page</i>		<i>Page</i>
<b>A</b>		<b>B</b>	
Accoutrements, badges, etc. ...	82	Badges, medals and regalia ...	191
Accounting machines... ..	112	Bag and envelope-making machines	106
Accumulators ... ..	128	Ball bearings, roller bearings, steel rollers and steel balls ...	114
Adzes ... ..	70	Bar, brewery and distillery fittings (brass) ... ..	185
Aeroplanes :—		Basins, cast iron ( <i>see</i> Sanitary appli- ances)	
Complete ... ..	144	Bath bricks, hearth stones, etc. ...	220
Engines for ... ..	144	Bathroom, etc., fittings (brass) ...	185
Agricultural and horticultural appli- ances ... ..	38	Baths (porcelain enamelled or other finish) ... ..	23
Agricultural and horticultural imple- ments ... ..	70	Batteries, electric ... ..	128
Agricultural machinery ... ..	108	Bayonets, swords, etc. ... ..	87
Agricultural pipes, unglazed ...	219	Bearings, ball and roller ... ..	114
Agricultural tractors ... ..	96	Bedsteads and parts ... ..	37
Air-filtering machinery ... ..	110	Belt fasteners ... ..	50
Air and gas compressors and ex- hausters ... ..	110	Bells, electric ... ..	127
Air guns ... ..	87	Bicycles ( <i>see</i> Cycles)	
Aluminium :—		Binders and reapers ... ..	108
Castings ... ..	169	Bismuth, etc. ... ..	171
Crude, in ingots, blocks, etc. ...	169	Bitumen ( <i>see</i> Asphalt and bitumen)	
Foil ... ..	170	Black plates ... ..	32
Hollow-ware ... ..	36	Black sheets ... ..	11
Plates, sheets, bars, etc. ... ..	170	Blades, safety razor ... ..	76
Wire... ..	62	Blast furnace plant ... ..	111
Anchors and grapnels ... ..	48	Blast furnace and steel works machinery ... ..	113
Anti-friction metal ... ..	169	Bleaching, dyeing, printing and finishing machinery ... ..	101
Arc lamps, searchlights, etc. ...	127	Blotting paper ... ..	208
Architectural masonry ... ..	245	Boards, of wood ... ..	202
Architectural terra-cotta and faience	220	Bobbins ... ..	102
*Armour plates ... ..	11	Boilers and boiler-house plant, other than marine ... ..	97
Arms and ordnance stores and appli- ances ... ..	114	Boilers and cylinders of copper ...	162
Artificial stone, blocks, slabs, etc....	246	Boilers, washing and cooking, of cast iron ... ..	23
Art metal work :—		Bolts, hoops, and hinges of metal ...	38
Of brass ... ..	185	Bolts, nuts and screws :—	
Of iron and steel ... ..	38	Of brass and copper ... ..	50
Art papers ... ..	208	Of iron and steel ... ..	49
Asphalt and bitumen ... ..	246	Bookbinding machines ... ..	106
Automatic slot machines ... ..	113	Boot and shoe-making machinery ...	113
Axes, hatchets, adzes and machets...	70	Boot protectors, heel tips, etc., of iron and steel ... ..	50
Axles, Railway ( <i>see</i> Tyres and axles and Wheels and axles)		Boring mills ... ..	104
		Bottles, glass ... ..	234



Table III.—Average values of goods produced

Kind of goods	Average value		1933 as a percentage of 1930
	1933	1930	
	£ per cwt.	£ per cwt.	Per cent.
White lead, basic carbonate, dry ...	1.24	1.61	77.0
White lead, in paste or pulp ...	1.42	1.78	80.0
	s. per cwt.	s. per cwt.	
Ochre, oxides and earth colours ...	14.00	15.45	90.6
	£ per cwt.	£ per cwt.	
Chemical colours (pure or reduced) ...	3.04	2.39	127.0
Vegetable, lamp and bone blacks ...	1.25	1.60	78.2
Paints in paste or mixed for use :—			
White lead ... ..	2.30	2.48	92.7
Other descriptions ... ..	2.39	2.42	98.6
	s. per gall.	s. per gall.	
Varnish, oil or spirit ... ..	6.86	7.80	87.9
Cellulose varnish and lacquers ...	10.11	11.33	80.8
Cellulose enamels ... ..	13.12		
	£ per cwt.	£ per cwt.	
Turpentine substitutes ... ..	1.06	1.54	68.9

Owing to different methods of classification, comparative prices of goods exported and imported in the two years are available only for the following items.

Kind of goods	Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		Average value	
	1933	1930	1933	1930
	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
White lead, basic carbonate, dry ...	1.73	1.94	1.20	1.66
Ochre, oxides and earth colours ...	1.01	1.01	0.40	0.40

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Cooking boilers of cast iron ...	23
Copper :—	
Bars, blocks, slabs, ingots, etc. ...	161
Finished goods ... ..	162
Cylinders and boilers ... ..	162
Plates, sheet, strip, etc. ... ..	162
Rods ... ..	161
Tubes ... ..	162
Wire :—	
In coils ... ..	62
Not in coils ... ..	161
Corset steels and busks ... ..	82
Cowls, ventilators, etc., of sheet iron and steel ... ..	38
Cranes, hoists and other lifting machinery ... ..	110
Cream separators ... ..	111
Crochet hooks ... ..	81
Crucible steel ... ..	11
Crushed stone, slag, etc. ... ..	246
Cutlery ... ..	76
Cycles and tricycles, not mechanically propelled :—	
Complete ... ..	140
Parts and accessories for ... ..	140
<b>D</b>	
Dairy equipment ... ..	38
Dairy machinery ... ..	111
Decorators' tools ... ..	71
Deed boxes, of sheet iron and steel... ..	37
Dies ... ..	70
Distillery, bar and brewery fittings (brass) ... ..	185
Distilling machinery ... ..	110
Domestic utensils and appliances, iron and steel ... ..	38
Drainage castings ... ..	23
Drain gratings, cast iron ... ..	23
Drain pipes, cast ... ..	22
Drilling machines ... ..	104
Drop forgings ... ..	50
Drying plant, centrifugal ... ..	110
Ductwork, ventilators, etc., of sheet iron and steel ... ..	38
Dyeing, etc., machinery ... ..	101
Earthenware :—	
Jet, Rockingham and Samian ware ... ..	228
Red pottery and terra-cotta ware ... ..	228
Sanitary ... ..	227
Stone-ware, brown and yellow ware ... ..	228
Other ... ..	228

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Economisers, feed-water heaters and steam superheaters ... ..	97
Electrical apparatus and appliances :—	
Accumulators ... ..	128
Arc lamps, searchlights, etc. ... ..	127
Batteries ... ..	128
Bell apparatus, not telegraphic or telephonic ... ..	127
Bulbs for electric lamps ... ..	234
Carbons ... ..	128
Cable jointing materials and accessories ... ..	128
Condensers ... ..	129
Conduits and fittings ... ..	128
Cooking and heating apparatus ... ..	129
Electro-medical apparatus ... ..	129
Electrodes for welding ... ..	129
Fans... ..	129
Fuses, safety ... ..	127
Hair waving apparatus ... ..	129
Irons ... ..	129
Insulating materials ... ..	129
Joint boxes... ..	128
Lamps ... ..	127
Lighting accessories and fittings... ..	127
Measuring instruments ... ..	129
Meters ... ..	129
Overhead transmission lines, fittings for ... ..	128
Refrigerators ... ..	129
Scientific instruments ... ..	129
Signalling apparatus ... ..	128
Signs ... ..	129
Sound reproduction apparatus for films ... ..	129
Telegraph apparatus ... ..	127
Telephone apparatus ... ..	127
Tools, portable ... ..	129
Torches ... ..	129
Totalisator apparatus ... ..	129
Valves, wireless ... ..	128
Wireless apparatus ... ..	128
Wires and cables, insulated ... ..	128
X-Ray apparatus ... ..	129
Electrical contract work ... ..	130
Electrical machinery :—	
Control, starting and switch gear ... ..	127
Converters and transformers ... ..	126
Generators ... ..	126
Lifts, hoists and cranes electrically worked ... ..	127
Motors ... ..	126
Switchboards ... ..	127
Vacuum cleaners ... ..	127
Electrical ware (of china, etc.) ... ..	228
Electric locomotives ... ..	96
Electric steel ... ..	11
Electric wire, uninsulated ... ..	63
Electrodes for welding ... ..	129

For the reason stated on page 240, comparison of production with exports and imports is practicable only in respect of the following items :—

Kind of goods.	Share of home market held by British goods	
	1933	1930
White lead, basic carbonate, dry ... ..	Per cent. 81·5	Per cent. 62·3
Ochre, oxides and earth colours ... ..	56·5	50·3

The following tables relate only to firms whose returns were made on schedules for the Paint, Colour and Varnish Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	742	11,744	498	2,039	1,240	13,783
	1930	892	12,450	522	1,973	1,414	14,423
Administrative, technical and clerical staff* ... ..	1933	300	6,035	317	2,173	617	8,208
	1930	340	5,039	257	1,830	597	6,869
TOTAL ... ..	1933	1,042	17,779	815	4,212	1,857	21,991
	1930	1,232	17,489	779	3,803	2,011	21,292

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	9,537	July 15 ... ..	10,296
February 18 ... ..	9,716	August 19 ... ..	10,153
March 18 ... ..	9,785	September 16 ... ..	10,102
April 15 ... ..	10,161	October 14 ... ..	10,122
May 13 ... ..	10,274	November 18 ... ..	10,208
June 17 ... ..	10,437	December 16 ... ..	10,202
— AVERAGE FOR THE TWELVE MONTHS ... ..			10,083

**Table VII.—Other output of the Paint, Colour and Varnish Trade**

The value of the gross output of the firms whose returns were made on schedules for the Paint, Colour and Varnish Trade was £17,851,000 in 1933 and £19,528,000 in 1930, of which £16,525,000 in 1933 and £17,995,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Whiting and Paris white ... ..	1,774	134	1,243	114
Boiled or refined linseed oil* ... ..	124	176	179	384
Lubricating oils and greases ... ..	120	134	160	202
Other oils and greases ... ..	...	49	...	45
Miscellaneous chemical products ... ..	...	186	...	164
Other goods made ... ..	...	525	...	450
Work done :—				
Coating ships' hulls with paint or composition ... ..	...	48†	...	90†
Other work done ... ..	...	74†	...	84†
<b>TOTAL</b> ... ..	...	1,326	...	1,533

\* The total quantity of linseed oil made by firms engaged in the Paint, Colour and Varnish Trade was as follows :—

	1933	1930
	Th. cwts.	Th. cwts.
Boiled linseed oil ... ..	220	291
Refined linseed oil ... ..	46	

† Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. cwts.	£'000
White lead, basic carbonate, dry ... ..	289	407
Zinc oxide ... ..	267	267
Lithopone, dry ... ..	383	318
All other materials used (including fuel) ... ..	...	8,183
<b>TOTAL</b> ... ..	...	9,175

## THE SEED CRUSHING TRADE

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	17,568	21,824
Cost of materials used and amount paid for work given out ... ..	"	14,964	19,407
Net output ... ..	"	2,604	2,417
Average number of persons employed ... ..	No.	10,671	10,992
Net output per person employed ... ..	£	244	220

Table II A.—Total make of Unrefined Oils

Description	1933	1930
	Th. tons	Th. tons
Coconut ... ..	58·6	44·7
Cotton seed ... ..	70·3	91·7
Ground nut ... ..	52·9	49·7
Linseed ... ..	88·1	68·3
Palm kernel ... ..	63·8	54·6
Rape seed ... ..	7·4	4·2
Soya bean ... ..	24·7	18·5
Castor ... ..	14·0	} 19·7
Other sorts... ..	7·6	
<b>TOTAL</b> ... ..	<b>387·4</b>	<b>351·4</b>

Included in the above figures are 9,600 tons in 1933 and 6,000 tons in 1930 returned on schedules for other trades as output sold (or added to stock).

Table II B.—Deliveries of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Unrefined oils:—</b>				
Coconut... ..	37·0	718	28·6	906
Cotton seed ... ..	19·5	340	30·7	794
Ground nut ... ..	27·8	645	18·3	573
Linseed ... ..	77·5	1,454	60·5	2,125
Palm kernel ... ..	58·2	1,053	44·5	1,331
Rape seed ... ..	4·4	112	2·3	70
Soya bean ... ..	10·6	201	6·7	209
Castor ... ..	14·0	396	} 15·6	558
Other sorts ... ..	6·9	79		
<b>TOTAL—Unrefined oils</b> ... ..	<b>255·9</b>	<b>4,998</b>	<b>207·2</b>	<b>6,566</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons.	£'000	Th tons.	£'000
<b>Refined oils :—</b>				
Coconut... ..	15.5	391	18.6	681
Cotton seed ... ..	71.6	1,638	99.0	3,086
Ground nut ... ..	29.6	835	37.2	1,364
<b>Linseed :—</b>				
Boiled ... ..	20.8	479	18.6	652
Refined ... ..	15.2	318	14.3	530
Not separately distinguished ... ..	—	—	8.9	384
Palm kernel ... ..	9.0	232	13.6	488
Soya bean ... ..	28.0	644	25.2	824
Rape seed ... ..	4.4	122	9.9	345
Other and unclassified ... ..	34.6	1,004	30.5*	1,251*
<b>TOTAL—Refined oils ... ..</b>	<b>228.7</b>	<b>5,663</b>	<b>275.8*</b>	<b>9,605*</b>
<b>Oil-seed cake and meal :—</b>				
Coconut ... ..	31.5	177	24.2	157
Cotton seed ... ..	251.3	1,252	375.3	2,113
Ground nut ... ..	37.3	248	60.4	413
Linseed ... ..	181.7	1,466	147.7	1,541
Palm kernel ... ..	61.2	323	49.3	262
Soya bean ... ..	91.5	621	77.6	608
Compound ... ..	570.0	3,984	454.8	3,549
Rape seed ... ..	12.8	54	40.5*	170*
Other and unclassified ... ..	24.6	107		
<b>TOTAL—Oil-seed cake and meal</b>	<b>1,261.9</b>	<b>8,232</b>	<b>1,229.8*</b>	<b>8,813*</b>
<b>Acid oils ... ..</b>	<b>20.4</b>	<b>388</b>	<b>23.0</b>	<b>615</b>
<b>TOTAL—PRINCIPAL PRODUCTS ... ..</b>	<b>...</b>	<b>19,281</b>	<b>...</b>	<b>25,599*</b>

\* In addition the following goods were recorded on schedules for trades that were not covered by the 1933 Inquiry :—

	Th. tons	£'000
Other and unclassified refined oils ... ..	5.0	44
Other and unclassified oil-seed cake and meal ... ..	1.2	5

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Unrefined oils :—				
Cotton seed ... ..	—	—	0·1	4
Ground nut ... ..	—	—	2·4	89
Palm kernel ... ..	5·6	108	—	—
Soya bean ... ..	*	1	2·8	94
Other sorts ... ..	4·0	13	0·7	25
Refined oils :—				
Cotton seed ... ..	7·3	190	18·8	609
Ground nut ... ..	5·3	171	6·3	238
Palm kernel ... ..	1·9	61	4·0	147
Soya bean ... ..	3·9	98	4·2	137
Coconut, linseed and rape, not separately distinguished ... ..	39·4	860	54·0	1,993
Other and unclassified ... ..	16·0	406	7·7	317
Oil-seed cake and meal :—				
Palm kernel ... ..	7·3	40	—	—
Other and unclassified ... ..	5·5	29	6·3	37
Acid oils ... ..	11·6	273	16·6	478
<b>TOTAL</b> ... ..	...	2,250	...	4,168

\* Less than 50 tons.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Unrefined oils :—							
Coconut ... ..	19·4	31·7	61·2	20·5	34·5	18·8	32·1
Cotton seed ... ..	17·4	25·8	67·5	23·9	30·5	8·8	27·8
Ground nut ... ..	23·2	31·4	73·8	22·8	27·9	24·6	32·7
Linseed ... ..	18·8	35·1	53·4	25·6	45·9	13·8	36·5
Palm kernel ... ..	18·1	29·9	60·5	20·2	29·5	22·6	27·1
Soya bean ... ..	19·0	31·0	61·2	19·2	35·2*	17·1	27·8*
Rape seed ... ..	25·2	30·8	81·1	29·3*	38·6*	29·7*	33·4*
Castor ... ..	28·3	†	...	33·4*	43·6*	26·4*	40·2*
Refined oils—							
Coconut ... ..	25·3	36·5	69·2	28·9	43·5	26·9	42·5
Cotton seed ... ..	22·9	31·2	73·4	25·7	34·9	20·8	31·3
Ground nut ... ..	28·2	36·6	77·0	32·4	38·9	33·1	41·3
Linseed (boiled) ... ..	23·1	35·0	65·7	29·1	47·7	27·9	40·2
Linseed (refined) ... ..	20·9	37·1	56·2	30·0	48·9	22·4	42·2
Palm kernel ... ..	25·7	35·8	72·0	26·4	33·5	32·2	38·4
Soya bean ... ..	23·0	32·7	70·3	24·8	†	32·7	†
Rape seed ... ..	27·8	34·6	80·3	†	†	†	†

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Oil-seed cake and meal:—							
Coconut ... ..	5.62	6.46	87.0	‡	‡	‡	‡
Cotton seed ... ..	4.98	5.63	88.5	6.97	9.23	4.55	5.28
Ground nut ... ..	6.64	6.84	97.1	6.22	7.14	5.82	7.29
Linseed ... ..	8.07	10.43	77.4	8.54	11.6	6.57	8.82
Palm kernel ... ..	5.27	5.32	99.1	‡	‡	‡	‡
Soya bean ... ..	6.78	7.83	86.6	6.81	7.64	5.82	8.85
Rape seed ... ..	4.23	3.31	127.8	4.36	4.56	3.66	4.81
Compound ... ..	6.99	7.80	89.6	‡	‡	‡	‡
Other sorts ... ..	4.32	4.20	102.9	5.98	6.62	4.50	6.91
Acid oils ... ..	18.99	26.74	71.2	‡	‡	‡	‡

\* Including refined oil.

‡ Included with unrefined oil.

‡ Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Unrefined oils:—					
Coconut ... ..	906	718	1,173	129	62
Cotton seed ... ..	794	340	504	63	97
Ground nut ... ..	573	645	874	153	103
Linseed ... ..	2,125	1,454	2,721	128	196
Palm kernel ... ..	1,331	1,053	1,741	131	254
Rape seed ... ..	70	112	138	197	696
Soya bean ... ..	209	201	328	157	71
Other sorts ... ..	558	475	775	139	85
<b>TOTAL—Unrefined oils</b>	<b>6,566</b>	<b>4,998</b>	<b>8,254</b>	<b>126</b>	<b>161</b>
Refined oils:—					
Coconut ... ..	681	391	565	83	148
Cotton seed ... ..	3,086	1,638	2,232	72	79
Ground nut ... ..	1,364	835	1,085	80	30
Linseed, boiled and refined	1,566	797	1,295	83	124
Palm kernel ... ..	488	232	322	66	99
Soya bean ... ..	824	644	916	111	70
Rape seed ... ..	345	122	152	44	159
Other and unclassified...	1,251	1,004	1,263	101	170
<b>TOTAL—Refined oils</b>	<b>9,605</b>	<b>5,663</b>	<b>7,830</b>	<b>82</b>	<b>99</b>



Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values.	Per cent.	Per cent.
	£'000	£'000	£'000		
Oil-seed cake and meal :—					
Coconut ... ..	157	177	203	129	120
Cotton seed ... ..	2,113	1,252	1,415	67	110
Ground nut ... ..	413	248	255	62	75
Linseed ... ..	1,541	1,466	1,896	123	184
Palm kernel ... ..	262	323	326	124	236
Soya bean ... ..	608	621	717	118	104
Compound ... ..	3,549	3,984	4,446	125	98
Rape seed ... ..	170	54	42	92	257
Other and unclassified...		107	115		
TOTAL—Oil-seed cake and meal ...	8,813	8,232	9,415	107	123
Acid oils ... ..	615	388	545	89	53
TOTAL ... ..	25,599	19,281	26,044	102	122

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
						Th. tons
Unrefined oils :—						
Coconut ... ..	1933 58.6	1.3	2.2	8.2	65.5	87.5
	1930 44.7	0.3	0.7	32.5	76.9	57.7
Cotton seed ... ..	1933 70.3	3.5	5.0	0.1	66.9	99.8
	1930 91.7	4.7	5.1	11.2	98.2	88.6
Ground nut ... ..	1933 52.9	2.3	4.3	4.0	54.6	92.7
	1930 49.7	1.4	2.8	15.7	64.0	75.5
Linseed ... ..	1933 88.1	4.3	4.9	6.8	90.6	92.5
	1930 68.3	5.9	8.6	40.5	102.9	60.6
Palm kernel ... ..	1933 63.8	3.7	5.8	0.1	60.2	99.8
	1930 54.6	6.7	12.3	7.3	55.2	86.8
Rape seed ... ..	1933 7.4	1.8*	24.3	0.3*	5.9	94.9
	1930 4.2	3.4*	81.0	7.3*	8.1	9.9
Soya bean ... ..	1933 24.7	0.6	2.4	19.8	43.9	54.9
	1930 18.5	15.7*	84.9	25.2*	28.0	10.0
Castor ... ..	1933 14.0	7.3*	52.1	3.5*	10.2	65.7
Other and unclassified	1933 7.6	3.3*	43.4	83.9*	88.2	4.9
Other and unclassified (including Castor)	1933 21.6	10.6*	49.1	87.4*	98.4	11.2
	1930 19.7	13.4*	68.0	67.1*	73.4	8.6
TOTAL—Unrefined oils	1933 390.4	28.1*	7.2	126.7*	489.0	72.6
	1930 351.4	51.5*	14.7	206.8*	506.7	65.9

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
							Th. tons
<b>Refined oils—</b>							
Coconut ...	1933	15.5	2.1	13.5	5.1	18.5	72.4
	1930	18.6	2.2	11.8	9.8	26.2	62.6
Cotton seed ...	1933	71.6	5.9	8.2	7.5	73.2	89.8
	1930	99.0	12.6	12.7	4.7	91.1	94.8
Ground nut ...	1933	29.6	1.1	3.7	1.4	29.9	95.3
	1930	37.2	1.7	4.6	6.5	42.0	84.5
Linseed, boiled or refined	1933	36.0	6.5	18.1	0.4	29.9	98.6
	1930	41.8	9.8	23.4	2.4	34.4	93.0
Palm kernel ...	1933	9.0	0.9	10.0	2.6	10.7	75.7
	1930	13.6	1.7	12.5	0.6	12.5	95.2
Other and unclassified	1933	67.0	11.3	16.9	8.2	63.9	95.9
	1930	70.6	2.7	3.8	12.5	80.4	90.2
TOTAL—Refined oils	1933	228.7	27.8	12.2	25.2	226.1	91.2
	1930	280.8	30.7	10.9	36.5	286.6	88.8
<b>Oil-seed cake and meal—</b>							
Cotton seed ...	1933	251.3	1.9	0.8	156.3	405.7	61.5
	1930	375.3	4.3	1.1	223.3	594.3	62.4
Ground nut ...	1933	37.3	1.3	3.5	109.5	145.5	24.7
	1930	60.4	1.1	1.8	97.8	157.1	37.7
Linseed ...	1933	181.7	8.4	4.6	70.0	243.3	71.2
	1930	147.7	15.2	10.3	70.0	202.5	65.4
Soya bean ...	1933	91.5	4.2	4.6	2.0	89.3	97.8
	1930	77.6	15.2	19.6	8.0	70.4	88.6
Rape seed ...	1933	12.8	0.6	4.7	11.3	23.5	51.9
Compound and other (including unclassified cake and meal) ...	1933	687.3	25.7	3.7	33.6	695.2	95.2
Compound, rape seed and other (including unclassified cake and meal) ...	1933	700.1	26.3	3.7	44.9	718.7	93.7
	1930	570.0	39.3	6.9	44.2	574.9	92.3
TOTAL—Oil-seed cake and meal	1933	1,261.9	42.1	3.3	382.7	1,602.5	76.1
	1930	1,231.0	75.1	6.1	443.3	1,599.2	72.3

\* Includes some refined oils.

The following tables relate only to firms whose returns were made on schedules for the Seed Crushing Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	162	8,546	75	360	237	8,906
	1930	150	9,044	20	247	170	9,291
Administrative, technical and clerical staff* ...	1933	52	1,303	29	462	81	1,765
	1930	51	1,347	35	354	86	1,701
TOTAL ...	1933	214	9,849	104	822	318	10,671
	1930	201	10,391	55	601	256	10,992

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	8,458	July 15 ...	7,090
February 18 ...	8,649	August 19 ...	7,089
March 18 ...	8,684	September 16 ...	7,901
April 15 ...	8,633	October 14 ...	8,286
May 13 ...	8,312	November 18 ...	8,642
June 17 ...	7,411	December 16 ...	8,698
AVERAGE FOR THE TWELVE MONTHS ...			8,154

**Table VII.—Other output of the Seed Crushing Trade**

The value of the gross output of the firms whose returns were made on schedules for the Seed Crushing Trade was £17,568,000 in 1933 and £21,824,000 in 1930, of which £17,031,000 in 1933 and £21,431,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Maize products ... ..	22	127	5	42
Poultry foods ... ..	17	144	8	85
Lard compound ... ..	5	179	2	95
Other goods made ... ..	3	19	5	69
Waste products (residue oils, cotton linters, etc.) ... ..	...	3	...	69
Work done for the trade or on commission ... ..	2	38	2	33
	...	27*	—	—
<b>TOTAL</b> ... ..	...	537	...	393

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
<b>Seeds :—</b>		
Castor ... ..	31·1	320
Cotton ... ..	397·5	2,482
Flax or linseed ... ..	270·2	2,659
Rape ... ..	20·6	193
Soya beans ... ..	153·9	1,052
Other sorts ... ..	14·3	85
<b>Nuts and kernels :—</b>		
Copra ... ..	92·4	1,178
<b>Ground nuts (arachids, pea or monkey nuts) :—</b>		
Undecorticated ... ..	23·2	218
Decorticated ... ..	102·6	1,217
Palm kernels ... ..	122·5	1,227
Other nuts and kernels ... ..	2·3	29
All other materials used (including fuel) ... ..	...	4,276
<b>TOTAL</b> ... ..	...	14,936

### THE OIL AND TALLOW TRADE

*Note.*—The figures for 1930 relate to Great Britain only, particulars of the relatively small output production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	13,867	16,446
Cost of materials used and amount paid for work given out ... ..	"	9,422	11,496
Net output ... ..	"	4,445	4,950
Average number of persons employed ... ..	No.	7,926	8,081
Net output per person employed ... ..	£	561	613

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Lubricating oils, mixed, including greases* :—	Th. tons	£'000	Th. tons	£'000
<i>Returned in tons</i> ... ..	302·6	6,508	272·8	6,754
<i>Returned in gallons</i> ... ..	Th. galls. 5,152	543	Th. galls. 17,451	1,573
TOTAL—Lubricating oils ... ..	...	7,051	...	8,327
Animal oils, fats and greases (except marine animal) :—	Th. tons		Th. tons	
Tallow, not refined ... ..	17·8	333	14·1	388
Refined tallow and oleo-margarine and oleo oil ... ..	18·3	785	{ 10·9 ... ... }	{ 652 166† ... }
Stearine ... ..	8·3	252	7·2	298
Other and unclassified animal oils, fats and greases (except lard, dripping, suet and stearine) ... ..	39·1	608	28·9	770
TOTAL—Animal oils, fats and greases ... ..	83·5	1,978	{ 61·1 ... ... }	{ 2,108 166† ... }
Fish and marine animal oils, fats and greases (refined and unrefined) :—				
Whale oil ... ..	74·9	1,333	30·1	915
Cod and cod liver oil ... ..	4·4	123	5·4	149
Other and unclassified fish and marine animal oils, etc. ... ..	11·3	216	14·2	370
TOTAL—Fish and marine animal oils ... ..	90·6	1,672	49·7	1,434

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Other oils (except petroleum, vegetable and seed oils) ... ..	14·3	251	{ 11·8 ...}	{ 313 38}
Lard compound ... ..	55·1	1,794	44·4	1,901
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	12,746	...	14,287†

\* Hydro-carbon oils are excluded from the operation of Section 9 of the Import Duties Act and returns were not therefore obtained from establishments at which the output consisted only of refined or mixed petroleum oils.

† In addition to the output for 1930 recorded above, £6,000 was returned on schedules for trades that were not covered by the 1933 Inquiry.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Lubricating oils, mixed, including greases	17·8	493	22·9	665
Animal oils, fats and greases (except marine animal) :—				
Tallow, not refined ... ..	3·2	59	2·3	68
Refined tallow and oleo margarine and oleo oil ... ..	0·2	8	0·2	5
Stearine... ..	3·8	133	3·2	167
Other and unclassified animal oils, fats and greases ... ..	20·7	351	18·9	545
<b>TOTAL—Animal oils, fats and greases</b>	27·9	551	24·6	785
Fish and marine animal oils, fats and greases, other than whale oil and cod and cod liver oil ... ..	1·1	25	4·3	133
Other oils (except petroleum, vegetable and seed oils) ... ..	8·0	125	{ 1·7 ...}	{ 40 9}
Lard compound ... ..	9·6	340	10·9	473
<b>TOTAL</b> ... ..	...	1,534	...	2,105

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Lubricating oils, mixed, including greases*	21.51	24.76	86.9	25.27†	29.78†	30.66†	73.63†
Animal oils, fats and greases:—							
Tallow, not refined ...	18.76	27.45	68.3	21.27	30.18	20.31	33.66
Refined tallow and oleo-margarine and oleo oil	42.81	60.07	71.3	24.65	35.24	26.98	44.30
Stearine ...	30.34	41.13	73.8	33.46	48.86	30.30	48.90
Fish and marine animal oils, fats and greases (refined and unrefined):—							
Whale oil‡ ...	17.81	30.40	58.6	21.62	27.94	13.53	27.67
Cod liver oil‡...§	27.70§	27.47§	100.8	23.91	35.42	33.94	40.08
Lard compound ...	32.59	42.79	76.2	37.60	49.09	31.31	51.23

\* See footnote (\*) to Table II.

† Exports and imports are recorded in gallons. Average values are estimated on the basis of 245 gallons to the ton.

‡ The import and export values relate to refined and unrefined oil in 1930 and to unrefined oil only in 1933.

§ Including cod oil.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Lubricating oils, mixed, including greases* ...	£'000 8,327	£'000 7,051	£'000 8,114	Per cent. 97	Per cent. 62
Animal oils, fats and greases (except marine animal):—					
Tallow, not refined... ..	388	333	488	126	} 125
Refined tallow and oleo-margarine and oleo oil ...	818	785	1,101	135	
Other and unclassified animal oils, fats and greases (except lard, dripping, suet and stearine)...	770	608	1,048	136	
Stearine ... ..	298	252	341	114	80
TOTAL.—Animal oils, fats					

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Fish and marine animal oils, fats and greases (refined and unrefined):—					
Whale oil ... ..	915	1,333	2,275	249	} 54
Cod and cod liver oil ...	149	123	122	82	
Other and unclassified fish and marine animal oils, etc.	370	216	295	80	
<b>TOTAL—Fish and marine animal oils, fats and greases ... ..</b>	<b>1,434</b>	<b>1,672</b>	<b>2,692</b>	<b>188</b>	<b>38</b>
Other oils (except petroleum, vegetable and seed oils)...	351	251	381	108	284
Lard compound ... ..	1,901	1,794	2,354	124	55
<b>TOTAL ... ..</b>	<b>14,287</b>	<b>12,746</b>	<b>16,519</b>	<b>116</b>	<b>74</b>

\* See footnote (\*) to Table II.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Lubricating oils, mixed, including greases ... { 1933	*	26.8	...	0.5	...	...
... { 1930	*	30.0	...	†	...	...
Animal oils, fats and greases (except marine animal):—						
Tallow, not refined ... { 1933	17.8	3.0	16.9	31.8	46.6	31.8
... { 1930	14.1	4.1	29.1	29.5	39.5	25.3
Refined tallow and oleo margarine and oleo oil... { 1933	18.3	1.2	6.6	32.6	49.7	34.4
... { 1930	13.7†	1.6	11.7	30.8	42.9	28.2
Stearine ... { 1933	8.3	2.2	26.5	1.4	7.5	81.3
... { 1930	7.2	2.7	37.5	0.9	5.4	83.3
Other and unclassified oils, fats and greases (except lard and stearine) { 1933	39.1	10.3	26.3	12.2	41.0	70.2
... { 1930	28.9	11.3	39.1	7.4	25.0	70.4





**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER.**

Week ended	Total number	Week ended	Total number
January 14 ...	3,788	July 15 ...	3,863
February 18 ...	3,799	August 19 ...	3,860
March 18 ...	3,824	September 16 ...	4,012
April 15 ...	3,797	October 14 ...	4,076
May 13 ...	3,886	November 18 ...	4,046
June 17 ...	3,849	December 16 ...	3,975
AVERAGE FOR THE TWELVE MONTHS ...			3,898

**Table VII.—Other output of the Oil and Tallow Trade**

The value of the gross output of the firms whose returns were made on schedules for the Oil and Tallow Trade was £13,867,000 in 1933 and £16,446,000 in 1930, of which £11,212,000 in 1933 and £12,182,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Dripping, suet and other edible animal fats ...	105	220
Lard (not including lard compound) ...	231	267
Vegetable and seed oils :—		
Refined ...	1,419	2,735
Unrefined ...	109	193
Bones :—		
For manufacturing purposes ...	48	67
For manure ...	27	21
Feeding stuffs for animals and poultry :—		
Fish meal ...	88	129
Other feeding stuffs ...	237	161
Fertilisers ...	50	51
Other goods ...	267	342
Greaves, cracklings and other waste ...	42	74
Work done for the trade or on commission ...	32*	14*
<b>TOTAL ...</b>	<b>2,655</b>	<b>4,264</b>

\* Amount received.

### THE EXPLOSIVES AND FIREWORKS TRADE.

*Note.*—In order to preserve comparability with 1933, the returns made for certain individual businesses for 1930 have been re-classified and the figures published in the Final Report on the Fourth Census of Production have been adjusted accordingly.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	4,870	4,998
Cost of materials used and amount paid for work given out ... ..	"	1,978	2,151
Net output ... ..	"	2,892	2,847
Average number of persons employed ... ..	No.	8,966	8,697
Net output per person employed ... ..	£	323	327

**Table II.—Output of principal products.**

Kind of goods	1933		1930		
	Quantity	Value	Quantity	Value	
High explosives and propellent powders ... ..	Th. cwts.	£'000	Th. cwts.	£'000	
458·5	1,889	511·0	2,302		
Small arms ammunition (including empty cartridge cases) :—	Thous.	1,115	Thous.	379	
Military† ... ..	375,623		124,701		582
Sporting† ... ..	Th. cwts.		Th. cwts.		
	58·6	54	59·2	76	
Fuses and blasting accessories (including detonators, cables, etc.)	99·4	1,088	80·7	813	
			...	286*	
Explosives and ammunition, not elsewhere specified ... ..	...	1,045	...	1,010	
Rockets and other pyrotechnic products ... ..	...	231	...	271	
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	5,422	...	5,719	

\* See page 197.

† Owing to the risk of disclosure of information relating to individual firms separate details cannot be given for 1933.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
		£'000		£'000
Small arms ammunition ...	Thous. 15,705	101	Thous. 9,680	71
	Th. cwts. 54.6	50	Th. cwts. 55.4	71
Fuses and blasting accessories ...	4.7	81	...	74
Explosives and ammunition, not elsewhere specified ...	...	616	...	629
<b>TOTAL ... ..</b>	...	848	...	845

Table III.—Average values of goods produced, exported and imported.

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
High explosives and propellant powders ...	4.12	4.51	91.4	5.69	5.69	2.62	3.32
	£ per thous.	£ per thous.		£ per thous.	£ per thous.	£ per thous.	£ per thous.
Small arms ammunition:—							
Military ammunition:—							
Loaded cartridges ...	5.51	3.91	140.9	4.63	5.13	8.43	7.76
Empty cartridge cases	1.25	1.10	113.3	2.31	1.84	1.23	2.10
Sporting ammunition:—							
Loaded cartridges ...	2.32	5.72	40.6	1.91	4.46	0.87	0.94
Empty cartridge cases	1.91	2.08	91.9	1.80	2.23	1.13	1.29
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Safety fuses ... ..	6.96	7.33	95.0	6.39	7.02	6.74	6.60

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
High explosives and propellant powders ... ..	£'000 2,302	£'000 1,889	£'000 2,068	Per cent. 90	} 87
Small arms and ammunition (including empty cartridge cases) ... ..	1,037	1,169	1,856	179	
Fuses and blasting acces- sories (including detona- tors, cables, etc.) ... ..	1,099	1,088	941	86	
Explosives and ammunition, not elsewhere specified ... ..	1,010	1,045	1,263	125	
Rockets and other pyro- technic products ... ..	271	231	279	103	
<b>TOTAL ... ..</b>	<b>5,719</b>	<b>5,422</b>	<b>6,413</b>	<b>112</b>	<b>87</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Produc- tion	Exports	Propor- tion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods	
							Th. cwts.
High explosives and propellant powders ... ..	1933	458.5	85.3	18.6	6.3	379.5	98.3
	1930	511.0	106.4	20.8	11.2	415.8	97.3
	Value at factory	Value f.o.b.	—	Value c.i.f.	—	—	—
Small arms am- munition (in- cluding empty cartridge cases)	1933	£'000 1,169	£'000 651	...	£'000 29	...	...
	1930	1,037	485	...	68	...	...
Fuses and blasting accessories (in- cluding detona- tors, cables, etc.)	1933	1,088	457	...	6	...	...
	1930	1,099	474	...	13	...	...
Rockets and other pyrotechnic products ... ..	1933	231	9	...	*	...	...
	1930	271	14	...	6	...	...

\* Less than £500.

† See note (†) to Table II.

The following tables only to firms whose returns were made on schedules for the Explosives and Fireworks Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	223	3,720	583	3,857	811	7,577
... { 1933	169	3,744	707	3,944	876	7,688
... { 1930						
Administrative, technical and clerical staff* ...	15	910	42	479	57	1,389
... { 1933	34	642	28	367	62	1,009
... { 1930						
TOTAL ...	243	4,630	625	4,336	868	8,966
... { 1933	203	4,386	735	4,311	938	8,697
... { 1930						

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	7,278	July 15 ...	7,343
February 18 ...	7,514	August 19 ...	7,405
March 18 ...	7,583	September 16 ...	7,348
April 15 ...	7,602	October 14 ...	7,353
May 13 ...	7,662	November 18 ...	7,632
June 17 ...	7,539	December 16 ...	7,496
AVERAGE FOR THE TWELVE MONTHS...			7,480

Table VII.—Other output of the Explosives and Fireworks Trade

The value of the gross output of the firms whose returns were made on schedules for the Explosives and Fireworks Trade was £4,870,000 in 1933 and £4,998,000 in 1930, of which £4,574,000 in 1933 and £4,874,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Chemical products ...	282	120
Other goods ...	14	4
TOTAL ...	296	124

## THE STARCH AND POLISHES TRADE

### Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	6,404	6,997
Cost of materials used ... ..	"	2,601	2,997
Net output ... ..	"	3,803	4,000
Average number of persons employed ... ..	No.	7,753	7,962
Net output per person employed ... ..	£	491	502

### Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Starch :—	Th. cwts.	£'000	Th. cwts.	£'000
Rice ... ..	202	539	200	576
Other kinds, including maize starch ... ..	432	253	326	233
Dextrine ... ..	74	69	101	110
Laundry blue ... ..	143	537	139	544
Leather polishes ... ..	155	1,323	159	1,630
Stove and other polishes ... ..	584	2,878	593	3,079
	Th. galls.		Th. galls.	
Ink, stains, etc., for the leather and and allied trades ... ..	584	199	{ 380*	120
			{ ...	100
	Th. cwts.		Th. cwts.	
Foundry blacking ... ..	412	64	{ 342	50
			{ ...	29
Household dyes and cleansing materials (other than soap), not specified above	...	841	...	772
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	<b>6,703</b>	...	<b>7,243</b>

\* See page 197.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Starch of all kinds ... ..	62	39	45	28
Dextrine ... ..	10	9	20	23
Laundry blue ... ..	—	—	4	20
Leather polishes ... ..	15	24	1	11
Stove and other polishes ... ..	21	104	108	171
	Th. galls.			
Ink, stains, etc. for the leather and allied trades ... ..	38	13	...	33
Household dyes and cleansing materials ... ..	...	284	...	118
<b>TOTAL ... ..</b>	...	<b>473</b>	...	<b>404</b>

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Starch :—							
Rice ... ..	2.67	2.88	92.8	2.29	2.47	0.84	1.19
Maize ... ..	0.54	0.66	82.7	0.93*	1.22*	0.44*	0.60*
Other kinds ... ..	0.86	0.90	95.9	1.36	1.86	0.81	0.94
Dextrine ... ..	0.93	1.09	85.3	1.58	1.53	0.68	0.85
Laundry blue ... ..	3.76	3.93	95.7	4.14	4.24	2.41	4.50
Leather polishes ... ..	8.52	10.27	83.0	9.62	9.46	8.02	6.34
Stove and other polishes ... ..	4.93	5.19	95.0	5.22	5.28	4.74	2.61

\* Excluding maize starch for edible purposes.



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
Starch :—					
Rice ... ..	576	539	581	101	} 103
Other kinds ... ..	233	253	297	127	
Leather polishes ... ..	1,630	1,323	1,594	98	199
Stove and other polishes	3,079	2,878	3,029	98	100
Laundry blue ... ..	544	537	561	103	} 85
Other principal products...	1,181	1,173	1,242	105	
<b>TOTAL ... ..</b>	<b>7,243</b>	<b>6,703</b>	<b>7,304</b>	<b>101</b>	<b>119</b>

Table V.—Production in relation to Exports and Imports

Kind of goods		Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
		Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.
Starch :—							
Rice ... ..	1933	202	14	6.9	100	288	65.3
	1930	200	15	7.5	126	311	59.5
Other kinds, including maize starch ... ..	1933	432	9*	2.1	1,459*	1,882	22.4
	1930	326	5*	1.5	1,555	1,476	21.7
Dextrine ... ..	1933	74	5	6.8	419	488	14.1
	1930	101	5	5.0	317	413	23.2
Laundry blue ... ..	1933	143	51	35.7	†	92	100.0
	1930	139	59	42.4	1	81	98.8
Leather polishes ... ..	1933	155	41	26.5	3	117	97.4
	1930	159	53	33.3	11	117	90.6
Stove and other polishes	1933	584	71	12.2	4	517	99.2
	1930	593	93	15.7	16	516	96.9

\* Excluding maize starch for edible purposes.

† Less than 500 cwts.

The following tables relate only to firms whose returns were made on schedules for the Starch and Polishes Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... ..	1933	2,739	552	3,084	642	5,823
	1930	2,787	880	3,352	1,081	6,139
Administrative, technical and clerical staff* ...	1933	1,305	60	625	84	1,930
	1930	1,252	118	571	158	1,823
TOTAL ... ..	1933	4,044	612	3,709	726	7,753
	1930	4,039	998	3,923	1,239	7,962

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	4,600	July 15 ... ..	4,658
February 18 ... ..	4,623	August 19 ... ..	4,586
March 18 ... ..	4,648	September 16 ... ..	4,634
April 15 ... ..	4,642	October 14 ... ..	4,625
May 13 ... ..	4,667	November 18 ... ..	4,642
June 17 ... ..	4,650	December 16 ... ..	4,562
AVERAGE FOR THE TWELVE MONTHS ... ..			4,628

**Table VII.—Other output of the Starch and Polishes Trade**

The value of the gross output of the firms whose returns were made on schedules for the Starch and Polishes Trade was £6,404,000 in 1933 and £6,997,000 in 1930, of which £6,230,000 in 1933 and £6,839,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933	1930
	£'000	£'000
Toilet requisites... ..	67	71
Other chemical products ... ..	24	11
Farinaceous by-products and waste ... ..	22	39
Other goods ... ..	61	37
TOTAL ... ..	174	158

## THE INK, GUM AND SEALING WAX TRADES

### Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	3,214	3,468
Cost of materials used and amount paid for work given out... ..	,,	1,300	1,464
Net output ... ..	,,	1,914	2,004
Average number of persons employed ... ..	No.	4,089	4,029
Net output per person employed... ..	£	468	497

### Table II.—Output of principal products

Kind of goods	1933		1930*	
	Quantity	Value	Quantity	Value
Printers' ink ... ..	Th. cwts. 391	£'000 1,839	Th. cwts. 395	£'000 1,850
Inks, other than printers' ink (writing, marking, etc., and ink powders) ... ..	...	325	...	368
Printers' sundries (rollers, composition, etc.) ... ..	...	67	...	149
Gum-mucilage, paste, etc. ... ..	275	311	321†	370
Sealing wax ... ..	5	21	...	26
Typewriter requisites :—				
Ribbons ... ..	Th. gross 37·8	242	} ...	855
Carbons‡ (including pen and pencil carbons) ... ..	Th. reams 204·9	529		
Other typewriter requisites ... ..	...	45		
TOTAL—PRINCIPAL PRODUCTS...	...	3,379	...	3,618*

\* In addition to the output shown for 1930 in the above table, goods valued at £52,000 were returned on schedules for trades that were not covered by the 1933 inquiry. The classes of goods affected are as follows :—

	£'000
Printers' ink ... ..	13
Other inks ... ..	24
Gum-mucilage, paste, etc. ... ..	3
Sealing wax ... ..	11
Other goods ... ..	1
TOTAL ... ..	52

† See page (197).

‡ In terms of reams of 480 sheets, double cap size (17½ inches by 27 inches).

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Printers' ink... ..	Th. cwts. 27	£'000 223	Th. cwts. 19	£'000 207
Gum-mucilage, paste, etc. ...	9	10	13	14
Other goods... ..	...	2	...	7
<b>TOTAL ... ..</b>	...	235	...	228

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)		1933 as a percentage of 1930	Exports (f.o.b.)		Imports (c.i.f.)	
	Average value			Average value		Average value	
	1933	1930	1933	1930	1933	1930	
Printers' ink ...	£ per cwt. 4.70	£ per cwt. 4.68	Per cent. 100.4	£ per cwt. 5.36	£ per cwt. 6.57	£ per cwt. 3.97	£ per cwt. 3.72
Gum - mucilage, paste, etc. ...	1.13	1.15	98.3	*	*	*	*

\* Not recorded separately.

**Table IV.—Volume of Production**

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Printers' ink ... ..	£'000 1,850	£'000 1,839	£'000 1,832	Per cent. 99	Per cent. 63
Gum-mucilage, paste, etc.	370	311	316	85	} 67
Inks, other than printers' ink ... ..	368	325	} 1,250	100	
Sealing wax ... ..	26	21			
Typewriter requisites and printers' sundries ... ..	1,004	883			
<b>TOTAL ... ..</b>	<b>3,618</b>	<b>3,379</b>	<b>3,398</b>	<b>94</b>	<b>65</b>

**Table V.—Production in relation to Exports and Imports**

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.	
Printers' ink	1933	391	50	12·8	4	345	98·8
	1930	398	36	9·1	7	369	98·1

Exports of writing ink and ink powder were valued (f.o.b.) at £113,000 in 1933 and £165,000 in 1930 and retained imports (c.i.f.) at £4,000 in 1933 and £8,000 in 1930. The remaining products of these trades are not recorded separately in the trade returns.

The following tables relate only to firms whose returns were made on schedules for the Ink, Gum and Sealing Wax Trades and are summarised in Table I.

**Table VI.—Employment****A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (aver- for the year)	1933	110	1,751	203	856	313	2,607
	1930	182	1,835	214	795	396	2,630
Administrative, technical and clerical staff*	1933	53	1,018	56	464	109	1,482
	1930	74	946	81	453	155	1,399
TOTAL ...	1933	163	2,769	259	1,320	422	4,089
	1930	256	2,781	295	1,248	551	4,029

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	1,602	July 15 ...	1,665
February 18 ...	1,604	August 19 ...	1,631
March 18 ...	1,641	September 16 ...	1,651
April 15 ...	1,644	October 14 ...	1,647
May ...	1,652	November 18 ...	1,664
June 17 ...	1,657	December 16 ...	1,670
AVERAGE FOR THE TWELVE MONTHS ...			1,644

**Table VII.—Other output of the Ink, Gum and Sealing Wax Trades**

The value of the gross output of the firms whose returns were made on schedules for the Ink, Gum and Sealing Wax Trades was £3,214,000 in 1933 and £3,468,000 in 1930, of which £3,144,000 in 1933 and £3,390,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. Galls.	£'000	Th. Galls.	£'000
Varnish (including litho and letter-press varnishes) ... ..	121	27	176	41
Other goods ... ..	...	43	...	37
<b>TOTAL</b> ... ..	...	<b>70</b>	...	<b>78</b>



Table II.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Rubber ... ..	£'000 25,910	£'000 22,280	£'000 29,902	Per cent. 115	Per cent. 67
Fancy articles, including buttons, picture frames, etc. ... ..	3,944	5,409	6,050	*	109
Linoleum, oilcloth and cork carpet ... ..	9,018	7,763	11,215	124	102
Coke ... ..	9,961	6,178	7,820	79	106
Brooms and brushes ...	3,182	3,035	3,743	118	99
Games and toys ... ..	1,829	2,226	2,351	129	75
Sports requisites ... ..	4,288	3,564	4,165	97	86
Manufactured abrasives ...	1,511	1,766	1,691	112	85
Incandescent mantles ...	639	431	542	85	88
<b>TOTAL ... ..</b>	<b>60,282</b>	<b>52,652</b>	<b>67,479</b>	<b>112</b>	<b>85</b>

\* See note (\*) on page 288.

Table III.—Employment

A.—AVERAGE NUMBERS (EXCLUDING OUTWORKERS) EMPLOYED IN  
1933 AND 1930

(i) Operatives

Trade	Males		Females		Total		
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total
Rubber ... { 1933	2,209	25,656	4,440	16,749	6,649	35,756	42,405
1930	3,013	26,663	4,220	16,657	7,233	36,087	43,320
Fancy Articles... { 1933	1,160	6,829	2,386	7,691	3,546	10,974	14,520
1930	884	5,023	2,574	7,029	3,458	8,594	12,052
Linoleum and { 1933	659	9,816	205	715	864	9,667	10,531
Oilcloth { 1930	855	10,755	97	889	952	10,692	11,644
Coke and By- { 1933	191	10,481	1	18	192	10,307	10,499
Products { 1930	325	14,166	—	20	325	13,881	14,206
Brush ... { 1933	492	3,440	1,269	4,556	1,761	6,235	7,996
1930	437	3,626	1,192	4,247	1,629	6,244	7,873
Games and { 1933	808	2,518	1,858	5,086	2,666	4,938	7,604
Toys { 1930	697	2,052	1,380	3,857	1,977	3,932	5,909
Sports { 1933	545	4,136	734	2,779	1,279	5,636	6,915
Requisites { 1930	754	4,582	895	2,819	1,649	5,752	7,401
Manufactured { 1933	122	1,694	52	253	174	1,773	1,947
Abrasives { 1930	143	1,679	39	247	182	1,744	1,926
Incandescent { 1933	6	117	270	1,143	276	984	1,260
Mantles { 1930	14	134	499	1,465	513	1,086	1,599
<b>TOTAL ... { 1933</b>	<b>6,192</b>	<b>64,687</b>	<b>11,215</b>	<b>38,990</b>	<b>17,407</b>	<b>86,270</b>	<b>103,677</b>
<b>1930</b>	<b>7,022</b>	<b>68,700</b>	<b>10,896</b>	<b>37,230</b>	<b>17,918</b>	<b>88,012</b>	<b>105,930</b>



(ii) *Administrative, technical and clerical staff*

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Rubber ...	1933	475	6,434	363	2,838	838	8,434	9,272
	1930	618	6,037	471	2,808	1,089	7,756	8,845
Fancy Articles...	1933	90	1,339	167	969	257	2,051	2,308
	1930	62	964	162	802	224	1,542	1,766
Linoleum and Oilcloth	1933	62	1,202	39	322	101	1,423	1,524
	1930	67	985	14	224	81	1,128	1,209
Coke and By-Products	1933	41	885	8	93	49	929	978
	1930	81	1,069	5	50	86	1,033	1,119
Brush ...	1933	35	1,882	74	435	109	2,208	2,317
	1930	43	1,886	75	393	118	2,161	2,279
Games and Toys	1933	24	448	57	443	81	810	891
	1930	35	358	63	374	98	634	732
Sports Requisites	1933	31	648	53	438	84	1,002	1,086
	1930	41	635	100	479	141	973	1,114
Manufactured Abrasives	1933	18	431	29	206	47	590	637
	1930	19	385	20	176	39	522	561
Incandescent Mantles	1933	1	34	1	38	2	70	72
	1930	2	45	4	72	6	111	117
TOTAL ...	1933	777	13,303	791	5,782	1,568	17,517	19,085
	1930	968	12,364	914	5,378	1,882	15,860	17,742

## B.—AVERAGE NUMBERS OF OUTWORKERS EMPLOYED

Trade	1933			1930		
	Males	Females	Total	Males	Females	Total
Fancy Articles ...	8	264	272	13	165	178
Brush ...	13	483	496	9	701	710
Games and Toys ...	3	191	194	2	117	119
Sports Requisites ...	45	63	108	51	113	164
Incandescent Mantles ...	—	5	5	—	54	54
TOTAL ...	69	1,006	1,075	75	1,150	1,225

Table IV

## A.—RETURNS COVERING THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Percent. of total		Number employed	Percent. of total
Rubber ... ..	Number 51,677	Number 39,261	Percent. 76	Number 52,165	Number 39,576	Percent. 76
Fancy Articles ... ..	16,828	13,492	80	13,818	11,145	81
Linoleum and Oil-cloth ... ..	12,055	5,412	45	12,853	5,297	41
Coke and By-Products ... ..	11,477	7,184	63	15,325	11,253	73
Brush ... ..	10,313	7,916	77	10,078	7,549	75
Games and Toys ... ..	8,495	6,325	74	6,641	4,939	74
Sports Requisites ... ..	8,001	4,799	60	8,515	4,898	58
Manufactured Abrasives	2,584	1,868	72	2,487	1,816	73
Incandescent Mantles	1,332	785	59	1,716	1,397	81
<b>TOTAL ... ..</b>	<b>122,762</b>	<b>87,042</b>	<b>71</b>	<b>123,598</b>	<b>87,870</b>	<b>71</b>

\* Great Britain.

## B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Middle week in	Operative staff	
	1933	1930*
January ... ..	Number 68,481	Number 77,305
February ... ..	69,291	77,536
March ... ..	70,123	77,308
April ... ..	70,907	77,247
May ... ..	72,040	76,376
June ... ..	72,602	75,291
July ... ..	72,862	73,968
August ... ..	72,682	72,574
September ... ..	74,034	72,624
October ... ..	75,869	72,889
November ... ..	77,917	73,125
December ... ..	77,228	71,836
<b>AVERAGE FOR THE TWELVE MONTHS ...</b>	<b>72,836</b>	<b>74,840</b>

\* Great Britain. The average number of operatives employed by all firms in

**Amendments of certain aggregates for 1930**

Information received in the course of 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production. In cases where it has been necessary to revise the 1930 particulars, owing to the exclusion of certain groups of firms from the 1933 Inquiry or to changes in the classification of groups of products, indications are given in the notes preceding Table I of the trades affected or in a footnote to Table II.

**Brush Trade :—****Painters' and decorators' brushes :—**

Flat pinned varnish brushes  
Machine compressed brushes  
Other kinds

**Manufactured Abrasives Trade :—****Abrasive cloths and papers :—**

Emery  
Other (except glass and sand)

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**THE RUBBER TRADE****Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	24,231	28,868
Cost of materials used and amount paid for work given out ... ..	"	10,394	14,379
Net output ... ..	"	13,837	14,489
Average number of persons employed ... ..	No.	51,877	52,165
Net output per person employed ... ..	£	268	278

**Table II A.—Total make of Rubber Sheets, Thread, etc.**

Kind of goods	1933	1930
Sheets and sheeting, wholly of rubber ... ..	Tons 100,523	} 7,301
Threads, wholly of rubber ... ..	1,035	
Reclaimed rubber ... ..	6,070	

**Table II B.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Sheets and sheeting, wholly of rubber ... ..	2,557	223	} 3,221	763
Threads, wholly of rubber... ..	1,032	381		
Reclaimed rubber ... ..	4,589	129		
Piping of rubber or of rubber and other materials, armoured or not:—	Tons 6,799	} 688	} Th. yds. 6,193	442
Hose ... ..	Th. yds. 10,727			
Tubing ... ..	Tons 1,346	118	...	248
Rubber tyres and tubes:—				
Pneumatic:—				
Outer covers:—	Thous.		Thous.	
Motor car ... ..	5,654	9,152	5,198	11,165
Motor cycle and tri-car ... ..	497	272	862	637
Cycle ... ..	9,104	973	6,798	928
Inner tubes:—				
Motor car ... ..	4,288	1,019	4,210	1,322
Motor cycle and tri-car ... ..	388	49	627	97
Cycle ... ..	8,965	299	5,578	280

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Rubber tyres and tubes :—(cont.)	Thous.	£'000	Thous.	£'000
Solid tyres:—				
For motor cars, motor cycles and tri-cars ... ..	72	278	233	1,137
For other vehicles ... ..	260	80	163	108
	...	39	...	144
Rubber accessories for motor vehicles and cycles, not elsewhere specified ... ..	...	451	...	559
	Tons		Tons	
Machinery belting :—				
Balata ... ..	1,260	397	1,385	558
Rubber and canvas ... ..	3,860	582	2,750	594
Rubber valves, washers and rings for industrial purposes (sold separately), not included else- where ... ..	1,062	229	...	346
Mats, matting and tiling of rubber	4,133	391	3,282	371
	Th. doz.		Th. doz.	
Rubber boots ... ..	209	544	106	317
Rubber shoes :—				
Overshoes, goloshes, bathing shoes, sandals, and the like ...	183	144	} 796	855
Sports shoes, plimsolls and shoes of like character ... ..	1,350	1,043		
	Tons		Tons	
Rubber heels and soles ... ..	7,149	783	5,043	840
	Th. sq. yds.		Th. sq. yds.	
Rubberproof cloth, and sheets and sheeting of mixed materials, of which the chief value is rubber	11,682	643	{ 6,126	507
			{ ...	355
Overalls and aprons, wholly or mainly of rubber... ..	Th. doz. 47	29	...	15
	Th. doz. pairs		Th. doz. pairs	
Rubber gloves ... ..	86	56	22	26
	Th. doz.			
Bathing caps and helmets ...	20	10	} *	*
Football bladders ... ..	221	68		
Toys, wholly or mainly of rubber (excluding balls) :—				
Balloons ... ..	2,963	47	} ...	67
Other ... ..	...	9		
Hot water bottles :—				
Fabric ... ..	102	136	} ...	519
Moulded ... ..	178	150		
Other hot water and air goods, medical, surgical and dental appli- ances, not elsewhere specified...	...	375	...	
	Tons		Tons	
Mechanical rubber goods, not elsewhere specified ... ..	5,196	869	{ 1,782	384
			{ ...	134

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Vulcanite and ebonite in rods, tubes, sheets, etc., not elsewhere specified ... ..	1,535	206	2,259	450
Manufactures of vulcanite and ebonite ... ..	{ 656 ... 145	{ 107 145	{ * * }	{ * * }
Rubber compounds and solutions...	2,754	123	{ 1,310 ... }	{ 104 30 }
Rubber substitutes ... ..	{ 1,450 ... }	{ 46 11 }	{ * * }	{ * * }
Miscellaneous rubber goods, including uncovered tennis balls...	...	986	...	1,344††
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	22,280	...	25,910‡

\* Not recorded separately.

† Excluding uncovered tennis balls.

‡ In addition, goods valued at £10,000 were returned on schedules for trades that were not covered by the 1933 Inquiry.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
<b>Machinery belting:—</b>				
Balata ... ..	438	125	517	169
Rubber and canvas ... ..	64	18	105	40
	Th. doz. pairs.		Th. doz. pairs.	
<b>Rubber shoes:—</b>				
Overshoes, golooses, bathing shoes, sandals, and the like...	79	71	} 64	94
Sports shoes, plimsolls and shoes of like character ... ..	26	30		
	Tons		Tons	
Mechanical rubber goods, not elsewhere specified ... ..	85	20	...	1
Vulcanite and ebonite in rods, tubes, sheets, etc., not elsewhere specified ... ..	431	23	—	—
Rubber compounds and solutions...	347	18	...	6
Other rubber products ... ..	...	126	...	26
<b>TOTAL</b> ... ..	...	431	...	336

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Sheets and sheeting, wholly of rubber ...	87.2	*	...	130.2	*	114.2	*
Threads, wholly of rubber ... ..	369.1	*	...	416.8	*	250.9	*
<b>TOTAL—Sheets, sheeting and threads of rubber</b>	<b>168.0</b>	<b>236.8</b>	<b>71.0</b>	<b>279.2</b>	<b>402.3</b>	<b>186.3</b>	<b>291.8</b>
Reclaimed rubber ...	28.2	37.4	75.3	36.3	40.7	21.2	28.9
Piping of rubber or of rubber and other materials, armoured or not ... ..	98.9	†	...	109.2	243.5	148.0	143.8
Rubber tyres and tubes :—	£ each	£ each		£ each	£ each	£ each	£ each
Pneumatic :—							
Outer covers :—							
Motor car ...	1.62	2.15	75.2	1.70	2.47	1.20	1.95
Motor cycle and tri-car ...	0.55	0.74	73.9	0.44	0.78	0.35	0.64
Cycle ... ..	2.14	2.73	78.3	1.71	2.84	0.82	1.94
Inner tubes :—							
Motor car ...	4.75	6.28	75.6	4.88	7.28	3.66	6.38
Motor cycle and tri-car ...	2.53	3.09	82.0	2.22	3.93	1.83	2.39
Cycle ... ..	0.67	1.00	67.4	0.62	1.11	0.34	0.81
Solid tyres :—							
For motor cars, motor cycles and tri-cars ...	£ each	£ each		£ each	£ each	£ each	£ each
For other vehicles	6.16	13.25	46.3	10.4	11.4	84.5	3.27
Machinery belting :—	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
Balata ... ..	315.1	403.1	78.2	294.8	373.1	162.9	315.6
Rubber and canvas Mats, matting and tiling of rubber ...	150.8	216.2	69.7	161.9	228.8	217.2	194.7
Mats, matting and tiling of rubber ...	94.6	113.1	83.7	98.7	157.6	100.6	122.5

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Rubber boots ...	£ per doz. prs.	£ per doz. prs.	Per cent.	£ per doz. prs.	£ per doz. prs.	£ per doz. prs.	£ per doz. prs.
Rubber boots ...	2.60	2.99	87.0	2.90	4.26	1.96	4.00
Rubber shoes :—							
Bathing shoes and sandals and the like ...	0.73	*	...	0.83	*	0.49	*
Goloshes and over- shoes of all de- scriptions ...	1.00	*	...	1.15	*	1.06	*
Sports shoes, plim- solls and shoes of like character ...	0.77	*	...	0.91	*	0.62	*
<b>TOTAL—Rubber shoes</b>	<b>0.77</b>	<b>1.07</b>	<b>72.4</b>	<b>0.92</b>	<b>1.30</b>	<b>0.62</b>	<b>0.95</b>
Rubber heels and soles	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
Rubber heels and soles	109.6	166.6	65.8	134.6	441.0	124.1	180.8
Rubberproof cloth, and sheets and sheeting of mixed materials, of which the chief value is rubber ...	s. per sq. yd.	s. per sq. yd.		s. per sq. yd.	s. per sq. yd.	s. per sq. yd.	s. per sq. yd.
Rubberproof cloth, and sheets and sheeting of mixed materials, of which the chief value is rubber ...	1.10	1.65	66.7	1.52	2.22	1.59	1.79
Rubber gloves ...	s. per doz. prs.	s. per doz. prs.		s. per doz. prs.	s. per doz. prs.	s. per doz. prs.	s. per doz. prs.
Rubber gloves ...	12.9	23.8	54.3	16.7	38.2	6.4	9.7
Vulcanite and ebonite in rods, tubes, sheets, etc., not elsewhere specified ...	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
Vulcanite and ebonite in rods, tubes, sheets, etc., not elsewhere specified ...	134.2	199.4	67.3	191.6	477.6	335.1	339.7
Rubber compounds and solutions ...	44.5	78.9	56.4	*	*	*	*
Rubber substitutes ...	32.0	43.3	74.0	39.5	46.6	60.0	47.3

\* Not recorded separately.

† Not recorded by weight.



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000		
Sheets, sheeting and threads, wholly of rubber ... ..	763	604	851	112	117
Reclaimed rubber ... ..	264	129	171	65	*
Hose and tubing of rubber or of rubber and other materi- als, armoured or not ... ..	690	806	899	130	55
Rubber tyres and tubes :—					
Pneumatic :—					
Outer covers :—					
Motor car ... ..	11,165	9,152	12,171	109	37
Motor cycle and tri-car	637	272	368	58	74
Cycle ... ..	928	973	1,243	134	87
Inner tubes :—					
Motor car ... ..	1,322	1,019	1,348	102	} 72
Motor cycle and tri-car	97	49	60	62	
Cycle ... ..	280	299	444	159	
Solid tyres :—					
For motor cars, motor cycles and tri-cars ... ..	1,137	278	352	31	177
For other vehicles ... ..	252	119	257	102	127
Rubber accessories for motor vehicles and cycles, not elsewhere specified ... ..	559	451	600	107	*
Machinery belting :—					
Balata ... ..	558	397	508	91	} 58
Rubber and canvas ... ..	594	582	835	141	
Rubber valves, washers and rings for industrial pur- poses (sold separately), not elsewhere specified ... ..	346	229	307	89	*
Mats, matting and tiling of rubber ... ..	371	391	467	126	*
Rubber boots ... ..	317	544	625	197	*
Rubber shoes ... ..	855	1,187	1,640	192	*
Rubber heels and soles ... ..	840	783	1,190	142	73
Rubberproof cloth, and sheets and sheeting of mixed materials, of which the chief value is rubber ... ..	862	643	972	113	*
Hot water and air goods, medical, surgical and den- tal appliances ... ..	519	661	885	171	*
Vulcanite and ebonite rods, tubes, sheets, etc., not elsewhere specified ... ..	450	206	306	68	*
Rubber compounds and solu- tions ... ..	134	123	218	163	80
Other rubber goods ... ..	1,970	2,383	3,185	162	101
<b>TOTAL ... ..</b>	<b>25,910</b>	<b>22,280</b>	<b>29,902</b>	<b>115</b>	<b>67</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Tons	Tons	Per cent.	Tons	Tons	Per cent.
Sheets and sheeting, wholly of rubber ... 1933	100,523	519	0.5	223	100,227	99.8
Threads, wholly of rubber ... 1933	1,035	562	54.3	136	609	77.7
Sheets, threads, etc., wholly of rubber } 1933	101,558	1,081	1.1	359	100,836	99.6
... } 1930	87,301	968	1.1	432	86,765	99.5
Reclaimed rubber { 1933	6,070	465	7.7	635	6,240	89.8
... } 1930	13,894	1,588	11.4	2,123	14,429	85.3
Rubber tyres and tubes:—	Thous.	Thous.		Thous.	Thous.	
Pneumatic:—						
Outer covers:—						
Motor car { 1933	5,654	1,584*	28.0	83*	4,153	98.0
... } 1930	5,198	1,386*	26.7	96*	3,908	97.5
Motor cycle { 1933	497	89*	17.9	22*	430	94.9
and tri-car } 1930	862	124*	14.4	25*	763	96.7
Cycle ... { 1933	9,104	2,970*	32.6	490*	6,624	92.6
... } 1930	6,798	2,238*	32.9	861*	5,421	84.1
Inner tubes:—						
Motor car { 1933	4,288	1,293*	30.2	40*	3,035	98.7
... } 1930	4,210	1,187*	28.2	31*	3,054	99.0
Motor cycle { 1933	388	105*	27.1	8*	291	97.3
and tri-car } 1930	627	123*	19.6	17*	521	96.7
Cycle ... { 1933	8,865	2,348*	26.5	379*	6,896	94.5
... } 1930	6,578	1,575*	28.2	1,118*	5,121	78.2
Solid tyres, for motor cars, motor cycles and tri-cars } 1933	72	11*	15.3	4*	65	93.8
... } 1930	233	17*	7.3	11*	227	95.2

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Tons	Tons	Per cent.	Tons	Tons	Per cent.
Machinery belting :—						
Balata ... { 1933	1,260	294	23·3	1	967	99·9
... { 1930	1,385	440	31·7	64	1,009	93·7
Rubber and canvas ... { 1933	3,860	1,040	26·9	73	2,893	97·5
... { 1930	2,750	696	25·3	319	2,373	86·6
Mats, matting and tiling of rubber { 1933	4,133	494	12·0	126	3,765	96·7
... { 1930	3,282	416	12·7	170	3,036	94·4
	Th. doz. prs.	Th. doz. prs.		Th. doz. prs.	Th. doz. prs.	
Rubber boots and shoes:—						
Boots ... { 1933	209	15	7·2	219	413	47·0
... { 1930	106	16	15·1	172	262	34·4
Shoes :—						
Overshoes, goloshes, bathing shoes, sandals and the like ... 1933	183	7	3·8	35	211	83·4
Sports shoes, plimsolls and shoes of like character... 1933	1,350	93	6·9	524	1,781	70·6
TOTAL—Rubber shoes ... { 1933	1,533	100	6·5	559	1,992	71·9
... { 1930	796	239	30·0	1,049	1,606	34·7
	Tons	Tons	Per cent.	Tons	Tons	Per cent.
Rubber heels and soles ... { 1933	7,149	502	7·0	629	7,276	91·4
... { 1930	5,043	148	3·0	3,131	8,026	61·0
	Th. doz. prs.	Th. doz. prs.		Th. doz. prs.	Th. doz. prs.	
Rubber gloves ... { 1933	86	7	8·1	68	147	53·7
... { 1930	22	3	13·6	41	60	31·7
	Tons	Tons		Tons	Tons	
Vulcanite and ebonite in rods, tubes, sheets, etc., not elsewhere specified { 1933	1,535	74	4·8	5	1,466	99·7
... { 1930	2,259	49	2·2	111	2,321	95·2

\* Other than tyres and tubes exported or imported with complete vehicles or chassis as part of their equipment or fitted on wheels separately exported or imported.

The following tables relate only to firms whose returns were made on schedules for the Rubber Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... { 1933 ... 1930	2,209	25,656	4,440	16,749	6,649	42,405
	3,013	26,663	4,220	16,657	7,233	43,320
Administrative, technical and clerical staff* ... { 1933 ... 1930	475	6,434	363	2,838	838	9,272
	618	6,037	471	2,808	1,089	8,845
TOTAL ... { 1933 ... 1930	2,684	32,090	4,803	19,587	7,487	51,677
	3,631	32,700	4,691	19,465	8,322	52,165

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	29,835	July 15 ...	32,853
February 18 ...	30,253	August 19 ...	32,736
March 18 ...	30,605	September 16 ...	32,529
April 15 ...	31,222	October 14 ...	33,019
May 13 ...	32,334	November 18 ...	33,688
June 17 ...	32,787	December 16 ...	33,560
AVERAGE FOR THE TWELVE MONTHS ...			32,118

**Table VII.—Other output of the Rubber Trade**

The value of the gross output of the firms whose returns were made on schedules for the Rubber Trade was £24,231,000 in 1933 and £28,868,000 in 1930, of which £21,849,000 in 1933 and £25,574,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Thous.	£'000	Thous.	£'000
Mackintoshes, oilskins and other proofed garments :—				
Rubber proofed ... ..	{ 979	435	} ...	677
Other descriptions ... ..	... 41	153		
Rubber balls :—	Th. doz.			
Golf balls ... ..	741	367	854	535
Tennis balls, covered, ready for use ... ..	576	188	1,025*	298*
Other rubber balls ... ..	1,216	124	...	81
Other goods made ... ..	...	208	...	519
Waste rubber ... ..	Tons		Tons	
Work done for the trade or on commission :—	6,441	24	1,106	13
Waterproofing... ..	...	774†	...	995†
Other work ... ..	...	33†	...	59†
Repairs to rubber, etc. goods ... ..	...	35†	...	29†
<b>TOTAL</b> ... ..	...	<b>2,382</b>	...	<b>3,294</b>

\* Including uncovered tennis balls.

† Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Crude rubber ... ..	76,475	2,126
Reclaimed rubber ... ..	4,648	95
Rubber substitutes ... ..	3,747	89
All other materials used (including fuel) ... ..	...	8,058
<b>TOTAL</b> ... ..	...	<b>10,368</b>

### THE FANCY ARTICLES TRADE

*Notes:—*(a) The figures for 1930 relate to Great Britain only, but comparison between the two years is not materially affected by the omission of the small production in Northern Ireland.

(b) Owing to the inclusion of a larger number of firms manufacturing synthetic resins and other materials for plastic mouldings, the scope of this trade was somewhat larger for the 1933 Inquiry than for the 1930 Census of Production. This difference affects the comparability of the general results for the two years (Gross output, Net output, Employment, etc.), but the production figures shown for particular classes of goods (Table IIB) are comparable, except where otherwise indicated.

**Table I.—General Summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	5,214	4,007
Cost of materials used and amount paid for work given out ... ..	"	2,384	1,760
Net output ... ..	"	2,830	2,247
Average number of persons employed (excluding outworkers) ... ..	No.	16,828	13,818
Net output per person employed (excluding outworkers) ... ..	£	168	163

**Table II A.—Total make of the undermentioned goods in 1933**

Kind of goods	Quantity
Synthetic resins in lump and powder (including moulding powder), blocks, sheets, etc. ... ..	Th. cwts. 163·8
Casein, celluloid, xylonite and the like, in sheets, rods, tubes, etc. ...	89·8

Similar particulars in respect of 1930 were not recorded.

Table II B.—Goods made for sale

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Synthetic resins in lump and powder (including moulding powder), blocks, sheets, etc. ... ..	156.5	699	*	*
Casein, celluloid, xylonite and the like, in sheets, rods, tubes, etc. ...	68.1	649	...	652†
Horn, ivory, bone, mother-of-pearl, etc., cut, turned or polished ...	...	40	...	71
<b>Buttons and studs :—</b>	<b>Th. gross</b>		<b>Th. gross</b>	
Of horn and bone ... ..	370	40	378	61
Of celluloid, xylonite and corozo	1,521	98	551	54
Of casein and erinoid ... ..	1,544	323	738	171
Of mother-of-pearl ... ..	254	51	268	58
Of other materials (except metal)	78	9	49	8
<b>TOTAL—Buttons and studs</b>	<b>3,767</b>	<b>521</b>	<b>1,984</b>	<b>352</b>
<b>Fancy goods (including combs, handles, etc.) :—</b>				
Of celluloid, xylonite and the like ... ..	...	492	...	475
Of ivory, bone, horn, amber, jet and the like ... ..	...	61	...	113
Of casein, artificial horn and the like ... ..	...	243	}	326†
Of cellulose acetate, benzyl cellulose and the like ... ..	...	3		
Of synthetic resin ... ..	...	32		
Of laminated material ... ..	...	6		
Of other materials (except leather and artificial leather)	...	430		
<b>TOTAL—Fancy goods ...</b>	<b>...</b>	<b>1,267</b>	<b>...</b>	<b>914</b>
Plastic mouldings and the like	Th. cwts.		}	477§
	58	786		
Pipes for smoking tobacco	Th. gross		}	379
	28	323		
Cases for jewellery, cutlery, etc. ...	...	364	...	423†
Picture frames ... ..	...	234	...	482†
Mouldings for picture frames ...	...	46	...	
Other principal products ... ..	...	278	...	194
<b>TOTAL—PRINCIPAL PRODUCTS</b>	<b>...</b>	<b>5,409</b>	<b>...</b>	<b>3,944</b>

\* Not recorded separately.

† Returned as *celluloid, xylonite and the like*.

‡ In addition to the output for 1930 recorded above, the undermentioned goods were returned on schedules for trades that were not covered by the 1933 Inquiry :—

	£'000
Celluloid, xylonite and the like ... ..	21
Fancy goods (of unspecified materials) ... ..	25
Cases for jewellery, cutlery, etc. ... ..	8
Picture frames ... ..	31

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Synthetic resins ... ..	Th. cwts. 22·5	£'000 108	Th. cwts. —	£'000 —
Buttons and studs:—	Th. gross		Th. gross	
Of celluloid, glass, xylonite and corozo ... ..	497	39	205	22
Of casein and erinoid ... ..	78	19	64	17
Of mother-of-pearl and other materials (except metal) ...	120	20	91	14
Fancy goods (including combs handles, etc.) ... ..	...	99	...	51
Plastic mouldings ... ..	Th. cwt. 6	65	}	86
Cases for jewellery, cutlery, etc. ...	...	31		
Picture frames and mouldings therefor ... ..	...	34	...	19
Other products ... ..	...	22	...	14
Other products ... ..	...	102	...	10
<b>TOTAL</b> ... ..	...	539	...	233

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930.	1933	1930
Synthetic resins:—	£ per cwt.	£ per cwt.	Per cent.	£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Lump and powder ...	4·08	*	...	4·66	} 4·92	3·85	} 5·71
Blocks, sheets, rods and tubes ... ..	17·67	*	...	7·65		7·78	
Buttons and studs:—	s. per gross	s. per gross		s. per gross	s. per gross	s. per gross	s. per gross
Of horn and bone ...	2·15	3·23	66·6	3·24	4·67	1·43	1·42
Of mother-of-pearl ...	3·99	4·36	91·5	4·30	4·17	0·58	1·63
Of celluloid, xylonite, corozo, and the like...	1·30	1·94	67·0	} *	}	}	}
Of casein and erinoid...	4·18	4·63	90·8				

\* Not recorded separately.



Table IV.—Volume of Production

Principal products	1933	1930	1924
	£'000	£'000	£'000
Value of output as returned ... ..	5,409*	3,944	5,149
Estimated value at 1930 prices ... ..	*	3,944	4,300
Volume of production as a percentage of 1930	*	100	109

\* In view of the inclusion of *synthetic resins, casein, etc.*, in the figures for 1933, the total shown for that year is not comparable with those for 1930 or 1924. Excluding synthetic resins, etc., the recorded value of the output in 1933 was £4,315,000 and the estimated value at 1930 prices £4,956,000, an increase of 26 per cent. on the value of the output recorded for 1930.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Avail-able for use in the United Kingdom	Share of home market held by British goods
					Th. cwts.	Per cent.
Synthetic resins... 1933	163·8	16·8	10·3	30·6	177·6	82·8
	Th. gross	Th. gross		Th. gross	Th. gross	
Buttons and studs, other than of metal ... 1933	3,767	459	12·2	9,996	13,304	24·9
... 1930	1,984	287	14·5	10,000	11,697	14·5
Pipes for smoking tobacco ... 1933	28*	16	57·1	60	72	16·7
... 1930	23*	28	...	72	...	...

\* Excluding clay pipes.

The following tables relate only to firms whose returns were made on schedules for the Fancy Articles Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
	Operatives (average for the year) ... .. 1933	1,160	6,829	2,386	7,691	3,546
... .. 1930	884	5,023	2,574	7,029	3,453	12,052
Administrative, technical and clerical staff* ... 1933	90	1,339	167	969	257	2,308
... .. 1930	62	964	162	802	224	1,766
TOTAL ... .. 1933	1,250	8,168	2,553	8,660	3,803	16,828
... .. 1930	946	5,987	2,736	7,831	3,682	13,818
Average number of out-workers ... .. 1933	8		264		272	
... .. 1930	13		165		178	

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	10,865	July 15 ... ..	11,346
February 18 ...	10,818	August 19 ... ..	11,400
March 18 ... ..	10,861	September 16 ...	11,990
April 15 ... ..	10,973	October 14 ... ..	12,448
May 13 ... ..	11,018	November 18 ... ..	13,151
June 17 ... ..	11,065	December 16 ... ..	13,026
AVERAGE FOR THE TWELVE MONTHS... ..			11,580

**Table VII.—Other output of the Fancy Articles Trade**

The value of the gross output of the firms whose returns were made on schedules for the Fancy Articles Trade was £5,214,000 in 1933 and £4,007,000 in 1930, of which £4,870,000 in 1933 and £3,711,000 in 1930 consisted of products included in Table IIB. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Fancy goods of leather and artificial leather ... ..	98	115
Boxes and cartons of paper and cardboard (including folding boxes) ... ..	30	27
Manufactures of wood (including fittings for shops, offices, etc.) ... ..	55	23
Manufactured stationery ... ..	7	44
Other goods ... ..	125	56
Work done for the trade ... ..	20*	5*
Repair work ... ..	9*	26*
<b>TOTAL</b> ... ..	<b>344</b>	<b>296</b>

\* Amount received.

## THE LINOLEUM AND OILCLOTH TRADE

### Table I.—General summary

Particulars.	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,624	8,964
Cost of materials used and amount paid for work given out ... ..	"	4,023	5,408
Net output ... ..	"	3,601	3,556
Average number of persons employed ... ..	No.	12,055	12,853
Net output per person employed ... ..	£	299	277

### Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. sq. yards	£'000	Th. sq. yards	£'000
Linoleum :—				
Inlaid ... ..	18,319	1,872	13,981	2,117
(Tons) ... ..	36,132		29,876	
Other ... ..	37,472	2,122	33,340	3,070
(Tons) ... ..	59,987		56,143	
Cork carpet ... ..	471	65	664	127
(Tons) ... ..	1,385		2,041	
Felt base floor coverings ... ..	30,437	793	8,724*	349*
(Tons) ... ..	33,084			
Impregnated felt for floor coverings (sold as such)* ... ..	†	123	‡	‡
(Tons) ... ..	9,375			
Oilcloth for floor coverings (hessian backed) ... ..	10,055	348	52,148§	3,355§
(Tons) ... ..	11,361			
Leather cloth and other oilcloth (cotton backed) ... ..	44,200	2,440		
(Tons) ... ..	15,604			
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	7,763	...	9,018

\* So far as recorded separately.

† Not recorded by square yards.

‡ Not recorded separately.

§ Returned as *Oilcloth* 22,823 th. sq. yds. (£1,214,000) and *Artificial leather and the like* 29,325 th. sq. yds. (£2,141,000).

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Felt base floor coverings ...	Th. sq. yards	£'000	Th. sq. yards	£'000
Impregnated felt for floor coverings (sold as such)... (Tons)	—	—	1,273	51
	9,375	123	—	—
Leather cloth and other oil-cloth (cotton backed) ... (Tons)	481	27	166†	13†
	170			
TOTAL ... ..	...	150	...	64

\* Not recorded by square yards.

† Returned as Oilcloth 28,000 sq. yds. (£1,000) and Artificial leather and the like 138,000 sq. yds. (£12,000).

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£	£	Per cent.	£	£	£	£
Sum :—							
Oilcloth	per th. sq. yds.	102.2	151.4	67.5	130.6	174.3	} 155.3 87.3
	per ton	51.8	70.9	73.1	65.6	81.8	
Leather cloth	per th. sq. yds.	56.6	92.1	61.4	71.8	100.8	} 151.7 47.6
	per ton	35.4	54.7	64.7	46.7	61.1	
Felt base	per th. sq. yds.	137.8	191.6	71.9	146.4	206.4	} •
	per ton	46.9	62.3	75.3	65.7	90.5	
Felt base coverings	per th. sq. yds.	26.1	40.0	65.1	39.9	†	} 28.8 †
	per ton						
Leather cloth coverings	per th. sq. yds.	34.7	53.2‡	} 79.9	45.8	36.0	} 33.8 54.7‡
	per ton	51.4	64.3		50.9	68.5‡	
Leather cloth coverings	per th. sq. yds.	55.2	73.0†	56.4	68.5‡	33.7	

Imports negligible.

† Not available.

‡ See footnote (§) to Table II.

Oilcloth for upholstery and other purposes."

Table IV.—Volume of production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Linoleum :—	£'000	£'000	£'000	Per cent.	Per cent.
Inlaid ... ..	2,117	1,872	2,773	131	75
Other ... ..	3,070	2,122	3,456	113	138
Cork carpet ... ..	127	65	90	71	106
Felt base floor coverings ...	349*	793	1,218	...	†
Oilcloth for floor coverings (hessian backed) ... ..	1,214‡	348	} 3,489	104	87
Leather cloth and other oil- cloth (cotton backed) ...	2,141‡	2,440			
Impregnated felt for floor coverings (sold as such) ...	†	123	189	...	†
<b>TOTAL ... ..</b>	<b>9,018</b>	<b>7,763</b>	<b>11,215</b>	<b>124</b>	<b>102</b>

\* So far as recorded separately.

† Not recorded separately.

‡ See footnote (\$) to Table II.

The re-valuation of the output figures for 1933 and 1924 is based on the average values per 1,000 square yards; using the values per ton of linoleum and cork carpet, the total percentage figures for 1933 and 1924 would be 115 and 106, respectively.

Table V.—Production in relation to Exports and Imports

Kind of goods	Produc- tion	Ex- ports	Propor- tion of produc- tion ex- ported	Re- tained imports	Available for use in the United Kingdom	Share of home market held by British goods
Linoleum :—			Per cent.			Per cent.
Inlaid ...	1933 { Th. sq. yds. 18,319	2,582	14.1	*	15,737	100.0
	Tons 36,132	5,145	14.2	—	30,987	100.0
1930 {	Th. sq. yds. 13,981	3,106	22.2	265	11,140	97.6
	Tons 29,876	6,616	22.1	615	23,375	97.4
Other ...	1933 { Th. sq. yds. 37,472	7,651	20.4	12	29,833	100.0
	Tons 59,987	11,761	19.6	40	48,266	99.9
1930 {	Th. sq. yds. 33,340	9,837	29.5	1,664	25,167	93.4
	Tons 56,143	16,221	28.9	3,289	43,211	92.4
Cork carpet ...	1933 { Th. sq. yds. 471	57	12.1	*	414	100.0
	Tons 1,385	126	9.1	—	1,259	100.0
1930 {	Th. sq. yds. 664	97	14.6	†	567	100.0
	Tons 2,041	221	10.8	†	1,320	100.0
Felt base floor coverings‡ ...	1933 { Th. sq. yds. 30,437	3,961	13.0	19	26,495	99.9
	Tons 33,084	4,712	14.2	25	28,397	99.9
TOTAL—Lino- leum, cork carpet and felt base floor coverings ...	1933 { Th. sq. yds. 86,699	14,251	16.4	31	72,479	100.0
	Tons 130,588	21,744	16.7	65	108,909	99.9
	1930 { Th. sq. yds. 47,985	13,040	27.2	1,929	36,374	94.8
Tons 88,060	23,058	26.2	3,904	68,906	94.3	

Kind of goods	Production	Ex-ports	Proportion of production exported	Re-tained imports	Available for use in the United Kingdom	Share of home market held by British goods	
						Per cent.	
Oilcloth for floor coverings ...	1933 { Th. sq. yds.	10,055	3,183	31.7	19	6,891	99.7
	... } Tons	11,361	2,318	20.4	30	9,073	99.7
Leather cloth and other oil-cloth ...	1933 { Th. sq. yds.	44,200	11,076	25.1	979	34,103	97.1
	... } Tons	15,604	4,070	26.1	391	11,925	96.7
TOTAL—Oilcloth and leather cloth ...	1933 { Th. sq. yds.	54,255	14,259	26.3	998	40,994	97.6
	... } Tons	28,965	6,388	23.7	421	20,998	98.0
	... } 1930 † Th. sq. yds.	52,148	12,143	23.3	6,295	46,300	86.4

\* Retained imports negligible.

† Re-exports in excess of imports.

‡ Included in "Linoleum" and "Cork carpet" in 1930.

§ Production described as "Oilcloth, artificial leather and the like"; exports and imports described as "Oilcloth".

The following tables relate only to firms whose returns were made on schedules for the Linoleum and Oilcloth Trade and are summarised in Table I.

Table VI.—Employment

A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	659	9,816	205	715	864	10,531
	1930	855	10,755	97	889	952	11,644
Administrative, technical and clerical staff* ...	1933	62	1,202	39	322	101	1,524
	1930	67	985	14	224	81	1,209
TOTAL ...	1933	721	11,018	244	1,037	965	12,055
	1930	922	11,740	111	1,113	1,033	12,853

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933  
BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE  
MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	4,798	July 15 ... ..	4,744
February 18 ... ..	4,802	August 19 ... ..	4,743
March 18 ... ..	4,744	September 16 ... ..	4,789
April 15 ... ..	4,799	October 14 ... ..	4,713
May 13 ... ..	4,862	November 18 ... ..	4,719
June 17 ... ..	4,839	December 16 ... ..	4,718
AVERAGE FOR THE TWELVE MONTHS ... ..			4,773

**Table VII.—Other output of the Linoleum and Oilcloth Trade**

The value of the gross output of the firms whose returns were made on schedules for the Linoleum and Oilcloth Trade was £7,624,000 in 1933 and £8,964,000 in 1930, of which £7,613,000 in 1933 and £8,954,000 in 1930 consisted of products included in Table II. The balance (£11,000 in 1933 and £10,000 in 1930) represents the value of other goods made by these firms.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
Linseed oil ... ..	Th. cwts. 668	£'000 601
Cork ... ..	463	126
Felt (impregnated and non-impregnated) ... ..	Th. sq. yds. 29,438	217
Canvas of jute ... ..	68,584	731
All other materials used (including fuel) ... ..	...	2,346
TOTAL ... ..	...	4,021

### THE COKE AND BY-PRODUCTS TRADE

*Note.*—The particulars given in Tables II to V are confined to metallurgical coke, the output of all other products of the trade (including tar and tar distillation products) being shown in Table VII. As Gas Undertakings were excluded from the Inquiry in 1933 the total recorded output of crude and refined tar for that year is seriously deficient.

Table I.—General summary

Particulars.	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	11,664	15,832
Cost of materials used and amount paid for work given out ... ..	"	9,052	12,319
Net output ... ..	"	2,612	3,513
Average number of persons employed ... ..	No.	11,477	15,325
Net output per person employed ... ..	£	228	229

Table II.—Output of principal product

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Metallurgical coke* ... ..	9,352	6,178	11,921	9,961

\* These figures include 2,000 tons (£7,000) in 1933 and 1,000 tons (£1,000) in 1930 recorded by firms whose returns were made on schedules for trades other than the Coke and By-Products Trade.



Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Metallurgical coke ...	s. per ton 13·2	s. per ton 16·7	Per cent. 79·0	s. per ton 15·9	s. per ton 20·2	s. per ton 20·6	s. per ton 32·6

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Metallurgical coke ... ..	£'000 9,961	£'000 6,178	£'000 7,820	79	106

Table V.—Production in relation to Exports and Imports

Kind of goods	Produ- tion	Exports	Propor- tion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Metallurgical coke ... ..	9,352	1,482	15·8	20	7,890	99·7
... .. { 1930	11,921	1,547	13·0	*	10,374	100·0

\* Less than 500 tons.

The following tables relate only to firms whose returns were made on schedules for the Coke and By-Products Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... { 1933 1930	191	10,481	1	18	192	10,499
	325	14,186	—	20	325	14,206
Administrative, technical and clerical staff* ... { 1933 1930	41	885	8	93	49	978
	81	1,069	5	50	86	1,119
TOTAL ... { 1933 1930	232	11,366	9	111	241	11,477
	406	15,255	5	70	411	15,325

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	6,244	July 15 ...	6,412
February 18 ...	6,421	August 19 ...	6,474
March 18 ...	6,493	September 16 ...	6,566
April 15 ...	6,474	October 14 ...	6,582
May 13 ...	6,472	November 18 ...	6,771
June 17 ...	6,283	December 16 ...	6,803
AVERAGE FOR THE TWELVE MONTHS...			6,500

Table VII.—Other output of the Coke and By-Products Trade

The value of the gross output of the firms whose returns were made on schedules for the Coke and By-Products Trade was £11,664,000 in 1933 and £15,832,000 in 1930, of which £6,171,000 in 1933 and £9,960,000 in 1930 consisted of metallurgical coke (see Table II). Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
Tar :—	Th. tons	£'000	Th. tons	£'000
Crude ... ..	372	754	437	641
Refined ... ..	75	238	96	256
Pitch ... ..	60	221	93	164
By-products :—				
Sulphate of ammonia ... ..	119	524	176	1,001
Benzol :—	Th. galls.		Th. galls.	
Crude ... ..	15,524	695	17,212	785
Refined... ..	19,646	1,400	20,662	1,506
Carbolic acid, crude ... ..	115	11	131	13
Cresylic acid ... ..	85	5	206	19
Naphtha, crude ... ..	533	23	815	41
Solvent naphtha* ... ..	147	11	†	†
Naphthalene, crude (excluding naphthalene oil) ... ..	Th. cwts.		Th. cwts.	
	139	29	170	35
Tar oil, creosote oil, anthracene oil and other heavy coal tar oils, etc. ... ..	Th. galls.		Th. galls.	
	12,020	138	15,380	183
Toluol ... ..	770	82	839	75
Other tar distillation products (including anthracene) ... ..	...	21	...	22
Other chemical manufactures ... ..	...	35	...	72
Gas sold ... ..	Mill. cu. ft.		Mill. cu. ft.	
	44,963	870	{ 35,598	721
	Mill.		...	52
	B.T.U.		Mill.	
Electricity sold ... ..	25·6	65	B.T.U.	51
Waste heat sold ... ..	...	25	...	44
Other goods ... ..	...	346	...	191
TOTAL ... ..	...	5,493	...	5,872

\* So far as recorded separately.

† Not recorded separately.

## THE BRUSH TRADE

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	3,057	3,174
Cost of materials used and amount paid for work given out ... ..	"	1,430	1,482
Net output ... ..	"	1,627	1,692
Average number of persons employed (excluding outworkers) ... ..	No.	10,313	10,152
Net output per person employed (excluding outworkers) ... ..	£	158	167

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
<b>Household brooms and brushes :—</b>				
Pan set ... ..	406	418	408	478
Hand-drawn ... ..	69	58	91	85
Machine-filled ... ..	2,734	593	2,035	475
Other and unclassified methods of manufacture ... ..	906	253	670	247
<b>TOTAL—Household brooms and brushes</b>	<b>4,115</b>	<b>1,322</b>	<b>3,204</b>	<b>1,285</b>
<b>Toilet brushes :—</b>				
<b>Tooth brushes :—</b>				
In celluloid ... ..	1,356	263	505	144
In bone :—				
Machine-filled ... ..	26	5	} 411*	161*
Hand-drawn ... ..	307	109		
In other materials†... ..	13	9	—	—
<b>TOTAL—Tooth brushes ... ..</b>	<b>1,702</b>	<b>386</b>	<b>916</b>	<b>305</b>
Shaving brushes ... ..	200	106	86	87
<b>Other toilet brushes :—</b>				
In wood :—				
Machine-filled ... ..	284	86	186	73
Hand-drawn ... ..	41	65	46	79
In ivory, celluloid, erinoid, etc. ... ..	43	68	50	80
In other materials, including metal	105	128	77	109
<b>TOTAL—Toilet brushes ... ..</b>	<b>2,375</b>	<b>639</b>	<b>1,361</b>	<b>733</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Painters' and decorators' brushes :—				
Flat-pinned varnish brushes ...	843	277	819†	319†
Machine-compressed brushes ...	50	27	69†	43†
Other kinds ... ..	239	253	243†	327†
Not separately distinguished ...	—	—	20	9
<b>TOTAL—Painters' and decorators' brushes ... ..</b>	<b>1,132</b>	<b>557</b>	<b>1,151</b>	<b>698</b>
Artists' brushes :—				
Fitches, etc. ... ..	42	12	} 141*	40*
Pencils and writers ... ..	405	47		
Machine brushes (i.e., brushes that form part of a machine) ... ..	55	51	48	52
Other special brushes ... ..	262	89	294	123
Mops and feather brushes ... ..	...	56	...	199
Parts of brushes ... ..	...	62	...	52*
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	<b>...</b>	<b>3,035</b>	<b>...</b>	<b>3,182*</b>

\* In addition, the following goods were recorded on schedules for trades that were not covered by the 1933 Inquiry :—

	Th. doz.	£'000
Tooth brushes in bone ... ..	4	2
Artists' brushes ... ..	218	29
Parts of brushes ... ..	...	1
<b>TOTAL ... ..</b>	<b>...</b>	<b>32</b>

† So far as recorded separately.

‡ See page 274.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Brushes of all kinds ... ..	8	4	9	7
Parts of brushes ... ..	...	46	...	33
<b>TOTAL ... ..</b>	<b>...</b>	<b>50</b>	<b>...</b>	<b>40</b>

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per doz.	s. per doz.	Per cent.	s. per doz.	s. per doz.	s. per doz.	s. per doz.
Household brooms and brushes :—							
Pan set ... ..	20.60	23.44	87.8				
Hand-drawn ... ..	16.82	18.76	89.8				
Machine-filled ... ..	4.34	4.67	92.9	*	*	*	*
Other methods of manu- facture ... ..	5.49	7.39	74.4				
<b>TOTAL—Household brooms and brushes</b>	<b>6.40</b>	<b>8.03</b>	<b>79.7</b>	<b>8.21</b>	<b>11.88</b>	<b>3.32</b>	<b>5.31</b>
Toilet brushes :—							
Tooth brushes :—							
In celluloid ... ..	3.87	5.70	68.0				
In bone—							
Machine-filled ... ..	4.02			*	*	*	*
Hand-drawn ... ..	7.10						
In other materials ... ..	14.22						
		7.84	87.6				
<b>TOTAL—Tooth brushes</b>	<b>4.54</b>	<b>6.66</b>	<b>68.1</b>	<b>5.77</b>	<b>6.98</b>	<b>1.06</b>	<b>2.47</b>
Shaving brushes ... ..	10.63	20.20	52.5	12.59	19.51	3.99	5.36
Other toilet brushes :—							
In wood—							
Machine-filled ... ..	6.06	7.89	76.8				
Hand-drawn ... ..	32.06	34.60	92.7				
In ivory, celluloid, erinoid, etc. :—				*	*	*	*
Machine-filled ... ..	29.06						
Hand-drawn ... ..	47.17						
In metal ... ..	21.39						
In other materials ... ..	33.72						
		32.10	97.7				
		28.32	86.5				
<b>TOTAL—Other toilet brushes</b>	<b>14.68</b>	<b>19.05</b>	<b>77.1</b>	<b>11.23</b>	<b>19.09</b>	<b>2.97</b>	<b>6.03</b>
Painters' and decorators' brushes :—							
Flat pinned varnish brushes ... ..	6.57	7.80	84.2				
Machine compressed brushes ... ..	10.58	12.34	85.7	*	*	*	*
Other kinds ... ..	21.18	26.93	78.6				
<b>TOTAL—Painters' and decorators' brushes</b>	<b>9.83</b>	<b>12.19</b>	<b>80.6</b>	<b>10.34</b>	<b>13.46</b>	<b>1.28</b>	<b>1.74</b>
Artists' brushes ... ..	2.66	3.85	69.2	3.55	5.66	0.30	0.50
Machine brushes ... ..	18.48	21.95	84.0	*	*	*	*
Other special brushes ... ..	6.75	8.37	80.6				

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Household brooms and brushes :—					
Pan set ... ..	478	418	477	100	144
Hand-drawn ... ..	85	58	65	77	223
Machine-filled ... ..	475	593	638	134	99
Other and unclassified methods of manufacture	247	253	335	136	25
TOTAL—Household brooms and brushes	1,285	1,322	1,515	118	109
Toilet brushes :—					
Tooth brushes :—					
In celluloid ... ..	144	263	387	269	51
In bone and other materials ... ..	161	123	142	88	107
Shaving brushes ... ..	87	106	202	232	92
Other toilet brushes :—					
In wood :—					
Machine-filled ... ..	73	86	112	153	89
Hand-drawn ... ..	79	65	70	89	151
In ivory, celluloid, erinoid, etc. ... ..	80	68	70	88	81
In other materials, including metal ... ..	109	128	148	136	—
TOTAL—Toilet brushes	733	839	1,131	154	82
Painters' and decorators' brushes :—					
Flat pinned varnish brushes	319	277	329	103	95
Machine compressed brushes ... ..	43	27	32	74	46
Other and unclassified kinds	336	253	321	96	136
TOTAL—Painters' and decorators' brushes	698	557	682	98	110
Artists' brushes ... ..	40	59	84	*	109
Machine brushes ... ..	52	51	61	117	} 80
Other special brushes ... ..	123	89	110	89	
Mops and feather brushes ... ..	199	56	85	43	
Parts of brushes ... ..	52	62	75	144	
TOTAL ... ..	3,182	3,035	3,743	118	99

\* This figure would have no significance. See note (\*) to Table II.

Table V.—Production in relation to Exports and Imports

Kind of brush	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. doz.	Th. doz.	Per cent.	Th. doz.	Th. doz.	Per cent.	
Household brooms and brushes	1933	4,115	185	4.5	563	4,493	87.5
	1930	3,204	152	4.7	1,459	4,511	67.7
Tooth brushes ...	1933	1,702	225	13.2	624	2,101	70.3
	1930	920	178	19.4	752	1,494	49.7
Shaving brushes	1933	200	23	11.5	22	199	88.9
	1930	86	14	16.3	117	189	38.1
Other toilet brushes	1933	473	56	11.8	421	838	49.8
	1930	359	55	15.3	491	795	38.4
Painters' and decorators' brushes	1933	1,132	116	10.3	254	1,270	80.0
	1930	1,151	150	13.0	841	1,842	64.4
Artists' brushes	1933	447*	32	7.2	753	1,168	35.5
	1930	359	41	11.4	311	629	50.6

\* See note (\*) to Table II.

The following tables relate only to firms whose returns were made on schedules for the Brush Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	492	3,440	1,269	4,556	1,761	7,996
	1930	437	3,626	1,192	4,247	1,629	7,873
Administrative, technical and clerical staff*	1933	35	1,882	74	435	109	2,317
	1930	43	1,866	75	393	118	2,279
TOTAL ...	1933	527	5,322	1,343	4,991	1,870	10,313
	1930	480	5,512	1,267	4,640	1,747	10,152
Average number of out-workers.	1933	13		483		496	
	1930	9		701		710	

\* As at 14th October, 1933, and 18th October, 1930.



**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	5,630	July 15 ... ..	5,833
February 18 ...	5,786	August 19 ... ..	5,790
March 18 ... ..	5,870	September 16 ...	5,872
April 15 ... ..	5,923	October 14 ... ..	5,995
May 13 ... ..	5,906	November 18 ...	5,983
June 17 ... ..	5,910	December 16 ...	5,985
AVERAGE FOR THE TWELVE MONTHS ... ..			5,874

**Table VII.—Other output of the Brush Trade**

The value of the gross output of the firms whose returns were made on schedules for the Brush Trade was £3,057,000 in 1933 and £3,174,000 in 1930, of which £2,985,000 in 1933 and £3,142,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Wire brushes ... ..	35	—
Other goods made... ..	32	32
Work done for the trade ... ..	5*	†
<b>TOTAL</b> ... ..	<b>72</b>	<b>32</b>

\* Amount received.

† Less than £500.

**THE GAMES AND TOYS TRADE****Table I.—General summary**

*Note.*—In the absence of information regarding quantities produced, exported and imported, Table III is omitted.

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	2,352	2,000
Cost of materials used and amount paid for work given out ... ..	"	1,063	863
Net output ... ..	"	1,289	1,137
Average number of persons employed (excluding outworkers)... ..	No.	8,495	6,641
Net output per person employed (excluding outworkers)... ..	£	152	171

**Table II.—Output of principal products**

Kind of goods	1933	1930
	£'000	£'000
Soft toys and stuffed dolls, complete ... ..	344	271
	<i>316 th. doz.</i>	
<b>Metal toys (excluding constructional toys) :—</b>		
Mechanical (self-propelled) ... ..	218	258
Non-mechanical ... ..	353	202
Not separately distinguished ... ..	41	—
Wooden toys (except dolls), including dolls' houses, boats, hoops, barrows, horses, etc. ... ..	258	104*
Other descriptions of toys, including toy perambulators, scooters, pedal motor cars and juvenile cycles, etc.† ...	707	719*
Indoor games (including cardboard and board games, puzzles and the like) ... ..	305	275*
<b>TOTAL—PRINCIPAL PRODUCTS</b> ... ..	<b>2,226</b>	<b>1,829*</b>

\* In addition, the following output was recorded on schedules for trades that were not covered by the 1933 Inquiry:—Wooden toys (except dolls), £5,000; Other descriptions of toys, £222,000; Indoor games, £12,000.

† Excludes rubber toys, for which see the report on the Rubber Trade (page 276).

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

Kind of goods	1933	1930
<b>Metal toys :—</b>	£'000	£'000
Mechanical ... ..	—	3
Non-mechanical ... ..	41	41
Not separately distinguished ... ..	23	—
Wooden toys (except dolls), etc. ... ..	35	13
Other descriptions of toys ... ..	4	1
Indoor games, etc. ... ..	25	34
<b>TOTAL</b> ... ..	<b>128</b>	<b>92</b>

Table IV.—Volume of Production

Principal products	1933	1930		1924
		Firms included in		
		1933 Inquiry	1930 Census	
Value of output as returned ... ..	£'000 2,226	£'000 1,829	£'000 2,068	£'000 1,371
Estimated value at 1930 prices* ... ..	2,351	1,829	2,068	1,371
Volume of production as a percentage of 1930 ... ..	Per cent. 129	Per cent. 100	Per cent. 100	Per cent. 75

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

Table V.—Production in relation to Exports and Imports

Kind of goods	Production (at factory)	Exports (f.o.b.)	Retained imports (c.i.f.)
Soft toys and stuffed dolls, complete ...	£'000	£'000	£'000
... { 1933 344 26* 306*	1930 271 53* 707*		
Metal toys†—			
Mechanical (self-propelled) ... ..	1933 218 31 98	1930 258 10 370	
Non-mechanical ... ..	1933 353 119 98	1930 202 53 241	
Wooden toys (except dolls), etc. ... ..	1933 258 26 100	1930 109 34 299	
Other descriptions of toys and games ...	1933 1,012* 186 437	1930 1,228* 340 967	
TOTAL—Games and toys ... ..	1933 2,226† 388 1,039	1930 2,068 500 2,584	

\* Including dolls other than stuffed dolls.

† Constructional toys are excluded from the figures of production but included in those of exports and imports.

‡ Includes metal toys, not separately distinguished, valued at £41,000.

The following tables relate only to firms whose returns were made on schedules for the Games and Toys Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	808	2,518	1,858	5,086	2,666	7,604
	1930	597	2,052	1,380	3,857	1,977	5,909
Administrative, technical and clerical staff* ...	1933	24	448	57	443	81	891
	1930	35	358	63	374	98	732
TOTAL ...	1933	832	2,966	1,915	5,529	2,747	8,495
	1930	632	2,410	1,443	4,231	2,075	6,641
Average number of outworkers ...	1933	3		191		194	
	1930	2		117		119	

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	5,074	July 15 ...	5,462
February 18 ...	5,017	August 19 ...	5,531
March 18 ...	5,221	September 16 ...	6,244
April 15 ...	5,149	October 14 ...	6,946
May 13 ...	5,021	November 18 ...	7,415
June 17 ...	5,310	December 16 ...	6,945
AVERAGE FOR THE TWELVE MONTHS ...			5,778

Table VII.—Other output of the Games and Toys Trade

The value of the gross output of the firms whose returns were made on schedules for the Games and Toys Trade was £2,352,000 in 1933 and £2,000,000 in 1930, of which £2,098,000 in 1933 and £1,737,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Perambulators and mail carts for children, and other goods made ...	250	257
Work done for the trade and repair work ...	4*	6*
TOTAL ...	254	263

\* Amount received.

## THE SPORTS REQUISITES TRADE

### Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	2,667	3,117
Cost of materials used and amount paid for work given out ... ..	"	1,155	1,440
Net output ... ..	"	1,512	1,677
Average number of persons employed (excluding outworkers)... ..	No.	8,001	8,515
Net output per person employed (excluding outworkers)... ..	£	189	197

### Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Requisites for sports and athletics :—	Th. doz.	£'000		£'000
Woodworking section :—				
Rackets for tennis, badminton, etc.	54	555	}	1,587*
Cricket bats, spliced ... ..	27	120		
Golf clubs ... ..	48	306		
Hockey sticks ... ..	9	43		
Tennis posts... ..	Th. pairs 3	6		
	...	7		
	Thous. 3	4		
Croquet sets ... ..	3	4		
Other sports requisites of wood (including parts sold as such, and repair work) ... ..	...	181		
Rubber goods :—	Th. doz.		Th. doz.	
Golf balls ... ..	1,119	568	1,144	703
Tennis balls, covered, ready for use	1,133	429	1,632†	634†
Other rubber balls ... ..	1,230	125	...	81
TOTAL—Rubber balls ...	...	1,122	...	1,418

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
		£'000		£'000
Requisites for sports and athletics— cont.				
Rubber goods :—cont.				
Other rubber goods (e.g., racket covers, rubber handles, etc.) ...	...	20	...	16
Goods of leather or canvas (including gloves for cricket, fives, etc.; boxing gloves; leg guards; cricket, tennis, golf and hockey bags; cricket balls; footballs; etc.) ...	...	584	...	625
Fishing tackle ...	...	242†	...	286‡
Other requisites for sports and athletics (including parts other than of wood, sold as such) ...	...	130	...	122*
<b>TOTAL—Requisites for sports and athletics ...</b>	...	3,320	...	4,054*
Billiard and bagatelle tables, parts and accessories § ...	...	244	...	234*
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	3,564	...	4,288*

\* In addition the following output was recorded on schedules for trades that were not covered by the 1933 Inquiry :—

	£'000
Requisites for sports and athletics :—	
Woodworking section ...	7
Other requisites... ..	116
Billiard and bagatelle tables, parts and accessories ...	9
<b>TOTAL</b> ... ..	<b>132</b>

† Includes uncovered tennis balls the estimated number being about 600,000 doz. and the value £113,000.

‡ Excluding fishing tackle and fish-hooks (valued at £109,000 in 1933 and £115,000 in 1930) returned on schedules for the Needle, Pin, Fish-hook, etc., Trade, for which see Part II of the report.

§ Including billiard-room furniture and fittings, setting-up and repair work and the value added in re-fitting second-hand tables, and also the estimated selling values of tables made in the year of return to be let out on hire.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Requisites for sports and athletics :—		£'000		£'000
Woodworking Section ... ..	...	5	...	49
Rubber goods :—	Th. doz.		Th. doz.	
Golf balls ... ..	742	367	854	535
Tennis balls, covered, ready for use	576	188	1,025*	298*
Other rubber balls ... ..	1,216	124	...	81
TOTAL—Rubber balls ... ..	...	679	...	914
Other rubber goods... ..	...	19	...	14
Goods of leather or canvas ... ..	...	235	...	249
Other principal products ... ..	...	42	...	38
TOTAL ... ..	...	980	...	1,264

\* Includes uncovered tennis balls.

**Table III.—Average values of goods produced, exported and imported**

Owing to the absence of quantitative data, it is only practicable to furnish comparable particulars in respect of golf and tennis balls.

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Golf balls ... ..	s. per doz. 10·1	s. per doz. 12·3	Per cent. 82	s. per doz. 10·8	s. per doz. 14·1	s. per doz. 12·9	s. per doz. 4·57
Tennis balls, covered, ready for use ... ..	7·6	10·1	75	7·9	10·3	—	9·10

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Golf balls ... ..	703	568	693	99	} 86
Tennis balls, covered, ready for use ... ..	521*	429	572	110	
Other principal products...	3,064	2,567	2,900	95	
<b>TOTAL ... ..</b>	<b>4,288</b>	<b>3,564</b>	<b>4,165</b>	<b>97</b>	<b>86</b>

\* See note (†) to Table II.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Retained imports
	Th. doz.	Th. doz.	Th. doz.
Rubber balls :—			
Golf balls ... ..	1933 1,119 1930 1,144	308 402	* 1
Tennis balls, covered, ready for use...	1933 1,133 1930 1,032	401 377	— *
	Value (at factory)	Value (f.o.b.)	Value (c.i.f.)
	£'000	£'000	£'000
Other rubber balls ... ..	1933 125 1930 81	31 44	24 61
Fishing tackle (including fish-hooks) ...	1933 351† 1930 401†	103 140	11 15
Billiard and bagatelle tables, etc.‡	1933 244 1930 243	25 41	35 10

\* Less than 500 dozen.

† Including fishing tackle returned on schedules for the Needle, Pin and Fish-hook Trade.

‡ See note § to Table II.



The following tables relate only to firms whose returns were made on schedules for the Sports Requisites Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	545	4,136	734	2,779	1,279	6,915
	1930	754	4,582	895	2,819	1,649	7,401
Administrative, technical and clerical staff* ...	1933	31	648	53	438	84	1,086
	1930	41	635	100	479	141	1,114
TOTAL ...	1933	576	4,784	787	3,217	1,363	8,001
	1930	795	5,217	995	3,298	1,790	8,515
Average number of out-workers	1933	45		63		108	
	1930	51		113		164	

\* As at October 14, 1933, and October 18, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	3,916	July 15 ...	4,146
February 18 ...	4,080	August 19 ...	3,970
March 18 ...	4,229	September 16 ...	3,965
April 15 ...	4,333	October 14 ...	4,014
May 13 ...	4,352	November 18 ...	3,949
June 17 ...	4,344	December 16 ...	3,923
AVERAGE FOR THE TWELVE MONTHS ...			4,102

**Table VII.—Other output of the Sports Requisites Trade**

The value of the gross output of the firms whose returns were made on schedules for the Sports Requisites Trade was £2,667,000 in 1933 and £3,117,000 in 1930, of which £2,584,000 in 1933 and £3,024,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Toys and indoor games ...	41	} 75
Leather goods ...	4	
Other goods, including uncovered tennis balls ...	26	
Repair work and work done for the trade ...	12*	
TOTAL ...	83	93

\* Amount received.

**THE MANUFACTURED ABRASIVES TRADE**

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	1,814	1,515
Cost of materials used ... ..	"	860	790
Net output ... ..	"	954	725
Average number of persons employed ... ..	No.	2,584	2,487
Net output per person employed ... ..	£	369	291

**Table II.—Output of principal products**

Kind of goods	1933			1930	
	Quantity		Value	Quantity	Value
	Thous.	Tons	£'000	Tons	£'000
Grinding wheels :—					
Of artificial corundum (in- cluding alundum, aluxite, etc.) ... ..	575	1,329	182	2,488	384
Of carborundum ... ..	63	181	27		
Of other hard abrasives (in- cluding emery wheels and compound wheels of emery and other hard abrasives) }	219	167	25	581	108
	...	319	51		
<b>TOTAL—Grinding wheels ...</b>	...	4,994	768	4,009	610
Abrasive cloths and papers :—	Th. reams*	Th. cwts.		Th. reams*	
Emery ... ..	117	45·7	275	124†	292†
Glass and sand ... ..	217	69·1	153	210	155
Other ... ..	86	38·9	370	52†	169†
<b>TOTAL—Abrasive cloths and papers ... ..</b>	420	153·7	798	386	616
Other manufactured abrasives, natural or artificial, ground, pulverised, refined or other- wise prepared (including oil stones and grinding machines)	...	...	200	...	285
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	...	1,766	...	1,511

\* Reams of 480 sheets.

† See page 274.

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

	1933	1930
	£'000	£'000
Grinding wheels of other hard abra- sives (including emery) ... ..	6	7
	(49 tons)	(43 tons)

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)				Exports (f.o.b.)				Imports (c.i.f.)			
	Average value			1933 as a percentage of 1930	Average value				Average value			
	1933	1930	Per cent.		1933		1930		1933		1930	
	£ each	£ per ton	£ per ton	£ each	£ per ton	£ each	£ per ton	£ each	£ per ton	£ each	£ per ton	
Grinding wheels :—												
Of artificial corundum (including alundum, aluxite, etc.) ...	0.32	146.9	154.3	95.2	0.51	164.4	0.33	216.0	0.31	168.8	0.28	217.5
Of carborundum ...	0.43	185.8	186.4	99.7	0.33	160.0	0.34	200.6	0.20	134.7	0.30	126.0
	£ per cwt.	£ per ream	£ per ream		£ per cwt.	£ per ream	£ per cwt.	£ per ream	£ per cwt.	£ per ream	£ per cwt.	£ per ream
Abrasive cloths and papers :—												
Emery ...	6.02	2.34	2.35	99.6	5.06	*	*	1.93	6.64	*	*	0.99
Glass and sand ...	2.20	0.70	0.74	94.6	3.74	*	*	0.85	6.77	*	*	1.24

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Grinding wheels :—	£'000	£'000	£'000	Per cent.	Per cent.
Of artificial corundum (including alundum, aluxite, etc.) ...	384	551	579	151	45
Of carborundum ...	108	141	141	131	94
Of other hard abrasives (including emery wheels and compound wheels of emery and other hard abrasives) ...	118	76	60	51	93
TOTAL—Grinding wheels...	610	768	780	128	77
Abrasive cloths and papers :—					
Emery ...	292	275	276	95	} 94
Glass and sand ...	155	153	162	105	
Other ...	169	370	281	166	
TOTAL—Abrasive cloths and papers ...	616	798	719	117	94
Other abrasive products ...	285	200	192	67	82
TOTAL ...	1,511	1,766	1,691	112	85

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Tons	Tons	Per cent.	Tons	Tons	Per cent.	
Grinding wheels:—							
Of artificial corundum (including alundum, aluxite, etc.)							
{ 1933	3,750	143	3.8	32	3,639	99.1	
{ 1930	2,488	30	1.2	455	2,913	84.2	
Of carborundum							
{ 1933	758	313	41.3	140	585	76.1	
{ 1930	581	226	38.9	206	561	63.3	
Of other hard abrasives (including emery wheels and compound wheels of emery and other hard abrasives)							
{ 1933	486	309	63.6	69	246	72.0	
{ 1930	940	173	18.4	120	887	86.5	
TOTAL—Grinding wheels							
{ 1933	4,994	765	15.3	241	4,470	94.6	
{ 1930	4,009	429	10.7	781	4,361	82.1	
Abrasive cloths and papers* :—	Th. cwts.	Th. cwts.		Th. cwts.	Th. cwts.		
Emery							
{ 1933	45.7	21.0	45.9	0.4	25.1	98.4	
{ 1930	Th. reams 124	Th. rms. 52	41.9	Th. rms. 6	Th. rms. 78	92.3	
Glass and sand							
{ 1933	Th. cwts. 69.1	Th. cwts. 21.7	31.4	Th. cwts. 2.1	Th. cwts. 49.5	95.8	
{ 1930	Th. reams 210	Th. rms. 53	25.2	Th. rms. 62	Th. rms. 219	71.7	
Other	1933	Th. cwts. 38.9	Th. cwts. 3.0	7.7	Th. cwts. 0.6	Th. cwts. 36.5	98.4

\* The export and import figures for 1930 relate only to cloth and paper in sheets. The quantity of "other" descriptions exported and imported in 1930 was not recorded.

The following tables relate only to firms whose returns were made on schedules for the Manufactured Abrasives Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total			
	Under 18	All ages	Under 18	All ages	Under 18	All ages		
Operatives (average for the year).	1933	122	1,694	52	253	174	1,947	
	1930	143	1,679	39	247	182	1,926	
	Administrative, technical and clerical staff* ...	1933	18	431	29	206	47	637
		1930	19	385	20	176	39	561
TOTAL ...	1933	140	2,125	81	459	221	2,584	
	1930	162	2,064	59	423	221	2,487	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	1,340	July 15 ...	1,379
February 18 ...	1,335	August 19 ...	1,360
March 18 ...	1,327	September 16 ...	1,374
April 15 ...	1,323	October 14 ...	1,387
May 13 ...	1,356	November 18 ...	1,458
June 17 ...	1,373	December 16 ...	1,527
AVERAGE FOR THE TWELVE MONTHS...			1,378

**Table VII.—Other output of the Manufactured Abrasives Trade**

The value of the gross output of the firms whose returns were made on schedules for the Manufactured Abrasives Trade was £1,814,000 in 1933 and £1,515,000 in 1930, of which £1,753,000 in 1933 and £1,499,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below:—

Kind of output	1933	1930
	£'000	£'000
Brick and fireclay goods ...	34	} 16
Stove and other polishes ...	6	
Manufactured stationery ...	13	
Other goods made and work done ...	8	
TOTAL ...	61	16

**THE INCANDESCENT MANTLES TRADE**

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	433	641
Cost of materials used ... ..	"	177	240
Net output ... ..	"	256	401
Average number of persons employed (excluding outworkers) ... ..	No.	1,332	1,716
Net output per person employed (excluding outworkers) ... ..	£	192	233

**Table II.—Output of principal product**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. gross	£'000	Th. gross	£'000
Mantles for incandescent lighting, whether collodionised or not... ..	295	431	348	639

No output of mantles for incandescent lighting was recorded by firms whose returns were made on schedules for other trades.

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per gross	£ per gross	Per cent.	£ per gross	£ per gross	£ per gross	£ per gross
Mantles for incandescent lighting, whether collodionised or not	1.46	1.84	79.6	1.04	1.04	1.28	1.73

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Mantles for incandescent lighting, whether collodionised or not ...	£'000	£'000	£'000	Per cent.	Per cent.
	639	431	542	85	88

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
							Th. gross
Mantles for incandescent lighting, whether collodionised or not.	1933	295	20	6.8	1	276	99.6
	1930	348	20	5.8	8	336	97.6

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	6	117	270	1,143	276	1,260
	1930	14	134	499	1,465	513	1,599
Administrative, technical and clerical staff* ...	1933	1	34	1	38	2	72
	1930	2	45	4	72	6	117
TOTAL ...	1933	7	151	271	1,181	278	1,332
	1930	16	179	503	1,537	519	1,716
Average number of out-workers ...	1933	—	—	5	—	5	—
	1930	—	—	54	—	54	—

\*At 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	777	July 15 ... ..	685
February 18 ... ..	777	August 19 ... ..	676
March 18 ... ..	771	September 16 ... ..	703
April 15 ... ..	718	October 14 ... ..	763
May 13 ... ..	717	November 18 ... ..	781
June 17 ... ..	689	December 16 ... ..	739
AVERAGE FOR THE TWELVE MONTHS ...			733

**Table VII.—Other output of the Incandescent Mantles Trade**

The value of the gross output of the firms whose returns were made on schedules for the Incandescent Mantles Trade was £433,000 in 1933 and £641,000 in 1930, of which £431,000 in 1933 and £639,000 in 1930 consisted of products included in Table II, the small balance (£2,000 in each year) representing other products characteristic of the trade (including gas mantle fabric).

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. lbs.	£'000
Ramie yarn ... ..	87	16
Cotton yarn ... ..	37	3
Artificial silk yarn ... ..	46	8
Asbestos yarn ... ..	13	3
Nitrate of thorium ... ..	98	40
All other materials used (including fuel) ... ..	...	107
TOTAL ... ..	...	177



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*Note.*—The paging indicated refers to particulars of *output* (normally Table II). Particulars of average prices, volume of production, and exports and imports of similar goods are generally given in Tables III–V in the same series.

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and Economics, Poona 4.



REPORT ON THE  
IMPORT DUTIES ACT  
INQUIRY (1933)

PART II

THE IRON AND STEEL TRADES  
THE ENGINEERING AND VEHICLES TRADES  
THE NON-FERROUS METALS TRADES  
THE TIMBER, PAPER, CLAY AND  
BUILDING MATERIALS  
TRADES

and

A GENERAL SUMMARY STATEMENT

*Presented to Parliament in pursuance of the Import  
Duties Act, 1932 [22 Geo. 5, Ch. 8]*

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## IMPORT DUTIES ACT, 1932

### INDUSTRIAL PRODUCTION IN 1933

#### Introduction

1. **Statutory authority for Inquiries.**—Under Section 1 of the Import Duties Act, 1932, a customs duty of 10 per cent. *ad valorem* was imposed as from 1st March, 1932, on all goods imported into the United Kingdom, with the following exceptions :—

(a) Goods for the time being chargeable with duty by or under any other enactment (not including composite goods so dutiable in respect of some, but not all, of their components);

(b) Goods specifically exempted by the First Schedule to the Act.

Section 9 of the Act provides that " With a view to obtaining information as to the condition and progress of trades and industries engaged in the manufacture in the United Kingdom of goods of a class or description which, if they were imported into the United Kingdom, would be chargeable with a duty of customs under this Part of this Act ", the Board of Trade may require information from occupiers or managers of factories or workshops engaged in such trades and industries. The matters as to which information may be required are prescribed as follows :—

(a) The quantity and value of output ;

(b) The quantity and cost of materials used ;

(c) The quantity and cost of fuel and electricity consumed ;

(d) The number of persons employed.

The Board of Trade are required, by Section 9 (6) of the Act, to present to Parliament a summary of the information obtained by them under this section in respect of any year.

2. The first Inquiry conducted under these powers was in respect of the year 1933. Part I of this Report contained a summary of the information furnished in respect of 44 trades, and the Report is completed in the present volume which deals with the remaining 30 trades to which the Inquiry related.

3. **Scope of the Inquiry for 1933.**—The data by reference to which the progress of the trades and industries concerned could be measured were the results of the Census of Production of 1930 and, for the industries selected for investigation, the scope of the Inquiry was designed to correspond as closely as possible with that of the 1930 Census. Returns were, therefore, required only in respect of establishments at which more than ten persons were employed, on the average, during 1933.

In addition to the limitations imposed specifically by Section 1 of the Import Duties Act, the Inquiry was confined to those trades for which the results, on the restricted basis mentioned, would be reasonably comprehensive and comparable with those of the 1930

Census. The Census showed that restriction to firms employing more than ten persons on the average, though not of serious consequence in the majority of industries, had the effect in certain cases of excluding so large a proportion of the aggregate that the results could not be used with certainty as a basis for general conclusions. The Bread Baking, Tailoring, Dressmaking, etc., Joinery and Wood-working, and Furniture Trades are the most important cases of this kind among the manufacturing industries. There were also certain trades, of which three of the four mentioned are examples, for which the records of production are for the most part stated only in terms of value and are not, therefore, readily comparable over a period of years when considerable price changes have taken place, and these trades have likewise been excluded.

4. According to the industrial classification used for the Census of Production the number of trades that were included in the Inquiry for 1933 was 71, with those others, viz. Cycle, Biscuit, and Coke and By-Products, which at the Census were combined with three of the trades listed below. The total number of factory trades (i.e. trades engaged in the manufacture or processing of goods) listed for the purposes of the 1930 Census was 107. The following trades were not included in the Inquiry :—

Motor Vehicles.	Wholesale Bottling.
Shipbuilding.	Tobacco.
Carriage, Cart and Wagon.	Petroleum Refining.
Watch and Clock.	Match.
Flock and Rag.	Printing, Bookbinding, Stereotyping, Engraving, etc.
Textile Packing.	Printing and Publication of Newspapers and Periodicals.
Fellmongery.	Manufactured Stationery.
Tailoring, Dressmaking, Millinery, etc.	Cardboard Box.
Fur.	Pens, Pencils and Artists' Materials.
Bread, Cakes and Pastries.	Furniture and Upholstery.
Cocoa and Sugar Confectionery.	Cane and Wicker Furniture and Basketware.
Bacon Curing and Sausage.	Wooden Crates, Cases, Boxes and Trunks.
Sugar and Glucose.	Coopering.
Fish Curing.	Manufactured Fuel.
Ice.	Scientific Instruments, Appliances and Apparatus.
Brewing and Malting.	Musical Instruments
Spirit Distilling.	Cinematograph Film Printing.
Spirit Rectifying, Compounding and Methylating.	
Aerated Waters, Cider, Vinegar and British Wine.	

In addition, certain trades were included in respect only of particular classes of output; for example, the Timber Trade, for the purposes of the Inquiry, was confined to firms engaged in the manufacture for sale of saw-mill products.

The trades included in the 1933 Inquiry covered about 62 per cent. of the total net output (excluding Excise duties) and 69 per cent. of the total number of persons employed in the factory industries of the United Kingdom in 1930. A list of the trades surveyed is given in Appendix I (page xi).

**5. Degree of completeness of the survey.**—The trades that were principally affected by the exclusion of firms employing not more than ten persons on the average were, as already stated, omitted from the Inquiry entirely, but among some of the trades included the omission of these smaller firms may have led to important deficiencies in the recorded output of particular classes of goods. No information of any kind was required from the smaller firms for 1933 and it cannot be assumed with certainty that their relative importance in any trade was the same as in 1930, since an increase or decrease in individual businesses may have resulted in their inclusion in one year and exemption in another.

Another cause of deficiency arises from the total exclusion of trades. While the Inquiry was not concerned with the principal classes of production in which these trades were engaged, their secondary output frequently included goods that were covered by the Inquiry and this output has escaped record. Information was not required in respect of firms whose business consisted primarily of repair work or of workshops that were chiefly engaged in carrying out work on materials supplied by other firms. Though these establishments contributed some output of new goods at the 1930 Census, the loss resulting from their exclusion had no appreciable effect on the results of the Inquiry as a whole.

The omissions referred to above, which are inherent in a partial survey, are of serious importance only in a comparatively few classes of products. The possible extent of the deficiencies due to the exclusion of these classes of firms is indicated in the individual reports, in which particulars are given of the output in 1930 of the firms concerned. The results given for 1930 in this series of summaries, though incomplete in many instances, are comparable with those recorded for 1933. The particulars given throughout the report relate to the United Kingdom except where otherwise specified.

**6. Contents of the summaries.**—For convenience of reference, the results are aggregated as far as possible in groups of associated trades, and general statistical tables are given for each group, comparing the principal results, the volume of production and the employment data in each year. The summaries for the individual trades consist of a series of seven tables, with one additional table in cases where information was obtained as to the consumption of particular classes of materials. The information contained in these tables is as follows:—

*Table 1.*—The principal results recorded by all firms that made returns on schedules for the trade concerned.

*Table II.*—The total selling values and (where available) quantities of the principal products of the trade, whether recorded on schedules for that trade or on schedules for other trades; particulars of the output returned on schedules for other trades are given separately in a following statement. For some trades in which important classes of semi-finished goods may either be sold or be further manufactured by the firm that produced them, particulars of the total quantities of these goods made are also shown.

*Table III.*—The values per unit of the principal products manufactured, with the average values of exports and imports of goods falling under the same descriptions. In comparing the figures for production with those for exports and imports it should be noted that almost any specified class of goods covers a range of varied grades or qualities and that differences between the average values shown for the same class of goods may be due largely to differences in the qualities of goods included in the class. The fact that the average values of goods produced are those "at factory", while those for exports and imports are f.o.b. and c.i.f., respectively, should also not be overlooked.

*Table IV.*—The estimated volume of production of the principal products. Wherever practicable, these calculations are based on the average values of goods manufactured, as shown in Table III. For those classes of output which were not measured by quantity, the estimates are based on such information as is available regarding changes in prices of materials used and other manufacturing costs.

*Table V.*—The quantities of the principal classes of goods manufactured, compared with those of exports and retained imports. Particulars of value are given in certain cases where records of quantity are not available. The qualifications mentioned in connection with Table III should be borne in mind in comparing the figures given in this table also.

*Table VI.*—(A) The average number of Operatives employed in the year and the number of Administrative, Technical and Clerical Staff employed in one week in October, classified in each category between males and females and between employees over and under 18 years of age. The sex and age distribution of the operatives are as recorded for the week ended 14th October, 1933. This table relates to all firms in the trade concerned.

The number of the outworkers reported as at work on two dates in the year are shown for those trades in which such workpeople are employed.

(B) The number of Operatives at work in a specified week in each month of 1933. This table relates only to firms whose returns covered a period of twelve months ended in December, 1933.

*Table VII.*—The values and (where available) the quantities of the secondary output of the trade concerned, i.e., all goods manufactured or work done other than those included in Table II as "principal products".



*Table VIII.*—For a limited number of trades, particulars are given in this table of the quantity and cost of important classes of materials purchased and used by firms whose output was returned on Schedules for the trade under review; they do not include particulars of similar materials used by firms whose returns were made on schedules for other trades. Details of materials used are available only for the year 1933.

Separate particulars of the quantity and cost of fuel and electricity consumed were not ascertained. The cost of these items is, however, included in the total cost of materials used.

The numbering given above has been followed throughout the trade tables, unless otherwise stated in the introductory notes thereto.

*General Summary.*—The table on page 251 summarises the general results of the Inquiry by groups of trades, with comparative figures for the year 1930.

**7. Instructions for making Returns.**—The following notes explain the meanings of the terms used in the tables and outline the general instructions given to firms as to the manner in which their returns were to be completed.

(i) **Period covered.**—Firms were required to make returns for the calendar year 1933, but if the calendar year was not their year of account, a return for a business year ending not later than 7th April, 1934, and not earlier than 8th April, 1933, was accepted.

(ii) **Valuation of output.**—The values to be shown were the net selling values of all deliveries of goods (as packed for sale) within the year of return, plus the book value of stocks at the end and less that of stocks at the beginning of the year. In determining the net selling value, firms were instructed to deduct from the amounts charged to customers such items as discounts, payments to transport firms, railway companies, etc., for carriage outwards, and allowances for returnable cases, etc. Where separate returns were made for different departments of the same firm, and goods produced in one department were used in another department in the production of more finished goods, such goods were required to be included in the output of the first (producing) department, and in the materials of the second (using) department, at the value at which they were transferred in the firm's books.

(iii) **Valuation of work done by firms working "on commission", etc.**—Firms working "on commission" or "for the trade" on materials given out to them by other firms were required to state, as the value of their output, only the amounts received by them for the work, less discounts and payments to transport firms, railway companies, etc., for carriage outwards, and to exclude the value of the materials supplied to them by

the firms for which the work was done. Where the work was done on goods supplied by manufacturing firms, its value is included in the final selling value of the goods as recorded by those firms. In the case of goods made on commission for merchants or other persons who made no returns to the Inquiry the selling value of the goods has escaped record.

(iv) Distinction between "Goods made for sale" and "Total make."—The output recorded as "made for sale" represents goods in the form in which they were sold during the year of account or held in stock at the end of the year. Where goods were used for further manufacturing purposes in the establishments in which they were made, the output for sale falls short of the total quantities made. For certain classes of products a return of total make was required in addition to that of the output for sale and this additional information is shown separately.

(v) Work in progress at beginning or end of year.—In order to determine the output properly attributable to the year covered by their returns, firms engaged in certain industries were required to state the value of work in progress at the beginning and end of that year. If the statement of output included any goods which were in course of construction at the beginning of the year the value of the work done in the previous year was estimated and returned separately; similarly, the value of goods in course of construction at the end of the year was estimated and returned separately. Allowance for the difference in these aggregates has been made where necessary.

(vi) Exclusion of merchanting.—Where firms, in addition to their manufacturing business, also bought goods and re-sold them in the same condition as that in which they were purchased, they were instructed to omit such goods from their statements of output and of materials, and to exclude from their statements of persons employed those members of their staff who were wholly or mainly required in connection with their merchanting business.

(vii) Materials.—The total "cost of materials used" was required to include all raw and other materials purchased and used in the production of the output recorded in the firm's return; all fuel, oil, gas and electricity purchased; packing and workshop materials; and materials for repairs to the firm's own buildings or plant carried out by their own workpeople. The book value of stocks of materials at the beginning of the year was included and that of stocks at the end of the year deducted from the total purchases in the year. The figure was not to include wages, salaries, rent, rates, insurance, depreciation, and similar charges, or the cost of new machinery and plant. Where separate returns were made for different

departments of the same firm, goods produced in one department and used in another department were required to be treated as purchased by the second (using) department, and included in that department's total cost of materials at the amount credited to the producing department. Firms working on commission or for the trade were instructed to return, as materials, only goods which they themselves purchased and used, and not the goods given out to them by the firms for which they worked.

The particulars for 1933 in respect of special classes of materials represent the total purchases in the year, adjusted for stock variations in the manner described in the previous paragraph.

(viii) Work given out.—Firms giving out work to other firms were requested to state the aggregate amount paid to such firms for work done in the year. The amount thus returned was not to include the cost of any items accounted for under the heading of "Materials". This information, which is believed to be complete, was furnished voluntarily by manufacturers at the 1933 Inquiry, as the Import Duties Act does not provide for a compulsory return of such payments.

(ix) Net output.—The net output of a trade is the figure which results from deducting from the value of the gross output the aggregate of the "Cost of materials used" and amount paid for "Work given out", together with the amount of any Excise duty included in the value of the products and not that of the materials used. This figure represents the value added to materials by the industrial processes and, after allowance for a sum sufficient to cover the depreciation of plant and machinery, constitutes the fund from which wages, salaries, rent, royalties, rates and taxes, advertisement and selling expenses, and all other similar charges have to be provided, as well as profits.

(x) Persons employed.—Firms were required to classify persons employed by them under the two headings of (i) Operatives (wage-earners), and (ii) Administrative, technical and clerical staff. The numbers of "Operatives" relate to all wage-earners (including foremen, van and lorry drivers and warehousemen) employed by the firm in or about the factory or works, or in outside work of construction or repair, and "Administrative, technical and clerical staff" to the office and management staff (i.e., working proprietors, managing directors, managers, designers, salesmen, travellers, etc.), all clerks, typists and other persons engaged primarily in office work being recorded under this heading and not as operatives. Where outworkers were employed, the number of these was recorded separately and not included in the number of operatives. Persons required wholly or mainly

in connection with any merchanting business carried on were to be excluded.

The particulars required related to the persons employed (i.e., on the pay sheets) in certain specified weeks, with the proviso that, in the event of a strike or lock-out, holiday or special cessation of work in any of these weeks, the nearest ordinary week (of which the ending date should be stated) was to be taken.

Firms were required to state :—

(a) The numbers employed in the week ended 14th October, 1933 (or 15th October, 1932, if the return covered a period ended before 14th October, 1933), divided under the two main headings defined above, and also according to their sex and to their age (as over or under 18 years of age).

(b) The number of operatives actually at work in a specified week (one of the middle weeks) in each month of the period covered by the return.

(xi) Outworkers.—In those trades employing outworkers (i.e., workpeople doing work off the firm's premises on materials supplied by the firm) particulars were required of the number of outworkers employed at two dates in the year covered by the return, viz., at or about 1st February and 1st August, 1933.

8.—(a) A number of firms have been classified in 1933 in trades different from those in which they were classified in 1930. In such cases, in order to secure comparability of the results for the two years, the 1930 aggregates have been amended by the transfer of the returns of these firms to the trade to which their principal output now relates. Reference is made to any such reclassification in the notes preceding Table I of the trades affected.

(b) In cases where it has been necessary to revise the 1930 particulars, owing to the exclusion of certain groups of firms from the 1933 Inquiry, or to changes in the classification of groups of products, indications are given in the notes preceding Table I of the trades affected, or in a footnote to Table II.

## Appendix I

## LIST OF TRADES COVERED BY THE IMPORT DUTIES ACT INQUIRY (1933)

## PART I

*Textile Trades :*

Cotton (Spinning).  
Cotton (Weaving).  
Woollen and Worsted.  
Silk and Artificial Silk.  
Linen and Hemp.  
Jute.  
Hosiery.  
Textile Finishing.  
Lace.  
Rope, Twine and Net.  
Canvas Goods and Sack.  
Asbestos Goods and Engine and Boiler Packing.  
Elastic Webbing.  
Coir Fibre, Horsehair and Feather.  
Roofing Felts.

*Leather and Clothing Trades :*

Leather (Tanning and Dressing).  
Leather Goods.  
Boot and Shoe.  
Hat and Cap.  
Glove.  
Umbrella and Walking Stick.

*Food Trades :*

Grain Milling.  
Biscuit.  
Preserved Foods.  
Butter, Cheese, Condensed Milk and Margarine.  
Cattle, Dog and Poultry Foods.

*Chemical and Allied Trades :*

Chemicals, Dyestuffs and Drugs.  
Fertiliser, Disinfectant, Glue, etc.  
Soap, Candle, and Perfumery.  
Paint, Colour and Varnish.  
Seed Crushing.  
Oil and Tallow.  
Explosives and Fireworks.  
Starch and Polishes.  
Ink, Gum and Sealing Wax.

*Miscellaneous Trades :*

Rubber.  
Fancy Articles.  
Linoleum and Oilcloth.  
Coke and By-Products.  
Brush.  
Games and Toys.  
Sports Requisites.  
Manufactured Abrasives.  
Incandescent Mantles.

## PART II

*Iron and Steel Trades :*

Iron and Steel (Blast Furnaces).  
Iron and Steel (Smelting and Rolling).  
Iron and Steel (Foundries).  
Tinplate.  
Hardware, Hollow-ware, Metallic Furniture and Sheet Metal.  
Chain, Nail, Screw and Miscellaneous Forgings.  
Wrought Iron and Steel Tube.  
Wire.  
Tool and Implement.  
Cutlery.  
Needle, Pin, Fish-hook and Metal Smallwares.  
Small Arms.

*Engineering and Vehicles Trades :*

Mechanical Engineering.  
Electrical Engineering.  
Cycle.  
Aircraft.  
Railway Carriage and Wagon Building.

*Non-Ferrous Metals Trades :*

Copper and Brass (Smelting, Rolling, etc.).  
Aluminium, Lead, Tin, etc., (Smelting, Rolling, etc.)  
Gold and Silver Refining.  
Finished Brass.  
Plate and Jewellery.

*Timber, Paper, Clay and Building Materials Trades*

Timber (Saw-milling).  
Paper.  
Wallpaper.  
Brick and Fireclay.  
China and Earthenware.  
Glass.  
Cement.  
Building Materials.

# THE IRON AND STEEL TRADES

## GENERAL TABLES

Table I.—General summary

Trade  (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average numbers of persons em- ployed (except out- workers) (5)	Net output per person em- ployed (6)
	£'000	£'000	£'000	No.	£
Iron and Steel (Blast Furnaces) ...	1933 12,686 1930 23,820	9,921 19,872	2,765 3,948	11,051 19,362	250 204
Iron and Steel (Smelt- ing and Rolling) ...	1933 70,798 1930 84,366	47,780 58,789	23,018 25,577	113,213 136,417	203 187
Iron and Steel (Foundries) ...	1933 27,624 1930 29,447	11,069 12,399	16,555 17,048	86,639 91,461	191 186
Tinplate ...	1933 13,404 1930 15,693	8,692 10,605	4,712 5,088	23,406 25,271	201 201
Hardware, Hollow- ware, Metallic Furniture and Sheet Metal ...	1933 27,720 1930* 28,894	13,977 14,070	13,743 14,824	82,943 82,917	166 179
Chain, Nail, Screw and Miscellaneous Forgings ...	1933 14,382 1930* 16,465	7,139 8,416	7,243 8,049	44,943 47,414	161 170
Wrought Iron and Steel Tube ...	1933 11,404 1930 13,252	6,593 7,598	4,811 5,654	20,700 25,796	232 219
Wire ...	1933 11,668 1930* 13,430	7,441 9,204	4,227 4,226	19,909 21,898	212 193
Tool and Implement	1933 5,894 1930* 6,272	2,310 2,568	3,584 3,704	20,970 22,376	171 166
Cutlery ...	1933 2,927 1930* 3,067	1,043 1,300	1,884 1,767	9,752 10,281	193 172
Needle, Pin, Fishhook and Metal Small- wares ...	1933 2,790 1930 2,645	1,003 992	1,787 1,653	10,886 9,460	164 175
Small Arms ...	1933 340 1930 485	78 175	262 310	975 1,366	268 227
Unclassified trades (Northern Ireland) 1930	70	26	44	276	159
<b>TOTAL</b> ...	{ 1933 201,637 1930 237,906	117,046 146,014	84,591 91,892	445,387 494,295	190 186

\* The figures for 1930 relate to Great Britain only. Owing to the risk of disclosure of information relating to individual firms, the particulars for Northern Ireland are included with those for "Unclassified trades (Northern Ireland)."

Table II.—Volume of production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Pig iron and ferro-alloys ...	22,423	12,042	14,636	65	119
Crude steel and rolling mill products ... ..	81,171	67,792	75,923	94	123
Iron and steel castings ...	29,145	26,996	28,431	98	93
Tinned and terne plates, etc.	15,520	13,500	14,779	95	107
Hardware, hollow-ware, metallic furniture and sheet metal goods ... ..	28,794	26,731	29,715	104	74
Chains, nails, screws and miscellaneous forgings ...	16,234	12,938	13,415	83	86
Wrought iron and steel tubes	13,058	11,070	13,794	106	87
Wire and wire manufactures	16,468	14,184	17,040	103	98
Tools and implements ...	6,863	6,454	7,681	112	96
Cutlery ... ..	2,635	2,723	4,431	168	79
Needles, pins, fish-hooks and metal smallwares ... ..	2,716	2,756	2,969	109	103
Small arms ... ..	352	161	199	57	170
Unclassified output (Northern Ireland) ... ..	70	—	—	—	—
<b>TOTAL ... ..</b>	<b>235,449</b>	<b>197,347</b>	<b>223,013</b>	<b>95</b>	<b>104</b>



Table III.—Employment

A.—AVERAGE NUMBERS (EXCLUDING OUTWORKERS) EMPLOYED IN  
1933 AND 1930

(i) Operatives

Trade	Males		Females		Total		
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total
Iron and Steel (Blast Furnaces)	1933	127 9,904	—	19	127	9,796	9,923
	1930	416 18,015	6	68	422	17,661	18,083
Iron and Steel (Smelting and Rolling)	1933	5,911 100,532	143	762	6,054	95,240	101,294
	1930	8,085 122,521	244	1,195	8,329	115,387	123,716
Iron and Steel (Foundries)	1933	8,418 73,388	1,208	4,629	9,626	68,391	78,017
	1930	10,416 78,815	1,177	4,219	11,593	71,441	83,034
Tinplate	1933	1,412 20,286	493	2,267	1,905	20,648	22,553
	1930	2,376 21,659	650	2,755	3,026	21,388	24,414
Hardware, Hollow- ware, Metallic Furniture and Sheet Metal	1933	6,874 40,822	10,506	33,354	17,380	56,796	74,176
	1930*	7,419 41,812	11,497	32,685	18,916	55,581	74,497
Chain, Nail, Screw and Miscel- laneous Forg- ings	1933	3,914 26,142	3,660	13,670	7,574	32,238	39,812
	1930*	4,450 28,878	4,108	13,728	8,558	34,048	42,606
Wrought Iron and Steel Tube	1933	1,428 17,173	163	691	1,589	16,275	17,864
	1930	1,910 22,108	174	677	2,084	20,701	22,785
Wire	1933	1,592 15,019	918	2,895	2,510	15,404	17,914
	1930*	1,983 16,414	1,089	3,224	3,072	16,566	19,638
Tool and Imple- ment	1933	2,590 14,937	921	3,428	3,511	14,854	18,365
	1930*	2,846 16,273	850	3,328	3,696	15,905	19,601
Cutlery	1933	881 4,247	1,803	4,497	2,684	6,060	8,744
	1930*	722 4,795	1,376	4,254	2,098	6,951	9,049
Needle, Pin, Fish- hook and Metal Smallwares	1933	345 2,720	2,331	7,084	2,676	7,128	9,804
	1930	280 2,682	1,780	5,866	2,060	6,488	8,548
Small Arms	1933	107 716	22	96	129	683	812
	1930	134 995	44	181	178	998	1,176
Miscellaneous Trades (North- ern Ireland)	1933	56 221	1	10	57	174	231
	1930	56 221	1	10	57	174	231
TOTAL	1933	33,597 325,886	22,168	73,392	55,765	343,513	399,278
	1930	41,093 375,188	22,996	72,190	64,089	383,289	447,378

\* See note (\*) to Table I.

IRON AND STEEL TRADES

(ii) Administrative, technical and clerical staff

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Iron and Steel (Blast Furnaces)	1933	61	998	11	130	72	1,056	1,128
	1930	80	1,141	24	138	104	1,175	1,279
Iron and Steel (Smelting and Rolling)	1933	613	9,904	256	2,015	869	11,050	11,919
	1930	1,055	10,730	333	1,971	1,388	11,313	12,701
Iron and Steel (Foundries)	1933	465	6,759	240	1,863	705	7,917	8,622
	1930	647	6,599	305	1,828	952	7,475	8,427
Tinplate ...	1933	23	789	1	64	24	829	853
	1930	53	794	4	63	57	800	857
Hardware, Hollow- ware, Metallic Furniture and Sheet Metal ...	1933	323	5,866	425	2,902	748	8,020	8,768
	1930*	520	5,767	471	2,653	991	7,429	8,420
Chain, Nail, Screw and Miscel- laneous Forgings	1933	190	3,328	340	1,803	530	4,601	5,131
	1930*	278	3,260	269	1,548	547	4,261	4,808
Wrought Iron and Steel Tube ...	1933	103	2,152	70	684	173	2,663	2,836
	1930	229	2,317	99	694	328	2,633	3,011
Wire ...	1933	83	1,400	76	595	159	1,836	1,995
	1930*	124	1,586	89	674	213	2,047	2,260
Tool and Imple- ment ...	1933	104	1,752	152	853	256	2,349	2,605
	1930*	166	1,843	172	932	338	2,437	2,775
Cutlery ...	1933	28	638	61	370	89	919	1,008
	1930*	33	718	116	514	149	1,033	1,232
Needle, Pin, Fish- hook and Metal Smallwares ...	1933	20	570	78	512	98	984	1,082
	1930	10	536	69	376	79	833	912
Small Arms ...	1933	8	116	8	47	16	147	163
	1930	13	125	17	65	30	160	190
Miscellaneous Trades (North- ern Ireland) ...	1930	1	36	—	9	1	44	45
TOTAL	1933	2,021	34,272	1,718	11,838	3,739	42,371	46,110
	1930	3,209	35,452	1,968	11,465	5,177	41,740	46,917

\* See note (\*) to Table I.

## B.—AVERAGE NUMBERS OF OUTWORKERS EMPLOYED

Trade	1933			1930		
	Males	Females	Total	Males	Females	Total
Chain, Nail, Screw and Miscellaneous Forgings ... ..	187	113	300	278	177	455
Needle, Pin, Fish-hook and Metal Smallwares	30	232	262	23	168	191
Small Arms ... ..	74	—	74	259	3	262
<b>TOTAL ... ..</b>	<b>291</b>	<b>345</b>	<b>636</b>	<b>560</b>	<b>348</b>	<b>908</b>

Table IV

## A. RETURNS COVERING THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Per cent. of total
	No.	No.	Per cent.	No.	No.	Per cent.
Iron and Steel (Blast Furnaces) ... ..	11,051	6,770	61	19,362	13,863	72
Iron and Steel (Smelting and Rolling) ... ..	113,213	73,543	65	136,417	94,814	70
Iron and Steel (Foundries)	86,639	53,842	62	91,351	53,415	58
Tinplate ... ..	23,406	12,157	52	25,271	11,989	47
Hardware, Hollow-ware, Metallic Furniture and Sheet Metal ... ..	82,943	53,780	65	82,917	54,799	66
Chain, Nail, Screw and Miscellaneous Forgings	44,943	22,968	51	47,414	24,885	52
Wrought Iron and Steel Tube ... ..	20,700	11,512	56	25,796	17,016	66
Wire ... ..	19,909	12,132	61	21,898	12,994	58
Tool and Implement ...	20,970	9,761	47	22,376	11,024	49
Cutlery ... ..	9,752	8,084	83	10,281	9,456	92
Needle, Pin, Fish-hook and Metal Smallwares	10,886	8,373	77	9,460	5,774	61
Small Arms ... ..	975	657	67	1,366	977	72
<b>TOTAL ... ..</b>	<b>445,387</b>	<b>273,579</b>	<b>61</b>	<b>493,909</b>	<b>311,006</b>	<b>63</b>

\* Great Britain.

B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ... ..	226,830	301,403
February ... ..	231,640	299,827
March ... ..	232,721	299,183
April ... ..	236,263	294,921
May ... ..	240,434	293,891
June ... ..	243,470	287,899
July ... ..	245,849	277,566
August ... ..	245,515	269,505
September ... ..	253,041	268,794
October ... ..	256,815	260,936
November ... ..	260,819	257,270
December ... ..	264,710	254,993
AVERAGE FOR THE TWELVE MONTHS ...	244,842	280,516

\* Great Britain. The average number of operatives employed by *all* firms in Northern Ireland in 1930 was 334.

### Amendments of certain aggregates for 1930

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production.

Iron and Steel Trade (Smelting and Rolling) :—  
Other smelting and rolling products

Iron and Steel Trade (Foundries) :—  
Cast iron baths (porcelain enamelled or other finish)

Hardware, Hollow-ware, Metallic Furniture and Sheet Metal Trades :—  
Hollow-ware for industrial and other purposes (of wrought iron and steel) :—  
Tin boxes and containers  
Other goods of iron and steel, mainly of sheet metal (including stampings, pressings, piercings, etc.)

Wire Trade :—  
Other manufactures of iron and steel wire (except wire mattresses)

## THE IRON AND STEEL TRADE (BLAST FURNACES)

### Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	12,686	23,820
Cost of materials used ... ..	"	9,921	19,872
Net output ... ..	"	2,765	3,948
Average number of persons employed ... ..	No.	11,051	19,362
Net output per person employed ... ..	£	250	204

### Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Pig iron :—</b>				
Forge ... ..	114·1	310	285·9	986
Foundry ... ..	961·9	2,738	1,560·5	5,195
Acid (hematite) ... ..	1,076·9	3,262	1,826·2	6,655
Basic ... ..	1,862·6	4,710	2,448·4	7,895
<b>TOTAL—Pig iron ... ..</b>	<b>4,015·5</b>	<b>11,020</b>	<b>6,121·0</b>	<b>20,731</b>
<b>Ferro-alloys :—</b>				
Spiegeleisen ... ..	63·3	547	34·9	192
Ferro-manganese ... ..			90·8	970
Other ferro-alloys (including ferro-chrome, ferro-silicon and ferro-tungsten)* ... ..	5·2	475	4·9	530
<b>TOTAL—Ferro-alloys ... ..</b>	<b>68·5</b>	<b>1,022</b>	<b>130·6</b>	<b>1,692</b>
<b>TOTAL—PRINCIPAL PRODUCTS ... ..</b>	<b>4,084·0</b>	<b>12,042</b>	<b>6,251·6</b>	<b>22,423</b>

\* Including 1,800 tons (£460,000) for 1933 and 1,500 tons (£509,000) for 1930, returned on schedules for other trades.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Pig iron :—							
Forge ... ..	2.72	3.45	78.8	3.91	4.67	6.88	4.75
Foundry ... ..	2.85	3.33	85.6	3.45	4.11	3.66	3.71
Acid (hematite) ... ..	3.03	3.64	83.2	3.12	3.75	6.11	7.46
Basic ... ..	2.53	3.22	78.6	3.77	4.04	2.67	3.44
Ferro-alloys :—							
Spiegeleisen ... ..	4.96	5.51	90.0	}	*	*	*
Ferro-manganese ... ..	9.51	10.67	89.1				
Spiegeleisen and ferro- manganese ... ..	8.63	9.24	93.4	6.90	10.96	12.14	15.95

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000		
Pig iron :—					
Forge ... ..	986	310	393	40	} 131
Foundry ... ..	5,195	2,738	3,200	62	
Acid (hematite) ... ..	6,655	3,262	3,921	59	
Basic ... ..	7,895	4,710	5,992	76	108
TOTAL—Pig iron ... ..	20,731	11,020	13,506	65	117
Ferro-alloys :—					
Spiegeleisen and ferro- manganese ... ..	1,162	547	586	50	156
Other ferro-alloys (includ- ing ferro-chrome, ferro-silicon and ferro- tungsten) ... ..	530	475	544	103	98
TOTAL—Ferro-alloys ... ..	1,692	1,022	1,130	67	138
TOTAL ... ..	22,423	12,042	14,636	65	119

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
							Th. tons
<b>Pig iron :—</b>							
Forge ...	1933	114.1	2.3	2.0	0.1	111.9	99.9
	1930	285.9	5.1	1.8	1.1	281.9	99.6
Foundry ...	1933	961.9	51.7	5.4	37.7	947.9	96.0
	1930	1,560.5	138.4	8.9	117.5	1,539.6	92.4
Acid (hematite)	1933	1,076.9	52.2	4.8	*	1,024.7	100.0
	1930	1,326.2	126.9	6.9	0.2	1,699.5	99.9
Basic ...	1933	1,862.6	1.7	0.1	55.3	1,916.2	97.1
	1930	2,448.4	0.8	0.03	171.7	2,619.3	93.4
<b>Ferro-alloys :—</b>							
Spiegeleisen and ferro-manganese	1933	63.3	3.3	5.2	6.2	66.2	90.6
	1930	125.7	45.0	35.8	5.5	86.2	93.6
Other ferro-alloys	1933	5.2	0.7	1.3	22.0	26.5	17.0
	1930	4.9	1.0	19.6	16.1	20.0	19.5

\* Less than 50 tons.

The following tables relate only to firms whose returns were made on schedules for Blast Furnaces and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	127	9,904	—	19	127	9,923
	1930	416	18,015	6	68	422	18,083
Administrative, technical and clerical staff*	1933	61	998	11	130	72	1,128
	1930	80	1,141	24	133	104	1,279
TOTAL ...	1933	188	10,902	11	149	199	11,051
	1930	496	19,156	30	206	526	19,362

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933  
BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE  
MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	5,353	July 15 ... ..	6,108
February 18 ... ..	5,438	August 19 ... ..	6,195
March 18 ... ..	5,949	September 16 ... ..	6,371
April 15 ... ..	6,009	October 14 ... ..	6,393
May 13 ... ..	6,125	November 18 ... ..	6,532
June 17 ... ..	6,115	December 16 ... ..	6,644
AVERAGE FOR THE TWELVE MONTHS ... ..			6,103

**Table VII.—Other output of the Iron and Steel Trade  
(Blast Furnaces)**

The value of the gross output recorded on schedules for Blast Furnaces was £12,686,000 in 1933 and £23,820,000 in 1930, of which £11,582,000 in 1933 and £21,914,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Iron castings in the rough ... ..	4·0	16	17·6	85
Ground slag ... ..	374·8	102	517·7	161
Cement, crushed stone, clinker, etc. ... ..	...	8	...	74
Tarred macadam... ..	229·8	137	489·3	298
	Mill. B.T.		Mill. B.T.	
	Units		Units	
Electricity sold ... ..	174	280	321·2	633
Gas sold ... ..	...	459	...	461
Other output ... ..	...	102	...	194
<b>TOTAL</b> ... ..	...	<b>1,104</b>	...	<b>1,906</b>



## IRON AND STEEL TRADE (SMELTING AND ROLLING)

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	70,798	84,366
Cost of materials used ... ..	"	47,206	58,206
Amount paid for work given out ... ..	"	574	583
Net output ... ..	"	23,018	25,577
Average number of persons employed ... ..	No.	113,213	136,417
Net output per person employed ... ..	£	203	187

## Production

Table II A.—Total make of steel and certain semi-finished products

Kind of goods	Returned on schedules for			
	The Iron and Steel Trade		All trades	
	1933	1930	1933	1930
	Th. tons	Th. tons	Th. tons	Th. tons
Steel ingots, other than of electric and crucible steel ... ..	6,569·3	6,882·4	6,570·0	6,882·4
Steel castings, other than of electric and crucible steel ... ..	36·7		57·5	
Ingots and castings of special steel :—				
Electric... ..	65·3	} 123·2	65·3	} 161·6*
Crucible ... ..	8·5		10·1	
Other descriptions ... ..	0·3†		0·4‡	
<b>TOTAL—Steel ingots and castings...</b>	<b>6,680·1</b>	<b>7,005·6</b>	<b>6,703·3</b>	<b>7,044·0</b>
Steel blooms, billets and slabs ... ..	3,278·5	3,664·7	3,278·7	3,669·8
Sheet bars ... ..	971·8	744·7	971·8	744·8
Tinplate bars ... ..	976·3	919·5	976·3	919·5
Wire rods ... ..	267·2	157·3	356·3	217·3
Bright steel bars ... ..	91·5	68·9	99·8	77·2
Steel bars, rods, angles, shapes and sections, not elsewhere specified ... ..	1,527·9	1,535·2	1,546·5	1,540·3
Steel plates and sheets not under $\frac{1}{4}$ inch thick, including armour plates ... ..	693·0	1,078·7	696·2	1,081·6
Black sheets under $\frac{1}{4}$ inch thick (over 54 in. by 28 in.)‡ ... ..	787·2	819·9	822·3	856·9

\* Classified as 100,300 tons of steel castings, 45,500 tons of ingots of electric steel, 13,200 tons of ingots of crucible steel and 2,600 tons of ingots of other and unclassified special steels.

† So far as recorded separately.

‡ For black plates see page 32.

Table II B.—Principal products made for sale

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons.	£'000	Th. tons	£'000
Steel ingots, other than of electric and crucible steel ... ..	760·4	3,228	395·0	1,941
Steel castings, other than of electric and crucible steel ... ..	51·4	1,536	82·3*	3,086*
Ingots and castings of special steel :—				
Electric ... ..	32·5	906	17·9†	373†
Crucible ... ..	4·4	432	4·5†	355†
Other descriptions‡ ... ..	0·4	79	1·3†	155†
<b>TOTAL—Steel ingots and castings</b>	<b>849·1</b>	<b>6,181</b>	<b>501·0</b>	<b>5,910</b>
Refined pig iron‡ ... ..	34·7	185	{ 22·1	126
Steel blooms, billets and slabs ...	1,203·1	7,204	{ ...	108
Sheet bars ... ..	715·9	3,330	{ 831·9	6,055
Tinplate bars ... ..	960·0	4,495	{ 458·1	2,607
Wire rods ... ..	277·3	2,204	{ 910·8	5,323
Steel girders, beams, joists and pillars	312·7	2,201	{ 164·8	1,478
Bright steel bars ... ..	76·3	1,184	{ 356·8	2,902
Steel bars, rods, angles, shapes and sections, not elsewhere specified	1,190·8	11,505	{ 75·9	1,396
Puddled bars ... ..	11·6	71	{ 1,475·6	14,313
Scrap bars ... ..	36·7	190	{ 3·5	25
Iron bars, rods, angles, shapes and sections, not elsewhere specified	104·3	968	{ 3·6	20
<b>Hoop and strip :—</b>				
Bright cold rolled ... ..	77·0	1,514	§	§
Other than bright cold rolled :—				
Baling and barrel ... ..	45·8	381	55·7	522
For tubes :—				
Iron ... ..	35·4	364	50·8	587
Steel ... ..	234·5	1,655	157·8	1,259
For other purposes ... ..	112·8	992	126·2¶	1,817¶
<b>TOTAL—Hoop and strip ...</b>	<b>505·5</b>	<b>4,906</b>	<b>390·5</b>	<b>4,185</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Plates and sheets, not galvanised, not tinned, etc.†† :—				
Iron plates and sheets not under ½ in. thick ... ..	1·0	15	1·9	29
Iron plates and sheets under ½ in. thick ... ..	0·9	13	1·4	26
Steel plates and sheets not under ½ in. thick (including armour plates) ... ..	647·0	5,511	1,078·5	9,592
Black sheets under ½ in. thick (over 54 in. by 28 in.) ... ..	500·5	5,488	480·8	5,479
Galvanised sheets :—				
Flat ... ..	101·7	1,257	97·2	1,426
Corrugated ... ..	238·7	2,730	433·9φ	5,711φ
Railway, etc., material   :—				
Steel rails, new :—				
Grooved for trams ... ..	29·5	254	32·0	303
Railway (including conductor rails for electric traction):—				
Points, switches and crossings	10·5	214		
Other rails :—				
Weighing over 30 lbs. per yard ... ..	238·0	1,800	} 446·7	3,481
Weighing 30 lbs. per yd. and under ... ..	24·7	164		
Sleepers and fishplates ... ..	42·1	346	32·8	745
Tyres and axles ... ..	54·6	1,062	98·1	2,061
Other railway, etc., material (including railway spikes) ... ..	79·6	819	175·2	2,199
Steel forgings, other than tyres, wheels and axles ... ..	50·2	2,086	63·7	2,617
Other smelting and rolling products	30·7	1,409	34·6**	1,358**
<b>TOTAL—PRINCIPAL PRODUCTS</b>	<b>8,327·7</b>	<b>67,792</b>	<b>{ 8,362·3**</b> ... <b>108</b>	<b>81,063**</b>

\* Including castings of special steel.

† Ingots only.

‡ So far as recorded separately.

§ Included with "Other than bright cold rolled."

¶ Including unclassified hoop and strip (23,400 tons, £246,000).

†† For black plates see page 32.

φ Including unclassified galvanised sheets (1,100 tons, £17,000).

|| Excluding sets of wheels and axles (see page 150), and goods produced by railway companies which were not covered by the Inquiry.

\*\* See page 6.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Steel ingots, other than of electric and crucible steel ... ..	0.7	6	—	—
Steel castings, other than of electric and crucible steel ... ..	20.8	584	24.6*	841*
Ingots and castings of special steel:—				
Crucible ... ..	0.6	47	1.7*	108*
Other ... ..	0.1	9	0.3*	6*
<b>TOTAL—Steel ingots and castings</b>	<b>22.2</b>	<b>646</b>	<b>26.6</b>	<b>955</b>
Refined pig iron ... ..	13.7	64	5.4	30
Steel blooms, billets and slabs ...	—	—	5.2	37
Sheet bars ... ..	—	—	0.1	1
Wire rods ... ..	30.7	261	13.5	123
Steel girders, beams, joists and pillars ... ..	—	—	2.6	284
Bright steel bars ... ..	8.0	106	8.3	138
Steel bars, rods, angles, shapes and sections, not elsewhere specified	18.6	225	5.2	170
Iron bars, rods, angles, shapes and sections, not elsewhere specified	0.1	1	—	—
Hoop and strip:—				
Bright cold rolled ... ..	2.2	45	} 10.0	184
Other than bright cold rolled ...	4.9	46		
Steel plates and sheets not under ½ inch thick (including armour plates) ... ..	3.2	25	2.9	38
Black sheets under ½ inch thick ...	27.4	365	27.1	345
Galvanised sheets ... ..	0.6	8	2.1	33
Railway, etc., material:—				
Sleepers and fishplates ... ..	0.5	6	3.5	36
Tyres and axles ... ..	16.3	348	20.4	438
Other railway, etc., material (including railway spikes) ...	67.3	589	105.2	1,028
Steel forgings, other than tyres, wheels and axles ... ..	9.2	322	9.7	364
Other smelting and rolling products	10.3	92	1.7	37
<b>TOTAL ... ..</b>	<b>...</b>	<b>3,149</b>	<b>...</b>	<b>4,241</b>

\* See notes (\*) and (†) to Table IIB.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Steel ingots, other than of electric and crucible steel ...	4.25	4.91	86.6	9.96	10.20	11.82	6.69
Steel castings, other than of electric and crucible steel ...	29.9	37.5*	...	39.0	39.7	17.7	24.1
Ingots and castings of special steel :—							
Electric ... ..	27.9	20.8*	...	142.2†	176.7†	75.4†	111.4†
Crucible ... ..	97.9	78.9*	...				
Other ... ..	200.5	119.2*	...				
Steel blooms, billets and slabs	5.99	7.28	82.2	8.76	11.03	3.52	5.93
Sheet bars ... ..	4.65	5.69	81.7	15.37	10.75	3.83	5.09
Tinplate bars ... ..	4.68	5.84	80.2	4.44	5.62	3.25	4.97
Wire rods ... ..	7.95	8.97	88.7	7.55	12.02	5.63	8.03
Steel girders, beams, joists and pillars ... ..	7.04	8.13	86.6	8.76	9.11	3.91	6.42
Bright steel bars ... ..	15.52	18.39	84.4	20.98	15.53	9.57	13.65
Steel bars, rods, angles, shapes and sections, not elsewhere specified ... ..	9.66	9.70	99.6	12.65	11.47	4.56	7.04
Puddled bars ... ..	6.08	7.15	85.0	‡	‡	‡	‡
Scrap bars ... ..	5.18	5.68	91.2				
Iron bars, rods, angles, shapes and sections, not elsewhere specified ... ..	9.28	10.54	88.1				
Iron bars, rods, angles, etc. (including puddled and scrap bars) ... ..	8.05	10.36	77.7	12.86	12.86	7.22	6.77
Hoop and strip :—							
Bright cold rolled ... ..	19.66	‡	...	27.64	‡	17.68	‡
Other than bright cold rolled :—							
Baling and barrel ... ..	8.33	9.37§	88.9	9.39	10.46§	6.60	8.63§
For tubes :—							
Iron ... ..	10.28	11.56§	89.0	} ‡	‡	‡	‡
Steel ... ..	7.06	7.99§	88.5				
<b>TOTAL—For tubes...</b>	<b>7.48</b>	<b>8.85§</b>	<b>84.5</b>	<b>9.28</b>	<b>12.87§</b>	<b>4.57</b>	<b>6.81§</b>

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Plates and sheets, not gal- vanised, not tinned :—							
Iron plates and sheets not under ¼ inch thick ...	14.50	14.90	97.3	13.71	15.67	6.01	10.88
Iron plates and sheets under ¼ inch thick ...	14.01	18.24	77.1	16.17	16.59	17.73	21.45
Steel plates and sheets not under ½ inch thick :—							
Armour plates ...	100.78	210.49	47.9	55.66	148.35	—	—
Other sorts ...	8.02	8.69	92.2	8.64	9.44	5.50	7.67
Black sheets under ½ inch thick¶ ...	10.97	11.40	96.2	11.38	12.14	16.55	9.88
Galvanised sheets—							
Flat ...	12.36	14.67	84.1	13.39	15.63	16.50	11.88
Corrugated ...	11.44	13.16	86.6	12.21	13.92	22.00	15.96
Railway, etc., material :—							
Steel rails, new :—							
Grooved for trams ...	8.59	9.46	90.8	10.00	25.05	5.47	7.87
Railway (including con- ductor rails for electric traction) :—							
Points, switches and crossings ...	20.37	‡	...	29.06	‡	14.22	‡
Other rails :—							
Weighing over 30 lbs. per yard ...	7.56	‡	...	7.96	8.68	4.20	6.29
Weighing 30 lbs. per yard and under	6.64	‡	...	8.26	10.24	4.71	6.59
TOTAL—Steel rails, points, switches and crossings ...	7.97	7.79	102.3	8.47	8.71	4.84	6.49
Sleepers and fishplates ...	8.23	8.94	92.1	10.27	9.53	5.35	7.81
Tyres and axles ...	19.46	21.01	92.7	20.44	23.05	11.56	17.14
Railway spikes ...	12.99	13.44	97.0	13.75	15.28	10.35	12.94

\* See notes (\*) and (†) to Table IIB.

† Described as "special steels."

‡ Not available.

§ Including bright cold rolled.

¶ For black plates see page 33.

|| Including points, switches and crossings.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000		
Steel ingots and castings ...	5,910	6,181	7,200	122	150
Steel blooms, billets and slabs	6,055	7,204	8,759	145	127
Sheet bars ... ..	2,607	3,330	4,076	156	148
Tinplate bars ... ..	5,323	4,495	5,605	105	134
Wire rods ... ..	1,478	2,204	2,485	169	111
Steel girders, beams, joists and pillars ... ..	2,902	2,201	2,541	88	107
Bright steel bars ... ..	1,396	1,184	1,403	101	} 87
Steel bars, rods, angles, shapes and sections, not elsewhere specified ... ..	14,313	11,505	11,551	81	
Iron bars, rods, angles, shapes and sections (including puddled and scrap bars) ...	1,741	1,229	1,390	80	209
Hoop and strip for all pur- poses ... ..	4,185	4,906	5,415	129	107
Plates and sheets (except black plates)* :—					
Iron plates and sheets ...	55	28	32	58	307
Steel plates and sheets not under $\frac{1}{2}$ inch thick (in- cluding armour plates)	9,592	5,511	6,331	66	102
Black sheets under $\frac{1}{2}$ inch thick ... ..	5,479	5,488	5,705	104	143
Galvanised sheets :—					
Flat ... ..	1,426	1,257	1,495	105	165
Corrugated ... ..	5,711	2,730	3,152	55	126
Railway, etc., material :—					
Steel rails, new :—					
Grooved for trams ...	303	254	279	92	220
Railway (including con- ductor rails for electric traction) ... ..	3,481	2,178	2,131	61	120
Sleepers and fishplates ...	745	346	378	50	106
Tyres and axles ... ..	2,061	1,062	1,146	56	125
Other railway, etc., material ... ..	2,199	819	1,000	45	88
Steel forgings, other than tyres, wheels and axles ...	2,617	2,086	2,063	79	190
Other smelting and rolling products, including refined pig iron ... ..	1,592	1,594	1,788	112	...
TOTAL ... ..	81,171	67,792	75,923	94	123

\* For black plates see page 33.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.	
Steel ingots, other than of special steel.	1933	6,570.0	2.2	...	2.5	6,570.3	100.0
	1930	6,882.4	1.1	...	34.8	6,916.1	99.7
Steel blooms, billets and slabs, other than of special steel* ...	1933	3,278.7	11.9	0.4	229.5	3,496.3	93.4
	1930	3,669.8	6.8	0.2	565.6	4,228.6	86.6
Sheet bars ...	1933	971.8	0.2	...	81.4	1,053.0	92.3
	1930	744.8	0.6	0.1	446.5	1,190.7	62.5
Tinplate bars ...	1933	976.3	12.3	1.3	3.1	967.1	99.7
	1930	919.5	9.6	1.0	79.6	989.5	92.0
Wire rods ...	1933	356.3	5.2	1.5	41.5	392.6	89.4
	1930	217.3	0.9	0.4	90.5	306.9	70.4
Steel girders, beams, joists and pillars ...	1933	312.7	13.9	4.4	77.3	376.1	79.4
	1930	359.4	53.6	14.9	120.6	426.4	71.7
Bright steel bars	1933	99.8	1.9	1.9	0.4	98.3	99.6
	1930	77.2	2.3	3.0	8.1	83.0	90.2
Steel bars, rods, angles, shapes and sections, not elsewhere specified, other than of special steel* ...	1933	1,546.5	107.5	7.0	186.1	1,625.1	88.5
	1930	1,540.3	214.4	14.0	389.0	1,714.9	77.2
Hoop and strip ...	1933	505.5	47.2	9.3	79.0	537.3	85.3
	1930	397.4	43.0	10.8	161.9	516.3	68.6
Plates and sheets not galvanised, not tinned, etc.†:—							
Steel plates and sheets not under $\frac{1}{8}$ inch thick (including armour plates) ...	1933	696.2	87.3	12.5	35.1	644.0	94.5
	1930	1,081.6	130.8	12.1	129.6	1,080.4	88.0
Black sheets under $\frac{1}{8}$ inch thick ...	1933	822.3	125.3	15.2	0.5	697.5	99.9
	1930	856.9	184.0	21.5	12.7	685.6	98.1
Galvanised sheets:—							
Flat ...	1933	101.7	83.6	82.2	§	18.1	100.0
	1930	97.2†	77.6	79.8	0.7	20.3	96.3
Corrugated ...	1933	238.7	192.2	80.5	—	46.5	100.0
	1930	432.8†	354.1	82.3	0.1	78.8	99.9



Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Railway, etc. material <sup>¶</sup> :-						
Steel rails, new:-						
Grooved for trams ...	1933 29.5	4.5	15.2	0.1	25.1	99.8
... 1930	32.0	4.1	12.8	0.1	28.0	99.6
Railway rails, points, switches and crossings ...	1933 273.2	56.8	20.8	3.6	220.0	98.4
... 1930	446.7	239.2	53.6	17.8	225.3	92.1
Sleepers and fishplates ...	1933 42.1	13.4	31.8	0.7	29.4	97.6
... 1930	82.8	64.0	77.3	2.6	21.4	87.9
Tyres and axles ...	1933 54.6	14.0	25.6	§	40.6	100.0
... 1930	98.1	29.0	29.6	—	69.1	100.0
Other railway material (excluding wheels and axles in sets, but including railway spikes)	1933 79.6	17.6	22.1	0.4	62.4	99.4
... 1930	175.2	37.1	21.2	2.9	141.0	97.9

\* The production figures include special steel.

† For black plates see page 34.

‡ Not including 1,100 tons of unclassified galvanised sheets.

§ Less than 50 tons.

¶ The production figures exclude the output of railway companies, aggregating about 108,000 tons in 1930.

The following tables relate only to firms whose returns were made on schedules for the Iron and Steel Trade (Smelting and Rolling) and are summarised in Table I.

Table VI.—Employment

A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	1933 5,911	100,532	143	762	6,054	101,294*
... 1930	8,055	122,521	244	1,195	8,329	123,716
Administrative, technical and clerical staff†	1933 613	9,904	256	2,015	869	11,919
... 1930	1,055	10,730	333	1,971	1,338	12,701
TOTAL ...	1933 6,524	110,436	399	2,777	6,923	113,213*
... 1930	9,140	133,251	577	3,166	9,717	136,417

\* The particulars given for 1933 include 345 operatives engaged in outside work on buildings, etc.; corresponding information for 1930 is not available.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	59,180	July 15 ... ..	65,513
February 18 ...	61,768	August 19 ... ..	65,556
March 18 ... ..	62,050	September 16 ...	69,288
April 15 ... ..	63,404	October 14 ... ..	70,142
May 13 ... ..	64,543	November 18 ...	70,203
June 17 ... ..	65,587	December 16 ...	72,123
AVERAGE FOR THE TWELVE MONTHS ... ..			65,780

Table VII.—Other output of the Iron and Steel Trade (Smelting and Rolling)

The value of the gross output of the firms whose returns were made on schedules for the Iron and Steel Trade (Smelting and Rolling) was £70,798,000 in 1933 and £84,366,000 in 1930, of which £64,643,000 in 1933 and £76,930,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Black plates under $\frac{1}{2}$ inch thick (up to 54 inches by 28 inches) ...	75.9	874	69.4	791
Springs ... ..	7.5	222	16.3	505
Wrought tubes and fittings ...	5.4	77	10.4	272
Iron castings ... ..	4.5	41	8.8	121
Iron and steel wire and manufactures thereof ... ..	8.1	190	10.0	165
Tools and implements (including cutlery) ... ..	...	232	...	265
Rivets, washers, nails, etc. ...	4.6	46	15.3	199
Machinery and plant (including military and naval stores, etc.) ...	...	276	...	180
Other manufactures of metal ...	...	991	...	1,086
Ground basic slag for manure ...	69.8	64	115.5	116
Other goods made ... ..	...	24	...	22
	Mill.		Mill.	
	B.T.U.		B.T.U.	
	(Kw.-hrs.)		(Kw.-hrs.)	
Electricity supplied to other undertakings of the firm or to outside consumers ... ..	96.9	127	70.5	165
TOTAL—Goods made ...	...	3,164	...	3,887

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
Scrap, waste and by-products sold :-	Th. tons	£'000	Th. tons	£'000
Iron and steel scrap ... ..	484·3	1,042	445·3	1,250
Scrap of non-ferrous metals ... ..	...	52	...	12
Slag, not ground ... ..	329·0	83	334·4	80
Cinder, etc. ... ..	152·4	92	211·1	172
Other waste and by-products sold ... ..	...	73	...	188
<b>Total—Scrap, waste and by-products sold ... ..</b>	...	<b>1,342</b>	...	<b>1,702</b>
Work done for the trade or on commission :— ... ..	...	...	...	...
Tilting, rolling, etc. ... ..	...	553*	...	555*
Galvanising ... ..	...	210*	...	225*
Other work ... ..	...	148*	...	156*
<b>Total—Amount received for work done ... ..</b>	...	<b>916*</b>	...	<b>936*</b>
Structural work (bridge construction and steel framework for buildings) ... ..	...	733†	...	911†
<b>TOTAL ... ..</b>	...	<b>6,155</b>	...	<b>7,436</b>

\* Amount received.

† These amounts represent the net contract price of the work (or of such part of the work as was completed in the year of return) *less* the value of any girders, sections, etc., made in the firms' own works and used in the work; the quantities and values of such materials are included under the appropriate headings in Table II B.

## IRON AND STEEL TRADE (FOUNDRIES)

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	27,624	29,447
Cost of materials used ... ..	„	10,959	12,234
Amount paid for work given out ... ..	„	110	165
Net output ... ..	„	16,555	17,048
Average number of persons employed ... ..	No.	86,639	91,461
Net output per person employed ... ..	£	191	186

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Iron and steel pipes and fittings, cast :—				
Pipes up to 6-in. diameter, including fittings :—				
Soil pipes, drain pipes and rain-water pipes (including gutters of all sizes) ... ..	142·3	2,033	136·4	2,028
Gas pipes ... ..	29·7	250	32·6	316
Hot water pipes (including radiators)	18·4	282	15·6	252
Other water pipes up to 6 in. diameter ... ..	62·8	518	55·5	484
Pipes (up to 6 in. diameter), not specified above ... ..	9·4	103	11·0	276
Pipes over 6 in. diameter, including fittings ... ..	187·1	1,365	205·6	1,595
Unclassified pipes and fittings therefor	73·8	727	67·2	726
TOTAL—Iron and steel pipes and fittings, cast ... ..	523·5	5,278	523·9	5,677
Cast iron stoves, grates and ranges for cooking and heating, and loose parts therefor :—				
For coal and other solid fuel ... ..	113·3	3,210	98·5	2,835
For gas ... ..	66·3	3,721		
For electricity ... ..	6·3	294	...	206
For liquid fuel ... ..	1·6	78	3·4	183
Unclassified ... ..	—	—	0·3	13
TOTAL—Cast iron stoves, grates, etc. ... ..	187·5	7,303	167·6	6,586
	...	872	...	554

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Cooking and washing boilers of cast iron (including portable boilers and furnace pans) ... ..	8.8	213	{ 12.1 ...}	{ 352 93}
Sanitary cisterns (flushing tanks) of cast iron ... ..	12.2	293	12.2	357
Baths (porcelain enamelled or other finish) ... ..	41.5	1,116	22.4†	657
Sanitary cast iron goods, not included above (sinks, basins, lavatories, closets, etc.) ... ..	4.6	120	4.1	136
<b>TOTAL—Cast iron boilers, cisterns, baths, etc.</b> ... ..	<b>67.1</b>	<b>1,742</b>	{ 50.8 ...}	{ 1,502 93}
Piano frames ... ..	2.6	56	{ 2.3 ...}	{ 54 37*
Engineering castings ... ..	229.9	4,806	{ 275.7 ...}	{ 5,668 199}
Manhole covers, ventilation and coal covers, drain gratings and frames therefor, surface boxes and the like	53.4	490	} 40.5	} 433
Other castings for roads and drainage...	13.3	102		
Builders' ironmongery, cast, not elsewhere specified ... ..	2.7	149	1.0	61
Rolls for rolling mills† ... ..	...	52	...	68
Rolls for rolling mills† ... ..	25.6	603	} 443.2	} 7,570
Ingot moulds† ... ..	81.0	459		
Malleable iron castings† ... ..	35.0	1,285		
Other and unclassified iron castings ...	248.5	3,799	...	613*
<b>TOTAL—PRINCIPAL PRODUCTS</b> {	<b>1,470.1</b>	<b>26,072</b>	<b>1,505.0</b>	<b>27,551</b>
...	...	924	...	1,594*

† See page 6.

\* In addition, the following output was recorded on schedules for trades that were not covered by the 1933 Inquiry :—Piano frames, £8,000; Other and unclassified iron castings, £2,000.

† So far as recorded separately.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Iron and steel:—				
Pipes and fittings, cast:—				
Up to 6 in. diameter ... ..	0·2	3	0·9	14
Over 6 in. diameter... ..	0·4	7	0·1	1
Unclassified pipes and fittings therefor ... ..	2·4	48	10·2	216
Cast iron stoves, grates and ranges for cooking and heating, and loose parts therefor—				
For coal and other solid fuel ...	1·3	31	{ 0·7	53
			{ ...	92
For gas ... ..	...	2	—	—
For electricity ... ..	0·2	8	—	—
Unclassified ... ..	—	—	...	11
Cooking and washing boilers of cast iron (including portable boilers and furnace pans) ... ..	...	1	{ 0·1	2
			{ ...	33
Sanitary cisterns (flushing tanks) of cast iron ... ..	0·5	16	0·1	2
Engineering castings ... ..	4·4	90	{ 9·3	205
			{ ...	199
Manhole covers, ventilation and coal covers, etc. ... ..	10·7	102	1·2	16
Other castings for roads and drainage	0·2	2	...	30
Malleable iron castings ... ..	1·3	43	—	—
Other principal products ... ..	128·4	1,661	{ 153·8	2,494
			{ ...	218
TOTAL ... ..	...	2,014	...	3,586

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Iron and steel pipes and fittings, cast :—							
Pipes up to 6 in. diameter, including fittings :—							
Soil pipes, drain pipes and rain-water pipes (including gutters of all sizes) ... ..	14.3	14.9	95.9	11.5§	11.7§	8.2§	10.0§
Gas pipes ... ..	8.4	9.7	86.6	13.8§	14.2§	11.0§	10.2§
Hot water pipes (including radiators)	15.3	16.1	95.0	} 9.0§	} 11.2§	} 23.5§	} 13.3§
Other water pipes (up to 6 in. diameter)	8.2	8.7	94.7				
Pipes up to 6 in. diameter and fittings therefor ...	12.1	13.4	90.3	11.1	12.6	21.9	12.2
Pipes over 6 in. diameter and fittings therefor ... ..	7.3	7.8	93.5	7.5	9.1	†	8.7
Cast iron stoves, grates and ranges for cooking and heating, and loose parts therefor‡ :—							
For coal and other solid fuel ... ..	28.3	28.8	98.4	36.2	35.7	40.5	57.7
For gas ... ..	56.1	54.3	103.4	81.3	73.7	131.8	82.4
For electricity ... ..	46.3	54.2	85.3	*	*	*	*
For liquid fuel ... ..	49.6	42.9	115.6	173.6	169.3	157.2	145.9
Cooking and washing boilers of cast iron (including portable boilers and furnace pans)‡ ...	24.3	29.2	83.2	42.7	49.8	†	30.3
Sanitary cisterns (flushing tanks) of cast iron ...	24.1	29.3	82.1	29.3	33.0	24.0	18.1
Baths (porcelain enamelled or other finish)‡ ... ..	26.9	29.4	91.7	28.9	39.6	23.1	27.6
Piano frames ... ..	21.5	24.1	89.4	*	*	*	*

§ Excluding fittings separately consigned.

† Imports negligible.

‡ The figures for exports and imports do not relate solely to goods of cast iron.

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Iron and steel pipes and fittings, cast :—					
Pipes up to 6 in. diameter, including fittings :—					
Soil pipes, drain pipes and rainwater pipes (including gutters of all sizes) ... ..	2,028	2,033	2,120	105	} 92
Gas pipes ... ..	316	250	289	91	
Hot water pipes (including radiators) ... ..	252	282	297	118	
Other water pipes up to 6 in. diameter ... ..	484	518	547	113	
Pipes (up to 6 in. diameter), not specified above ... ..	276	103	237	86	
Pipes over 6 in. diameter, including fittings ... ..	1,595	1,365	1,460	92	125
Unclassified pipes and fittings therefor ... ..	726	727	772	...	...
<b>TOTAL—Iron and steel pipes and fittings, cast</b>	<b>5,677</b>	<b>5,278</b>	<b>5,722</b>	<b>101</b>	<b>101</b>
Cast iron stoves, grates and ranges for cooking and heating, and loose parts therefor :—					
For coal and other solid fuel ... ..	3,155	3,210	3,262	103	89
For gas ... ..	3,761	4,593	4,442	118	79
For electricity ... ..	183	294	345	189	*
For liquid fuel ... ..	13	78	67	515	*
Unclassified ... ..	28	—	—	—	—
<b>TOTAL—Cast iron stoves, grates, etc. ... ..</b>	<b>7,140</b>	<b>8,175</b>	<b>8,116</b>	<b>114</b>	<b>...</b>



Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Cooking and washing boilers of cast iron (including port- able boilers and furnace pans) ... ..	445	213	256	58	36
Sanitary cisterns (flushing tanks) of cast iron ...	357	293	357	100	} 75
Baths (porcelain enamelled or other finish)... ..	657	1,116	1,217	185	
Sanitary cast iron goods, not included above ... ..	136	120	152	112	} 91
Builders' ironmongery, cast, not elsewhere specified ...	129	201	233	181	
Piano frames... ..	91	56	63	69	} 98
Engineering castings ...	5,867	4,806	4,735	81	
Castings for roads and drain- age (including manhole covers, etc.) ... ..	463	592	713	154	
Other and unclassified iron castings ... ..	8,183	6,146	6,867	84	
<b>TOTAL ... ..</b>	<b>29,145</b>	<b>26,996</b>	<b>28,431</b>	<b>98</b>	<b>93</b>

\* Not recorded separately.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production*	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Percent.	Th. tons	Th. tons	Per cent.
Iron and steel pipes and fittings, cast†	1933	86.5	16.5	1.2	438.2	99.7
	1930	116.3	22.2	20.5	428.1	95.2
Stoves, grates and ranges for cooking and heating‡—						
For coal and other solid fuel						
1933	113.3	5.3	4.6	0.5	108.5	99.5
1930	109.6	7.4	6.7	0.8	103.1	99.2
For gas ...						
1933	81.8	1.4	...	§	80.4	...
1930	69.2	3.0	...	0.1	66.3	...
For liquid fuel						
1933	1.6	0.2	...	0.2	1.6	...
1930	0.3	0.2	...	1.5	1.6	...
Cooking and wash-boilers‡						
1933	8.8	0.6	7.0	—	8.2	100.0
1930	15.2	0.7	4.6	0.2	14.8	98.8
Sanitary cisterns (flushing tanks)						
1933	12.2	2.8	22.6	§	9.4	99.9
1930	12.2	4.7	38.5	§	7.5	99.7
Baths (porcelain enamelled or other finish)‡						
1933	41.5	2.5	6.1	8.7	47.7	81.7
1930	22.4	1.5	6.8	7.5	28.4	73.5
Other sanitary cast iron goods (sinks, basins, lavatories, etc.)						
1933	4.6	0.2	4.8	0.2	4.6	95.7
1930	4.1	0.4	9.6	0.2	3.9	95.1

\* For the purpose of comparison between production and overseas trade, estimates of weight have been made for that part of the output which was returned by value only.

† Detailed comparison cannot be made owing to the large proportion of production that was unclassified in each year.

§ Less than 50 tons.

‡ See footnote (†) to Table III.

The following tables relate only to firms whose returns were made on schedules for Iron and Steel Foundries and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year)	1933 8,418	73,388	1,208	4,629	9,626	78,017*
	1930 10,416	78,815	1,177	4,219	11,593	83,034
Administrative, technical and clerical staff†	1933 465	6,759	240	1,863	705	8,622
	1930 647	6,599	305	1,828	952	8,427
<b>TOTAL</b> ... ..	1933 8,883	80,147	1,448	6,492	10,331	86,639*
	1930 11,063	85,414	1,482	6,047	12,545	91,461

\* The particulars given for 1933 include 343 operatives engaged in outside work on buildings, etc.; corresponding information for 1930 is not available.

† As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	43,950	July 15 ... ..	48,616
February 18 ... ..	44,512	August 19 ... ..	48,645
March 18 ... ..	45,034	September 16 ... ..	49,744
April 15 ... ..	45,802	October 14 ... ..	50,824
May 13 ... ..	47,271	November 18 ... ..	51,827
June 17 ... ..	48,018	December 16 ... ..	52,838
<b>AVERAGE FOR THE TWELVE MONTHS</b> ... ..			<b>48,090</b>

**Table VII.—Other output of the Iron and Steel Trade (Foundries)**

The value of the gross output of the firms whose returns were made on schedules for Iron and Steel Foundries was £27,624,000 in 1933 and £29,447,000 in 1930, of which £24,982,000 in 1933 and £25,559,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Fencing material (other than fencing wire) of cast or wrought iron ... ..	2.4	43	2.2	45
Railway materials (including wheels and axles, spikes, sleepers and fishplates)... ..	57.2	420	105.2	1,015
Metal casements and window frames	1.3	54	2.0	81
Hollow-ware and utensils for domestic and industrial use	3.8	146	1.9	100
Parts and accessories for motor-cars, motor cycles and cycles ...	...	15		
Machinery and appliances (including parts and accessories) ...	...	5	...	86
Steel castings ... ..	...	191	...	302
Iron forgings ... ..	11.5	330	18.7	632
Steel forgings ... ..	...	16	0.4	13
Other manufactures of iron and steel ... ..	1.8	49	0.9	26
Castings of brass and other alloys of copper ... ..	...	97	...	82
Other manufactures of non-ferrous metals ... ..	...	261	...	438
Other goods made ... ..	...	214	...	204
...	...	48	...	158
<b>TOTAL—Goods made ... ..</b>	...	<b>1,889</b>	...	<b>3,182</b>
<b>Scrap sold :—</b>				
Iron and steel scrap ... ..	39.7	73	23.0	47
Scrap of non-ferrous metals ...	1.6	12	1.0	15
<b>TOTAL—Scrap ... ..</b>	<b>41.3</b>	<b>85</b>	<b>24.0</b>	<b>62</b>
<b>Structural work and work done for the trade :—</b>				
Iron and steel structural work*	—	425†	—	425†
General and jobbing engineering*	—	200†	—	175†
Other work done... ..	—	43†	...	44†
<b>TOTAL—Work done ... ..</b>	...	<b>668†</b>	...	<b>644†</b>
<b>TOTAL ... ..</b>	...	<b>2,642</b>	...	<b>3,888</b>

\* Exclusive of the value of materials made and supplied by the firm.

† Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
Fig iron ... ..	1,086	3,518
All other materials used (including fuel) ... ..	...	7,441
<b>TOTAL</b> ... ..	...	10,959

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## THE TINPLATE TRADE

### Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	13,404	15,693
Cost of materials used and amount paid for work given out ... ..	"	8,692	10,605
Net output ... ..	"	4,712	5,088
Average number of persons employed ... ..	No.	23,406	25,271
Net output per person employed ... ..	£	201	201

### Table II A.—Total make of Black Plates

	1933	1930	Th. tons.
Black plates, under $\frac{1}{8}$ in. thick	...	...	818·5
	...	...	798·5*

\* Specified as "Up to 54 inches by 28 inches."

The above figures include the 84,100 tons in 1933 and 77,600 tons in 1930 recorded by firms whose returns were made on schedules for other trades.

### Table II B.—Principal products made for sale

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Black plates (up to 54 in. by 28 in.), under $\frac{1}{8}$ in. thick ... ..	132·6	1,495	118·5	1,386
Tinned plates ... ..	660·2	11,461	692·5*	13,277*
Tinned sheets ... ..	9·3	225	17·8	381
Terne plates ... ..	14·3	208	23·0	374
Terne sheets ... ..	6·9	111	6·0	102
TOTAL—Tinned and terne plates and sheets ... ..	690·7	12,005	739·3	14,134
TOTAL—PRINCIPAL PRODUCTS ...	823·3	13,500	857·8	15,520

\* Includes a small output of "Tinned plates, sheets and strips, shaped, decorated, printed, etc., for boxes and other containers."

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Black plates (up to 54 in. by 28 in.) ...	76·0	876	69·4	791
Other principal products ... ..	...	24	—	—
<b>TOTAL</b> ... ..	...	900	...	791

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Black plates ... ..	11·3	11·7	96·4	12·5	14·3	8·7	8·1
Tinned plates ... ..	17·4	19·2	90·4	17·6	19·8	*	20·7
Tinned sheets ... ..	24·1	21·4	112·6	26·0	38·6	—	43·7
Terne plates ... ..	14·5	16·2	89·7	15·3	18·3	—	—
Terne sheets ... ..	16·1	17·1	93·9	17·0	18·0	—	—

\* This figure would have no significance.

**Table IV.—Volume of Production**

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
Black plates ... ..	1,386	1,495	1,551	112	122
Tinned plates ... ..	13,277	11,461	12,678	95	106
Tinned sheets ... ..	381	225	200	52	87
Terne sheets ... ..	102	111	118	116	
Terne plates ... ..	374	208	232	62	108
<b>TOTAL</b> ... ..	15,520	13,500	14,779	95	107

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Avail-able	Share	
					for use in the United Kingdom	of home market held by British goods	
	Th. tons	Th. tons	Percent.	Th. tons	Th. tons	Percent.	
Black plates, under $\frac{1}{2}$ in. thick	1933	818.5	29.4	3.6	0.7	789.8	99.9
	1930	798.5	22.3	2.8	11.9	788.1	98.5
Tinned plates ...	1933	660.2	442.3	67.0	†	217.9	100.0
	1930	692.5*	494.6	71.4	0.1	198.0	99.9
Tinned sheets ...	1933	9.3	3.9	41.9	†	5.4	100.0
	1930	17.8	1.9	10.7	†	15.9	100.0
Terne sheets ...	1933	6.9	0.4	5.8	—	6.5	100.0
	1930	6.0	0.5	8.3	—	5.5	100.0
Terne plates ...	1933	14.3	4.5	31.5	—	9.8	100.0
	1930	23.0	9.5	41.3	—	13.5	100.0

\* See (\*) note to Table II B.

† Less than 50 tons.

‡ Re-exports in excess of imports.

The following tables relate only to firms whose returns were made on schedules for the Tinplate Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)...	1933	1,412	20,286	493	2,267	1,905	22,553
	1930	2,376	21,659	650	2,755	3,026	24,414
Administrative, technical and clerical staff*	1933	23	789	1	64	24	853
	1930	53	794	4	63	57	857
TOTAL ...	1933	1,435	21,075	494	2,331	1,929	23,406
	1930	2,429	22,453	654	2,818	3,083	25,271

\* As at 14th October, 1933, and 18th October, 1930.



**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	11,365	July 15 ... ..	12,045
February 18 ... ..	11,735	August 19 ... ..	11,797
March 18 ... ..	10,966	September 16... ..	12,045
April 15... ..	11,477	October 14 ... ..	11,695
May 13 ... ..	11,329	November 18 ... ..	12,126
June 17 ... ..	11,602	December 16... ..	12,584
AVERAGE FOR THE TWELVE MONTHS ... ..			11,731

**Table VII.—Other output of the Tinplate Trade**

The value of the gross output of the firms whose returns were made on schedules for the Tinplate Trade was £13,404,000 in 1933 and £15,693,000 in 1930, of which £12,600,000 in 1933 and £14,729,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below:—

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Black sheets (over 54 in. by 28 in.), under $\frac{1}{2}$ in. thick ... ..	25.1	346	25.4	330
Other goods ... ..	...	3	...	42
Waste products sold:—				
Iron and steel scrap (shearings, etc.)	184.2	334	193.1	528
Other, including tin dross, terne dross, etc.... ..	...	121	...	64
TOTAL ... ..	...	804	...	964

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
Tinplate bars ... ..	899.7	4,239
All other materials used (including fuel) ... ..	...	4,451
TOTAL ... ..	...	8,690

**THE HARDWARE, HOLLOW-WARE, METALLIC FURNITURE AND SHEET METAL TRADES**

*Notes.*—(a) The particulars given for 1930 in Tables I and VI differ from those published in the Final Report on the Fourth Census of Production (see paragraph 8 (a), page x).

(b) The figures for 1930 relate to Great Britain only, particulars of the relatively small production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars.	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	27,720	28,894
Cost of materials used ... ..	"	13,832	13,925
Amount paid for work given out ... ..	"	145	145
Net output ... ..	"	13,743	14,824
Average number of persons employed ... ..	No.	82,943	82,917
Net output per person employed ... ..	£	166	179

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Hollow-ware for domestic purposes:—				
Of wrought iron and steel:—				
Not enamelled or tinned or galvanised ... ..	2·1	70	1·5	59
Enamelled ... ..	21·2	1,269	16·8	1,132
Galvanised ... ..	27·0	777	24·5	768
Tinned or of tinplate ... ..	14·3	635	5·3	175
Not separately distinguished...	5·6	170	5·0	299
Total ... ..	...	2,999	...	447*
Of cast iron:—				
Not enamelled or tinned ... ..	0·5	14	1·6	43
Enamelled ... ..	0·2	10	1·5	76
Tinned ... ..	0·5	35	...	15
Not separately distinguished...	0·5	31	0·5	20
Total ... ..	...	99	...	154
Of aluminium ... ..	2·8	786	1·7	468
Total ... ..	...	158	...	493
TOTAL—Hollow-ware for domestic purposes ... ..	...	4,042	...	4,193*

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Hollow-ware for industrial and other purposes :—	Th. tons	£'000	Th. tons	£'000
Of wrought iron and steel :—				
Tin boxes and containers ...	150·2	6,165	60·6†	2,922
Kegs and drums ...	52·3	1,254	29·2	700
Vats, tanks and cisterns ...	60·5	1,434	27·3	852
Other sorts, not elsewhere specified ...	8·9	271	10·5	304
... ..	...	108	...	208*
Total ... ..	...	9,232	...	9,859*
Of cast iron ... ..	2·0	58	2·3	77
Of aluminium ... ..	...	11	...	49
... ..	...	...	...	91
TOTAL—Hollow-ware for industrial and other purposes ... ..	...	9,301	...	10,076
Cash and deed boxes, trunks, suit cases, etc., of sheet iron or steel...	0·7	88	0·8	84
... ..	...	...	...	85
TOTAL—Hollow-ware ... ..	...	13,431	...	14,438
Bedsteads, complete, and finished parts thereof (including finished tubes) ... ..	21·2	532	27·4	701
... ..	...	155	...	370*
Wire mattresses ... ..	14·9	502	4·9	232
... ..	...	129	...	329*
Hearth furniture (including coal boxes), not elsewhere specified ...	7·0	512	...	974
... ..	...	204	...	...
TOTAL—Bedsteads, wire mattresses and hearth furniture ... ..	...	2,034	...	2,606*
Safes, strong rooms and fittings thereof ... ..	2·2	154	5·7	426
... ..	...	85	...	157*
Locks and latches and parts thereof, and keys ... ..	5·4	729	2·3	356
... ..	...	339	...	775
TOTAL—Safes, etc., and locks, latches, etc. ... ..	...	1,307	...	1,714*
Lamps and lanterns ... ..	Thous. 1,883	206	Thous. 651	115
... ..	...	27	...	156*
Enamelled signs and tablets and hearthplates ... ..	...	327	...	469
Metallic furniture :—	Th. tons		Th. tons	
For hospital use (except aseptic hospital furniture) ...	0·2	10	...	...
... ..	...	2	...	...
For office use ... ..	10·2	523	8·5	454
... ..	...	60	...	348*
For other use ... ..	3·1	130	...	...
... ..	...	24	...	...
TOTAL—Metallic furniture... ..	...	749	...	802*

Kind of goods	1933		1930			
	Quantity	Value	Quantity	Value		
Cookers and heaters of sheet iron, enamelled or not :—	Th. tons	£'000	Th. tons	£'000		
Complete ... ..	4.2	455	}	485*		
Parts ... ..	4.7	219				
Fire extinguisher apparatus	1.4	196	}	399		
...	...	138				
Metallic closures for bottles and jars	9.8	924	}	1,336†		
...	...	191				
Ventilators, pipes, ductwork, cowls and the like, of sheet iron or steel	4.4	230	3.7†	231†		
Builders' ironmongery and hardware, not elsewhere specified†	...	54	...	201†		
Cabinet-makers goods and art metal work of iron and steel†	9.6	409	5.3	220		
Domestic utensils and appliances, not elsewhere specified ...	...	93	...	670*		
Dairy equipment† ... ..	1.5	76	}			
Catering equipment† ... ..	...	162				
Poultry appliances† ... ..	4.3	412				
Agricultural and horticultural appliances† ... ..	...	53				
Boils, hoops and hinges of metal† ... ..	0.5	33				
Lighters, mechanical, complete and parts† ... ..	...	18				
Expanded metal of iron and steel	0.5	67				
Other goods mainly of sheet metal (including stampings, pressings, piercings, etc.) :—	0.9	27			§	§
Of iron and steel ... ..	...	38			...	...
Of brass ... ..	2.2	85			...	...
Of other and unspecified metals	...	29	...	...		
TOTAL—PRINCIPAL PRODUCTS	9.8	164	...	...		
	71.4	2,339	33.8†	890†		
	...	801	...	1,829*		
	4.6	438	1.1	144		
	...	95	...	422*		
	2.2	270	5.0	370		
	...	237	...	1,297*		
TOTAL—PRINCIPAL PRODUCTS	...	26,731	...	28,794*		

\* In addition, the undermentioned goods were returned for 1930 on schedules for trades not covered by the 1933 Inquiry :—

	£'000
Tin boxes and containers ... ..	309
Other hollow-ware (domestic and industrial) ...	4
Bedsteads, complete and finished parts thereof ...	14
Wire mattresses ... ..	428
Safes, etc. ... ..	3
Metallic furniture ... ..	13
Other principal products ... ..	100
Total ... ..	871

† See page 6.

‡ So far as recorded separately.

§ These products are included in "Other goods mainly of sheet metal, etc."

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Tb. tons	£'000	Th. tons	£'000
<b>Hollow-ware for domestic purposes :</b>				
Of wrought iron and steel :—				
Enamelled ... ..	0·2	10	0·2	14
Galvanised ... ..	0·5	16	0·7	21
Tinned or of tinplate ...	...	5	...	3
Not separately distinguished...	...	1	...	2
Of cast iron :—				
Not enamelled or tinned ...	0·1	2	0·2	3
Enamelled or tinned ...	0·1	5	0·4	30
Not separately distinguished...	0·5	27	0·5	20
Of aluminium ... ..	0·1	20	...	30
<b>TOTAL—Hollow-ware for domestic purposes ... ..</b>	...	86	...	123
<b>Hollow-ware for industrial and other purposes :—</b>				
Of wrought iron and steel :—				
Tin boxes and containers ...	0·7	33	} 0·1	5
Kegs and drums ... ..	0·1	4		...
Vats, tanks and cisterns ...	21·0	429	} 4·7	103
Other sorts, not elsewhere specified ... ..	3·2	54		...
	...	28	} 1·4	28
Of cast iron ... ..	1·6	36		...
Of aluminium ... ..	—	—	...	16
			...	82
<b>TOTAL—Hollow-ware for industrial and other purposes</b>	...	584	...	920

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Bedsteads, complete, and finished parts thereof (including finished tubes ... ..	0.7	21	1.9	37
Wire mattresses ... ..	1.6	41	0.4	41
Hearth furniture (including coal boxes), not elsewhere specified	...	6	...	34
Enamelled signs and tablets and hearthplates ... ..	...	30	...	32
Metallic furniture :—				
For hospital use ... ..	...	2	...	...
For office use ... ..	0.5	16	...	148
For other use ... ..	...	17	...	...
For other use ... ..	...	22	...	...
Cookers and heaters of sheet iron, enamelled or not (including parts) ... ..	0.7	60	...	9
Fire extinguisher apparatus	0.2	32	...	14
Metallic closures for bottles and jars	...	2	...	...
Ventilators, pipes, ductwork, cowls and the like, of sheet iron or steel ... ..	0.1	85	...	63
Builders' ironmongery and hardware, not elsewhere specified	0.1	4	0.1	3
Cabinet-makers goods and art metal work of iron and steel	3.1	208	...	9
Other principal products (including stampings, pressings, piercings, etc.) :—	...	54	0.5	14
Of iron and steel ... ..	0.3	19	...	223
Of brass ... ..	...	58	*	*
Of other and unspecified metals	...	...	...	...
Of iron and steel ... ..	6.8	230	3.2	101
Of brass ... ..	...	317	...	473
Of other and unspecified metals	0.4	44	0.3	37
Of iron and steel ... ..	...	10	...	23
Of brass ... ..	0.6	78	0.8	66
Of other and unspecified metals	...	78	...	328
TOTAL ... ..	...	2,165	...	2,746

\* Included in "Other principal products."

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Hollow-ware for domestic purposes:—	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Of wrought iron and steel:—							
Not enamelled or tinned or galvanized ...	33.3	40.7	81.8	}	}	}	}
Enamelled ...	60.0	67.5	88.9				
Galvanized ...	28.8	31.4	91.7				
Tinned or of tin-plate ...	44.5	56.3	79.0				
Of cast iron:—				*	*	*	*
Not enamelled or tinned ...	28.7	27.9	102.9	}	}	}	}
Enamelled or tinned ...	63.5	50.4	126.0				
Of aluminium ...	283.8	282.6	100.4	191.8	242.7	261.9	247.9
Hollow-ware for industrial and other purposes:—							
Of wrought iron and steel:—							
Tin boxes and containers ...	41.3	48.2	85.7	}	}	}	}
Kegs and drums	24.0	24.0	100.0				
Vats, tanks and cisterns ...	23.7	31.2	76.0				
Other sorts, not elsewhere specified ...	30.6	29.0	105.5				
Of cast iron ...	29.2	33.5	87.2				
Cash and deed boxes, trunks, suit cases, etc., of sheet iron or steel ...	123.2	109.3	112.7	219.0	121.3	197.8	200.2
Bedsteads, complete, and finished parts thereof (including finished tubes) ...	25.1	25.6	98.05	35.7	43.7	44.3	58.7
Wire mattresses ...	33.6	47.1	71.34	121.0	206.3	35.5	39.1
Safes ...	70.5	74.1	95.1	98.1	81.4	65.9	338.4
Locks and latches and parts thereof, and keys ...	134.2	154.8	86.7	159.6	192.2	120.6	145.9
	s. each	s. each		s. each	s. each	s. each	s. each
Lamps and lanterns...	2.2	3.5	62.9	3.5	3.3	2.0	2.1
	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
Metallic furniture ...	49.1	53.4	91.9	116.8	123.3	119.5	115.6

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production.			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
Hollow-ware for domestic purposes :—					
Of wrought iron and steel :—					
Not enamelled or tinned or galvanised ...	98	79	97	99	} 99
Enamelled ... ..	1,132	1,269	1,427	126	
Galvanised ... ..	943	777	847	90	
Tinned or of tinplate ...	746	704	891	119	
Not separately distinguished ... ..	159	170	180	...	
Of cast iron :—					
Not enamelled or tinned	43	14	14	33	} 247
Enamelled or tinned ...	91	54	43	44	
Not separately distinguished ... ..	20	31	21	...	
Of aluminium ... ..	961	944	940	98	49
Hollow-ware for industrial and other purposes :—					
Of wrought iron and steel:—					
Tin boxes and containers	5,903	6,165	7,194	132	} 75
Kegs and drums ... ..	1,350	1,254	1,254	93	
Vats, tanks and cisterns	2,094	1,434	1,887	90	
Other sorts, not elsewhere specified ...	512	379	359	70	
Of cast iron ... ..	126	58	67	53	*
Of aluminium ... ..	91	11	11	12	15
Cash and deed boxes, trunks, suit cases, etc., of sheet iron or steel ... ..	169	88	78	46	234
Total—Hollow-ware ...	14,438	13,431	15,310	106	83



Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Bedsteads, complete, finished parts thereof (including finished tubes) and wire mattresses ... ..	£'000	£'000	£'000	Per cent.	Per cent.
1,632	1,318	1,585	97	117	
Hearth furniture (including coal boxes) ... ..	974	716	654	67	50
Locks and latches and parts thereof, and keys ... ..	1,131	1,068	1,232	109	88
Lamps and lanterns ... ..	271	233	370	137	168
Safes, strong rooms and fittings therefor ... ..	583	239	251	43	} 50
Enamelled signs and tablets and hearthplates ... ..	469	327	300	42	
Metallic furniture ... ..	802	749	810	102	
Cookers and heaters of sheet iron, enamelled or not (including parts thereof) ...	485	948	870	179	
Fire extinguisher apparatus	399	334	370	92	
Metallic closures for bottles and jars ... ..	1,336	1,115	1,230	93	
Ventilators, pipes, ductwork, cowls and the like, of sheet iron or steel ... ..	432	284	340	79	
Builders' ironmongery and hardware, not elsewhere specified ... ..	890	502	490	55	
Other principal products (including stampings, pressings, piercings, etc.) :—					
Of iron and steel ... ..	2,719	3,542	3,790	139	
Of brass ... ..	566	533	587	102	
Of other and unspecified metals ... ..	1,667	1,392	1,530	...	
<b>TOTAL ... ..</b>	<b>28,794</b>	<b>26,731</b>	<b>29,715</b>	<b>104</b>	<b>74</b>

\* Not recorded separately.

**Table V.—Production in relation to Exports and Imports**

(a) Hollow-ware.—Owing to the difference in classification and to the lack of quantitative particulars for part of the output of hollow-ware of iron and steel, it is not possible to make a precise comparison between production and exports and retained imports. Including an estimate of the quantities returned by value only in 1933, the position in that year for iron and steel hollow-ware of all kinds was as follows :—

	Th. tons.
Production ... ..	352·0
Exports ... ..	13·7
Retained imports ... ..	3·0

Detailed particulars of exports and imports are shown below :—

Kind of goods	Exports	Retained imports
	Tons	Tons
Hollow-ware (for household, industrial, etc. purposes) :—		
Of iron and steel :—		
Cast, not enamelled, etc. ... ..		
1933	2,770	45
1930	3,238	19
Cast, enamelled ... ..		
1933	720	109
1930	832	24
Cast, tinned ... ..		
1933	771	6
1930	734	21
Wrought, not enamelled ... ..		
1933	1,251	1,132
1930	342	115
Wrought, enamelled ... ..		
1933	2,515	961
1930	2,096	5,009
Wrought, galvanised ... ..		
1933	3,107	529
1930	3,264	880
Of tinned plate ... ..		
1933	2,601	224
1930	2,240	64

(b) In view of the large output of the other principal products of this trade for which particulars of value only are available, comparison between the production and the exports and retained imports

of these goods cannot be made in terms of quantities. The following table shows the total recorded value of the production of certain of these goods in 1933 and 1930 in relation to the values of exports and retained imports in the same years.

Kind of goods	Production (Value at factory)		Exports (f.o.b.)	Retained imports (c.i.f.)	
	1933	1930	£'000	£'000	
Hollow-ware of aluminium :—			£'000	£'000	
Domestic hollow-ware... ..	1933	1930	944	69	4
	1933	1930	961	78	85
Vats, tanks, etc., for industrial purposes ... ..	1933	1930	11	1	2
	1933	1930	91	5	1
Cash and deed boxes, trunks, suit cases, etc. of sheet iron or steel ... ..	1933	1930	88	34	1
	1933	1930	169	82	14
Bedsteads, complete, and finished parts thereof (including finished tubes) ...	1933	1930	687	150	6
	1933	1930	1,085	309	22
Wire mattresses ... ..	1933	1930	631*	29	1
	1933	1930	989	43	18
Locks and latches and parts thereof, and keys ... ..	1933	1930	1,068	194	60
	1933	1930	1,131	273	132
Lamps and lanterns ... ..	1933	1930	233	41	23
	1933	1930	273	86	76
Metallic furniture... ..	1933	1930	749	94	33
	1933	1930	815	188	132

\* This aggregate is seriously deficient (see note (\*) to Table II).

The following tables relate only to firms whose returns were made on schedules for the Hardware, Hollow-ware, Metallic Furniture and Sheet Metal Trades and are summarised in Table I.

Table VI.—Employment

A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
	Operatives (average for the year) ... ..	1933	1930	1933	1930	1933
	6,874	40,821	10,506	33,354	17,380	74,175*
	7,419	41,812	11,497	32,685	18,916	74,497
Administrative, technical and clerical staff† ...	1933	1930	1933	1930	1933	1930
	323	5,866	425	2,902	748	8,768
	520	5,767	471	2,653	991	8,420
TOTAL ... ..	1933	1930	1933	1930	1933	1930
	7,197	46,687	10,931	36,256	18,128	82,943*
	7,939	47,579	11,968	35,338	19,907	82,917

\* The particulars given for 1933 include 601 operatives engaged in outside work of erection, fitting, etc.; corresponding information for 1930 is not available.

† As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	46,201	July 15 ... ..	48,673
February 18 ... ..	46,278	August 19 ... ..	48,569
March 18 ... ..	46,527	September 16 ... ..	49,549
April 15 ... ..	47,256	October 14 ... ..	50,404
May 13 ... ..	47,728	November 18 ... ..	51,434
June 17 ... ..	48,196	December 16 ... ..	51,266
AVERAGE FOR THE TWELVE MONTHS ... ..			48,507

Table VII.—Other output of the Hardware, Hollow-ware, etc., Trades

The value of the gross output of the firms whose returns were made on schedules for the Hardware, Hollow-ware, etc., Trades was £27,720,000 in 1933 and £28,894,000 in 1930, of which £24,566,000 in 1933 and £26,048,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Iron castings ... ..	50	44
Other and unclassified manufactures of iron and steel (including machinery and parts) ... ..	359	498
Manufactures of non-ferrous metals ... ..	441	468
Manufactures of wood ... ..	130	81
Electrical goods and apparatus ... ..	144	} 152
Other goods made... ..	421	
<b>TOTAL—Goods made</b> ... ..	<b>1,545</b>	<b>1,243</b>
<b>Waste products sold :—</b>		
Iron and steel scrap ... ..	101	135
Brass scrap ... ..	36	53
Spelter ... ..	57	53
Other waste products ... ..	24	40
<b>TOTAL—Waste products sold</b> ... ..	<b>218</b>	<b>281</b>
	Amount received	Amount received
Iron and steel structural work ... ..	138*	110*
Jobbing ironmongery and repair work ... ..	61	207
<b>Work done for the trade :—</b>		
Galvanising ... ..	212	460
Japanning, lacquering, enamelling ... ..	357	224
Tinning ... ..	15	19
Plating ... ..	546	236
Other work done ... ..	62	66
<b>TOTAL—Work done</b> ... ..	<b>1,391</b>	<b>1,322</b>
<b>TOTAL</b> ... ..	<b>3,154</b>	<b>2,846</b>

\* Excludes the value of materials made and supplied by the firm

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Black plates ... ..	131,675	1,279
Galvanised sheets ... ..	11,580	153
Steel sheets other than galvanised sheets ... ..	120,544	1,310
Tinplate ... ..	189,669	3,266
Aluminium (in all forms)... ..	4,520	535
All other materials used (including fuel) ... ..	...	7,289
<b>TOTAL</b> ... ..	...	<b>13,832</b>

### THE CHAIN, NAIL, SCREW AND MISCELLANEOUS FORGINGS TRADES

*Note.*—The figures for 1930 relate to Great Britain only. Particulars of the relatively small production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	14,382	16,465
Cost of materials used ... ..	"	7,053	8,319
Amount paid for work given out ... ..	"	86	97
Net output ... ..	"	7,243	8,049
Average number of persons employed (excluding outworkers) ... ..	No.	44,943	47,414
Net output per person employed (excluding outworkers) ... ..	£	161	170

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Iron and steel :—				
Anchors and grapnels ... ..	2·7	65	6·0	118
Chain cables ... ..	5·8	163	21·0	571
Chains :—				
Steel transmission ... ..	4·2	638	7·7	1,140*
For other purposes, including tackle made of chain ... ..	7·8	302	10·2	437
<b>TOTAL—Anchors and chains ...</b>	<b>20·5</b>	<b>1,168</b>	<b>44·9</b>	<b>2,266*</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<b>Iron and Steel—cont.</b>	Th. tons	£'000	Th. tons	£'000
<b>Springs :—</b>				
Springs for ordnanoe, small arms, locks, latches, clocks, watches, motor cars, motor cycles and musical instruments ... ..	9·8	617	} † †	
<b>Other springs :—</b>				
Laminated ... ..	16·5	504		
Coil ... ..	11·1	558		
<b>TOTAL—Springs ... ..</b>	<b>37·4</b>	<b>1,679</b>	<b>48·3</b> ... ..	<b>1,905*</b> 276
<b>Fencing material (other than fencing wire) of cast or wrought iron :—</b>				
Standards ... ..	2·8	56	3·2	65
Other sorts (i.e. gates, grilles, fences, trellis, etc.) ... ..	22·5 ... ..	507 50	25·4 ... ..	640 237
<b>TOTAL—Fencing material... ..</b>	<b>25·3</b> ... ..	<b>563</b> 50	<b>28·6</b> ... ..	<b>705</b> 237
<b>Nails and tacks (other than wire nails and staples) ... ..</b>	<b>26·7</b>	<b>589</b>	<b>26·2</b>	<b>539</b>
<b>Rivets and washers ... ..</b>	<b>46·5</b>	<b>747</b>	<b>89·3</b>	<b>1,293</b>
<b>Screws for wood ... ..</b>	Th. gross 19,570	543	} 134·4 ... ..	} 3,311 876*
<b>Bolts and nuts (including screws for metals) :—</b>				
Bright ... ..	Th. tons 18·9 ... ..	1,006 260		
Other than bright ... ..	86·5 ... ..	1,736 8		
<b>TOTAL—Nails, screws, bolts, nuts, etc., of iron and steel ... ..</b>	<b>...</b>	<b>4,889</b>	<b>...</b>	<b>6,019*</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Iron and Steel—cont.</b>				
Heel tips, boot protectors, boot plates and clog irons† ... ..	3.7	145	4.3	152
Belt fasteners§... ..	0.5	71	2.7	105
Other fasteners, hooks and shackles { ... ..	1.7	48		
	...	28	...	56
Horse shoes (sold as such) ... ..	5.0	73	3.7	55
			...	24
Saddlery hardware (not elsewhere specified) ... ..	1.7	155	1.0	55
			...	98
<b>Brass and copper :—</b>				
Nails, tacks, rivets and washers ... ..	2.1	243	2.0	222
			...	63
Bolts, nuts and screws ... ..	1.8	239	1.1	199
	...	293	...	317
<b>Drop forgings :—</b>				
Of iron and steel ... ..	48.2	2,022	54.6	2,482
			...	289*
Of brass and copper ... ..	0.2	23	0.4	49
<b>Builders' ironmongery and hardware, not elsewhere specified§ ... ..</b>	11.7	272	...	402
	...	247		
Spring seatings§ ... ..	...	134	¶	¶
Miscellaneous forgings of iron and steel ... ..	15.5	524	2.7	88
	...	72	...	170
<b>TOTAL—PRINCIPAL PRODUCTS ... ..</b>	...	12,938	...	16,234*

\* In addition, the undermentioned goods were returned on schedules for trades not covered by the 1933 Inquiry :—

	£'000
Chains (steel transmission) ... ..	9
Springs (laminated) ... ..	8
Bolts and nuts (iron and steel) ... ..	32
Drop forgings (iron and steel) ... ..	1
	50

† Classified as follows :—

	Th. tons	£'000
Laminated ... ..	35.9	1,202
Coil ... ..	12.4	703
	...	94
Not separately distinguished ... ..	...	182

‡ Excluding clog irons returned by clog makers on schedules for the Boot and Shoe Trade, for which see Part I of the Report.

§ So far as recorded separately.

¶ Not separately recorded.



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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Iron and steel :—</b>				
<b>Chains :—</b>				
Steel transmission ... ..	1·8	217	2·2	467
For other purposes, including tackle made of chain ... ..	0·2	6	1·1	38
<b>Springs :—</b>				
Springs for ordnance, small arms, locks, latches, clocks, watches, motor cars, motor cycles and musical instruments ... ..	2·8	174	16·8*	521*
Other springs :—			...	168*
Laminated ... ..	4·8	142		
Coil ... ..	2·3	64		
<b>Fencing material (other than fencing   wire) of cast or wrought iron :—</b>				
Standards ... ..	0·6	10	1·1	19
Other sorts (i.e. gates, grilles fences, trellis, etc.) ... ..	8·2	160	12·6	272
Rivets and washers ... ..	5·7	69	11·1	133
Heel tips, boot protectors, boot plates and clog irons ... ..	0·3	10	0·2	9
Hooks, fasteners and shackles ... ..	0·1	8	—	—
... ..	...	4	—	—
<b>Brass and copper :—</b>				
Nails, tacks, rivets and washers ...	0·2	29	...	43
Bolts, nuts and screws ... ..	...	3	...	37
Drop forgings of iron and steel ...	—	—	2·5	122
Miscellaneous forgings of iron and steel ... ..	1·8	47	...	42
... ..	...	45	1·7	63
Other principal products ... ..	...	27	...	107
... ..	...	...	...	148
<b>TOTAL</b> ... ..	...	1,024	...	2,321

\* Classified as follows :—

	Th. tons	£'000
Laminated ... ..	13·8	431
Coil ... ..	3·0	90
Not separately distinguished	...	6
	...	162

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
<b>Iron and steel :—</b>							
Anchors and grapnels ...	24·4	19·6	124·4	25·6	24·8	12·6	16·0
Chain cables ...	28·0	27·3	102·6	26·7	28·0	7·5	14·2
Chains :—							
Steel transmission ...	153·4	149·0	103·0	186·6	182·7	153·4	60·2
For other purposes, including tackle made of chain ...	38·7	43·9	88·2	34·6	39·3	30·2	27·3
Springs (excluding springs for ordnance, small arms, locks, latches, clocks, watches, motor cars, motor cycles and musi- cal instruments) :—							
Laminated... ..	30·6	...	...	41·4	35·3	50·0	44·1
Coil ... ..	50·3	...	...	51·8	48·5	21·5	41·6
Fencing material (other than fencing wire) of cast or wrought iron :—							
Standards ... ..	20·1	20·6	97·7	18·0	17·9	5·7	7·2
Other sorts (i.e. gates, grilles, fences, trellis, etc.)	22·6	25·2	89·5	18·5	22·1	178·0	33·0
Nails and tacks (other than wire nails and staples) ... ..	22·0	20·5	107·5	25·7	30·6	37·9	27·5
Rivets and washers ...	16·1	14·5	110·8	19·1	18·9	19·6	12·2
Screws for wood ...	44·5	61·2	72·7	53·2	70·8	44·1	50·3
Bolts and nuts (including screws for metals) :—							
Bright ... ..	53·3	68·4	78·0	44·7	39·6	66·6	39·0
Other than bright...	20·1	18·5	108·5	23·4	24·9	23·1	19·7
Brass and copper :—							
Nails, rivets and washers	116·2	113·3	102·6	*	*	*	*
Bolts, nuts and screws...	133·0	176·8	75·2	*	*	*	*

\* Not available.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Iron and steel :—	£'000	£'000	£'000		
Anchors and grapnels ...	118	65	52	44	78
Chain cables ... ..	571	163	159	28	93
Chains :—					
Steel transmission ...	1,140	638	619	54	} 107
For other purposes, in- cluding tackle made of chain ... ..	437	302	342	78	
Springs and spring seating	2,181	1,813	1,593	73	116
Fencing material (other than fencing wire) of cast or wrought iron :—					
Standards ... ..	65	56	57	88	138
Other sorts (i.e., gates, grilles, fences, trel- lis, etc.) ... ..	877	557	622	71	94
Nails and tacks (other than wire nails and staples)...	539	589	548	102	} 104
Rivets and washers ...	1,293	747	674	52	
Bolts, nuts and screws ...	4,187	3,553	3,977	95	98
Heel tips, boot protectors, boot plates and clog irons ... ..	152	145	131	86	98
Fasteners, hooks and shackles ... ..	161	147	144	89	90
Horse shoes (sold as such)	79	73	74	94	116
Saddlery hardware (not elsewhere specified) ...	153	155	108	71	191
Brass and copper :—					
Nails, tacks, rivets and washers ... ..	285	243	237	83	102
Bolts, nuts and screws ...	516	532	707	137	113
Drop forgings :—					
Of iron and steel ... ..	2,771	2,022	2,188	79	*
Of brass and copper ...	49	23	33	67	46
Builders' ironmongery and hardware, not elsewhere specified ... ..	402	519	576	143	46
Miscellaneous forgings of iron and steel ... ..	258	596	574	222	46
TOTAL ... ..	16,234	12,938	13,415	83	86

\* Goods falling under this description cannot be completely identified for 1924 and no figure is therefore inserted here.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Iron and steel :—						
Anchors and grapnels ...	1933 2·7	1·3	48·1	0·3	1·7	82·4
Chain cables ...	1930 6·0	2·7	45·0	1·3	4·6	72·3
Chains :—						
Steel trans-mission ...	1933 5·8	2·1	36·2	*	3·7	98·9
For other purposes, including tacklemade of chain ...	1930 21·0	4·2	20·0	0·2	17·0	98·6
Springs† :—						
Laminated	1933 4·2	0·7	16·7	*	3·5	99·5
Coil	1930 7·8	0·9	11·5	0·1	6·9	99·1
Other purposes, including tacklemade of chain ...	1933 7·8	3·4	43·6	0·7	4·4	85·8
Springs† :—	1930 10·2	5·9	57·8	1·9	6·2	69·4
Laminated	1933 16·5	0·5	30·3	‡	16·0	100·0
Coil	1930 §	2·1	...	0·2	...	...
Other purposes, including tacklemade of chain ...	1933 11·1	0·8	72·1	0·7	11·0	93·6
Springs† :—	1930 §	1·8	...	2·3	...	...
Fencing materials (other than fencing wire) of cast or wrought iron :—						
Standards ...	1933 2·8	0·2	7·1	0·1	2·7	96·3
Other sorts (i.e., gates, grilles, fences, trellis, etc.)	1930 3·2	1·0	31·3	0·5	2·7	81·5
Nails and tacks (other than wire nails and staples) ...	1933 24·7	1·5	6·1	‡	23·2	100·0
Rivets and washers ...	1930 34·8	4·9	14·1	0·1	30·0	99·7
Bolts and nuts (including screws for metals) :—						
Bright ...	1933 26·7	6·1	22·8	0·9	21·5	95·8
Other than bright ...	1930 26·2	4·9	18·7	1·7	23·0	92·6
Screws for wood	1933 46·5	6·4	13·7	0·5	33·3	98·5
Bolts and nuts (including screws for metals) :—	1930 89·3	9·7	10·9	6·4	86·0	92·6
Bright ...	1933 23·8	0·9	3·8	0·2	23·1	99·1
Other than bright ...	1933 86·9	11·5	13·2	3·0	78·4	96·2
	Value (at factory)	Value (f.o.b.)		Value (c.i.f.)		
	£'000	£'000		£'000		
Screws for wood	1933 543	112	...	41	...	...
TOTAL—Bolts, nuts and screws ...	1933 3,553	421	...	124	...	...
	1930 4,219	823	...	390	...	...

\* Under 50 tons.

† Excluding springs for ordnance, small arms, locks, latches, clocks, watches, motor cars, motor cycles and musical instruments.

‡ Negligible.

The following tables relate only to firms whose returns were made on schedules for the Chain, Nail, Screw and Miscellaneous Forgings Trades and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total			
	Under 18	All ages	Under 18	All ages	Under 18	All ages		
Operatives (average for the year) ...	1933	3,914	26,142	3,660	13,670	7,574	39,812	
	1930	4,450	28,878	4,108	13,728	8,558	42,606	
	Administrative, technical and clerical staff*	1933	190	3,328	340	1,803	530	5,131
		1930	278	3,260	269	1,548	547	4,808
TOTAL ...	1933	4,104	29,470	4,000	15,473	8,104	44,943	
	1930	4,728	32,138	4,377	15,276	9,105	47,414	
Average number of outworkers ...	1933	187		113		300		
	1930	278		177		455		

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	19,098	July 15 ...	20,352
February 18 ...	19,479	August 19 ...	20,394
March 18 ...	19,277	September 16 ...	20,790
April 15 ...	19,707	October 14 ...	20,999
May 13 ...	20,069	November 18 ...	21,364
June 17 ...	20,168	December 16 ...	21,591
AVERAGE FOR THE TWELVE MONTHS ...			20,274

**Table VII.—Other output of the Chain, Nail, Screw and Miscellaneous Forgings Trades**

The value of the gross output of the firms whose returns were made on schedules for the Chain, Nail, Screw and Miscellaneous Forgings Trades was £14,382,000 in 1933 and £16,465,000 in 1930, of which £11,914,000 in 1933 and £13,913,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
Manufactures of iron and steel :—	£'000	£'000
Wire nails ... ..	342	112
Tools and implements (including machine tools) ...	20	42
Vehicles and parts and accessories (except axles) ...	386	484
Iron and steel castings ... ..	74	} 848
Iron and steel stampings ... ..	32	
Railway material (including tyres and axles) ...	188	
Other iron and steel manufactures ... ..	663	
Manufactures of non-ferrous metals :—		
Stampings ... ..	11	} 266
Other manufactures ... ..	331	
Stampings of unspecified metals ... ..	47	74
Other goods made ... ..	53	259
Work done :—		
Repair and jobbing work (including wheelwrighting and horse-shoeing) ... ..	29*	98*
Constructional engineering ... ..	36*	52*
Galvanising ... ..	7*	9*
Other work ... ..	10*	10*
Scrap metals sold :—		
Iron and steel ... ..	174 (97,700 tons)	231 (86,000 tons)
Brass ... ..	57 (3,300 tons)	51 (1,400 tons)
Copper ... ..	3	9
Other and unspecified metals ... ..	5	7
<b>TOTAL</b> ... ..	<b>2,468</b>	<b>2,552</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
Iron :—	Th. tons	£'000
Bars ... ..	36·2	301
Wire and rods ... ..	7·5	108
Other kinds ... ..	7·4	84
Steel :—		
Bars ... ..	254·1	2,151
Wire and rods ... ..	84·0	1,025
Other kinds ... ..	78·6	758
Copper (in all forms) ... ..	1·2	56
Brass (in all forms) ... ..	9·3	454
All other materials used (including fuel) ... ..	...	2,116
<b>TOTAL</b> ... ..	...	<b>7,053</b>

## THE WROUGHT IRON AND STEEL TUBE TRADE

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	11,404	13,252
Cost of materials used ... ..	"	6,542	7,543
Amount paid for work given out ... ..	"	51	55
Net output ... ..	"	4,811	5,654
Average number of persons employed ... ..	No.	20,700	25,796
Net output per person employed ... ..	£	232	219

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Wrought iron and steel tubes :—				
Weldless tubes ... ..	194·3	4,627	165·5	5,169
Welded tubes ... ..	287·9	4,993	300·8	6,536
Cased tubes (including copper-clad and copper-lined steel tubes) ... ..	0·5	32	8·3	180
Other, including close-joint tubes ... ..	8·9	143		
Tubes finished, screwed, bent or other- wise manipulated for sale* ... ..	5·7	440	4·6	328
...	...	89		
Fittings for wrought tubes :—				
Wrought ... ..	12·3	596	12·8	667
Malleable cast ... ..	0·3	27	1·2	68
TOTAL—Wrought iron and steel tubes and fittings ... ..	...	10,952	493·2	12,948
Flexible metallic tubing* ... ..	...	118	...	110
TOTAL—PRINCIPAL PRODUCTS ... ..	...	11,070	...	13,058

\* So far as recorded separately.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Wrought iron and steel tubes :—				
Weldless tubes ... ..	—	—	0·7	42
Welded tubes ... ..	10·8	141	8·7	222
Other tubes ... ..	0·3	15	2·0	52
... ..	...	5		
Tubes finished, screwed, bent or otherwise manipulated for sale ... ..	0·3	11	0·3	19
... ..	...	24		
Fittings for wrought tubes ... ..	0·1	5	0·4	14
... ..	...	1		
Flexible metallic tubing... ..	...	12	—	—
TOTAL ... ..	...	214	...	349

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Wrought tubes :—							
Weldless tubes ... ..	23·8	31·2	76·3	20·2	25·5	21·4	17·1
Welded tubes ... ..	17·3	21·7	79·8	16·1	19·5	17·6	14·6
Fittings for wrought tubes :—							
Wrought ... ..	48·5	52·3	92·7	61·2	64·7	56·6	33·8
Malleable cast ... ..	82·3	59·1	139·3	60·7	82·4	90·6	69·2



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Wrought tubes :—	£'000	£'000	£'000		
Weldless tubes ... ..	5,169	4,627	6,064	11 <sup>7</sup>	66
Welded tubes ... ..	6,536	4,993	6,257	96	99
Fittings for wrought tubes :—					
Wrought ... ..	667	596	643	96	93
Malleable cast ... ..	68	27	19	28	162
Other principal products ...	618	827	811	131	113
<b>TOTAL ... ..</b>	<b>13,058</b>	<b>11,070</b>	<b>13,794</b>	<b>106</b>	<b>87</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Produ- tion	Exports	Propor- tion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Wrought tubes :—						
Weldless ... {	1933 194.3	82.9	42.7	12.5	123.9	89.9
1930 165.5	57.9	35.0	23.9	131.4	81.8	
Welded ... {	1933 287.9	99.9	34.7	1.0	189.0	99.5
1930 300.8	167.1	55.6	25.6	159.3	83.9	
Fittings for wrought tubes :—						
Wrought ... {	1933 12.3	3.0	24.4	0.2	9.5	97.9
1930 12.8	4.8	37.5	3.2	11.2	71.4	

The following tables relate only to firms whose returns were made on schedules for the Wrought Iron and Steel Tube Trade and are summarised in Table I.

Table VI.—Employment

A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	1,426	17,173	163	691	1,589	17,864
	1930	1,910	22,108	174	677	2,084	22,785
Administrative, technical and clerical staff*	1933	103	2,152	70	684	173	2,836
	1930	229	2,317	99	694	328	3,011
TOTAL ... ..	1933	1,529	19,325	233	1,375	1,762	20,700
	1930	2,139	24,425	273	1,371	2,412	25,796

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	8,937	July 15 ... ..	10,295
February 18... ..	9,112	August 19 ... ..	10,137
March 18 ... ..	9,313	September 16 ... ..	10,091
April 15 ... ..	8,985	October 14... ..	10,152
May 13 ... ..	9,218	November 18 ... ..	10,452
June 17 ... ..	9,855	December 16 ... ..	10,569
AVERAGE FOR THE TWELVE MONTHS ... ..			9,760

**Table VII.—Other output of the Wrought Iron and Steel Tube Trade**

The value of the gross output of the firms whose returns were made on schedules for the Wrought Iron and Steel Tube Trade was £11,404,000 in 1933 and £13,252,000 in 1930, of which £10,856,000 in 1933 and £12,709,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Iron and steel manufactures, other than tubes and fittings... ..	297	244
Goods of other metals ... ..	18	11
Work done for the trade or on commission, and iron and steel structural work ... ..	31*	—
Scrap, waste and by-products sold :—		
Iron and steel scrap ... ..	172 (94,400 tons)	255 (97,500 tons)
Scrap of non-ferrous metals ... ..	23 (2,000 tons)	2 (500 tons)
Other waste and by-products ... ..	7	31
<b>TOTAL</b> ... ..	<b>548</b>	<b>543</b>

\* Amount received.

### THE WIRE TRADE

*Note.*—The particulars given for 1930 in Tables I and VI differ from those published in the Final Report on the Fourth Census of Production (see paragraph 8 (a), page x).

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	11,668	13,430
Cost of materials used and amount paid for work given out ... ..	"	7,441	9,204
Net output ... ..	"	4,227	4,226
Average number of persons employed ... ..	No.	19,909	21,898
Net output per person employed ... ..	£	212	193

### Production

**Table II A.—Total quantity of Wire drawn**

Kind of wire	Returned on Schedules for			
	The Wire Trade		All trades	
	1933*	1930	1933	1930
Iron and steel ... ..	Th. tons 345·4	Th. tons 285·6	Th. tons 353·2	Th. tons 295·1
Copper ... ..	28·7	34·5	81·6	97·7
Brass and other alloys of copper ... ..	4·2	5·3	13·4	12·1
Aluminium ... ..	1·7	†	2·6†	†

\* Of the quantities returned for 1933 on Schedules for the Wire Trade the following amounts were re-drawn from purchased wire :—

Wire of :—	1933
	Th. tons
Iron and steel ... ..	3·9
Copper ... ..	0·1
Brass and other alloys of copper ... ..	0·8

A small measure of duplication in the totals is thus involved unless the wire re-drawn was imported. Similar particulars are not available for 1930.

† Not recorded.

‡ So far as recorded separately.

Table II B.—Principal products made for sale

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Iron and steel wire :—</b>				
Fencing wire :—				
Barbed ... ..	12·6	197	8·9	159
Other sorts ... ..	11·9	151	16·8	263
Other kinds (including un-insulated electric wire) ...	277·8	4,909	228·5	4,589
<b>TOTAL—Iron and steel wire ...</b>	<b>302·3</b>	<b>5,257</b>	<b>254·2</b>	<b>5,011</b>
<b>Manufactures of iron and steel wire :—</b>				
Wire cables and rope (except insulated telephone and telegraph cables) ... ..	55·3	2,298	70·4	3,019
Wire netting :—				
Hexagonal mesh ... ..	12·7	355	} 20·6	549
Other ... ..	8·4	203		
Wire nails (including staples) ...	54·5	697	16·9	294
Wire brushes ... ..	Th. doz. 258·6	80	...	70‡
Wire cloth‡ ... ..	Th. tons 0·4	40	}	
Other manufactures of iron and steel wire, except wire mattresses ... ..	...	22		
Other manufactures of iron and steel wire, except wire mattresses ... ..	8·1	415	8·9¶	293¶
Other manufactures of iron and steel wire, except wire mattresses ... ..	...	222	...	543*
<b>TOTAL—Manufactures of iron and steel wire ... ..</b>	<b>...</b>	<b>4,332</b>	<b>...</b>	<b>4,768*</b>
<b>Wire of non-ferrous metals :—</b>				
Brass wire in coils ... ..	7·1	443	7·0	587
Wire of other alloys of copper, in coils ... ..	3·0	206	3·3	350
Copper wire in coils :—				
Circular section :—				
Thinner than No. 20 gauge	4·8	307	3·2	260
No. 20 gauge and thicker ...	24·9	1,256	31·5	2,425
Other than circular ... ..	2·8	171	5·1	450
Not separately distinguished‡	20·0	973	...	1,844
Aluminium wire‡ ... ..	2·7	267	1·6	176
Wire of other non-ferrous metals‡	1·0	301	...	3
<b>TOTAL—Wire of non-ferrous metals ... ..</b>	<b>66·3</b>	<b>3,924</b>	<b>...</b>	<b>6,005</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Manufactures of wire of non-ferrous metals :—</b>				
Paper machine wires † ...	Th. sq. ft. 1,615	141	}	
	...	40		
Wire cloth † ... ..	Th. tons 0·1	48	}	
	...	13		
<b>Other manufactures :—</b>				
Of brass wire ... ..	0·4	74	0·3	60
	...	20	...	64
Of copper wire ... ..	2·0	125	} 1·6	124
	...	...		...
Of wire of other non-ferrous metals	0·6	78		
<b>Manufactures of wire of unclassified metals :—</b>				
Wire cloth † ... ..	—	—	...	123
Other manufactures ... ..	...	132	...	173
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	14,184	...	16,468*

† So far as recorded separately.

|| Not recorded separately.

¶ See page (6).

\* In addition, £6,000 in respect of other manufactures of iron and steel was returned on schedules for trades not covered by the 1933 Inquiry.

† Mainly uninsulated electric wire sold (or added to stock) by electrical firms.

§ This output, which is so far as separately recorded for both years, consists mainly for 1933 of wire of nickel alloys; such output in 1930 was not distinguished separately being classified as a principal product of the Aluminium, Lead, Tin, etc., Trade, under the general heading of "Nickel and Nickel Alloys :—Unwrought and wrought (ingots, sheets, strips, plates, wire, etc.)"

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Iron and steel wire :—</b>				
Fencing wire, other sorts ...	0·3	3	0·2	2
Other kinds (including un-insulated electric wire) ...	7·6	188	9·3	186
<b>TOTAL—Iron and steel wire ...</b>	<b>7·9</b>	<b>191</b>	<b>9·5</b>	<b>188</b>
<b>Manufactures of iron and steel wire :—</b>				
Wire cables and rope (except insulated telephone and telegraph cables) ...	5·6	248	6·3	294
Wire netting (including woven wire fencing) ...	3·5	83	3·5	87
Wire nails (including staples) ...	25·3	342	6·3	130
Wire brushes ...	Th. doz. 127·8	35	—	—
Other manufactures of iron and steel wire, except wire mattresses ...	Th. tons. 0·7	46	0·6	43
	...	16	...	45
<b>TOTAL—Manufactures of iron and steel wire ...</b>	<b>...</b>	<b>770</b>	<b>...</b>	<b>599</b>
<b>Wire of non-ferrous metals :—</b>				
Brass wire in coils ...	5·2	295	4·5	339
Wire of other alloys of copper, in coils ...	1·3	98	0·9	99
<b>Copper wire in coils :—</b>				
Circular section :—				
Thinner than No. 20 gauge	0·7	44	1·0	88
No. 20 gauge and thicker ...	9·7	512	11·2	931
Other than circular ...	0·1	9	0·2	18
Not separately distinguished	19·6	954	...	1,844
Wire of other non-ferrous metals, including aluminium ...	1·8	416	—	—
<b>TOTAL—Wire of non-ferrous metals ...</b>	<b>38·4</b>	<b>2,328</b>	<b>...</b>	<b>3,319</b>
<b>Manufactures of brass wire</b> ...	<b>0·3</b>	<b>35</b>	<b>—</b>	<b>—</b>
<b>Manufactures of copper wire</b> ...	<b>...</b>	<b>9</b>	<b>—</b>	<b>—</b>
<b>Other manufactures of wire</b> ...	<b>0·3</b>	<b>13</b>	<b>—</b>	<b>—</b>
	<b>0·6</b>	<b>46</b>	<b>—</b>	<b>—</b>
<b>TOTAL ...</b>	<b>...</b>	<b>3,392</b>	<b>...</b>	<b>4,106</b>

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Iron and steel wire :—							
Fencing wire :—							
Barbed ... ..	15·6	17·8	87·8	16·5	18·9	11·1	12·6
Other sorts ... ..	12·7	15·7	80·7	13·5	15·2	10·3	12·8
Other kinds of wire (in- cluding uninsulated electric wire) ... ..	17·7	20·1	88·0	22·7	25·8	12·3	13·5
Wire cables and rope (ex- cept insulated tele- phone and telegraph cables) ... ..	41·5	42·6	97·6	42·9	46·2	32·5	29·7
Wire netting :—							
Hexagonal mesh ... ..	28·1	*	...	24·3	*	17·4	*
Other ... ..	24·1	*	...	25·0	*	20·6	*
TOTAL—Wire netting	26·5	26·6	99·5	24·6	25·4	18·4	20·5
Wire nails (including staples) ... ..	12·8	17·4	73·6	20·2	20·4	11·2	11·9
Wire of non - ferrous metals :—							
Brass wire in coils ... ..	62·3	84·2	74·0	97·1	141·8	52·3	83·5
Wire of other alloys of copper, in coils ... ..	68·3	106·8	64·0	107·3	112·0	120·5	111·7
Copper wire in coils :—							
Circular section :—							
Thinner than No. 20 gauge ... ..	64·0	81·6	78·5	64·3	89·0	79·4	94·5
No. 20 gauge and thicker ... ..	50·4	77·1	65·4	53·7	81·7	50·3	87·6
Other than circular	60·8	88·3	68·9	83·0	92·1	206·1	106·0
Aluminium wire ... ..	100·5	112·1	89·7	*	*	*	*

\* Not recorded separately.



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Iron and steel wire :—					
Fencing wire :—					
Barbed ... ..	159	197	224	141	108
Other sorts ... ..	263	151	187	71	116
Other kinds (including un- insulated electric wire)...	4,589	4,909	5,558	121	111
Manufactures of iron and steel wire :—					
Wire cables and rope (ex- cept insulated telephone and telegraph cables) ...	3,019	2,298	2,354	78	101
Wire netting ... ..	549	558	561	102	153
Wire nails (including staples) ... ..	294	697	907	309	81
Wire brushes ... ..	70	80	100	143	} 101
Other manufactures of iron or steel wire, except wire mattresses and wire cloth	836	637	547	65	
Wire of non-ferrous metals :—					
Brass wire in coils ...	587	443	598	102	} 112
Wire of other alloys of copper, in coils ...	350	206	322	92	
Copper wire in coils :—					
Circular section :—					
Thinner than No. 20 gauge ... ..	260	307	391	150	204
No. 20 gauge and thicker ... ..	2,425	1,256	1,922	79	98
Other than circular ...	450	171	248	55	42
Not separately distin- guished ... ..	1,844	973	1,490	78	54
Aluminium wire ... ..	176	267	298	...	} *
Wire of other non-ferrous metals ... ..	3	301	434	...	
Manufactures of brass wire (including paper machine wires) ... ..	124	275	372	300	181
Manufactures of copper wire	174	125	158	90	50
Manufactures of wire of other and unclassified metals :—					
Wire cloth ... ..	123	123	153	124	*
Other manufactures ...	173	210	216	125	—
<b>TOTAL ... ..</b>	<b>16,468</b>	<b>14,184</b>	<b>17,040</b>	<b>103</b>	<b>98</b>

\* Not recorded separately.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
<b>Iron and steel :—</b>						
Barbed wire ...	1933 12.6 1930 8.9	6.3 5.6	50.0 62.9	1.6 5.2	7.9 8.5	79.7 38.8
Other descriptions of wire	1933 340.6* 1930 286.2*	41.1 48.5	12.1 16.9	11.0 54.1	310.5 291.8	96.5 81.5
Wire cables and rope (except insulated telephone and telegraph cables)	1933 55.3 1930 70.4	12.5 20.6	22.6 29.3	0.3 1.1	43.1 50.9	99.3 97.8
<b>Wire netting :—</b>						
Hexagonal mesh	1933 12.7	3.1	24.4	1.7	11.3	85.0
Other ...	1933 8.4	2.2	26.2	0.7	6.9	89.9
Total—Wire netting	1933 21.1 1930 20.6	5.3 9.0	25.1 43.7	2.4 6.4	18.2 18.0	86.8 64.4
Wire nails (including staples)	1933 54.5 1930 16.9	2.8 2.4	5.1 14.2	18.9 64.0	70.6 78.5	73.2 18.5
Wire of brass and other copper alloys, in coils	1933 13.4 1930 12.1	0.6 0.9	4.5 7.4	1.0 2.2	13.8 13.4	92.8 83.6
Copper wire in coils	1933 81.6 1930 97.7	3.7 9.0	4.5 9.2	0.8 6.7	78.7 95.4	99.0 93.0

\* Total weight of wire drawn less output of barbed wire.

The following tables relate only to firms whose returns were made on schedules for the Wire Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ...	1933 1,592 1930 1,983	15,019 16,414	918 1,089	2,895 3,224	2,510 3,072	17,914 19,638
Administrative, technical and clerical staff* ...	1933 83 1930 124	1,400 1,586	76 89	595 674	159 213	1,995 2,260
TOTAL ...	1933 1,675 1930 2,107	16,419 18,000	994 1,178	3,490 3,898	2,669 3,285	19,909 21,898

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933  
BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE  
MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	10,482	July 15 ... ..	10,940
February 18 ...	10,617	August 19 ... ..	10,778
March 18 ... ..	10,714	September 16 ...	11,054
April 15 ... ..	10,773	October 14 ... ..	11,333
May 13 ... ..	10,881	November 18 ...	11,476
June 17 ... ..	10,886	December 16 ...	11,693
AVERAGE FOR THE TWELVE MONTHS ... ..			10,969

**Table VII.—Other output of the Wire Trade**

The value of the gross output of the firms whose returns were made on schedules for the Wire Trade was £11,668,000 in 1933 and £13,430,000 in 1930, of which £10,792,000 in 1933 and £12,362,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Manufactures of iron and steel :—				
Wire rods* ... ..	30·7	260	13·5	123
Wire mattresses ... ..	...	18	...	45
Other semi-finished iron and steel	3·0	62	13·3	247
Other manufactures ... ..	...	106	...	112
Goods of other metals ... ..	...	316	...	304
Other goods made ... ..	...	53	...	136
Scrap metal sold ... ..	0·5	5	4·5	17
Work done for the trade ... ..	...	56†	...	84†
<b>TOTAL</b> ... ..	...	876	...	1,068

\* The total make of iron and steel wire rods recorded on schedules for the Wire Trade was 89,100 tons in 1933 and 60,000 tons in 1930.

† Amount received.

**THE TOOL AND IMPLEMENT TRADE**

Notes.—(a) The particulars given for 1930 in Tables I, VI and VII differ from those published in the Final Report on the Fourth Census of Production (see paragraph 8 (a), page x).

(b) The figures for 1930 relate to Great Britain only, particulars of the small production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	5,894	6,272
Cost of materials used ... ..	"	2,259	2,503
Amount paid for work given out ... ..	"	51	65
Net output ... ..	"	3,584	3,704
Average number of persons employed ... ..	No.	20,970	22,376
Net output per person employed ... ..	£	171	166

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Files and rasps ... ..	1,777	559	1,638	630
Saws and saw blades ... ..	2,932	614	2,278	565
Axes, hatchets, adzes and matchets	147	121	178	152
Carpenters' and joiners' tools, not elsewhere specified ... ..	687	321	477	277
Spades and shovels for all purposes	511	419	547	515
Agricultural and horticultural im- plements (except spades, shovels and secateurs) :—				
Forks for agricultural and horticultural purposes ... ..	111	167	79	144
Other kinds of implements ... ..	...	735	...	860*
Sheep shears and horse clippers {	21	42	...	52*†
... ..	...	6	...	...
Engineers' tools (including stocks and dies, wrenches, spanners, etc., but excluding gauges), not else- where specified ... ..	...	1,701	...	1,880*
	Thous.		Thous.	
Gauges (other than pressure { gauges) ... ..	86·9	12	3·2†	5*†
... ..	...	67	...	...
Permanent magnets ... ..	...	406	...	289†
Machine knives and shear blades... ..	...	267	...	261
Stamps, brands, dies, etc., (of metal)† ... ..	...	47	...	52*

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Builders', decorators', glaziers' and similar tools, not elsewhere specified† ... ..	60	54	} ...	147
...	...	18		
Mining tools† ... ..	...	62	...	84
Heavy-edge tools (picks, mattocks, etc.)† ... ..	68	46	} ...	59
...	...	32		
Press tools† ... ..	...	320	...	259*
Light steel tools (corkscrews, tin openers, etc.)† ... ..	4	5	} ...	414*
...	...	15		
Other and unclassified tools and implements ... ..	...	373	...	...
<b>TOTAL—PRINCIPAL PRODUCTS</b> ... ..	...	<b>6,454</b>	...	<b>6,863</b>

\* In addition the following output was returned on schedules for trades not covered by the 1933 Inquiry :—

Agricultural and horticultural implements (except spades, shovels and secateurs) :—	£'000
Other than forks ... ..	6
Sheep shears and horse clippers ... ..	11
Engineers' tools (including stocks, dies, wrenches, spanners, etc., but excluding gauges), not elsewhere specified ... ..	38
Gauges ... ..	1
Stamps, brands, etc. (of metal) ... ..	5
Press tools ... ..	6
Other and unclassified tools and implements ... ..	1
	—
	68
	—

† So far as recorded separately.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Files and rasps ... ..	33	7	322	112
Carpenters' and joiners' tools, not elsewhere specified ... ..	4	2	3	2
Agricultural and horticultural implements (except spades, shovels and secateurs) :—	...	14	...	23
Other kinds of implements ... ..	...	19	...	127
Engineers' tools (including stocks and dies, wrenches, spanners, etc., but excluding gauges), not elsewhere specified ... ..	...	622	...	718
Gauges ... ..	...	63	—	—
Permanent magnets ... ..	...	...	...	...
Stamps, brands, dies, etc. (of metal) ... ..	...	179	...	134
Builders', decorators', glaziers' and similar tools, not elsewhere specified ... ..	2	9	} ...	17
...	...	10		
Other principal products ... ..	...	259	...	395
<b>TOTAL</b> ... ..	...	<b>1,184</b>	...	<b>1,528</b>

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per doz.	s. per doz.	Per cent.	s. per doz.	s. per doz.	s. per doz.	s. per doz.
Files and rasps ... ..	6·29	7·73	81·4	6·40	7·40	5·27	5·30
Saws and saw blades ... ..	4·19	4·96	84·5	*	6·58	*	2·56
Axes, hatchets, adzes and matchets ... ..	16·4	17·0	96·5	13·5	15·9	12·6	15·8
Carpenters' and joiners' tools ... ..	9·45	11·6	80·5	*	16·6	*	7·0
Spades and shovels for all purposes ... ..	16·4	18·9	87·0	19·6	22·6	23·4	25·8
Forks for agricultural and horticultural purposes...	30·2	36·3	83·1	34·9	37·6	21·1	12·8
Sheep shears and horse clippers ... ..	39·8	45·0	88·5	†	†	†	†

\* Recorded by value only.

† Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
Files and rasps ... ..	630	559	687	109	134
Saws and saw blades ... ..	643	614	727	113	87
Axes, hatchets, adzes and matchets ... ..	152	121	125	82	128
Carpenters' and joiners' tools	387	366	455	118	128
Spades and shovels for all purposes ... ..	515	419	482	94	112
Forks for agricultural and horticultural purposes ...	174	167	201	116	} 87
Sheep shears and horse clip- pers ... ..	52	48	54	104	
Other and unclassified tools and implements ... ..	4,310	4,160	4,950	115	
<b>TOTAL ... ..</b>	<b>6,863</b>	<b>6,454</b>	<b>7,681</b>	<b>112</b>	<b>96</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. doz.	Th. doz.	Per cent.	Th. doz.	Th. doz.	Per cent.
Files and rasps ...	1933	706	39.7	166	1,237	86.6
	1930	598	36.5	222	1,262	82.4
Axes, hatchets, adzes and matchets ...	1933	147	...	2	2	...
	1930	103	58.0	12	87	86.4
Spades and shovels for all purposes ...	1933	201	39.3	*	310	99.9
	1930	213	38.9	*	334	99.9
	Value (at factory)	Value (f.o.b.)		Value (c.i.f.)		
	£'000	£'000		£'000		
Saws and saw blades ...	1933	207	...	32	...	...
	1930	230	...	73	...	...
Carpenters' and joiners' tools, not elsewhere specified ...	1933	128	...	52	...	...
	1930	140	...	140	...	...
Agricultural and horticultural implements (except spades and shovels):—						
Forks ...	1933	51	...	3	...	...
	1930	63	...	12	...	...
Other kinds ...	1933	546	...	11	...	...
	1930	466	...	37	...	...
Engineers' tools (including stocks and dies, wrenches, spanners, etc., but excluding gauges), not elsewhere specified ...	1933	327	...	164	...	...
	1930	501	...	434	...	...
Other tools and implements ...	1933	353	...	104	...	...
	1930	572	...	101	...	...

\* Under 200 dozen.

† Including some unclassified tools and implements.

The following tables relate only to firms whose returns were made on schedules for the Tool and Implement Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	2,590	14,937	921	3,428	3,511	18,365
	1930	2,846	16,273	850	3,328	3,696	19,601
Administrative, technical and clerical staff* ...	1933	104	1,752	152	853	256	2,605
	1930	166	1,843	172	932	338	2,775
TOTAL ...	1933	2,694	16,689	1,073	4,281	3,767	20,970
	1930	3,012	18,116	1,022	4,260	4,034	22,376

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	8,135	July 15 ...	8,505
February 18 ...	8,325	August 19 ...	8,449
March 18 ...	8,388	September 16 ...	8,532
April 15 ...	8,458	October 14 ...	8,711
May 13 ...	8,513	November 18 ...	8,947
June 17 ...	8,431	December 16 ...	9,096
AVERAGE FOR THE TWELVE MONTHS ...			8,541



**Table VII.—Other output of the Tool and Implement Trade**

The value of the gross output of the firms whose returns were made on schedules for the Tool and Implement Trade was £5,894,000 in 1933 and £6,272,000 in 1930, of which £5,270,000 in 1933 and £5,335,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Steel ingots, blooms, billets, bars, etc. ... ..	135	302
Steel forgings and castings in the rough ... ..	82	27
Machinery and accessories ... ..	22	54
Cutlery ... ..	113	100
Other metal manufactures ... ..	128	197
Handles for tools and implements ... ..	32	38
Other goods made ... ..	19	113
Repair work ... ..	38*	52*
Work done for the trade :—		
On files and rasps ... ..	14*	20*
Other work ... ..	41*	34*
<b>Total ... ..</b>	<b>624</b>	<b>937</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
Steel ... ..	57·3	1,044
All other materials used (including fuel) ... ..	...	1,215
<b>TOTAL ... ..</b>	<b>...</b>	<b>2,259</b>

**THE CUTLERY TRADE**

*Note.*—The figures for 1930 relate to Great Britain only. Particulars of the small production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	2,927	3,067
Cost of materials used ... ..	"	992	1,256
Amount paid for work given out ... ..	"	51	44
Net output ... ..	"	1,884	1,767
Average number of persons employed ... ..	No.	9,752	10,281
Net output per person employed ... ..	£	193	172

**Table II.—Output of principal products**

Cutlery	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
<b>Knives* :—</b>				
Complete with one or more blades made wholly or partly of steel or iron, other than surgical knives or knives for use in machines ...	2,185·2	931	} 3,114·0	1,286
Parts thereof (including handles, blades and blanks), sold or added to stock as such ... ..	1,365·2	159		
Scissors, including tailors' shears and secateurs, made wholly or partly of steel or iron (including handles, blades and blanks) ... ..	290·4	141	113·5	90
<b>Safety razors :—</b>				
Complete ... ..	247·4	336	374·9	287
Blades ... ..	26,308·8	1,013	9,285·0	817
Other parts (including handles and blanks) sold or added to stock as such ... ..	...	38	...	12
<b>Other razors :—</b>				
Complete ... ..	17·9	22	} 14·1	18
Component parts (including handles, blades and blanks) sold or added to stock as such ... ..	...	3		
Knife sharpeners wholly or partly of steel, and carving forks (including handles, blades and blanks) ... ..	...	20	...	16
Canteens and cased cutlery† ... ..	...	27	...	35
Other cutlers' wares and unclassified cutlery ... ..	...	33	...	74
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	...	2,723	...	2,635

\* Not including plated knives and blades, for which see Plate and Jewellery Trade, page 190.

† So far as recorded separately.

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

Cutlery	1933		1930	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
<b>Knives :—</b>				
Complete with one or more blades made wholly or partly of steel or iron, other than surgical knives or knives for use in machines ...	191·5	63	} 175·9	84
Parts thereof (including handles, blades and blanks), sold or added to stock as such ... ..	62·4	6		
Safety razor blades ... ..	920·5	46	455·7	66
Other principal products ... ..	...	31	...	17
<b>TOTAL</b> ... ..	...	146	...	167

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	s. per doz.	s. per doz.	Per cent.	s. per doz.	s. per doz.	s. per doz.	s. per doz.
Knives, other than surgical knives or knives for use in machines, (including handles, blades and blanks) ... ..	6·14	8·26	74·3	9·17	11·90	3·47	3·18
Scissors, shears and secateurs (including handles, blades and blanks) ...	9·69	15·86	61·1	13·05	11·98	6·68	3·83
<b>Safety razors :—</b>							
Complete ... ..	27·16	15·33	177·1	20·89	15·18	22·49	3·31
Blades ... ..	0·77	1·76	43·7	1·41	2·12	0·28	0·68

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
Knives (including handles, blades and blanks) ...	1,286	1,090	1,467	114	104
Scissors and shears (including handles, blades and blanks)	90	141	231	257	172
Safety razors :—					
Complete ... ..	287	336	190	66	} 32
Blades and other parts ...	829	1,051	2,389	288	
Other razors and parts thereof	18	25	26	144	267
Knife sharpeners, canteens and other cutlers' wares...	125	80	128	102	149
<b>TOTAL ... ..</b>	<b>2,635</b>	<b>2,723</b>	<b>4,431</b>	<b>168</b>	<b>79</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Produc- tion	Exports	Proportion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods	
			Per cent.		Th. doz.	Per cent.	
Knives with one or more blades made wholly or partly of steel or iron (including handles, blades and blanks), other than surgical knives or knives for use in machines	1933	3,550.4	633.3	17.8	159.4	3,076.5	94.8
	1930	3,114.0	690.6	22.2	368.0	2,791.4	86.8
Scissors, including tailors' shears and scateurs, made wholly or partly of steel or iron (includ- ing handles, blades and blanks)	1933	290.4	28.0	9.6	75.3	337.7	77.7
	1930	113.5	67.3	59.3	376.9	423.1	10.9
Safety razors :—	1933	247.4	155.6	62.9	3.3	95.1	96.5
	1930	374.9	167.3	44.6	86.2	293.8	70.7
Complete ... ..	1933	26,308.8	3,996.9	15.2	2,110.8	24,422.7	91.4
	1930	9,285.0	1,441.8	15.5	6,368.5	14,211.7	55.2
Blades ... ..							

The following tables relate only to firms whose returns were made on schedules for the Cutlery Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total			
	Under 18	All ages	Under 18	All ages	Under 18	All ages		
Operatives (average for the year)	1933	881	4,247	1,803	4,497	2,684	8,744	
	1930	722	4,795	1,376	4,254	2,098	9,049	
	Administrative, technical and clerical staff*	1933	28	638	61	370	89	1,008
		1930	33	718	116	514	149	1,232
TOTAL ... ..	1933	909	4,885	1,864	4,867	2,773	9,752	
	1930	755	5,513	1,492	4,768	2,247	10,281	

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	6,540	July 15 ... ..	7,027
February 18 ... ..	6,798	August 19 ... ..	7,149
March 18 ... ..	6,865	September 16 ... ..	7,574
April 15 ... ..	6,876	October 14 ... ..	7,924
May 13 ... ..	7,019	November 18 ... ..	8,113
June 17 ... ..	6,943	December 16 ... ..	7,999
AVERAGE FOR THE TWELVE MONTHS ... ..			7,236

**Table VII.—Other output of the Cutlery Trade**

The value of the gross output of the firms whose returns were made on schedules for the Cutlery Trade was £2,927,000 in 1933 and £3,067,000 in 1930, of which £2,577,000 in 1933 and £2,468,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Goldsmiths' and silversmiths' wares :—		
Of silver ... ..	13	12
Of metals other than gold or silver, coated or not :—		
Spoons and forks ... ..	159	223
Other sorts ... ..	62	133
Tools and implements ... ..	22	69
Machinery ... ..	6	40
Other metal manufactures ... ..	21	51
Other goods made ... ..	44	28
Repair work ... ..	12*	8*
Work done for the trade ... ..	11*	35*
<b>TOTAL ... ..</b>	<b>350</b>	<b>599</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
Steel ... ..	2.7	170
All other materials used (including fuel) ... ..	...	822
<b>TOTAL ... ..</b>	<b>...</b>	<b>992</b>

**THE NEEDLE, PIN, FISH-HOOK AND METAL  
SMALLWARES TRADE**

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	2,790	2,645
Cost of materials used and amount paid for work given out ... ..	"	1,003	992
Net output ... ..	"	1,787	1,653
Average number of persons employed (excluding outworkers) ... ..	No.	10,886	9,460
Net output per person employed (excluding outworkers) ... ..	£	164	175

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Million	£'000	Thous.	£'000
Needles :—				
Gramophone ... ..	{ 1,123 ... Thous.	{ 60 31	{ ...	{ 115*
Hosiery (latch) ... ..	{ 11,422 ... Thous.	{ 49 24	{ 7,922 ...	{ 34 4
Hosiery (bearded)* ... ..	{ 9,821 Th. lbs.	{ 16	{ ...	{ ...
Knitting (including knitting pins)† ... ..	{ 246 ... Th. lbs.	{ 57 13	{ 11,352 Th. lbs.	{ 19
Surgical needles* ... ..	{ 7·6 ... Th. lbs.	{ 28 4	{ ...	{ 62
Other descriptions ... ..	{ 485	{ 242	{ ...	{ ...
Total—Needles ... ..	...	524	...	574
Pins :—				
Hair pins (including hair curlers and wavers) ... ..	{ 2,578 Th. gross	{ 183	{ ...	{ 172
Safety pins (including tie and collar pins) ... ..	{ 5,359 ... Th. lbs.	{ 115 19	{ ...	{ 125
Other pins :—				
Solid headed ... ..	{ 1,713	{ 97	{ ...	{ ...
Other sorts (including crochet hooks) ... ..	{ ...	{ 14	{ ...	{ 125†
Total—Pins ... ..	...	428	...	422

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. gross	£'000	Th. gross	£'000
Buttons and studs of metal, covered or not :—				
Push buttons and studs ...	1,558	97	929	69
Other ... ..	4,344	253	3,682	213
Total—Buttons and studs of metal ... ..	5,902	350	4,611	282
Fishing tackle and fish-hooks† ...	...	110	...	115
Corset steels and busks ... ..	...	174	...	232*
Buckles ... ..	946	134	}	167
... ..	...	67		
Accoutrements, badges and similar accessories and fittings for uniforms* ... ..	...	26	...	36
Slide fasteners (including zipp fasteners)* ... ..	Th. feet 9,098	298	}	888
Other metal smallwares*§ ...	...	645		
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	2,756	...	2,716

\* So far as recorded separately.

† For 1930, the output of knitting pins is included with that for "Other pins."

|| In addition, the following output was returned on schedules for trades not covered by the 1933 Inquiry :—

	£'000
Buttons and studs of metal, other than push buttons and studs ... ..	3
	(31,000 gross)
Other metal smallwares ... ..	109
<b>TOTAL ... ..</b>	<b>112</b>

‡ The particulars shown do not include fishing tackle made by manufacturers of sports goods (see Part I, page 309).

§ Including hooks and eyes, boot eyelets, lacing hooks, paper clips, ticket pins, curtain hooks and rings, thimbles, etc.



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

Kind of goods	1933	1930
<b>Needles :—</b>	£'000	£'000
Gramophone ... ..	31	46
Hosiery (latch) ... ..	27	4
Knitting (including knitting pins) ... ..	13	6
Other descriptions ... ..	10 (15,000 lbs.)	
<b>Total—Needles</b> ... ..	81	56
<b>Pins :—</b>		
Hair pins (including hair curlers and wavers) ...	3 (2,000 lbs.)	24
Other sorts (including crochet hooks) ... ..	—	5
<b>Buttons and studs of metal, covered or not :—</b>		
Push buttons and studs ... ..	—	1 (2,000 gross)
Other ... ..	15 (253,000 gross)	2 (16,000 gross)
Fishing tackle and fish-hooks ... ..	1	—
Corset steels and buaks ... ..	13	—
Buckles ... ..	7	38
Accoutrements, badges and similar accessories and fittings for uniforms ... ..	1	—
Other metal smallwares (paper clips, ticket pins, curtain hooks and rings, thimbles, etc.) ...	48	97
<b>TOTAL</b> ... ..	169	223

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Hosiery (latch) needles ... ..	s. per thous.	s. per thous.	Per cent.	s. per thous.	s. per thous.	s. per thous.	s. per thous.
85-38	85-87	99-4	78-17	103-94	98-94	81-37	
Buttons and studs of metal, covered or not :—	s. per gross	s. per gross		s. per gross	s. per gross	s. per gross	s. per gross
Push buttons and studs ... ..	1-24	1-48	83-6	3-05	4-36	0-59	0-67
Other ... ..	1-16	1-15	101-1	2-51	2-26	0-47	0-33

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Needles :—					
Hosiery (latch) ... ..	38	73	73	192	*
Other descriptions ... ..	536	451	480	90	132
Buttons and studs of metal, covered or not :—					
Push buttons and studs	69	97	116	168	103
Other ... ..	213	253	250	117	160
Other principal products ...	1,860	1,882	2,050	110	91
<b>TOTAL ... ..</b>	<b>2,716</b>	<b>2,756</b>	<b>2,969</b>	<b>109</b>	<b>103</b>

\* Included with "Other principal products."

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Thous.	Thous.	Per cent.	Thous.	Thous.	Per cent.
Hosiery (latch) needles ... { 1933	17,112*	153	0·9	31,775	48,734	34·8
... { 1930	8,920*	127	1·4	28,943	37,736	23·3
Buttons and studs of metal, covered or not :—	Th. gross	Th. gross		Th. gross	Th. gross	
Push buttons and studs ... { 1933	1,558	51	3·3	744	2,251	66·9
... { 1930	929	21	2·3	176	1,084	83·8
Other ... .. { 1933	4,344	224	5·2	1,846	5,966	69·1
... { 1930	3,763	323	8·6	1,703	5,143	66·9

\* Including an estimate for needles returned by value only.

The following tables relate only to firms whose returns were made on schedules for the Needle, Pin, Fish-hook and Metal Smallwares Trades and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	345	2,720	2,331	7,084	2,676	9,804
	1930	280	2,682	1,780	5,866	2,060	8,548
Administrative, technical and clerical staff* ...	1933	20	570	78	512	98	1,082
	1930	10	536	69	376	79	912
TOTAL ... ..	1933	365	3,290	2,409	7,596	2,774	10,886
	1930	290	3,218	1,849	6,242	2,139	9,460
Average number of outworkers ... ..	1933	30		232		262	
	1930	23		168		191	

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	7,185	July 15 ... ..	7,407
February 18 ... ..	7,172	August 19 ... ..	7,466
March 18 ... ..	7,256	September 16 ... ..	7,597
April 15 ... ..	7,185	October 14 ... ..	7,846
May 13 ... ..	7,409	November 18 ... ..	7,960
June 17 ... ..	7,319	December 16 ... ..	7,933
AVERAGE FOR THE TWELVE MONTHS ... ..			7,478

**Table VII.—Other output of the Needle, Pin, Fish-hook and Metal Smallwares Trades**

The value of the gross output of the firms whose returns were made on schedules for the Needle, Pin, Fish-hook and Metal Smallwares Trades was £2,790,000 in 1933 and £2,645,000 in 1930, of which £2,587,000 in 1933 and £2,493,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Buttons and studs, other than of metal ... ..	73	
Manufactures of iron and steel ... ..	33	142
Other goods ... ..	95	
Work done for the trade ... ..	1*	7*
Waste products sold ... ..	1	3
TOTAL ... ..	203	152

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Steel wire ... ..	5,732	140
All other materials used (including fuel) ... ..	...	851
TOTAL ... ..	...	991

### THE SMALL ARMS TRADE (PRIVATE FIRMS)

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	340	485
Cost of materials used ... ..	"	76	165
Amount paid for work given out ... ..	"	2	10
Net output ... ..	"	262	310
Average number of persons employed (excluding outworkers) ... ..	No.	975	1,366
Net output per person employed (excluding outworkers) ... ..	£	268	227

Table II.—Output of principal products

Owing to the limited number of firms engaged in the manufacture of certain kinds of small arms and parts, particulars of production can only be published in the grouping set out below.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Sporting guns ... ..	Thous. 6·5	£'000 73	Thous. 11·8	£'000 178
Sporting carbines and rifles ... ..	1·0	9	1·1	20*
Other small arms, complete† ... ..	}	79‡	...	154‡
Tubes, barrels, actions and other parts and accessories of small arms ... ..				
TOTAL—PRINCIPAL PRODUCTS ... ..	...	161	...	352

\* Including £2,000 recorded on schedules for other trades.

† Including military and miniature rifles and carbines, air guns, revolvers, pistols, swords, cutlasses, bayonets, mechanical cattle killers, etc.

‡ Including £13,000 for 1933 and £16,000 for 1930 recorded on schedules for other trades.

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Sporting guns ... ..	£each 11.29	£each 15.02	Per cent. 75.2	£each 7.64	£each 9.12	£each 1.10	£each 1.43
Sporting carbines and rifles ... ..	8.86	17.59	50.3	14.64	12.18	1.57	2.02

**Table IV.—Volume of Production**

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Sporting guns ... ..	£'000 178	£'000 73	£'000 97	54	} 170
Sporting carbines and rifles...	20	9	18	90	
Other small arms, complete Tubes, barrels and other parts and accessories of small arms	} 154	79	84	50	
<b>TOTAL</b> ... ..	<b>352</b>	<b>161</b>	<b>199</b>	<b>57</b>	<b>170</b>

Table V.—Exports and Imports

Kind of goods	Exports		Retained imports	
	Quantity	Value	Quantity	Value
Small arms, complete :—	Number	£'000	Number	£'000
Sporting guns ... ..	1933 6,177	47	3,356	2
	1930 12,936	118	22,894	30
Sporting carbines and rifles...	1933 973	14	411	*
	1930 2,013	25	1,875	3
Military rifles and carbines ...	1933 4,158	25	44	*
	1930 3,127	19	8	*
Miniature and cadet rifles and carbines ... ..	1933 680	2	†	†
	1930 332	1	153	1
Air guns and rifles of all sorts...	1933 3,238	4	41,794	8
	1930 4,588	11	54,433	14
Revolvers and pistols ... ..	1933 2,895	9	3,966	2
	1930 5,254	14	3,671	2
Swords, cutlasses, bayonets and arms of other sorts, not fire-arms	1933 6,143	9	271	*
	1930 3,128	6	1,801	2
TOTAL—Small arms, complete	1933 ...	110	...	12
	1930 ...	194	...	52
Parts of small arms :—				
Tubes to be made into barrels of firearms	1933 1	*	189	*
	1930 —	—	17,185	2
Barrels without actions fitted	1933 962	2	6,586	1
	1930 16,890	29	†	†
Barrels with actions fitted ...	1933 136	*	†	†
	1930 190	*	—	—
Actions for small arms, not fitted to barrels ... ..	1933 60	*	246	*
	1930 6	*	34	*
		cwts.	cwts.	
Other parts of small arms ...	1933 398	20	172	2
	1930 391	23	478	2
TOTAL—Parts of small arms	1933 ...	22	...	3
	1930 ...	52	...	4

\* Less than £500. † Re-exports in excess of imports.

As already explained, particulars of production cannot be given in the above detail. The export figures for *sporting guns* and *sporting carbines and rifles* probably include some second-hand guns sold after reconditioning, and those for *military rifles and carbines* may include guns manufactured at Government factories and sold to Dominion and Colonial Governments.

The following tables relate only to firms whose returns were made on schedules for the Small Arms Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) {	1933	107	716	22	96	129	812
	1930	134	995	44	181	178	1,176
	Administrative, technical and clerical staff* ... {	1933	8	116	8	47	16
	1930	13	125	17	65	30	190
TOTAL ... .. {	1933	115	832	30	143	145	975
	1930	147	1,120	61	246	208	1,366
Average number of out-workers {	1933	74		—		74	
	1930	259		3		262	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES (EXCLUDING OUTWORKERS) EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	569	July 15 ... ..	543
February 18 ... ..	557	August 19 ... ..	544
March 18 ... ..	533	September 16 ... ..	568
April 15 ... ..	502	October 14 ... ..	555
May 13 ... ..	502	November 18 ... ..	557
June 17 ... ..	524	December 16 ... ..	554
AVERAGE FOR THE TWELVE MONTHS ... ..			542



Table VII.—Other output of the Small Arms Trade

The value of the gross output of the firms whose returns were made on schedules for the Small Arms Trade was £340,000 in 1933 and £485,000 in 1930, of which £148,000 in 1933 and £334,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Thous.	£'000	Thous.	£,000
Small arms ammunition (loaded cartridges) ... ..	8,467	59	5,679	45
Other goods made ... ..	...	108	...	72
Repair work and work done for the trade	...	25*	...	34*
<b>TOTAL</b> ... ..	...	192	...	151

\* Amount received.

**THE ENGINEERING AND VEHICLES TRADES**  
**GENERAL TABLES**

Table I.—General summary

Trade (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average numbers of persons employed (5)	Net output per person employed (6)
	£'000	£'000	£'000	No.	£
Mechanical Engineer- ing ... ..	1933 105,240 1930 146,512	43,732 62,545	61,508 83,967	315,700 410,531	195 205
Electrical Engineer- ing ... ..	1933 74,734 1930 87,875	33,809 42,984	40,925 44,891	195,450 192,322	209 233
Cycle ... ..	1933 14,895 1930 17,870	7,054 9,457	7,841 8,413	37,468 43,101	209 195
Aircraft ... ..	1933 7,439 1930 8,688	2,628 3,111	4,811 5,577	20,401 21,322	236 262
Railway Carriage and Wagon Building ...	1933 3,684 1930 9,036	2,184 5,644	1,500 3,392	9,095 17,804	165 191
TOTAL ... ..	1933 205,992 1930 269,981	89,407 123,741	116,585 146,240	578,114 685,030	202 213

Table II.—Volume of production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Machinery (other than elec- trical) and mechanical plant and appliances ...	£'000 124,192	£'000 94,487	£'000 99,525	80	101
Electrical machinery and apparatus ... ..	82,000	71,988	86,000	104	81
Cycles ... ..	6,180	7,635	9,076	147	86
Aircraft ... ..	8,248	6,724	6,123	74	35
Railway carriages and wagons ... ..	8,450	2,418	2,953	35	154
TOTAL ... ..	229,070	183,252	203,677	89	91

Table III.—Employment

AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

## (i) Operatives

Trade	Males		Females		Total		
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total
Mechanical Engineering... { 1933	25,035	242,583	3,219	15,144	28,254	229,473	257,727
{ 1930	40,405	330,187	3,673	15,882	44,078	301,991	346,069
Electrical Engineering ... { 1933	13,868	92,567	12,753	57,846	26,621	123,792	150,413
{ 1930	16,399	103,619	13,500	48,384	29,899	122,104	152,003
Aircraft ... { 1933	1,335	15,716	126	944	1,461	15,199	16,660
{ 1930	2,030	16,545	171	1,050	2,201	15,394	17,595
Railway Carriage and Wagon Building ... { 1933	686	7,515	7	96	693	6,918	7,611
{ 1930	1,620	15,428	29	219	1,649	13,998	15,647
TOTAL* ... { 1933	40,924	358,381	16,105	74,030	57,029	375,382	432,411
{ 1930	60,454	465,779	17,373	65,535	77,827	453,487	531,314

\* Excluding the Cycle Trade. See note page (140).

## (ii) Administrative, technical and clerical staff

Trade	Males		Females		Total		
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total
Mechanical Engineering... { 1933	2,861	44,428	1,850	13,545	4,711	53,262	57,973
{ 1930	4,838	49,445	2,869	15,017	7,707	56,755	64,462
Electrical Engineering ... { 1933	1,636	31,284	1,894	13,753	3,530	41,507	45,037
{ 1930	2,371	28,145	2,416	12,174	4,787	35,532	40,319
Aircraft ... { 1933	213	2,982	111	759	324	3,417	3,741
{ 1930	260	2,911	188	816	448	3,279	3,727
Railway Carriage and Wagon Building ... { 1933	56	1,176	27	308	83	1,401	1,484
{ 1930	133	1,684	83	473	216	1,941	2,157
TOTAL* ... { 1933	4,766	79,870	3,882	28,365	8,648	99,587	108,235
{ 1930	7,602	82,185	5,556	23,480	13,158	97,507	110,665

\* Excluding the Cycle Trade. See note page (140).

Table IV

A.—RETURNS COVERING THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Per cent. of total
Mechanical Engineering...	315,700	168,150	53	401,616	212,618	53
Electrical Engineering ...	195,450	141,513	72	191,970	129,712	68
Cycle ... ..	37,468	8,098	22	43,101	7,349	17
Aircraft ... ..	20,401	9,578	47	21,322	8,514	40
Railway Carriage and Wagon Building ...	9,095	5,067	56	17,804	13,209	74
<b>TOTAL ...</b>	<b>578,114</b>	<b>332,406</b>	<b>57</b>	<b>675,713</b>	<b>371,402</b>	<b>55</b>

\* Great Britain.

B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ... ..	251,671	318,398
February ... ..	249,708	317,006
March ... ..	248,395	314,914
April ... ..	248,920	313,901
May ... ..	253,884	312,398
June ... ..	256,616	309,367
July ... ..	261,730	305,951
August ... ..	264,131	300,671
September ... ..	274,337	300,326
October ... ..	279,517	295,090
November ... ..	281,909	289,977
December ... ..	283,051	283,416
<b>AVERAGE FOR THE TWELVE MONTHS ... ..</b>	<b>262,822</b>	<b>305,118</b>

\* Great Britain. The average number of operatives employed by *all* firms in Northern Ireland in 1930 was 8,474.**Amendments of certain aggregates for 1930**

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production.

Mechanical Engineering Trade :—  
Hosiery and knitting machines.  
Laundry machinery.

## THE MECHANICAL ENGINEERING TRADE

*Notes.*—(a) Returns for 1933 were not required from firms whose business in that year was confined to marine engineering ; repairing firms and constructional engineers that were not engaged in any work of manufacture in 1933 were also excluded from the Inquiry. In order that the particulars shown for 1930 in the following tables should be on a comparable basis with those for 1933, the results for 1930 published in the Final Report on the Fourth Census of Production have been adjusted by excluding the returns of the firms in question. Other minor adjustments arising from differences in classification of the returns of individual firms have also been made.

(b) Engineering production carried on by Railway Companies, Government Departments, Local Authorities and other Public Utility Services was not covered by the Inquiry.

(c) In the returns of exports and imports, the particulars of quantity (tons) include parts as well as complete machines. Particulars of the production of parts of machinery were not required by quantity, and in the tables comparing exports and imports with production the latter figures are, therefore, generally confined to values.

(d) For convenience of presentation, the results concerning particular classes of goods (i.e. details of goods produced, exported and imported, and their average values) are shown in six separate sections, viz. :—

- (i) Prime movers and boilers (other than marine).
- (ii) Textile machinery and accessories.
- (iii) Machine tools.
- (iv) Printing and bookbinding machinery.
- (v) Agricultural machinery.
- (vi) Other mechanical engineering products.

The numbering of the tables throughout differs from that indicated in the Introductory Notes (pages V—VII).

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	105,240	146,512
Cost of materials used ... ..	"	43,086	59,231
Amount paid for work given out ... ..	"	646	3,314
Net output ... ..	"	61,508	83,967
Average number of persons employed ... ..	No.	315,700	410,531
Net output per person employed ... ..	£	195	205

## (I) PRIME MOVERS AND BOILERS (OTHER THAN MARINE)

Table II.—Output of principal products

(a) Complete machines (b) Replacement parts	1933		1930	
	Quantity	Value	Quantity	Value
Locomotives and tractors :—	No.	£'000	No.	£'000
Locomotives, rail :—				
Main line (i.e., standard gauge) locomotives :—				
Steam ... .. (a)	78	321†	585	3,943†
Electric ... .. (a)	—	—	23	54†
Other ... .. (a)	13	124†	—	—
TOTAL —Main line ... (a)	91	445	608	3,997
Contractors' and light locomotives ... .. (a)	221	124†	287	219†*
Parts of locomotives (other than wheels and axles, complete) (b)	...	460	...	1,450*
Tractors (including steam rollers) :—				
Agricultural ... .. (a)	298	57†	519	277†*
Other ... .. (a)	420	195†	448	238†*
			...	241*
Parts of tractors ... (b)	Tons 1,950	154	...	195*
TOTAL—Locomotives and tractors... { (a)	...	821	...	4,972*
{ (b)	...	614	...	1,645*

(a) Complete machines (b) Replacement parts	1933		1930	
	Quantity	Value	Quantity	Value
Prime movers, not electrical, other than marine and for vehicles and aircraft :—	Tons	£'000	Tons	£'000
Internal combustion engines :—				
Gas ... ..	(a) 893	56	1,594	105
	(b) ...	95	...	132
Oil ... ..	(a) 22,232	2,254	{ 17,414	1,535
	(b) ...	492	{ ...	719
Petrol and other light spirit ... ..	(a) 2,574	259	{ 5,767	466*
	(b) ...	41	{ ...	153
Steam reciprocating engines :—				
Pumping ... ..	(a) 739	90	1,216	137
	(b) ...	23	...	32
Other (excluding winding engines for mining machinery) ...	(a) 3,525	260	{ 4,825	367
	(b) ...	136	{ ...	151*
Steam turbines and other rotary engines ... ..	(a) 2,842	423†	{ 8,941	1,665†
	(b) ...	100	{ ...	96
Water turbines and other water engines ...	(a) 1,345	146	{ 425	36
	(b) ...	8	{ ...	29
			{ ...	14
TOTAL—Prime movers and parts ... ..	(a) ...	3,488	...	5,459*
	(b) ...	895	...	1,069*
Boilers and boiler-house plant (excluding boilers for ships or locomotives) :—				
Boilers :—				
Internally fired boilers (Lancashire, Gallo-way and Cornish types) ... ..	(a) { 4,952	158	5,528	194
	(b) ...	40	...	121
Locomotive type boilers (for stationary purposes) ...	(a) 1,387	53	{ 991	39
	(b) ...	6	{ ...	15
Water tube boilers ... ..	(a) { 12,994	613	25,545	1,201
	(b) ...	259	...	95
Other boilers ... ..	(a) { 8,203	345	{ 8,888	339
	(b) ...	43	{ ...	165
Economisers, feed-water heaters and steam superheaters ... ..	(a) { 12,217	674	25,822	956
	(b) ...	118	...	381
Other boiler-house plant ... ..	(a) { 20,063	935	{ 39,871	1,761
	(b) ...	404	{ ...	96
			{ ...	256
TOTAL—Boilers and boiler-house plant ... ..	(a) ...	3,195	...	5,363
	(b) ...	689	...	558
TOTAL — Locomotives and tractors, prime movers and boilers ... ..	...	9,702‡	...	19,066*‡

† The output of rail locomotives and tractors (including steam rollers) in respect of which weights were recorded was as follows:—

Main line locomotives:—		No.	Tons	£'000
Steam ... ..	{ 1933	78	4,712	321
	{ 1930	569	53,180	3,809
Electric ... ..	{ 1930	23	736	54
Other ... ..	{ 1933	13	666	124
Contractors' and light locomotives	{ 1933	217	1,531	122
	{ 1930	267	2,095	185
Tractors (including steam rollers):—				
Agricultural ... ..	{ 1933	298	494	57
	{ 1930	519	3,659	277
Other ... ..	{ 1933	420	2,652	195
	{ 1930	384	1,652	202

\* In addition, the following output was recorded on schedules for trades not covered by the 1933 Inquiry:—

		No.	£'000
Locomotives, rail:—			
Contractors' and light	... .. (a)	55	76
Parts of locomotives (other than wheels and axles, complete)	... .. (b)	...	14
Tractors (including steam rollers):—			
Agricultural	... .. (a)	2	2
Other	... .. (a)	{ 114	112
		{ ...	2
Parts of tractors	... .. (b)	...	83
Prime movers:—			
Petrol and other light spirit	... .. (a)	17	1
Steam reciprocating engines, other	{ (a)	...	13
	{ (b)	...	2
TOTAL	{ (a)	...	206
	{ (b)	...	99

‡ See notes (a) and (b) on page 95.

§ Of which £271,000 in 1933 and £1,306,000 in 1930 was recorded on schedules for other trades (see Table XX).



Table III.—Average values of goods produced, exported and imported

Prime movers and boilers, and parts	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ each	£ each	Per cent.	£ each	£ each	£ each	£ each
Locomotives, rail :—							
Main line (excluding electric) ...	4,898	6,654	73·6	4,564	6,130	†	—
Contractors and light Tractors (including steam rollers) :—	560	764	73·1	244	567	239	266
Agricultural, complete ...	186	534	34·9	117	285	149	119
Other tractors, complete ...	463	532	87·1	196	340	140	109
Prime movers, other than marine, and for vehicles and aircraft :—							
Internal combustion engines :—	£	£		£	£	£	£
Gas ...	per ton 62·7	per ton 65·9	95·1	per ton 100·6	per ton 96·0	per ton †	per ton 71·7
Oil ...	101·4	88·1	115·0	101·6	96·5	379·1	122·8
Petrol and other light spirit ...	100·7	80·9	124·5	172·8	134·1	344·6	183·0
Steam reciprocating engines (other than winding engines for mining machinery)	82·1	83·4	98·5	88·5	96·8	†	127·2
Steam turbines and other rotary engines ...	148·9	186·3	80·0	202·1	177·6	247·1	174·0
Water turbines and other water engines	108·5	84·7	116·3	166·3	142·6	†	124·7
Boilers :—							
Internally fired (Lancashire, Galloway and Cornish types)	31·9	35·0	91·0	38·0	40·7	†	†
Locomotive type for stationary purposes	38·5	38·9	99·0	59·5	61·4	—	—
Water tube boilers ...	47·2	47·0	100·3	54·6	53·6	†	67·3
Economisers, feed-water heaters and steam super-heaters ...	55·2	37·0	149·1	39·2	40·5	†	91·4

† This figure would have no significance.

**Table IV.—Production in relation to Exports and Imports**  
(See note (c) on page 95)

Prime movers and boilers, and parts	Production		Exports		Retained imports	
	Quantity	Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)
Locomotives, rail :—	No.	£'000	No.	£'000	No.	£'000
Main line :—						
Electric ... { 1933	—	—	14	215	—	—
... { 1930	23	54	15	72	—	—
Steam and other ... { 1933	91	445	115	525	1	1
... { 1930	585	3,943	581	3,562	—	—
Contractors' and light ... { 1933	221†	124†	363	89	18	3
... { 1930	342	295	206	117	70	19
Tractors (including steam rollers) :—						
Agricultural, com- plete ... { 1933	298	57	804	94	981	146
... { 1930	521	279	309	88	2,224	264
Other, complete... { 1933	420†	195†	203	40	35	5
... { 1930	...	593	225	77	230	23
Prime movers (other than marine and for vehicles and aircraft) :—						
Internal combustion en- gines :—						
Gas ... { 1933	...	151	Tons 1,203	121	Tons ...	1
... { 1930	...	237	2,222	213	615	43
Oil ... { 1933	...	2,746	13,878	1,410	21	11
... { 1930	...	2,761	21,124	2,038	2,991	366
Petrol and other light spirit { 1933	...	300	514	89	19	6
... { 1930	...	676	1,457	195	138	24
Steam reciprocating en- gines :—						
Pumping ... { 1933	...	113	—	—	—	—
... { 1930	...	169	227	24	14	2
Other (exclud- ing winding engines for mining machinery) { 1933	...	396	1,015	90	5	1
... { 1930	...	756	2,097	201	32	4
Steam turbines and other rotary engines ... { 1933	...	523	1,170	236	107	26
... { 1930	...	1,866	4,076	724	524	90
Water turbines and other water engines... { 1933	...	154	149	25	1	1
... { 1930	...	79	580	81	128	16
Boilers and boiler-house plant (excluding boilers for ships or locomotives) :—						
Boilers :—						
Internally fired (Lancashire, Galloway and Cornish types) { 1933	...	235	1,052	40	1	*
... { 1930	...	358	2,478	101	2	*

Prime movers and boilers, and parts	Production		Exports		Retained imports	
	Quantity	Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)
Boilers, etc.— <i>cont.</i>		£'000	Tons	£'000	Tons	£'000
Boilers— <i>cont.</i>						
Locomotive type for stationary purposes ...	1933 ... 1930 ...	59 62	619 1,025	37 63	... ...	* *
Water tube boilers ...	1933 ... 1930 ...	981 1,409	15,445 37,867	843 2,029	5 303	1 20
Other boilers ...	1933 ... 1930 ...	388 544	2,122 4,291	96 232	17 144	4 7
Economisers, feed- water heaters and steam superheaters ...	1933 ... 1930 ...	882 1,435	5,722 10,168	224 412	2 31	1 3
Other boiler- house plant ...	1933 ... 1930 ...	1,339 2,113	4,028 6,933	257 489	218 1,306	48 161

† These figures may be appreciably understated (see note\* to Table II).

\* Less than £500.

## (II) TEXTILE MACHINERY AND ACCESSORIES

Table V.—Output of principal products

(a) Complete machines (b) Replacement parts	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Textile machinery and replace- ment parts :—				
For spinning and twisting, including all preparatory processes ...	(a) 40,536 (b) ...	2,332 829	{ 49,131 ... ... }	{ 3,267 1,502 1,286 }
For processes preparatory to weaving but subsequent to spinning and twisting	(a) 2,690 (b) ...	195 53	{ (a) { 12,337 ... ... } (b) { ... ... }	{ 689 199 376 }
Looms for weaving ...	{ (a) 15,142 (b) ... }	{ 683 282 }	{ (a) { ... (b) { ... }	{ ... ... }
Bleaching and dyeing ...	{ (a) 2,524 (b) ... }	{ 248 119 }	{ (a) { 7,423 (b) { ... (b) { ... }	{ 510 61 305 }
Printing and finishing ...	{ (a) 3,551 (b) ... }	{ 242 125 }	{ (a) { ... (b) { ... }	{ ... ... }
Hosiery and knitting ...	{ (a) 1,265 (b) ... }	{ 674 155 }	{ 514* ... ... }	{ 252* 232 134 }
Lace and net .....	{ (a) 219 (b) ... }	{ 29 10 }	{ 196 ... ... }	{ 27 42 150 }
Other textile machinery	{ (a) 4,467 (b) ... }	{ 334 260 }	{ 1,780 ... ... }	{ 156 156 125 }
Total—Textile machinery	{ (a) ... (b) ... }	{ 4,737 ... }	{ ... ... }	{ 7,045 ... }

(a) Complete machines (b) Replacement parts	1933		1930	
	Quantity	Value	Quantity	Value
		£'000		£'000
Textile machinery accessories sold separately:—				
Bobbins ... ..	...	813	...	790
Shuttles ... ..	...	196	...	179
Reeds and healds ... ..	...	441	...	428
Jacquard cards ... ..	...	59	...	48
Card clothing ... ..	...	692	...	679
Other sorts ... ..	...	927	...	961
Total—Accessories ... ..	...	3,128	...	3,085
TOTAL — Textile machinery, parts and accessories ... ..	...	9,698†	...	12,398†

\* See page 94.

† Of which £53,000 in 1933 and £29,000 in 1930 was recorded on schedules for other trades (see Table XX).

**Table VI.—Average values of goods produced, exported and imported**

Textile machinery	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
For spinning and twisting, including all preparatory processes	57.5	66.5	86.5	91.4	91.3	206.2	140.2
For processes preparatory to weaving but subsequent to spinning and twisting ...	72.5	*	...	87.1	*	224.5	*
Looms for weaving ...	45.1	*	...	66.6	*	104.8	*
For weaving and processes preparatory to weaving but subsequent to spinning and twisting ...	49.1	55.8	88.0	68.3	89.7	120.3	154.5
Bleaching and dyeing...	98.1	*	...	115.5	105.5	249.5	213.4
Printing and finishing	68.0	*	...	97.7	110.6	122.1	114.9
Bleaching, dyeing, printing and finishing	79.9	68.7	116.3	100.7	109.6	142.5	169.0
Hosiery and knitting...	533.0	491.0	108.6	686.0	808.3	302.3	335.1
Lace and net ...	134.6	136.5	98.6	70.8	157.0	115.0	162.3

**Table VII.—Production in relation to Exports and Imports**  
(See note (c) on page 95)

Textile machinery and parts	Pro- duction	Exports		Retained imports		
	Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)	
	£'000	Tons	£'000	Tons	£'000	
For spinning and twisting, including all preparatory processes ... ..	1933 1930	3,161 6,055	37,073 72,545	3,385 6,626	428 1,867	89 261
For processes preparatory to weaving but subse- quent to spinning and twisting ... ..	1933	248	1,243	108	125	28
Looms for weaving ...	1933	965	13,913	926	904	95
Total—For weaving and processes preparatory to weaving but subsequent to spinning and twisting ..	1933 1930	1,213 1,264	15,156 14,462	1,034 1,297	1,029 1,155	123 177
Bleaching and dyeing ...	1933	367	299	35	17	4
Printing and finishing ...	1933	367	1,499	146	89	11
Total—Bleaching, dyeing, printing and finishing ...	1933 1930	734 876	1,798 2,277	181 250	106 182	15 31
Hosiery and knitting ...	1933 1930	829 618	551 294	378 238	1,141 1,358	316 412
Lace and net ... ..	1933 1930	39 69	595 296	42 46	6 27	1 5
Other textile machinery ...	1933 1930	594 431	1,307 1,338	158 171	777 617	153 103

## (III) MACHINE TOOLS

Table VIII.—Output of principal products

(a) Complete machines (b) Replacement parts	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Machine tools, metal working (not including cutting parts) :—				
Drilling ... ..	(a) 2,680	376	4,026	415
	(b) ...	16	...	156
Grinding ... ..	(a) 2,976	424	3,627	527
	(b) ...	25	...	17
Lathes ... ..	(a) 5,646	792	8,357	1,126
	(b) ...	73	...	125
Milling ... ..	(a) 1,873	310	1,531	142
	(b) ...	16	...	276
Planing and shaping ...	(a) 1,309	90	2,941	19
	(b) ...	4	...	249
Presses, punching and shearing machines ...	(a) 6,715	387	6,433	426
	(b) ...	25	...	39
Boring mills ... ..	(a) 1,309	139	(a) { 8,408	1,164
	(b) ...	4	(b) { ...	60
Other machine tools ...	(a) 2,837	376	(b) ...	82
	(b) ...	42		
Total—Machine tools ...	(a) 25,345	2,894	35,323	4,183
	(b) ...	205	...	380
Chucks and other work holders ...	...	137	...	313
	...	...	...	88
TOTAL—Machine tools and parts, except cutting parts ...	...	3,236*	...	4,964*

\* Of which £1,000 in 1933 and £20,000 in 1930 was recorded on schedules for other trades (see Table XX).

Table IX.—Average values of goods produced, exported and imported

Machine tools	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Drilling ... ..	140.2	103.0	136.2	130.0	140.7	356.7	203.0
Grinding ... ..	142.6	145.3	98.1	200.9	171.2	262.4	204.8
Lathes ... ..	140.2	134.8	104.0	143.1	138.7	298.4	169.1
Milling ... ..	165.6	180.3	91.9	126.0	170.1	229.1	146.1
Planing and shaping ...	68.9	84.8	81.3	110.1	90.1	231.5	188.3
Presses, punching and shearing machines	57.6	66.2	87.0	83.0	78.1	102.5	81.2
Boring mills ... ..	106.4	*	...	130.4	*	309.7	*
Other machine tools ...	132.5	*	...	142.4	*	316.4	*
Boring mills and other machine tools ...	124.0	138.4	89.7	137.4	130.8	315.9	184.2

\* Not recorded separately.

Table X.—Production in relation to Exports and Imports  
(See note (c) on page 95)

Machine tools		Pro- duction	Exports		Retained imports		
			Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)
Drilling ... ..	1933	392	979	127	74	26	
	1930	592	1,876	264	900	181	
Grinding ... ..	1933	449	1,257	252	463	119	
	1930	544	1,158	198	1,158	236	
Lathes ... ..	1933	865	2,797	400	247	76	
	1930	1,393	4,664	647	1,448	244	
Milling ... ..	1933	326	1,145	144	259	59	
	1930	295	615	105	1,373	201	
Planing and shaping ...	1933	94	379	42	227	53	
	1930	252	1,691	152	385	74	
Presses, punching and shearing machines	1933	412	460	38	632	64	
	1930	494	629	49	2,836	230	
Other machine tools:—							
Boring mills ... ..	1933	143	781	102	78	26	
Other ... ..	1933	418	1,068	152	1,188	375	
TOTAL—Other machine tools ... ..		{ 1933	561	1,849	254	1,266	401
		{ 1930	1,306	3,253	426	2,516	462
Chucks and other work holders ... ..	1933	137	21	7	32	16	
	1930	88	29	16	70	34	

## (IV) PRINTING AND BOOKBINDING MACHINERY

Table XI.—Output of principal products

(a) Complete machines (b) Replacement parts	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Printing, book-binding, etc., machines :—				
Typesetting and stereo- typing ... ..	{ (a) 303 (b) ...	{ 189 115		
Printing :—				
Rotary ... ..	{ (a) 5,037 (b) ...	{ 645 100	{ (a) 6,722 ...	{ 1,309 1,132
Other ... ..	{ (a) 1,573 (b) ...	{ 234 34	{ (b) ...	{ 454
Typesetting and printing, not separately distin- guished ... ..	{ (a) ... (b) ...	{ 397 136		
Bookbinding, including blocking, embossing, stitching, ruling and cutting ... ..	{ (a) 985 (b) ...	{ 138 19	{ 617 ...	{ 74 38*
Bag and envelope making	{ (a) 174 (b) ...	{ 48 15	{ 210 ...	{ 32 7
Cardboard box and carton making ... ..	{ (a) 670 (b) ...	{ 135 61	{ 573 ...	{ 74 15
Other printing, etc., machines ... ..	{ (a) 1,104 (b) ...	{ 226 71	{ 1,699 ...	{ 322 149*
	{ (b) ...	{ 53	{ ...	{ 73
TOTAL—Printing and book- binding machinery and parts ... ..	{ (a) ... (b) ...	{ 2,083† 533	{ ... ...	{ 3,152*† 593

\* In addition, the following output was recorded on schedules for trades not covered by the 1933 Inquiry :—

	£'000
Bookbinding (including blocking, embossing, etc.) ...	2
Other printing machines ... ..	1

† Of which £45,000 in 1933 and £12,000 in 1930 were recorded on schedules for other trades (see Table XX).



Table XII.—Average values of goods produced, exported and imported

Printing, bookbinding, etc., machines	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Typesetting and stereo- typing ... ..	623.6	*	...	608.8	*	843.8	*
Printing:—							
Rotary ... ..	128.1	*	...	129.9	*	205.5	*
Other ... ..	148.9	*	...	189.7	*	234.5	*
Typesetting, stereo- typing and print- ing machines ...	154.6	194.6	79.5	207.0	225.0	247.6	232.4
Bookbinding (includ- ing blocking, emboss- ing, stitching, ruling and cutting)	139.2	119.9	116.2	196.0	208.7	253.5	246.5
Bag and envelope making ... ..	275.0	152.2	180.7	340.2	409.0	293.9	244.5
Cardboard box and carton making ...	202.1	129.1	156.5	187.1	153.6	251.4	192.7

\* Not recorded separately.

Table XIII.—Production in relation to Exports and Imports  
(See note (c) on page 95)

Printing, etc., machinery and parts	Pro- duction	Exports		Retained imports		
		Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)
		£'000	Tons	£'000	Tons	£'000
Typesetting and stereo- typing ... .. 1933	1,850	1,850	405	247	57	44
Printing:—						
Rotary ... .. 1933			1,710	222	527	106
Other ... .. 1933		1,752	332	1,180	270	
TOTAL — Typesetting and printing ... { 1933	1,850	3,867	801	1,764	420	
... { 1930	2,895	4,078	918	4,955	1,135	
Bookbinding (including blocking, embossing, stitching, ruling and cut- ting) ... .. 1933	157	146	29	410	143	
... 1930	126	259	54	692	166	
Bag and envelope making { 1933	63	50	17	63	19	
... 1930	56	41	17	118	29	
Cardboard box and carton { 1933	196	127	24	100	21	
making ... .. 1930	126	82	13	286	56	
Other printing, etc., { 1933	350	93	25	58	17	
machines ... .. 1930	545	409	190	577	118	

## (V) AGRICULTURAL MACHINERY

Table XIV.—Output of principal products

(a) Complete machines (b) Replacement parts	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Ploughs :—				
Mechanical power ... { (a)	2,044	227	{ 725	64
... { (b)	...	104	{ ...	19
Animal power ... { (a)	1,873	90	{ 1,869	96
... { (b)	...	104	{ ...	101
Grass and lawn mowers :—				
Hand driven ... { (a)	6,608	381	{ 3,783	331*
... { (b)	...	46	{ ...	31
Animal and mechanically driven ... { (a)	3,076	257	{ ...	424
... { (b)	...	143	{ ...	21*
Planters and seeders ... { (a)	392	18	{ 87	5
... { (b)	...	4	{ ...	7
Reapers and binders ... { (a)	719	33	{ 1,621	77
... { (b)	...	21	{ ...	8
Threshers ... { (a)	1,220	86	{ 3,401	46
... { (b)	...	24	{ ...	189
Other agricultural machinery (including sheep shearers and clipping machines) ... { (a)	{ 8,024	390	{ 13,554	740
... { (b)	{ ...	62	{ ...	126
... { (b)	{ ...	220	{ ...	251
TOTAL—Agricultural machinery and parts ... { (a)	{ 23,956	1,482†	{ 28,707	1,926*†
... { (b)	{ ...	62	{ ...	181*†
... { (b)	{ ...	666	{ ...	665

\* In addition, the following output was returned on schedules for trades not covered by the 1933 Inquiry :—

Grass and lawn mowers :—	Tons	£'000
Hand driven (complete machines) ...	18	2
Animal and mechanically driven (complete machines) ...	...	34
Total ...	...	36

† Of which £12,000 in 1933 and £5,000 in 1930 was recorded on schedules for other trades (see Table XX).

Table XV.—Average values of goods produced, exported and imported

Agricultural machinery	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Ploughs :—	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Mechanical power ...	110·9	88·6	125·1	99·1	92·4	61·4	49·0
Animal power ...	48·0	51·4	93·4	39·2	50·1	46·4	49·5
Grass and lawn mowers :—							
Hand driven ...	57·7	87·6	65·9	120·1	110·7	95·0	49·7
Animal and mechanically driven ...	83·7	115·6	72·4	105·9	90·3	70·1	50·2
Planters and seeders ...	47·4	62·3	76·1	67·6	121·8	62·4	77·3
Reapers and binders ...	46·3	47·5	97·4	60·6	57·2	66·5	62·5
Thrashers ...	70·7	55·6	127·2	65·5	72·5	77·6	98·3

Table XVI.—Production in relation to Exports and Imports  
(See note (c) on page 95)

Agricultural machinery and parts	Production (at factory)	Exports		Retained imports	
		Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)
Ploughs :—	£'000	Tons	£'000	Tons	£'000
Mechanical power ...	1933 331	1,613	160	432	26
	1930 154	1,860	172	249	12
Animal power ...	1933 194	1,793	70	194	9
	1930 197	2,402	120	387	19
Grass and lawn mowers :—					
Hand driven ...	1933 427	405	49	27	2
	1930 364	560	62	1,014	49
Animal and mechanically driven ...	1933 400	515	55	147	10
	1930 593	1,199	108	856	42
Planters and seeders ...	1933 22	25	2	39	2
	1930 16	18	2	19	1
Reapers and binders ...	1933 54	367	22	584	39
	1930 131	617	35	923	54
Thrashers ...	1933 110	1,023	67	57	4
	1930 231	2,623	190	16	2
Other agricultural machinery (including sheep shearers and clipping machines) ...	1933 672	2,029	187	769	54
	1930 1,117	5,841	534	1,785	114
TOTAL ...	1933 2,210	7,770	612	2,249	146
	1930 2,808	15,120	1,223	5,249	293

## (VI) OTHER MECHANICAL ENGINEERING PRODUCTS

Table XVII A.—Output of principal products

(a) Complete machines (b) Replacement parts (c) Complete machines and replacement parts, not separately distinguished	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Air and gas compressors and exhausters:—				
Reciprocating ... .. (a)	5,643	553	3,418	398
... .. (b)	...	95	...	178*
Rotary ... .. (a)	791	79	1,203	114
... .. (b)	...	15	...	126
Other air and gas compressors and exhausters (a)	275	35	159	3
... .. (b)	...	15	...	18
Air-filtering machinery ... (a)	385	34	309	26
... .. (b)	...	4	...	26
Brewing and distilling machinery ... .. (a)	1,461	151	691	104*
... .. (b)	...	59	...	17
Brick-making machinery ... (a)	2,779	123	1,159	11
... .. (b)	...	146	...	2
Cable-making machinery ... (a)	581	74	1,169	96
... .. (b)	...	12	...	423
Cement-making machinery ... (a)	1,044	42	†	93
... .. (b)	...	17	...	46
Centrifugal drying plant ... (a)	3,348	229	1,687	72
... .. (b)	...	83	...	151
Concrete-mixing machinery... (a)	4,694	276	3,122	132
... .. (b)	...	36	...	34
Condensers ... .. (a)	2,213	232	3,869	15
... .. (b)	...	80	...	...
Conveyors, telfers and transporters ... .. (a)	22,086	1,136	18,907	†
... .. (b)	...	309	...	...
Cranes, hoists and other lifting and excavating machinery, not elsewhere specified ... .. (a)	31,138	1,825	71,814	141
... .. (b)	...	415	...	69
	...	397	...	252
				71
				39
				505
				132
				39
				1,084
				222
				248
				3,477
				1,454*
				386

(a) Complete machines (b) Replacement parts (c) Complete machines and replacement parts, not separately distinguished	1933		1930	
	Quantity	Value	Quantity	Value
Dairy machinery :—	Tons	£'000	Tons	£'000
Cream separators ... (a)	(a) 2,322	287½	{ 212	50
(b)			{ ...	4
Other dairy machinery ... (a)	(b) ...	25½	{ 579	3
(b)			{ ...	79
Filter presses ... (a)	501	17	{ 258	111
(b)	...	37	{ ...	18
Food preparation machinery (a)	13,728	1,244	{ 9,856	26
(b)	...	14	{ ...	37*
Furnace plant :—				
Blast furnace plant ... (a)	10,031	356	{ †	†
(b)	...	16	{ †	†
Other metallurgical furnaces and appliances ... (a)	2,962	140	{ †	†
(b)	...	41	{ †	†
Gas and chemical machinery (a)	14,970	609	{ 18,764	874
(b)	...	73	{ ...	229
Glass-working machinery ... (a)	1,099	91	{ 474	142
(b)	...	23	{ ...	49
Grain milling machinery ... (a)	5,799	394	{ 3,825	20*
(b)	...	100	{ ...	32
Hydraulic machinery ... (a)	7,293	383	{ 5,195	301
(b)	...	52	{ ...	21
Laundry machinery ... (a)	6,620	693	{ 4,742‡	99
(b)	...	50	{ ...	366
Mangling and wringing machines for domestic use (a)	15,324	844	{ 6,856	139
(b)	...	20	{ ...	71
Mechanical power transmission plant ... (a)	11,846	452	{ 15,140	480‡
(b)	...	112	{ ...	105‡
Mining machinery :—				
Coal cutters ... (a)	1,420	276	{ 1,474	70
(b)	...	262	{ ...	35§
Winding (steam and electric) ... (a)	2,501	142	{ 1,751	478§
(b)	...	59	{ ...	341*§
Other mining machinery ... (a)	21,737	901	{ 12,426	35§
(b)	...	403	{ ...	594
Total—Mining machinery (a)	25,658	1,319	{ 15,651	143
(b)	...	724	{ ...	87

(a) Complete machines (b) Replacement parts (c) Complete machines and replacement parts, not separately distinguished	1933		1930	
	Quantity	Value	Quantity	Value
Office machinery:—	Tons	£'000		£'000
Accounting and calculating machines and automatic cash registers ... .. (a)	2,052	334	...	268§
... .. (b)	...	8	...	7
Typewriters ... .. (a)	{ No. 20,844 Tons 305 }	268	No. 16,079	203
... .. (b)	...	43	...	52
Other office machinery§ ... .. (a)	{ 272	126	†	†
... .. (b)	...	69	†	†
Packing machines ... .. (a)	576	204	†	†
... .. (b)	...	20		
Paper-making machines ... .. (a)	7,696	446	Tons 8,784	546
... .. (b)	...	335	...	98
Pneumatic tools ... .. (a)	254	206	110‡	87
... .. (b)	...	160	...	121*
			...	214*
Pumps, not included elsewhere:—				
Hand ... .. (a)	1,242	111	843	73
... .. (b)	...	14	...	45*
Power:—				
Reciprocating ... .. (a)	3,757	318	5,961	498
... .. (b)	...	87	...	189
Centrifugal ... .. (a)	7,310	783	8,019	106
... .. (b)	...	150	...	868
Other and unclassified pumps... .. (a)	2,970	369	3,236	266
... .. (b)	...	27	...	183
Total—Pumps ... .. (a)	15,279	1,581	18,059	319
... .. (b)	...	278	...	126
Refrigerating machinery ... .. (a)	{ 5,198	572	3,377	291
... .. (b)	...	839	...	1,096
Refuse and sewage disposal machinery ... .. (a)	4,562	284	2,714	84
... .. (b)	...	28	...	166
Road-making machinery (excluding concrete mixers and pneumatic drills) ... .. (a)	5,145	183	3,276	345
... .. (b)	...	71	...	19
Rolling-mill (metal working) machinery, not elsewhere specified ... .. (a)	1,802	94	7,362	170
... .. (b)	...	56	...	130
				125
				310
				55

(a) Complete machines (b) Replacement parts (c) Complete machines and replacement parts, not separately distinguished	1933		1930	
	Quantity	Value	Quantity	Value.
	Tons	£'000	Tons	£'000
Rubber-works machinery ... (a)	3,051	164	985	63
... (b)	...	50	...	126
Sewing and boot and shoe-making machinery ... (a)	4,692	995	2,271	84
... (b)	...	1,698	...	579
... (c)	—	—	...	24
Steel works, blast furnace and coke-oven machinery, other than rolling-mill machinery (a)	**	**	3,522	306
... (b)	...	...	...	170
Sugar-making and refining machinery, other than centrifugal ... (a)	21,307	900	7,176	19
... (b)	...	231	...	45
Tanning and leather-working machinery ... (a)	919	73	236	306
... (b)	...	19	...	39
... (c)	...	58	...	173
Tobacco and cigarette-making machinery ... (a)	610	366	189	22
... (b)	...	72	...	62
Waterworks equipment ... (a)	7,438	404	8,867	59
... (b)	...	22	...	50
Weighing machinery ... (a)	12,577	1,248	2,146	424
... (b)	...	80	...	219
Welding machinery ... (a)	394	101	278	409
... (b)	...	28	...	168
Wire and tube-making machinery ... (a)	1,224	91	1,495	7
... (b)	...	14	...	209
Wood-working machinery, not elsewhere specified ... (a)	3,897	404	4,122	1,116
... (b)	...	52	...	111
Automatic slot machines§ ... (a)	...	279	...	34
... (b)	...		...	42
Quarrying and stoneworking plant (including stone cutting machines)§ ... (a)	7,229	235	2,851	142
... (b)	...	270	...	39
Other and unclassified machinery ... (a)	25,528	2,681	28,246	15
... (b)	...	642	...	426
... (c)	...	983	...	85
Total—Machinery and parts ... (a)	326,598	23,578	295,125	371
... (b)	...	2,359	...	8
... (c)	...	7,366	...	158
	—	—	...	184
	—	—	...	112
	—	—	...	2,119
	—	—	...	2,776*
	—	—	...	652*
	—	—	...	742*
	—	—	...	19,741
	—	—	...	13,132*
	—	—	...	5,740*
	—	—	...	3,357*

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Other engineering products :—		£'000	Tons	£'000
Heating, ventilating, etc., plant and appliances, not included elsewhere :—				
Gas appliances :—				
Meters :—	No.			
Complete ... ..	620,412	1,777	} ...	2,064*
Parts ... ..	...	340		
Other gas appliances (except pipes and fittings) ...	...	381	...	673*
Heating and ventilating plant and appliances ... ..	Tons			
... ..	34,408	1,127	} ...	2,935*
... ..	...	1,155		
Lighting appliances ... ..	...	222	...	304*
Water and sanitary appliances ... ..	...	502	...	564*
Ball bearings and roller bearings (including steel balls and steel rollers for bearings) ... ..	7,608	2,164	...	2,363*
Gears and gear wheels ... ..	14,333	871	3,060	126§
Metal casements and window frames ... ..	...	325	...	1,040*§
Pistons, piston rings, packing rings, etc. (sold separately)§ ... ..	45,293	1,930	35,951	2,019§
Railway and tramway equipment and plant, not elsewhere specified ... ..	648	360	...	721§
... ..	...	257	...	532
Railway and tramway equipment and plant, not elsewhere specified ... ..	15,280	452	43,035	831
Valves of all metals (sold separately) ... ..	...	604	...	1,938
Pressure gauges ... ..	12,847	869	3,052	237§
... ..	...	475	...	1,288*§
Pulleys and pulley wheels (metal)§	...	107	...	70*§
... ..	1,340	51	1,287	68
Printers' sundries (wood and metal furniture, etc.)§ ... ..	...	24	...	71
Metal moulds for all trades§ ... ..	157	26	...	103
Arms and ordnance stores and appliances ... ..	...	63	...	...
Other and unclassified engineering products ... ..	674	59	...	130*
... ..	...	51	...	...
Arms and ordnance stores and appliances ... ..	...	3,134	64,866	2,317*
Other and unclassified engineering products ... ..	37,292	1,574	...	3,089*
... ..	...	1,694	...	...
Total—Other engineering products	...	20,594	...	23,483*
TOTAL—Other mechanical engineering products ... ..	...	53,897††	...	65,453*††

\* See Table XVII B.

† Not available for publication.

‡ Owing to the risk of disclosure of information relating to individual firms separate particulars cannot be given for 1933.

§ See page 94.

¶ So far as recorded separately.

φ Described in 1930 as "Rolling-mill (iron and steel working) machinery, not elsewhere specified." The particulars for both years may include some rolls for rolling mills sold separately, for which (see page 23).

\*\* Not recorded separately, except as regards furnace plant.

|| Under £500.

†† Of which £2,132,000 in 1933 and £2,157,000 in 1930 was recorded on schedules for other trades (see Table XX.).



In addition to the particulars given for 1930 in the preceding table the following output was recorded on schedules for trades not covered by the 1933 Inquiry :—

Table XVII B

(a) Complete machines (b) Replacement parts (c) Complete machines and replacement parts, not separately distinguished	Value
Air and gas compressors and exhausters :—	£'000
Reciprocating ... .. (a)	1
Other air and gas compressors and exhausters ... .. (b)	4
Cranes, hoists and other lifting and excavating machinery, not elsewhere specified ... .. (a)	12
Filter presses ... .. (a)	33
Glass working machinery ... .. (a)	1
Mangling and wringing machines for domestic use ... .. (a)	59
Other mining machinery ... .. (b)	1
Pneumatic tools ... .. { (a)	3
... .. (b)	3
Hand pumps, not included elsewhere ... .. (a)	1
Other and unclassified machinery ... .. { (a)	107
... .. (b)	2
... .. (c)	16
Total—Machinery and parts ... .. { (a)	217
... .. (b)	10
... .. (c)	16
Other engineering products :—	
Heating, ventilating, &c., plant and appliances, not included elsewhere :—	
Gas appliances :—	
Meters complete and parts ... ..	3
Other gas appliances (except pipes and fittings) ... ..	4
Heating and ventilating plant and appliances ... ..	10
Lighting appliances ... ..	1
Water and sanitary appliances ... ..	12
Ball bearings and roller bearings (including steel balls and steel rollers for bearings) ... ..	101
Gears and gear wheels ... ..	64
Valves of all metals (sold separately) ... ..	1
Pressure gauges ... ..	45
Metal moulds for all trades ... ..	3
Other and unclassified engineering products ... ..	12
TOTAL ... ..	499

**Table XVIII.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Air and gas compressors and exhausters:—							
Reciprocating ...	97.9	116.5	84.0	98.4	104.6	243.8	170.8
Rotary ...	100.0	104.7	95.5	176.5	180.2	254.6	175.1
Other air and gas compressors and exhausters ...	125.8	163.1	77.1	145.5	187.4	217.4	191.7
Air-filtering machinery	89.4	55.0	162.5	*	*	*	*
Boot and shoe-making machinery ...	336.9	332.5	101.0	325.4	335.9	215.8	309.9
Brewing and distilling machinery ...	103.3	138.8	74.4	}	*	*	*
Brick-making machinery	44.4	40.0	111.1				
Cable-making machinery	127.8	113.2	112.9				
Centrifugal drying plant	68.4	83.5	82.0	58.4	85.7	†	†
Concrete-mixing machinery ...	58.7	80.8	72.7	*	*	*	*
Condensers ...	105.0	130.5	80.4	110.4	105.6	130.7	165.6
Conveyors, telfers and transporters ...	51.4	57.3	89.7	72.7	66.1	59.0	53.5
Cranes, hoists and other lifting and excavating machinery, not elsewhere specified...	58.6	48.4	121.3	67.9	66.6	111.3	98.0
Dairy machinery ...	123.4	162.7	75.8	215.1	224.3	285.0	184.4
Food preparation machinery ...	90.6	104.6	86.6	*	*	*	*
Gas and chemical machinery ...	40.7	46.6	87.2	67.4	64.4	168.7	94.9
Glass-working machinery ...	82.8	102.5	80.8	209.1	322.8	380.7	242.4
Grain milling machinery	67.9	78.7	86.2	97.3	93.0	96.9	66.2
Hydraulic machinery	52.5	70.5	74.5	90.6	70.0	99.6	86.4
Laundry machinery ...	104.7	101.2	103.5	}	*	*	*
Mangling and wringing machines for domestic use ...	55.0	69.5	79.2				
Mechanical power transmission plant	38.1	39.2	97.3				
Mining machinery:—							
Coal cutters...	194.0	225.1	86.2	190.5	212.5	388.6	371.8
Winding (steam and electric) ...	56.8	45.7	124.3	57.5	68.5	46.1	†

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ each	£ each		£ each	£ each	£ each	£ each
Office machinery:—							
Typewriters... ..	12·9	12·6	102·0	12·4	14·2	7·2	10·8
	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
Packing machines ...	355·1	416·9	85·2	687·7	755·2	666·6	393·4
Paper-making machines	58·0	62·2	93·3	127·0	120·7	105·4	160·7
Pneumatic tools ...	814·5	794·3	102·5	628·6	570·3	938·4	727·1
Pumps, not included elsewhere:—							
Hand ... ..	89·8	86·5	103·7	257·1	235·8	196·2	157·3
Power:—							
Reciprocating ...	84·5	83·6	101·2	113·7	129·3	†	129·6
Centrifugal ... ..	107·1	108·2	99·0	136·5	151·9	268·8	147·9
Refrigerating machinery ... ..	110·1	86·2	127·7	148·6	110·5	143·8	169·0
Refuse and sewage disposal machinery ...	62·3	61·2	101·8				
Road-making machinery (excluding concrete mixers and pneumatic drills) ...	35·7	51·9	68·8	*	*	*	*
Rubber works machinery ... ..	53·8	64·3	83·7				
Sugar-making and refining machinery, other than centrifugal... ..	42·2	42·6	99·1	45·4	60·1	81·4	109·7
Tanning and leather working machinery...	79·5	92·7	85·7	*	*	*	*
Waterworks equipment	54·4	46·1	118·0				
Weighing machinery...	99·2	97·5	101·7	107·4	142·2	239·0	247·6
Wire and tube-making machinery ... ..	74·6	94·8	78·7	*	*	*	*
Wood-working machinery, not elsewhere specified ... ..	103·9	103·4	100·4	139·2	136·6	106·4	101·0
Other engineering products:—							
Ball bearings and roller bearings (including steel balls and steel rollers for bearings) ... ..	284·4	‡	...	394·5	531·9	181·5	242·1
Metal casements and window frames ...	42·6	56·2	75·9	49·4	59·6	64·7	115·8

\* Not recorded separately.

† This figure would have no significance.

‡ Not recorded.

Table XIX.—Production in relation to Export and Imports  
(See note (c) on page 95)

Kind of goods	Production	Exports		Retained imports	
	Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)
	£'000	Tons	£'000	Tons	£'000
Air and gas compressors and exhausters :—					
Reciprocating ... ..	1933 648	1,204	119	24	8
	1930 691	2,018	211	564	93
Rotary ... ..	1933 94	210	37	42	10
	1930 147	374	67	319	55
Other ... ..	1933 50	341	50	72	15
	1930 160	234	44	70	14
Blast furnace plant ...	1933 372	1,119	102	2	*
Cement-making machinery	1933 59	173	11	911	54
Centrifugal drying plant ...	1933 312	5,485	320	1	*
	1930 210	2,317	199	4	1
Condensers ... ..	1933 312	694	77	3	*
	1930 676	2,018	213	32	5
Conveyors, telfers and transporters ... ..	1933 1,445	1,182	86	377	22
	1930 1,554	4,434	293	593	32
Cranes, hoists and other lifting and excavating machinery, not elsewhere specified ... ..	1933 2,637	10,206	693	443	54
	1930 5,329	34,669	2,309	3,232	316
Dairy machinery :—					
Cream separators ... ..	1933 \$ 408	81	48	16	
	1930 57	105	24	353	57
Other dairy machinery ...	1933 \$ 231	57	222	62	
	1930 208	225	50	523	108
Filter presses ... ..	1933 68	499	23	38	6
	1930 114	202	21	658	39
Gas and chemical machinery	1933 682	2,106	142	172	29
	1930 1,245	5,941	383	791	75
Glass-working machinery ...	1933 114	14	3	128	49
	1930 102	20	6	207	49
Grain milling machinery ...	1933 494	1,784	174	90	9
	1930 421	3,078	286	637	42
Hydraulic machinery ... ..	1933 435	1,452	132	306	30
	1930 576	2,908	198	570	48
Mining machinery :—					
Coal cutters ... ..	1933 538	321	61	28	11
	1930 645	471	100	93	36
Winding (steam and elec- tric) ... ..	1933 201	1,350	78	73	3
	1930 216	1,799	123	3	1
Other ... ..	1933 1,304	10,404	840	304	46
	1930 1,563	12,197	851	301	46
Office machinery :—					
Accounting and calcu- lating machines and automatic cash registers	1933 342	30	68	438	486

Kind of goods	Production	Exports		Retained imports	
	Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (o.f.)
Office machinery :— <i>cont.</i>	£'000	Tons	£'000	Tons	£'000
Typewriters, complete ...	1933	No. 5,889	73	No. 48,103	341
		Tons 38		Tons 652	
1930	203‡	No. 6,280	89	No. 50,854	544
		Tons 50		Tons 815	
Packing machines ...	1933	331	228	132	89
	1930	224†	169	234	92
Paper-making machines ...	1933	781	198	2,742	288
	1930	850	233	1,157	185
Pneumatic tools ...	1933	366	136	43	42
	1930	428	181	178	132
Pumps, not included elsewhere :—					
Hand ...	1933	226	58	123	23
	1930	131	185	1,542	240
Power :—					
Reciprocating ...	1933	2,151	245	2	2
	1930	793	392	257	33
Centrifugal ...	1933	1,778	243	53	15
	1930	1,317	468	920	136
Other pumps ...	1933	817	128	148	41
	1930	498	170	290	63
Refrigerating machinery ...	1933	1,998	297	1,855	261
	1930	1,471	219	2,347	393
Rolling-mill (metal working) machinery, not elsewhere specified ...	1933	3,980	211	1,717	80
	1930	365¶	146	3,109	153
Sewing machines ...	1933	11,406	1,185	412	216
	1930	2,693	2,199	1,023	372
Boot and shoe-making machinery	1933	570	185	332	70
	1930	3,524	144	351	108
Sugar-making and refining machinery (other than centrifugal) ...	1933	28,085	1,275	249	20
	1930	518	342	358	40
Weighing machinery ...	1933	1,298	139	137	33
	1930	1,436	324	452	110
Woodworking machinery, not elsewhere specified ...	1933	641	89	589	61
	1930	574	196	1,338	134
Other engineering products :—					
Ball bearings and roller bearings (including steel balls and steel rollers for bearings) ...	1933	758	299	670	118
	1930	2,164	447	687	142
Metal casements and window frames ...	1933	2,894	143	91	6
	1930	2,740	528	16	2

\* Under £500.

‡ See note (¶) to Table XVIII.

† The number of typewriters produced in 1933 was 20,844, and in 1930, 16,079.

‡ Not available for publication.

¶ See note φ to Table XVIII.

Table XX

The figures shown in Tables II, V, VIII, XI, XIV and XVII A include the following output recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I.

(a) Complete machines (b) Replacement parts (c) Complete machines and replacement parts, not separately distinguished	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Prime movers and boilers (other than marine):—				
Steam turbine and other rotary engines ... .. (a)	1,568	254	6,715	1,259
Other ... ..	...	17	...	47
Textile machinery and accessories ... ..	...	53	...	29
Machine tools ... ..	...	1	...	20
Printing and bookbinding machinery... ..	...	45	...	12
Agricultural machinery ... ..	...	12	...	5
Condensers ... .. (a)	573	75	2,661	331
Cranes, hoists and other lifting and excavating machinery, not elsewhere specified ... .. (a)	—	—	...	21
... .. (b)	...	20	...	2
Weighing machinery ... .. (a)	500	17	...	26
... .. (b)	—	—	...	2
Other classes of machinery ... .. (a)	1,802	206	184	21
... .. (b)	...	184	...	59
... .. (c)	—	399	...	16
Heating and ventilating plant and appliances ... ..	...	18	...	79
Ball bearings and roller bearings (including steel balls and steel rollers for bearings) ... ..	77	18	...	37
Gears and gear wheels ... .. {	2,943	94	2,751	107
... .. {	...	3	...	13
Metal casements and window frames... ..	3,710	207	4,058	178
Valves of all metals (sold separately) {	96	23	230	10
... .. {	...	164	...	256
Pressure gauges ... ..	...	52	...	51
Printers' sundries (wood and metal furniture, etc.)... ..	...	29	...	29
Other engineering products ... ..	...	623	...	134
TOTAL ... ..	...	2,514	...	3,529

Table XXI.—Constructional Engineering

Trade by which returned	1933	1930
	£'000	£'000
Mechanical Engineering ... ..	11,265*	17,069†
Iron and Steel Trades :—		
Smelting and Rolling (including Wrought Tubes)	751‡	911
Hardware, Hollow-ware, &c. ... ..	138	110
Chain, Nail, Screw, &c. ... ..	36	52
Iron and Steel Foundries ... ..	425	425
<b>TOTAL ... ..</b>	<b>12,615</b>	<b>18,567†</b>

\* Including £3,856,000 returned as "Steel purchased and fabricated." Separate particulars are not available for 1930.

† In addition, the following amounts were returned by firms whose businesses were not covered by the 1933 Inquiry :—

	£'000
Mechanical engineering trade ( <i>see note, page 95</i> ) ...	2,305
Motor and cycle trade ... ..	29
Shipbuilding trade ... ..	114
<b>TOTAL ... ..</b>	<b>2,448</b>

‡ Including £26,000 returned as "Steel purchased and fabricated." Separate particulars are not available for 1930.

Table XXII.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Locomotives and tractors ...	6,617	1,435	2,025	31	...
Prime movers ... ..	6,528	4,383	4,073	62	...
Boilers and boiler-house plant	5,921	3,884	3,611	61	...
<b>Total — Locomotives and tractors, prime movers and boilers and boiler house plant ... ..</b>	<b>19,066</b>	<b>9,702</b>	<b>9,709</b>	<b>51</b>	<b>120</b>
Textile machinery ... ..	9,313	6,570	7,137	77	...
Textile machinery accessories	3,085	3,123	3,398	110	...
<b>Total — Textile machinery, parts and accessories ...</b>	<b>12,398</b>	<b>9,698</b>	<b>10,535</b>	<b>85</b>	<b>157</b>

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Machine tools and parts ...	£'000 4,964	£'000 3,236	£'000 3,286	66	96
Printing and book-binding machinery and parts ...	3,745	2,616	2,947	79	80
Agricultural machinery and parts ... ..	2,772	2,210	2,603	94	136
Conveyors, telfhers, trans- porters, cranes, hoists and other lifting and excavat- ing machinery ... ..	6,871	4,082	3,785	55	69
Dairy, food preparation, sugar and tobacco machinery ...	3,020	3,256	3,589	119	92
Gas and chemical machinery	1,245	682	782	63	120
Laundry machinery (includ- ing domestic mangling and wringing machines ...	1,509	1,607	1,809	120	76
Mining machinery ... ..	2,428	2,043	2,522	104	108
Pumps, not elsewhere specified	2,738	1,859	1,778	65	68
Road-making and concrete mixing machinery ...	787	566	797	101	96
Sewing and boot and shoe- making machinery ...	3,524	2,693	2,686	76	147
Weighing machinery ...	1,436	1,328	1,306	91	99
Refrigerating machinery ...	1,471	1,534	1,201	82	} 80
Other and unclassified machinery ... ..	16,941	13,653	14,750	87	
TOTAL—Machinery and parts ... ..	84,915	60,765	64,085	75	107
Other engineering products...	23,483	20,594	21,700	92	81
Constructional engineering...	18,567	12,615	13,200	71	74
Addition on account of work in progress* ... ..	—	513	540	—	—
Deduction on account of work in progress* ... ..	2,773	—	—	—	—
TOTAL ... ..	124,192	94,487	99,525	80	101

\* See page 125.



The following tables relate only to firms whose returns were made on schedules for the Mechanical Engineering Trade and are summarised in Table I.

Table XXIII.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	25,035	242,583	3,219	15,144	28,254	257,727*
	1930	40,405	330,187	3,673	15,882	44,078	346,069
Administrative, technical and clerical staff† ...	1933	2,861	44,428	1,850	13,545	4,711	57,973
	1930	4,838	49,445	2,869	15,017	7,707	64,462
TOTAL ...	1933	27,896	287,011	5,069	28,689	32,965	315,700*
	1930	45,243	379,632	6,542	30,899	51,785	410,531

\* The particulars given for 1933 include 15,723 operatives engaged in outside work of erection, fitting, etc.; corresponding information for 1930 is not available.

† As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	127,310	July 15 ... ..	135,314
February 18 ... ..	128,421	August 19 ... ..	134,830
March 18 ... ..	128,670	September 16 ... ..	136,791
April 15 ... ..	130,625	October 14 ... ..	138,288
May 13 ... ..	133,278	November 18 ... ..	141,112
June 17 ... ..	133,883	December 16 ... ..	143,571
AVERAGE FOR THE TWELVE MONTHS ... ..			134,341

**Table XXIV.—Other output of the Mechanical Engineering Trade**

The value of the gross output of the firms whose returns were made on schedules for the Mechanical Engineering Trade was £105,240,000 in 1933 and £146,512,000 in 1930, of which the principal products shown in Tables II, V, VIII, XI, XIV, XVIIA and XXI were valued as follows :—

Group	1933	1930
	£'000	£'000
Prime movers and boilers (other than marine) ... ..	9,431	17,760
Textile machinery and accessories ... ..	9,645	12,369
Machine tools ... ..	3,235	4,944
Printing and bookbinding machinery ... ..	2,571	3,733
Agricultural machinery ... ..	2,198	2,767
Other mechanical engineering products ... ..	51,765	63,296
Constructional engineering ... ..	11,265	17,069
<b>TOTAL ... ..</b>	<b>90,110</b>	<b>121,938</b>

Particulars of the remaining items are shown below :—

Kind of output	1933	1930
	£'000	£'000
<b>Marine machinery :—</b>		
Engines ... ..	1,378	6,783
Boilers ... ..	227	555
Other marine machinery ... ..	787	2,812
<b>Total—Marine machinery ... ..</b>	<b>2,392</b>	<b>10,150</b>
<b>Castings in the rough :—</b>		
Iron ... ..	1,172	1,999
Steel ... ..	245	180
Cast iron goods (including tanks, cisterns, stoves, etc.) ... ..	383	965
Engineers' castings ... ..	83	
Forgings in the rough, of iron and steel ... ..	185	351
<b>Tools and implements :—</b>		
Engineers' tools (including dies, wrenches, etc., but excluding gauges) ... ..	531	587
Press tools ... ..	85	68
Other sorts ... ..	164	352
Electrical machinery, apparatus and appliances ... ..	584	472
Motor vehicles and cycles and parts and accessories therefor (including engines) ... ..	493	690
Manufactures of non-ferrous metals ... ..	528	816
Hollow-ware of iron and steel ... ..	499	699
Manufactures of iron and steel, not further distinguished... ..	842	1,519
Manufactures of wood ... ..	60	128
Other goods ... ..	1,260	1,098
<b>TOTAL—Other goods made ... ..</b>	<b>9,506</b>	<b>20,074</b>

Kind of output	1933	1930
	£'000	£'000
Scrap metal sold :—		
Iron and steel ... ..	212	389
Brass ... ..	91	156
Copper ... ..	11	19
Other ... ..	36	44
Repair work and work done for the trade ... ..	4,761*	6,665*
<b>TOTAL ... ..</b>	<b>14,617</b>	<b>27,347</b>

\* Amount received.

The differences between the aggregate of the figures shown in above tables and the gross output (Table I) are due to the balance of work in progress at the beginning and the end of the year, as follows :—

	1933	1930
	£'000	£'000
Work in progress at the end of the year...	19,410	23,353
Work in progress at the beginning of the year ... ..	18,897	26,126
<b>Balance ... ..</b>	<b>...(+)</b> 513	<b>(—)</b> 2,773

**Table XXV.—Details of Materials used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Iron castings ... ..	245,981	4,048
Steel castings ... ..	37,624	1,147
Iron and steel forgings ... ..	53,394	1,689
Copper (in all forms) ... ..	8,655	534
Aluminium ( in all forms) ... ..	1,593	224
	...	31
Tin (in all forms) ... ..	1,937	190
Non-ferrous alloys (in all forms) ... ..	23,408	1,523
All other materials used (including fuel) ... ..	...	33,700
<b>TOTAL ... ..</b>	<b>...</b>	<b>43,086</b>

**THE ELECTRICAL ENGINEERING TRADE****Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	74,734	87,875
Cost of materials used ... ..	"	33,627	42,656
Amount paid for work given out ... ..	"	182	328
Net output ... ..	"	40,925	44,891
Average number of persons employed ... ..	No.	195,450	192,322
Net output per person employed ... ..	£	209	233

**Table II A.—Output of principal products**

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	No.	£'000	No.	£'000
Electrical machinery :—				
Generators :—				
Alternating current :—				
Under 2,000 kilowatts ... ..	1,047	214	{ 1,669	348
2,000 kilowatts and under			{ ...	45
11,000 kilowatts ... ..	27	73	98	401
11,000 kilowatts and over	12	105	41	614
Direct current ... ..	7,316	435	{ 7,970	461
			{ ...	97
Total—Generators ... ..	...	827	...	1,966
Motors :—				
Railway and tramway ... ..	1,210	250	3,290	682
Other motors of 1 h.p. and				
over :—				
Alternating current :—				
1 h.p. and under 200 h.p.	111,857	1,838	{ 91,312	2,014
200 h.p. and under 1,000			{ ...	40
h.p. ... ..	524	261	709	350
1,000 h.p. and over ... ..	44	111	18	41
Direct current ... ..	32,252	839	{ 32,424	1,353
			{ ...	141
Fractional horse-power motors				
(i.e., below 1 horse-power),				
alternating current and				
direct current ... ..	254,718	575	{ 73,711	323
			{ ...	8
Total—Motors ... ..	...	3,874	...	4,952
Converters and transformers :—				
Rotary (including rectifiers) ... ..	9,212	384	2,780	513
Static ... ..	60,673	1,511	{ 23,560	2,488
	...	256		
Total—Converters and trans-				
formers ... ..	...	2,151	...	3,001

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
<b>Electrical machinery :—cont.</b>	Th. tons	£'000	Th. tons	£'000
Starting and controlling gear for electric motors ... ..	6.2	1,101	} 37.9	5,181
Switch gear and switchboards (other than telegraph and telephone) ... ..	28.4	3,667		
Starting and controlling gear and switch gear, not separately distinguished ... ..	1.6	295		
Vacuum cleaners, electrically worked ... ..	No.		No.	
Lifts, hoists and cranes, electrically worked† ... ..	247,333	2,112	37,550	524
Other electrical machinery, including motor generators, ignition magnetos, etc. ... ..	...	107	} ...	1,103*
Parts of electrical machinery (sold separately) ... ..	...	373		
	...	834	...	1,384
<b>Total—Electrical machinery and parts ... ..</b>	...	16,053	...	20,929*
<b>Electric lighting appliances, accessories and fittings, and parts thereof, and electric bell apparatus :—</b>				
Arc lamps, search lights and projection lamps, and parts thereof ... ..	...	36	...	43*
Other lamps, complete, with or without bulbs ... ..	...	180	...	‡
Bulbs, complete, ready for use :—	Thous.		Thous.	
20 volts and over :—				
Gasfilled ... ..	36,901	1,690	25,544	1,483*
Other ... ..	18,072	719	19,621	814*
Under 20 volts ... ..	17,136	335	10,335	294
Electric lighting accessories and fittings not elsewhere specified, for indoor or outdoor use¶ :—				
Accessories (e.g., lamp-holders, ceiling roses, wall plugs and sockets, switches, fuses, etc.) ...	...	1,432	...	1,487*
Fittings (ceiling, wall, standard, portable or pendant), excluding glassware ... ..	...	634	...	669
<b>Total—Electric lighting appliances, accessories and fittings, and parts thereof ...</b>	...	5,026	} ...	4,790*
Electric bell apparatus, not telegraphic or telephonic ...	...	49		
Telegraph apparatus ... ..	...	194	...	407
Telephone apparatus ... ..	...	3,584	...	5,668*

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Thous.	£'000	Thous.	£'000
Wireless apparatus (except valves):—				
Receiving sets, other than radio-gramophones ... ..	1,239	7,282	...	2,734* <sup>φ</sup>
Electrical reproducers and radio-gramophones ... ..	42·1	758	6·4§	210§
Transmitting sets ... ..	...	374	...	746
Not separately distinguished ...	—	—	...	77*
Components and parts, sold separately ... ..	...	2,463	...	3,217*
Total—Wireless apparatus (except valves) ... ..	...	10,877	...	6,984*
Wireless valves ... ..	9,288	2,102	5,625	1,516
Electric wires and cables, insulated:—				
Submarine telegraph and telephone cables ... ..	...	170	}	4,402
Other insulated telegraph and telephone wires and cables ...	...	1,080		
Other wires and cables:—				
Rubber insulated ... ..	...	3,889	...	4,639
Insulation other than rubber ...	...	6,740	...	10,116
Total—Electric wires and cables, insulated ... ..	...	11,879	...	19,157
	Million			
Electric carbons (lighting, furnace, etc.) ... ..	675·2	585	...	572
Joint boxes ... ..	...	579	}	752†
Cable jointing materials and accessories ... ..	...	310†		
Electrical conduits and fittings therefor ... ..	...	405	...	926
Fittings for overhead transmission lines ... ..	...	252	...	459†
Electrical signalling apparatus (including traffic signals) ... ..	...	341	...	186†
Batteries, primary:—				
For hand flash lamps ... ..	...	1,076	...	698
Other primary batteries and parts thereof ... ..	...	2,568	...	2,019
Total—Primary batteries ... ..	...	3,644	...	2,717
Accumulators (including parts):—				
Portable:—				
For vehicles, sold separately... ..	...	1,170	...	1,420
Other ... ..	...	851	...	1,298
Not separately distinguished ...	—	—	...	64
Stationary ... ..	...	655	...	879
Total—Accumulators and parts ... ..	...	2,676	...	3,661

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Thous.	£'000	Thous.	£'000
Condensers, electric, and parts thereof ... ..	...	537	...	344
Electricity meters :—				
House service meters :—				
Complete :—				
Prepayment type ... ..	375	1,148	} 792	1,683
Other ... ..	790	997		
Parts ... ..	...	39	‡	‡
Other meters and parts :—				
Switchboard meters ... ..	...	43	...	45
Other meters ... ..	...	68	} ...	96
Parts ... ..	...	18		
Commercial measuring instruments (including parts) :—				
Indicating ... ..	...	352	...	604
Recording ... ..	...	93	...	98
Other ... ..	...	125	...	94
Scientific electrical instruments ... ..	...	372	...	171*
Electro-medical apparatus (other than X-ray apparatus) ... ..	...	69	...	51*
X-ray apparatus :—				
X-ray tubes ... ..	} ...	84	} ...	9
Other X-ray apparatus ... ..				128*
Electrical heating apparatus :—				
Domestic ... ..	...	1,229	...	829
Commercial ... ..	...	77	...	92
Industrial ... ..	...	163	...	165
Electrical cooking apparatus ... ..	...	861	...	440
Electrical signs :—				
Luminous tube signs ... ..	...	309	} ...	159†*
Other ... ..	...	120		
Electrical totalisator apparatus ... ..	...	22	...	304†
Electric fans† ... ..	...	61	...	89
Electric torches, safety lamps and parts† ... ..	...	115	...	134*
Portable electric tools† ... ..	...	69	...	109
Electrical refrigerators under 1 ton in weight ... ..	...	297	} ...	1,417*
Sound reproduction apparatus for films, etc.† ... ..	...	66		
Electric irons† ... ..	...	13	} ...	299*
Hair waving apparatus† ... ..	...	149		
Electrodes for welding† ... ..	...	420		
Other electrical apparatus, not elsewhere specified ... ..	...	510		
Parts and accessories of electrical apparatus, not elsewhere specified ... ..	...	198	...	299*
Insulating materials, sold separately :—				
Of mica ... ..	} Tons	348	} ...	1,270*
Of moulded compositions ... ..		43		
Of other and unclassified compositions** ... ..	2,182	345	} ...	299*
Of other and unclassified compositions** ... ..	73			
Of other and unclassified compositions** ... ..	1,973	215	} ...	201
Of other and unclassified compositions** ... ..	104			
Unclassified output (Northern Ireland) ... ..	—	—	...	201
TOTAL—Goods made ... ..	...	68,128	...	77,555*

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
Electrical contract work carried out	—	£'000 3,370	—	£'000 4,686
TOTAL—Goods made and work done ... ..	...	71,498	...	82,241*
Work in progress :—				
Addition on account of work in progress at the end of the year	...	7,107	...	10,579
Deduction on account of work in progress at the beginning of the year ... ..	...	6,617	...	10,820
TOTAL—PRINCIPAL PRODUCTS	...	71,988	...	82,000*

\* In addition the under-mentioned goods were returned on schedules for trades not covered by the 1933 Inquiry :—

	£'000
Switchboards (other than telegraph and telephone) ...	2
Other electrical machinery, including motor generators, ignition magnetos, etc. ... ..	233
Electric lighting appliances, accessories and fittings and parts thereof :—	
Arc lamps, search lights and projection lamps, and parts thereof ... ..	8
Bulbs, complete, ready for use :—	
20 volts and over :—	
Gas filled ... ..	4
Other ... ..	2
Accessories (e.g. lampholders, ceiling roses, wall plugs and sockets, switches, fuses, etc.) ... ..	1
Telephone apparatus ... ..	1
Wireless apparatus (except valves) :—	
Receiving sets ... ..	36
Receiving and transmitting sets, not separately distinguished ... ..	11
Components and parts ... ..	49
Scientific electrical instruments ... ..	155
Electro-medical apparatus (other than X-ray apparatus)	26
X-ray apparatus (other than X-ray tubes) ... ..	2
Electrical signs ... ..	6
Electric torches, safety lamps and parts ... ..	8
Electrical apparatus, not elsewhere specified ... ..	49
Parts and accessories of electrical apparatus, not elsewhere specified ... ..	16
Insulating materials ... ..	27
Total ... ..	636

† So far as recorded separately.

‡ Not recorded separately.

¶ Including electric bell apparatus in 1930.

φ Described as "Wireless receiving sets."

§ Described as "Gramophones combined with wireless receiving sets (electrical reproduction, valve amplifier)."

\*\* Not including insulating materials of china or porcelain, for which see page 228.

|| These amounts represent the value of the contract work done by firms making returns on schedules for this trade and are exclusive of the value of any plant and fittings made by them, these values being included in those shown for the goods



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

Kind of output	1933	1930
	£'000	£'000
<b>Electrical machinery :—</b>		
Generators ... ..	39	6
Motors ... ..	85	50
Starting and controlling gear for electric motors and switchgear ... ..	31	102
Lifts, hoists and cranes, electrically worked ... ..	50	} 255
Other electrical machinery, including motor generators, ignition magnetos, vacuum cleaners, etc. ... ..	5	
Parts of electrical machinery (sold separately) ... ..	18	
Total—Electrical machinery and parts... ..	228	517
Electric lighting appliances, accessories and fittings, and parts thereof ... ..	56	24
Wireless apparatus (except valves) ... ..	144	229
Accumulators and parts ... ..	25	14
Electricity meters and parts ... ..	100	12
<b>Electrical heating apparatus :—</b>		
Domestic ... ..	117	23
Industrial ... ..	10	2
Electrical cooking apparatus ... ..	76	10
Insulating materials ... ..	79	106
Electrodes for welding ... ..	120	} 226
Other principal products ... ..	101	
<b>TOTAL</b> ... ..	<b>1,056</b>	<b>1,163</b>

Table II B.—Capacity of electrical machinery

Kind of machinery	1933			1930		
	Total number recorded	Machinery of which capacity was shown		Total number recorded	Machinery of which capacity was shown	
		Number	Capacity		Number	Capacity
Generators :—	No.	No.	Th. kw.	No.	No.	Th. kw.
Alternating current :—						
Under 2,000 kilowatts ... ..	1,047	745	116·6	1,669*	1,561	101·8
2,000 kilowatts and under 11,000 kilowatts ... ..	27	27	112·8	98	98	554·7
11,000 kilowatts and over ... ..	12	12	221·5	41	40	754·1
Direct current ... ..	7,316	6,439	153·3	7,970*	6,464	129·4
Motors :—						
Railway and tramway	1,210	1,196	63·5	3,290	3,283	284·8
Other motors of 1 h.p. and over :—						
Alternating current :—			Th. h.p.			Th. h.p.
1 h.p. and under 200 h.p. ... ..	111,857	109,600	951·7	91,312*	84,519	911·9
200 h.p. and under 1,000 h.p. ... ..	524	524	177·0	709	472	161·1
1,000 h.p. and over	44	44	106·8	18	18	397·7
Direct current ... ..	32,252	30,957	356·9	32,424*	22,111	318·5
Fractional horsepower motors (i.e., below 1 h.p.), alternating current and direct current...	254,718	244,917	39·7	73,711*	†	†
Converters and transformers :—			Th. kw.			Th. kw.
Rotary (including rectifiers) ... ..	9,212	8,869	127·1	2,780	1,896	284·5
Static ... ..	60,673*	47,135	2,448·5	28,560	20,691	4,739·8

\* Excluding output returned by value only, see Table IIA.

† Not recorded.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Electrical machinery*:-			Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Generators :-							
Alternating current :-							
Under 2,000 kilowatts	a 204.5	208.5	98.1				
	b 1,708.1	3,387.4	50.4				
2,000 kilowatts and under 11,000 kilowatts	a 2,710.9	4,091.8	66.3	} 141.9	} 144.5	} 260.3	} 182.4
	b 648.7	722.8	89.7				
11,000 kilowatts and over ...	a 8,731.6	14,975.6	58.3				
	b 473.0	808.3	58.5				
Direct current	a 59.4	57.8	102.8		} 202.3		} 186.8
	b 2,552.1	3,308.2	77.1				
Motors :-							
Railway and tramway ...	a 206.2	207.3	99.5	} 222.5	} 165.6	—	} 250.0
	b 3,909.0	2,388.9	163.6				
Other motors of 1 h.p. and over † :-							
Alternating current :-							
1 h.p. and under 200 h.p. ...	a 16.4	22.1	74.5				
	c 1,891.2	2,116.9	89.3				
200 h.p. and under 1,000 h.p. ...	a 498.5	493.6	101.0	} 137.9	} 132.5	} 220.6	} 159.8
	c 1,475.8	1,721.3	85.7				
1,000 h.p. and over	a 2,528.5	2,277.8	111.0				
	c 1,041.8	1,045.2	99.7				
Direct current	a 26.0	41.7	62.3		} 152.8		} 280.3
	c 2,251.1	3,497.9	64.4				
Converters and transformers :-							
Rotary (including rectifiers ...)	a 41.7	184.5	22.6	} 113.4	} 102.6	} 294.1	} 311.8
	b 2,997.1	1,762.5	170.0				
Static ...	a 24.9	87.1	28.6	} 92.0	} 108.0	} 396.7	} 186.2
	d 558.1	472.4	118.1				
	£ each	£ each		£ each	£ each	£ each	£ each
Vacuum cleaners, electrically worked	8.54	13.96	61.2	5.16	9.99	8.04	5.28

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Electric bulbs, complete, ready for use :—	s. per doz.	s. per doz.	Per cent.	s. per doz.	s. per doz.	s. per doz.	s. per doz.
20 volts and over :—							
Gas filled ...	10.99	13.95	78.8	13.05	19.85	3.48	15.29
Other ...	9.55	9.96	95.9	9.08	11.15	2.13	5.71
Under 20 volts :—							
For flash lamps ...	1.02	1.11	91.7	3.68	3.73	0.30	0.73
Other ...	6.41	7.78	82.4	7.91	7.59	0.82	2.30
Wireless valves ...	s. each	s. each	84.0	s. each	s. each	s. each	s. each
	4.53	5.39		7.53	9.77	2.65	2.22
House service elec- tricity meters, com- plete :—	£ each	£ each		£ each	£ each	£ each	£ each
Prepayment type ...	3.06	†	...	2.92	†	1.78	†
Other ...	1.26	†	...	1.09	†	1.53	†
Total—House ser- vice meters ...	1.84	2.13	86.6	1.14	1.31	1.74	1.20

\* The average values given relate to (a) £ each, (b) £ per thousand kilowatts, (c) £ per thousand h.p., (d) £ per thousand kilovolt-amperes. Particulars in respect of exports and imports include parts.

† The figures for exports and imports include motors of less than 1 h.p.

‡ Not recorded separately.

Table IV.—Volume of Production

Principal products and work done	1933	1930	1924
	£'000	£'000	£'000
Value of output as returned ...	71,988	82,000	65,868
Estimated value at 1930 prices*	86,000	82,000	66,500
Volume of production as a percentage of 1930 ...	104	100	81

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

Table V.—Production, Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	No.	No.	Per cent.	No.	No.	Per cent.
Vacuum cleaners {	1933 247,333	15,744	6.4	20,681	252,270	91.8
1930 37,550	3,237	8.6	140,130	174,443	19.7	
	Thous.	Thous.		Thous.	Thous.	
Electric bulbs, complete, ready for use :—						
20 volts and over :—						
Gas filled ... {	1933 36,901	4,678	12.7	2,040	34,263	94.0
1930 25,620	3,774	14.7	3,972	25,826	84.6	
Other ... {	1933 18,072	3,787	21.0	10,037	24,322	58.7
1930 19,670	5,440	27.6	8,743	22,973	61.9	
Under 20 volts {	1933 17,136	1,255	7.3	40,045	55,926	28.4
1930 10,335	803	7.8	29,332	38,864	24.5	
Wireless valves {	1933 9,288	941	10.1	1,417	9,764	85.5
1930 5,625	639	11.4	1,646	6,632	75.2	
House service electricity meters, complete :—						
Prepayment type ...	1933 375.3	2.7	0.7	26.8	399.4	93.3
Other ...	1933 790.0	92.3	11.7	5.9	703.6	99.2
Total ... {	1933 1,165.3	95.0	8.2	32.7	1,103.0	97.0
1930 792.0	83.8	10.6	117.2	825.4	85.8	

Similar particulars cannot be given for the other principal products of the trade, since in cases where quantities were recorded, the units for production and for external trade were not the same. The values are shown overleaf.

Kind of goods	Production (value at factory)	Exports (f.o.b.)	Retained imports (c.i.f.)
Electrical machinery* :—	£'000	£'000	£'000
Generators ... .. { 1933	827	512	7
... .. { 1930	1,966	1,179	36
Motors :—			
Railway and tramway ... .. { 1933	250	44	†
... .. { 1930	682	182	§
Other ... .. { 1933	3,624	751	117
... .. { 1930	4,270	1,095	362
Converters and transformers :—			
Rotary ... .. { 1933	384	51	3
... .. { 1930	513	180	10
Static ... .. { 1933	1,767	248	6
... .. { 1930	2,488	742	31
Total—Converters and trans- formers ... .. { 1933	2,151	299	9
... .. { 1930	3,001	922	41
Starting and controlling gear for electric motors, switch gear, and switchboards (other than telegraph and tele- phone) ... .. { 1933	5,775	889	10
... .. { 1930	8,001	2,039	39
Vacuum cleaners, electrically worked ... .. { 1933	2,112	81	164
... .. { 1930	524	32	704
Other electrical machinery, in- cluding lifts, etc., motor gen- erators, ignition magnetos etc. { 1933	480	154	47
... .. { 1930	1,336	985	497
Parts of electrical machinery... { 1933	834	*	*
... .. { 1930	1,384		
TOTAL—Electrical machinery and parts ... .. { 1933	16,053	2,730	354
... .. { 1930	21,164	6,434	1,679
Electric carbons (lighting, furnace, etc.) ... .. { 1933	585	34	145
... .. { 1930	572	13	190
Electric lighting appliances, accessories and fittings (except electric bulbs), and electric bell apparatus, and parts thereof :—			
Electric lighting accessories and fittings for indoor and out- door use* ... .. 1933	2,066	279	180
Electric bell apparatus, not telegraphic or telephonic ... 1933	49	6	18
Total electric lighting access- ories and fittings, and elec- tric bell apparatus ... .. { 1933	2,115	285	198
... .. { 1930	2,157	607	505
Telegraph and telephone appara- tus (other than wireless) ... { 1933	3,778	1,074	34
... .. { 1930	6,076	1,551	162
Wireless apparatus (except valves) :—			
Receiving sets, other than radio-gramophones ... .. 1933	7,282	241	125
Electrical reproducers and radio-gramophones ... .. 1933	758	84	31
Transmitting sets ... .. 1933	374	264	4
Components and parts ... .. 1933	2,463	397	437
TOTAL—Wireless apparatus } 1933	10,877	986	597

Kind of goods	Production (value at factory)	Exports (f.o.b.)	Retained imports (c.i.f.)
	£'000	£'000	£'000
<b>Electric wires and cables, insulated :—</b>			
Submarine telegraph and tele- phone cables ... .. 1933	170	129	—
Other insulated telegraph and telephone wires and cables 1933	1,080	264	1
<b>Total—Telegraph, tele- phone and submarine wires and cables ... .. } 1933</b>	<b>1,250</b>	<b>393</b>	<b>1</b>
<b>... .. } 1930</b>	<b>4,402</b>	<b>1,631</b>	<b>32</b>
<b>Other wires and cables :—</b>			
Rubber insulated ... .. { 1933	3,889	700	86
... .. { 1930	4,639	1,234	224
Insulation other than rubber { 1933	6,740	522	136
... .. { 1930	10,116	1,681	701
<b>TOTAL—Electric wires and cables, insulated ... .. { 1933</b>	<b>11,879</b>	<b>1,615</b>	<b>223</b>
<b>... .. { 1930</b>	<b>19,157</b>	<b>4,546</b>	<b>957</b>
<b>Batteries, primary†:—</b>			
For hand flash lamps ... .. { 1933	1,076	42	1
... .. { 1930	698	12	130
Other primary batteries and parts thereof ... .. { 1933	2,568	164	6
... .. { 1930	2,019	151	557
<b>TOTAL—Primary batteries... { 1933</b>	<b>3,644</b>	<b>206</b>	<b>7</b>
<b>... .. { 1930</b>	<b>2,717</b>	<b>163</b>	<b>687</b>
<b>Accumulators (including parts) :—</b>			
Portable ... .. { 1933	2,021	250	†
... .. { 1930	2,782	363	40
Stationary ... .. { 1933	655	267	6
... .. { 1930	879	365	17
<b>TOTAL—Accumulators ... { 1933</b>	<b>2,676</b>	<b>517</b>	<b>6</b>
<b>... .. { 1930</b>	<b>3,661</b>	<b>728</b>	<b>57</b>
Commercial measuring instru- ments (indicating, recording, etc.) ... .. { 1933	570	91	68
... .. { 1930	796	138	87
Electro-medical apparatus, in- cluding X - ray tubes and vacuum tubes ... .. { 1933	153	38	71
... .. { 1930	216	38	54
Electrical heating and cooking apparatus ... .. 1933	2,330	137	63

\* The figures for exports and imports include parts.

† Exports and imports relate to complete batteries only.

‡ Re-exports in excess of imports.

§ Less than £500.

|| Including rectifiers.

The following tables relate only to firms whose returns were made on schedules for the Electrical Engineering Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... ..	1933 13,868	92,567	12,753	57,846	26,621	150,413*
	1930 16,399	103,619	13,500	48,334	29,899	152,003
Administrative, technical and clerical staff †	1933 1,636	31,284	1,894	13,753	3,530	45,037
	1930 2,371	28,145	2,416	12,174	4,787	40,319
<b>TOTAL</b> ... ..	1933 15,504	123,851	14,647	71,599	30,151	195,450*
	1930 18,770	131,764	15,916	60,558	34,686	192,322

\* The particulars given for 1933 include 8,464 operatives engaged in outside work on buildings, etc.; corresponding information for 1930 is not available.

† As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ... ..	106,630	July 15 ... ..	103,850
February 18 ... ..	102,822	August 19 ... ..	107,885
March 18 ... ..	100,536	September 16 ... ..	115,892
April 15 ... ..	98,068	October 14 ... ..	119,352
May 13 ... ..	99,103	November 18 ... ..	118,408
June 17 ... ..	100,267	December 16 ... ..	116,248
<b>AVERAGE FOR THE TWELVE MONTHS</b> ... ..			<b>107,422</b>



**Table VII.—Other output of the Electrical Engineering Trade**

The value of the gross output of the firms whose returns were made on schedules for the Electrical Engineering Trade was £74,734,000 in 1933 and £87,875,000 in 1930, of which £70,932,000 in 1933 and £80,837,000 in 1930 consisted of output included in Table II A. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Mechanical plant (steam turbines, condensing plant, etc.)...	909	2,161
Iron and steel castings... ..	62	108
Other manufactures of iron and steel ... ..	177	182
Uninsulated copper wire ... ..	954	1,833
Other metal manufactures ... ..	382	484
Scientific instruments (other than electrical) ... ..	39	89
Other goods made ... ..	369	298
Scrap metals sold :—		
Iron and steel ... ..	43	64
Copper ... ..	109	177
Other metals ... ..	121	137
Repair and maintenance work for customers ... ..	602*	} 1,505*
Other work including work done for the trade ... ..	35*	
<b>TOTAL</b> ... ..	<b>3,802</b>	<b>7,038</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
Copper in all forms ... ..	97,473	5,020
Brass in all forms ... ..	17,404	967
Iron castings ... ..	37,593	795
Steel castings ... ..	5,502	240
Steel forgings ... ..	4,377	195
Rubber in all forms ... ..	5,930	238
Paper, excluding packing and wrapping ... ..	7,425	316
Porcelain ... ..	6,895	449
Synthetic resins :—		
Lump and powder, including moulding powder ... ..	2,377	189
All other forms ... ..	632	159
Manufactured plastic mouldings ... ..	4,971	87
All other materials used (including fuel) ... ..	...	24,972
<b>TOTAL</b> ... ..	<b>...</b>	<b>33,627</b>

**THE CYCLE TRADE**

*Note.*—The particulars for 1930 given in Table I relate to all the firms that made returns on schedules for the Motor and Cycle Trade and returned an output of cycles or of parts or accessories therefor. The Motor Trade was not included within the scope of the 1933 Inquiry, and for 1933 many firms furnished returns relating only to their cycle departments. Accordingly, the particulars recorded in Tables I, VI and VII for that year are not comparable with those for 1930.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	14,895	17,870
Cost of materials used and amount paid for work given out ... ..	"	7,054	9,457
Net output ... ..	"	7,841	8,413
Average number of persons employed ... ..	No.	37,468	43,101
Net output per person employed ... ..	£	209	195

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	No.	£'000	No.	£'000
Complete bicycles and tricycles (not mechanically propelled) ... ..	1,418,225	4,617	882,105	3,422
Parts and accessories of cycles (not mechanically propelled), sold separately :—				
Frames ... ..	334,170	279	264,789	234
Handle bars ... ..	25,928	149	*	*
Wheels, rims and spokes	33,992	96	}	85
	...	20		
	No.			
Hubs ... ..	2,657,131	417	...	267†
Lamps ... ..	2,167,476	240	...	242
Saddles ... ..	2,465,160	321	...	249
Pumps ... ..	3,757,489	138	...	114
Mudguards† ... ..	...	103	...	85
Chain wheels, cranks and pedals†	...	320	...	*
Free wheels† ... ..	...	112	...	*
Other and unclassified parts and accessories‡ ... ..	...	823	...	1,482
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	...	7,635	...	6,180

\* Not recorded separately.

† So far as recorded separately.

‡ Excluding steel transmission chains and ball and roller bearings for which see tables in respect of the Chain, Nail, Screw, etc., Trades (page 48) and the Mechanical Engineering Trade (page 114).

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Complete bicycles and tricycles ...	No. 4,386	£'000 20	No. 3,139	£'000 12
Parts and accessories of cycles ...	...	83	...	192
<b>TOTAL</b> ... ..	...	103	...	204

**Table III.—Average values of goods imported, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Complete bicycles and tricycles ...	£ each 3·26	£ each 3·89	Per cent. 83·8	£ each 2·84	£ each 3·83	£ each 1·43	£ each 6·30
Cycle frames* ...	shillings each 16·67	shillings each 17·70	94·2	per ton 113·37	per ton 174·46	per ton 52·14	per ton 43·67

\* The external trade figures include frame tubes.

**Table IV.—Volume of Production**

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Complete bicycles and tri- cycles ... ..	£'000 3,422	£'000 4,617	£'000 5,510	Per cent. 161	Per cent. 78
Parts and accessories:—					
Frames ... ..	234	279	296	126	} 96
Other parts and acces- sories ... ..	2,524	2,739	3,270	130	
<b>Total</b> ... ..	6,180	7,635	9,076	147	86

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	No.	No.	Per cent.	No.	No.	Per cent.	
Complete bicycles and tricycles ...	1933	1,418,225	204,921	14.4	427	1,213,731	100.0
	1930	882,105	247,147	28.0	1,084	636,042	99.8
		Value (at factory)	Value (f.o.b.)		Value (c.i.f.)		
		£'000	£'000		£'000		
Parts and accessories of cycles :—							
Frames* ...	1933	279	175	...	2	...	...
	1930	234	154	...	43	...	...
Other parts and accessories ...	1933	2,739	1,162	...	86	...	...
	1930	2,524	952	...	273	...	...

\* See note to Table III.

The following tables relate only to firms whose returns are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Details are not given in view of the lack of comparability of the figures for the two years (see note on page 140).

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	6,019	July 15 ...	7,442
February 18 ...	6,317	August 19 ...	7,414
March 18 ...	6,409	September 16 ...	7,179
April 15 ...	7,157	October 14 ...	7,261
May 13 ...	7,765	November 18 ...	7,246
June 17 ...	7,821	December 16 ...	7,447
AVERAGE FOR THE TWELVE MONTHS ...			7,123

**Table VII.—Other output of the Cycle Trade**

In addition to the products included in Table II, the following particulars of goods made and work done in 1933 and 1930 were recorded by firms whose returns are summarised in Table I.

Kind of output	1933	1930
Goods made :—	£'000	£'000
Motor cars, motor cycles and parts and accessories therefor ... ..	6,478	10,477
Wireless apparatus ... ..	76	3
Steel transmission chains ... ..	156	464
Tools and implements ... ..	37	36
Other manufactures, mainly of metal ... ..	82	124
Other goods ... ..	33	102
Work done :—		
Repair work ... ..	389*	777*
Other work done (including plating, finishing, etc.)	69*	39*
<b>Total ... ..</b>	<b>7,320</b>	<b>12,022</b>

\* Amount received.

In arriving at the gross output of these firms in the two years the following adjustments have been made on account of the value of work in progress at the beginning and end of the year :—

	1933	1930
	£'000	£'000
Work in progress at the end of the year ... ..	1,328	2,186
Work in progress at the beginning of the year ... ..	1,285	2,314
<b>Balance ... .. (+)</b>	<b>43</b>	<b>(-) 128</b>

## THE AIRCRAFT TRADE

### Table I.—General summary

Particulars.	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,439	8,688
Cost of materials used ... ..	"	2,594	2,866
Amount paid for work given out ... ..	"	34	245
Net output ... ..	"	4,811	5,577
Average number of persons employed ... ..	No.	20,401	21,322
Net output per person employed ... ..	£	236	262

### Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	No.	£'000	No.	£'000
Aeroplanes, complete :—				
With engines fitted ... ..	437	804	} 1,459	3,376
Without engines ... ..	665	1,587		
Total ... ..	1,102	2,391	1,459	3,376
Aeroplane engines :—				
Complete ... ..	1,444	2,050	1,970*	2,128*
Parts ... ..	...	622	...	754*
Other parts of aeroplanes ... ..	...	1,482	...	1,898*
Parachutes and other accessories ... ..	...	41	...	51
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	6,586	...	8,207*
Work in progress :—				
Addition on account of work in progress at the end of the year	...	2,046	...	2,057
Deduction on account of work in progress at the beginning of the year ... ..	...	1,908	...	2,016
<b>TOTAL</b> ... ..	...	6,724	...	8,248*

\* In addition, the undermentioned goods were returned for 1930 on schedules for trades not covered by the 1933 Inquiry :—

Aeroplane engines :—	No.	£'000
Complete ... ..	3	3
Parts ... ..	...	84
Other parts of aeroplanes ... ..	...	163
<b>Total</b> ... ..	...	250

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Aeroplanes, complete ... ..	—	£'000	No.	£'000
Aeroplane engines :—			3	11
Complete ... ..	—	—	557	552
Parts ... ..	...	34	...	94
Other parts of aeroplanes ... ..	...	24	...	60
<b>TOTAL ... ..</b>	...	58	...	717

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ each	£ each	Per cent.	£ each	£ each	£ each	£ each
Aeroplanes, complete :—							
With engines fitted ... ..	1,839	1,888	97·4	2,029	1,897	795	1,333
Without engines ... ..	2,387	2,608	91·5	*	*	*	*
Aeroplane engines, complete ... ..	1,420	1,080	131·5	1,096	977	946	828

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Aeroplanes, complete ...	£'000 3,376	£'000 2,391	£'000 2,559	Per cent. 76	Per cent. 34
Aeroplane engines :—					
Complete ... ..	2,123	2,050	1,559	73	45
Parts ... ..	754	622	473	63	} 28
Other parts of aeroplanes ...	1,898	1,482	1,363	72	
Parachutes and other access- ories ... ..	51	41	39	76	8
Total ... ..	8,207	6,586	5,993	73	35
Addition on account of work in progress* ... ..	41	138	130	...	...
TOTAL ... ..	8,248	6,724	6,123	74	35

\* See Table II.

Table V.—Production in relation to Exports and Imports

Kind of goods	Produc- tion	Exports	Propor- tion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods	
	No.	No.	Per cent.	No.	No.	Per cent.	
Aeroplanes, com- plete, with en- gines fitted ... }	1933	437	234	53·5	2	205	99·0
	1930	*	317	...	28	...	...
Aeroplane Eng- ines complete {	1933	1,444	409	28·3	41	1,076	96·2
	1930	1,973	552	28·0	42	1,463	97·1

\* Separate particulars not available for publication.



The following tables relate only to firms whose returns were made on schedules for the Aircraft Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	1,335	15,716	126	944	1,461	16,660
	1930	2,030	16,545	171	1,050	2,201	17,595
Administrative, technical and clerical staff* ...	1933	213	2,982	111	759	324	3,741
	1930	260	2,911	188	816	448	3,727
TOTAL ...	1933	1,548	18,698	237	1,703	1,787	20,401
	1930	2,290	19,456	359	1,866	2,649	21,322

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	7,348	July 15 ...	8,141
February 18 ...	7,773	August 19 ...	7,482
March 18 ...	8,023	September 16 ...	7,800
April 15 ...	7,747	October 14 ...	7,863
May 13 ...	7,866	November 18 ...	7,987
June 17 ...	8,071	December 16 ...	8,073
AVERAGE FOR THE TWELVE MONTHS ...			7,848

**Table VII.—Other output of the Aircraft Trade**

The value of the gross output of the firms whose returns were made on schedules for the Aircraft Trade was £7,439,000 in 1933 and £8,688,000 in 1930, of which £6,666,000 in 1933 and £7,531,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Manufactures of iron, steel, brass and other metals	51	36
Other goods ... ..	5	15
Repair work ... ..	581*	983*
Other work done ... ..	136*	123*
<b>TOTAL</b> ... ..	<b>773</b>	<b>1,157</b>

\* Amount received.

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## THE RAILWAY CARRIAGE AND WAGON BUILDING TRADE

*Note*:—The following tables relate to private firms wholly or mainly engaged in the construction for sale of railway carriages and wagons and parts thereof; they do not cover the output, etc., of Railway Companies or other Public Utility Services manufacturing for their own use, or of firms whose business was confined to repair work. The results for 1930, as published in the Final Report on the Fourth Census of Production, have been adjusted to correspond with the scope of the 1933 aggregates.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	3,684	9,036
Cost of materials used and amount paid for work given out ... ..	"	2,184	5,644
Net output ... ..	"	1,500	3,392
Average number of persons employed ... ..	No.	9,095	17,804
Net output per person employed ... ..	£	165	191

**Table II.—Output of principal products**

Kind of goods	1933			1930		
	Quantity	Weight	Value	Quantity	Weight	Value
	No.	Tons	£'000	No.	Tons	£'000
Railway carriages:—						
Of steel or iron and steel, complete ...	70	2,000	171	291	9,669	989
Other, complete ...				299		
Parts (except axles, tyres and wheels) ...	...	1,265	57	...	...	560
<b>Total—Railway carriages and parts</b> ... ..	...	...	228	...	...	2,449
Railway wagons and trucks:—						
Steel or iron and steel, complete:—						
For main-line railways ... ..	4,216	40,954	931	8,365	91,421	2,542
Other, excluding colliery tubs, trams and trucks ...	89	893	20			
Other, complete ...	775	5,432	91	5,347†	...	957†
Parts (except axles, tyres and wheels) ...	...	13,376	274	...	...	705†
<b>Total—Railway wagons and parts</b> ... ..	...	...	1,326	...	...	4,204†

Kind of goods	1933			1930		
	Quantity	Weight	Value	Quantity	Weight	Value
	No. of sets*	Tons	£'000	No. of sets*	Tons	£'000
Wheels and axles, complete ... ..	11,418	11,662	224	45,478	43,586	948
Parts and accessories, not separately distinguished ... ..	...	4,150	80	...	...	345†
<b>Total — Railway carriages, wagons and parts (except axles and tyres, sold as such) ...</b>	...	...	1,858	...	...	7,946†
Colliery tubs, trams and trucks :—	No.					
Complete ... ..	48,369	10,163	136	} ...	1,869†	36†
Parts and accessories {	...	1,051	20			
... ..	...	...	17			
Tramcars and trackless trolley vehicles :—						
Complete ... ..	102	607	111	} ...	1,153	130
Parts ... ..	...	1,368	106			
<b>TOTAL—PRINCIPAL PRODUCTS</b> ... ..	...	...	2,248	...	...	8,618†
Work in progress :—						
Addition on account of work in progress at the end of the year ... ..	...	...	508	...	...	1,640
Deduction on account of work in progress at the beginning of the year ... ..	...	...	338	...	...	1,808
<b>TOTAL</b> ... ..	...	...	2,418	...	...	8,450†

† In addition, the undermentioned goods were returned for 1930 by firms whose business was not covered by the 1933 Inquiry :—

	No.	£'000
Railway wagons and trucks :—		
Other than of steel or iron and steel, complete ... ..	57	8
Parts (except axles, tyres and wheels) ... ..	...	19
Parts and accessories of railway carriages and wagons, not separately distinguished ... ..	...	24
	<b>Tons</b>	
Colliery tubs, trams and trucks ... ..	90	2
... ..	...	2
... ..	—	—
... ..	—	—
<b>Total</b> ... ..	...	55

\* Specified as consisting of 2 wheels and 1 axle.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Railway carriages:—		£'000		£'000
Of steel or iron and steel, complete ... ..	{ No. — Tons —	—	{ 5 185	{ 7
Railway wagons and trucks:—				
Of steel or iron and steel, complete ... ..	{ No. ... Tons ...	10	{ 304 2,618	{ 78
Other, complete ... ..	No. —	—	17	3
Parts (except axles, tyres and wheels) ... ..	Tons 1,039	18	...	31
Wheels and axles, complete	{ No. of sets* 3,317 Tons 2,988	{ 58	{ 12,362 10,604	{ 212
Parts and accessories, not separately distinguished ... ..	—	—	...	39
Colliery tubs, trams and trucks:—				
Complete ... ..	{ No. 6,998 Tons 1,236	{ 20	{ Tons 1,852	{ 36
Parts and accessories ... ..	Tons 207	3	...	20
Tramcars and trackless trolley vehicles:—				
Complete ... ..	—	—	...	181
Parts ... ..	Tons 345	9	...	...
<b>TOTAL</b> ... ..	...	118	...	607

\* Specified as consisting of 2 wheels and 1 axle.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Railway carriages, complete:—	£	£	Per cent.	£	£	£	£
Of steel or iron and steel							
Per ton ...	84.1	102.4	82.1	110.8	103.6	—	—
Per carriage	1,766	3,435	51.4	2,441	2,824	—	—
Other, per carriage	2,791	3,008	92.8	—	3,949	—	—
Railway wagons and trucks, complete:—							
Of steel or iron and steel, per ton ... ..	22.7	27.8	81.8	25.4	35.5	13.1	18.5
Other, per wagon	117.4	179.0	65.6	*	340.0	—	11.9
Railway wheels and axles, complete, per ton ... ..	19.2	21.7	88.4	23.1	23.6	14.7	21.3

\* This figure would have no significance.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Railway carriages :—					
Complete ... ..	1,889	171	190	10	111
Parts (except axles, tyres and wheels) ... ..	560	57	84	15	75
Railway wagons and trucks :—					
Of steel or iron and steel, complete ... ..	2,542	961	1,175	46	106
Other, complete ... ..	957	91	138	14	497
Parts (except axles, tyres and wheels) ... ..	705	274	334	47	119
Wheels and axles, com- plete sets ... ..	948	224	253	27	165
Parts and accessories, not separately distinguished...	345	80	98	...	...
Colliery tubs, trams and trucks, including parts and accessories therefor...	216	173	233	108	71
Tramcars and trackless trolley vehicles, and parts thereof ... ..	456	217	248	54	59
Total of above ... ..	8,618	2,248	2,753	32	153
Allowance on account of work in progress ... ..	(—)168	(+)170	(+)200	...	...
TOTAL ... ..	8,450	2,418	2,953	35	154

Table V.—Production in relation to Exports and Imports

The particulars regarding production given in the following table are those shown in Table II and exclude vehicles and parts manufactured by railway companies (see introductory note on page 149). It should also be borne in mind that for purposes of export, vehicles are in many cases dismantled prior to shipment and may appear in the record of exports as parts and not as complete vehicles. The excess of the value of parts exported over the recorded production is probably due mainly to this cause. Owing to this factor and to the possible inclusion among exports of goods manufactured by railway companies, etc., precise comparisons cannot be made between the recorded production and the exports of the various classes of complete vehicles and parts specified.

Kind of goods	Production		Exports		Retained imports	
	No.	Th. tons	No.	Th. tons	No.	Th. tons
Railway carriages, complete	{ 1933 70 1930 590	{ 2.0 ...	{ 35 329	{ 1.0 ...	{ — —	{ — —
Railway wagons and trucks, complete:—						
Of steel or iron	{ 1933 4,305 1930 8,365	{ 41.8 91.4	{ 4,496 5,601	{ 4.7 28.4	{ 900 6,151	{ 0.2 1.7
and steel	{ 1933 775 1930 5,347	{ 5.4 ...	{ 3 2,770	{ * ...	{ — 295	{ — ...
Other ... ..	{ 1933 1930	{ ...	{ No. of sets	{ No. of sets	{ No. of sets	{ ...
Railway wheels and axles, complete	{ 1933 11,418 1930 45,478	{ 11.7 43.6	{ 10,375 30,818	{ 3.7 16.0	{ 2,952 6,281	{ 0.2 0.4
			Value (at factory)	Value (f.o.b.)	Value (c.i.f.)	
			£'000	£'000	£'000	
Other parts (except tyres and axles):—						
Of railway carriages	{ 1933 57 1930 560			{ 215 809	{ † 20	
Of railway wagons and trucks	{ 1933 274 1930 705			{ 108 1,225	{ † 24	
TOTAL—Parts of carriages and wagons (except tyres, wheels and axles)	{ 1933 411‡ 1930 1,610‡			{ 323 2,034	{ 1 44	

\* 1 ton only.

† Re-exports in excess of imports.

‡ Including £80,000 for 1933 and £345,000 for 1930 in respect of unclassified parts of carriages and wagons.

The following tables relate only to firms whose returns were made on schedules for the Railway Carriage and Wagon Building Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	686	7,515	7	96	693	7,611
	1930	1,620	15,428	29	219	1,649	15,647
Administrative, technical and clerical staff*	1933	56	1,176	27	308	83	1,484
	1930	133	1,684	83	473	216	2,157
TOTAL ...	1933	742	8,691	34	404	776	9,095
	1930	1,753	17,112	112	692	1,865	17,804

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	2,723	July 15 ...	5,123
February 18 ...	2,660	August 19 ...	4,576
March 18 ...	3,038	September 16 ...	4,692
April 15 ...	3,695	October 14 ...	4,703
May 13 ...	4,099	November 18 ...	4,951
June 17 ...	4,684	December 16 ...	5,208
AVERAGE FOR THE TWELVE MONTHS ...			4,179



**Table VII.—Other output of the Railway Carriage and Wagon Building Trade**

The value of the gross output of the firms whose returns were made on schedules for the Railway Carriage and Wagon Building Trade was £3,684,000 in 1933 and £9,036,000 in 1930, of which £2,300,000 in 1933 and £7,843,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
Railway tyres and axles ... ..	Tons 15,563	£'000 334	Tons 20,426	£'000 438
Motor bodies, complete ... ..	No. 648	285	...	100
Engineering products ... ..	...	97	...	8
Other goods made ... ..	...	49	...	62
Iron and steel scrap ... ..	Tons 24,225	41	33,832	77
Other metal scrap and waste products	...	4	...	3
Repair work, including repairing contracts ... ..	...	560*	...	482*
Work done for the trade ... ..	...	14*	...	23*
<b>TOTAL ... ..</b>	...	<b>1,384</b>	...	<b>1,193</b>

\* Amount received.

## THE NON-FERROUS METALS TRADES

## GENERAL TABLES

Table I.—General summary

Trade (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average numbers of persons employed (except out-workers) (5)	Net output per person employed (6)
	£'000	£'000	£'000	No.	£
Copper and Brass (Smelting, Rolling, etc.) ...	1933 14,475 1930* 20,994	9,517 15,174	4,958 5,820	22,568 24,974	220 233
Aluminium, Lead, Tin, etc. (Smelting, Rolling, etc.) ...	1933 23,139 1930* 26,539	15,937 20,355	7,202 6,184	21,616 22,311	333 277
Gold and Silver Refining ...	1933 84,443 1930 31,573	83,360 30,514	1,083 1,059	1,937 1,902	559 557
Finished Brass ...	1933 8,627 1930* 10,730	3,573 5,011	5,054 5,719	27,980 32,439	181 176
Plate and Jewellery...	1933 7,630 1930* 8,706	3,693 4,105	3,937 4,601	23,113 25,401	170 181
Unclassified Trades (Northern Ireland)†	1930 71	45	26	126	206
TOTAL ...	1933 138,314 1930 98,613	116,080 75,204	22,234 23,409	97,214 107,153	229 218

\* Great Britain only.

† Includes Non-Ferrous Metals (Smelting and Rolling) and Finished Brass Trades, but excludes the Plate and Jewellery Trade for which separate particulars are not available for publication.

Table II.—Volume of production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Copper and brass and manu- factures thereof (except finished brass goods) ...	£'000 18,843	£'000 12,791	£'000 18,455	98	107
Aluminium, lead, tin, zinc, etc., and manufactures thereof ... ..	25,685	22,584	23,147	90	86
Finished brass goods ...	10,263	7,810	8,750	85	80
Plate, jewellery, etc. ...	7,992	6,913	7,575	95	109
Unclassified output (North- ern Ireland ... ..	71	—	—	—	—
<b>TOTAL*</b> ... ..	<b>62,854</b>	<b>50,098</b>	<b>57,927</b>	<b>92</b>	<b>94</b>
Gold, silver and other precious metals and manufactures thereof (except plate and jewellery) ... ..	31,168	84,564	59,661	191	42

\* In view of the substantially greater output in 1933 of refined gold and other precious metals and of the disproportionate effect of this change on aggregates which include goods of lower intrinsic value, the output of precious metals is not included in this total.

Table III.—Employment

A.—AVERAGE NUMBERS (EXCLUDING OUTWORKERS) EMPLOYED IN 1933  
AND 1930  
(i) Operatives

Trade		Males		Females		Total		
		Under 18	Total	Under 18	Total	Under 18	18 and over	Total
Copper and Brass (Smelting, Rolling, etc.)...	1933	1,545	18,546	222	977	1,767	17,756	19,523
	1930*	1,729	20,687	303	1,209	2,032	19,864	21,896
Aluminium, Lead, Tin, etc. (Smelting, Rolling, etc.)...	1933	1,285	15,912	813	2,654	2,098	16,468	18,566
	1930*	1,341	17,206	604	2,025	1,945	17,286	19,231
Gold and Silver Refining ...	1933	149	1,276	76	253	225	1,304	1,529
	1930	148	1,262	58	260	206	1,316	1,522
Finished Brass...	1933	2,832	16,355	1,851	8,052	4,683	19,724	24,407
	1930*	3,575	19,694	2,316	8,636	5,891	22,439	28,330
Plate and Jewel- lery ... ..	1933	900	9,277	2,383	9,911	3,283	15,905	19,188
	1930*	1,156	10,916	2,634	10,303	3,790	17,429	21,219
Unclassified Trades (North- ern Ireland)†... ..	1930	21	107	—	—	21	86	107
<b>TOTAL</b> ...	1933	<b>6,711</b>	<b>61,366</b>	<b>5,345</b>	<b>21,847</b>	<b>12,056</b>	<b>71,157</b>	<b>83,213</b>
	1930	<b>7,970</b>	<b>69,872</b>	<b>5,915</b>	<b>22,433</b>	<b>13,885</b>	<b>78,420</b>	<b>92,305</b>

(ii) *Administrative, technical and clerical staff*

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Copper and Brass (Smelting, Rolling, etc.)...	1933	97	2,234	92	811	189	2,856	3,045
	1930*	156	2,239	112	839	268	2,810	3,078
Aluminium, Lead, Tin, etc. (Smelting, Rolling, etc.)...	1933	123	2,293	96	757	219	2,831	3,050
	1930*	196	2,367	103	713	299	2,781	3,080
Gold and Silver Refining ...	1933	8	313	2	95	10	398	408
	1930	6	302	1	78	7	373	380
Finished Brass...	1933	122	2,261	208	1,312	330	3,243	3,573
	1930*	209	2,631	325	1,478	534	3,575	4,109
Plate and Jewel- lery ...	1933	128	1,997	367	1,928	495	3,430	3,925
	1930*	108	2,158	413	2,024	521	3,661	4,182
Unclassified trades (North- ern Ireland)†...	1930	1	15	—	4	1	18	19
TOTAL ...	1933	478	9,098	765	4,903	1,243	12,758	14,001
	1930	676	9,712	954	5,136	1,630	13,218	14,848

\* Great Britain.

† See note (†) to Table I.

## B.—AVERAGE NUMBERS OF OUTWORKERS EMPLOYED

Trade	1933			1930		
	Males	Females	Total	Males	Females	Total
Plate and Jewellery ...	467	104	571	517	127	644

Table IV

## A.—RETURNS COVERING THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Per cent. of total
	No.	No.	Per cent.	No.	No.	Per cent.
Copper and Brass (Smelting, Rolling, etc.) ...	22,568	15,304	68	24,974	18,270	73
Aluminium, Lead, Tin etc. (Smelting, Rolling, etc.) ...	21,616	15,289	71	22,311	16,017	72
Gold and Silver Refining	1,937	1,587	82	1,902	1,659	87
Finished Brass ...	27,980	19,164	68	32,439	18,118	56
Plate and Jewellery ...	23,113	17,236	75	25,401	18,363	72
<b>Total ...</b>	<b>97,214</b>	<b>68,580</b>	<b>71</b>	<b>107,027</b>	<b>72,427</b>	<b>68</b>

\* Great Britain.

## B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ...	54,700	65,405
February ...	55,185	65,113
March ...	55,526	64,484
April ...	56,036	64,090
May ...	56,723	64,033
June ...	57,396	63,235
July ...	58,899	62,257
August ...	59,445	60,886
September ...	61,314	61,035
October ...	62,493	60,084
November ...	63,867	60,231
December ...	64,243	59,690
<b>AVERAGE FOR THE TWELVE MONTHS ...</b>	<b>58,819</b>	<b>62,545</b>

\* Great Britain.

**Amendments of certain aggregates for 1930**

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production:—

**Copper and Brass Trade (Smelting, Rolling, etc.):—**

Brass and other alloys of copper (excluding nickel alloys)  
—Castings

**Gold and Silver Refining Trade:—**

Other refinery products (including platinum alloys and dental platinum)

**THE COPPER AND BRASS TRADE (SMELTING, ROLLING, ETC.)**

*Notes.*—(a) The particulars given for 1930 in Tables I, VI and VII differ from those published in the Final Report on the Fourth Census of Production (see paragraph 8, page x). Details of the output of wire of non-ferrous metals, in coils, are given in the Tables for the Wire Trade (see page 62).

(b) The figures for 1930 relate to Great Britain only, particulars of the very small production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	14,475	20,994
Cost of materials used ... ..	"	9,400	15,014
Amount paid for work given out ... ..	"	117	160
Net output ... ..	"	4,958	5,820
Average number of persons employed ... ..	No.	22,568	24,974
Net output per person employed ... ..	£	220	233

**Table II A.—Total make of Copper and Brass and certain manufactures**

Description	1933	1930
	Th. tons	Th. tons
Copper :—		
Unwrought, including rough copper of 94 per cent. copper content or over (including electrolytic copper)* ... ..	67·2	52·7
Rods and sections, and wire not in coils ... ..	18·4†	‡
Brass and other alloys of copper (excluding nickel alloys) :—		
Unwrought, in blocks, ingots, etc. ... ..	80·4	‡
Plates, sheets and strip (including circles and discs) ... ..	49·2§	35·3§
Rods and sections, and wire not in coils ... ..	51·8	‡

\* Including copper smelted from imported unrefined metal as well as copper smelted from imported ores and scrap. Some duplication may be involved owing to the inclusion of the same product at different stages of manufacture.

|| See note (\*) to Table II B.

† Includes 6,000 tons returned on schedules for other trades.

‡ Not recorded.

§ Includes 1,000 tons returned on schedules for other trades.

Table II B.—Principal products made for sale

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<b>Copper :—</b>	Th. tons	£'000	Th. tons	£'000
Unwrought, including rough copper of 94 per cent. copper content or over (including electrolytic)* ... ..	19·0	654	27·5	1,749
Plates, sheets, strip, etc. (including circles and discs) ... ..	26·9	1,576	22·4	2,071
Rods and sections, and wire not in coils* :—				
Wire rods ... ..	11·9	471	} 14·3	1,114
Other ... ..	6·0	341		
Tubes ... ..	10·3	836	9·2	1,118†
Cylinders and boilers§ ... ..	} 3·1	237	} 6·7	698
Other manufactures of copper (except wire, copper salts, etc.) ... ..		4·9		
... ..	...	103	...	...
Total—Copper and manufactures thereof ... ..	...	4,768	...	7,278†
<b>Brass and other alloys of copper (except nickel alloys) :—</b>				
Unwrought, in blocks, ingots, etc.*... ..	17·3	645	27·2§	1,586§
Plates, sheets and strip (including circles and discs)* ... ..	43·4	2,395	34·3	2,749
Rods and sections, and wire not in coils*... ..	49·0	2,095	45·4	2,961
Tubes* :—				
Solid drawn, of circular section ... ..	7·6	667	8·7	1,001†
Other ... ..	0·4	45	0·7	93
Other manufactures of brass and other alloys of copper (except wire and finished brass goods) :—				
Castings§ ... ..	16·3	1,578	} 16·2	1,969
Stampings, pressings and piercings§ ... ..	0·5	46		
... ..	...	25	} 3·0	350
Other and unclassified ... ..	2·9	420		
... ..	...	107	...	...
Total—Brass and other copper alloys and manufactures thereof ... ..	...	8,023	...	11,565†
<b>TOTAL—PRINCIPAL PRODUCTS...</b> ... ..	...	12,791	...	18,843†

\* See note at foot of next page.

† In addition, the undermentioned goods were returned for 1930 on schedules for trades not covered by the 1933 Inquiry :—

<i>Copper—</i>	£'000
Tubes ... ..	14
Other and unclassified manufactures ... ..	5
<i>Brass—</i>	
Tubes, solid drawn ... ..	34
Castings ... ..	34
Manufactures, not separately distinguished... ..	3
<b>TOTAL</b> ... ..	<b>90</b>



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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
<b>Copper:—</b>	Th. tons	£'000	Th. tons	£'000
Unwrought, including rough copper of 94 per cent. copper content or over (including electrolytic) ...	0.1	2	†	2
Plates, sheets, strip, etc. (including circles and discs) ...	...	3	0.5	30
Rods and sections, and wire not in coils ...	6.0	251	4.5	285
Tubes ...	...	5	—	—
Cylinders and boilers ...	0.2	27	} 2.8	243
Other manufactures of copper (except wire, copper salts, etc.) ...	1.5	269		
	...	78	...	305
<b>Total—Copper and manufactures thereof ...</b>	...	635	...	865
<b>Brass and other alloys of copper (except nickel alloys):—</b>				
Unwrought, in blocks, ingots, etc. ...	0.2	11	2.0	108
Plates, sheets and strip (including circles and discs) ...	0.5	39	0.6	59
Rods and sections, and wire not in coils ...	0.5	41	—	—
<b>Tubes:—</b>				
Solid drawn ...	0.1	7	0.1	10
Other ...	0.1	11	0.1	5
<b>Other manufactures of brass and other alloys of copper (except wire and finished brass goods):—</b>				
Castings ...	6.4	610	} 5.1	647
Stampings, pressings and piercings ...	...	1		
Other and unclassified ...	2.1	307	} 1.7	192
	...	77		
<b>Total—Brass and other copper alloys and manufactures thereof</b>	...	1,104	...	1,576
<b>TOTAL ...</b>	...	1,739	...	2,441

† Less than 50 tons.

The following note applies to the above table as well as to that on the preceding table:—

\* The particulars for 1930 given against the following headings were returned under descriptions differing from those shown for 1933:—

1933
<b>Copper:—</b>
Unwrought, etc.
Rods and sections, etc.
<b>Brass:—</b>
Unwrought, etc.
Plates, sheets, strip, etc.
Rods and sections, etc.
<b>Tubes:—</b>
Solid drawn of circular section

1930
<b>Copper:—</b>
Bars, blocks, slabs, ingots and cakes (including electrolytic copper)
Rods
<b>Brass:—</b>
Ingots (so far as recorded separately)
Sheets and strip
Rods
<b>Tubes:—</b>
Solid drawn

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Copper :—							
Unwrought, including rough copper of 94 per cent copper content or over (including electro- lytic)† ... ..	34.4	63.9	53.8	32.2	62.2	34.5	61.5
Plates, sheets, strip, etc. (including circles and discs) ... ..	58.6	92.6	63.3	50.5	91.0	55.1	92.6
Rods and sections, and wire not in coils :—							
Wire rods ... ..	39.8	*	...	46.9	*	39.2	*
Other ... ..	56.2	*	...	52.2	*	44.4	*
Rods and sections, and wire not in coils† ...	45.3	77.8	58.3	51.7	89.8	39.2	64.6
Tubes :—							
Solid drawn, of circular section ... ..	81.8	121.3	67.4	89.3	141.5	57.6	94.6
Other ... ..	135.7	161.7	83.9	104.3	167.9	58.3	98.7
Brass and other alloys of copper (except nickel alloys) :—							
Unwrought, in blocks, ingots, etc.† ...	37.3	58.3	63.9	47.0	*	78.4	*
Plates, sheets and strip (including circles and discs)† ... ..	55.1	80.1	68.9	40.1	77.3	53.9	83.3
Rods and sections, and wire not in coils† ...	42.8	65.2	65.6	51.1	89.9	47.8	61.8
Tubes† :—							
Solid drawn, of circu- lar section ... ..	88.2	115.4	76.4	95.1	136.8	65.6	99.3
Other ... ..	120.2	135.8	88.5	117.8	143.1	59.8	138.2

† See note (\*) to Table II B.

\* Not recorded separately.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000		
Copper :—					
Unwrought (including electrolytic) ... ..	1,749*	654	1,217	70	96
Plates, sheets, strip, etc.	2,071	1,576	2,490	120	130
Rods and sections, and wire not in coils ... ..	1,114*	812	1,394	125	75
Tubes ... ..	1,118	836	1,238	111	123
Other manufactures of copper ... ..	1,226	890	1,020	83	135
Total—Copper and manu- factures thereof ... ..	7,278	4,768	7,359	101	113
Brass and other alloys of copper (except nickel alloys) :—					
Unwrought, in blocks, ingots, etc. ... ..	1,586*	645	1,009	64	—
Plates, sheets and strip ...	2,749*	2,395	3,478	127	113
Rods and sections, and wire not in coils ... ..	2,961*	2,095	3,195	108	66
Tubes ... ..	1,094*	712	924	84	130
Castings, stampings and other manufactures of brass ... ..	3,175	2,176	2,490	78	113
Total—Brass and manu- factures thereof ... ..	11,565	8,023	11,096	96	103
TOTAL† ... ..	18,843	12,791	18,455	98	107

\* See note (\*) to Table II B.

† Except wire and manufactures thereof and finished brass goods.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
<b>Copper :—</b>						
Unwrought, including rough copper of 94 per cent. copper content or over (including electrolytic)	1933	67·2†	7·6	...	138·0	...
	1930*	52·7†	8·1	...	140·3	...
Plates, sheets, strip, etc. ...	1933	26·9	8·6	32·0	3·9	22·2
	1930	22·4	6·4	28·4	3·3	19·3
Rods and sections ...	1933	18·4	0·6	3·3	15·9	33·7
	1930*	14·3†	1·2	8·3	24·7	37·8
Tubes ...	1933	10·3	1·1	10·7	1·3	10·5
	1930	9·3	1·4	15·1	1·8	9·7
<b>Brass and other alloys of copper (except nickel alloys) :—</b>						
Unwrought, in blocks, ingots, etc. ...	1933	80·4	2·0	2·6	§	78·4
	...	...	...	...	...	100·0
Plates, sheets and strip ...	1933	49·2	10·2	20·7	1·4	40·4
	1930*	35·3	4·5	12·7	1·3	32·1
Rods and sections ...	1933	51·8	1·7	3·3	0·3	50·4
	1930*	45·4†	1·9	4·3	0·4	43·9
Tubes ...	1933	8·0	1·3	16·3	0·2	6·9
	1930*	9·7	2·4	24·8	0·4	7·7

† See note (\*) to Table II A.

\* See note (\*) to Table II B.

‡ Output for sale.

§ Under 5 tons.

The following tables relate only to firms whose returns were made on schedules for the Copper and Brass Trade (Smelting, Rolling, etc.) and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	1,545	18,546	222	977	1,767	19,523
	1930	1,729	20,687	303	1,209	2,032	21,896
Administrative, technical and clerical staff* ...	1933	97	2,234	92	811	189	3,045
	1930	156	2,239	112	839	268	3,078
TOTAL ...	1933	1,642	20,780	314	1,788	1,956	22,568
	1930	1,885	22,926	415	2,048	2,300	24,974

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	12,399	July 15 ... ..	13,334
February 18 ...	12,497	August 19 ... ..	13,222
March 18 ... ..	12,600	September 16 ...	13,543
April 15 ... ..	12,617	October 14 ... ..	13,604
May 13 ... ..	12,788	November 18 ... ..	13,947
June 17 ... ..	13,044	December 16 ... ..	14,237
<b>AVERAGE FOR THE TWELVE MONTHS</b> ... ..			13,153

**Table VII.—Other output of the Copper and Brass Trade (Smelting, Rolling, etc.)**

The value of the gross output of the firms whose returns were made on schedules for the Copper and Brass Trade (Smelting, Rolling, etc.) was £14,475,000 in 1933 and £20,994,000 in 1930, of which £11,052,000 in 1933 and £16,402,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
<b>Aluminium :—</b>	Th. tons	£'000	Th. tons	£'000
Crude and semi-finished ...	4·0	471	2·0	384
Manufactures (including castings)	0·3	54	0·4	88
<b>Wire in coils :—</b>				
Of copper (including uninsulated electric wire) ... ..	10·5	566	12·2	1,025
Of brass ... ..	5·2	294	4·5	336
Of other alloys of copper ...	1·3	98	0·8	99
Lead and manufactures thereof ...	10·0	179	0·5	9
<b>Nickel alloys and manufactures thereof</b> ... ..	1·2	218	2·0	370
<b>White metal alloys, unwrought or partly wrought :—</b>				
Anti-friction metal ... ..	1·5	225	2·4	277
Other sorts ... ..	0·2	9	0·1	10
Finished brass goods ... ..	...	245	...	723
<b>Other non-ferrous metals and manufactures thereof</b> ... ..	...	315	...	133
Manufactures of iron and steel ...	...	90	...	133
Machinery and parts ... ..	...	15	0·9	104
Chemical manufactures ... ..	2·6	45	}	—
Other goods made ... ..	...	6		
Other goods made ... ..	...	104	...	54
<b>Total Goods made</b> ... ..	...	2,934	...	3,745

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Scrap and old metal sold :—				
Copper ... ..	2.9	95	2.3	145
Brass ... ..	4.3	93	3.7	170
Iron and steel ... ..	1.7	3	0.7	2
Other and unclassified ... ..	0.7	34	...	44
Concentrates, residues, scale, etc. ... ..	...	64*	...	178*
Total—Waste products ... ..	...	289	...	539
		Amount received		Amount received
Work done for the trade :—				
Casting of brass and other copper alloys ... ..	...	24	...	64
Rolling of copper ... ..	...	38	...	54
Rolling of brass ... ..	...	35	...	35
Rolling of nickel alloys ... ..	...	14	...	19
Other work done for the trade... ..	...	65	...	85
Repair work ... ..	...	24	...	51
Total—Work done ... ..	...	200	...	308
TOTAL ... ..	...	3,423	...	4,592

\* Including purple iron ore.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
	Tons	£'000
Copper ore, matte, etc. ... ..	10,734	303
Copper, unwrought ... ..	96,839	3,366
Lead ore and concentrates ... ..	188	3
Nickel, unwrought ... ..	302	60
Zinc ore and concentrates and zinc unwrought ... ..	32,456	590
Scrap (including all forms of secondary metal purchased and used) ... ..	112,539	2,767
All other materials used (including fuel) ... ..	...	2,311
TOTAL ... ..	...	9,400

**THE ALUMINIUM, LEAD, TIN, ETC. TRADES  
(SMELTING, ROLLING, ETC.)**

*Note*:—The figures for 1930 relate to Great Britain only, particulars of the very small production in Northern Ireland for that year not being available for publication.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	23,139	26,539
Cost of materials used ... ..	"	15,873	20,291
Amount paid for work given out ... ..	"	64	64
Net output ... ..	"	7,202	6,184
Average number of persons employed ... ..	No.	21,616	22,311
Net output per person employed ... ..	£	333	277

**Table II A.—Total make**

Kind of goods	Returned on schedules for			
	The Aluminium etc., Trades		All trades	
	1933	1930	1933	1930
	Th. tons	Th. tons	Th. tons	Th. tons
<b>Aluminium :—</b>				
• Crude, in ingots, blocks, billets, notch bars, sticks, wirebar, slabs and alloy ... ..	27·3	21·1	30·5	21·9
Castings ... ..	8·2	*	9·0	*
Lead, pig ... ..	95·8	72·1	97·4	72·6
<b>Tin :—</b>				
Solder, soft ... ..	12·6	12·3	12·9	12·8
Blocks, ingots, bars and slabs ... ..	22·6	47·8	22·6	47·8
Zinc, crude (i.e., cakes, slabs, blocks, etc.) ... ..	42·7	49·9	53·8	50·5
<b>White metal alloys :—</b>				
Anti-friction metal ... ..	2·2	1·1	3·9	3·6

\* Not available.

Table II B.—Principal products made for sale

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Aluminium :—</b>				
Crude, in ingots, blocks, billets, notch bars, sticks, wirebar, slabs, and alloy ... ..	24·9	1,963	} 33·4	3,360
Plates, sheets, bars, sections, tubes, wire, strand, etc. ...	14·8	2,098		
<b>Manufactures :—</b>				
Castings ... ..	8·8	1,281	10·5†	1,937†
Aluminium foil† ... ..	2·5	616	—	—
Other (excluding hollow-ware)§	1·4	511	{ 1·3	402
			{ ...	436
<b>Total—Aluminium and manufactures thereof ... ..</b>	...	6,469	...	6,135
<b>Lead :—</b>				
Pig ... ..	87·8	1,060	45·9	829
Sheet ... ..	57·0	994	51·2	1,219
Pipes ... ..	81·5	1,402	47·5	1,168
Foil ... ..	1·8	67	2·1	82
Collapsible tubes† ... ..	1·3	123	} 5·8	233
Other manufactures (except white lead)¶ ... ..	8·6	297		
<b>Total—Lead and manufactures thereof ... ..</b>	...	3,943	...	3,649
<b>Nickel and nickel alloys :—</b>				
Unwrought and wrought (ingots, sheets, strip, plates, etc.)φ ...	12·2	2,405	15·6	2,487
Manufactures ... ..	1·1	303	{ 1·7	371
			{ ...	136
<b>Total—Nickel and nickel alloys and manufactures thereof ...</b>	...	2,708	...	2,994
<b>Tin :—</b>				
Solder, soft ... ..	12·7	1,156	12·7	1,082
Blocks, ingots, bars and slabs ...	22·6	4,686	47·8	8,439
Other manufactures (including tin foil) ... ..	2·3	572	1·3	344
	...	71	...	16
<b>Total—Tin and manufactures thereof ... ..</b>	...	6,485	...	9,881



Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Zinc :—</b>				
Crude (i.e., cakes, slabs, blocks, etc.) ... ..	46·4	747	50·3	889
Rolled sheets, etc. ... ..	9·1	224	5·2	206
Other manufactures (excluding printing plates) ... ..	6·6	471		
	...	45	...	149
<b>Total—Zinc and manufactures thereof ... ..</b>	...	1,487	...	1,244
<b>White metal alloys** :—</b>				
Anti-friction metal ... ..	3·8	496	3·6	439
Type metal ... ..	6·1	150	3·8	120
Other sorts ... ..	4·8	152	4·6	223
Manufactures of white metal alloys ... ..	0·7	77		
<b>Total—White metal alloys and manufactures thereof ... ..</b>	...	875	...	874
<b>Other non-ferrous metals†† :—</b>				
Printing type ... ..	0·8	138	0·8	200
Other sorts (including metallic bismuth and tungsten) ... ..	3·9	325	3·5	288
Manufactures of unclassified metals ... ..	...	131	...	163
	...	23	...	257
<b>TOTAL—PRINCIPAL PRODUCTS ... ..</b>	...	22,584	...	25,685

† So far as recorded separately.

‡ The production of aluminium hollow-ware is dealt with in the report on the Hardware, Hollow-ware, etc. Trade (see page 36).

§ In addition, the following output was returned on schedules for trades not covered by the 1933 Inquiry :—

	£'000
<b>Lead :—</b>	
Pipes ... ..	3
Other manufactures ... ..	5
Nickel and nickel alloys, manufactures of ... ..	3
Printing type ... ..	3
<b>Total ... ..</b>	<b>14</b>

¶ The production of white lead is dealt with in the report on the Paint, Colour and Varnish Trade (see Part I, page 238).

♦ The heading for 1930 included uncovered wire.

\*\* Alloys of tin, lead, zinc, antimony, etc. (other than soft solder) unwrought or partly wrought.

†† Except copper, brass and precious metals.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
<b>Aluminium :—</b>				
Crude, in ingots, blocks, billets, etc. ... ..	3.0	182	} 2.2	385
Plates, sheets, bars, sections, etc.	1.0	291		
<b>Manufactures :—</b>				
Castings ... ..	0.7	122	0.6	163
Other manufactures (exclud- ing hollow-ware) ... ..	6.6	105	...	355
<b>Total—Aluminium and manufac- tures thereof ... ..</b>	...	700	...	903
<b>Lead :—</b>				
Pig ... ..	1.6	17	0.5	7
Sheet ... ..	3.8	62	—	—
Pipes ... ..	6.2	111	0.2	5
Other manufactures (except white lead) ... ..	1.5	42	{ 0.2 ...	{ 10 51
<b>Total—Lead and manufactures thereof ... ..</b>	...	232	...	73
<b>Nickel and nickel alloys :—</b>				
Unwrought and wrought (ingots, sheets, etc.) ... ..	0.8	110	1.2	179
Manufactures ... ..	0.7	176	{ 1.2 ...	{ 245 111
<b>Total—Nickel and nickel alloys and manufactures thereof ...</b>	...	286	...	535
<b>Tin :—</b>				
Solder, soft ... ..	0.3	22	0.4	40
Other manufactures ... ..	0.1 ...	32 72	} 0.1	26
<b>Total—Tin and manufactures thereof ... ..</b>	...	126	...	66
<b>Zinc :—</b>				
Crude (i.e., cakes, slabs, blocks, etc.) ... ..	3.6	62	0.4	6
Rolled sheets, etc. ... ..	4.6	128	} 0.6	24
Other manufactures (excluding printing plates) ... ..	3.3 ...	259 44		
<b>Total—Zinc and manufactures thereof ... ..</b>	...	493	...	169

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
White metal alloys :—				
Anti-friction metal ... ..	1.5	225	2.5	281
Other white metal alloys and manufactures thereof ...	0.3	13	0.1	7
			...	5
Total—White metal alloys and manufactures thereof ...	...	238	...	293
Other non-ferrous metals ... ..	...	94	...	64
Manufactures of unclassified metals	...	9	...	257
TOTAL ... ..	...	2,178	...	2,360

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Aluminium :—							
Crude, in ingots, blocks, billets, notch bars, sticks, wirebar, slabs and alloy	78.9	82.4	95.8	59.7	57.1	86.0	92.9
Plates, sheets, bars, sections, tubes, wire, strand, etc. ...	142.0	126.8	112.0	128.0	116.1	111.0	125.8
Castings... ..	145.1	184.7	78.6	*	*	*	*
Lead :—							
Pig ... ..	12.1	18.1	66.7	12.9	20.3	12.0	18.4
Sheet ... ..	17.4	23.8	73.3	15.9	26.5	15.1	23.6
Pipes ... ..	17.2	24.6	69.9	18.4	29.1	15.9	23.6
Foil ... ..	37.1	39.7	93.4	46.4	74.3	69.0	66.6
Nickel :—							
Unwrought, in pellets, cubes, etc. ... ..	196.1	148.3	132.2	230.5	168.0	211.0	163.8
Plates, sheets, etc. (including circles, discs and strip) ...	321.3	258.8	124.1	297.4	235.0	327.7	203.0

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Nickel alloys :—							
Ingots, sheets and strip (including circles and discs) ... ..	163·2	172·3†	...	176·9	236·0†	112·8	190·8†
Tin :—							
Solder, soft ...	90·9	84·9	107·0	96·1	95·8	167·2	134·8
Blocks, ingots, bars and slabs	207·5	176·6	117·5	204·6	149·6	190·1	156·4
Foil ... ..	253·1	261·3	96·9	246·0	272·6	267·8	336·1
Zinc :—							
Crude (i.e., cakes, slabs, blocks, etc.) ... ..	16·1	17·7	91·0	15·0	16·2	17·0	18·2
Rolled sheets, etc. ... ..	24·6	28·6	85·8	38·0	41·5	20·7	27·2
White metal alloys:—							
Anti-friction metal ... ..	131·8	123·3	106·9	146·0	149·0	66·9	74·4
Type metal ...	24·6	31·8	77·4	28·1	32·5	‡	‡
Other non-ferrous metals :—							
Printing type ...	178·9	265·8	67·3	198·8	263·3	361·2	279·2
Antimony :—							
Regulus ... ..	32·2	37·0	87·1	35·5	41·7	22·6	28·4
Manufactures	36·8	41·5	88·6	40·4	48·7	108·2	189·6

\* Separate figures not available.

† Including wire of nickel alloys.

‡ Imports insignificant.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Aluminium :—	£'000	£'000	£'000	Per cent.	Per cent.
Crude, and plates, sheets, bars, etc. ... ..	3,360	4,061	3,922	117	56
Castings ... ..	1,937	1,281	1,630	84	} 63
Foil and other manufac- tures (except hollow- ware) ... ..	838	1,127	1,066	127	
Total—Aluminium and manufactures thereof ...	6,135	6,469	6,618	108	59

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
<b>Lead :—</b>	£'000	£'000	£'000	Per cent.	Per cent.
Pig ... ..	829	1,060	1,589	192	107
Sheet ... ..	1,219	994	1,356	111	83
Pipes ... ..	1,168	1,402	2,006	172	107
Foil... ..	82	67	72	88	244
Other manufactures (ex- cept white lead) ...	351	420	387	110	367
<b>Total—Lead and manufac- tures thereof ...</b>	<b>3,649</b>	<b>3,943</b>	<b>5,410</b>	<b>148</b>	<b>127</b>
<b>Nickel and nickel alloys :—</b>					
Unwrought and wrought (ingots, sheets, strip, etc.) ... ..	2,487	2,405	1,952	78	} 79
Manufactures ... ..	507	303	253	50	
<b>Total—Nickel and nickel alloys and manufactures thereof ... ..</b>	<b>2,994</b>	<b>2,708</b>	<b>2,205</b>	<b>74</b>	<b>79</b>
<b>Tin :—</b>					
Solder, soft ... ..	1,082	1,156	1,080	100	61
Blocks, ingots, bars and slabs ... ..	8,439	4,686	3,988	47	80
Foil and other manu- factures ... ..	360	643	683	190	129
<b>Total—Tin and manufac- tures thereof ... ..</b>	<b>9,881</b>	<b>6,485</b>	<b>5,751</b>	<b>58</b>	<b>80</b>
<b>Zinc :—</b>					
Crude ... ..	889	747	821	92	121
Rolled sheets, etc. ... }	355	224	261	199	57
Other manufactures ... }		516	446		
<b>Total—Zinc and manu- factures thereof ...</b>	<b>1,244</b>	<b>1,487</b>	<b>1,528</b>	<b>123</b>	<b>103</b>
<b>White metal alloys :—</b>					
Anti-friction metal ...	439	496	464	106	143
Type metal ... ..	120	150	194	162	148
Other white metal alloys and manufactures thereof	315	229	267	85	94
<b>Total—White metal alloys and manufactures thereof</b>	<b>874</b>	<b>875</b>	<b>925</b>	<b>106</b>	<b>126</b>
<b>Other non-ferrous metals :—</b>					
Printing type ... ..	200	138	205	103	121
Other sorts (including metallic bismuth and tungsten) ... ..	451	456	480	106	93
Manufactures of unclassi- fied metals ... ..	257	23	25	...	...

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
<b>Aluminium:—</b>						
Crude, in ingots, blocks, billets, notch bars, sticks, wirebar, slabs and alloy... 1933	30.5	4.0	*	11.6	*	*
Plates, sheets, bars, sections, tubes, wire, strand, etc. 1933	14.8	3.1	*	3.0	*	*
Aluminium, crude in ingots, blocks, etc., and plates, sheets, bars, etc. ... 1930	33.4	7.9	*	23.7	*	*
<b>Lead:—</b>						
Pig ... 1933	97.4	3.7	*	276.1	*	*
1930	72.6	3.8	*	286.2	*	*
Sheet ... 1933	57.0	3.8	6.7	3.5	56.7	93.8
1930	51.2	4.4	8.6	7.9	54.7	85.6
Pipes ... 1933	81.5	1.8	2.2	0.4	80.1	99.5
1930	47.7	1.6	3.4	6.0	52.1	88.5
Foil ... 1933	1.8	0.2	11.1	†	1.6	100.0
1930	2.1	†	...	†	2.1	100.0
Nickel and nickel alloys, unwrought and wrought (pellets, cubes, rondels, ingots, sheets, strip, plates, etc.) 1933	12.2	5.3	*	1.6	*	*
1930†	15.6	5.3	*	1.7	*	*
<b>Tin:—</b>						
Solder, soft ... 1933	12.9	2.4	18.6	†	10.5	99.9
1930	12.8	2.8	21.8	†	10.0	99.6
Blocks, ingots, bars, and slabs... 1933	22.6	29.2	...	2.6	...	...
1930	47.8	22.9	47.9	4.3	29.2	85.3
Zinc, crude (i.e., cakes, slabs, blocks, etc.) ... 1933	53.8	4.6	8.6	80.7	129.9	37.9
1930	50.5	3.9	7.6	130.6	177.2	26.3
<b>White metal alloys:—</b>						
Anti-friction metal 1933	3.9	1.3	33.3	†	2.6	100.0
1930	3.6	1.9	53.4	0.1	1.8	94.4
Type metal ... 1933	6.1	1.1	18.0	†	5.0	100.0
1930	3.8	1.6	43.6	†	2.2	100.0

\* Owing to duplication and to the inclusion of some remelted metal in the particulars of production, no reliable figures can be inserted here.

† Under 50 tons.

‡ The figures for 1930 include wire.

The following tables relate only to firms whose returns were made on schedules for the Aluminium, Lead, Tin, etc. Trade (Smelting, Rolling, etc.) and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	1,285	15,912	813	2,654	2,098	18,566
	1930	1,341	17,206	604	2,025	1,945	19,231
Administrative, technical and clerical staff* ...	1933	123	2,293	96	757	219	3,050
	1930	196	2,367	103	713	299	3,080
TOTAL ... ..	1933	1,408	18,205	909	3,411	2,317	21,616
	1930	1,537	19,573	707	2,738	2,244	22,311

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	12,095	July 15 ... ..	13,033
February 18 ...	12,224	August 19 ... ..	13,455
March 18 ... ..	12,099	September 16 ...	13,620
April 15 ... ..	12,354	October 14 ... ..	13,921
May 13 ... ..	12,400	November 18 ...	14,007
June 17 ... ..	12,621	December 16 ...	14,213
AVERAGE FOR THE TWELVE MONTHS ... ..			13,004

**Table VII.—Other output of the Aluminium, Lead, Tin, etc. Trade (Smelting, Rolling, etc.)**

The value of the gross output of the firms whose returns were made on schedules for the Aluminium, Lead, Tin, etc. Trade was £23,139,000 in 1933 and £26,539,000 in 1930, of which £20,406,000 in 1933 and £23,325,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933		1930		
	Quantity	Value	Quantity	Value	
	Th. tons	£'000	Th. tons	£'000	
Brass and other alloys of copper and manufactures thereof :—					
Ingots and castings ... ..	0·7	69	} 2·2	132	
Finished brass goods ... ..	...	48		...	7
Other goods (including sheet and strip, wire and tubes) ... ..	0·6	44		1·5	129
Copper and manufactures thereof :—					
Finished copper goods ... ..	0·2	13	...	37	
Other manufactures of copper (except copper sulphate) ... ..	0·1	8	0·1	9	
	Th.		Th.		
	ozs. troy		ozs. troy		
Gold, silver and other precious metals and manufactures thereof	2,918	241	397	39	
	Th. cwts.		Th. cwts.		
Chemical manufactures :—					
White lead (basic carbonate) ... ..	120	168	120	199	
	Th. tons		Th. tons		
Litharge ... ..	1·4	33	2·2	72	
Other lead compounds, including red and orange lead ... ..	6·3	122	9·6	267	
Other chemicals (including copersulphate, cobalt compounds, tin compounds, etc.) ... ..	24·6	394	26·0	521	
	...	133	...	121	
Manufactures of iron and steel ... ..	3·9	317	2·7	331	
	...	6	...	40	
Machinery and parts ... ..	...	10	...	21	
Other goods made ... ..	...	655	...	333	
<b>Total—Goods made ... ..</b>	...	<b>2,262</b>	...	<b>2,346</b>	
Scrap and by-products sold :—					
Scrap of :—					
Copper and brass ... ..	0·2	6	7·1	309	
Iron and steel ... ..	70·9	111	74·3	154	
Aluminium ... ..	1·4	76	0·9	28	
Lead ... ..	0·5	6	2·0	12	
Other and unclassified metals	0·2	12	0·4	13	
Concentrates, residues, scale, etc.	13·3	99	...	120	
<b>Total—Scrap and by-products</b>	...	<b>310</b>	...	<b>636</b>	



Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
		£'000		£'000
Work done :—				
Rolling of copper ...				
Casting and rolling of brass and other copper alloys	... }	11*	... }	7*
Rolling of nickel alloys ...	...	16*	...	21*
Other work (including repair work) ...	...	134*	...	204*
Total—Work done ...	...	161*	...	232*
TOTAL ...	...	2,733	...	3,214

\* Amount received.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
	Th. tons	£'000
Copper, unwrought ...	1·8	62
Lead ore and concentrates ...	22·2	184
Nickel, unwrought ...	1·3	137
Zinc ore and concentrates ...	90·8	269
Zinc, unwrought ...	6·1	108
Scrap (including all forms of secondary metal purchased and used) ...	145·3	2,079
All other materials used (including fuel) ...	...	13,034
TOTAL ...	...	15,873

### THE GOLD AND SILVER REFINING TRADE

*Note.*—In order to preserve comparability with the more exact information furnished for 1933, the returns made for certain individual businesses for 1930 have been revised and re-classified and the figures published in the Final Report on the Fourth Census of Production (1930) have been adjusted accordingly.

**Table I.—General summary**

Particulars.	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	84,443	31,573
Cost of materials used and amount paid for work given out... ..	"	83,360	30,514
Net output ... ..	"	1,083	1,059
Average number of persons employed ... ..	No.	1,937	1,902
Net output per person employed ... ..	£	559	557

**Table II A.—Total output of refined silver and platinum**

	1933	1930
	Ozs. troy	Ozs. troy
Refined silver ... ..	79,515,400*	38,396,900*
Refined platinum ... ..	66,321	104,067

\* Includes 2,789,100 ozs. for 1933 and 215,700 ozs. for 1930 returned by firms whose returns were made on schedules for other trades.

Owing to the risk of disclosure of information relating to the business of individual firms, similar particulars regarding the production of gold cannot be given.

**Table II B.—Principal products made for sale**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. ozs. troy	£'000	Th. ozs. troy	£'000
Gold, refined, and manufactures of gold, other than gold leaf* ... ..	12,375·4	76,938	6,193·0	25,991
	Million leaves		...	629
Gold leaf ... ..	22·1	95	32·2	112
	Th. ozs. troy		Th. ozs. troy	
Platinum, refined, including manufactures not elsewhere specified... ..	66·3	451	102·8†	798†
Silver, refined ... ..	75,827·4	6,194	38,075·4	3,125
Manufactures of silver* ... ..	6,399·6	572	2,871·6	242
Other refinery products (including platinum alloys and dental platinum)	...	314	...	271†
TOTAL—PRINCIPAL PRODUCTS ... ..	...	84,564	...	31,168†

\* Exclusive of jewellery, plate, etc., for which see the Plate and Jewellery Trade (page 190).

† Refined platinum only.

‡ See page 160

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. ozs. troy	£'000	Th. ozs. troy	£'000
Gold, refined, and manufactures of gold, other than gold leaf ...	0·2	1	1·1	5
Silver refined ... ..	2,789·1	229	215·7	19
Manufactures of silver ... ..	238·0	21	411·4	29
<b>TOTAL</b> ... ..	...	251	...	53

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
<b>Gold:—</b>	£ per oz. troy	£ per oz. troy	Per cent.	£ per oz. troy	£ per oz. troy	£ per oz. troy	£ per oz. troy
Refined in bars ...	6·29	4·08	154·3	6·18	4·25	6·22	4·24
	£ per thous. leaves	£ per thous. leaves		£ per thous. leaves	£ per thous. leaves	£ per thous. leaves	£ per thous. leaves
Gold leaf ...	4·29	3·49	122·8	4·07	2·71	2·86	2·51
	£ per oz. troy	£ per oz. troy		£ per oz. troy	£ per oz. troy	£ per oz. troy	£ per oz. troy
Platinum, refined, etc.*...	6·80	7·76	87·6	6·95	9·72	7·25	8·71
	d. per oz. troy	d. per oz. troy		d. per oz. troy	d. per oz. troy	d. per oz. troy	d. per oz. troy
Silver, refined	19·60	19·70	977·5	19·67	20·24	18·95	19·46

\* See note (†) to Table II B.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Gold, refined, and manufac- tures of gold, other than gold leaf ... ..	26,620	76,938	51,985	195	34
Gold leaf ... ..	112	95	77	69	112
Platinum, refined ... ..	798	451	515	65	52
Silver, refined ... ..	3,125	6,194	6,225	199	95
Manufactures of silver ... ..	242	572	539	223	143
Other refinery products ... ..	271	314	320	118	114
<b>TOTAL ... ..</b>	<b>31,168</b>	<b>84,564</b>	<b>59,661</b>	<b>191</b>	<b>42</b>

Table V.—Production in relation to Exports and Imports

Exports and imports of refined gold and silver do not bear any relation to the quantities produced at refineries in this country. Particulars of the exports and imports of gold leaf and refined platinum in 1933 and 1930 are given below in relation to production in those years.

Kind of goods	Produc- tion	Exports	Propor- tion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods
Gold leaf...	Million leaves	Million leaves	Per cent.	Million leaves	Million leaves	Per cent.
	{ 1933 1930	22·1 32·2	0·7 1·1	3·2 3·4	39·4 75·7	60·8 106·8
Refined platinum	Th. ozs. troy	Th. ozs. troy		Th. ozs. troy	Th. ozs. troy	
	{ 1933 1930	66·3 104·1	14·9* 16·1	22·5 15·4	6·2* 8·6	57·6 96·6

\* Described as "Platinum, refined, including manufactures not elsewhere specified."

The following tables relate only to firms whose returns were made on schedules for the Gold and Silver Refining Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	149	1,276	76	253	225	1,529
	1930	148	1,262	58	260	206	1,522
Administrative, technical and clerical staff* ...	1933	8	313	2	95	10	408
	1930	6	302	1	78	7	380
TOTAL	1933	157	1,589	78	348	235	1,937
	1930	154	1,564	59	338	213	1,902

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	1,194	July 15 ...	1,290
February 18 ...	1,222	August 19 ...	1,301
March 18 ...	1,220	September 16 ...	1,349
April 15 ...	1,220	October 14 ...	1,374
May 13 ...	1,217	November 18 ...	1,382
June 17 ...	1,257	December 16 ...	1,385
AVERAGE FOR THE TWELVE MONTHS ...			1,284

**Table VII.—Other output of the Gold and Silver Refining Trade**

The value of the gross output of the firms whose returns were made on schedules for the Gold and Silver Refining Trade was £84,443,000 in 1933 and £31,573,000 in 1930, of which £84,313,000 in 1933 and £31,115,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Copper and manufactures thereof...	581	11	834	23
Other non-ferrous metals, alloys and manufactures thereof ...	...	31	...	53
Other goods made ... ..	...	3	...	52
Scrap metals, including concentrates, residues, etc. ... ..	...	65	...	301
Work done for the trade or on commission ... ..	...	20*	...	29*
<b>TOTAL</b> ... ..	...	130	...	458

\* Amount received.

### THE FINISHED BRASS TRADE

Note.—The figures for 1930 relate to Great Britain only, particulars of the very small production in Northern Ireland for that year not being available for publication.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	8,627	10,730
Cost of materials used ... ..	"	3,475	4,883
Amount paid for work given out ... ..	"	98	128
Net output ... ..	"	5,054	5,719
Average number of persons employed ... ..	No.	27,980	32,439
Net output per person employed ... ..	£	181	176

Table II.—Output of principal products

Finished brass goods	1933	1930
	£'000	£'000
Engineers' and mechanics' goods and fittings for water supply :—		
Steam and water fittings, including valves and cocks, unions, wastes, traps, etc. ... ..	1,990	3,403*
Sanitary and bathroom fittings, not included above	322	
Other kinds of engineers' and mechanics' goods ...	274	
Builders' and cabinet makers' goods (including house, shop, ship, office, hearth and church furniture), not elsewhere specified ... ..	1,506	2,124
Fittings for motor cars and chassis ... ..	328	504
Lamps, pendants, electroliers, brackets, taps and other fittings for lighting or heating purposes, whether oil, gas or electric, but not accessories included below ...	1,207	1,249
Switches, lampholders, cut-outs and other accessories for electric lighting ... ..	247	376
Coffin furniture ... ..	138	153
Bar, brewery and distillery fittings ... ..	134	126
Sparklets, sprinklers and fire extinguishers ... ..	69	147
* Art metal work (including antique reproductions), not elsewhere specified† ... ..	360	264‡
Railway and tramway fittings‡ ... ..	61	95
Ships' fittings (other than ships' furniture), including portholes, scuttles, etc.§ ... ..	105	331
Stampings and pressings of brass ... ..	377‡	1,491§
Other and unspecified finished brass goods ... ..	692	
<b>TOTAL—PRINCIPAL PRODUCTS...</b> ... ..	<b>7,810</b>	<b>10,263§</b>

\* Included in the total of engineers' and mechanics' goods etc., £'000  
 were the following, so far as recorded separately:—

Bathroom, lavatory and sanitary fittings ... ..	211
Steam fittings, including valves, cocks, boiler mountings, etc. ...	931

† Including some goods of metals other than brass.

‡ So far as recorded separately.

§ In addition, other and unspecified finished brass goods valued at £8,000 were returned on schedules for trades not covered by the 1933 Inquiry.

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

Finished brass goods	1933	1930
	£'000	£'000
Engineers' and mechanics' goods and fittings for water supply:—		
Steam and water fittings, including valves and cocks, unions, wastes, traps, etc. ... ..	100	} 407
Sanitary and bathroom fittings, not included above	70	
Other kinds of engineers' and mechanics' goods	1	
Builders' and cabinet makers' goods (including house, shop, ship, office, hearth and church furniture), not elsewhere specified ... ..	105	229
Fittings for motor cars and chassis ... ..	3	1
Lamps, pendants, electroliers, brackets, taps and other fittings for lighting or heating purposes, whether oil, gas or electric, but not accessories included below ...	146	149
Switches, lampholders, cut-outs and other accessories for electric lighting ... ..	1	—
Bar, brewery and distillery fittings ... ..	3	2
Sparklets, sprinklers and fire extinguishers ... ..	56	104
Art metal work (including antique reproductions), not elsewhere specified ... ..	84	—
Railway and tramway fittings ... ..	4	—
Ships' fittings (other than ships' furniture), including portholes, scuttles, etc. ... ..	76	254
Other and unspecified finished brass goods ... ..	324	424
<b>TOTAL</b> ... ..	<b>973</b>	<b>1,570</b>

**Table III.—Average values of goods produced, exported and imported**

In the absence of quantitative figures of production and of detailed particulars of external trade, average values of the various classes of finished brass goods produced, exported and imported cannot be stated.

**Table IV.—Volume of Production**

Principal products	1933	1930	1924
	£'000	£'000	£'000
Value of output as returned ... ..	7,810	10,263	8,039
Estimated value at 1930 prices* ... ..	8,750	10,263	8,250
Volume of production as a percentage of 1930 ... ..	Per cent. 85	Per cent. 100	Per cent. 80

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



**Table V.—Exports and Imports**

Detailed particulars of the external trade in the classes of goods covered by this report are not given in the trade returns. The following figures relate to *Manufactures of brass and other alloys of copper, not elsewhere specified*, i.e., other than sheet, strip, wire, rods and tubes. Machinery accessories and parts and similar goods, which are included in the trade returns under specific headings such as "Parts of road vehicles", "Electric lighting accessories and fittings", etc., are also excluded from this heading. Unwrought brass and screws, bolts and nuts of brass are excluded from the figures for 1933, but are included in those for 1930.

		Tons	£'000
Exports ...	1933	4,268	633
	1930	6,779	1,518
Retained imports ...	1933	853	186
	1930	2,962	569

The following tables relate only to firms whose returns were made on schedules for the Finished Brass Trade and are summarised in Table I.

**Table VI.—Employment****A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	2,832	16,355	1,851	8,052	4,683	24,407
	1930	3,575	19,694	2,316	8,636	5,891	28,330
Administrative, technical and clerical staff* ...	1933	122	2,261	208	1,312	330	3,573
	1930	209	2,631	325	1,478	534	4,109
TOTAL ...	1933	2,954	18,616	2,059	9,364	5,013	27,980
	1930	3,784	22,325	2,641	10,114	6,425	32,439

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	15,528	July 15 ...	16,851
February 18 ...	15,422	August 19 ...	16,998
March 18 ...	15,703	September 16 ...	17,574
April 15 ...	15,919	October 14 ...	17,912
May 13 ...	16,165	November 18 ...	18,500
June 17 ...	16,323	December 16 ...	18,643
AVERAGE FOR THE TWELVE MONTHS ...			16,795

**Table VII.—Other output of the Finished Brass Trade**

The value of the gross output of the firms whose returns were made on schedules for the Finished Brass Trade was £8,627,000 in 1933 and £10,730,000 in 1930, of which £6,837,000 in 1933 and £8,693,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Finished goods of metals other than brass :—		
Builders' and cabinet makers' goods :—		
Of iron and steel ... ..	189	152
Of other and unspecified metals ... ..	62	67
Bathroom, lavatory and sanitary fittings* ... ..	62	78
Steam fittings (including valves, etc.) * :—		
Of copper ... ..	3	29
Of other and unspecified metals ... ..	164	240
Coffin furniture :—		
Of zinc ... ..	91	109
Of other and unspecified metals ... ..	39	36
Other and unclassified finished goods :—		
Of copper ... ..	107	128
Of iron and steel ... ..	215	220
Of aluminium ... ..	36	48
Of zinc ... ..	168	191
Of other and unspecified metals ... ..	102	41
Bedsteads and parts, of brass ... ..	11	41
Castings and ingots of brass and other copper alloys	177	256
Electrical goods and apparatus ... ..	56	96
Other goods ... ..	107	
<b>Total</b> ... ..	<b>1,527</b>	<b>1,691</b>
Waste products sold :—		
Brass scrap (including dust) ... ..	142	191
Scrap of other and unspecified metals ... ..	35	15
<b>Total</b> ... ..	<b>177</b>	<b>206</b>
Work done for the trade :—	<b>Amount received</b>	<b>Amount received</b>
Japanning, lacquering, polishing, etc. ... ..	29	56
Repair work ... ..	50	73
Other work done ... ..	7	11
<b>TOTAL—Work done for the trade</b> ... ..	<b>86</b>	<b>140</b>
<b>TOTAL</b> ... ..	<b>1,790</b>	<b>2,037</b>

\* So far as recorded separately.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
	Th. tons	£'000
Copper (in all forms) ... ..	5·8	235
Nickel (in all forms) ... ..	0·1	13
Tin (in all forms) ... ..	0·3	37
Zinc (in all forms) ... ..	5·3	145
Brass castings ... ..	3·8	222
Brass, unwrought, in blocks, ingots, etc. ... ..	13·5	512
All other materials used (including fuel) ... ..	...	2,311
<b>TOTAL</b> ... ..	...	<b>3,475</b>

### THE PLATE AND JEWELLERY TRADE

Note.—The figures for 1930 relate to Great Britain only, particulars of the very small production in Northern Ireland not being available for publication.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,630	8,706
Cost of materials used ... ..	"	3,564	3,987
Amount paid for work given out ... ..	"	129	118
Net output ... ..	"	3,937	4,601
Average number of persons employed ... ..	No.	23,113	25,401
Net output per person employed ... ..	£	170	181

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. ozs. troy	£'000	Th. ozs. troy	£'000
Jewellery, gem-set or not :—				
Of gold or platinum ... ..	138·1	1,520	238·3	1,746†
Of silver and silver gilt ... ..	314·9	142	150·7	329†
Of imitation gold and silver or other metals ... ..	...	498	...	97
Of unclassified metals ... ..	...	88	...	46
TOTAL—Jewellery ... ..	...	2,466	...	304
Other goldsmiths' and silversmiths' wares :—				
Of gold ... ..	21·1	113	50·1	145†
Of silver, gilt or ungilt ... ..	3,340·4	940	3,456·6	33
Of electro-plate or of other metals than gold or silver :—	...	153	...	1,100
Spoons and forks ... ..	310·2	806	213·6	238†
Knives and blades† ... ..	38·3	211	31·0	757
Other descriptions :—				128
Of pewter§ ... ..	...	57	...	201
Of other metals ... ..	...	1,557	...	73
TOTAL—Other goldsmiths' and silversmiths' wares ... ..	...	3,860	...	1,966†

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Gold and silver thread, lace and braid	...	£'000 63	...	£'000 54
Medals, badges and regalia, not included elsewhere ... ..	...	334	...	323
Gold and silver thread, medals, badges, etc., not separately distinguished ...	—	—	...	26
Rough stampings for the trade... ..	...	190	...	173
<b>TOTAL—PRINCIPAL PRODUCTS</b> ...	...	<b>6,913</b>	...	<b>7,992†</b>

† In addition, the undermentioned goods were returned on schedules for trade not covered by the 1933 Inquiry :—

	Th. oz. troy	£'000
Jewellery, gem-set or not :—		
Of gold or platinum ... ..	2·2	15
	...	5
Other goldsmiths' and silversmiths' wares :—		
Of gold ... ..	3·3	7
Of silver ... ..	...	3
Of other metals ... ..	...	4
<b>TOTAL</b> ... ..	...	<b>34</b>

‡ Not including unplated cutlery (see page 76).

§ So far as recorded separately.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. ozs. troy	£'000	Th. ozs. troy	£'000
Jewellery, gem-set or not :—				
Of unclassified metals ... ..	...	2	...	56
Other goldsmiths' and silversmiths' wares :—				
Of silver, gilt or ungilt ... ..	11·7	13	{ 10·0 ...	{ 13 1
Of electro-plate or of metals other than gold or silver :—				
Spoons and forks ... ..	61·0	162	{ 61·9 ...	{ 211 11
Other descriptions ... ..	...	103	...	133
Other goods ... ..	...	1	...	6
<b>TOTAL</b> ... ..	...	<b>281</b>	...	<b>431</b>

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per oz. troy	£ per oz. troy	Per cent.	£ per oz. troy	£ per oz. troy	£ per oz. troy	£ per oz. troy
Jewellery, gem-set or not:—							
Of gold or platinum ...	11.0	7.32	150.3	8.22	5.64	9.42	20.67
Of silver and silver gilt ...	0.45	0.64	70.3	0.38	0.49	0.99	0.59
Other goldsmiths' and silver- smiths' wares:—							
Of gold ...	5.35	2.86	187.1	4.91	4.17	7.06	4.27
Of silver, gilt or ungilt ...	0.28	0.32	87.5	0.29	0.41	0.42	0.21
	£ per gross	£ per gross		£ per gross	£ per gross	£ per gross	£ per gross
Of electro-plate or of other metals than gold or silver:—							
'Spoons' and forks ...	2.60	3.54	73.4	2.92	3.71	0.47	0.55
Knives and blades ...	5.51	6.48	85.0	5.50	7.14	2.08	1.91

Table IV.—Volume of Production

Kind of goods	Total production			1932 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
<b>Jewellery, gem-set or not :—</b>					
Of gold or platinum ...	2,075	1,738	1,156	56	135
Of silver and silver gilt ...	143	142	202	141	224
Of imitation gold and silver and other metals	304	498	519	171	169
Of unclassified metals ...	253	88	69	27	57
<b>TOTAL—Jewellery ...</b>	<b>2,775</b>	<b>2,466</b>	<b>1,946</b>	<b>70</b>	<b>136</b>
<b>Other goldsmiths' and silver- smiths' wares :—</b>					
Of gold ...	178	136	73	41	152
Of silver, gilt or ungilt	1,338	1,093	1,248	93	99
Of electro-plate or of other metals than gold or silver :—					
Spoons and forks...	885	806	1,099	124	98
Knives and blades	201	211	248	123	80
Other ...	2,039	1,614	2,200	108	98
<b>TOTAL—Other gold- smiths' and silver- smiths' wares ...</b>	<b>4,641</b>	<b>3,860</b>	<b>4,868</b>	<b>105</b>	<b>100</b>
<b>Gold and silver thread, medals, badges, etc. ...</b>	<b>403</b>	<b>397</b>	<b>500</b>	<b>124</b>	<b>34</b>
<b>Rough stampings for the trade ...</b>	<b>173</b>	<b>190</b>	<b>261</b>	<b>151</b>	<b>92</b>
<b>TOTAL ...</b>	<b>7,992</b>	<b>6,913</b>	<b>7,575</b>	<b>95</b>	<b>109</b>

Table V.—Exports and Imports

Owing to the large proportion of the output recorded by value only and to the deficiencies caused by the exclusion of firms employing not more than ten persons, a precise comparison of production with exports and imports is impracticable.

Kind of goods	Exports		Retained imports	
	Quantity	Value	Quantity	Value
	Ozs. troy	£'000	Ozs. troy	£'000
Jewellery, gem-set or not :—				
Of gold or platinum ... ..	{ 1933 347	3	1,296	6
	{ 1930 1,067	6	1,069	23
Of silver (including silver gilt)	{ 1933 15,115	6	34,262	34
	{ 1930 25,445	13	5,253	3
		Lbs.	Lbs.	
Of imitation gold and silver	{ 1933 5,086	3	35,442	57
	{ 1930 12,290	7	93,851	144
Of other metals ... ..	{ 1933 8,691	4	383,322	233
	{ 1930 10,112	5	21,386	9
Other, goldsmiths' and silversmiths' wares :—	Ozs. troy		Ozs. troy	
Of gold ... ..	{ 1933 411	2	400	3
	{ 1930 1,073	4	2,288	9
Of silver, gilt or ungilt ... ..	{ 1933 376,851	108	23,911	11
	{ 1930 482,935	198	93,643	19
Of other metals, coated or not :—	Gross		Gross	
Spoons and forks ... ..	{ 1933 34,122	99	24,420	11
	{ 1930 40,345	150	69,843	38
Other sorts... ..	{ 1933 ...	326	...	15
	{ 1930 ...	653	...	76



The following tables relate only to firms whose returns were made on schedules for the Plate and Jewellery Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	900	9,277	2,383	9,911	3,283	19,188
	1930	1,156	10,916	2,634	10,303	3,790	21,219
Administrative, technical and clerical staff*	1933	128	1,997	367	1,928	495	3,925
	1930	108	2,158	413	2,024	521	4,182
TOTAL ...	1933	1,028	11,274	2,750	11,839	3,778	23,113
	1930	1,264	13,074	3,047	12,327	4,311	25,401
Average number of outworkers ...	1933	487		104		571	
	1930	517		127		644	

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	13,484	July 15 ...	14,391
February 18 ...	13,820	August 19 ...	14,469
March 18 ...	13,904	September 16 ...	15,228
April 15 ...	13,926	October 14 ...	15,682
May 13 ...	14,153	November 18 ...	16,031
June 17 ...	14,151	December 16 ...	15,765
AVERAGE FOR THE TWELVE MONTHS ...			14,584

**Table VII.—Other output of the Plate and Jewellery Trade**

The value of the gross output of the firms whose returns were made on schedules for the Plate and Jewellery Trade was £7,630,000 in 1933 and £8,706,000 in 1930, of which £6,632,000 in 1933 and £7,561,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Clocks, watches and parts thereof ... ..	5	24
Cutlery and parts thereof ... ..	25	20
Other goods made ... ..	132	82
Waste products ... ..	92	80
Repair work ... ..	241*	353*
Work done for the trade or on commission :—		
Plating or finishing of plated goods ... ..	449*	526*
Other work... ..	54*	60*
<b>TOTAL</b> ... ..	<b>998</b>	<b>1,145</b>

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. ozs. troy	£'000
Gold ... ..	176·9	823
Silver ... ..	5,825·0	494
All other materials used (including fuel) ... ..	...	2,247
<b>TOTAL</b> ... ..	<b>...</b>	<b>3,564</b>

**THE TIMBER, PAPER, CLAY AND BUILDING  
MATERIALS TRADES**

**GENERAL TABLES**

**Table I.—General summary**

Trade (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)) (4)	Average numbers of persons employed (5)	Net output per person employed (6)
	£'000	£'000	£'000	No.	£
Timber (Saw-milling) {	1933 16,399	10,510	5,889	32,449	181
1930 17,963	11,460	6,503	35,312	184	
Paper ... {	1933 33,639	19,940	13,699	53,215	257
1930 37,050	24,115	12,935	51,758	250	
Wallpaper ... {	1933 2,941	1,172	1,769	5,344	331
1930 3,130	1,339	1,741	5,769	302	
Brick and Fireclay ... {	1933 22,115	6,407	15,708	75,177	209
1930 21,697	6,354	15,343	75,635	203	
China and Earthen-ware ... {	1933 12,339	4,203	8,136	61,790	132
1930 13,895	4,868	9,027	67,693	133	
Glass ... {	1933 14,098	5,673	8,425	39,791	212
1930 13,713	5,420	8,293	39,571	210	
Cement ... {	1933 7,052	2,833	4,219	9,629	438
1930 8,202	3,475	4,727	10,989	430	
Building Materials ... {	1933 10,886	4,962	5,924	24,760	239
1930 13,084	6,087	6,997	27,564	254	
TOTAL ... {	1933 119,469	55,700	63,769	302,145	211
1930 128,734	63,168	65,566	314,291	209	

**Table II.—Volume of production**

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Saw-mill products ...	12,197	11,571	12,959	106	84
Paper ...	35,264	32,036	40,060	114	82
Wallpaper ...	3,128	2,937	3,276	105	86
Bricks and fireclay goods ...	21,727	21,920	23,812	110	90
China and earthenware ...	13,240	12,082	13,541	102	107
Glass and glassware ...	13,225	13,514	14,395	109	83
Cement ...	8,218	6,747	7,646	93	66
Building materials ...	13,769	11,374	12,300	89	62
TOTAL ...	120,768	112,181	127,989	106	82

**Table III.—Employment**  
 AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

(i) *Operatives*

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Timber (Saw-milling) ...	1933	4,057	27,331	163	539	4,220	23,650	27,870
	1930	4,171	29,981	128	539	4,299	26,221	30,520
Paper ...	1933	2,200	37,848	2,173	11,012	4,373	44,487	48,860
	1930	2,620	36,210	2,732	11,684	5,352	42,542	47,894
Wallpaper ...	1933	391	3,031	521	1,459	912	3,578	4,490
	1930	622	3,445	697	1,564	1,319	3,690	5,009
Brick and Fire-clay ...	1933	7,750	66,207	561	3,915	8,311	61,811	70,122
	1930	8,754	66,332	705	4,553	9,459	61,426	70,835
China and Earthenware	1933	3,183	24,839	6,748	32,524	9,931	47,432	57,363
	1930	3,858	23,648	8,391	34,485	12,749	50,384	63,133
Glass ...	1933	2,967	29,030	1,842	6,025	4,809	30,246	35,055
	1930	3,387	29,379	1,534	5,597	4,921	30,055	34,976
Cement ...	1933	283	7,823	3	103	286	7,640	7,926
	1930	394	9,628	11	127	405	9,350	9,755
Building Materials	1933	1,485	21,400	50	214	1,535	20,079	21,614
	1930	1,696	24,109	55	260	1,751	22,618	24,369
TOTAL ...	1933	22,316	217,509	12,061	55,791	34,377	238,923	273,300
	1930	25,502	227,732	14,753	58,809	40,255	246,286	286,541

(ii) *Administrative, technical and clerical staff*

Trade	Males		Females		Total			
	Under 18	Total	Under 18	Total	Under 18	18 and over	Total	
Timber (Saw-milling) ...	1933	309	3,873	62	706	371	4,208	4,579
	1930	362	4,056	77	736	439	4,353	4,792
Paper ...	1933	202	3,310	113	1,045	315	4,040	4,355
	1930	221	2,946	126	918	347	3,517	3,864
Wallpaper ...	1933	53	621	36	233	89	765	854
	1930	66	556	54	204	120	640	760
Brick and Fire-clay ...	1933	201	4,289	67	766	268	4,787	5,055
	1930	362	4,036	102	714	464	4,286	4,750
China and Earthenware	1933	181	3,240	140	1,187	321	4,106	4,427
	1930	293	3,378	186	1,182	479	4,081	4,560
Glass ...	1933	207	3,360	189	1,376	396	4,340	4,736
	1930	239	3,252	213	1,343	452	4,143	4,595
Cement ...	1933	68	1,384	19	319	87	1,616	1,703
	1930	84	1,005	29	229	113	1,121	1,234
Building Materials	1933	142	2,625	44	511	186	2,950	3,136
	1930	238	2,682	58	513	296	2,899	3,195
Total ...	1933	1,363	22,702	670	6,143	2,033	26,812	28,845
	1930	1,865	21,911	845	5,839	2,710	25,040	27,750

**Table IV**  
**A.—RETURNS COVERING THE TWELVE MONTHS ENDED**  
**DECEMBER, 1933 AND 1930.**

Trade	1933			1930*		
	Total number of persons employed	Returns covering the twelve months ended December		Total number of persons employed	Returns covering the twelve months ended December	
		Number employed	Per cent. of total		Number employed	Per cent. of total
Timber (Saw-milling) ...	No. 32,449	No. 18,543	Per cent. 57	No. 34,415	No. 19,511	Per cent. 57
Paper ... ..	53,215	28,761	54	51,237	22,821	45
Wallpaper ... ..	5,344	1,040	19	5,769	664	12
Brick and Fireclay ...	75,177	55,281	74	74,748	52,409	70
China and Earthenware	61,790	43,734	71	67,559	50,710	75
Glass ... ..	39,791	22,176	56	39,571	22,705	57
Cement ... ..	9,629	8,501	88	10,762	9,192	85
Building Materials ...	24,750	17,986	81	27,282	19,428	71
<b>TOTAL ... ..</b>	<b>302,145</b>	<b>196,022</b>	<b>65</b>	<b>311,343</b>	<b>197,440</b>	<b>63</b>

\* Great Britain.

**B.—MONTHLY FLUCTUATIONS IN THE NUMBER OF OPERATIVES EMPLOYED BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER, 1933 AND 1930**

Middle week in	Operative staff	
	1933	1930*
	Number	Number
January ... ..	162,646	179,580
February ... ..	165,904	180,480
March ... ..	168,412	181,544
April ... ..	171,964	182,047
May ... ..	176,543	183,427
June ... ..	180,105	183,959
July ... ..	181,069	182,510
August ... ..	180,718	178,965
September ... ..	186,469	181,814
October ... ..	188,111	181,472
November ... ..	189,182	179,626
December ... ..	186,113	174,371
<b>AVERAGE FOR THE TWELVE MONTHS ...</b>	<b>178,103</b>	<b>180,816</b>

\* Great Britain. The average number of operatives employed by all firms in Northern Ireland in 1930 was 2,165.

**Amendments of certain aggregates for 1930**

Information received in the course of the 1933 Inquiry has necessitated adjustment of the 1930 aggregates for the following items, the amended figures for which should be taken as substituting those published in the Final Report on the Fourth Census of Production :—

**Paper Trade :—**

    Packing and wrapping paper—Other than kraft :—

        Fourdrinier—Other sorts

    Other kinds of paper (including vegetable parchment and greaseproof paper).

**Glass Trade :—**

    Beer, wine, spirit and similar bottles

    All other bottles and jars

**THE TIMBER (SAW-MILLING) TRADE**

*Note.*—The Inquiry for 1933 was restricted to firms in the Timber Trade that were engaged in the production for sale of saw-mill products (excluding pit-props and other sawn timber not chargeable with duty under the Import Duties Act). In 1930, firms making joinery and other manufactures of timber were included in the Timber Trade. For purposes of comparison, the results published in the Final Report on the 1930 Census have been adjusted to correspond with the scope of the 1933 figures.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	16,399	17,963
Cost of materials used and amount paid for work given out ... ..	"	10,510	11,460
Net output ... ..	"	5,889	6,503
Average number of persons employed ... ..	No.	32,449	35,312
Net output per person employed ... ..	£	181	184

**Table II.—Output of principal products**

Saw-mill products	1933		1930*	
	Quantity	Value	Quantity	Value
	Th. cub. ft.	£'000	Th. cub. ft.	£'000
<b>Sawn hard woods (other than planed or dressed) :—</b>				
Mahogany ... ..	241	95	457	189
Walnut ... ..	56	16	27	11
Teak ... ..	112	63	157	112
Oak ... ..	4,037	842	4,691	1,058
Ash† ... ..	612	144	587	144
Beech† ... ..	975	147	556	88
Elm† ... ..	1,501	208	1,602	226
Other and unclassified ... ..	2,226	456	4,240	940
<b>TOTAL—Sawn hard woods...</b>	<b>9,760</b>	<b>1,971</b>	<b>12,317</b>	<b>2,768</b>
<b>Sawn soft woods (other than planed or dressed) :—</b>	Th. loads		Th. loads	
Redwood and Douglas fir ...	252	1,409	} 603‡	3,500‡
Other sorts ... ..	325	1,552		
Unclassified ... ..	86	458		
<b>TOTAL—Sawn soft woods...</b>	<b>663</b>	<b>3,419</b>	<b>603</b>	<b>3,500</b>

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Saw-mill products	1933		1930*			
	Quantity	Value	Quantity	Value		
Planed or dressed woods :—	Th. loads	£'000	Th. loads	£'000		
Hard wood ... ..	21	318	} 710§	} 5,119§		
Soft wood :—						
Under ¾ inch ... ..	240	1,400				
¾ inch and over ... ..	413	2,376				
Soft wood, not separately distinguished ... ..	103	625				
Planed or dressed woods, not separately distinguished ... ..	77	627				
TOTAL—Planed or dressed woods ... ..	854	5,346	710	5,119		
Wood paving blocks ... ..	34.1	389	} 22.9	} 246		
Veneers and panel wood ... ..	5.5	202			... ..	15
Other and unclassified saw-mill products ... ..	18.5	113			4.1	135
	...	21			...	54
	...	110	31.9	179		
	...	110	...	181		
TOTAL—PRINCIPAL PRODUCTS	...	11,571	...	12,197*		

\* In addition to the output for 1930 recorded above, the undermentioned saw-mill products were returned on schedules completed by firms whose businesses were not covered by the 1933 Inquiry :—

	Th. cu. ft.	£'000	
Sawn hard woods ... ..	317	74	
	Th. loads		
Sawn soft woods ... ..	22	135	
Planed or dressed woods (including mouldings) ... ..	...	339	
Wood paving blocks... ..	...	52	
Veneers and panel wood ... ..	} 0.8	26	
		...	28
		...	7
Other saw-mill products ... ..	} 2.0	...	
		...	128
Total ... ..	...	789	

† So far as recorded separately.

‡ Classified as follows :—	Th. loads	£'000
Deals, planks and battens ... ..	280	1,677
Boards (not planed or dressed) ... ..	162	969
Other descriptions of sawn soft woods ... ..	106	547
Sawn soft woods, not separately distinguished ... ..	55	307
Total ... ..	603	3,500

§ Classified as follows :—

	Th. loads	£'000
Floorings ... ..	247	1,622
Matchings ... ..	155	942
Other descriptions of planed or dressed woods (mouldings, casings, etc., wood for making boxes, etc.) ... ..	275	2,337
Planed or dressed woods, not separately distinguished ... ..	33	218
Total ... ..	710	5,119



The figures given in the above table include output, valued at £11,000 in 1933 and £18,000 in 1930, recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I.

**Table III.—Average values of goods produced and imported**

Saw-mill products	Production (at factory)			Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value	
	1933	1930		1933	1930
	£ per th. cu. ft.	£ per th. cu. ft.	Per cent.	£ per th. cu. ft.	£ per th. cu. ft.
<b>Sawn hard woods :—</b>					
Mahogany ... ..	391.9	412.2	95.1	258.5	329.3
Walnut ... ..	288.6	423.5	68.1	360.9	509.4
Teak ... ..	564.7	713.1	79.2	374.1	544.4
Oak ... ..	208.6	225.7	92.5	168.1	228.9
Ash ... ..	234.9	244.6	96.0	}	*
Beech ... ..	151.2	158.6	95.3		
Elm ... ..	138.6	140.9	98.4		
	£ per load	£ per load		£ per load	£ per load
<b>Sawn soft woods :—</b>					
Redwood and Douglas fir	5.58	}	}	{	}
Other sorts ... ..	4.89				
<b>TOTAL—Sawn soft woods</b>	5.15	5.80	88.8	3.07	4.26
<b>Planed or dressed woods :—</b>					
Hard wood ... ..	14.84	}	}	{	}
Soft wood :—					
Under $\frac{1}{2}$ inch ... ..	5.82				
$\frac{1}{2}$ inch and over ... ..	5.75				
<b>TOTAL—Planed or dressed woods ... ..</b>	6.23	7.21	86.4	4.10	5.30
Wood paving blocks ... ..	11.4	10.7	106.0	*	*
Veneers and panel wood ... ..	36.8	32.8	112.5	52.17	62.59

\* Not recorded separately.

Owing to differences in classification, it is not possible to give comparable average values of the relatively small exports of wood and timber.

Table IV.—Volume of Production

Saw-mill products	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Sawn hard woods :—					
Mahogany ... ..	189	95	100	53	143
Walnut ... ..	11	16	23	209	73
Teak ... ..	112	63	80	71	114
Oak ... ..	1,058	842	911	86	103
Ash ... ..	144	144	150	104	} 97
Beech ... ..	88	147	154	175	
Elm ... ..	226	208	211	93	
Other and unclassified...	940	456	475	...	
Sawn soft woods ...	3,500	3,419	3,850	110	90
Planned or dressed woods...	5,119	5,346	6,190	121	67
Veneers and panel wood	189	223	198	105	89
Wood paving blocks ...	261	389	367	141	} ...
Other and unclassified saw-mill products ...	360	223	250	...	
TOTAL ... ..	12,197	11,571	12,959	106	84

Table V.—Exports and Imports

In view of the deficiencies referred to on page 201 the production aggregates shown in Table II cannot be compared with exports and imports. The following table gives particulars of the retained imports of the undermentioned descriptions of saw-mill products in 1933 and 1930.

Kind of timber	1933	1930
Sawn hard woods :—	Th. cu. ft.	Th. cu. ft.
Mahogany ... ..	630	1,150
Walnut ... ..	187	392
Oak ... ..	10,288	12,955
Teak ... ..	812	1,761
Other sorts ... ..	14,565	15,716
Sawn soft woods :—	Th. loads	Th. loads
Redwood and Douglas fir ... ..	2,223	} 4,835
Other sorts (including mixed red and white wood) ... ..	3,364	
Planned or dressed woods :—		
Hard ... ..	58	} 622
Soft ... ..	774	
Veneers and panel wood ... ..	9	5

Exports of similar products from the United Kingdom were classified as follows :—

Kind of timber	1933	1930
	Th. loads	Th. loads
Sawn ... ..	6·6	10·7
Planed ... ..	1·8	3·4
Other descriptions of saw-mill products ... ..	0·4	13·9

The following tables relate only to firms whose returns were made on schedules for the Timber (Saw-milling) Trade and are summarised in Table I.

Table VI.—Employment

A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... ..	1933 4,057	27,331	163	539	4,220	27,870*
	1930 4,171	29,981	128	539	4,299	30,520
Administrative, technical and clerical staff† ... ..	1933 309	3,873	62	706	371	4,579
	1930 362	4,056	77	736	439	4,792
TOTAL ... ..	1933 4,366	31,204	225	1,245	4,591	32,449*
	1930 4,533	34,037	205	1,275	4,738	35,312

\* The particulars given for 1933 include 1,701 operatives engaged in outside work on buildings, etc.; corresponding information for 1930 is not available.

† As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	14,824	July 15 ... ..	16,328
February 18 ... ..	14,871	August 19 ... ..	16,498
March 18 ... ..	15,061	September 16 ... ..	16,708
April 15 ... ..	15,382	October 14 ... ..	16,777
May 13 ... ..	15,807	November 18 ... ..	16,884
June 17 ... ..	16,237	December 16 ... ..	16,664
AVERAGE FOR THE TWELVE MONTHS ... ..			16,003

**Table VII.—Other output of the Timber (Saw-milling) Trade**

The value of the gross output of the firms whose returns were made on schedules for the Timber (Saw-milling) Trade was £16,399,000 in 1933, the comparable figure for 1930 being £17,963,000, of which £11,560,000 in 1933 and £12,179,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Pit props and pit wood ... ..	162	311
Sleepers of all kinds ... ..	335	1,028
Builders' woodwork .. ..	1,575	1,246
Portable wooden buildings ... ..	129	122
Crates, cases and boxes .. ..	774	926
Fences, gates, hurdles, etc. ... ..	276	336
Furniture and cabinet ware (including shop and office fittings) ... ..	160	116
Other manufactures of timber ... ..	541	668
Other goods made ... ..	43	48
Firewood, shavings, etc. ... ..	93	113
	4,088	4,914
	Amount received	Amount received
Work done for the trade or on commission :—		
Work done on buildings ... ..	345	423
General and jobbing carpentry ... ..	42	44
Work done on commission or "on hire" on timber supplied by other firms :—		
Sawing and planing of timber ... ..	183	233
Planing and moulding ... ..	64	80
Turning, carving, fret cutting, etc. ... ..	16	20
Creosoting ... ..	86	59
Other descriptions, and work not separately distinguished .. ..	15	11
	751	870
TOTAL ... ..	4,839	5,784

**Table VIII.—Details of Materials used in 1933**

Kind of materials	Quantity	Cost
	Th. cu. ft.	£'000
Timber ... ..	111,941	9,206
All other materials used (including fuel) ... ..	...	1,279
TOTAL ... ..	...	10,485

### THE PAPER TRADE

*Note.*—Firms that were not manufacturers of paper but were only engaged in the processing of purchased paper (e.g., waterproofing, coating, etc.) were not required to furnish returns for the 1933 Inquiry. For purposes of comparison, the returns made by such firms for 1930 have also been excluded from the figures shown for that year.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	33,639	37,050
Cost of materials used and amount paid for work given out ... ..	"	19,940	24,115
Net output ... ..	"	13,699	12,935
Average number of persons employed ... ..	No.	53,215	51,758
Net output per person employed ... ..	£	257	250

### Production

**Table II A.—Total make of Paper and Board**

Kind of goods	1933	1930
	Th. tons	Th. tons
Paper of all kinds ... ..	1,651·8	1,460·2
Cardboard ... ..	209·6	184·2
Millboard ... ..	6·0	} 18·4
Wallboard ... ..	7·4	
Strawboard, leatherboard and imitation leatherboard	45·4	7·2

Included in the above figures for 1933 are 200 tons of cardboard returned on schedules for other trades as output sold (or added to stock).

**Table II B.—Principal products made for sale**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Printing paper, not coated :—				
News ... ..	736·8	7,317	651·3	9,055
Other ... ..	354·5	7,043	362·0	9,311
Total—Printing paper ... ..	1,091·3	14,360	1,013·3	18,366
Writing paper in large sheets ... ..	131·7	4,463	114·9	4,564

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Packing and wrapping paper (not oiled, waxed or otherwise waterproofed)* :—				
Kraft :—				
M.G. ... ..	20.1	345	7.9	175
Fourdrinier ... ..	66.9	1,041	28.3	596
Not separately distinguished**	—	—	9.7	219
Other than kraft :—				
M.G. papers :—				
Litho poster... ..	12.0	266	11.2	300
Cap, sulphite and bag paper	22.2	421	9.8	241
Envelope ... ..	20.3	352	12.8	345
Manilla ... ..	7.1	181	5.1	139
Coloured ... ..	12.1	254	8.0	190
Cap (common grocers' and drapers') ... ..	0.5	7	1.1	27
Brown and skip (excluding kraft) ... ..	7.5	104	6.5	110
Other sorts ... ..	7.4	129	3.9	91
Fourdrinier :—				
Glazed and unglazed wrapping paper ... ..	41.0	816	31.7	719
Common brown ... ..	16.6	156	12.9	137
All other brown ... ..	20.2	254	16.0	203
Straw paper ... ..	25.2	232	16.7	159
Sugar and fruit wrappings...	0.4	5	1.9	27
Sugar bag paper (reels or sheets) ... ..	7.4	90	8.6	106
Cap ... ..	0.7	14	8.6†	239†
Other sorts ... ..	18.0	377		
Unglazed**	—	—	16.7	312
Glazed and machine glazed**	—	—	13.2	320
Total—Packing and wrapping paper (not oiled, waxed or otherwise waterproofed) ...	305.6	5,044	230.6	4,655
Tissue paper ... ..	6.2	717	5.5	753
Blotting paper :—				
Filter paper ... ..	0.5	53	0.4	48
Other sorts ... ..	5.2	304	4.9	296
Coated papers † :—				
Art ... ..	29.7	1,098	34.0	1,445
Other sorts (except waterproof wrappings and roofing paper)	18.9	934	17.4	947
Roofing paper, tarred and other ...	23.5	261	16.0	218
Vegetable parchment (including vegetable parchment substitutes or imitations) ... ..	13.1	413	5.8†	234†
Greaseproof paper ... ..	7.6	167		
Other kinds of paper †§ ... ..	14.4	582	13.8†	581†
TOTAL—Paper of all kinds ...	1,647.7	28,401	1,456.6†	32,107†

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Cardboard ... ..	158·1	2,603	153·5¶	2,580¶
Millboard ... ..	6·0	165	} 18·3	427
Wallboards ... ..	7·4	159		
Strawboard, leatherboard and imitation leatherboard ... ..	44·1	436	} 6·3	150
Vulcanised fibre board ... ..	1·1	107		
Middles and insulated press boards†† ... ..	8·9	165	—	—
TOTAL—Board ... ..	225·6	3,635	178·1	3,157
TOTAL—PRINCIPAL PRODUCTS	1,873·3	32,036	1,634·7‡	35,264‡

\* The classification shown for 1930 under the headings "Kraft paper," "M.G. papers other than kraft" and "Fourdrinier papers other than kraft" was not compulsory. Firms that did not adopt this classification returned their output against the headings marked (\*\*).

\*\* See note (\*).

‡ See page 200.

‡ The following output was returned for 1930 by firms not required to make returns at the 1933 Inquiry:—

	Th. tons	£'000
Coated papers:—		
Art ... ..	3·6	154
Other ... ..	11·9	805
Other kinds of paper	4·0	125
	19·5	1,084

§ Including oiled, waxed and other waterproof wrappings so far as returned by firms covered by the 1933 Inquiry.

|| Including 200 tons (£4,000) returned on schedules for other trades.

¶ Cardboard and pasteboard.

†† So far as recorded separately.

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Printing paper :—							
News ... ..	9.9	13.9	71.4	11.5	15.4	10.4	13.8
Other ... ..	19.9	25.7	77.2	29.4	33.4	17.7	21.4
Writing paper in large sheets ... ..	33.9	39.7	85.3	46.0	53.7	21.9	28.0
Packing and wrapping paper (not oiled, waxed or otherwise waterproofed) :—							
Kraft :—							
M.G. ... ..	17.2	22.2	77.3	24.2	} * {	13.5	} *
Fourdrinier ...	15.6	21.1	73.9	27.1		12.7	
	15.9	21.6	73.8	25.8	36.9	13.3	17.9
Other than kraft:—							
M.G. papers :—							
Litho poster ...	22.2	26.9	82.5	} * {	* * * *	* * * *	* * * *
Cap, sulphite and bag paper	19.0	24.5	77.4				
Envelope ...	17.3	26.9	64.4				
Manilla ...	25.4	27.3	93.0				
Coloured ...	20.9	23.8	87.6				
Cap (common grocers') ...	13.9	19.0	73.4				
Cap (drapers')	13.5	27.0	50.1				
Brown and skip (excluding kraft) ...	13.8	16.8	82.0				
Other sorts ...	17.4	23.7	73.5				
Fourdrinier :—							
Glazed and un- glazed wrap- ping paper...	19.9	22.7	87.6	} * {	* * * *	* * * *	* * * *
Common brown	9.4	10.6	88.6				
All other brown	12.6	12.7	99.5				
Straw paper ...	9.2	9.5	97.1				
Cap ... ..	20.4	25.4	80.6				
Sugar and fruit wrappings ...	12.5	14.4	86.7				
Sugarbag paper (reels or sheets) ...	12.2	12.3	98.8				
Other sorts ...	20.9	27.7	75.5				
Other than kraft	16.7	19.8	84.3	29.1	30.6	15.3	19.5



Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a per- centage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
All packing and wrapping paper (not oiled, waxed or otherwise water-proofed) ... ..	16.5	20.2	81.8	28.9	30.7	14.3	18.6
Tissue paper ...	115.4	137.2	84.1	181.1	158.3	27.9	35.0
Blotting paper :—							
Filter paper ...	113.2	133.8	84.6	277.1	336.8	116.1	79.0
Other sorts ...	53.1	60.5	96.0	53.0	63.0	43.2	47.5
Coated papers :—							
Photographic (not sensitised) ...	80.1	81.0	98.9	144.0	102.4	75.4	84.0
Art ...	37.1	42.4	87.4	39.4	49.4	74.0	112.2
Other sorts (except waterproof wrappings and roofing paper) ...	45.6	51.1	89.3	126.3	133.3	65.0	67.0
Roofing paper, tarred and other ...	11.1	13.6	81.6	10.0	13.1	9.4	13.8
Cardboard (other than wallboards) ...	16.5	16.8	98.0	*	34.1†	*	24.2†
Millboard (other than wallboards) ...	27.7	23.4	118.5	*	23.6	*	17.1
Cardboard and millboard ...	16.9	17.3	97.4	30.8	29.7	13.4	17.9
Strawboard (other than wallboards) ...	7.6	9.0	84.6	19.9	16.6	5.4	8.1
Leatherboard and imitation leatherboard ...	18.3	24.1	76.0	21.3	34.3	11.2	14.5
Wallboards ...	21.6	23.4	92.3	27.4	40.4	16.7	23.2
Vulcanised fibre board	96.1	82.4	116.7	*	*	*	*

\* Not recorded separately.

† Cardboard and pasteboard.

Table IV—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Printing paper :—					
News ... ..	9,055	7,317	10,248	113	77
Other sorts ... ..	9,311	7,043	9,118	98	85
Writing paper in large sheets	4,564	4,463	5,232	115	102
Packing and wrapping paper (not oiled, waxed or other- wise waterproofed) ... ..	4,655	5,044	6,281	135	72
Tissue paper ... ..	753	717	853	113	100
Blotting paper ... ..	344	362	386	112	97
Coated papers* :—					
Art ... ..	1,445	1,098	1,256	87	97
Other sorts (except water- proof wrappings and roofing paper) ... ..	947	934	1,028	109	91
Roofing paper ... ..	218	261	320	147	
Vegetable parchment and greaseproof paper, includ- ing vegetable parchment substitutes or imitations	234	580	810	346	†
Cardboard ... ..	2,580	2,603	2,656	103	61
Millboard and wallboards ...	427	324	311	73	46
Strawboard, leatherboard, imitation leatherboard and vulcanised fibre board ...	150	543	630	420	
Other principal products ...	581	747	900	155	77
<b>TOTAL ... ..</b>	<b>35,264</b>	<b>32,036</b>	<b>40,029</b>	<b>114</b>	<b>82</b>

\* See note (†) to Table II B.

† Included with "Other principal products."

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of produc- tion exported	Retained imports	Available	Share
					for use in the United Kingdom	of home market held by British goods
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.
Printing paper :—						
News ... ..	1933 736·8	79·4	10·8	344·2	1,001·6	65·6
	1930 651·3	79·4	12·2	349·9	921·8	62·0
Other sorts ... ..	1933 354·5	44·4	12·5	8·4	318·4	97·4
	1930 362·0	57·9	16·0	30·3	334·4	90·9
Writing paper in large sheets ...	1933 131·7	9·1	6·9	7·6	130·2	94·2
	1930 114·9	12·3	10·7	12·3	114·9	89·3

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
							Th. tons
Packing and wrapping paper (not oiled, waxed or otherwise water-proofed) ...	1933	305·6	5·9	1·9	165·7	465·4	64·4
	1930	230·6	9·6	4·2	170·6	391·6	56·4
Tissue paper ...	1933	6·2	0·7	11·3	13·1	18·6	29·6
	1930	5·5	0·8	14·3	13·0	17·7	26·5
Blotting paper :—							
Filter paper ...	1933	0·5	0·1	20·4	*	0·4	93·0
	1930	0·4	0·1	29·2	0·1	0·4	69·8
Other sorts ...	1933	5·2	1·6	30·4	0·1	3·6	99·2
	1930	4·9	1·7	35·2	0·3	3·5	92·1
Coated papers :—							
Art ...	1933	29·7†	0·7	...	*	...	...
	1930	37·6	1·0	2·7	0·1	36·7	99·7
Other sorts (except water-proof wrappings and roofing paper)	1933	18·9†	3·4	...	4·4	...	...
	1930	29·3	4·4	15·0	7·7	32·6	76·4
Roofing paper, tarred and other	1933	23·5	1·3	5·5	0·4	22·6	98·2
	1930	16·0	1·0	6·5	0·3	15·3	97·9
Cardboard, mill-board and wall-boards ...	1933	223·0	7·5	3·4	138·7	354·2	60·8
	1930	202·6	10·3	5·1	124·2	316·5	60·8
Strawboard, leatherboard and imitation leatherboard ...	1933	45·4	1·3	2·9	203·2	247·3	17·8

\* Less than 50 tons.

† See note (†) to Table II B.

The production figures for the various descriptions of *paper* shown in the above table represent the quantities recorded as made for sale in each year and do not include quantities used in the makers' own works for further manufacture. The following statement gives particulars corresponding to those in the table and relating to paper of all kinds, the production figures given being the total make :—

Particulars	1933	1930
	Th. tons	Th. tons
Total production of paper ... ..	1,651·8	1,460·2
Exports ... ..	156·9	176·3
Retained imports ... ..	593·1	643·2
Available for use in the United Kingdom ... ..	2,088·0	1,927·1
	Per cent.	Per cent.
Proportion of production exported ... ..	9·5	12·1
Share of home market held by British goods ... ..	71·6	66·6

The following tables relate only to firms whose returns were made on schedules for the Paper Trade and are summarised in Table I.

**Table VI.—Employment****A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	2,200	37,848	2,173	11,012	4,373	48,860
	1930	2,620	36,210	2,732	11,634	5,352	47,394
Administrative, technical and clerical staff* ...	1933	202	3,310	113	1,045	315	4,355
	1930	221	2,946	126	918	347	3,864
TOTAL ...	1933	2,402	41,158	2,286	12,057	4,688	53,215
	1930	2,841	39,156	2,858	12,602	5,699	51,758

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	25,670	July 15 ...	26,204
February 18 ...	25,414	August 19 ...	26,642
March 18 ...	25,716	September 16 ...	26,971
April 15 ...	25,967	October 14 ...	27,043
May 13 ...	26,282	November 18 ...	26,947
June 17 ...	26,247	December 16 ...	27,064
AVERAGE FOR THE TWELVE MONTHS ...			26,347

**Table VII.—Other output of the Paper Trade**

The value of the gross output of the firms whose returns were made on schedules for the Paper Trade was £33,639,000 in 1933 and £37,050,000 in 1930, of which £32,032,000 in 1933 and £35,264,000 in 1930 consisted of products included in Table II B. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Fibre board packing cases ...	777	669
Paper bags ...	329	742
Other articles of paper and board ...	399	241
Other goods made ...	87	95
Work done for the trade:—		
Paper coating, waxing, etc. ...	12*	2*
Other work ...	3*	37*
TOTAL ...	1,607	1,786

\* Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
Rags ... ..	67·0	566
Waste paper ... ..	335·6	1,013
Mechanical wood pulp ... ..	723·0	2,715
Chemical wood pulp ... ..	748·1	5,791
Esparto grass ... ..	249·2	1,158
China clay ... ..	179·1	324
All other materials used (including fuel) ... ..	...	8,332
<b>TOTAL</b> ... ..	...	<b>19,899</b>

**THE WALLPAPER TRADE****Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	2,941	3,130
Cost of materials used and amount paid for work given out ... ..	"	1,172	1,389
Net output ... ..	"	1,769	1,741
Average number of persons employed ... ..	No.	5,344	5,769
Net output per person employed ... ..	£	331	302

**Table II.—Output of principal product**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Paper hangings ... ..	Th. cwts. 990	£'000 2,937	Th. cwts. 944	£'000 3,128

No paper hangings were recorded by firms whose returns were made on schedules for other trades.

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Paper hangings	£ per cwt. 2·97	£ per cwt. 3·31	Per cent. 89·7	£ per cwt. 3·47	£ per cwt. 4·08	£ per cwt. 2·13	£ per cwt. 2·06

**Table IV.—Volume of Production**

Kind of goods	Total production			1933 as a percentage of 1930	1924 as a percentage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Paper hangings ...	£'000 3,128	£'000 2,937	£'000 3,276	Per cent. 105	Per cent. 86

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.
Paper hangings ... { 1933 1930	990 944	90 128	9·1 13·6	27 123	927 939	97·1 86·9

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... { 1933 1930	391 622	3,031 3,445	521 697	1,459 1,564	912 1,319	4,490 5,009
Administrative, technical and clerical staff* ... { 1933 1930	53 66	621 556	36 54	233 204	89 120	854 760
TOTAL ... { 1933 1930	444 688	3,652 4,001	557 751	1,692 1,768	1,001 1,439	5,344 5,769

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER.

Week ended	Total number	Week ended	Total number
January 14 ... ..	886	July 15 ... ..	802
February 18 ... ..	787	August 19 ... ..	868
March 18 ... ..	760	September 16 ... ..	946
April 15 ... ..	782	October 14 ... ..	1,027
May 13 ... ..	803	November 18 ... ..	1,089
June 17 ... ..	834	December 16 ... ..	1,095
AVERAGE FOR THE TWELVE MONTHS ... ..			890

**Table VII.—Other output of the Wallpaper Trade**

The value of the gross output of the firms whose returns were made on schedules for the Wallpaper Trade was £2,941,000 in 1933 and £3,130,000 in 1930, of which £2,937,000 in 1933 and £3,128,000 in 1930 consisted of products included in Table II, the small balance (£4,000 in 1933 and £2,000 in 1930) representing other goods made.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. cwts.	£'000
Plain paper ... ..	886	599
All other materials used (including fuel) ... ..	...	566
TOTAL ... ..	...	1,165



### THE BRICK AND FIRECLAY TRADE

*Note.*—The particulars given for 1930 in Tables I, VI and VII differ from those published in the Final Report on the Fourth Census of Production (see paragraph 8 (a), page x).

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	22,115	21,697
Cost of materials used and amount paid for work given out ... ..	"	6,407	6,354
Net output ... ..	"	15,708	15,343
Average number of persons employed... ..	No.	75,177	75,635
Net output per person employed ... ..	£	209	203

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Million	£'000	Million	£'000
<b>Building bricks :—</b>				
Glazed or enamelled ... ..	15·3	293	28·0	494
Sand lime bricks* ... ..	19·5	43	30·0	61
All other classes ... ..	5,839·0	12,582	4,685·5	11,088†
<b>Total—Building bricks ... ..</b>	<b>5,873·8</b>	<b>12,918</b>	<b>4,743·5</b>	<b>11,643†</b>
<b>Tiles‡ :—</b>	Th. tons		Th. tons	
Roofing ... ..	734·8§	2,192	607·8	2,072
Other sorts (including quarries and street paving tiles) ... ..	125·8	383	111·8	438
<b>Total—Tiles... ..</b>	<b>860·6</b>	<b>2,575</b>	<b>719·6</b>	<b>2,510</b>
<b>Sanitary ware (excluding sanitary earthenware)¶ :—</b>				
Enamelled sanitary ware of fire-clay ... ..	45·2	1,059	54·4	1,116
Pipes and tubes of stoneware or fireclay ... ..	438·8	2,038	426·3	2,333
Agricultural pipes, unglazed ... ..	52·2	99	66·5	124
Other and unclassified sanitary ware ... ..	13·6	106	18·8	136
<b>Total—Sanitary ware ... ..</b>	<b>549·8</b>	<b>3,302</b>	<b>566·0</b>	<b>3,709</b>
<b>Pipes and tubes of stoneware or fireclay for electrical and other purposes, not sanitary ware ... ..</b>	<b>45·3</b>	<b>216</b>	<b>70·6</b>	<b>318†</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Refractory goods :—				
Refractory bricks :—				
Firebricks up to and including bricks of 9 in. × 4½ in. × 3 in.	467·8	758	620·8	1,009
Firebricks or lumps, including tiles and bricks exceeding 9 in. × 4½ in. × 3 in. ...	214·3	778	205·5	759
Silica bricks up to and including bricks of 9 in. × 4½ in. × 3 in. ...	104·5	295	115·3	374
Silica bricks or lumps, including tiles and bricks exceeding 9 in. × 4½ in. × 3 in.	39·3	198	55·9	323
Magnesite bricks ...	3·0	52	5·3	66
Chrome and other refractory bricks ...	6·5	67	8·1	61
Total—Refractory bricks ...	835·4	2,148	1,010·9	2,592
Fireclay retorts ...	Th. feet 72·5	37	Th. feet 107·3	52
Other refractory goods (including plumbago crucibles)...	...	589	...	580
Total—Refractory goods ...	...	2,774	...	3,224
	Th. cubic ft.		Th. cubic ft.	
Architectural terra-cotta and faience, glazed and unglazed, excluding charges for fixing ...	137·8	81	277·6	187
	...	18	...	83
Bath bricks, hearth stones, etc.*	Th. tons 4·6	26	}	53
	...	10		
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	<b>21,920</b>	...	<b>21,727†</b>

\* So far as recorded separately.

† In addition, the undermentioned goods were returned on schedules for trades not covered by the 1933 Inquiry :—

Building bricks ...	Million	£'000
Pipes and tubes of stoneware, etc., for electrical, etc., purposes ...	Th. Tons	
	7·8	18
	0·4	1
	...	19

‡ Excluding glazed wall and hearth tiles and tiles for tessellated pavements for which see report on the China and Earthenware Trade (page 227).

§ Equivalent to 664,300,000 tiles.

|| Equivalent to 536,600,000 tiles.

¶ For Sanitary earthenware see report on the China and Earthenware Trade (page 227).

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Million	£'000	Million	£'000
Building bricks, other than glazed or sand lime bricks ... ..	3·8 Th. tons	14	3·9 Th. tons	9
Tiles:—				
Roofing ... ..	14·1*	42	9·3†	32
Other sorts (including quarries and street paving tiles) ...	3·5	30	15·0	118
Sanitary ware (excluding sanitary earthenware):—				
Enamelled sanitary ware of fire-clay ... ..	7·5	211	11·6	290
Pipes and tubes of stoneware or fireclay ... ..	17·7	96	46·4	261
Other and unclassified sanitary ware ... ..	2·8	39	2·3	21
Refractory goods ... ..	...	43	...	40
Bath bricks, hearth stones, etc. ...	...	3	...	6
<b>TOTAL ... ..</b>	...	<b>478</b>	...	<b>777</b>

\* Equivalent to 10,900,000 tiles.

† Equivalent to 8,400,000 tiles.

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Bricks, building:—	£ per thous.	£ per thous.	Per cent.	£ per thous.	£ per thous.	£ per thous.	£ per thous.
Glazed or enamelled ...	19·08	17·65	108·1	} 5·13	6·22	1·72	2·42
Sand lime bricks ...	2·22	2·27	97·6				
All other classes ...	2·15	2·36	91·3				
Tiles*:—							
Roofing ... ..	3·29	3·86	85·2	8·52	10·0	5·78	6·17
Other sorts (including quarries and street paving tiles) ... ..	£ per ton	£ per ton		£ per ton	£ per ton	£ per ton	£ per ton
	3·04	3·92	77·7	9·19	6·92	6·68	7·86

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Sanitary ware :—							
Enamelled sanitary ware of fireclay ... ..	23·41	20·50	114·2	33·66	42·69	16·42	22·30
Pipes and tubes of stone- ware or fireclay ...	4·64	5·47	84·9	} †	†	†	†
Agricultural pipes, un- glazed ... ..	1·90	1·86	102·2				
Pipes, tubes and other sanitary ware ...	4·46	5·08	81·6	6·84	7·92	67·91	40·80
Pipes and tubes of stone- ware or fireclay for electrical and other pur- poses, not sanitary ware	4·77	4·50	106·1	†	†	†	†
Refractory goods :—							
Firebricks up to and in- cluding bricks of 9 in. × 4½ in. × 3 in. ...	1·62	1·63	99·4	} †	†	†	†
Firebricks or lumps, in- cluding tiles and bricks exceeding 9 in. × 4½ in. × 3 in. ... ..	3·63	3·69	98·4				
Silica bricks up to and including bricks of 9 in. × 4½ in. × 3 in.	2·82	3·25	86·8				
Silica bricks or lumps, in- cluding tiles and bricks exceeding 9 in. × 4½ in. × 3 in. ... ..	5·04	5·82	86·6	} †	†	†	†
Magnesite bricks ...	17·26	12·34	139·9				
Chrome and other re- fractory bricks ... ..	10·20	7·56	134·9				
Refractory bricks, blocks and tiles† ... ..	2·59	2·57	100·9	3·44	3·71	13·9	10·2
Fireclay retorts ...	£ per foot	£ per foot	103·0	†	†	†	†
	0·50	0·49					
	£ per cub. ft.	£ per cub. ft.					
Architectural terra - cotta and faience, glazed and unglazed ... ..	0·59	0·67	87·6	†	†	†	†

\* See note (†) to Table II.

† Not recorded separately.

† Total of preceding six items for production.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
	£'000	£'000	£'000	Per cent.	Per cent.
Building bricks :—					
Glazed or enamelled ...	494	293	271	55	78
Other descriptions ...	11,149	12,625	13,824	124	84
<b>Total—Building bricks</b>	<b>11,643</b>	<b>12,918</b>	<b>14,095</b>	<b>121</b>	<b>83</b>
Tiles* :—					
Roofing ... ..	2,072	2,192	2,505	121	62
Other sorts (including quarries and street pav- ing tiles) ... ..	438	383	493	113	101
<b>Total—Tiles ... ..</b>	<b>2,510</b>	<b>2,575</b>	<b>2,998</b>	<b>119</b>	<b>69</b>
Sanitary ware (excluding sanitary earthenware) :—					
Enamelled sanitary ware of fireclay ... ..	1,116	1,059	927	83	107
Pipes and tubes of stone- ware or fireclay ...	2,333	2,038	2,400	103	81†
Agricultural pipes, unglazed	124	99	97	78	97
Other and unclassified sanitary ware ... ..	136	106	99	‡	‡
<b>Total—Sanitary ware ...</b>	<b>3,709</b>	<b>3,302</b>	<b>3,523</b>	<b>95</b>	<b>105†</b>
Pipes and tubes of stoneware or fireclay for electrical and other purposes, not sanitary ware ... ..	318	216	203	64	§

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Refractory goods:—	£'000	£'000	£'000	Per cent.	Per cent.
Refractory bricks:—					
Firebricks up to and in- cluding bricks of 9 in. × 4½ in. × 3 in. ...	1,009	758	763	76	133
Firebricks or lumps, in- cluding tiles and bricks exceeding 9 in. × 4½ in. × 3 in. ...	759	778	791	104	122
Silica bricks up to and including bricks of 9 in. × 4½ in. × 3 in.	374	295	340	91	143
Silica bricks or lumps, in- cluding tiles and bricks exceeding 9 in. × 4½ in. × 3 in. ...	323	198	229	71	115
Magnesite bricks ...	66	52	37	56	§
Chrome and other refractory bricks ...	61	67	49	80	§
Fireclay retorts ...	52	37	36	69	185
Other refractory goods (including plumbago cru- cibles) ...	580	589	596	103	88
<b>Total—Refractory goods</b>	<b>3,224</b>	<b>2,774</b>	<b>2,841</b>	<b>88</b>	<b>91</b>
Architectural terra-cotta and faience, glazed and un- glazed ...	270	99	113	42	86
Bath bricks, hearthstones, etc.	53	36	39	†	†
<b>TOTAL</b> ...	<b>21,727</b>	<b>21,920</b>	<b>23,812</b>	<b>110</b>	<b>90</b>

\* See note (†) to Table II.

† Including pipes and tubes of stoneware or fireclay for electrical and other purposes (not sanitary ware).

‡ This figure would have no significance.

§ Not recorded separately in 1924.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production		Proportion of production exported	Retained imports	Available for use in the United Kingdom		Share of home market held by British goods
	Million	Exports			Million	Per cent.	
	Th. tons	Th. tons		Th. tons	Th. tons		
Building bricks ...	1933	5,873·8	2·6	0·0	238·4	6,109·6	96·1
	1930	4,751·3	3·3	0·1	202·8	4,950·8	95·9
Roofing tiles ...	1933	734·8	2·5	0·3	29·3	761·6	96·5
	1930	607·8	1·9	0·3	82·7	688·6	88·0
Other tiles* (including quarries and street paving tiles) ...	1933	125·8	2·5	2·0	0·9	124·2	99·3
	1930	111·8	9·5	8·5	1·9	104·2	98·2
Enamelled sanitary ware of fireclay ...	1933	45·2	3·7	8·2	0·5	42·0	98·8
	1930	54·4	7·4	13·6	0·7	47·7	98·5
Refractory bricks†	1933	835·4	61·0	7·3	4·7	779·1	99·4
	1930	1,010·9	122·8	12·2	16·1	904·2	98·2

\* See note (‡) to Table II.

† For production—firebricks, silica bricks, magnesite bricks, chrome bricks, etc.; for exports and imports—bricks, blocks and tiles.

The following tables relate only to firms whose returns were made on schedules for the Brick and Fireclay Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	7,750	66,207	561	3,915	8,311	70,122
	1930	8,754	66,332	705	4,553	9,459	70,885
Administrative, technical and clerical staff* ...	1933	201	4,289	67	766	268	5,055
	1930	362	4,036	102	714	464	4,750
TOTAL ...	1933	7,951	70,496	628	4,681	8,579	75,177
	1930	9,116	70,368	807	5,267	9,923	75,635

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY  
FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS  
ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	45,160	July 15 ... ..	54,344
February 18 ...	45,331	August 19 ... ..	54,809
March 18 ... ..	46,774	September 16 ...	55,238
April 15 ... ..	49,374	October 14 ... ..	54,808
May 13 ... ..	51,498	November 18 ...	54,537
June 17 ... ..	53,562	December 16 ...	53,996
AVERAGE FOR THE TWELVE MONTHS ... ..			51,619

**Table VII.—Other output of the Brick and Fireclay Trade**

The value of the gross output of the firms whose returns were made on schedules for the Brick and Fireclay Trade was £22,115,000 in 1933 and £21,697,000 in 1930, of which £21,442,000 in 1933 and £20,950,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	£'000	£'000
Glazed tiles and general earthenware ... ..	64	48
Red pottery and terra-cotta ware, glazed and unglazed (including chimney pots) ... ..	126	76
Cement, lime and artificial stone ... ..	74	190
Quarry products sold ... ..	353	375
Other products, including fixing architectural terra- cotta and faience ... ..	56	58
<b>TOTAL ... ..</b>	<b>673</b>	<b>747</b>



**THE CHINA AND EARTHENWARE TRADE**

*Note.*—The particulars given for 1930 in Tables I, VI and VII differ from those published in the Final Report on the Fourth Census of Production (see paragraph 8 (a), page x).

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	12,339	13,895
Cost of materials used and amount paid for work given out ... ..	"	4,203	4,868
Net output ... ..	"	8,136	9,027
Average number of persons employed ... ..	No.	61,790	67,693
Net output per person employed ... ..	£	132	133

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
<b>Tiles* :—</b>				
Floor tiles suitable for tessellated pavements and mosaics ...	200	147	226	197
Glazed wall and hearth tiles :—				
White ... ..	561	606	366	484
Coloured (including ivory and cream) ... ..	693	1,450	434	1,017
<b>TOTAL—Tiles*</b> ... ..	<b>1,454</b>	<b>2,203</b>	<b>1,026</b>	<b>1,698</b>
Sanitary earthenware, white, coloured or cane and white (including vitreous ware)†	421	1,057	398	967
	...	127	...	178
<b>China, other than electrical ware :—</b>				
Bone china ... ..	...	1,179	{ 94	519
			{ ...	953
Other pottery known as china or porcelain, including translucent pottery, not elsewhere specified	...	152	...	294
<b>TOTAL—China</b> ... ..	<b>...</b>	<b>1,331</b>	<b>...</b>	<b>1,766</b>

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Electrical ware (including insulators), whether of porcelain, earthenware or stoneware	301	696	328	803
	...	103	...	187
Earthenware, etc. :—				
General earthenware (not elsewhere specified), including semi-porcelain and majolica	1,866	4,129	1,344	3,265
	...	787	...	2,445
Jet, Rookingham and Samian ware	118	209	132	184
	...	53	...	139
Red pottery and terra-cotta ware, glazed or unglazed	595	305	257	150
	...	67	...	182
Stoneware, brown and yellow ware	416	382	415	343
	...	...	...	160
TOTAL—Earthenware, etc.	...	5,932	...	6,868
China and earthenware purchased and decorated	...	127	...	124
Products used in the making of pottery and sold :—				
Stilts, spurs, thimbles, saggars, etc.†	...	72	...	89
Other products	...	425	...	528
Clay tobacco pipes‡	...	9	...	11
Unclassified output in Northern Ireland	—	—	...	21
TOTAL—PRINCIPAL PRODUCTS	...	12,082	...	13,240

\* Quantities were also returned in terms of square yards, as follows :—

	1933	1930
	Th. sq. yards	Th. sq. yards
Floor tiles	394	473
Glazed wall and hearth tiles :—		
White	2,150	1,510
Coloured (including ivory and cream)	2,133	1,390
TOTAL	4,677	3,373

For other descriptions of tiles, see the report on the Brick and Fireclay Trades (page 219)

† Specified for 1930 as "Sanitary earthenware, white or cane and white."

‡ So far as recorded separately.

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

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Tiles :—	Th. cwts.	£'000	Th. cwts.	£'000
Floor tiles suitable for tessellated pavements and mosaics ...	25	14	—	—
Glazed wall and hearth tiles :—				
White ... ..	2	2	1	2
Coloured (including ivory and cream) ... ..	3	6	32	31
Electrical ware (including insulators), whether of porcelain, earthenware or stoneware	44	15	...	1
... ..	...	35	...	...
Earthenware, etc. :—				
Red pottery and terra-cotta ware, glazed and unglazed	225	87	140	41
Stoneware, brown and yellow ware ... ..	...	38	...	35
... ..	8	8	—	—
Other china and earthenware ...	...	33	...	44
TOTAL ... ..	...	238	...	154

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
Floor tiles suitable for tessellated pavements and mosaics ... ..	£ per cwt. 0.75	£ per cwt. 0.87	Per cent. 86.1	£ per cwt. 1.20	£ per cwt. 1.35	£ per cwt. 0.55	£ per cwt. 0.45
Glazed wall and hearth tiles :—							
White ... ..	1.08	1.32	82.0	1.40	1.59	0.78	0.93
Coloured (including ivory and cream) ...	2.09	2.34	89.2	2.14	2.40	1.20	1.57
Sanitary earthenware, white, coloured or cane and white (including vitreous ware)* ...	2.51	2.43	103.5	2.73	2.95	2.06	2.45
Electrical ware (including insulators), whether of porcelain, earthenware or stoneware ... ..	2.31	2.45	94.2	3.10	3.06	4.21	3.95
General earthenware (not elsewhere specified), including semi-porcelain and majolica ... ..	2.21	2.43	90.9	3.44	3.97	3.22	2.90
Jet, Rockingham and Samian ware ... ..	1.76	1.39	126.8	2.81	2.89	—	—
Red pottery and terra-cotta ware, glazed or unglazed ... ..	0.51	0.58	87.9	0.69	1.12	4.14	1.89
Stoneware, brown and yellow ware ... ..	0.92	0.83	111.3	1.00	0.98	3.36	2.91

\* See note (†) to Table II.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
Tiles :—	£'000	£'000	£'000	Per cent.	Per cent.
Floor tiles suitable for tessellated pavements and mosaics ... ..	197	147	171	87	93
Glazed wall and hearth tiles :—					
White ... ..	484	606	739	153	} 77
Coloured (including ivory and cream) ...	1,017	1,450	1,625	160	
Sanitary earthenware, white, coloured or cane and white (including vitreous ware)*	1,145	1,184	1,144	100	111
China, including translucent pottery and all pottery known as china or porcelain, other than electrical ware	1,766	1,331	1,970	112	90
Electrical ware (including insulators), whether of porcelain, earthenware or stoneware ... ..	990	799	848	86	108
Earthenware, etc. :—					
General earthenware (not elsewhere specified), in- cluding semi - porcelain and majolica ... ..	} 5,710	4,916	5,381	94	} 118
Jet, Rockingham and Samian ware ... ..					
Red pottery and terra- cotta ware, glazed or unglazed ... ..	332	372	423	127	} 130
Stoneware, brown and yellow ware ... ..	503	382	343	68	
Products used in the making of pottery and sold ...	617	497	530	86	} 130
Other and unclassified princi- pal products ... ..	156	136	160	...	
<b>TOTAL</b> ... ..	<b>13,240</b>	<b>12,082</b>	<b>13,541</b>	<b>102</b>	<b>107</b>

\* See note (†) to Table II.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
	Th. cwts.	Th. cwts.	Per cent.	Th. cwts.	Th. cwts.	Per cent.	
Floor tiles suitable for tessellated pavements and mosaics ...	1933	200	4	2.0	12	208	94.2
	1930	226	13	5.8	72	285	74.7
Glazed wall and hearth tiles:—							
White ...	1933	561	71	12.7	147	637	76.9
	1930	366	106	29.0	199	459	56.6
Coloured (including ivory and cream)...	1933	693	27	3.9	86	752	88.6
	1930	434	82	18.9	168	520	67.7

As regards the remaining products of the China and Earthenware Trade, comparison between figures of production and those of exports and imports can only be made in terms of value.

Kind of goods	Production	Exports		Retained imports		
	Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (c.i.f.)	
	£'000	Th. cwts.	£'000	Th. cwts.	£'000	
China, including translucent pottery and all pottery known as china or porcelain (other than electrical ware) ...	1933	1,331	18	221	15	82
	1930	1,766	23	383	54	292
Electrical ware (including insulators), whether of porcelain, earthenware or stoneware ...	1933	799	20	61	7	29
	1930	990	52	159	36	143
General earthenware (not elsewhere specified), including semi-porcelain and majolica ...	1933	4,916	428	1,472	73	236
	1930	5,710	599	2,382	156	449
Jet, Rockingham and Samian ware ...	1933	262	†	1	—	—
	1930	323	1	3	‡	‡
Red pottery and terra-cotta ware, glazed or unglazed	1933	372	3	2	†	2
	1930	332	8	9	4	8
Stoneware, brown and yellow ware ...	1933	382	25	25	†	†
	1930	503	58	57	1	3

† Less than 500.

‡ Re-exports in excess of imports.

The following tables relate only to firms whose returns were made on schedules for the China and Earthenware Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ...	1933	3,183	24,839	6,748	32,524	9,931	57,363
	1930	3,858	28,648	8,891	34,485	12,749	63,133
Administrative, technical and clerical staff* ...	1933	181	3,240	140	1,187	321	4,427
	1930	293	3,378	186	1,182	479	4,560
TOTAL ...	1933	3,364	28,079	6,888	33,711	10,252	61,790
	1930	4,151	32,026	9,077	35,667	13,228	67,693

\* As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	36,581	July 15 ...	40,319
February 18 ...	39,306	August 19 ...	38,315
March 18 ...	39,534	September 16 ...	42,957
April 15 ...	39,247	October 14 ...	44,290
May 13 ...	40,188	November 18 ...	44,920
June 17 ...	40,354	December 16 ...	42,617
AVERAGE FOR THE TWELVE MONTHS ...			40,719

**Table VII.—Other output of the China and Earthenware Trade**

The value of the gross output of the firms whose returns were made on schedules for the China and Earthenware Trade was £12,339,000 in 1933 and £13,895,000 in 1930, of which £11,844,000 in 1933 and £13,086,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Tiles (except tiles for tessellated pavements and mosaics, and glazed wall and hearth tiles) :—				
Roofing tiles ... ..	280	42	188	32
All other tiles (including quarries and street paving tiles) ...	70	30	298	118
Sanitary ware* :—				
Sanitary ware of fireclay, glazed or enamelled ... ..	148	211	232	290
Pipes and tubes of stoneware or fireclay, including agricultural pipes, unglazed ... ..	368	99	944	264
Other kinds of sanitary ware ...	40	37	29	18
Other goods made ... ..	...	63	...	77
Work done ... ..	...	13†	...	10†
<b>TOTAL ... ..</b>	...	495	...	809

\* Other than "Sanitary earthenware, white, coloured or cane and white."

† Amount received.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Tons	£'000
China clay ... ..	54,694	144
Ball clay ... ..	82,687	159
China and Cornish stone and felspar ... ..	58,903	222
Other clay ... ..	122,299	122
All other materials used (including fuel) ... ..	...	3,541
<b>TOTAL ... ..</b>	...	4,188

## THE GLASS TRADE

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	14,098	13,713
Cost of materials used and amount paid for work given out ... ..	"	5,673	5,420
Net output ... ..	"	8,425	8,293
Average number of persons employed ... ..	No.	39,791	39,571
Net output per person employed ... ..	£	212	210

Table II.—Output of principal products

Kind of goods	1933			1930		
	Quantity		Value	Quantity		Value
	Th. gross	Th. cwts.	£'000	Th. gross	Th. cwts.	£'000
Glass bottles and jars :—						
Beer, wine, spirit and similar bottles :—						
Beer bottles ... ..	1,317	1,772	994	2,241*	2,860*	1,833*
Mineral water bottles ... ..	351	426	279			
Other kinds ... ..	966	922	662			
Milk bottles ... ..	553	749	578	6,226*	4,363*	3,389*
Chemical, medical and perfume bottles ... ..	2,579	1,244	1,175			
Other bottles and jars ... ..	3,780	2,693	1,813			
Total—Glass bottles and jars	9,546	7,806	5,501	8,467	7,223	5,222
Illuminating glassware :—	Thous.			Thous.		
Globes and shades (other than oil lamp chimneys) {	2,700	32·6	211	907	4·4	50
... ..	149	...	18	289	...	31
... ..	...	...	31	...	...	28
Pressed lenses, prisms and the like (not optical glass)	5,047	15·4	58	854	8·2	36
Bulbs for electric lamps ...	64,591	40·0	215	}	}	245
Oil lamp chimneys and miners' lamp glasses ...	160	0·3	3			
Other illuminating glass-ware ... ..	...	3·4	11			
... ..	...	...	34			
Total—Illuminating glass-ware ... ..	...	...	584	...	...	390



Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
Domestic and fancy glass-ware :—	Th. cwts.	£'000	Th. cwts.	£'000
Table and ornamental ...	323·6	922	} 127·2	624
Other... ..	46·0	140		205
Total—Domestic and fancy glassware ... ..	369·6	1,062	...	829
Machinery glassware :—				
Gauge glasses ... ..	8·0	28	} 8·0	34
Lubricators, oil cups, yarn guides and other sorts {	0·3	2		22
...	...	4		4
Total—Machinery glassware	...	34	...	64
Glass tubing and rod, not elsewhere specified, for all purposes, sold or added to stock as such ...	32·9	139	20·5	115
Scientific glassware (except tubing and rod) ...	10·3	107	2·6	58
Plate and sheet glass and bevelled, decorated and silvered glass† ... ..	...	4,054	} ...	4,736†
Mirrors, framed or unframed...	...	475		161†
Glass letters, tablets and tiles‡	...	83		535†
Leaded lights ... ..	...	297	...	885‡
Safety glass for motor cars, etc.	104·5	844	...	...
Other glass and glassware (optical glass, glass stoppers, glass substitute, etc.) ...	...	252	...	81
TOTAL—PRINCIPAL PRODUCTS	...	13,514	...	13,225†

\* See page (200).

† In addition, the following goods were returned for 1930 on schedules for trades not covered by the 1933 Inquiry :—

	£'000
Scientific glassware (except tubing and rod) ... ..	2
Plate and sheet glass and bevelled, decorated and silvered glass ... ..	70
Glass letters, tablets and tiles ... ..	1
Leaded lights ... ..	4
Total ... ..	77

‡ Owing to the risk of disclosure of information relating to individual firms, separate details of the different kinds of glass included in this heading cannot be given.

§ Including glass signs, so far as recorded separately.

|| For the 1933 Inquiry output was also returned by sq. ft., the quantity recorded being 4,334,000 sq. ft.

¶ So far as recorded separately.

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

Kind of goods	1933	1930
	£'000	£'000
Illuminating glassware:—		
Globes and shades (other than oil lamp chimneys) ...	9	—
Bulbs for electric lamps ... ..	12	} 19
Other illuminating glassware ... ..	13	
Plate and sheet glass, including mirrors, framed or unframed ... ..	21	9
Glass letters, tablets and tiles ... ..	—	5
Leaded lights ... ..	17	4
Other glassware ... ..	6	—
TOTAL ... ..	78	37

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)		
	Average value		1933 as a percentage of 1930	Average value		Average value		
	1933	1930		1933	1930	1933	1930	
Glass bottles and jars:—								
Beer, wine, spirit and similar bottles* ...	s. per cwt.	12·4	12·8	96·9	14·1	15·5	8·3	10·5
Other descriptions* ...	s. per gross	14·7	...	...	18·2	19·7	11·8	14·0
	s. per cwt.	15·2	15·5	98·1	21·0	23·8	34·5	22·8
	s. per gross	10·3	...	...	14·9	14·8	9·8	9·3
Illuminating glassware:—								
Globes and shades (other than oil lamp chimneys) ...	£ per cwt.	6·47	...	...	9·61	10·38	2·89	3·15
Pressed lenses, prisms and the like (not optical glass) ...	£ per thous.	80·3	67·7	118·6	170·1	110·8	21·9	30·8
	£ per cwt.	3·74	4·29	87·3	...	12·35	...	7·31
Bulbs for electric lamps ...	£ per cwt.	5·37	4·84	110·9	9·88	16·65	4·63	6·54
	£ per thous.	3·33	3·34	99·7	7·46	33·41	3·28	4·09
Oil lamp chimneys and miners' lamp glasses ...	£ per cwt.	10·06	6·22	161·7	8·62	9·45	1·77	2·12

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)		
	Average value		1933 as a percentage of 1930	Average value		Average value		
	1933	1930		1933	1930	1933	1930	
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.	
Domestic and fancy glass- ware :—								
Table and ornamental	2.85	†	...	7.07	†	2.71	†	
Other ... ..	3.05	†	...	4.91	†	4.19	†	
Total—Domestic and fancy glassware ...	2.87	4.90	58.7	6.34	9.98	2.72	2.94	
Machinery glassware :—								
Gauge glasses ...	3.41	4.23	80.6	6.63	6.91	8.00	11.80	
Lubricators, oil cups, yarn guides and other sorts ... ..	8.07	4.19	192.5	9.52	10.17	6.73	4.17	
Glass tubing and rod for all purposes ... ..	4.21	5.64	74.7	5.81	6.16	5.17	3.93	
Scientific glassware, ex- cept tubing and rod ...	10.42	22.60	46.1	16.76	21.55	11.94	8.31	
Plate and sheet glass* ...	£ per cwt.	1.54	1.41	109.2	1.50	1.64	0.89	1.02
	s. per 100 sq. ft.	57.62	...	...	53.37	69.33	27.06	33.45

† Not recorded separately.

\* The average values of the descriptions of glass bottles and jars and of plate and sheet glass recorded separately for 1933 were as follows :—

	Production		Exports		Imports	
	s. per cwt.	s. per gross	s. per cwt.	s. per gross	s. per cwt.	s. per gross
Beer, wine, spirit and similar bottles :—						
Beer bottles ... ..	11.2	15.1	...	...	...	...
Mineral water bottles ...	13.1	15.9	...	...	...	...
Other kinds ... ..	14.3	13.7	...	...	...	...
Milk bottles ... ..	15.4	20.9	20.2	25.6	†	†
Chemical, medical and perfume bottles ... ..	18.9	9.1	...	...	...	...
Other bottles and jars ...	13.5	9.6	...	...	...	...
	£ per cwt.	s. per 100 sq. ft.	£ per cwt.	s. per 100 sq. ft.	£ per cwt.	s. per 100 sq. ft.
Plate glass, polished, not further worked ... ..	...	...	2.68	150.3	1.89	111.9
Plate glass, polished and silvered, bevelled or otherwise worked	3.57	217.5	3.85	198.7	3.69	162.4
Plain sheet window glass ...	...	...	0.92	24.4	0.55	14.9
Other descriptions ... ..	0.96	45.3	0.88	27.7	1.14	36.7

† These figures would have no significance.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Glass bottles and jars :—	£'000	£'000	£'000	Per cent.	Per cent.
Beer, wine, spirit and simi- lar bottles ... ..	1,833	1,935	1,997	109	} 85
Other, including milk bottles ... ..	3,389	3,566	3,662	108	
Illuminating glassware :—					
Globes and shades (other than oil lamp chimneys)	109	260	219	201	139
Pressed lenses, prisms and the like (not optical) ...	36	58	66	183	67
Other descriptions (includ- ing bulbs for electric lamps, oil lamp chimneys and miners' lamp glasses)	245	266	240	98	57
Domestic and fancy glassware	829	1,062	1,809	218	115
Machinery glassware ...	64	34	38	59	166
Glass tubing and rod for all purposes ... ..	160	174	233	146	69
Scientific glassware (except tubing and rod) ... ..	162	154	334	206	146
Plate and sheet glass; be- velled, decorated and sil- vered glass; leaded lights; stained glass and memorial tablets; mirrors, framed and unframed ... ..	5,271	4,826	4,489	85	} 89
Safety glass (for motor cars, etc.) ... ..	885	844	948	107	
Other principal products ...	242	335	360	149	
TOTAL ... ..	13,225	13,514	14,395	109	83

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods
Glass bottles and jars :—			Per cent.			Per cent.
Beer, wine, spirit and similar bottles ...	Th. gross { 1933 2,634 1930 2,241 Th. cwta. { 1933 3,120 1930 2,360	54 92 70 117	2.1 4.1 2.2 4.1	92 336 132 447	2,672 2,485 3,182 3,190	96.6 86.5 95.9 86.0
Milk bottles ...	1933 { Th. gross 553 Th. cwta. 749	10 13	1.8 1.7	* *	543 736	100.0 100.0
Other bottles and jars ...	1933 { Th. gross 6,359 Th. cwta. 3,937	255 176	4.0 4.5	398 113	6,502 3,874	93.9 97.1
Total — Milk and other bottles and jars ...	Th. gross { 1933 6,912 1930 6,226 Th. cwta. { 1933 4,686 1930 4,363	265 229 189 142	3.8 3.7 4.0 3.3	398 1,069 113 440	7,045 7,066 4,610 4,661	94.4 84.9 97.5 90.6
Domestic and fancy glassware :—						
Table and ornamental	1933 Th. cwta. 324	18	5.4	376	682	44.9
Other ...	1933 Th. cwta. 46	9	19.5	2	39	94.9
Total—Domestic and fancy glassware ...	1933 Th. cwta. 370 1930 Th. cwta. 170	27 28	7.3 16.5	378 695	721 837	47.57 16.97
Globes and shades (other than oil lamp chimneys) ...	1933 Thous. 3,235 1930 Thous. 1,609	161 233	5.0 14.5	9,935 12,327	13,009 13,703	23.63 10.04
Bulbs for electric lamps ...	1933 { Mill. 64.6 Th. cwta. 40.0	† 0.1	0.0 0.2	15.2 10.8	79.8 50.7	80.9 78.7
		Value (at factory)	Value (f.o.b.)	Value (c.i.f.)		
		£'000	£'000	£'000		
Illuminating glassware ...	{ 1933 584 1930 390	40 45	... ...	337 496	... ...	... ...

\* Negligible.

† Less than 50,000.

The following tables relate only to firms whose returns were made on schedules for the Glass Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	2,967	29,030	1,842	6,025	4,809	35,055
	1930	3,387	29,379	1,534	5,597	4,921	34,976
Administrative, technical and clerical staff* ...	1933	207	3,360	189	1,376	396	4,736
	1930	239	3,252	213	1,343	452	4,595
TOTAL ... ..	1933	3,174	32,390	2,031	7,401	5,205	39,791
	1930	3,626	32,631	1,747	6,940	5,373	39,571

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	19,067	July 15 ... ..	19,808
February 18 ... ..	19,236	August 19 ... ..	19,882
March 18 ... ..	18,982	September 16 ... ..	19,843
April 15 ... ..	19,338	October 14 ... ..	20,454
May 13 ... ..	19,317	November 18 ... ..	21,430
June 17 ... ..	19,885	December 16 ... ..	21,955
AVERAGE FOR THE TWELVE MONTHS ... ..			19,933

**Table VII.—Other output of the Glass Trade**

The value of the gross output of the firms whose returns were made on schedules for the Glass Trade was £14,098,000 in 1933 and £13,713,000 in 1930, of which £13,436,000 in 1933 and £13,188,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	Value	Value
	£'000	£'000
Goods made ... ..	150	70
	Amount received	Amount received
Work done for the trade or on customers' materials :—		
Silvering, bevelling, engraving and other work on glass ... ..	99	36
Glazing work on buildings ... ..	345	382*
Repair and jobbing work ... ..	68	37
Total—Work done ... ..	512	455
<b>TOTAL</b> ... ..	<b>662</b>	<b>525</b>

\* So far as recorded separately.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
White sand ... ..	258	221
Other sand ... ..	99	58
Limestone ... ..	83	64
Carbonate of potash ... ..	0·5	16
Soda ash ... ..	121	667
Oxide of lead ... ..	0·9	28
All other materials used (including fuel) ... ..	...	4,600
<b>TOTAL</b> ... ..	...	<b>5,652</b>

**THE CEMENT TRADE**

*Note.*—Firms whose business was confined to the production of lime are excluded from the particulars given in these tables for both years.

**Table I.—General summary**

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,052	8,202
Cost of materials used ... ..	"	2,833	3,475
Net output ... ..	"	4,219	4,727
Average number of persons employed ... ..	No.	9,629	10,989
Net output per person employed ... ..	£	438	430

**Table II.—Output of principal products**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Cement ... ..	4,686·4	6,380	5,056·0	7,799
Gypsum, burnt (including plaster of Paris) ... ..	202·2	367	127·2	266
Unclassified output in Northern Ireland	—	—	...	153
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	...	6,747	...	8,218

The figures shown above include the following output of cement recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I:—

	Th. tons	£'000
1933 ... ..	7·3	13
1930 ... ..	173·3	267

**Table III.—Average values of goods produced, exported and imported**

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Cement ... ..	1·36	1·54	88·3	1·64	2·20	1·31	1·72
Gypsum, burnt (including plaster of Paris) ...	1·82	2·09	87·1	3·20	4·27	2·51	2·27



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
ment ... ..	£'000 7,799	£'000 6,380	£'000 7,225	Per cent. 93	Per cent. 65
ypsum, burnt (including plaster of Paris) ... ..	266	367	421	158	120
nclassified output in Northern Ireland ... ..	153	—	—	...	...
<b>TOTAL</b> ... ..	<b>8,218</b>	<b>6,747</b>	<b>7,646</b>	<b>93</b>	<b>66</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Produc- tion	Exports	Propor- tion of produc- tion exported	Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods	
			Per cent.				
ment ... ..	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.	
	1933 1930	4,686.4 5,056.0	491.4 1,039.9	10.5 20.6	91.0 224.7	4,286.0 4,240.8	97.9 94.7
ypsum, burnt including plaster of Paris).	1933 1930	202.2 127.2	10.8 6.3	5.3 5.0	2.8 13.8	194.2 134.7	98.6 89.8

The following tables relate only to firms whose returns were made on schedules for the Cement Trade and are summarised in table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
	eratives (average for the year) { 1933 1930	283 394	7,823 9,628	3 11	103 127	286 405
ministrative, technical and clerical staff* { 1933 1930	68 84	1,384 1,005	19 29	319 229	87 113	1,703 1,234
<b>TOTAL</b> ... .. { 1933 1930	351 478	9,207 10,633	22 40	422 356	373 518	9,629 10,989

\* As at 14th October, 1933, and 18th October, 1930.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	6,355	July 15 ... ..	7,009
February 18 ... ..	6,478	August 19 ... ..	7,054
March 18 ... ..	6,515	September 16 ... ..	7,167
April 15 ... ..	6,818	October 14 ... ..	7,227
May 13 ... ..	6,957	November 18 ... ..	7,225
June 17 ... ..	6,924	December 16 ... ..	7,226
AVERAGE FOR THE TWELVE MONTHS ... ..			6,913

**Table VII.—Other output of the Cement Trade**

The value of the gross output of the firms whose returns were made on schedules for the Cement Trade was £7,052,000 in 1933 and £8,202,000 in 1930, of which £6,734,000 in 1933 and £7,951,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Chalk, prepared (including whiting) ...	24·0	27	44·3	58
White lime ... ..	18·2	24	7·1	11
Hydraulic and other lime ... ..	121·1	159	51·7	59
Intermediate products of the Cement Trade, sold as such ... ..	...	26	...	5
Paving materials (asphalt and bitumen, crushed stone, etc.) ... ..	29·8	21	...	9
Other goods ... ..	...	61	...	109
<b>TOTAL</b> ... ..	...	<b>318</b>	...	<b>251</b>

### THE BUILDING MATERIALS TRADE

*Note.*—The particulars given in the following tables are seriously defective by reason of the omission from the 1933 Inquiry of certain trades and groups of firms. In addition to the exclusion of occupiers of workshops and of certain firms engaged only in contract work, no particulars relating to stone, sand, etc., raised at mines and quarries, asphalt and bitumen produced at petroleum refineries or of miscellaneous goods made by building and contracting firms, were obtained in connection with the Inquiry for 1933. In the following tables the results of the Fourth Census of Production (1930) have been adjusted so as to provide aggregates which are comparable with those given for 1933. The effect of these omissions is shown by the figures given in Table II B.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	10,886	13,084
Cost of materials used ... ..	"	4,909	5,952
Amount paid for work given out ... ..	"	53	135
Net output ... ..	"	5,924	6,997
Average number of persons employed ... ..	No.	24,750	27,564
Net output per person employed ... ..	£	239	254

Table II A.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. Tons	£'000	Th. Tons	£'000
Stone and slate, dressed* :—				
Setts and pavement kerbs :—				
Of granite ... ..	4·4	10	3·4	6
Of other stone ... ..	5·4	28	6·9	46
			...	11
Monumental and architectural masonry :—				
Of granite ... ..	16·9	498	23·6	553
Of marble ... ..	13·9	415	21·3	485
Of other stone or slate ... ..	41·6	309	59·6	528
			...	76
Other and unclassified dressed stone or slate... ..	9·0	122	19·1	277
	...	24		
Slate goods (mantelpieces, school slates, etc.) ... ..	...	142	...	147
TOTAL—Dressed stone and slate	...	1,548	...	2,129

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. Tons	£'000	Th. Tons	£'000
Slabbed work and other tile and mosaic work, not included above	...	379	...	175
Mortar ... ..	79·5	43	...	46
Plaster (including plaster partitions, plaster figures, plaster models, etc.) ... ..	...	402	...	242
Artificial stone, including concrete blocks, slabs, cement flags, breeze blocks, etc. ... ..	1,379·7	2,882	...	2,934
Paving materials:—				
Asphalt and bitumen* ... ..	533·0	1,675	...	1,698
Crushed stone, slag, clinker, etc.	2,801·4	669	...	894
Tar macadam ... ..	2,631·4	1,770	...	2,174
Other kinds ... ..	59·0	211	...	10
Other and unclassified building materials ... ..	...	12	...	7
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	...	<b>9,591</b>	...	<b>10,309</b>

\* See introductory note.

In addition, the undermentioned goods were returned for 1930 by firms (other than owners of mines and quarries) whose businesses were not covered by the 1933 Inquiry:—

Table II B

Kind of goods	Quantity	Value
	Th. Tons	£'000
Stone and slate, dressed:—		
Setts and pavement kerbs ... ..	1·5	4
Monumental and architectural masonry ... ..	3·4	58
Other and unclassified ... ..	...	32
Other and unclassified ... ..	...	8
Slabbed work, etc. ... ..	...	55
Mortar ... ..	...	20
Plaster, etc. ... ..	...	78
Artificial stone ... ..	...	185
Paving materials:—		
Asphalt and bitumen ... ..	...	1,531
Crushed stone, slag, clinker, etc. ... ..	...	34
Tar macadam ... ..	...	67
Other kinds ... ..	...	16
<b>TOTAL ... ..</b>	...	<b>2,088</b>

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

**Table II C**

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Stone and slate, dressed ... ..	—	—	...	4
Other and unclassified dressed stone or slate ... ..	·3	9	·9	13
Slabbed work and other tile and mosaic work, not included above... ..	...	67	...	14
Mortar and plaster ... ..	...	14	...	1
Artificial stone, including concrete blocks, slabs, cement flags, breeze blocks, etc. ...	28·4	71	...	71
Paving materials:—				
Asphalt and bitumen ... ..	5·2	16	...	84
Crushed stone, slag, clinker, etc. ... ..	529·0	151	...	217
Tar macadam ... ..	280·1	180	...	360
Other kinds ... ..	46·2	179	...	7
<b>TOTAL ... ..</b>	...	687	...	771

**Table II D.—Contract work, etc.**

Kind of work done	Amount received	
	1933	1930
Contract and job work... ..	£'000 1,698	£'000 3,368*
Work done on monuments not made by the firm (erection and cutting of inscriptions)... ..	41	67
Work done for the trade or on commission (sawing, turning, etc.) ... ..	44	25
<b>TOTAL ... ..</b>	<b>1,783</b>	<b>3,460</b>

\* Returned as:—  
 Work on buildings (masonry, slating, tiling,  
 plastering, slabbing, etc.) ... .. 1,762  
 Work on roads (construction, maintenance or repair) 1,606

In addition, the following amounts were recorded for 1930 by firms whose businesses were not covered by the 1933 Inquiry:—

	£'000
Contract and job work... ..	636
Work done on monuments ... ..	52
Work done for the trade or on commission ... ..	15
	<hr/>
	703
	<hr/>

**Table III.—Average values of goods produced, exported and imported**

In view of the absence of quantitative data for the more important of the principal products in 1930 (Table II A), and of the deficiencies in the recorded output, this table is omitted.

**Table IV.—Volume of Production**

Principal output	1933	1930		1924
		Firms included in		
		1933 Inquiry	1930 Census	
Value of output as returned ...	£'000 11,374	£'000 13,769	£'000 16,560	£'000 11,177*
Estimated value at 1930 prices† ...	12,300	13,769	16,560	10,300
Volume of production as a percentage of 1930 ... ..	89	100	100	62

\* Great Britain only.

† In the absence of particulars of quantities, these estimates are based on prices of materials used and other costs.

**Table V.—Production, Exports and Imports**

For the reasons given in the introductory note (page 245), the recorded particulars of production cannot be compared with those of overseas trade. Exports and retained imports of granite setts and pavement kerbs and of monumental and architectural granite were as follows:—

Goods of granite	Exports		Retained imports	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Setts and pavement kerbs... { 1933	.8	2	68.4	159
{ 1930	.1	1	108.6	303
Monumental and architec- { 1933	.4	14	5.9	161
tural ... .. { 1930	1.5	46	6.5	207

The following tables relate only to firms whose returns were made on schedules for the Building Materials Trade and are summarised in Table I.

**Table VI.—Employment**

**A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930**

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	1,485	21,400	50	214	1,535	21,614*
	1930	1,696	24,109	55	260	1,751	24,369
Administrative, technical and clerical staff†...	1933	142	2,625	44	511	186	3,136
	1930	238	2,682	58	513	296	3,195
TOTAL ...	1933	1,627	24,025	94	725	1,721	24,750*
	1930	1,934	26,791	113	773	2,047	27,564

\* The particulars given for 1933 include 3,738 operatives engaged in outside work on roads, buildings, etc.; corresponding information for 1930 is not available.

† As at 14th October, 1933, and 18th October, 1930.

**B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER**

Week ended	Total number	Week ended	Total number
January 14 ...	14,103	July 15 ...	16,255
February 18 ...	14,481	August 19 ...	16,650
March 18 ...	15,070	September 16 ...	16,639
April 15 ...	15,056	October 14 ...	16,485
May 13 ...	15,691	November 18 ...	16,150
June 17 ...	16,062	December 16 ...	15,496
AVERAGE FOR THE TWELVE MONTHS ...			15,678

**Table VII.—Other output of the Building Materials Trade**

The value of the gross output of the firms whose returns were made on schedules for the Building Materials Trade was £10,886,000 in 1933 and £13,084,000 in 1930, of which £10,687,000 in 1933 and £12,992,000 in 1930 consisted of output covered by Tables II A and II D. The value of the remaining items (mainly products of the Chemical and Allied Trades) was £199,000 in 1933 and £86,000 in 1930.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
Granite ... ..	586	393
Marble ... ..	18	208
Other stone ... ..	917	465
Cement ... ..	250	503
Sand ... ..	422	124
All other materials used (including fuel) ... ..	...	3,216
<b>TOTAL</b> ... ..	...	<b>4,909</b>





Trade group (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)*) (4)	Average numbers of persons employed (except out-workers) (5)	Net output per person employed (6)
	£'000	£'000	£'000	No.	£
<b>Factory trades:—cont.</b>					
Paper, Printing and Stationery	1933 36,580 1930 40,180 (a) 137,193	21,112 25,504 48,480	15,468 14,676 88,633	58,559 57,527 322,476	264 255 275
Timber	1933 16,399 1930 17,963 (a) 50,745	10,510 11,460 25,783	5,889 6,503 24,962	32,449 35,312 132,500	181 184 188
Clay and Building Materials ...	1933 66,490 1930 70,591 (a) 1,209	24,078 26,204 495	42,412 44,387 714	211,137 221,452 3,064	201 200 233
Miscellaneous	1933 59,056 1930 68,118 (a) 23,750	30,538 38,681 10,269	28,518 29,437 13,481	122,762 123,672 50,404	232 238 267
Total—Factory trades ...	1933 1,475,323 1930 1,624,854 (a) 1,078,239	867,220 979,509 579,036	604,143 642,605 422,533	3,052,055 3,262,193 1,613,597	198 197 262
<b>Non-Factory trades:—</b>					
Building and Contracting	(a) 194,288	100,223	94,065	453,807	207
Mines and Quarries ...	(a) 187,344	32,140	155,204	1,018,844	152
Public Utility Services and Government Departments ...	(a) 313,483	122,463	191,020	793,224	241
Total—Non-Factory trades ...	(a) 695,115	254,826	440,289	2,265,875	194
<b>TOTAL—ALL TRADES ...</b>	1933 1,475,323 1930 1,624,854 (a) 1,773,354	867,220 979,509 833,862	604,143 642,605 862,822	3,052,055 3,262,193 3,879,472	198 197 222

\* Excluding estimated Excise duty.

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*Note.*—The paging indicated refers to particulars of *output* (normally Table II). Particulars of average prices, volume of production, and exports and imports of similar goods are generally given in Tables III-V in the same series.

A	Page	B	Page
Accoutrements, badges, etc. ...	82	Badges, medals and regalia ...	191
Accounting machines... ..	112	Bag and envelope-making machines	106
Accumulators ... ..	128	Ball bearings, roller bearings, steel rollers and steel balls ...	114
Adzes ... ..	70	Bar, brewery and distillery fittings (brass) ... ..	185
Aeroplanes :—		Basins, cast iron ( <i>see</i> Sanitary appli- cances)	
Complete ... ..	144	Bath bricks, hearth stones, etc. ...	220
Engines for ... ..	144	Bathroom, etc., fittings (brass) ...	185
Agricultural and horticultural appli- cances ... ..	38	Baths (porcelain enamelled or other finish) ... ..	23
Agricultural and horticultural imple- ments ... ..	70	Batteries, electric ... ..	128
Agricultural machinery ... ..	108	Bayonets, swords, etc. ... ..	87
Agricultural pipes, unglazed ... ..	219	Bearings, ball and roller ... ..	114
Agricultural tractors ... ..	96	Bedsteads and parts ... ..	37
Air-filtering machinery ... ..	110	Belt fasteners ... ..	50
Air and gas compressors and ex- hausters ... ..	110	Bells, electric ... ..	127
Air guns ... ..	87	Bicycles ( <i>see</i> Cycles)	
Aluminium :—		Binders and reapers ... ..	108
Castings ... ..	169	Bismuth, etc. ... ..	171
Crude, in ingots, blocks, etc. ...	169	Bitumen ( <i>see</i> Asphalt and bitumen)	
Foil ... ..	170	Black plates ... ..	32
Hollow-ware ... ..	36	Black sheets ... ..	11
Plates, sheets, bars, etc. ... ..	170	Blades, safety razor ... ..	76
Wire... ..	62	Blast furnace plant ... ..	11
Anchors and grapnels ... ..	48	Blast furnace and steel works machinery ... ..	
Anti-friction metal ... ..	169	Bleaching, dyeing, printing and finishing machinery ... ..	
Aro lamps, searchlights, etc. ...	127	Blotting paper ... ..	
Architectural masonry ... ..	245	Boards, of wood ... ..	
Architectural terra-cotta and faience	220	Bobbins ... ..	
*Armour plates ... ..	11	Boilers and boiler-house plant, of than marine ... ..	
Arms and ordnance stores and appli- cances ... ..	114	Boilers and cylinders of copper	53
Artificial stone, blocks, slabs, etc....	246	Boilers, washing and cooking, of iron ... ..	38
Art metal work :—		Bolts, hoops, and hinges of iron	50
Of brass ... ..	185	Bolts, nuts and screws :—	49
Of iron and steel ... ..	38	Of brass and copper	106
Art papers ... ..	208	Of iron and steel ...	113
Asphalt and bitumen ... ..	246	Bookbinding machines	
Automatic slot machines ... ..	113	Boot and shoe-making machinery of	50
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Axles, Railway ( <i>see</i> Tyres and axles and Wheels and axles)		iron and steel ... ..	104
		Boring mills ... ..	234
		Bottles, glass ... ..	

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Boxes, containers, etc., of tinplate...	37	Cardboard ... ..	207
Braid, thread, etc., of gold and silver	191	Cardboard-box making machines ...	106
Brands, stamps, etc. ... ..	70	Card clothing ... ..	102
Brass :—		Carpenters' and joiners' tools ...	70
Bolts, nuts and screws ... ..	50	Carriages, railway ... ..	149
Castings ... ..	162	Carton making machines ... ..	106
Finished goods ... ..	185	Carving forks ... ..	76
Ingots ... ..	161	Casements and window frames,	
Nails, tacks, rivets and washers ...	50	metallic ... ..	114
Plates, sheet and strip ... ..	162	Cash and deed boxes, etc., of sheet	
Rods and sections ... ..	161	iron and steel ... ..	37
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Stampings, pressings and piercings		Cast iron goods (e.g., stoves, boilers,	
162, 185		cisterns, baths, pipes, etc.) ...	22
Tubes ... ..	162	Catering equipment ... ..	38
Unwrought ... ..	161	Cattle killers, mechanical ... ..	87
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In coils ... ..	62	Cement-making machinery ... ..	110
Not in coils ... ..	161	Centrifugal drying plant ... ..	110
Brewery, bar and distillery fittings		Chain cables ... ..	48
(brass) ... ..	185	Chains, iron and steel ... ..	48
Brewing and distilling machinery...	110	Chemical and gas machinery ...	111
Bricks :—		China and porcelain :—	
Bath ... ..	220	Bone china ... ..	227
Building ... ..	219	Electrical ware ... ..	228
Refractory ... ..	220	Porcelain ... ..	227
Brick-making machinery ... ..	110	Chrome and other refractory bricks	220
Brushes, wire ... ..	63	Chucks and other work holders ...	104
Buckles ... ..	82	Cigarette-making machines ... ..	113
Builders' and cabinet-makers' goods,		Cisterns :—	
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Builders' ironmongery :—		Wrought iron ... ..	37
Cast ... ..	23	Clay tobacco pipes ... ..	228
Sheet metal ... ..	38	Clippers, horse ... ..	70
Other ... ..	50	Clog irons, boot protectors, etc. ...	50
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materials)		Coal covers, cast-iron ... ..	23
Building stone ... ..	245	Coal-cutters ... ..	111
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		Converters and transformers, elec-	
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Of iron and steel ... ..	38
Cable-making machinery ... ..	110
Cables and ropes, wire ... ..	63
Cables and wire, telegraph and tele-	
phone ... ..	128
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Bars, blocks, slabs, ingots, etc. ...	161	Accumulators ...	128
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Plates, sheet, strip, etc. ...	162	Bell apparatus, not telegraphic or telephonic ...	127
Rods ...	161	Bulbs for electric lamps ...	234
Tubes ...	162	Carbons ...	128
Wire :—		Cable jointing materials and accessories ...	128
In coils ...	62	Condensers ...	129
Not in coils ...	161	Conduits and fittings ...	128
Corset steels and bunks ...	82	Cooking and heating apparatus ...	129
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Cranes, hoists and other lifting machinery ...	110	Electrodes for welding ...	129
Cream separators ...	111	Fans... ..	129
Crochet hooks ...	81	Fuses, safety ...	127
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Drain gratings, cast iron ...	23	Valves, wireless ...	128
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Drilling machines ...	104	Wires and cables, insulated ...	128
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Lubricators, yarn guides and other machinery glassware ... ..	237	Brass and copper ... ..	8
		Iron and steel ... ..	4
		Wire... ..	6
		Needles ... ..	8
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		Netting, wire ... ..	4
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Paving materials ... ..	245	Punching, etc., machines ... ..	104
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Pipes and tubes of fireclay or stone-ware ... ..	219	Railway and tramway :—	
Pipes, lead ... ..	170	Equipment and plant ... ..	114
Pipes, unglazed agricultural ... ..	219	Fittings, of brass ... ..	185
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Plaster of Paris ... ..	242	Rasps and files ... ..	70
Plates and sheets :—		Razors ... ..	76
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Roofing paper, tarred and other ...	208	Shoe-making machinery ...	113
Roofing tiles ...	219	Ships' fittings (other than furniture)	185
Roller bearings, etc. ...	114	Shovels and spades ...	70
Rolling-mill machinery ...	112	Shuttles ...	102
Rolls for rolling mills ...	23	Signalling gear and instruments, electric ...	128
Rope and cables, wire ...	63	Signs, electric ...	129
Rotary engines :—		Signs, enamelled ...	37
Printing ...	106	Silica bricks ...	220
Other ...	110	Silver :—	
Rubber works machinery ...	113	Braid, thread, lace, etc. ...	191
		Jewellery ...	190
<b>S</b>		Other manufactures ...	180
Saddlery hardware ...	50	Refined ...	180
Saddles, cycle ...	140	Sinks, cast iron ( <i>see</i> Sanitary cast iron goods and appliances)	
Safes ...	37	Slabbed tile work (hearth surrounds, etc.) ...	246
Safety glass for motor cars, etc. ...	235	Slate goods (mantelpieces, etc.) ...	245
Safety pins ...	81	Sleepers, railway, etc., of iron and steel ...	13
Safety razors and parts ...	76	Slide fasteners ...	82
Saggars ( <i>see</i> Stilts, etc.)		Slot machines, automatic ...	113
Sanitary cast iron goods and appli- ances ...	23	Small arms and parts ...	87
Sanitary and water appliances ...	114	Small-wares of metal ...	82
Sanitary earthenware ...	227	Soil pipes ...	22
Sanitary fittings, of brass ...	185	Solder, soft ...	169
Sanitary ware, of fireclay, etc ...	219	Sound reproduction apparatus for films ...	129
Saw-mill products ...	202	Spades and shovels ...	70
Saws and saw blades ...	70	Spanners, etc. ( <i>see</i> Engineers' tools)	
Scientific glassware ...	235	Sparklets, sprinklers, etc., of brass ...	185
Scientific instruments, electrical ...	129	Spiegeleisen ...	7
Scissors and shears ...	76	Spikes, railway ...	13
Screws and nuts :—		Spinning and twisting machinery, textile ...	101
Brass and copper ...	50	Spoons and forks ...	190
Iron and steel ...	49	Sporting guns ...	87
Searchlights, etc. ...	127	Springs :—	
Secateurs, scissors, etc. ...	76	For ordnance, small arms, locks, latches, clocks, watches, motor cars, motor cycles and musical instruments ...	49
Seeders and planters ...	108	Other :—	
Setts and pavement kerbs ...	245	Laminated ...	49
Sewage and refuse disposal machinery	112	Coil ...	49
Sewing machines ...	113	Spring seating ...	50
Shackles, hooks, etc. ...	50	Standards, fencing ...	49
Shades and globes, glass ...	234	Stamps, brands, dies, etc. ...	70
Shaping and planing machines ...	104	Staples, wire ...	63
Shear blades and machines knives ...	70	Steam engines and turbines ...	97
Shearing, etc., machines ...	104	Steam and water fittings, of brass ...	185
Shears, tailors' ...	76	Steam locomotives, rail ...	96
Shears, sheep ...	70	Steam rollers ...	96
Sheet bars, iron and steel ...	11	Steel :—	
Sheet lead ...	170	Bars ...	11
Sheet metal work :—		Blooms, billets and slabs ...	11
Brass ...	38	Castings ...	11
Iron and steel ...	38	Forgings ...	13
Of other metals ...	38		
Sheets, iron and steel ( <i>see</i> Plates and sheets)			
Sheets, strips, circles, etc. :—			
Brass ...	162		
Copper ...	162		
Zinc ...	171		

	Page		Page
<i>Steel—cont.</i>		Thimbles and other metal smallwares	82
Girders, beams, joists, and pillars	12	Threshers	108
Ingots	11	Tie pins	81
Manufactures ( <i>see separate headings for finished goods</i> )		Tiles :—	
Plates and sheets	11	Floor	227
Railway material ( <i>see that title</i> )		Glass	235
Special steel	11	Glazed wall and hearth	227
Steel works, blast furnace, etc., machinery	113	Roofing	219
Stereotyping and typesetting machines	106	Street paving	219
Stilts, spurs, thimbles, saggars, etc.	228	Tilting and rolling (work done for the trade or on commission)	21
Stocks and dies ( <i>see Engineers' tools</i> )		Timber (saw-milling products)	201
Stones, dressed	245	Tin :—	
Stoneware	219	Blocks, ingots, bars and slabs	169
Stoneware and fireclay pipes and tubes	219	Foil	170
Stone working and quarrying plant	113	Soldier	169
Stoves, cast iron	22	Tinned plates and sheets	32
Strawboard	207	Tinplate hollow-ware	36
Street paving tiles	219	Tinplate bars	11
Strip, iron and steel ( <i>see Hoop and strip</i> )		Tinplate boxes and containers, wrought	37
Strong rooms and fittings	37	Tissue paper	208
Structural work, iron and steel	121	Tobacco and cigarette-making machinery	113
Studs and buttons of metal	82	Tobacco pipes, clay	228
Suit-cases, etc., of sheet iron and steel	37	Tools and implements :—	
Sugar-making and refining machinery	113	Light steel	71
Surface boxes, cast iron	23	Machine (metal working)	104
Surgical needles	81	Pneumatic	112
Switchboards, electrical	127	Portable electric	129
Switchboard meters	128	Press	71
Switchgear, electrical	127	Other	70
Swords, bayonets, etc.	87	Torches, electric	129
		Totalisator apparatus	129
<b>T</b>		Trackless trolley vehicles	150
Tablets and signs, enamelled	37	Tractors	96
Tacks, of iron and steel	49	Traffic signals, electric	128
Tailors' shears	76	Tramcars and parts	150
Tanks :—		Tramway equipment, etc. ( <i>see Railway and tramway</i> )	
Cast iron	23	Transformers and converters, electrical	126
Wrought iron	37	Transmission chains, of steel	48
Tanning and leather-working machinery	113	Transporters, conveyors and telfers	110
Tar macadam	246	Trellis, etc., of iron and steel	49
Telegraph apparatus	127	Tricycles ( <i>see Cycles and tricycles</i> )	
Telegraph and telephone wires and cables	128	Trucks and wagons, railway	149
Telephone apparatus	127	Trunks, etc., of sheet iron and steel	37
Telfers, conveyors and transporters	110	Tube and wire-making machinery	113
Terne plates and sheets	32	Tubes :—	
Terra-cotta, architectural	220	Brass and other alloys	162
Terra-cotta ware	228	Cased	57
Textile machinery and accessories	101	Close-joint	57
Thread, lace and braid, of gold and silver	191	Copper	162
		Flexible metallic	57
		Fittings for wrought tubes	57
		Hoop and strip for	12
		Iron and steel, wrought	57
		Lead	170

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Tubs, trams and trucks, colliery ...	150	Wheels, rims and spokes for cycles...
Tungsten, etc. ...	171	White metal alloys ...
Turbines and other rotary engines (steam and water) ...	97	Winding machinery (mining) ...
Twisting machinery, textile ( <i>see</i> Spinning and twisting machinery).		Window frames, metallic ...
Typewriters ...	112	Wire :—
Typesetting and stereotyping ma- chines ...	106	Aluminium ...
Tyres and axles, railway, etc. ...	13	Brass ...
Type metal ...	171	Manufactures of ...
		Copper ...
<b>U</b>		Manufactures of ...
Uninsulated electric wire ...	63	Fencing ...
		Insulated ...
<b>V</b>		Iron and steel ...
Vacuum cleaners, electric ...	127	Manufactures of ...
Valves of all metals ...	114	Telegraph and telephone ...
Valves, wireless ...	128	Uninsulated electric ...
Vats of wrought iron and steel ...	37	Wire and tube-making machinery ...
Veneers and panel wood ...	202	Wire brushes ...
Ventilating appliances and plant ...	114	Wire cables and rope ...
Ventilators, cowls, etc., of sheet iron and steel ...	38	Wire cloth ...
Vulcanised fibre board ...	209	Wireless apparatus ...
		Wireless valves ...
<b>W</b>		Wire mattresses ...
Wagons, railway ...	149	Wire nails and staples ...
Wallboards ...	207	Wire netting ...
Wallpaper ...	216	Wire rods ...
Washers and rivets :—		Wood working machinery ...
Of brass and copper ...	50	Wrapping paper ...
Of iron and steel ...	49	Wrenches, spanners, etc. ( <i>see</i> En- gineers' tools) ...
Washing boilers, of cast iron ...	23	Wringing and mangling machines, domestic ...
Water and sanitary appliances ...	114	Writing paper in large sheets ...
Water supply, fittings for ...	185	
Water engines and parts ...	97	<b>X</b>
Waterworks equipment ...	113	X-ray apparatus ...
Water pipes ...	22	
Weaving machinery ...	101	<b>Z</b>
Weighing machinery ...	113	Zinc :—
Welding machinery ...	113	Crude, in cakes, etc. ...
Wheels and axles, railway ...	150	Manufactures ...
		Zipp fasteners ...



Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
Tiles:—	£'000	£'000	£'000	Per cent.	Per cent.
Floor tiles suitable for tessellated pavements and mosaics ... ..	197	147	171	87	93
Glazed wall and hearth tiles:—					
White ... ..	484	606	739	153	} 77
Coloured (including ivory and cream) ...	1,017	1,450	1,625	160	
Sanitary earthenware, white, coloured or cane and white (including vitreous ware)*	1,145	1,184	1,144	100	111
China, including translucent pottery and all pottery known as china or porcelain, other than electrical ware	1,766	1,331	1,970	112	90
Electrical ware (including insulators), whether of porcelain, earthenware or stoneware ... ..	990	799	848	86	108
Earthenware, etc. :—					
General earthenware (not elsewhere specified), in- cluding semi-porcelain and majolica ... ..	} 5,710	4,916	5,381	94	} 118
Jet, Rockingham and Samian ware ... ..					
Red pottery and terra- cotta ware, glazed or unglazed ... ..	332	372	423	127	} 130
Stoneware, brown and yellow ware ... ..	503	382	343	68	
Products used in the making of pottery and sold ...	617	497	530	86	} 130
Other and unclassified princi- pal products ... ..	156	136	160	...	
TOTAL ... ..	13,240	12,082	13,541	102	107

\* See note (f) to Table II.

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods	
							Th. cwts.
Floor tiles suitable for tessellated pavements and mosaics ...	1933	200	4	2.0	12	208	94.2
	1930	226	13	5.8	72	285	74.7
Glazed wall and hearth tiles—							
White ...	1933	561	71	12.7	147	637	76.9
	1930	368	106	29.0	199	459	56.6
Coloured (including ivory and cream)...	1933	693	27	3.9	86	752	88.6
	1930	434	82	18.9	168	520	67.7

As regards the remaining products of the China and Earthenware Trade, comparison between figures of production and those of exports and imports can only be made in terms of value.

Kind of goods	Production	Exports		Retained imports		
		Value (at factory)	Quantity	Value (f.o.b.)	Quantity	Value (o.i.f.)
China, including translucent pottery and all pottery known as china or porcelain (other than electrical ware) ...	1933	1,331	18	221	15	82
	1930	1,766	23	383	54	292
Electrical ware (including insulators), whether of porcelain, earthenware or stoneware ...	1933	799	20	61	7	29
	1930	990	53	159	36	143
General earthenware (not elsewhere specified), including semi-porcelain and majolica ...	1933	4,916	428	1,472	73	236
	1930	5,716	599	2,382	156	449
Jet, Rookingham and Samian ware ...	1933	262	†	1	—	—
	1930	323	‡	3	‡	‡
Red pottery and terra-cotta ware, glazed or unglazed ...	1933	372	3	2	†	2
	1930	332	2	9	4	2
Stoneware, brown and yellow ware ...	1933	382	25	25	†	†
	1930	503	62	57	1	3

† Less than 500.

‡ Re-exports in excess of imports.

The following tables relate only to firms whose returns were made on schedules for the China and Earthenware Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives (average for the year) ... { 1933	3,183	24,839	6,748	32,524	9,931	57,363
... { 1930	3,858	28,648	8,891	34,485	12,749	63,133
Administrative, technical and clerical staff* ... { 1933	181	3,240	140	1,187	321	4,427
... { 1930	293	3,378	186	1,182	479	4,660
<b>TOTAL</b> ... { 1933	<b>3,364</b>	<b>28,079</b>	<b>6,888</b>	<b>33,711</b>	<b>10,252</b>	<b>61,790</b>
... { 1930	<b>4,151</b>	<b>32,026</b>	<b>9,077</b>	<b>35,667</b>	<b>13,228</b>	<b>67,693</b>

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	36,581	July 15 ...	40,319
February 18 ...	39,306	August 19 ...	38,315
March 18 ...	39,534	September 16 ...	42,957
April 15 ...	39,247	October 14 ...	44,290
May 13 ...	40,188	November 18 ...	44,820
June 17 ...	40,364	December 16 ...	42,617
<b>AVERAGE FOR THE TWELVE MONTHS</b> ...			<b>40,719</b>



Table VII.—Other output of the China and Earthenware Trade

The value of the gross output of the firms whose returns were made on schedules for the China and Earthenware Trade was £12,339,000 in 1933 and £13,895,000 in 1930, of which £11,844,000 in 1933 and £13,086,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000
Tiles (except tiles for tessellated pavements and mosaics, and glazed wall and hearth tiles) :—				
Roofing tiles ... ..	280	42	188	32
All other tiles (including quarries and street paving tiles) ...	70	30	298	118
Sanitary ware* :—				
Sanitary ware of fireclay, glazed or enamelled ... ..	148	211	232	290
Pipes and tubes of stoneware or fireclay, including agricultural pipes, unglazed ... ..	368	99	944	264
Other kinds of sanitary ware ...	40	37	29	18
Other goods made ... ..	...	63	...	77
Work done ... ..	...	13†	...	10†
TOTAL ... ..	...	495	...	809

\* Other than "Sanitary earthenware, white, coloured or cane and white."

† Amount received.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
	Tons	£'000
China clay ... ..	54,694	144
Ball clay ... ..	82,687	169
China and Cornish stone and felspar ... ..	58,903	222
Other clay ... ..	122,299	122
All other materials used (including fuel) ... ..	...	3,541
TOTAL ... ..	...	4,188

## THE GLASS TRADE

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	14,088	13,713
Cost of materials used and amount paid for work given out ... ..	"	5,873	5,420
Net output ... ..	"	8,425	8,293
Average number of persons employed ... ..	No.	39,791	39,571
Net output per person employed ... ..	£	212	210

Table II.—Output of principal products

Kind of goods	1933			1930		
	Quantity		Value	Quantity		Value
	Th. gross	Th. cwts.	£'000	Th. gross	Th. cwts.	£'000
Glass bottles and jars :—						
Beer, wine, spirit and similar bottles :—						
Beer bottles ... ..	1,317	1,772	994	2,241*	2,860*	1,833*
Mineral water bottles ... ..	351	426	279			
Other kinds ... ..	966	922	682			
Milk bottles ... ..	553	749	578	6,226*	4,363*	3,389*
Chemical, medical and perfume bottles ... ..	2,579	1,244	1,175			
Other bottles and jars ... ..	3,780	2,693	1,813			
Total—Glass bottles and jars	9,546	7,806	5,501	8,467	7,223	5,222
Illuminating glassware :—	Thous.			Thous.		
Globes and shades (other than oil lamp chimneys) {	2,700	32·6	211	907	4·4	50
... ..	149	...	18	289	...	31
... ..	...	...	31	...	...	28
Pressed lenses, prisms and the like (not optical glass)	5,047	15·4	58	854	8·2	36
Bulbs for electric lamps ... ..	64,591	40·0	215	}	}	245
Oil lamp chimneys and miners' lamp glasses ... ..	160	0·3	3			
... ..	...	...	3			
Other illuminating glassware ... ..	...	3·4	11			
... ..	...	...	34			
Total—Illuminating glassware ... ..	...	...	584	...	...	390

Kind of goods	1933		1930		
	Quantity	Value	Quantity	Value	
Domestic and fancy glassware :—					
Table and ornamental ...	323·6	922	} 127·2	624	
Other... ..	46·0	140		205	
Total—Domestic and fancy glassware ... ..	369·6	1,062	...	829	
Machinery glassware :—					
Gauge glasses ... ..	8·0	28	} 8·0	34	
Lubricators, oil cups, yarn guides and other sorts	0·3	2		...	22
...	...	4		0·9	4
Total—Machinery glassware	...	34	...	64	
Glass tubing and rod, not elsewhere specified, for all purposes, sold or added to stock as such ...	32·9	139	20·5	115	
Scientific glassware (except tubing and rod) ...	...	35	...	45	
Plate and sheet glass and bevelled, decorated and silvered glass† ... ..	10·3	107	2·6	58	
Mirrors, framed or unframed... ..	...	47	...	104†	
Glass letters, tablets and tiles‡	...	4,064	...	4,736†	
Leaded lights ... ..	...	475	...	161†	
Safety glass for motor cars, etc.	...	83	...	535†	
Other glass and glassware (optical glass, glass stoppers, glass substitute, etc.) ...	104·5	297	...	885‡	
...	...	844	...	...	
...	...	252	...	81	
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	13,514	...	13,225†	

\* See page (200).

† In addition, the following goods, were returned for 1930 on schedules for trades not covered by the 1933 Inquiry :—

	£'000
Scientific glassware (except tubing and rod) ... ..	2
Plate and sheet glass and bevelled, decorated and silvered glass ... ..	70
Glass letters, tablets and tiles ... ..	1
Leaded lights ... ..	4
<b>Total</b> ... ..	<b>77</b>

‡ Owing to the risk of disclosure of information relating to individual firms, separate details of the different kinds of glass included in this heading cannot be given.

§ Including glass signs, so far as recorded separately.

|| For the 1933 Inquiry output was also returned by sq. ft., the quantity recorded being 4,334,000 sq. ft.

¶ So far as recorded separately.

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

Kind of goods	1933	1930
	£'000	£'000
<b>Illuminating glassware:—</b>		
Globes and shades (other than oil lamp chimneys) ...	9	—
Bulbs for electric lamps ... ..	12	} 19
Other illuminating glassware ... ..	13	
Plate and sheet glass, including mirrors, framed or unframed ... ..	21	9
Glass letters, tablets and tiles ... ..	—	5
Leaded lights ... ..	17	4
Other glassware ... ..	6	—
<b>TOTAL</b> ... ..	<b>78</b>	<b>37</b>

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
<b>Glass bottles and jars:—</b>							
Beer, wine, spirit and similar bottles* ... s. per cwt.	12.4	12.8	96.9	14.1	15.5	8.3	10.5
Other descriptions* ... s. per cwt.	15.2	15.5	98.1	21.0	23.8	34.5	22.8
... s. per gross	14.7	...	...	18.2	19.7	11.8	14.0
... s. per gross	10.3	...	...	14.9	14.8	9.8	9.3
<b>Illuminating glassware:—</b>							
Globes and shades (other than oil lamp chimneys) ... £ per cwt.	6.47	...	...	9.61	10.33	2.89	3.15
Pressed lenses, prisms and the like (not optical glass) ... £ per thous.	80.3	67.7	118.6	170.1	110.8	21.9	30.8
Bulbs for electric lamps ... £ per cwt.	5.37	4.84	110.9	9.88	16.65	4.63	6.54
Oil lamp chimneys and miners' lamp glasses ... £ per thous.	3.33	3.34	99.7	7.46	33.41	3.28	4.09
... £ per cwt.	10.06	6.22	161.7	8.62	9.45	1.77	2.12

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per cwt.	£ per cwt.		£ per cwt.	£ per cwt.	£ per cwt.	£ per cwt.
Domestic and fancy glass- ware :—							
Table and ornamental	2.85	†	...	7.07	†	2.71	†
Other ... ..	3.05	†	...	4.91	†	4.19	†
Total—Domestic and fancy glassware ...	2.87	4.90	58.7	6.34	9.98	2.72	2.94
Machinery glassware :—							
Gauge glasses ...	3.41	4.23	80.6	6.63	6.91	8.00	11.80
Lubricators, oil cups, yarn guides and other sorts ... ..	8.07	4.19	192.5	9.52	10.17	6.73	4.17
Glass tubing and rod for all purposes ... ..	4.21	5.64	74.7	5.81	6.16	5.17	3.93
Scientific glassware, ex- cept tubing and rod ...	10.42	22.60	46.1	16.76	21.55	11.94	8.31
Plate and sheet glass* ...	£ per cwt. 1.54	1.41	109.2	1.50	1.64	0.89	1.02
	s. per 100 sq. ft. 57.62	...	...	63.37	69.33	27.06	33.45

† Not recorded separately.

\* The average values of the descriptions of glass bottles and jars and of plate and sheet glass recorded separately for 1933 were as follows :—

	Production		Exports		Imports	
	s. per cwt.	s. per gross	s. per cwt.	s. per gross	s. per cwt.	s. per gross
Beer, wine, spirit and similar bottles :—						
Beer bottles ... ..	11.2	15.1	...	...	...	...
Mineral water bottles ...	13.1	15.9	...	...	...	...
Other kinds ... ..	14.3	13.7	...	...	...	...
Milk bottles ... ..	15.4	20.9	20.2	25.6	†	†
Chemical, medical and perfume bottles ... ..	18.9	9.1	...	...	...	...
Other bottles and jars ...	13.5	9.6	...	...	...	...
	£ per cwt.	s. per 100 sq. ft.	£ per cwt.	s. per 100 sq. ft.	£ per cwt.	s. per 100 sq. ft.
Plate glass, polished, not further worked ... ..	...	...	2.68	150.3	1.89	111.9
Plate glass, polished and silvered, bevelled or otherwise worked	3.57	217.5	3.85	196.7	3.69	162.4
Plain sheet window glass ...	...	...	0.92	24.4	0.55	14.9
Other descriptions ... ..	0.96	45.3	0.88	27.7	1.14	36.7

† These figures would have no significance.

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values		
	£'000	£'000	£'000	Per cent.	Per cent.
Glass bottles and jars :—					
Beer, wine, spirit and simi- lar bottles ... ..	1,833	1,935	1,997	109	} 85
Other, including milk bottles ... ..	3,389	3,566	3,662	108	
Illuminating glassware :—					
Globes and shades (other than oil lamp chimneys)	109	260	219	201	139
Pressed lenses, prisms and the like (not optical) ...	36	58	66	183	67
Other descriptions (includ- ing bulbs for electric lamps, oil lamp chimneys and miners' lamp glasses)	245	266	240	98	57
Domestic and fancy glassware	829	1,062	1,809	218	115
Machinery glassware ...	64	34	38	59	166
Glass tubing and rod for all purposes ... ..	160	174	233	146	69
Scientific glassware (except tubing and rod) ... ..	162	154	334	206	146
Plate and sheet glass; be- velled, decorated and sil- vered glass; leaded lights; stained glass and memorial tablets; mirrors, framed and unframed ... ..	5,271	4,826	4,489	85	} 89
Safety glass (for motor cars, etc.) ... ..	885	844	948	107	
Other principal products ...	242	335	360	149	
TOTAL ... ..	13,225	13,514	14,395	109	83

Table V.—Production in relation to Exports and Imports

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British goods		
						Per cent.	Per cent.	
<b>lass bottles and jars :—</b>								
Beer, wine, spirit and similar bottles ...	1933 Th. gross	2,694	54	2.1	92	2,672	96.6	
	1930 Th. gross	2,241	92	4.1	336	2,485	86.5	
	1933 Th. cwts.	3,120	70	2.2	132	3,182	95.9	
	1930 Th. cwts.	2,860	117	4.1	447	3,190	86.0	
Milk bottles ...	1933 Th. gross	553	10	1.8	*	543	100.0	
	1930 Th. cwts.	749	13	1.7	*	736	100.0	
Other bottles and jars ...	1933 Th. gross	6,369	255	4.0	398	6,502	93.9	
	1930 Th. cwts.	3,937	176	4.5	113	3,874	97.1	
Total — Milk and other bottles and jars ...	1933 Th. gross	6,913	265	3.8	398	7,045	94.4	
	1930 Th. gross	6,226	229	3.7	1,069	7,068	84.9	
	1933 Th. cwts.	4,686	189	4.0	113	4,610	97.5	
	1930 Th. cwts.	4,363	142	3.3	440	4,661	90.6	
<b>Domestic and fancy glassware :—</b>								
Table and ornamental	1933 Th. cwts.	324	18	5.4	376	682	44.9	
Other ...	1933 Th. cwts.	46	9	19.5	2	39	94.9	
Total—Domestic and fancy glassware ...	1933 Th. cwts.	370	27	7.3	378	721	47.67	
	1930 Th. cwts.	179	22	16.5	696	337	16.97	
Hobes and shades (other than oil lamp chimneys) ...	1933 Thous.	3,235	161	5.0	9,935	13,009	23.63	
	1930 Thous.	1,609	232	14.5	12,327	13,703	10.04	
	1933	Mill.	64.6	†	0.0	15.2	79.8	80.9
		Th. cwts.	40.0	0.1	0.2	10.8	50.7	78.7
	Value (at factory)	£'000	£'000		£'000			
	1933	584	40	...	337	...	...	
	1930	399	45	...	496	...	...	

\* Negligible.

† Less than 50,000.

The following tables relate only to firms whose returns were made on schedules for the Glass Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year) ... ..	1933	2,967	29,030	1,842	6,025	4,809	35,055
	1930	3,387	29,379	1,534	6,597	4,921	34,976
Administrative, technical and clerical staff* ... ..	1933	207	3,360	189	1,376	396	4,736
	1930	239	3,252	213	1,343	452	4,595
TOTAL ... ..	1933	3,174	32,390	2,031	7,401	5,205	39,791
	1930	3,626	32,631	1,747	6,940	5,373	39,571

\* As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	19,067	July 15 ... ..	19,808
February 18 ... ..	19,236	August 19 ... ..	19,862
March 18 ... ..	18,982	September 16 ... ..	19,843
April 15 ... ..	19,338	October 14 ... ..	20,454
May 13 ... ..	19,317	November 18 ... ..	21,430
June 17 ... ..	19,885	December 16 ... ..	21,955
AVERAGE FOR THE TWELVE MONTHS ... ..			19,933



Table VII.—Other output of the Glass Trade

The value of the gross output of the firms whose returns were made on schedules for the Glass Trade was £14,098,000 in 1933 and £13,713,000 in 1930, of which £13,436,000 in 1933 and £13,188,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933	1930
	Value	Value
	£'000	£'000
Goods made ... ..	150	70
	Amount received	Amount received
Work done for the trade or on customers' materials :—		
Silvering, bevelling, engraving and other work on glass ... ..	99	36
Glazing work on buildings ... ..	345	382*
Repair and jobbing work ... ..	68	37
Total—Work done ... ..	512	455
TOTAL ... ..	662	525

\* So far as recorded separately.

Table VIII.—Details of Materials purchased and used in 1933

Kind of materials	Quantity	Cost
	Th. tons	£'000
White sand ... ..	258	221
Other sand ... ..	99	58
Limestone ... ..	83	64
Carbonate of potash ... ..	0·5	16
Soda ash ... ..	121	667
Oxide of lead ... ..	0·9	26
All other materials used (including fuel) ... ..	...	4,600
TOTAL ... ..	...	5,653

## THE CEMENT TRADE

*Note.*—Firms whose business was confined to the production of lime are excluded from the particulars given in these tables for both years.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	7,052	8,202
Cost of materials used ... ..	"	2,833	3,475
Net output ... ..	"	4,219	4,727
Average number of persons employed ... ..	No.	9,629	10,989
Net output per person employed ... ..	£	438	430

Table II.—Output of principal products

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Cement ... ..	4,686.4	6,380	5,056.0	7,799
Gypsum, burnt (including plaster of Paris) ... ..	202.2	367	127.2	266
Unclassified output in Northern Ireland ... ..	—	—	...	153
<b>TOTAL—PRINCIPAL PRODUCTS ...</b>	...	6,747	...	8,218

The figures shown above include the following output of cement recorded by firms whose returns were made on schedules for other trades and are not, therefore, included in Table I:—

	1933	1930	Th. tons	£'000
...	...	...	7.3	13
...	...	...	173.3	267

Table III.—Average values of goods produced, exported and imported

Kind of goods	Production (at factory)			Exports (f.o.b.)		Imports (c.i.f.)	
	Average value		1933 as a percentage of 1930	Average value		Average value	
	1933	1930		1933	1930	1933	1930
	£ per ton	£ per ton	Per cent.	£ per ton	£ per ton	£ per ton	£ per ton
Cement ... ..	1.36	1.54	88.3	1.64	2.20	1.31	1.72
Gypsum, burnt (including plaster of Paris) ... ..	1.82	2.09	87.1	3.20	4.27	2.61	2.27

Table IV.—Volume of Production

Kind of goods	Total production			1933 as a per- centage of 1930	1924 as a per- centage of 1930
	1930	1933			
	As returned	As returned	At 1930 average values	Per cent.	Per cent.
ement ... ..	£'000 7,799	£'000 6,380	£'000 7,225	93	66
ypsum, burnt (including plaster of Paris) ... ..	266	367	421	158	120
nclassified output in Northern Ireland ... ..	153	—	—	...	...
<b>TOTAL ... ..</b>	<b>8,218</b>	<b>6,747</b>	<b>7,646</b>	<b>93</b>	<b>66</b>

Table V.—Production in relation to Exports and Imports

Kind of goods	Produc- tion	Exports	Proportion of produc- tion exported		Retained imports	Avail- able for use in the United Kingdom	Share of home market held by British goods
			Th. tons	Per cent.			
ement ... ..	1933 4,686.4	491.4	10.5	91.0	4,286.0	97.9	
	1930 5,056.0	1,039.9	20.6	224.7	4,240.8	94.7	
ypsum, burnt (including plas- ter of Paris).	1933 202.2	10.8	5.3	2.8	194.2	98.6	
	1930 127.2	6.3	5.0	13.8	134.7	89.8	

The following tables relate only to firms whose returns were made on schedules for the Cement Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
peratives (average for the year)	1933 283	7,823	3	103	286	7,926
	1930 394	9,622	11	127	405	9,755
administrative, technical and clerical staff*	1933 68	1,384	19	310	87	1,708
	1930 34	1,005	29	229	113	1,234
<b>TOTAL ... ..</b>	1933 351	9,207	22	423	373	9,630
	1930 478	10,633	40	356	518	10,989

\* As at 14th October, 1933, and 18th October, 1930.

## 244 TIMBER, PAPER, CLAY AND BUILDING MATERIALS TRADES

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ... ..	6,355	July 15 ... ..	7,009
February 18 ... ..	6,478	August 19 ... ..	7,054
March 18 ... ..	6,515	September 16 ... ..	7,187
April 15 ... ..	6,818	October 14 ... ..	7,227
May 13 ... ..	6,957	November 18 ... ..	7,225
June 17 ... ..	6,924	December 16 ... ..	7,226
AVERAGE FOR THE TWELVE MONTHS ... ..			6,913

Table VII.—Other output of the Cement Trade

The value of the gross output of the firms whose returns were made on schedules for the Cement Trade was £7,052,000 in 1933 and £8,202,000 in 1930, of which £6,734,000 in 1933 and £7,951,000 in 1930 consisted of products included in Table II. Particulars of the remaining items are shown below.

Kind of output	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Chalk, prepared (including whitening) ...	24·0	27	44·3	58
White lime ... ..	18·2	24	7·1	11
Hydraulic and other lime ... ..	121·1	159	51·7	59
Intermediate products of the Cement Trade, sold as such ... ..	...	26	...	5
Paving materials (asphalt and bitumen, crushed stone, etc.) ... ..	29·8	21	...	9
Other goods ... ..	...	61	...	109
<b>TOTAL</b> ... ..	...	<b>318</b>	...	<b>251</b>

### THE BUILDING MATERIALS TRADE

*Notes.*—The particulars given in the following tables are seriously defective by reason of the omission from the 1933 Inquiry of certain trades and groups of firms. In addition to the exclusion of occupiers of workshops and of certain firms engaged only in contract work, no particulars relating to stone, sand, etc., raised at mines and quarries, asphalt and bitumen produced at petroleum refineries or of miscellaneous goods made by building and contracting firms, were obtained in connection with the Inquiry for 1933. In the following tables the results of the Fourth Census of Production (1930) have been adjusted so as to provide aggregates which are comparable with those given for 1933. The effect of these omissions is shown by the figures given in Table II B.

Table I.—General summary

Particulars	Unit	1933	1930
Value of products (Gross output) ... ..	£'000	10,886	13,084
Cost of materials used ... ..	"	4,909	5,952
Amount paid for work given out ... ..	"	53	135
Net output ... ..	"	5,924	6,997
Average number of persons employed ... ..	No.	24,750	27,564
Net output per person employed ... ..	£	239	254

Table II A.—Output of principal products.

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. Tons	£'000	Th. Tons	£'000
Stone and slate, dressed* :—				
Setts and pavement kerbs :—				
Of granite ... ..	4.4	10	3.4	6
Of other stone ... ..	5.4	28	6.9	46
			...	11
Monumental and architectural masonry :—				
Of granite ... ..	16.9	498	23.6	553
Of marble ... ..	13.9	415	21.3	485
Of other stone or slate ... ..	41.6	309	59.6	528
			...	76
Other and unclassified dressed stone or slate ... ..	9.0	122	19.1	277
		24		
Slate goods (mantelpieces, school slates, etc.) ... ..	...	142	...	147
<b>TOTAL—Dressed stone and slate</b>	...	1,548	...	2,129

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. Tons	£'000	Th. Tons	£'000
Slabbed work and other tile and mosaic work, not included above	...	379	...	175
Mortar	79.5	43	...	46
Plaster (including plaster partitions, plaster figures, plaster models, etc.)	...	402	...	242
Artificial stone, including concrete blocks, slabs, cement flags, breeze blocks, etc.	1,379.7	2,882	...	2,934
Paving materials:—				
Asphalt and bitumen*	533.0	1,675	...	1,698
Crushed stone, slag, clinker, etc.	2,801.4	669	...	894
Tar macadam	2,631.4	1,770	...	2,174
Other kinds	69.0	211	...	10
Other and unclassified building materials	...	12	...	7
<b>TOTAL—PRINCIPAL PRODUCTS</b>	...	<b>9,591</b>	...	<b>10,309</b>

\* See introductory note.

In addition, the undermentioned goods were returned for 1930 by firms (other than owners of mines and quarries) whose businesses were not covered by the 1933 Inquiry:—

Table II B

Kind of goods	Quantity	Value
	Th. Tons	£'000
Stones and slate, dressed:—		
Setts and pavement kerbs	1.5	4
Monumental and architectural masonry	3.4	58
Other and unclassified	...	32
Slabbed work, etc.	...	8
Mortar	...	55
Plaster, etc.	...	20
Artificial stone	...	78
Paving materials:—		
Asphalt and bitumen	...	1531
Crushed stone, slag, clinker, etc.	...	24
Tar macadam	...	67
Other kinds	...	16
<b>TOTAL</b>	...	<b>2,088</b>

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

Table II C

Kind of goods	1933		1930	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Stone and slate, dressed ... ..	—	—	...	4
Other and unclassified dressed stone or slate ... ..	3	9	9	13
Slabbed work and other tile and mosaic work, not included above... ..	...	67	...	14
Plaster and mortar ... ..	...	14	...	1
Artificial stone, including concrete blocks, slabs, cement flags, breeze blocks, etc. ...	28.4	71	...	71
Building materials:—				
Asphalt and bitumen ... ..	5.2	16	...	84
Crushed stone, slag, clinker, etc. ... ..	529.0	151	...	217
Tar macadam ... ..	280.1	180	...	360
Other kinds ... ..	46.2	179	...	7
<b>TOTAL ... ..</b>	...	687	...	771

Table II D.—Contract work, etc.

Kind of work done	Amount received	
	1933	1930
	£'000	£'000
Contract and job work... ..	1,698	3,368*
Work done on monuments not made by the firm (erection and cutting of inscriptions)... ..	41	67
Work done for the trade or on commission (sawing, turning, etc.) ... ..	44	25
<b>TOTAL ... ..</b>	1,783	3,460

\* Returned as:—

Work on buildings (masonry, slating, tiling, plastering, slabbing, etc.) ... ..	1,763
Work on roads (construction, maintenance or repair) ... ..	1,606

In addition, the following amounts were recorded for 1930 by firms whose businesses were not covered by the 1933 Inquiry:—

Contract and job work... ..	636
Work done on monuments ... ..	52
Work done for the trade or on commission ... ..	15
	<b>703</b>

**Table III.—Average values of goods produced, exported and imported**

In view of the absence of quantitative data for the more important of the principal products in 1930 (Table II A), and of the deficiency in the recorded output, this table is omitted.

**Table IV.—Volume of Production**

Principal output	1933	1930		1924
		Firms included in		
		1933 Inquiry	1930 Census	
Value of output as returned ...	£'000 11,374	£'000 13,769	£'000 16,560	£'000 11,177*
Estimated value at 1930 prices† ...	12,300	13,769	16,560	10,300
Volume of production as a percentage of 1930 ... ..	89	100	100	62

\* Great Britain only.

† In the absence of particulars of quantities, these estimates are based on prices of materials used and other costs.

**Table V.—Production, Exports and Imports**

For the reasons given in the introductory note (page 245), the recorded particulars of production cannot be compared with those of overseas trade. Exports and retained imports of granite setts and pavement kerbs and of monumental and architectural granite were as follows :—

Goods of granite	Exports		Retained imports	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Setts and pavement kerbs... { 1933	.8	2	68.4	159
{ 1930	.1	1	103.6	303
Monumental and architec- { 1933	.4	14	5.9	161
tural ... .. { 1930	1.6	46	6.5	207



The following tables relate only to firms whose returns were made on schedules for the Building Materials Trade and are summarised in Table I.

Table VI.—Employment

## A.—AVERAGE NUMBERS EMPLOYED IN 1933 AND 1930

Persons employed	Males		Females		Total		
	Under 18	All ages	Under 18	All ages	Under 18	All ages	
Operatives (average for the year)	1933	1,485	21,400	50	214	1,535	21,614*
	1930	1,696	24,109	65	260	1,761	24,369
Administrative, technical and clerical staff...	1933	142	2,625	44	511	186	3,136
	1930	238	2,682	68	513	296	3,195
TOTAL ...	1933	1,627	24,025	94	725	1,721	24,750*
	1930	1,934	26,791	113	773	2,047	27,564

\* The particulars given for 1933 include 3,738 operatives engaged in outside work on roads, buildings, etc.; corresponding information for 1930 is not available.

† As at 14th October, 1933, and 18th October, 1930.

## B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1933 BY FIRMS FURNISHING RETURNS IN RESPECT OF THE TWELVE MONTHS ENDED DECEMBER

Week ended	Total number	Week ended	Total number
January 14 ...	14,103	July 15 ...	16,255
February 18 ...	14,481	August 19 ...	16,660
March 18 ...	15,070	September 16 ...	16,639
April 16 ...	15,066	October 14 ...	16,485
May 13 ...	15,691	November 18 ...	16,160
June 17 ...	16,062	December 16 ...	16,496
AVERAGE FOR THE TWELVE MONTHS ...			15,678

Table VII.—Other output of the Building Materials Trade

The value of the gross output of the firms whose returns were made on schedules for the Building Materials Trade was £10,866,000 in 1933 and £13,064,000 in 1930, of which £10,687,000 in 1933 and £12,998,000 in 1930 consisted of output covered by Tables II A and II D. The value of the remaining items (mainly products of the Chemical and Allied Trades) was £199,000 in 1933 and £66,000 in 1930.

**Table VIII.—Details of Materials purchased and used in 1933**

Kind of materials	Quantity	Cost
	Th. tons	£'000
Granite ... ..	586	393
Marble ... ..	18	208
Other stone ... ..	917	465
Cement ... ..	250	503
Sand ... ..	422	124
All other materials used (including fuel) ... ..	...	3,216
<b>TOTAL ... ..</b>	<b>...</b>	<b>4,909</b>

## SUMMARY OF RESULTS FOR 1933 AND 1930

The following table shows for all trades to which the 1933 Inquiry related the principal aggregates recorded for that year, with comparable figures for the year 1930. The table also shows (under (a)) for each group of trades the aggregate figures recorded at the 1930 Census in respect of those trades and businesses that were omitted from the 1933 Inquiry. A list of the Factory trades omitted and of the other classes of business not covered in 1933 is given in paragraphs (3)-(5) of the Introduction (see pages iii to v).

Trade group (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)*) (4)	Average numbers of persons employed (except out-workers) (5)	Net output per person employed (6)
	£'000	£'000	£'000	No.	£
Factory trades :—					
Iron and steel { 1933	201,637	117,046	84,591	445,387	190
{ 1930	237,906	146,014	91,892	494,295	186
Engineering and Vehicles ... { 1933	206,069	89,407	116,662	578,114	202
{ 1930	269,981	123,741	146,240	635,030	213
{ (a)	190,672	107,385	83,287	339,062	214
Non-Ferrous Metals ... { 1933	138,314	116,080	22,234	97,214	229
{ 1930	98,613	75,204	23,409	107,153	213
{ (a)	911	416	495	2,630	185
Textiles ... { 1933	383,461	237,094	146,367	1,009,618	142
{ 1930	413,476	266,737	146,739	1,045,140	139
{ (a)	19,917	17,379	2,638	17,746	149
Leather ... { 1933	27,955	18,900	9,055	43,703	207
{ 1930	32,705	23,100	9,605	43,378	221
{ (a)	3,318	2,737	575	2,768	208
Clothing ... { 1933	51,986	26,464	25,522	155,061	152
{ 1930	62,063	35,610	26,453	158,082	167
{ (a)	118,318	66,676	51,642	333,638	155
Food, Drink and Tobacco { 1933	134,428	91,342	43,086	133,243	333
{ 1930	152,636	112,733	39,296	123,333	319
{ (a)	511,361	290,434	148,907	349,566	426
Chemicals, etc. { 1933	153,025	82,649	69,666	164,806	422
{ 1930	161,172	94,465	65,566	167,719	391
{ (a)	20,351	9,832	7,199	9,643	747

Trade group (1)	Gross output (selling value of goods made and value of work done) (2)	Cost of materials used and amount paid for work given out (3)	Net output (excess of col. (2) over col. (3)*) (4)	Average numbers of persons employed (except out-workers) (5)	Net output per person employed (6)
	£'000	£'000	£'000	No.	£
<b>Factory trades:—cont.</b>					
Paper, Printing and Stationery {	1933 36,580	21,112	15,468	58,559	264
1930 40,180	25,504	14,876	57,527	255	
(a) 137,193	48,480	88,833	322,476	275	
Timber ... {	1933 16,399	10,510	5,889	32,449	181
1930 17,963	11,460	6,503	35,312	184	
(a) 50,745	25,783	24,962	132,500	188	
Clay and Building Materials ... {	1933 68,490	24,078	42,412	211,137	201
1930 70,591	26,204	44,387	221,452	200	
(a) 1,209	495	714	3,064	233	
Miscellaneous {	1933 59,056	30,538	28,518	122,762	232
1930 68,118	38,681	29,457	123,672	238	
(a) 23,750	10,269	13,481	50,404	287	
Total—Factory trades ... {	1933 1,475,323	867,220	604,143	3,062,065	198
1930 1,624,854	979,509	642,805	3,262,193	197	
(a) 1,078,239	579,036	422,533	1,613,597	262	
<b>Non-Factory trades:—</b>					
Building and Contracting (a)	194,288	100,223	94,065	453,807	207
Mines and Quarries ... (a)	187,344	32,140	155,204	1,018,844	152
Public Utility Services and Government Departments ... (a)	313,483	122,463	191,020	793,224	241
Total—Non-Factory trades ... (a)	695,115	254,826	440,289	2,265,875	194
<b>TOTAL—ALL TRADES ... {</b>	<b>1933 1,475,323</b>	<b>867,220</b>	<b>604,143</b>	<b>3,062,065</b>	<b>198</b>
<b>1930 1,624,854</b>	<b>979,509</b>	<b>642,805</b>	<b>3,262,193</b>	<b>197</b>	
<b>(a) 1,773,354</b>	<b>833,862</b>	<b>862,822</b>	<b>3,879,472</b>	<b>222</b>	

\* Excluding estimated Excise duty.

## INDEX

e.—The paging indicated refers to particulars of *output* (normally Table II). Particulars of average prices, volume of production, and exports and imports of similar goods are generally given in Tables III-V in the same series.

	Page		Page
	<b>A</b>		<b>B</b>
Accoutrements, badges, etc. ...	82	Badges, medals and regalia ...	191
Accounting machines... ..	112	Bag and envelope-making machines	106
Accumulators ... ..	128	Ball bearings, roller bearings, steel rollers and steel balls ... ..	114
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