

THE PAINT, COLOUR AND VARNISH TRADE

Note.—For information regarding the scope of the Census, instructions given to firms for making returns, and definitions of the terms used in this report, reference should be made to the Introductory Notes on pages v to xviii.

Introductory

This trade comprises firms that were engaged wholly or mainly in the manufacture of paints, colours and varnish.

The following table shows the main results of the Censuses of 1930 and 1924 in respect of firms in Great Britain that employed an average of more than ten persons :—

Particulars	Unit	1930	1924
Value of goods made and work done (Gross output)	£'000	19,528	16,948
Cost of materials used	"	10,882	9,598
Paid for work given out to other firms	"	13	*
Net output	"	8,633	7,350
Average number of persons employed	No.	21,292	18,502
Net output per person employed	£	405	397
Power available :—			
Prime movers	H.P.	12,849	13,472
Electric motors driven by purchased electricity	"	39,250	23,073
Number of returns	No.	318	289
Number of establishments	"	379	†

* Not ascertained.

† Not available.

Deficiencies in 1930 aggregates.—The aggregate number of persons employed in 1930 by firms that stated that they employed not more than ten persons on the average was 2,010, the corresponding figure for 1924 being 1,320.* The value of the gross output of the small firms in 1924 was £1,002,000,* and particulars of the principal classes of goods included in this figure are given below :—

	£'000
Paints in paste or mixed for use	362
	(126,000 cwts.)
Other paints and colours	151
Varnishes	299
	(1,304,000 galls.)
Other principal products	106
Other goods made	77
Work done	7
TOTAL	1,002*

* These figures include particulars in respect of the few firms in Northern Ireland regarding which separate information is not available for publication.

In addition, 24 firms to which schedules were sent at the 1930 Census and about 40 at that of 1924 furnished no information; these firms either had small businesses or had ceased productive operations before the end of the censal year.

Size of firms.—In the following table the main particulars recorded at the Census of 1930 are grouped according to the average numbers of persons shown in the returns :—

Size of firm (average numbers employed)	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
11-24	127	1,587	646	2,087	309
25-49	77	2,285	951	2,671	356
50-99	57	3,685	1,570	3,995	393
100-199	37	4,760	2,077	4,901	424
200-299	8	2,038	949	1,978	480
300-399	6	2,188	959	1,989	482
400-749	6	2,985	1,481	3,671	403
TOTAL	318	19,528	8,633	21,292	405

Regional distribution.—In the following table the results recorded at the Censuses of 1930 and 1924 are grouped according to the principal areas* of Great Britain in which firms in this trade are situated :—

Area	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
1	{ 1930 111 1924 104	{ 7,865 7,184	{ 3,388 2,975	{ 8,253 7,149	{ 410 416
2	{ 1930 46 1924 35	{ 2,769 2,231	{ 1,122 899	{ 2,704 2,368	{ 415 380
3	{ 1930 10 1924 13	{ 471 437	{ 208 181	{ 373 467	{ 558 388
4	{ 1930 15 1924 16	{ 1,697 1,099	{ 723 602	{ 1,610 1,325	{ 449 454
5	{ 1930 30 1924 26	{ 1,999 1,626	{ 1,067 858	{ 2,074 1,619	{ 514 530
6	{ 1930 75 1924 56	{ 3,539 2,792	{ 1,676 1,267	{ 4,859 4,006	{ 345 316
7 and 8...	{ 1930 3 1924 5	{ 61 162	{ 26 87	{ 80 183	{ 326 475
9	{ 1930 18 1924 26	{ 797 1,057	{ 274 326	{ 895 1,009	{ 306 323
10	{ 1930 10 1924 8	{ 330 360	{ 149 155	{ 444 376	{ 335 412
TOTAL	{ 1930 318 1924 289	{ 19,528 16,948	{ 8,633 7,350	{ 21,292 18,502	{ 405 397

Northern Ireland.—Owing to the risk of disclosure of information relating to individual firms, separate details in respect of the manufacture of paints, colours and varnish in Northern Ireland were

* For particulars see page xviii.

not published either for 1930 or for 1924, the information being combined in general totals covering the manufacture of chemicals, fertilisers, paints and oils (see page 264).

Production

Total make of white lead and boiled and refined linseed oil.—

The total quantity of *dry white lead* produced by firms that made returns on schedules for the Paint, Colour and Varnish Trade was recorded as 417,000 cwts. in 1930 and 257,000 cwts. in 1924, these amounts being inclusive of the quantities used in the makers' own works as well as those sold (or added to stock) as such. White lead was also produced by firms engaged in the smelting, etc., of lead, 120,000 cwts. being recorded by such firms for 1930 and 550,000 cwts. for 1924. The total quantity manufactured in all trades was thus 537,000 cwts. in 1930 and 807,000 cwts. in 1924.

Firms that made returns on schedules for the Paint, Colour and Varnish Trades produced 291,000 cwts. of *boiled or refined linseed oil* in 1930 and 313,000 cwts. in 1924, these figures being inclusive of the amounts used by the makers. Large quantities of boiled and refined linseed oil were produced by seed crushing firms and reference should be made to the report on the Seed Crushing Trade (page 349) for particulars of the total output of this product.

Principal products.—The following table shows the value and, where available, the quantity of the chief classes of paints, colours, etc., made in 1930 and 1924:—

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Paint, Colour and Varnish Trade			All trades				
	Quantity	Value	Entries	Quantity	Value	Entries	Quantity	Value
Paints and colours:—	Th. cwts.	£'000	No.	Th. cwts.	£'000	No.	Th. cwts.	£'000
Ochre, oxides and earth colours, burnt, ground or levigated ...	613	478	30	613	478	30	448	378
Chemical colours (pure or reduced), including lakes, dry and in pulp form, and dry distemper ...	509	1,218	84	510	1,222	87	454	1,143
Vegetable, lamp and bone blacks ...	41	66	15	41	66	15	62	118
Paints in paste or mixed for use*:								
White lead, genuine or reduced	777	1,753	137	795	1,796	140	3,698	9,318
Other descriptions	3,637	8,847	210	3,714	9,096	239		
Cellulose enamels ...	1,066	780	51	1,066	780	51	†	†
Potters' colours ...	...	182	6	...	182	6	...	96†
Total—Paints and colours ...	...	13,324	...	...	13,530	...	...	11,053

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Paint, Colour and Varnish Trade			All trades				
	Quantity	Value	Entries	Quantity	Value	Entries	Quantity	Value
Varnish, oil or spirit§	Th. galls.	£'000	No.	Th. galls.	£'000	No.	Th. galls.	£'000
Cellulose varnish ...	8,589	3,419	179	8,895	3,468	209	9,043	4,198
	765	434	52	788	447	55	†	†
Total—Varnish...	9,354	3,853	...	...	4,030	...	...	4,198
White lead, basic carbonate, dry ...	Th. cwts.			Th. cwts.			Th. cwts.	
Whiting and Paris white ...	146	215	7	265	414	11	726	1,550
Putty ...	1,243	114	28	1,243	114	28	349	37
Turpentine and turpentine substitutes	...	190	125	...	194	128	...	183
Paint and varnish makers' materials†	12	18	20	12	18	20	25	45
Waterproofing compounds, roofing compositions, etc.‡	...	168	8	...	179	9	...	176
Wood preservatives‡	...	207	9	...	222	10	†	†
Other products characteristic of the trade	...	20	5	...	36	9	†	†
TOTAL— ...	...	32	22	...	32	22	—	—
PRINCIPAL PRODUCTS	...	18,141	...	...	18,781	...	...	17,242

* Including dryers, enamels (other than cellulose enamels), water paints and ships' compositions.

† Not separately recorded in 1924.

‡ So far as separately recorded.

§ Including stains, lacquers, liquid dryers, brunswick and other black varnishes, litho and letterpress varnishes.

|| Of which £55,000 was in respect of 41,000 cwts., the remainder being returned by value only.

Prices.—The average selling value of paints, colours and varnishes in 1930 and 1924, as calculated from the Census returns, are shown in the following table. It should be borne in mind that these comparisons do not take account of any changes that may have occurred since the earlier year in the quality or kind of goods included under the specified descriptions.

Kind of goods	Average value		1930 as a percentage of 1924
	1930	1924	
Paints and colours :—	s. per cwt.	s. per cwt.	Per cent.
Ochre, oxides and earth colours, burnt, ground or levigated	15.45	16.86	91.6
	£ per cwt.	£ per cwt.	
Chemical colours (pure or reduced), including lakes and dry distemper ...	2.39	2.51	95.2
Vegetable, lamp and bone blacks ...	1.60	1.91	83.7
Paints in paste or mixed for use ...	2.39*	2.52	94.8
	s. per gall.	s. per gall.	
Varnish, oil or spirit	7.80†	9.26	84.2
	s. per cwt.	s. per cwt.	
Whiting and Paris white	1.84	2.10	87.6
	£ per cwt.	£ per cwt.	
White lead, basic carbonate, dry ...	1.57	2.15	73.0
Turpentine and turpentine substitutes ...	1.54	1.83	84.1

* Excluding cellulose enamels.

† Excluding cellulose varnishes.

Volume of production in 1930 and 1924.—The following table compares the volume of production of paints, colours, varnishes, etc. in 1930 and 1924 :—

Kind of goods	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	
	£'000	£'000	£'000	Per cent.
Ochre, oxides and earth colours, burnt, ground or levigated ...	478	378	346	138
Chemical colours (pure or reduced), including lakes and dry distemper	1,222	1,143	1,088	112
Vegetable, lamp and bone blacks	66	118	99	67
Paints in paste or mixed for use	10,802	9,318	8,833	122
Cellulose enamels	780	*	—	—
Potters' colours	182	96	91†	200
Total—Paints and colours ...	13,530	11,053	10,457	129
Varnish, oil or spirit	3,583	4,198	3,535	101
Cellulose varnish	447	*	—	—
Whiting and Paris white	114	37	32	356
White lead, basic carbonate, dry...	414	1,550	1,131	37
Turpentine and turpentine substitutes	30	45	38	79
Paint and varnish makers' materials	179	176	323‡	115
Putty	194	183		
Waterproofing compounds, wood preservatives and other principal products of the trade ...	290	*	—	—
TOTAL	18,781	17,242	15,516	121

* Not recorded separately.

† Based on average value of preceding paints and colours.

‡ Based on average value of preceding items in table.

Production, exports and imports.—The quantities of the exports and retained imports of *dry white lead* in 1930 and 1924 are shown below in relation to the production in those years :—

Dry white lead—	1930	1924
	Th. cwts.	Th. cwts.
Production	537	807
Exports	28	176
Retained imports	171	133
Available for consumption in the United Kingdom	680	764

About 75 per cent. of the home market was supplied by white lead of British manufacture in 1930 and about 83 per cent. in 1924.

With regard to the remaining products of the trade, the classification adopted for the purpose of the overseas trade returns differs from that used at the Census of Production. These differences, with the probable deficiencies in the production totals, render impracticable a detailed comparison of production with exports and imports. The following table gives particulars of the quantities of the exports and retained imports of paints and colours in 1930 and 1924 :—

Kind of goods	Exports		Retained imports	
	1930	1924	1930	1924
	Th. cwts.	Th. cwts.	Th. cwts.	Th. cwts.
Paints and colours :				
Barytes, ground	24.3	55.0	547.5	722.1
Blanc fixe... ..	15.2		34.4	
White lead (dry)	27.7	176.4	170.5	132.6
Lithopone	24.4	11.2	412.1	247.9
Ochre and earth colours ...	187.6	192.3	420.1	382.9
Colour lakes	1.5	1.2	0.2	*
Prussian and other blues ...	5.5	6.2	20.3	9.6
Bronze powders and other metallic pigments	8.6	1.7	52.5	14.1
Carbon blacks (including bone black)	6.5	7.2	247.5	145.4
Paints and colours in paste form :—				
White lead	103.5	375.1	62.1	2.4
Other descriptions	265.7		0.9	
Paints and enamels prepared (including ready mixed)	476.8	363.1	27.7	23.0
Other descriptions (including leaded zinc white and basic lead sulphate)	295.6	357.8	73.3	19.0
Total—Paints and colours...	1,442.9	1,547.2	2,069.1	1,699.0
Varnish	1,290.0	1,378.3	132.5	142.1

* 50 cwts.

Painting and other work done.—The total amount recorded as received for painting and other work done in 1930 was £174,000, the corresponding total for 1924 being £198,000. The principal kinds of work included in these totals were as follows:—

	1930 £'000	1924 £'000
Coating ships' hulls with paint or composition	90	81
Other and unclassified painting work	84	117
TOTAL	174	198

Other products.—In addition to the output shown in the table of principal products on page 336, the following goods were produced in 1930 and 1924 by firms that made their returns on schedules for the Paint, Colour and Varnish Trade. These goods are dealt with in the reports on those trades in which the principal output was recorded.

Kind of goods	1930	1924
	Value	Value
	£'000	£'000
Boiled or refined linseed oil... ..	384	540
	(179)	(247)
Lubricating oils and greases	202	372
Other oils and greases	45	39
Chemicals, miscellaneous	164	158
Other goods made	418	403
TOTAL	1,213	1,512

Employment and Wages

Employment.—The following table shows the average numbers of persons employed in 1930 and 1924:—

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
	1930					
Operatives (average for the year)	892	12,450	522	1,973	1,414	14,423
Administrative, technical and clerical staff (as at 18th October)	340	5,039	257	1,830	597	6,869
TOTAL	1,232	17,489	779	3,803	2,011	21,292
1924						
Operatives (average for the year)	772	10,812	441	1,857	1,213	12,669
Administrative, technical and clerical staff (as at 18th October)	259	4,385	149	1,448	408	5,833
TOTAL	1,031	15,197	590	3,305	1,621	18,502

Wages.—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 252 and 253.

Power

The following table shows the capacity of prime movers, electric generators and electric motors ordinarily in use and in reserve or idle in 1930 and 1924:—

Power equipment	1930			1924		
	Ordinarily in use	In reserve or idle	Total	Ordinarily in use	In reserve or idle	Total
PRIME MOVERS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	5,430	1,264	6,694	5,902	2,448	8,350
Internal combustion engines:—						
Gas	3,126	500	3,626	3,867	489	4,356
Petrol, kerosene, or other light oils	212	113	325	182	63	245
Heavy oils	1,168	150	1,318	136	6	142
Water engines	801	85	886	379	—	379
TOTAL	10,737	2,112	12,849	10,466	3,006	13,472
ELECTRIC GENERATORS	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by						
Reciprocating steam engines	939	766	1,705	992	1,185	2,177
Internal combustion engines:—						
Gas	642	242	884	499	260	759
Petrol, kerosene, or other light oils	38	—	38	64	—	64
Heavy oils	321	100	421	17	4	21
Water engines	17	—	17	5	—	5
TOTAL	1,957	1,108	3,065	1,577	1,449	3,026
ELECTRIC MOTORS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by						
Electricity generated in same works	3,363	502	3,865	1,680	1,179	2,859
Purchased electricity	36,265	2,985	39,250	21,282	1,791	23,073
TOTAL	39,628	3,487	43,115	22,962	2,970	25,932

Consumption of fuel

The following table shows the quantities of coal, coke and electricity recorded as used in 1930:—

Kind of fuel used	For power (driving engines)	For other purposes (so far as recorded)
	Tons	Tons
Coal	35,004	71,537*
Coke	1,897	16,483*
		B.T.U. (Kw.-hrs.)
Electricity used for all purposes:—		'000
Generated in same works		3,168
Purchased		23,061
TOTAL—Electricity ...		26,229

* These figures were recorded by firms representing 95.9 per cent. of the net output of the whole trade.

TABLES

I. Summary of results

Particulars	Unit	England and Wales	Scotland	Great Britain
Value of goods made and work done (Gross output)	£'000	18,401	1,127	19,528
Cost of materials used	"	10,178	704	10,882
Paid for work given out to other firms	"	13	—	13
Net output	"	8,210	423	8,633
Average number of persons employed	No.	19,953	1,339	21,292
Net output per person employed	£	411	316	405
Power available:—				
Prime movers	H.P.	11,886	963	12,849
Electric motors driven by purchased electricity	"	36,286	2,964	39,250

II. Production

A.—TOTAL MAKE OF DRY WHITE LEAD AND LINSEED OIL, AS RETURNED ON SCHEDULES FOR THE PAINT, COLOUR AND VARNISH TRADE

	Great Britain Cwts.
White lead, basic carbonate, dry	417,000*
Boiled or refined linseed oil	291,000†

* Owing to the possible disclosure of information relating to individual firms figures can only be given for Great Britain as a whole.

† Of which 29,000 cwts. was recorded for Scotland.

B.—OUTPUT SOLD OR ADDED TO STOCK AND WORK DONE

Kind of goods made and work done	Unit	England and Wales	Scotland	Great Britain
Paints and colours:—				
Ochre, oxides and earth colours, burnt, ground or levigated	<i>Th. cwts.</i>	611	2	613
	£'000	476	2	478
Chemical colours (pure or reduced), including lakes, dry and in pulp form, and dry distemper	<i>Th. cwts.</i>	484	25	509
	£'000	1,128	90	1,218
Vegetable, lamp and bone blacks	<i>Th. cwts.</i>	*	*	41
	£'000	*	*	66
Paints in paste or mixed for use, including dryers, enamels (other than cellulose enamels), water paints and ships' compositions:—				
White lead, genuine or reduced	<i>Th. cwts.</i>	722	55	777
	£'000	1,640	113	1,753
Other descriptions of paints	<i>Th. cwts.</i>	3,354	283	3,637
	£'000	8,316	531	8,847

Kind of goods made and work done	Unit	England and Wales	Scotland	Great Britain
<i>Paints and colours—cont.</i>				
Cellulose enamels	<i>Th. galls.</i>	1,066	—	1,066
	£'000	780	—	780
Potters' colours	£'000	182	—	182
Varnish (other than cellulose varnish) oil or spirit, (including stains, lacquers, liquid dryers, brunswick and other black varnishes, litho and letterpress varnishes)... ..	<i>Th. galls.</i>	7,885	704	8,589
	£'000	3,268	151	3,419
Cellulose varnish	<i>Th. galls.</i>	765	—	765
	£'000	434	—	434
White lead, basic carbonate, dry	<i>Th. cwts.</i>	*	*	146
	£'000	*	*	215
Whiting and Paris white	<i>Th. cwts.</i>	*	*	1,243
	£'000	*	*	114
Putty	"	165	25	190
	<i>Th. cwts.</i>	*	*	12
Turpentine and turpentine substitutes	£'000	*	*	18
Paint and varnish makers' materials (bleached shellac, gum copal, etc.)†	"	168	—	168
Waterproofing compounds, roofing compositions, etc.†	"	207	—	207
Wood preservatives, returned as such†	"	*	*	20
Other products characteristic of the trade	"	32	†	32
Boiled and refined linseed oil	<i>Th. cwts.</i>	164	15	179
	£'000	349	35	384
Lubricating oils and greases	<i>Th. cwts.</i>	94	66	160
	£'000	123	79	202
Other oils and greases	"	45	—	45
Chemicals, miscellaneous	"	163	1	164
Other goods made	"	331	87	418
<i>Work done:—</i>				
Coating ships' hulls with paint or composition	£'000	90§	—	90§
Other and unclassified painting work	"	84§	—	84§
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT)	£'000	18,401	1,127	19,528

* Owing to the possible disclosure of information relating to individual firms figures can only be given for Great Britain as a whole.

† So far as separately recorded.

‡ Less than £500.

§ Amount received.

III. Employment

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1930

Persons employed	Males		Females		Males and females	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
<i>England and Wales:—</i>						
Operatives	852	11,572	489	1,790	1,341	13,362
Administrative, etc.*	318	4,686	242	1,696	560	6,382
TOTAL	1,170	16,258	731	3,486	1,901	19,744
<i>Scotland:—</i>						
Operatives	27	661	27	157	54	818
Administrative, etc.*	22	353	15	134	37	487
TOTAL	49	1,014	42	291	91	1,305
<i>Great Britain:—</i>						
Operatives	879	12,233	516	1,947	1,395	14,180
Administrative, etc.*	340	5,039	257	1,830	597	6,869
TOTAL	1,219	17,272	773	3,777	1,992	21,049

* Administrative, technical and clerical staff.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1930

Week ended	Males and females			Week ended	Males and females		
	England and Wales	Scotland	Great Britain		England and Wales	Scotland	Great Britain
Jan. 18 ...	13,551	856	14,407	July 19 ...	13,775	883	14,658
Feb. 15 ...	13,581	849	14,430	Aug. 16 ...	13,496	865	14,361
Mar. 15 ...	13,674	853	14,527	Sept. 13 ...	13,397	848	14,245
April 12 ...	13,788	877	14,665	Oct. 18 ...	13,362	818	14,180
May 17 ...	13,934	881	14,815	Nov. 15 ...	13,119	811	13,930
June 21 ...	14,039	879	14,918	Dec. 13 ...	13,131	802	13,933
AVERAGE FOR THE TWELVE MONTHS ...	13,571	852	14,423				

IV. Power

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND
ELECTRIC MOTORS

Power equipment	England and Wales		Scotland		Great Britain	
	Ordinarily in use	In reserve or idle	Ordinarily in use	In reserve or idle	Ordinarily in use	In reserve or idle
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS						
Reciprocating steam engines	4,934	1,019	496	245	5,430	1,264
Internal combustion engines :—						
Gas	2,929	500	197	—	3,126	500
Petrol, kerosene, or other light oils ...	187	113	25	—	212	113
Heavy oils	1,168	150	—	—	1,168	150
Water engines	801	85	—	—	801	85
TOTAL	10,019	1,867	718	245	10,737	2,112
TOTAL OF PRIME MOVERS INSTALLED	11,886		963		12,849	
	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
ELECTRIC GENERATORS						
Driven by						
Reciprocating steam engines	911	587	28	179	939	766
Internal combustion engines :—						
Gas	642	242	—	—	642	242
Petrol, kerosene, or other light oils	38	—	—	—	38	—
Heavy oils	321	100	—	—	321	100
Water engines	17	—	—	—	17	—
TOTAL	1,929	929	28	179	1,957	1,108
TOTAL OF ELECTRIC GENERATORS INSTALLED	2,858		207		3,065	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
ELECTRIC MOTORS						
Driven by						
Electricity generated in same works ...	3,308	502	55	—	3,363	502
Purchased electricity	33,451	2,835	2,814	150	36,265	2,985
TOTAL	36,759	3,337	2,869	150	39,628	3,487
TOTAL OF ELECTRIC MOTORS INSTALLED	40,096		3,019		43,115	

V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
Coal used for power	Tons 31,583	Tons 3,421	Tons 35,004
Coke used for power	1,897	—	1,897
	B.T.U. (Kw.-hrs.) '000	B.T.U. (Kw.-hrs.) '000	B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works	3,107	61	3,168
Purchased	21,889	1,172	23,061
TOTAL—Electricity	24,996	1,233	26,229