

### SALT MINES, BRINE PITS AND SALT WORKS

*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 mining rock salt, pumping brine and refining salt. No production was recorded for Scotland in 1930, and the summary table (I) and the tables showing details of power equipment (IV) and consumption of fuel (V) are not appended to this report. The whole of this information is available in the tables given in the report itself.

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 products (Gross output) ... ..	£'000	1,250	1,870
Cost of materials used ... ..	"	362	761
Net output ... ..	"	888	1,109
Average number of persons employed ... ..	No.	3,524	5,010
Net output per person employed ... ..	£	252	221
Power available :—			
Prime movers ... ..	H.P.	23,107	19,214
Electric motors driven by purchased electricity	"	851	666
Number of returns ... ..	No.	23	30
Number of establishments ... ..	"	25	*

\* 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 32, all of whom were employed in salt works. The average number of persons employed in 1924 by the small firms and by firms in Northern Ireland, for which separate particulars are not available for publication, was 128, and the value of their gross output was £48,000, of which £5,000 was in respect of table salt and £43,000 in respect of other kinds of salt.

**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.	£
11-49 ... ..	9	151	110	315	351
50-99 ... ..	6	148	103	419	245
100-199 ... ..	4	167	104	581	180
200-1,499 ... ..	4	784	571	2,209	258
TOTAL ... ..	23	1,250	888	3,524	252

**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.	£
2 ... ..	{ 1930 13 1924 19	932 1,592	679 952	2,707 4,390	251 217
4 ... ..	{ 1930 6 1924 6	120 130	86 64	300 344	288 186
5 ... ..	{ 1930 4 1924 5	198 148	123 93	517 276	239 337
TOTAL { 1930 23 1924 30		1,250 1,870	888 1,109	3,524 5,010	252 221

**Northern Ireland.**—In the report published by the Government of Northern Ireland on the 1930 Census of Production, aggregate figures only are given in respect of the mining and quarrying industries. These aggregates are given in the report on Non-Metalliferous Mines and Quarries on pages 387-8.

\* For particulars see page xviii.



## Production

**Principal products.**—The following table shows the quantity and value of salt and brine produced in 1930 for sale:—

Salt and brine, 1930	Returned on schedules for					
	Salt Mines, Brine Pits and Salt Works			All trades		
	Quantity	Value	Entries	Quantity	Value	Entries
	Th. tons	£'000	No.	Th. tons	£'000	No.
White salt (including table salt) ... ..	749·6	1,141	21	823·9	1,623	35
Rock salt ... ..	21·0	23	...	21·0	23	...
TOTAL—Salt ... ..	770·6	1,164	...	844·9	1,646	...
Estimated salt content of brine pumped and sold...	1,281·8	65	6	1,281·8	65	6
TOTAL ... ..	2,052·4	1,229	...	2,126·7	1,711	...

The classification used at the 1924 Census differed from that shown above, except in respect of brine pumped and sold. The output in that year, as returned on schedules for all trades, was as follows:—

Salt and brine, 1924	Quantity	Value
	Th. tons	£'000
Table salt ... ..	96·5	679
Other kinds of salt ... ..	882·0	1,430
TOTAL—Salt ... ..	978·5	2,109
Estimated salt content of brine pumped and sold ... ..	1,020·5	59
TOTAL ... ..	1,999·0	2,168

The quantity of rock salt mined in Great Britain in 1924, as returned to the Mines Department, was 42,396 tons.

**Prices.**—The average selling values in 1930 and 1924 of salt of all kinds and of salt contained in brine, as calculated from the Census returns, are shown in the following table. The comparison in the case of "Salt of all kinds" does not take account of any changes that may have occurred since the earlier year in the proportions of the various qualities of salt included in this heading.

Salt	Average value		1930 as a percentage of 1924
	1930	1924	
Salt of all kinds ... ..	£ per ton 1·95	£ per ton 2·15	Per cent. 90·7
Salt contained in brine ... ..	s. per ton 1·01	s. per ton 1·16	87·1

**Volume of production in 1930 and 1924.**—The following table compares the volume of production of salt in 1930 and 1924:—

Salt	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	
	£'000	£'000	£'000	Per cent.
Salt of all kinds ... ..	1,646	2,109	1,913	86
Salt contained in brine ... ..	65	59	51	127
TOTAL ... ..	1,711	2,168	1,964	87

**Production, exports and imports.**—The following table shows the exports and retained imports of salt in 1930 and 1924; the figures relate to the United Kingdom in both years.

Salt	Exports		Retained imports	
	1930	1924	1930	1924
	Th. tons	Th. tons	Th. tons	Th. tons
Table salt ... ..	5·2	6·2	1·4	3·8
Other sorts ... ..	303·1	350·8	92·2	108·8
TOTAL ... ..	308·3	357·0	93·6	112·6

Detailed comparison of the above figures with those of production cannot be made for the year 1930, since particulars of the total output of table salt as such were not obtained for that year. The following table compares production with overseas trade in salt of all kinds in the two years; the output of the small firms and of firms in Northern Ireland is included in the production figures for 1924 but not in those for 1930.

Salt of all kinds	1930	1924
	Th. tons	Th. tons
Production ... ..	844·9	999·7
Exports ... ..	308·3	357·0
Retained imports ... ..	93·6	112·6
Available for consumption in the United Kingdom ... ..	630·2	755·3
	Per cent.	Per cent.
Proportion of production exported ... ..	36·5	35·7
Share of home market held by British products ... ..	85·2	85·1

**Other products.**—The total value of other products made for sale by salt manufacturers was recorded as £21,000 in 1930 and £61,000 in 1924.



### Employment

**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)	136	2,897	44	450	180	3,347
Administrative, technical and clerical staff (as at 13th December) ... ..	6	157	2	20	8	177
<b>TOTAL</b> ... ..	<b>142</b>	<b>3,054</b>	<b>46</b>	<b>470</b>	<b>188</b>	<b>3,524</b>
1924						
Operatives (average for the year)	197*	4,095	80	534	277*	4,629
Administrative, technical and clerical staff (as at 18th October) ... ..	14*	324	—	57	14*	381
<b>TOTAL</b> ... ..	<b>211*</b>	<b>4,419</b>	<b>80</b>	<b>591</b>	<b>291*</b>	<b>5,010</b>

\* These figures are defective in so far as any of the 185 operatives and 12 administrative, etc., staff employed at salt mines or brine pits and recorded as being "over 16 years," were between the ages of 16 and 18 years. This staff consisted entirely of males.

### 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 ... ..	5,016	4,522	9,538	5,984	1,991	7,975
Steam turbines ... ..	5,400	7,400	12,800	4,300	6,300	10,600
Internal combustion engines :—						
Gas ... ..	376	320	696	357	86	443
Petrol, kerosene, or other light oils ... ..	68	—	68	146	19	165
Heavy oils ... ..	5	—	5	31	—	31
<b>TOTAL</b> ... ..	<b>10,865</b>	<b>12,242</b>	<b>23,107</b>	<b>10,818</b>	<b>8,396</b>	<b>19,214</b>

Power equipment	1930			1924		
	Ordinarily in use	In reserve or idle	Total	Ordinarily in use	In reserve or idle	Total
ELECTRIC GENERATORS						
Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines ... ..	2,652	1,945	4,597	2,233	964	3,197
Steam turbines ... ..	3,950	5,450	9,400	3,200	4,700	7,900
Internal combustion engines :—						
Gas ... ..	200	170	370	145	—	145
Petrol, kerosene, or other light oils ... ..	—	—	—	22	—	22
Heavy oils ... ..	—	—	—	27	—	27
<b>TOTAL</b> ... ..	<b>6,802</b>	<b>7,565</b>	<b>14,367</b>	<b>5,627</b>	<b>5,664</b>	<b>11,291</b>
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works ... ..	5,019	1,322	6,341	3,233	1,087	4,320
Purchased electricity	823	28	851	649	17	666
<b>TOTAL</b> ... ..	<b>5,842</b>	<b>1,350</b>	<b>7,192</b>	<b>3,882</b>	<b>1,104</b>	<b>4,986</b>

### 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
Coal ... ..	Tons 25,815	Tons 291,964*	Tons 27,314
Coke ... ..	277	2,595*	5
Electricity used for all purposes :—			B.T.U. (Kw.-hrs.) '000
Generated in same works ... ..	...	...	11,779
Purchased ... ..	...	...	741
<b>TOTAL—Electricity</b> ... ..			<b>12,520</b>

\* These figures were recorded by firms representing 81.6 per cent. of the net output of the whole trade.



## TABLES

Note.—The following particulars relate throughout to England and Wales, no production being recorded for Scotland.

## I. Summary of results (see page 420)

## II. Production

Kind of products	Quantity	Value
	Th. tons	£'000
White salt (including table salt) ... ..	749·6	1,141
Rock salt ... ..	21·0	23
TOTAL—Salt ... ..	770·6	1,164
Estimated salt content of brine pumped and sold ...	1,281·8	65
Other products ... ..	...	21
TOTAL VALUE OF PRODUCTS (GROSS OUTPUT) ...	...	1,250

## III. Employment

## A.—NUMBERS EMPLOYED IN WEEK ENDED 13TH DECEMBER, 1930

Persons employed	Males			Females			Males and females		
	Under 16	16 and under 18	All ages	Under 16	16 and under 18	All ages	Under 16	16 and under 18	All ages
Operatives ... ..	37	98*	2,866	3	41*	449	40	139*	3,315
Administrative, technical and clerical staff ... ..	1	5	157	—	2	20	1	7	177
Total ... ..	38	103	3,023	3	43	469	41	146	3,492

\* The figures shown for the age-group "16 and under 18" include 60 operatives (22 males and 38 females) described as being "under 18 years of age."

## B.—OPERATIVES EMPLOYED AT FOUR SPECIFIED DATES IN 1930

	1930	Males and females
15th March ... ..	...	3,413
14th June ... ..	...	3,357
13th September ... ..	...	3,303
13th December ... ..	...	3,315
AVERAGE ... ..	...	3,347

## IV. Power (see page 424)

## V. Consumption of fuel (see page 425)