

[Report 1913] / Medical Officer of Health, Droylsden U.D.C.

Contributors

Droylsden (England). Urban District Council.

Publication/Creation

1913

Persistent URL

<https://wellcomecollection.org/works/rvktnmnm>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

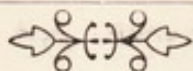
This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

. . DROYLSDEN . .
URBAN DISTRICT COUNCIL.



ANNUAL REPORT

— OF THE —
MEDICAL OFFICER OF HEALTH.

1913.

ASHTON-UNDER-LYNE :
GRIFFIN AND SHEARD, PRINTERS, 130 STAMFORD STREET.

URBAN DISTRICT OF DROYLSDEN.

AREA—1144 acres.

POPULATION—At Census 1901 11,097
At Census 1911 13,259
Estimated at middle of 1913..... 13,700

NUMBER OF INHABITED HOUSES —

At Census 1901..... 2,447
Average No. of persons per house. 4.53
At Census 1911..... 2,992
Average No. of persons per house. 4.43
At end of 1913 3,149
Average No. of persons per house. 4.40

BIRTH RATE FOR 1913..... 22.26

DEATH RATE FOR 1913..... 13.5

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH FOR 1913.

TO THE CHAIRMAN AND MEMBERS OF THE
DROYLSDEN URBAN DISTRICT COUNCIL.

GENTLEMEN,

I beg to submit to you my Annual Report as to the health and sanitary condition of the district for the year 1913.

BIRTH RATE.

During the year the births of 305 persons (172 males and 133 females) were registered. Of these births three males and four females were illegitimate. One legitimate female and two illegitimate female births were transferred to the district.

The birth rate for the year is 22·26 per 1,000, which is the lowest on record for the district.

DEATH RATE.

During the year the deaths of 145 persons were registered in the district, and the deaths of 41 residents registered elsewhere were transferred here. This total of 186 deaths (85 males and 101 females), gives a death rate of 13·5 per 1,000, of the population, which is the lowest on record.

Of the deaths 36 or 19·3 per cent. were children under one year of age; from one year and under two years of age there were 10 deaths or 5·3 per cent.; from two years and under five years of age there were 8 deaths or 4·3 per cent.; from five years and under fifteen years of age there were 6 deaths or 3·2 per cent.; from fifteen years and under twenty-five years of age there were 4 deaths or 2·1 per cent.; from twenty-five years and under forty-five years of age there were 25 deaths or 13·4 per cent.; from forty-five years and under sixty-five years of age there were 48 deaths or 25·8 per cent.; and from sixty-five years and upwards there were 49 deaths or 26·3 per cent. Eleven males and thirteen females died between the ages of seventy years and eighty years, and six males and seven females died between the ages of eighty and ninety years. One female died at the advanced age of ninety-one years.

The deaths under one year were thirty-six, and these measured in proportion to the recorded births, give a rate per 1,000 of 118, which, although slightly higher than last year, is well below the average.

Diseases of the respiratory organs, such as bronchitis and pneumonia, caused twenty-nine deaths or 15.5 per cent. of the total deaths, as compared with 15.4 per cent. in 1912.

All tubercular diseases caused thirteen deaths or 6.9 per cent. of the total deaths, as compared with 9.4 per cent. in 1912, and 12.3 per cent. in 1911. Nine of these deaths were from phthisis, as compared with thirteen deaths in 1912 and twenty-three in 1911.

Diseases of the zymotic or infectious class caused six deaths:—measles 3, and whooping-cough 3. This gives a zymotic death rate of .4 per 1,000.

The following table will show the number of deaths from the chief zymotic diseases during the last ten years:—

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Smallpox	0	2	0	0	0	0	0	0	0	0
Measles	9	7	13	5	8	7	11	7	9	3
Scarlet Fever.....	0	0	8	4	0	5	1	0	0	0
Whooping Cough ...	6	1	1	3	7	0	13	2	9	3
Diphtheria	0	4	3	3	1	4	5	4	1	0
Enteric Fever	1	0	2	2	1	4	2	2	2	0
Totals	16	14	27	17	17	20	32	15	21	6

Compared with previous years the latest figures are most satisfactory, being easily the lowest, and would seem to show a greater care is being exercised in the nursing of such diseases as measles and whooping-cough.

INFECTIOUS DISEASES.

During the year, under the Infectious Diseases (Notification) Acts, 152 cases of infectious disease were notified.

In consequence of the General Order of the Local Government Board, making all cases of tuberculosis compulsorily notifiable from February 1st, 1913, it is not possible to compare this figure with that of previous years.

The cases notified were as follows:—Diphtheria 9, erysipelas 8, scarlet fever 45, enteric fever 8, puerperal fever 2, poliomyelitis 1, pulmonary tuberculosis 55, other forms of tuberculosis 24.

The following table shows the number of cases of infectious disease notified during the last ten years:—

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Smallpox	3	19	...	...	...	...	...	...	...	...
Diphtheria.....	4	14	19	14	7	18	18	15	15	9
Erysipelas	11	2	8	6	8	15	12	10	9	8
Scarlet Fever	47	43	143	63	47	188	88	31	32	45
Enteric Fever	7	9	11	8	10	25	19	11	7	8
Puerperal Fever	...	...	2	1	1	2	3	2	3	2
Poliomyelitis.....	Not	not	notifiable	until	1913	...	...	...	...	1
Pulmonary Tuberculosis ...	„	„	„	„	„	1911	...	23	52	55
Other forms of Tuberculosis	„	„	„	„	„	1913	...	...	...	24
Totals	72	87	183	92	73	248	140	92	118	152

On the receipt of notifications of infectious diseases, enquiries were instituted as soon as possible as to the causes of infection and the premises examined to ascertain if insanitary conditions existed, and such, where found, were caused to be immediately remedied. Complete isolation of the patients from non-infected members of the household was insisted upon, and when the patients were sufficiently recovered, the houses and infected articles therein were thoroughly disinfected by means of formaldehyde vapour and Izal fluid. During the year 82 houses were disinfected by the Council the efficacy of which was proved by the entire

absence of repeat cases of disease in such houses. Disinfecting powder and fluid were supplied free during the continuance of infectious cases.

Owing to insufficient means of isolation at home, nine cases of Scarlet Fever and one case of Diphtheria were removed to the Hyde Hospital for Infectious Diseases, where six beds are retained (one for Smallpox and five for other diseases) at an annual retaining fee of £66. As many beds as required, in addition to the above, are available up to the limit of accommodation for the Hospital. The cost of maintenance of these patients amounted to the additional sum of £90.

Proceedings were instituted against a person for the recovery of the sum of £8 5s. od., being the cost of maintaining such person in the Infectious Diseases Hospital while suffering from Typhoid Fever. Judgment was entered in favour of the Council for the amount claimed, with costs, such sum to be paid within six months.

A Steam Disinfector (Alliott's patent) is in use at the Destructor Works, and during the year a suitable four-wheeled van was purchased, for the conveyance of infected articles to and from the Disinfecting Station. This latter is in addition to a small hand-van obtained in the previous year.

88 notifications of Tuberculosis were received respecting 79 patients. Particular attention was given to patients suffering from Pulmonary Tuberculosis, and the whole of these cases were carefully investigated, and printed advice and instructions, disinfectants, sputum bottles, paper handkerchieves, etc., left with each patient where necessary. Twenty-five houses were disinfected by the Council in connection with the prevention of Tuberculosis. Arrangements have been made by the Inspector of Nuisances for him to be notified by the Sub-District Registrar of deaths from Tuberculosis (all forms) immediately after registration. This system greatly facilitates the early disinfection of the infected premises.

At different times Scarlet Fever and Chicken-pox became unusually prevalent, but it has not been found necessary to close any schools on account of infectious disease. The whole of the schools in the District were disinfected whilst closed during the four principal holidays of the year, and at

other times as considered desirable. A big epidemic of Scarlet Fever in Manchester spread into this District in the beginning of September. At no time has it assumed unusual proportions, and the figures compare, not unfavourably, with previous years.

Under the Diphtheria Anti-Toxin Order, 1910, 42,000 units of Diphtheria Anti-Toxin were administered by Medical Practitioners to seven patients resident in the District suffering from Diphtheria.

A male child, age two years, was notified as suffering from Poliomyelitis. Upon investigation it was found that the mother suspected that both this child and its twin brother were backward in walking, and rubbed both their legs with some liniment, with the result that both children became more debilitated than before, the massage was discontinued and the children completely recovered. Under the circumstances it was not thought necessary to proceed further with the case.

The question of adopting the provision of the Notification of Births Act, 1907, was sympathetically considered by the Council, but the time was not deemed opportune to proceed further in the matter. I shall be glad if the Council will take an early opportunity of further discussing this desirable measure.

PUBLIC HEALTH ACTS AMENDMENT ACT, 1907.

During the year the adoption of this Act was carefully considered by the Council, and with the consent of the Local Government Board the following portions of the Act will shortly come into operation, viz. :—

Part II. Sections 15, 16, 17, 19, 20, 21, 22, 23, 24 25 27,
28, 29, 30, 32 and 33.

Part III. Sections 34, 35, 36, 37, 38, 43, 44, 45, 46, 47, 48,
49, 50 and 51.

Part IV.

Part VI.

And Section 95 comprised in Part X.

The number of Bacteriological Examinations made during the year by the Manchester Public Health Laboratory for this District were as follows:—one swab for suspected Diphtheria, one specimen of blood for suspected Typhoid Fever, and one specimen of sputum suspected to be Tubercular. In each case the result was declared to be negative.

I would urge that the Council should pay for the examination by the Manchester Public Health Laboratory of the morbid products, namely, swabs taken from throats suspected to be Diphtheritic, blood taken from people suspected to be suffering from Typhoid Fever, and sputum collected from people suspected to be suffering from Phthisis, collected by Medical Practitioners from patients resident in Droylsden.

The danger of the dissemination of various kinds of disease through the medium of the common house-fly was forcibly brought to the notice of householders during the year. Some 3,000 cartoons containing pictorial representations of the habits &c., of the house-fly and other literature were distributed from house to house throughout the District.

HORSE AMBULANCE.

During the year the Council came into possession of a Horse Ambulance presented to them by public subscription. Regulations have been framed to govern the use of the vehicle, which is now in considerable demand and of great public service.

HOUSING.

Geologically the District is situate upon clay, overlying shales and coal. Houses are built principally along the three main thoroughfares of the District, and most of the land in the rest of Droylsden is unbuilt upon. During the year 1913 there were 23 new houses erected, and 5 houses demolished, leaving 3149 habitable houses in the District, of which

19 were found to be untenanted at the end of the year. The erection of a Garden Village Estate has been commenced at the Southerly end of the District, and when completed will form a desirable acquisition to the township. The Estate extends to some twenty-two acres, and upwards of 250 houses will be built, of various size, to suit the needs of different families. Twenty-one of the houses will shortly be ready for tenants. The housing accommodation appears to be adequate for the present requirements of the District. With the exception of three houses, which are supplied with good well or spring water, the whole of the houses are connected to the water service of the Manchester Corporation and a constant supply of excellent water is maintained.

Under the Housing, Town Planning, &c. Act, 1909, and the Housing (Inspection of District) Regulations, 1910, special attention was again devoted to the more defective houses in the District. Requisitions to make good defects where necessary were made, and in all cases the requirements of the Council were, or are being, complied with by the Owners.

The following tables give synopsis of the action taken and the general character of the defects found to exist :—

ACTION TAKEN IN 1913.

No of Dwelling-houses inspected under Sec. 17 of the Act of 1909	263
„ Dwelling-houses considered unfit for human habitation	1
„ Representations to Authority with a view to making Closing Orders	1
„ Closing Orders made	1
„ Dwelling-houses in which defects were remedied without making Closing Orders.	55
„ Dwelling-houses demolished	5

GENERAL CHARACTER OF DEFECTS FOUND TO EXIST.

General dilapidations including defective floors, walls, roofs, fittings &c.	30
Dampness	16
Uncleanliness	7
Defective roofs.....	5
Windows not made to open	3
Defective gullies in cellars.....	3
Defective waste pipes from baths	2
Defective slop-waste pipes	2
Plaster off walls	1
Defective flagging	1
No Defects	193
Total number of houses inspected ...	263

One case of overcrowding was found, and remedied.

SANITARY ACCOMMODATION AND NUISANCES.

I am pleased to report that there are now in existence 2,924 water closets and only 673 privies. During the year, 281 privies and five pails were abolished and replaced by 327 new water closets. During the conversions, all defective drains, gullies, waste pipes, downfall pipes, and paving of backyards were caused to be made good, and for this purpose, 42 Statutory Notices were served. In each case the drainage work was subjected to the water test, and frequent inspections were made by the Inspector of Nuisances as the work proceeded.

The abolition of privy middens is still receiving earnest attention and considerable progress is being made towards the conversion of the whole of these to the water carriage

system. Before this is accomplished many old sewers, at present inadequate or unsuitable for water closets, must be replaced by new combined drains. A list of the premises where these are required has been prepared, and I recommend that the necessary steps be taken to enable this work to be proceeded with at the earliest possible moment.

The number of privies converted into water closets were :—

In 1909.....	54
1910.....	117
1911.....	419
1912.....	402
1913	281

The following table shows the work effected during the year :—

ALTERATIONS TO SANITARY CONVENIENCES.

How Effected.	Privies abolished.	Ashpits & Middens abolished.	Pails abolished.	New W.C's provided.	New Ash Tins Provided.
Converted after service of notices under Public Health Act, 1875	240	160	1	249	261
Do. Factory and Workshops Act, 1901	3			3	
Do. Housing, Town Planning, etc., Act, 1909.	11	6		17	23
Converted Voluntarily by Owners	25	15	4	35	25
New Premises				23	23
Premises Demolished	2	2			
Totals.....	281	183	5	327	332

The following table shows the number of sanitary conveniences in the District at the end of the year, as compared with the previous years : -

Date.	W.C's.	Tipplers.	Pails.	Privies.	Ashboxes and Tins.	Ashpits and Middens.
At Dec. 31st, 1910 ..	1603	41	22	1761	920	1168
At Dec. 31st, 1911 ..	2109	37	45	1356	1336	911
At Dec. 31st, 1912 ..	2597	37	45	954	1847	692
At Dec. 31st, 1913 ..	2924	37	40	673	2179	509
Increase during 1913..	327	..	..	..	332	..
Decrease during 1913.	..	..	5	281	..	183

SANITARY CONVENIENCES IN THE RESPECTIVE WARDS, DECEMBER 31st, 1913.

	W.C's. No.	Tipplers. No.	Pails. No.	Privies. No.	Ashboxes and Tins. No.	Ashpits and Middens. No.
NORTH WARD.						
Houses	451	12	1	177	364	139
Schools, Religious In- stitutions, &c.....	33	0	0	15	2	3
Factories, Work- shops, &c	104	2	12	14	0	0
Total North Ward ...	588	14	13	206	366	142
SOUTH WARD.						
Houses	684	8	4	123	593	94
Schools, Religious In- stitutions, &c	57	0	0	3	9	1
Factories, Work- shops, &c	76	0	6	17	0	0
Total South Ward ...	817	8	10	143	602	95

	W.C's No.	Tipplers No.	Pails No.	Privies No.	Ashboxes and Tins No.	Ashpits and Middens No.
EAST WARD.						
Houses	620	15	2	253	532	194
Schools, Religious In- stitutions, &c.....	57	0	0	13	5	2
Factories, Work- shops, &c.....	9	0	1	2	0	0
	—	—	—	—	—	—
Total East Ward ...	686	15	3	268	537	196
WEST WARD.						
Houses	803	0	6	55	673	76
Schools, Religious In- stitutions, &c.....	5	0	0	0	0	0
Factories, Work- shops, &c	25	0	8	1	1	0
	—	—	—	—	—	—
Total West Ward ...	833	0	14	56	674	76
Total for whole						
District	2924	37	40	673	2179	509

Approximately, 1443 nuisances were caused to be abated, and for this purpose it was found necessary to send out 74 Informal Notices and 44 Statutory Notices. The owners of property affected by these notices displayed great willingness in complying with the requirements of the Council, and for the third year in succession no magisterial proceedings were necessary.

The following is a list of the principal Nuisances remedied during the year, as distinguished from the improvements carried out under the Housing, Town Planning, &c. Act, 1909 :—

CLASSIFIED LIST OF NUISANCES REMEDIED 1913.

DESCRIPTIONS OF NUISANCES.	No.
Privies converted to W.C's	281
Pails converted to W.C's	5
Ashpits and middens converted to Ashtins	183
Defective drains	248
Do. gullies	205
Do. slop-waste pipes	132
Do. rain-water pipes	51
Do. yard surfaces.....	200
Do. yard walls	82
Do. W.C's	11
Do. ashbins	13
Do. door to ashpit	1
Ashtins without covers	3
Foul W.C's	2
Accumulations of filth	2
Do. water.....	2
Defective roofs	6
Do. plastering	1
Limewashing and cleansing of premises.....	2
Foul ditchcourses	1
Defective grid in cellar	1
Do. wash-house floor	1
Smells from pickle liquor	1
Smoke, soot and grit from chimneys	2
Manure pits emptied and cleansed	3
General defects	4
Total.....	1443

BACK PASSAGES.

A number of back passages are in a deplorable condition and should be put under the operation of the Private Street Works Act.

PUBLIC URINALS.

The condition of the two Public Urinals leaves much to be desired, and I trust that the Council will carry out their intention to modernise these Conveniences at an early date.

SMOKE OBSERVATIONS.

353 detailed observations of the emission of smoke from the chimneys of twenty-three factories and workshops were taken.

The Council have not fixed a time limit for the emission of black smoke, but in all cases where excessive emissions were observed the owners attention was drawn to same with satisfactory results.

The question of prosecuting offenders in cases of firing house chimneys is still lying in abeyance. No action is at present taken by either the Council or police in this matter.

REMOVAL OF REFUSE.

The removal of all refuse other than trade refuse is undertaken by the Council free of charge. The dry refuse from ashboxes and tins, is removed in the daytime, each receptacle being emptied once per week. One cart is employed regularly on this work, and a further cart is required three days per week. Privy middens, dry ashpits, pails, &c. are attended to regularly as required, and for this purpose one cart has been found sufficient. 2,621 loads of refuse were removed during the year at a cost of £572, as compared with £550 in the previous year. The appended table shows the work done month by month :—

Month 1913.	No. of Privy Middens, &c. Emptied. (night-time)	No. of Loads Removed from Privy Middens, &c. (night-time)	No. of Loads Removed from Dry Ash boxes, Tins, &c. (day-time)	Total No. of Loads Removed
January	150	145	112	257
February	183	131	100	231
March	179	132	108	240
April	206	131	112	243
May.....	171	108	109	217
June	109	80	113	193
July	131	95	126	221
August	124	83	106	189
September	181	115	122	237
October	140	90	118	208
November	109	72	118	190
December	115	71	124	195
Totals.....	1798	1253	1368	2621

TRADE REFUSE.

The Council undertake the removal of trade refuse when requested to do so, and make a small charge for the service. The trade refuse from sixteen premises was regularly removed in this way, at a total charge of £26, the same amount as in the previous year.

DISPOSAL OF REFUSE.

The whole of the refuse from the District is dealt with at the Destructor Works. The Refuse Destructor, which is of the back feed type, was erected in 1910, and now contains three cells. The whole of the refuse is destroyed by fire. During the year 2,912 tons of refuse were destroyed at a total cost of £384 (including repairs and cartage of clinkers), or equal to 2s. 7½d. per ton, whilst the gross cost (including loan repayments and interest) was £614, or 4s. 2½d. per ton.

The steam generated in the Destructor is used for the purposes of Sludge Pressing, Clinker Crushing, Mortar Milling and Steam Disinfecting.

Table showing QUANTITY OF REFUSE dealt with at the Destructor Works per Month.

Month 1913.	BURNT IN DESTRUCTOR.					PLACED ON LAND.					Gross Total delivered at Destructor.
	Hours Worked.	Nightsoil.	Dry Refuse.	Trade Refuse.	Sludge Cake.	Total Burnt.	Nightsoil.	Dry Refuse.	Trade Refuse.	Total placed on Land.	
		T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.
January ...	224½	115 4 0	122 8 1	26 13 1	.....	264 15 2	0 19 0	2 11 2	.....	3 10 2	268 6 0
February ..	188½	109 3 2	109 14 2	12 10 2	5 0 0	236 8 2	20 16 1	.....	.....	20 16 1	257 4 3
March . . .	210½	116 9 3	130 11 0	14 6 1	5 0 0	266 7 0	3 0 0	.....	.....	3 0 0	269 7 0
April	227½	128 13 2	129 6 3	12 18 1	6 0 0	276 18 3	.....	.....	.....	.....	275 18 3
May	210½	101 10 2	132 9 1	20 17 0	8 0 0	262 16 3	.....	.....	.....	.....	262 16 3
June	220½	75 8 3	119 4 0	14 16 3	8 0 0	217 9 2	.....	.....	.....	.....	217 9 2
July	230½	76 3 3	133 14 3	13 10 0	7 0 0	230 8 2	2 15 2	.....	.....	2 15 2	233 4 0
August	202	82 12 3	107 19 3	11 11 2	.....	202 4 0	0 13 2	.....	.....	0 13 2	202 17 2
September..	242	115 2 1	119 18 2	25 6 3	.....	260 7 2	.....	.....	.....	.....	260 7 2
October	251½	76 7 2	129 13 1	22 1 2	.....	228 2 1	.....	.....	.....	.....	228 2 1
November ..	225½	73 5 3	135 1 0	16 16 1	.....	225 3 0	.....	.....	.....	.....	225 3 0
December...	248½	63 5 0	152 18 0	12 7 0	12 13 0	241 3 0	.....	.....	.....	.....	241 3 0
Totals.....	2682	1133 17 1	1522 19 0	203 15 0	51 13 0	2912 4 1	28 4 1	2 11 2	.....	30 15 3	2943 0 0

The average quantity of Refuse per head of population was 4 cwts. 33½ lbs., as compared with 5 cwts. 5 lbs. per annum last year.

DRAINAGE.

The District is well sewered, and with the exception of some fifty-two houses, the whole of the houses in the District are now connected up. Practically the whole of the unconnected houses occupy positions on the remote outskirts of the District.

A large number of Combined Drains have recently been constructed by the Council to enable the work of closet conversions to proceed, and in connection with this work I wish to refer to the type of iron cover which is placed over new chambers. It appears to be the practice in every case to use an iron cover with large perforations which allow the sewer gases to escape from the manholes at ground level. As these manholes are sometimes situate within a few feet of the doors and windows of dwelling-houses it is obvious that considerable annoyance and grave risk to health are experienced by the tenants, and I recommend that the Council should consider the advisability of substituting an improved type of manhole cover in cases of this kind.

SEWAGE DISPOSAL.

The Sewage Disposal Works have been carried on during the year in an efficient manner. An improved effluent is being turned out, and this appears to give satisfaction to the Inspectors of the Mersey and Irwell Joint Rivers Committee, who frequently visit the Works. The system consists of catchpits large settling tanks and bacterial filters. The sewage sludge is pumped to a series of sludge-presses, and with the addition of ground lime is converted into dry sludge cake, some portion of which is disposed of to farmers and others for manurial purposes. A scheme for the separate treatment of Storm Water is under consideration.

DAIRIES, COWSHEDS AND MILKSHOPS.

There are in the District one dairy, thirty-one cowsheds (containing some 221 head of cattle belonging to twenty-one owners) and thirty-nine milkshops. These premises have been well supervised and have generally been found to be

kept in a cleanly condition. One farmstead which had previously been reported to the Council in respect of defective drainage, paving of farmyard, insanitary middenstead, bad lighting, ventilation and insufficiency of airspace in cowsheds, has been put into a satisfactory condition. Minor improvements have also been effected at another farm, whilst a third farmstead has been demolished. With a view to the more efficient protection of milk from dust and other impurities, suggestions by the Inspector of Nuisances have in 13 cases been acted upon.

The Regulations adopted in 1902, with respect to dairies, cowsheds and milkshops, provide that "all cowsheds, other than those from which the cows are habitually grazed on grassland during the greater part of the year, and when not so grazed are habitually turned out during a portion of each day, must not be occupied by a larger number of cows than will leave not less than 800 cubic feet of air space for each cow." The whole of the cowkeepers in this District habitually graze their cattle and are accordingly exempt from the air space clause. The result is that in some cases an excessive number of cows are, during the winter months, kept in small cowsheds for a considerable portion of the day. It would appear that the Regulations need amendment to provide against overcrowding, and also to provide for a minimum distance between floors and ceilings of cowsheds.

SLAUGHTER HOUSES.

There are twelve licensed Slaughter Houses within the District, and whilst some are in undesirable proximity to dwellings, they have all been kept in cleanly condition. Two breaches of the Slaughter House Regulations have been observed, and remedied.

PIGSTIES.

Pigs are kept at twenty places in the District, mostly under satisfactory conditions. No complaints in respect of pig-keeping have been received during the year.

BAKEHOUSES.

There are twelve Bakehouses in the District, including one underground Bakehouse. These have been inspected and found to be well kept. Minor defects at six Bakehouses have been pointed out and made good.

SHOPKEEPERS.

The inspection of meat, foodstuffs, &c. has not necessitated any legal proceedings being instituted, and no complaints have arisen.

OFFENSIVE TRADES.

Tripe boiling is carried on under cleanly conditions at two premises. Application has been made to the Local Government Board for the following trades, businesses, or manufactures to be declared "Offensive Trades" under Section 51 of the Public Health Acts Amendment Act, 1907, viz.: - Blood Drier, Tanner, Leather Dresser, Fat Melter and Fat Extractor, Glue Maker, Size Maker, Gut Scraper, Dealer in Rags and Bones, Bone Burner, Manufacturer of Manure other than Chemical Manure, Fish Frier, Pickle Manufacturer, Food Boiling for Pigs, and Rubber and Rubber Substitute Manufacturer.

FACTORIES AND WORKSHOPS.

161 visits of inspection of factories, workshops and workplaces were made during the year. Thirty-five defects were found, and to deal with these two Statutory Notices and seventeen Informal Notices were served. Three matters requiring attention under the Public Health Act, 1875, were notified by H. M. Inspector of Factories, and four matters were reported to H. M. Inspector to be dealt with by him under the Factory and Workshop Act, 1901.

Two Lists of Outworkers were received from an adjoining Authority affecting Homeworkers in Droylsden. Three premises were found to be in need of attention, and the necessary repairs have since been effected.

No.	Description of Works.	No.	Description of Works.
10	Cotton Spinning & Weaving Mills	1	Printer
3	Dyers and Bleachers	1	Shoe Manufacturer
3	Chemical Manufacturers	1	Mineral Water Manufacturer
1	Steam Laundry	2	Coach Builders
1	Hand Laundry	1	Textile Machinery Manufacturer
1	Iron Foundry	1	Basket Manufacturer
2	Tin Smiths	1	Mews
3	Shoeing & General Smiths	2	Tripe Boilers
4	Plumbers	2	Fodder Stores
3	Painters	3	Tailors
4	Builders Yards	2	Dressmakers
1	Gas Works	1	Eating House
1	Grocers Sundries Manufacturer	2	Station Goods Yards
3	Pickle Manufacturers	12	Bakehouses
2	Preserve Manufacturers	1	Sterilized Milk Dépôt
1	Cask Maker	13	Coal Dépôts
1	Brickworks	12	Slaughter-houses
1	Rubber Goods Manufacturer	21	Shippens and Farmsteads
1	Engineering Tool Works	1	Sewage Disposal Works
1	Cycle Manufacturer	1	Refuse Destructor Works
		128	Total

In the compilation of this Report I have received the greatest assistance from Mr. Frank Schofield, the Inspector of Nuisances to the Council, to whom I express my indebtedness for a large amount of the detailed information set forth herein.

I am, Gentlemen,

Your obedient Servant,

F. G. P. ILBERTON, M.B.,

Medical Officer of Health.

Table 1.—Vital Statistics of whole District during 1913 and previous Years.

Year.	Population estimated to middle of each year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Net Deaths belonging to the District.		
		Un-corrected No.	NETT.		No.	Rate.	Of Non-Residents registered in the District. 8	Of Residents not registered in the District. 9	Under 1 year of age.		At all ages.
			No	Rate.					No.	Rate per 1000 Births.	
1	2	3	4	5	6	7			10	11	12 13
1908	12300		352	28.6					60	170.4	208 16.9
1909	12500		309	24.78					35	113.59	178 14.2
1910	12600		343	27.22					47	137	179 14.2
1911	13300	321	322	24.21	184	13.8		34	44	136.6	218 16.4
1912	13500	322	325	24	160	11.8	2	43	38	116.9	201 14.8
1913	13700	302	M172 F133	22.26	145	10.5		41	36	118	M85 F101 13.5

Table 2.—Cases of Infectious Disease notified during the Year 1913.

Notifiable Disease	Number of Cases Notified.								Total Cases Removed to Hospital
	At all Ages.	At Ages—Years.							
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	
Diphtheria (including Membranous Croup	9	...	2	6	1	...	...	...	1
Erysipelas	8	...	...	...	...	2	6	...	...
Scarlet Fever	45	...	9	30	4	2	...	...	9
Enteric Fever	8	...	...	3	2	1	2	...	...
Puerperal Fever...	2	...	...	...	...	2	...	...	...
Poliomyelitis	1	...	1	...	...	...	...	...	...
Pulmonary Tuberculosis.....	55	...	1	11	13	22	8	...	...
Other forms of Tuberculosis	24	1	5	6	8	3	1	...	...
Totals.....	152	1	18	56	28	32	17	...	10

Table 3.--Causes of, and Ages at Death during the Year 1913.

Cause of Death. 1	Nett Deaths at the subjoined ages of "Residents," whether occurring within or without the District.									Total Deaths, whether "Residents" or "Non-Residents," in Institu- tions in the District (b). 11
	All Ages 2	Under 1 year. 3	1 and 2 under 2 years 4	2 and 5 under 5 years 5	5 and 15 under 15 years 6	15 and 25 under 25 years 7	25 and 45 under 45 years 8	45 and 65 under 65 years 9	65 and upwards. 10	
All Causes (Certified... UnCertified)	185 1	36 ...	10 ...	8 ...	6 ...	4 ...	25 ...	48 ...	48 1	
Measles.....	3	2	...	1	...	...	...	...	...	
Whooping Cough..	3	1	1	1	...	...	...	...	...	
Influenza	1	...	...	...	...	...	...	...	1	
Phthisis (Pulmon- ary Tuberculosis)	9	...	1	...	2	...	4	2	...	
Tuberculous Men- ingitis	1	1	...	...	...	...	...	...	...	
Other Tuberculous Diseases	3	1	...	...	...	1	1	...	...	
Cancer, malignant disease	22	...	...	...	...	...	3	14	5	
Rheumatic Fever..	1	...	...	...	...	...	...	...	1	
Organic Heart Disease	10	...	...	...	...	...	4	3	3	
Bronchitis.	15	2	1	...	...	...	1	3	8	
Pneumonia (all forms)	14	1	1	1	...	2	3	3	3	
Other diseases of respiratory organs	1	...	1	...	...	...	...	...	...	
Diarrhœa and Enteritis	13	7	3	2	...	...	...	...	1	
Nephritis and Bright's Disease..	5	...	...	...	...	1	2	2	...	
Puerperal Fever...	1	...	...	...	...	...	1	...	...	
Other accidents & diseases of Preg- nancy & Parturi- tion	4	3	...	...	...	...	1	...	...	
Congenital Debil- ity and Malform- ation, including Premature Birth..	14	14	...	...	...	...	...	...	...	
Violent Deaths ex- cluding Suicide...	13	2	2	3	2	...	1	3	...	
Suicide	1	...	...	...	...	...	...	...	1	
Other Defined Dis- eases	15	1	...	...	1	...	1	6	6	
Diseases ill-defined or unknown.....	37	1	...	...	1	...	3	12	20	
Totals	186	36	10	8	6	4	25	48	49	

Table 4 — Infant Mortality.

1913. Nett Deaths from stated causes at various Ages
under 1 Year of Age.

CAUSES OF DEATH.										
	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	1-3 months.	3-6 months	6-9 months	9-12 months	Total Deaths under 1 year
Measles								1	1	2
Whooping-Cough									1	1
Tuberculous Meningitis						1	1			1
Other Tuberculous Diseases						2				1
Bronchitis										2
Pneumonia (all forms).....						1	1	3		5
Diarrhoea						1	1			2
Enteritis						1	1	1		3
Syphilis									1	1
Suffocation, overlaying.	1				1					2
Injury at Birth.....	3				3					6
Premature Birth	4	1	2	1	8					9
Atrophy, Debility & Marasmus...	3				6	2	1		1	10
Other causes										2
	11	1	2	1	15	7	6	5	3	36

Table VII. - MILK SHOPS.

Position	Occupier.
136 Edge Lane	F. & W. Liversedge
300 Edge Lane	F. Openshaw
266 Edge Lane	E. Moffit
540 Edge Lane	E. Lea
123 Fairfield Road	H. Roberts
225 Manchester Road	A. Hetherington
41 Manchester Road	H. Chappell
31 Market Street	Thomas Wallworth
25 Market Street	Jas. Thomas Buckley
375 Manchester Road	T. Armstrong
1 Moorside Street	Jos. Belfield
48 Market Street	Jas. Thomasson
251 Market Street	J. H. Settle
11 Greenside Lane	Thos. Kippax
1 Market Street	Wright Shepley
13 John Street	William Lee
132 Market Street	W. Newton
405 Manchester Road	M. Burns
222 Manchester Road	J. Ruddock
129 Manchester Road	E. Cheetham
145 Moorside Street	T. Grimshaw
156 Edge Lane	J. Marshall
178 Fairfield Road	G. Langfield
222 Fairfield Road	Agnes Hampson
24 Market Street	Jas. Wilson
37 Fold Street	L. Maskell
8 Ashton Road	John Slack
415 Edge Lane	E. Brackell
191 Manchester Road	B. Rawlinson
107 Williamson Lane	S. Monks
415 Edge Lane	W. H. Waters
190 Fairfield Road	J. Hodgett
143 Market Street	A. Ferrett
484 Edge Lane	H. Appleyard
401a Manchester Road	W. Plant
245 Fairfield Road	A. Gudgeon
Edge Lane	W. Hocking
12 Edge Lane	A. Frances
174 Market Street	E. Spencer

TABLE VI. SLAUGHTER HOUSES.

Date of Reg. or Lic'ce.	No. in Reg.	Position	Owner.	Occupier.	Remarks
1865	3	New Street, back of Market St....	W. Torkington.	Jas. Newton ...	Good state of repair
1865	4	62, Market St. ...	W. Torkington.	Mary A. Kimber	Has been made by covering over part of backyard of house, and abuts on the same.
1865	7	1, Greenside Lane	S. Williamson ..	J. Williamson...	House opens into slaughter house
1904		421-3, Manchest'r Road.....	H. Smith	Sam Etchells ...	This slaughter house is on the same premi- ses as one registered in 1865 (No. 10). Good state of repair.
1904	13	Albert Street ...	Droylsden Co-op.	Droylsden Co-op.	This is a model slaughter house, and is in substitution of one erected about 1878 on same site.
		Back of Hart St.	Baguley's Trustees	J. Ridgway.....	No record of registra- tion or License. Good state of repair.
1904		Chapel Street, behind No. 170, Market Street..	Stopford's Estate	P. Grundy, Jr...	Council granted license for same Feb. 1903. Good state of repair. House opens into slaughter house.
		Off Moorcroft St.	W. Torkington.	W. Torkington.	In substitution of one at other side of Moorcroft St. used formerly. No re- cord of registration or license. Good state of repair.
1891		108, Market St...	I. Newton	I. Newton	Good state of repair.
1906		Clock House, Greenside Lane	Hurst's Trust...	S. Garside	Only occasionally used.
1906		Benny Lane	Hulme's Trust..	J. Day	Only occasionally used.
		33, Market St. ...	Mrs. Slater	S. Isherwood ...	No record of registra- tion. Good state of repair.

TABLE IX.

Factories Workshops, Laundries, Workplaces & Homework**1—Inspection.**

INCLUDING INSPECTION MADE BY SANITARY INSPECTORS OR INSPECTORS
OF NUISANCES.

Premises	Number of		
	Inspections	Written Notices	Prosecut'ns
Factories (including Factory Laundries) ..	105	6	
Workshops (including Workshop Laundries)	43	10	
Workplaces	13	3	
Total	161	19	

2—Defects Found.

Particulars	No. of Defects			No. of Prosecutions
	Found	Remedied	R'd to H.M. I'spr.	
<i>Nuisances under the Public Health Acts:—</i>				
Want of Cleanliness	2	2		
Want of Ventilation				
Overcrowding				
Want of Drainage of Floors	1	1		
Other Nuisances	12	12		
Sanitary Accommodation { Insufficient	1	1		
{ Unsuitable or Defective	19	11	4	
{ Not separate for sexes				
<i>Offences under the Factory and Workshop Act;—</i>				
Illegal occupation of underground Bakehouses (s 101)				
Breach of special Sanitary requirements for Bakehouses (ss 97 to 100)				
Other Offences				
Total	35	27	4	

TABLE IX.—continued.

3—Homework.

Class					Number
List of Addresses of Outworkers	{	received from other Councils			2
		forwarded to other Councils			0
Inspections of Outworkers premises :—					
Making Wearing Apparel					13

4—Registered Workshops.

Workshops on the Register (s 131) at the end of the year :—

Important Classes of Workshops	{	Hand Laundry	1
		Tin, Shoeing and other Smiths	5
		Plumbers	4
		Builders' Yards	4
		Pickle Manufacturers	3
		Cask Maker	1
		Printer	1
		Bakehouses	12
		Coach Builders	2
		Tailors, &c.	5
Others	11		
Total number of Workshops on Register		49	

5—Other Matters.

Matters notified to H.M. Inspector of Factories				
Failure to Affix Abstract of the Factory and Workshop Act (s. 133)				
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)				
		{	Notified by H.M. Inspector	1
			Reports of Action taken sent to H.M. Inspector	3
Underground Bakehouses (s. 101) :—				
Certificates granted during the year				
In use at the end of the year				

TABLE VIII.
Shippons.

Position	Occupier
Lumb	John Day
Hoppett Lane	A. Newton
Oldham Street	W. Berry
Dunkirk Street	E. Ridgway Exors.
Greenside Lane	W. Cordon
Greenside Lane	A. E. Mycoe
Greenside Lane	W. Newton
Greenside Lane	J. Newton
Greenside Lane	W. Day
Greenside Lane	R. Fildes
Greenside Lane	Mrs. Garside
Edge Lane	R. Coates' Exors.
Alderdale	J. M. Barnsley
Christy's Farm	J. Mellor
Sunny Bank	G. Higginbottom
Water Lane	R. Cooper
Fairfield Square	W. Bolton
Yew Tree Farm	W. Lindley
Oakfield Farm	S. Williamson
White Hart	J. Wilson

Table 10.—Table of Smoke Observations taken in connection with Factory and other Chimneys in the District, 1913.

	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	OCT.	NOV.	DEC.
Number of Firm.												
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0	0	3
Black Smoke per hour.	2	2	2	2	2	0	0	1	0	0	0	3
No. of Observations.	2	2	2	2	2	1	1	1	2	1	2	1
Average No. of Mins.	3	2	3	2	2	0	0	1	0	0		

Table 11.—Rainfall.**Number of Days on which Rain fell.**

Month.	1911	1912	1913
January	16	16	17
February	14	9	13
March	15	23	23
April	13	6	20
May	9	13	18
June	12	25	15
July.....	9	16	9
August	11	25	11
September.....	11	10	12
October	16	12	13
November	20	15	22
December	25	24	15
Totals.....	171	194	188

Table 12.

	1911	1912	1913
Average Rainfall per day	·091 ins.	·117 ins.	·090 ins.
" " per week....	·637 ins.	·816 ins.	·634 ins.
" " month	2·766 ins.	3·538 ins.	2·747 ins.
" " year	33·19 ins.	42·45 ins.	32·97 ins.

Table 13.—Average Rainfall for 3 Years--1911-13.

Month.	Inches.
January	2·51
February	1·82
March	3·65
April	2·23
May	2·66
June	3·47
July	1·87
August	3·86
September	2·80
October	2·95
November	3·84
December	4·77

Table 14.—Exceptional Rainfalls.

1911		1912		1913	
Date.	Inches.	Date.	Inches.	Date.	Inches.
Feb. 17	·70	Jan. 5	·50	Jan. 5	·85
„ 22	·62	„ 18	·50	Mar. 14	·61
Mar. 2	·70	Mar. 15	1·28	Apl. 16	·72
Apl. 28	·65	May 16	·54	„ 27	·68
June 25	1·30	„ 22	·51	„ 30	·70
Aug. 6	·69	June 18	·85	May 4	·65
„ 28	·69	„ 22	·52	„ 7	·67
Sept. 3	1·31	Aug. 1	1·38	July 7	·98
„ 26	·56	„ 4	·54	Aug. 23	1·12
„ 28	·53	„ 18	·60	Nov. 15	·85
Oct. 23	·52	„ 23	·52	Dec. 27	·60
Dec. 9	·55	„ 24	1·19		
„ 11	·50	Sept. 1	·58		
„ 14	·66	Oct. 22	·56		
		„ 27	1·10		
		„ 28	·68		
		Nov. 5	·58		
		Dec. 1	·87		
		„ 12	·86		

**Table 15. — Record of Temperature (in Shade) at
Sewage Works (1913).**

Month.	Week Ending.	No. of week in Year.	Maximum Temperature.		Minimum Temperature.	
			8 a.m.	5 p.m.	8 a.m.	5 p.m.
January	January 5	1	48	49	30	33
	12	2	49	52	31	31
	19	3	43	47	26	28
	26	4	48	49	23	23
February	Feby. 2	5	45	48	26	31
	9	6	50	53	34	35
	16	7	51	54	29	29
	23	8	42	44	26	30
March	March 2	9	53	53	26	30
	9	10	50	55	32	32
	16	11	48	49	28	33
	23	12	48	48	22	25
April	30	13	48	55	26	27
	April 6	14	52	54	31	35
	13	15	52	51	30	34
	20	16	49	57	33	38
May	27	17	59	64	35	43
	May 4	18	59	60	35	43
	11	19	60	64	32	43
	18	20	66	67	35	40
June	25	21	67	69	40	37
	June 1	22	78	77	42	54
	8	23	72	72	41	46
	15	24	72	81	42	49
July	22	25	82	80	47	51
	29	26	66	68	47	51
	July 6	27	65	75	51	55
	13	28	68	72	40	43
August	20	29	66	73	43	51
	27	30	75	72	41	49
	August 3	31	78	75	45	52
	10	32	74	65	38	48
September	17	33	70	75	46	55
	24	34	64	70	37	50
	31	35	70	73	41	47
	Sept. 7	36	63	66	43	52
October	14	37	64	67	30	42
	21	38	61	64	39	43
	28	39	70	75	44	50
	October 5	40	64	63	44	46
November	12	41	60	66	40	44
	19	42	55	61	41	37
	26	43	63	63	27	30
	Nov. 2	44	60	61	40	40
December	9	45	52	56	30	33
	16	46	59	55	40	40
	23	47	58	55	28	33
	30	48	55	56	30	32
December	Dec. 7	49	50	50	29	30
	14	50	50	52	30	38
	21	51	47	50	30	35
	28	52	44	50	20	29

**Table 16.—Record of Rainfall at Sewage Works,
1913.**

Month.	Week Ending.	No. of Week in Year.	Total Rainfall for Week. Inches.	Total Rainfall for Month Inches.	Total Rainfall for Year. Inches.
January ..	January 5	1	.93		
	12	2	.30		
	19	3	.26		
	26	4	1.20	2.69	
February..	Febry. 2	5	.40		
	9	6	.75		
	16	7	.41		
	23	8	.00	1.56	
March	March 2	9	.17		
	9	10	.88		
	16	11	1.38		
	23	12	.99		
	30	13	.32	3.74	
April.....	April 6	14	.29		
	13	15	.50		
	20	16	1.44		
	27	17	.96	3.19	
May	May 4	18	1.99		
	11	19	1.24		
	18	20	.09		
	25	21	.83	4.15	
June	June 1	22	.14		
	8	23	.86		
	15	24	.85		
	22	25	.20		
	29	26	.59	2.64	
July	July 6	27	.10		
	13	28	1.15		
	20	29	.19		
	27	30	.13	1.57	
August	August 3	31	.00		
	10	32	.50		
	17	33	.44		
	24	34	1.57		
	31	35	.17	2.68	
September.	Sept. 7	36	.45		
	14	37	.36		
	21	38	.66		
	28	39	.75	2.22	
October ..	October 5	40	.07		
	12	41	.32		
	19	42	.43		
	26	43	.38	1.20	
November..	Nov. 2	44	.54		
	9	45	.37		
	16	46	2.03		
	23	47	1.32		
	30	48	.30	4.56	
December..	Dec. 7	49	1.09		
	14	50	.31		
	21	51	.14		
	28	52	1.23	2.77	
					32.97 inches.

