

## THE INK, GUM AND SEALING WAX TRADES

*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

These trades comprise firms that were engaged wholly or mainly in the manufacture of inks, gums and sealing wax. 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 (Gross output) ... ..	£'000	3,468	2,823
Cost of materials used ... ..	"	1,464	1,274
Net output ... ..	"	2,004	1,549
Average number of persons employed ... ..	No.	4,029	3,212
Net output per person employed ... ..	£	497	482
Power available:—			
Prime movers ... ..	H.P.	2,639	1,627
Electric motors driven by purchased electricity ... ..	"	8,443	4,041
Number of returns ... ..	No.	64	55
Number of establishments ... ..	"	74	*

\* 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 237, the corresponding figure for 1924 being 392. The value of the gross output of the small firms in 1924 was £323,000, and particulars of the items included in this figure are given below:—

	£'000
Printers' ink ... ..	123
	(18,000 cwt <sup>s</sup> .)
Printers' sundries ... ..	27
Inks, other than printers' ink... ..	25
Gum-mucilage, paste, etc. ... ..	80
Sealing wax ... ..	22
Typewriter sundries ... ..	34
Other goods made ... ..	12
<b>TOTAL</b> ... ..	<b>323</b>



In addition, 12 firms to which schedules were sent at the 1924 Census 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 ...	19	311	155	312	498
25-49 ...	19	662	381	703	542
50-99 ...	18	972	532	1,250	425
100-749 ...	8	1,523	936	1,764	531
TOTAL ...	64	3,468	2,004	4,029	497

**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 these trades 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	46	2,925	1,737	3,178	547
	1924	37	2,320	1,267	2,310	548
2 ...	1930	8	207	93	319	291
	1924	9	257	138	391	353
9 and 10 ...	1930	3	53	31	116	263
	1924	3	59	31	118	263
Other areas	1930	7	283	143	416	344
	1924	6	187	113	393	288
TOTAL	1930	64	3,468	2,004	4,029	497
	1924	55	2,823	1,549	3,212	482

**Northern Ireland.**—No production of ink, gum or sealing wax was recorded in Northern Ireland for either 1930 or 1924.

\* For particulars see page xviii.

### Production

**Principal products.**—The following table shows the value and, where available, the quantity of the principal classes of output in 1930 and 1924:—

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Ink, Gum and Sealing Wax Trades			All trades				
	Quan- tity	Value	Ent- ries	Quan- tity	Value	Ent- ries	Quan- tity	Value
	Th. cwts.	£'000	No.	Th. cwts.	£'000	No.	Th. cwts.	£'000
Printers' ink ...	376	1,643	31	398	1,863	40	250	1,608
Printers' sundries (rollers, etc.)... ..	...	146	9	...	150	12	...	140
Inks, other than printers' ink (writing, marking, etc., and ink powders) ...	...	365	15	...	392	28	...	451
Gum-mucilage, paste, etc. ... ..	393	356	18	409	373	28	...	225
Sealing wax ... ..	...	25	5	...	37	8	...	55
Typewriter sundries (ribbons, carbons, etc.)	...	855	12	...	855	13	...	503
TOTAL—PRINCIPAL PRODUCTS ...	...	3,390	...	...	3,670	...	...	2,982

**Prices.**—The average selling value of printers' ink, as calculated from the Census returns, was £4.68 per cwt. in 1930 and £6.44 per cwt. in 1924, representing a decline of 27 per cent. in the later year. Average values of the remaining products cannot be calculated, as particulars of quantity are not available for both years.

**Volume of production in 1930 and 1924.**—As figures of average values are not available for the products of these trades, apart from printers' ink, the change in the volume of production in the two years can only be roughly estimated. From such particulars as are known regarding manufacturing costs in the two years, it is estimated that the total value of the output in 1924 (£2,982,000) represented, in terms of 1930 values, a sum of approximately £2,370,000, indicating an increase in volume in 1930 of about 55 per cent.

**Production, exports and imports.**—In the following table exports and retained imports of printers' ink in 1930 and 1924 are shown in relation to the quantities manufactured. As regards the 1930 figure of production, the deficiencies referred to on page 413 should be borne in mind; the 1924 figure includes the output of the small firms.



Printers' ink	1930	1924
	Th. cwts.	Th. cwts.
Production ... ..	398	288
Exports ... ..	36	27
Retained imports ... ..	7	12
Available for use in the United Kingdom ... ..	369	273
	Per cent.	Per cent.
Share of home market held by British products ...	98.1	95.6

Exports of *writing ink and ink powder* were valued (f.o.b.) at £165,000 in 1930 and £183,000 in 1924, and retained imports (c.i.f.) at £8,000 in 1930 and £15,000 in 1924. The remaining products of these trades are not distinguished separately in the trade returns.

**Other products.**—In addition to the output shown in the table of principal products on page 415, other goods valued at £78,000 for 1930 and £120,000 for 1924 were recorded by firms that made their returns on schedules for the Ink, Gum and Sealing Wax Trades. Of these sums, £41,000 (176,000 gallons) in 1930 and £61,000 (225,000 gallons) in 1924 related to varnish (including litho and letterpress varnish).

### 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)	182	1,835	214	795	396	2,630
Administrative, technical and clerical staff (as at 18th October) ... ..	74	946	81	453	155	1,399
TOTAL ... ..	256	2,781	295	1,248	551	4,029
1924						
Operatives (average for the year)	214	1,479	204	742	418	2,221
Administrative, technical and clerical staff (as at 18th October) ... ..	40	674	50	317	90	991
TOTAL ... ..	254	2,153	254	1,059	508	3,212

**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						
Reciprocating steam engines ... ..	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Internal combustion engines :—						
Gas ... ..	1,418	677	2,095	782	398	1,180
Heavy oils ... ..	348	26	374	437	10	447
Water engines ... ..	110	—	110	—	—	—
	60	—	60	—	—	—
TOTAL ... ..	1,936	703	2,639	1,219	408	1,627
ELECTRIC GENERATORS						
Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines ... ..	493	268	761	158	152	310
Internal combustion engines :—						
Gas ... ..	—	18	18	12	7	19
Heavy oils ... ..	6	—	6	—	—	—
Water engines ... ..	40	—	40	—	—	—
TOTAL ... ..	539	286	825	170	159	329
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works ... ..	984	—	984	94	65	159
Electricity generated in other works under same ownership ... ..	31	—	31	—	—	—
Purchased electricity	7,881	562	8,443	3,806	235	4,041
TOTAL ... ..	8,896	562	9,458	3,900	300	4,200



## 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)	For power and other purposes, not separately distinguished
	Tons	Tons	Tons
Coal ... ..	3,436	3,160*	1,400
Coke ... ..	103	1,743*	—
Electricity used for all purposes :—			B.T.U. (Kw.-hrs.)
Generated in same works	...	...	'000 383
Generated in other works under same ownership	...	...	13
Purchased	...	...	4,160
TOTAL—Electricity	...	...	4,556

\* These figures were recorded by firms representing 99·3 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	3,415	53	3,468
Cost of materials used ... ..	"	1,442	22	1,464
Net output ... ..	"	1,973	31	2,004
Average number of persons employed...	No.	3,913	116	4,029
Net output per person employed ...	£	504	263	497
Power available :—				
Prime movers ... ..	H.P.	2,639	—	2,639
Electric motors driven by purchased electricity ... ..	"	8,412	31	8,443

## II. Production

Kind of goods made	Great Britain*	
	Quantity	Value
Printers' ink ... ..	Th. cwts. 376	£'000 1,643
Printers' sundries (rollers, etc.) ... ..	...	146
Inks, other than printers' ink (writing, marking, etc., and ink powders) ... ..	...	365
Gum-mucilage, paste, etc. ... ..	393	356
Sealing wax ... ..	...	25
Typewriter sundries (ribbons, carbons, etc.) ... ..	...	855
Varnish (including litho and letterpress varnishes) ...	Th. galls. 176	41
Other goods made ... ..	...	37
TOTAL VALUE OF GOODS MADE (GROSS OUTPUT) ...	...	3,468

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



## 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 ... ..	177	1,780	189	721	366	2,501
Administrative, etc.*	74	937	78	441	152	1,378
TOTAL ... ..	251	2,717	267	1,162	518	3,879
<i>Scotland :—</i>						
Operatives ... ..	3	33	22	65	25	98
Administrative, etc.*	—	9	3	12	3	21
TOTAL ... ..	3	42	25	77	28	119
<i>Great Britain :—</i>						
Operatives ... ..	180	1,813	211	786	391	2,599
Administrative, etc.*	74	946	81	453	155	1,399
TOTAL ... ..	254	2,759	292	1,239	546	3,998

\* 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 ...	2,533	86	2,619	July 19 ...	2,547	102	2,649
Feb. 15 ...	2,538	91	2,629	Aug. 16 ...	2,518	91	2,609
Mar. 15 ...	2,553	101	2,654	Sept. 13...	2,501	91	2,592
April 12 ...	2,565	102	2,667	Oct. 18 ...	2,501	98	2,599
May 17 ...	2,594	90	2,684	Nov. 15...	2,493	90	2,583
June 21 ...	2,587	103	2,690	Dec. 13 ...	2,495	93	2,588
AVERAGE FOR THE TWELVE MONTHS ...				2,535	95	2,630	

## IV. Power

## PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS

Power equipment	Great Britain*	
	Ordinarily in use	In reserve or idle
	H.P.	H.P.
<b>PRIME MOVERS</b>		
Reciprocating steam engines ... ..	1,418	677
Internal combustion engines :—		
Gas ... ..	348	26
Heavy oils ... ..	110	—
Water engines ... ..	60	—
TOTAL ... ..	1,936	703
TOTAL OF PRIME MOVERS INSTALLED ... ..	2,639	
	Kw.	Kw.
<b>ELECTRIC GENERATORS</b>		
Driven by		
Reciprocating steam engines ... ..	493	268
Internal combustion engines :—		
Gas ... ..	—	18
Heavy oils ... ..	6	—
Water engines ... ..	40	—
TOTAL ... ..	539	286
TOTAL OF ELECTRIC GENERATORS INSTALLED ... ..	825	
	H.P.	H.P.
<b>ELECTRIC MOTORS</b>		
Driven by		
Electricity generated in same works ... ..	984	—
Electricity generated in other works under same ownership ... ..	31	—
Purchased electricity ... ..	7,881	562
TOTAL ... ..	8,896	562
TOTAL OF ELECTRIC MOTORS INSTALLED ... ..	9,458	

\* The only power equipment recorded for Scotland consisted of electric motors, driven by purchased electricity, of a total capacity of 31 horse-power (27 horse-power ordinarily in use and 4 horse-power in reserve or idle).



## V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power* ... ..	3,436	—	3,436
Coke used for power ... ..	103	—	103
	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 ... ..	383	—	383
Generated in other works under same ownership ... ..	13	—	13
Purchased ... ..	4,122	38	4,160
<b>TOTAL—Electricity</b> ... ..	<b>4,518</b>	<b>38</b>	<b>4,556</b>

\* In addition, 1,400 tons of coal (all in England and Wales) were recorded as used for power and for other purposes, not separately distinguished.