

THE BRUSH 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 brooms and brushes. 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	3,155	3,240
Cost of materials used	„	1,471	1,640
Paid for work given out to other firms	„	3	*
Net output	„	1,681	1,600
Average number of persons employed (excluding outworkers)	No.	10,078	10,073
Net output per person employed (excluding outworkers)	£	167	159
Power available :—			
Prime movers	H.P.	4,419	4,100
Electric motors driven by purchased electricity	„	2,808	1,769
Number of returns	No.	133	183
Number of establishments	„	149	†

* 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 1,487, the corresponding figure for 1924 being 1,083. The value of the gross output of the small firms in 1924 was £326,000, and particulars of the items included in this figure are given below :—

Kind of goods	Quantity	Value
	Th. doz.	£'000
Household brooms and brushes	178	184
Toilet brushes	14	13
Painters' and decorators' brushes	34	26
Artists' brushes	9	2
Machine brushes ... ..	...	53
Brushes, not separately distinguished ... ..	...	35
Other goods made and work done ... ..	...	13
TOTAL ... ..	...	326

In addition, 19 firms to which schedules were sent at the 1930 Census and 120 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 (excluding outworkers)	Net output per person employed
	No.	£'000	£'000	No.	£
11-24 ...	53	290	131	893	147
25-49 ...	27	241	126	883	143
50-99 ...	26	559	287	1,764	162
100-199 ...	16	643	351	2,132	164
200-299 ...	5	405	145	1,191	122
300-1,499 ...	6	1,017	641	3,215	199
TOTAL ...	133	3,155	1,681	10,078	167

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 (excluding outworkers)	Net output per person employed	
	No.	£'000	£'000	No.	£	
1 ...	1930	55	1,554	806	4,465	181
	1924	65	1,661	807	4,773	169
2 ...	1930	12	112	50	372	134
	1924	24	238	121	693	175
3 ...	1930	7	93	45	266	170
	1924	18	198	84	626	134
4 ...	1930	4	18	10	74	128
4 and 8 ...	1924	8	30	16	144	111
5 ...	1930	18	404	162	1,265	128
	1924	22	372	187	1,177	159
6 ...	1930	31	917	583	3,460	169
	1924	34	634	340	2,364	144
9 and 10	1930	6	57	25	176	142
	1924	12	107	45	296	152
TOTAL	1930	133	3,155	1,681	10,078	167
	1924	183	3,240	1,600	10,073	159

* For particulars see page xviii.

Northern Ireland.—The following table summarises the particulars recorded at the Census of Production taken by the Government of Northern Ireland for 1930, together with those furnished at the 1924 Census. The 1930 figures relate to firms that employed an average of more than five persons, while those for 1924 relate to all firms :—

Particulars	Unit	1930	1924
Value of goods made and work done (Gross output)	£'000	19	12
Cost of materials used	"	8	6
Net output	"	11	6
Average number of persons employed	No.	74	36
Net output per person employed	£	149	163
Power available :—			
Prime movers	H.P.	—	1
Electric motors driven by purchased electricity	"	20	7

The principal items included in the gross output values shown in the above table were as follows :—

Kind of goods	1930		1924	
	Quantity	Value	Quantity	Value
	Th. doz.	£'000	Th. doz.	£'000
Household brooms and brushes ...	18	15	11	8
Painters' and decorators' brushes	3	2	3	1
Other kinds of brushes, including machinery brushes, special trade brushes, etc.	*	2	3	2
Other goods made	—	—	...	1
TOTAL ... ..	...	19	...	12

* Less than 500 dozen.

Production

Principal products.—The following table shows the value and, where available, the quantity of brooms and brushes made in 1930 and 1924 :—

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Brush Trade			All trades				
	Quantity	Value	Ent-ries	Quantity	Value	Ent-ries	Quantity	Value
Th. doz.	£'000	No.	Th. doz.	£'000	No.	Th. doz.	£'000	
Household brooms and brushes:—								
Pan set	393	464	90	393	464	90	566	666
Hand drawn	89	84	65	89	84	65	197	163
Machine filled	2,035	475	56	2,035	475	56	2,020	476
Other methods of manufacture	667	244	30	669	247	31	168*	97*
TOTAL—Household brooms and brushes	3,184	1,267	...	3,186	1,270	...	2,951	1,402
Toilet brushes:—								
Tooth brushes:—								
In celluloid	505	144	8	505	144	8	261	80
In bone	411	161	16	415	163	17	447	237
Total—Tooth brushes	916	305	...	920	307	...	708	317
Shaving brushes	86	87	22	86	87	22	79	90
Other toilet brushes:—								
In wood:—								
Machine filled	186	73	18	186	73	18	164	132
Hand drawn	46	79	24	46	79	24	69	204
In ivory, celluloid, erinoid, etc.	50	80	12	50	80	12	40	114
Not separately distinguished	77	109	3	77	109	3	16	13
TOTAL—Toilet brushes of all kinds	1,361	733	...	1,365	735	...	1,076	870
Painters' and decorators' brushes:—								
Flat pinned varnish brushes	668	280	25	668	280	25	630	284
Machine compressed brushes	230	85	15	230	85	15	107	39
Other kinds	232	323	48	233	324	49	316	484
Not separately distinguished	17	7	1	17	7	1	43	27
TOTAL—Painters' and decorators' brushes	1,147	695	...	1,148	696	...	1,096	834
Artists' brushes (fitches, pencils, writers, etc.)	141	40	11	359	69	12	391	60
Machine brushes (i.e., brushes that form part of a machine)	47	52	37	48	52	38	40	237
Other special brushes	289	118	36	294	121	40	†	237
Mops, pads and feather brushes, etc. ‡ ... ..	...	199	6	...	199	6	...	35
Parts of brushes (stocks, handles, etc.) and other painters' materials not specified above ... ..	...	19	15	...	53	25	...	110
TOTAL—PRINCIPAL PRODUCTS ... ..	...	3,123	...	...	3,195	...	...	3,548

* Includes household brooms and brushes, not separately distinguished.

† Quantity not stated.

‡ So far as separately recorded.

Prices.—The average selling values of brooms and brushes in 1930 and 1924, as calculated from the Census returns, are shown in the following table:—

Kind of goods	Average value		1930 as a percentage of 1924
	1930	1924	
	s. per doz.	s. per doz.	Per cent.
Household brooms and brushes:—			
Pan set	23·6	23·5	100·4
Hand drawn	19·0	16·6	114·5
Machine filled	4·67	4·72	98·9
Other methods of manufacture*	7·39	11·5	64·3
Toilet brushes:—			
Tooth brushes:—			
In celluloid	5·70	6·13	93·0
In bone	7·84	10·6	73·9
Shaving brushes	20·2	22·7	89·0
Other toilet brushes:—			
In wood:—			
Machine filled	7·89	16·0	49·3
Hand drawn	34·6	59·2	58·5
In celluloid, erinoid, etc.	32·1	56·6	56·7
Painters' and decorators' brushes:—			
Flat pinned varnish brushes	8·39	9·00	93·2
Machine compressed brushes	7·39	7·38	100·1
Other kinds	27·8	30·5	91·1
Artists' brushes:—			
Fitches	5·62	6·62	84·9
Pencils and writers	3·60	3·07	117·3

* Including household brooms and brushes, not separately distinguished, in 1924.

Volume of production in 1930 and 1924.—The following table compares the volume of production of brooms and brushes 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	Per cent.
	£'000	£'000	£'000	
Household brooms and brushes:—				
Pan set	464	666	669	69
Hand drawn	84	163	187	45
Machine filled	475	476	471	101
Other methods of manufacture	247	97	62	398
TOTAL—Household brooms and brushes	1,270	1,402	1,389	91

Kind of goods	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	Per cent.
Toilet brushes :—	£'000	£'000	£'000	
Tooth brushes :—				
In celluloid	144	80	74	195
In bone... ..	163	237	175	93
Shaving brushes	87	90	80	109
Other toilet brushes :—				
In wood :—				
Machine filled	73	132	65	112
Hand drawn	79	204	119	66
In celluloid, erinoid, etc. ...	80	114	65	123
Not separately distinguished...	109	13	22	*
TOTAL—Toilet brushes	735	870	600	123
Painters' and decorators' brushes :—				
Flat pinned varnish brushes ...	280	284	265	106
Machine compressed brushes ...	85	39	39	218
Other kinds	324	484	441	73
Not separately distinguished ...	7	27	18	*
TOTAL—Painters' and decorators' brushes	696	834	763	91
Artists' brushes (fitches, pencils, writers, etc.)	69	60	75	92
Machine brushes and other special brushes, mops, pads, etc., and parts of brushes	425	382	341†	125
TOTAL	3,195	3,548	3,168	101

* This figure would have no significance.

† Based on average value of preceding items.

Production, exports and imports.—The following table shows, in relation to production, the quantities of the principal classes of brooms and brushes exported from the United Kingdom in 1930 and 1924, together with the quantities imported and retained. As regards the 1930 figures of production, the deficiencies referred to on page 301 of this report should be borne in mind; the figures for both 1930 and 1924 include the recorded output of firms in Northern Ireland and those for 1924 include, in addition, the output of the small firms.

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 products	
					Th. doz.	Th. doz.	Per cent.	Th. doz.	Th. doz.	Per cent.
Household brooms and brushes ...	1930	3,204	152	4.74	1,459	4,511	67.7
	1924	3,142	231	7.44	1,147	4,055	71.7
Tooth brushes ...	1930	920	178	19.35	752	1,494	49.7
	1924	713	209	29.31	706	1,210	41.7
Other sorts of toilet brushes	1930	445	69	15.51	608	984	38.2
	1924	381	135	35.43	470	716	34.4
Painters' and decorators' brushes ...	1930	1,151	150	13.03	841	1,842	54.4
	1924	1,133	155	13.68	657	1,635	59.8
Artists' brushes	1930	359	41	11.42	311	629	50.6
	1924	405	36	8.89	203	572	64.5

Work done for the trade, etc.—The total amount recorded as received for work done for the trade (including repair work) in 1930 was less than £500, the corresponding total for 1924 being £15,000.

Other products.—In addition to the output shown in the table of principal products on page 304, firms that made their returns on schedules for the Brush Trade produced other goods valued at £32,000 in 1930 and £41,000 in 1924. These goods are dealt with in the reports on those trades in which the principal output was recorded.

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)	435	3,575	1,191	4,237	1,626	7,812
Administrative, technical and clerical staff (as at 18th October)	42	1,875	75	391	117	2,266
TOTAL	477	5,450	1,266	4,628	1,743	10,078
1924						
Operatives (average for the year)	556	4,382	1,209	4,620	1,765	9,002
Administrative, technical and clerical staff (as at 18th October)	51	748	41	323	92	1,071
TOTAL	607	5,130	1,250	4,943	1,857	10,073
Average number of outworkers :—						
1930	9		701		710	
1924* ... ..	...		...		...

* Not ascertained in 1924.

Wages.—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 210 and 211.

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
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS.						
Reciprocating steam engines	1,179	675	1,854	1,409	485	1,894
Steam turbines	330	180	510	—	—	—
Internal combustion engines :—						
Gas	937	323	1,260	1,440	317	1,757
Petrol, kerosene, or other light oils	46	—	46	12	—	12
Heavy oils	560	27	587	244	150	394
Water engines	132	30	162	—	—	—
Other prime movers	—	—	—	43	—	43
TOTAL ...	3,184	1,235	4,419	3,148	952	4,100
	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
ELECTRIC GENERATORS						
Driven by						
Reciprocating steam engines	670	483	1,153	556	335	891
Steam turbines	250	133	383	—	—	—
Internal combustion engines :—						
Gas	195	86	281	317	65	382
Petrol, kerosene, or other light oils	7	—	7	—	—	—
Heavy oils	270	12	282	110	100	210
Water engines	32	8	40	—	—	—
TOTAL ...	1,424	722	2,146	983	500	1,483
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
ELECTRIC MOTORS						
Driven by						
Electricity generated in same works	1,955	220	2,175	1,588	122	1,710
Purchased electricity	2,585	223	2,808	1,544	225	1,769
TOTAL ...	4,540	443	4,983	3,132	347	3,479

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	2,057	3,771*
Coke	66	1,022*
		B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—		
Generated in same works		1,480
Purchased		1,436
TOTAL—Electricity		2,916

* These figures were recorded by firms representing 92·7 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 (Gross output)	£'000	3,098	57	3,155
Cost of materials used	"	1,439	32	1,471
Paid for work given out to other firms...	"	3	—	3
Net output	"	1,656	25	1,681
Average number of persons employed (excluding outworkers)	No.	9,902	176	10,078
Net output per person employed (excluding outworkers)	£	167	142	167
Power available :—				
Prime movers	H.P.	4,411	8	4,419
Electric motors driven by purchased electricity	"	2,759	49	2,808

II. Production

Kind of goods made	Unit	England and Wales	Scotland	Great Britain
Household brooms and brushes :—				
Pan set	<i>Th. doz.</i>	378	15	393
	£'000	443	21	464
Hand drawn	<i>Th. doz.</i>	85	4	89
	£'000	80	4	84
Machine filled	<i>Th. doz.</i>	*	*	2,035
	£'000	*	*	475
Other methods of manufacture	<i>Th. doz.</i>	*	*	667
	£'000	*	*	244
TOTAL—Household brooms and brushes	<i>Th. doz.</i>	*	*	3,184
	£'000	*	*	1,267
Toilet brushes :—				
Tooth brushes :—				
In celluloid	<i>Th. doz.</i>	505	—	505
	£'000	144	—	144
In bone	<i>Th. doz.</i>	411	—	411
	£'000	161	—	161
Total —Tooth brushes	<i>Th. doz.</i>	916	—	916
	£'000	305	—	305

Kind of goods made	Unit	England and Wales	Scotland	Great Britain
Toilet Brushes— <i>cont.</i>				
Shaving brushes	<i>Th. doz.</i>	86	†	86
	£'000	87	‡	87
Other toilet brushes :—				
In wood :—				
Machine filled	<i>Th. doz.</i>	186	—	186
	£'000	73	—	73
Hand drawn	<i>Th. doz.</i>	*	*	46
	£'000	*	*	79
In ivory, celluloid, erinoid, etc.	<i>Th. doz.</i>	50	—	50
	£'000	80	—	80
Not separately distinguished	<i>Th. doz.</i>	*	*	77
	£'000	*	*	109
TOTAL—Toilet brushes of all kinds	<i>Th. doz.</i>	1,360	1	1,361
	£'000	732	1	733
Painters' and decorators' brushes :—				
Flat pinned varnish brushes	<i>Th. doz.</i>	*	*	668
	£'000	*	*	280
Machine compressed brushes	<i>Th. doz.</i>	*	*	230
	£'000	*	*	85
Other kinds	<i>Th. doz.</i>	221	11	232
	£'000	302	21	323
Not separately distinguished	<i>Th. doz.</i>	17	—	17
	£'000	7	—	7
TOTAL—Painters' and decorators' brushes	<i>Th. doz.</i>	1,131	16	1,147
	£'000	671	24	695
Artists' brushes (fitches, pencils, writers' etc.)	<i>Th. doz.</i>	*	*	141
	£'000	*	*	40
Machine brushes (i.e., brushes that form part of a machine)	<i>Th. doz.</i>	47	†	47
	£'000	51	1	52
Other special brushes	<i>Th. doz.</i>	*	*	289
	£'000	*	*	118
TOTAL—Brushes of all kinds	£'000	2,848	57	2,905
Mops, pads and feather brushes, etc. § ...	£'000	199	‡	199
Parts of brushes (stocks, handles, etc.), and other painters' materials not specified above	"	19	—	19
Other goods	"	32	—	32
TOTAL VALUE OF GOODS MADE (GROSS OUTPUT)	£'000	3,098	57	3,155

* Owing to the possible disclosure of information relating to individual firms, separate particulars for England and Wales and for Scotland cannot be given.

† Less than 500 doz.

‡ Less than £500.

§ So far as separately recorded.

III. Employment

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1930
(EXCLUDING OUTWORKERS)

Persons employed (excluding outworkers)	Males		Females		Males and females	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
<i>England and Wales :—</i>						
Operatives	427	3,449	1,157	4,116	1,584	7,565
Administrative, etc.*	41	1,854	75	381	116	2,235
TOTAL	468	5,303	1,232	4,497	1,700	9,800
<i>Scotland :—</i>						
Operatives	2	78	18	63	20	141
Administrative, etc.*	1	21	—	10	1	31
TOTAL	3	99	18	73	21	172
<i>Great Britain :—</i>						
Operatives	429	3,527	1,175	4,179	1,604	7,706
Administrative, etc.*	42	1,875	75	391	117	2,266
TOTAL	471	5,402	1,250	4,570	1,721	9,972

* Administrative, technical and clerical staff.

B.—OPERATIVES (EXCLUDING OUTWORKERS) 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 ...	7,728	135	7,863	July 19 ...	7,647	150	7,797
Feb. 15 ...	7,776	136	7,912	Aug. 16...	7,258	141	7,399
Mar. 15 ...	7,831	149	7,980	Sept. 13...	7,552	140	7,692
April 12 ...	7,796	156	7,952	Oct. 18 ...	7,565	141	7,706
May 17 ...	7,790	158	7,948	Nov. 15...	7,694	142	7,836
June 21 ...	7,695	152	7,847	Dec. 13...	7,672	137	7,809
AVERAGE FOR THE TWELVE MONTHS				7,667	145	7,812	

C.—NUMBERS OF OUTWORKERS AT TWO SPECIFIED PERIODS IN 1930

Country	January			July		
	Males	Females	Total	Males	Females	Total
England and Wales ...	9	679	688	8	720	728
Scotland	—	1	1	—	2	2
Great Britain	9	680	689	8	722	730

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
PRIME MOVERS						
Reciprocating steam engines	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Steam turbines ...	1,171	675	8	—	1,179	675
Internal combustion engines :—						
Gas	937	323	—	—	937	323
Petrol, kerosene, or other light oils ...	46	—	—	—	46	—
Heavy oils	560	27	—	—	560	27
Water engines ...	132	30	—	—	132	30
TOTAL	3,176	1,235	8	—	3,184	1,235
TOTAL OF PRIME MOVERS INSTALLED	4,411		8		4,419	
ELECTRIC GENERATORS						
Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines	670	483	—	—	670	483
Steam turbines ...	250	133	—	—	250	133
Internal combustion engines :—						
Gas	195	86	—	—	195	86
Petrol, kerosene, or other light oils ...	7	—	—	—	7	—
Heavy oils	270	12	—	—	270	12
Water engines ...	32	8	—	—	32	8
TOTAL	1,424	722	—	—	1,424	722
TOTAL OF ELECTRIC GENERATORS INSTALLED	2,146		—		2,146	
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works ...	1,955	220	—	—	1,955	220
Purchased electricity	2,536	223	49	—	2,585	223
TOTAL	4,491	443	49	—	4,540	443
TOTAL OF ELECTRIC MOTORS INSTALLED	4,934		49		4,983	

V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power	1,827	230	2,057
Coke used for power	66	—	66
	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	1,480	—	1,480
Purchased	1,404	32	1,436
TOTAL—Electricity	2,884	32	2,916