WATERWORKS UNDERTAKINGS.

Contents. Page INTRODUCTORY 353 Summary of results 353 Qualifications affecting comparisons ... 354 . . Valuation of output and cost of materials 354 PRODUCTION 355 ... Total quantity of water supplied 355 Value of water supplied and work done for consumers .. 356 Work of construction, alteration, maintenance and repair ... 357 Duplication in value of water supplied 357 Cost of materials 357 Net output. 357 .. EMPLOYMENT.. 358 MECHANICAL POWER ... 359 TABLES : Companies 360 Local Authorities.. 363 . .

Introductory.*

The tables on pages 360 to 366 are based on returns received from Companies (including hydraulic power companies) and Local Authorities in Great Britain and Northern Ireland in respect of Waterworks Undertakings operated by them in 1924. The number of such returns received was 1,087.

The particulars given do not cover private waterworks owned by railway companies and other concerns maintaining waterworks solely for their own uses, nor water undertakings controlled by Government Departments.

Summary of results.—The following table shows the main results of the Censuses of 1924, 1912 and 1907, comparison between the figures for the three years being subject to the qualifications mentioned in the next paragraph. It should be noted that the accounting period normally used by Local Authorities in England and Wales and in Northern Ireland is the financial year ending on the 31st March, and by Authorities in Scotland, on the 15th May; the returns made in respect of water undertakings operated by Local Authorities, therefore, usually cover periods of twelve months ended at those dates in the years 1925, 1913 and 1908.

* See also Notes on pages vii to xv.

-	i mere	and the second s	1924.	TATED A 12	1912.	1907.
Particulars.	Unit.	Companies.	Local Authorities.	Total.	Total.	Total.
Value of water supplied and work done for consumers (Gross output)	£'000 ,,	4,082 941 3,141	16,762 3,251 13,511	20,844 4,192 16,652	11,138 1,307 9,831	10,634 1,559 9,075
Net output Average number of per- sons employed	No.	5,924	26,617	32,541	20,088	22,104
Net output per person employed	£	530	507	512	489	411
Mechanical power avail- able : Prime movers Electric motors driven	H.P.	64,008	115,663	179,671	137,306	138,105
by purchased electricity	10(10) 33	7,049	13,254	20,303	1,139	*

Qualifications affecting comparisons .- In considering the above table and the other tables in this report which show figures for different censal years, it should be borne in mind that-

(1) The comparability of figures relating to value or cost is affected by the changes which have taken place in the general purchasing power of money.

(2) The Census of 1907 covered Great Britain and the whole of Ireland but that for 1924 applied only to Great Britain and Northern Ireland. The exclusion of Southern Ireland does not seriously affect the comparability of the figures since, according to the Census of Production taken by the Government of the Irish Free State in respect of the year 1926, the total value of water supplied and work done for consumers by employees of water undertakings in the Free State in that year amounted to £248,054 and the number of persons employed was 954.

(3) The Censuses of 1907 and 1924 extended to all undertakings, however small, but, in 1912, undertakings employing not more than five persons (excluding the proprietors) were required to state only the average number of persons employed by them in the year. According to the information so furnished, the average number of persons employed in the establishments thus excluded was 1,263, or about $6\cdot 3$ per cent. of the number employed by the remaining undertakings as shown in the above table. Moreover, correspondence on defective returns for 1912 had not been completed when the war compelled suspension of this work, and in these circumstances detailed information for 1912 is not given in the remainder of this report. The defects in the aggregate figures given above are, however, not important. Valuation of output and cost of materials .- The figures of gross output represent the selling value of water supplied in each year,

plus the total amount charged for laying and fixing pipes and fixing

meters and fittings for consumers. Most water undertakings employ a staff to carry out work of construction, alteration, maintenance and repair of waterworks, buildings, machinery, plant, etc., but the cost of such work, whether defrayed out of capital or revenue, has, like similar work carried out for waterworks undertakings by contracting firms, been treated as a charge on the water sold and the total value of such work returned to the Census is, therefore, not included in the gross output shown above. Such work is, however, not necessarily a charge on the value of the water supplied in the year in which the work is carried out. Particulars of such work of construction, maintenance and repair were obtained in order to complete the survey of building and contracting work and, in the report on the Building and Contracting Trades, they are included in the general aggregates, together with work of similar kinds carried out by builders and contractors.

The figures of cost of materials are inclusive of materials used in all work of construction, maintenance and repair carried out by the undertakings' own employees whether chargeable to revenue or to capital account, and may, therefore, be somewhat overstated in relation to those for gross output, since work done on capital account, excluded from the latter, may be included in the former. There may also be some similar overstatement in the figures shown for numbers of persons employed in relation to the gross output figures. These factors should be borne in mind in considering the net output and net output per head for water undertakings taken by themselves, and also in relation to the corresponding figures for other industries.

It should, further, be noted that the value of the output of, and the cost of materials used by, water undertakings as a whole are overstated also in respect of the water purchased by one undertaking from another and included by both in the Census returns. This matter is discussed on page 357, where it is estimated that the total amount of duplication involved amounted to not less than £700,000.

Production.

Detailed information relating to the water supplied by water undertakings and the constructional and repair work carried out by their employees in the year 1924 will be found, for Companies, in Table II on pages 360 and 361, and, for Local Authorities, in Table II on pages 363 and 364.

Total quantity of water supplied .- Owing to the limitations imposed by the Census of Production Act, 1906, the Board of Trade were precluded from requiring water undertakings to furnish compulsory statements of the quantities of water supplied, but this information was furnished voluntarily by all important Companies and Local Authorities.

Undertakings that supplied water valued at £19,365,000, or nearly 93 per cent. of the total value (£20,545,000) of water supplied by all undertakings, stated that they supplied 452,200 million gallons of water in 1924, of which 425,400 million gallons were supplied direct to consumers for public or private purposes and 26,800 million gallons were sold to other water undertakings. Applying the same valuation, the total quantity of water supplied in 1924 may be estimated at about 490,000 million gallons; the corresponding estimate for 1907 was 390,000 million gallons. These aggregate figures contain duplication on account of water sold by one undertaking to another and included by both in their Census returns. From particulars supplied voluntarily, it is estimated that about 20,000 million gallons of water that were supplied to direct consumers in 1924 were purchased from other water undertakings, and, making allowance for these supplies, the bulk of which was probably purchased from undertakings that furnished returns, the total quantity of water supplied in 1924, free from duplication, may be estimated at about 470,000 million gallons. The corresponding estimate for the year 1907 was about 385,000 million gallons, which includes water supplied in Southern Ireland, so that the total quantity of water recorded as supplied in 1924 was over 22 per cent. greater than in 1907.

Value of water supplied and work done for consumers.—The following statement gives particulars of the value of water supplied by undertakings in 1924 and 1907, together with the amount received in those years for work done for consumers:—

Water supplied and	Companies.		Local Au	thorities.	Total.	
work done for consumers.	1924.	1907.	1924.	1907.	1924.	. 1907.
pertakings as a whole are	£'000	£'000	£'000	£'000	£'000	£'000
Water sold to other water under- takings	47		777	and an and a	824	a Torrey
Water supplied for public pur- poses (e.g. street watering, public baths, etc Water supplied to private con-	72	*	384	*	456	*
sumers for domestic and trade purposes	3,826	Froda	14,861	amo	18,687	
private purposes, not separate- ly distinguished	68		510		578	
TOTAL VALUE OF WATER SUPPLIED	4,013	2,148	16,532	8,341	20,545	10,489
Laying and fixing pipes, fixing meters and fittings for con- sumers (exclusive of cost of pipes, meters and fittings)	69	24	230	121	299	145
TOTAL VALUE OF WATER SUPPLIED AND WORK DONE FOR CON- SUMERS	4,082	2,172	16,762	8,462	20,844	10,634

* Not separately recorded.

The average revenue per million gallons supplied to consumers was $\pounds 42$ in 1924 and $\pounds 27$ in 1907.

The above statement is exclusive of particulars relating to certain smaller Authorities in respect of water supplied without special charge or of water obtained from public wells. Work of construction, alteration, maintenance and repair carried out by employees of water undertakings.—The following statement shows the value of the principal classes of constructional and repair work carried out in 1924 and 1907 by employees of Companies and Local Authorities. Such work was valued at cost, i.e. at a sum made up of wages paid, the cost of materials used in the work and a proportion of the general establishment charges.

Kind of work.	Companies.		Local Authorities.		Total.	
Mind of work.	1924.	1907.	1924.	1907.	1924.	1907.
Construction, alteration, main- tenance and repair of water- works, including hydraulic power works :	£'000	£'000	£'000	£'000	£'000	£'000
Reservoirs, wells, aqueducts, conduits, and trunk, distri- buting and service mains Buildings in connexion with	789	408	4,120	1,372	4,909	1,780
above	73	21	124	22	196	43
nexion with above Work not separately distin-	129	61	394	66	524	127
guished	44	69	419	344	463	413
TOTAL VALUE OF WORK DONE ON WATER WORKS, BUILDINGS, ETC	1,035	559	5,057	1,804	6,092	2,363

These figures cover all work of the specified kinds, whether charged to revenue or capital account, carried out by employees of water undertakings in the two years and, for the reasons explained on pages 354 and 355, these sums have not been treated as an addition to the value of the gross output of these undertakings.

Duplication in value of water supplied.—The gross value of water supplied and work done for consumers in 1924 ($f_{20},844,000$) is inclusive of the value of water, estimated at about 20,000 million gallons, supplied from certain undertakings to others for sale to direct consumers. The value of these supplies may be estimated at not less than $f_{700},000$, so that, excluding such duplication, the value of the output of water undertakings in 1924 was roughly $f_{20},000,000$. The corresponding net figure estimated for 1907 was $f_{10},525,000$.

Cost of materials.—The cost of materials used in 1924 by Companies was returned as \pounds 941,000 and by Local Authorities as \pounds 3,251,000, or \pounds 4,192,000 in all, a sum which, by the exclusion of water purchased by one undertaking from another and included by both in their Census returns, is reduced to about \pounds 3,390,000. The corresponding net figure for 1907 was about \pounds 1,450,000.

Net output.—The net output in 1924 of Companies (whose gross output was valued at $\pounds4,082,000$) was $\pounds3,141,000$, and of Local Authorities (whose gross output was valued at $\pounds16,762,000$) was $\pounds13,511,000$, or $\pounds16,652,000$ in all, that sum representing, without duplication, the total amount by which the value of the gross output exceeded the cost of the materials used. The net output per head of persons employed in the censal year 1924 was $\pounds 530$ for Companies and $\pounds 507$ for Local Authorities, as compared with $\pounds 366$ and $\pounds 423$, respectively, in 1907.

Employment.

The detailed information relating to employment in 1924 is summarised, for Companies, in Table III on page 361, and, for Local Authorities, in Table III on pages 364 and 365. The following table sets out certain particulars for that year together with those relating to the 1907 Census. For the purpose of this comparison, the average number of operatives of each sex returned for 1924 have been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October.

		Ma	les.	Females.		Males and females.		
Average number.			Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
1924. Operatives Administrative, etc.		ац	125 67	4,545 1,216	Сомра — 8	NIES. 34 129	125 75	4,579 1,345
TOTAL			192	5,761	8	163	200	5,924
1907. Wage earners Salaried	••		60 45	3,692 996		22 5	60 45	3,714 1,001
TOTAL	e trinu		105	4,688	ou Ta	27	105	4,715
1924. Operatives Administrative, etc.		•••	291 91	L 22,346 3,804	OCAL AT	UTHORIT 196 271	1ES. 294 100	22,542 4,075
TOTAL			382	26,150	12	467	394	26,617
1907. Wage earners Salaried			189 98	14,756 2,539		61 33	189 99	14,817 2,572
TOTAL	0.03		287	17,295	1	94	288	17,389
1924. Operatives Administrative, etc.			416 158	Сомранія 26,891 5,020	es and 3 17	LOCAL . 230 400	AUTHORI 419 175	TIES. 27,121 5,420
TOTAL	•••		574	31,911	20	630	594	32,541
1907. Wage earners Salaried			249 143	18,448 3,535	1	83 38	249 144	18,531 3,573
TOTAL	•••		392	21,983	1	121	393	22,104

The increase in the proportion of administrative staff to operative staff was relatively small, viz. from slightly over 19 per cent. in 1907 to 20 per cent. in 1924, the increase in the case of the staffs of Companies contributing the more important share to this expansion. The numbers of operatives recorded month by month in 1924 by Companies ranged from 132 below the average, in January, to 62 above the average, in July (see Table IIIB on page 361); and by Local Authorities from 1,156 below the average in January, to 913 above the average in July (see Table IIIB on page 365).

Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised, for Companies, in Table IV on page 362, and, for Local Authorities, in Table IV on page 366. The following table sets out the particulars for 1924 and 1907 relating to the capacity and kinds of *prime movers* and the capacity of *electric generators* installed :—

Power equipment.	Companies.		Local Aut	thorities.	Companies and Local Authorities.		
- one equipment	1924.	1907.	1924.	1907.	1924.	1907.	
RIME MOVERS : Reciprocating steam enginesH.P.Reciprocating steam engines46,478Steam turbines 		$\begin{array}{c ccc} H.P. & H.P. \\ 46,478 & 42,260 \\ 540 & 7 \\ 8,767 \\ 761 \\ 6,905 \\ 547 & 4,064 \\ 6,905 \\ 547 & 402 \\ 10 & 21 \end{array}$		H.P. 85,125 238 3,853 2,131 4	H.P. 136,146 1,858 22,753 3,686 11,668 3,216 344	H.P. 127,38 24 7,91 2,53 2	
Total	64,008	46,754	115,663	91,351	179,671	138,10	
ELECTRIC GENERATORS : Driven by Reciprocating steam engines Steam turbines Gas engines Petrol and light oil engines Heavy oil engines Water power	Kw. 282 10 17 21 442 26	Kw.	Kw. 854 4 565 43 51 432	Kw.	Kw. 1,136 14 582 64 493 458	Kw.	
Total	798	*	1,949	*	2,747	*	

The capacity of *electric motors* recorded in 1924 was as shown below :---

	1924.				
Electric motors.	Companies.	Local Authorities.	Companies and Local Authorities.		
Driven by— Electricity generated in own works Purchased electricity	H.P. 796 7,049	H.P. 3,781 13,254	H.P. 4,577 20,303		

Corresponding information was not required for 1907.

TABLES.

COMPANIES.

I.—Summary of results.

Note.—No water supplied by Companies was recorded in Northern Ireland.

Particulars.	Unit.	Great Britain.*	
Value of water supplied and work done for consumers (Gross output) Cost of materials used Net output Average number of persons employed	£'000 ,, No.	4,082 941 3,141 5,924	
Net output per person employed Mechanical power available :—	£ H.P.	530 64,008	
Electric motors driven by purchased electricity .	,,	7,049	

* In order to avoid the possible disclosure of information relating to individual companies, figures are given only for Great Britain as a whole.

II.—Production.

A.-VALUE OF WATER SUPPLIED AND WORK DONE FOR CONSUMERS.

garges - in a time are the the state	Great Britain.*
Water supplied and work done for consumers.	Net selling value.
Water sold to other undertakings	£'000 47
Water supplied for public purposes (e.g. street watering, public baths, etc.)	72
Water supplied to private consumers for trade and domestic purposes Water supplied for public and private purposes, not separately	3,826
distinguished	68
TOTAL VALUE OF WATER SUPPLIED	4,013
Laying and fixing pipes, fixing meters and fittings for consumers (exclusive of cost of pipes, meters, etc.)	69†
TOTAL VALUE OF WATER SUPPLIED AND WORK DONE FOR CONSUMERS (GROSS OUTPUT)	4,082

* See footnote to Table I. † Amount charged.

B.—VALUE OF CONSTRUCTION AND REPAIR WORK CARRIED OUT BY EMPLOYEES OF WATERWORKS UNDERTAKINGS ON WATERWORKS, BUILDINGS, ETC.

Kind of work done.	England and. Wales.*
	Value.
Construction, alteration, maintenance and repair of waterworks, including hydraulic power works :	£,000
Reservoirs, wells, aqueducts, conduits, and trunk, distributing	789
Buildings in connexion with above	789
Machinery and plant in connexion with above	129
Work not separately distinguished	
TOTAL VALUE OF WORK DONE ON WATERWORKS, BUILDINGS, ETC	1.035

* No such work was recorded for Scotland.

III.—Employment.

A.—Numbers employed in week ended 18th October, 1924.

	Males.		Females.		Males and females.	
Kind of staff.	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
Great Britain :* Operatives	125	4,544	8	31	125	4,575
Administrative, technical and clerical staff	67	1,216	8	129	75	1,345
TOTAL	192	5,760	. 8	160	200	5,920

* See footnote to Table I.

B.—Operatives employed in one week in each month of 1924.

Great Britain.*	(Annual average :	Males, 4,545;	Females, 34;	Total, 4,579.)
-----------------	-------------------	---------------	--------------	----------------

Week ended	1	Males.	Females.	Total	Week ended	Males.	Females.	Total.
Jan. 12th	•••	4,410	37 37	4,447 4,540	July 19th	4,607 4,595	34 33	4,641 4,628
Feb. 16th Mar. 15th	•••	4,503 4,513	· 36	4,549	Aug. 16th Sept. 13th	4,523	33	4,556
April 12th May 17th	•••	4,577 4,594	34 35	4,611 4,629	Oct. 18th Nov. 15th	4,544 4,527	31 33	4,575 4,560
June 21st		4,543	35	4,578	Dec. 13th	4,600	33	4,633

* See footnote to Table I.

IV.-Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS.

anital herd bating	England and Wales.*				
Power equipment.	Ordinarily in use.	In reserve or idle.			
				H.P.	H.P.
PRIME MOVERS :			E Stranger	22.224	15.054
Reciprocating steam engines		••	••	29,204	17,274
Steam turbines	••	••	••	157	383
Gas engines	••	••		6,220	2,547
Petrol and light oil engines		••	••	486	The second se
Heavy oil engines	••	••	••	5,261	1,644 60
Water power	••		••	487 10	00
Other	91.1.6	Q	••	10	
Total			ו•?	41,825	22,183
TOTAL OF PRIME MOVERS INSTALLE	D		and improved	64	,008
				Kw.	Kw.
ELECTRIC GENERATORS :				ILW.	The second second second
Driven by-				127	155
Reciprocating steam engines	•••	•••			10
Steam turbines	••	••	••	13	4
Gas engines	1	•••	•	-6	15
Petrol and light oil engines		•••••		357	85
Heavy oil engines	•••			26	The state of the
Water power		••			
TOTAL				529	269.
TOTAL OF ELECTRIC GENERATORS			***	7	798
				H.P.	H.P.
ELECTRIC MOTORS :				11.1.	1
Driven by—			and the second	658	138
Electricity in own works	••	••	••	1,963	5,086
Purchased electricity	• •	• •	••]	2,000	

* No mechanical power was recorded for Scotland.

LOCAL AUTHORITIES.

I.—Summary of results.

Particulars.	Unit.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
Value of water supplied and work done for consumers		1000	articleur .a	fait the .n	and the second
(Gross output)	£'000	14,976	1,560	16,536	226
Cost of materials used	~ ,,	3,010	223	3,233	18
Net output	,,	11,966	1,337	13,303	208
Average number of persons					A CONTRACTOR OF THE OWNER OWNER OF THE OWNER OWNE OWNER OWNE
employed	No.	23,822	2,366	26,188	429
Net output per person		22.2		CONTRACTOR OF CARE	· · · · · · · · · · · · · · · · · · ·
employed	f	502	565	508	485
Mechanical power avail- able :	~	386		Cardon grand	
Prime movers	H.P.	112,434	2,613	115.047	616
Electric motors driven by					Participation of the second second
purchased electricity	,,	11,953	1,121	13,074	180

II.—Production.

A.-VALUE OF WATER SUPPLIED AND WORK DONE FOR CONSUMERS.

Water supplied and work done for	England and Wales.	Scotland.	Great Britain.	Northern Ireland.	
consumers.	Net selling value.	Net selling value.	Net selling value.	Net selling value.	
Water sold to other undertakings Water supplied for public purposes	£'000 737	£'000 39	£'000 776	£'000 1	
(e.g. street watering, public baths, etc.)	343	38	381	3	
Water supplied to private consumers for trade and domestic purposes Water supplied for public and	13,435	1,210	14,645	216	
private purposes, not separately distinguished	255	250	505	5	
TOTAL VALUE OF WATER SUPPLIED	14,770	1,537	16,307	225	
Laying and fixing pipes, fixing meters and fittings for consumers	379 23.5		18.70	T	
(exclusive of cost of pipes, meters, etc.)	206*	23*	229*	1*	
TOTAL VALUE OF WATER SUPPLIED			or princip	Manan	
AND WORK DONE FOR CONSUMERS (GROSS OUTPUT)	14,976	1,560	16,536	226	

* Amount charged.

PUBLIC UTILITY SERVICES, ETC.

B.—VALUE OF CONSTRUCTION AND REPAIR WORK CARRIED OUT BY EMPLOYEES OF WATERWORKS UNDERTAKINGS ON WATERWORKS, BUILDINGS, ETC.

Kind of work done.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
	Value.	Value.	Value.	Value.
Construction, alteration, mainten- ance and repair of waterworks, including hydraulic power works : Reservoirs, wells, aqueducts, con- duits, and trunk, distributing	£'000	£'000	£'000	£,000
and service mains Buildings in connexion with above Machinery and plant in connexion	3,725 115	351 6	4,076 121	44 3
Work not separately distinguished	386 231	3 185	389 416	53
TOTAL VALUE OF WORK DONE ON WATERWORKS, BUILDINGS, ETC	4,457	545	5,002	55

III.—Employment.

A.-NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1924.

	Ma	les.	Fema	ales.	Males an	d females.
Kind of staff.	Under 18.	All ages.	Under 18.	All ages.	Under 18	All ages.
England and Wales : Operatives	265 80	19,806 3,350	3 8	174 239	268 88	19,980. 3,589
Total	345	23,156	11	413	356	23,569
Scotland : Operatives Administrative, etc.*	23 11	2,017 351	·1	18 28	23 12	2,035 379
Total	34	2,368	1	46	35	2,414
Great Britain :	288 91	21,823 3,701	3	192 267	291 100	22,015 3,968
Total	379	25,524	12	459	391	25,983
Northern Ireland : Operatives Administrative, etc.*		290 103	2009220 (1990 	44		294 107
Total		393	<u>attace</u>	8		401
United Kingdom :	379	25,917	12	467	391	26,384

* Administrative, technical and clerical staff.

B.—Operatives employed in one week in each month of 1924.

England and Wales. (Annual average : Males, 20,058; Females, 175; Total, 20,233.)

Week end	ed	Males.	Females.	Total.	Week ended	Males.	Females.	Total.
Jan. 12th		19,047	174	19,221	July 19th	20,904	175	21,079
Feb. 16th		19,596	173	19,769	Aug. 16th	20,589	176	20,76
Mar. 15th		19,923	172	20,095	Sept. 13th	20,248	178	20,420
April 12th		19,899	173	20,072	Oct. 18th	19,806	174	19,98
May 17th		20,407	177	20,584	Nov. 15th	19,832	171	20,00
		20,678	176	20,854	Dec. 13th	19,768	174	
Scotla	nd.	(Annual	average .	: Males,	1,970 ; Females	, 17 ; To	otal, 1,98	7.)
Scotla Jan. 12th		(Annual 1,766	average	: Males,	1,970 ; Females July 19th	, 17 ; To		7.) 2,03
Scotla Jan. 12th Feb. 16th		(Annual 1,766 1,846	average .	: Males, 1,781 1,861	1,970 ; Females July 19th Aug. 16th	, 17 ; To	otal, 1,98	$ \begin{array}{c c} 19,94\\7.)\\\hline 2,03\\2,03\\2,00\\\end{array} $
Jan. 12th Feb. 16th Mar. 15th	und.	(Annual 1,766 1,846 1,876	average	: Males, 1,781 1,861 1,891	1,970 ; Females July 19th	, 17 ; T_{0} 2,013 2,019	otal, 1,98	7.) 2,03 2,03
Scotla Jan. 12th Feb. 16th		(Annual 1,766 1,846	average .	: Males, 1,781 1,861	1,970 ; Females July 19th Aug. 16th Sept. 13th	$, 17; To 2,013 \\ 2,019 \\ 1,986 $	otal, 1,98	7.) 2,03 2,03 2,00

Great Britain. (Annual average : Males, 22,028; Females, 192; Total, 22,220.)

Jan. 12th	0.01	20,813	189	21,002	July 19th	22,917	194	23,111
Feb. 16th		21,442		21,630			195	22,803
Mar. 15th		21,799		21,986	Sept. 13th		198	22,432
April 12th		21,958			Oct. 18th		192	22,015
May 17th		22,425			Nov. 15th		186	21,973
June 21st		22,753			Dec. 13th		189	21,963

Northern Ireland. (Annual average : Males, 318; Females, 4; Total, 322.)

	States La	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			and the second second			011
Jan. 12th		380	4	384	July 19th	339	5	344
Feb. 16th		355	4	359	Aug. 16th	315	5	320
Mar. 15th		350	4	354	Sept. 13th	293	5	298
April 12th		312	4	316	Oct. 18th	290	4	294
May 17th		292	4	296	Nov. 15th	269	4	273
June 21st		325	5	330	Dec. 13th	298	4	302

PUBLIC UTILITY SERVICES, ETC.

IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS.

(a) Ordinarily in use.(b) In reserve or idle.	England and Wales.	Scotland.	Great Britain.	Northern Ireland
The in the second second second	H.P.	H.P.	H.P.	H.P.
Prime movers :	70,103	1,560	71,663	228
Reciprocating steam engines $\begin{cases} (a) \\ (b) \end{cases}$	17,194	325	17,519	258
Steam turbines $\ldots \qquad _{(a)}^{(a)}$	378	30	408	
(0)	910 9,021	127	<i>910</i> 9,148	35
Gas engines $\cdots \begin{cases} a \\ b \end{cases}$	4,718	50	4.768	35
	2,223	50	2,273	12
Petrol and light oil engines $\begin{cases} \binom{n}{b} \\ \binom{n}{b} \end{cases}$	582	58	640	
Heavy oil engines $\cdots \begin{cases} (a) \\ (b) \end{cases}$	4,178	77	4,255	46
$\frac{1}{(a)}$	448	$\begin{array}{c c} 14\\ 282 \end{array}$	$\begin{array}{r} 462 \\ 2,523 \end{array}$	
Water power $\cdots \begin{pmatrix} a \\ b \end{pmatrix}$	106	40	146	
Other \ldots \ldots \ldots \ldots \ldots	194	an anna an	194	2
Other $\cdots \qquad (b)$	138		138	and the second second
(a)	88,338	2,126	90,464	323
TOTAL \cdots $\begin{pmatrix} a \\ b \end{pmatrix}$	24.096	487	24,583	293
SURVEY AN AND THE SURVEY				
TOTAL OF PRIME MOVERS INSTALLED	112,434	2,613	115,047	616
	Kw.	Kw.	Kw.	Kw.
ELECTRIC GENERATORS :	Maria P.	Suprement Land	by he have	Constant Part
Driven by-	699	- COSC 0 1 8	699	6
$\begin{array}{ccc} \text{Reciprocating} & \text{steam } \int (a) \\ \text{engines } \dots & \dots & \bigcup (b) \end{array}$	149	1885_ 1 3	149	
Steam turbines \dots (a)	4	13781 19	4	. ant
Gas engines $\dots \int_{a}^{a} (a)$	500		500	
	65		65 41	
Petrol and light oil engines $\begin{cases} (a) \\ (b) \end{cases}$	41 2		41	and the second s
Heavy oil engines (a)	51		51	w. Rete-
(a)	349	80	429	
Water power $\cdots \begin{pmatrix} a \\ b \end{pmatrix}$	1 1 1 1 2 2 3	3	3	
(In)	1,644	80	1,724	6
TOTAL $\cdots \begin{pmatrix} a \\ b \end{pmatrix}$	216	3	219	100
			East -	1780 - 1780
TOTAL OF ELECTRIC GENERATORS	1.000	00	1.040	6
INSTALLED	1,860	83	1,943	0
	H.P.	H.P.	H.P.	H.P.
ELECTRIC MOTORS :				
Driven by—			0.10-	
Electricity generated in $\int (a)$	3,175	20	3,195	
own works $\ldots \ (a)$	579 8,159	892	9,051	180
Purchased electricity $\dots \begin{pmatrix} a \\ b \end{pmatrix}$	3,794	229	4,023	

366