

[Report of the Medical Officer of Health for London, City of].

Contributors

City of London (London, England). Corporation of London.
Letheby, Henry.

Publication/Creation

1965.

Persistent URL

<https://wellcomecollection.org/works/q4ycgjq3>

License and attribution

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

Non-commercial use includes private study, academic research, teaching, and other activities that are not primarily intended for, or directed towards, commercial advantage or private monetary compensation. 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>



REPORT
ON
THE SANITARY CONDITION
OF THE
CITY OF LONDON,
FOR THE YEAR
1863—1864.

BY
H. LETHEBY, M.B., M.A., PH.D., &c.,
FELLOW OF THE LINNEAN, THE CHEMICAL, AND OTHER SOCIETIES,
MEDICAL OFFICER OF HEALTH FOR THE CITY OF LONDON,
AND PROFESSOR OF CHEMISTRY IN THE COLLEGE OF THE LONDON
HOSPITAL.

LONDON:
M. LOWNDS, PRINTER, 148 $\frac{1}{2}$, FENCHURCH STREET, CITY.

1865.

SANITARY CONDITION

*At a Meeting of the Commissioners of
Sewers of the City of London, held
at the Guildhall of the said City, on
Tuesday, January 24th, 1865 :—*

The Medical Officer of Health laid before the Court his Annual Report, which was ordered to be Printed, and a Copy to be sent to every Member of this Court, and of the Court of Common Council.

JOSEPH DAW,

Principal Clerk.

SANITARY CONDITION

At a Meeting of the Commissioners of
 the City of London, held
 at the Guildhall of the said City, on
 Tuesday, January 21st, 1865.

THE SIXTEENTH ANNUAL REPORT OF THE
 MEDICAL OFFICER OF HEALTH.

FOR THE YEAR 1864-65.

The Medical Officer of Health laid before the
 Court his Annual Report, which was ordered to be
 Printed, and a Copy to be sent to every Member of
 this Court, and of the Court of Common Council.

GENTLEMEN,

I beg leave to submit to you the Statistical
 Tables of the principal facts relating to the sanitary
 condition of the City, during the last twelve months
 and you will observe that there have been 11,180
 births, 2,900 deaths, and 1,570 marriages in the
 City during the year. For the first time in the last
 sixteen years, or as far back as my records extend,
 the number of deaths has this year exceeded the
 births, and all the numbers are greatly below the
 annual average for that time. In fact, the mean

THE
SANITARY CONDITION
OF THE
CITY OF LONDON.

THE SIXTEENTH ANNUAL REPORT OF THE
MEDICAL OFFICER OF HEALTH.

FOR THE YEAR 1863-64.

TO THE HONOURABLE THE COMMISSIONERS OF
SEWERS OF THE CITY OF LONDON.

GENTLEMEN,

I beg leave to submit to you the Statistical Tables of the principal facts relating to the sanitary condition of the City, during the last twelve months; and you will observe that there have been 2,780 births, 2,900 deaths, and 1,575 marriages in the City during the year. For the first time in the last sixteen years, or as far back as my records extend, the number of deaths has this year exceeded the births; and all the numbers are greatly below the annual average for that time. In fact, the mean

annual proportion of births for the last ten years, has been 3,295, the deaths 2,955, and the marriages 1,698.

And with respect to the marriages, it is remarkable that while the number in the Eastern division of the City has declined from an average of 549 in the year to 510, and that in the Western from 554 to 421, the proportion in the City proper has advanced from 595 to 644. The explanation of this is not apparent; but it may be said that the number of marriages in the City during the year has been in the proportion of 12·3 per 1,000 of the population in the first-named district, 15·7 in the second, and 13·9 in the third—making a general average of 13·8 for the whole City. This is but little below the common proportion (14) for the last ten years; but it is a good deal below the proportion (16·6) for the whole of England; although it should not be, considering the large excess of marriageable persons in the City population.

The birth-rate also has declined from a general average of 27 per 1,000 of the population to 24·3—the numbers for the several districts of the City being 28·3 for the Eastern Union, instead of 32·9; 27·8 for the Western, instead of 28·4; and 18·6 for the Central or City Union, instead of 21·2. In the rest of London the birth-rate is about 34

per 1,000 of the population, and in all England it is nearly 35 per 1,000. The birth-rate in the City, therefore, during the last year, has not only been far below the normal proportion for the country generally, but it has also been below its own proportion.

The distribution of the 2,900 deaths for the year has been as follows:—1,094 were in the Eastern district, 795 in the Western, and 1,011 in the Central. These are in the proportion of 26·5 per 1,000 of the population of the first-named district, 29·7 of the second, and 21·7 of the third—making together a mean proportion of 25·3 for the whole City. In the preceding ten years the average annual mortality in the City has been only 24·2 per 1,000, and in the several unions it has ranged from 20 per 1,000 to nearly 28. In all England the proportion is but 22·1 per 1,000 of the population, and in the districts of the chief towns it is 24·3. But last year was unusually unhealthy, for the mortality in the whole of England rose from an average of 22 per 1,000 to 23·5; and in the winter quarter of the year it reached to nearly 28 per 1,000—that of the chief towns being 29·7, and of the Metropolis, 30·9. “Seldom, indeed,” said the Registrar-General, in his comments on this fact, “has a winter been more fatal.”

Taking a retrospect of the past, I find that in

the case of the City, there have been but three occasions during the last ten years, when the mortality has been so high. The cause of this remarkable increase of the death-rate is only to be found in the singularly dry condition of the atmosphere during many months of the year; for not only has there been less rain than usual, in the proportion of 17.24 inches instead of 23.27 for the whole year, but the average degree of atmospheric humidity has been but 77 instead of 80, and the number of wet days has been only 147 instead of 169. And besides this, the temperature of the air has been fully a degree below the average. It would seem, therefore, that frequent showers of rain are beneficial in clearing the atmosphere of impurities, and in keeping it in a normal state of humidity.

As regards the ages at death, the principal facts are recorded in Table IV. of the Appendix; and it will be noticed that 37 per cent. of all the deaths in the year have been among children of less than five years of age, and of these about half have died in the first year of infancy. In other words, there have been 2,780 births in the City during the year, and there have been 517 deaths of children less than a year old; so that rather more than 18 per cent., or about 1 in 6 of all the children born have died in the first year of their

existence. The average proportion during the last ten years has been about 17 per cent., and in all England it is just 18 per cent., and in France it is rather more than 21 per cent. The infant mortality in the City, therefore, although large, is not in excess of the common proportion elsewhere, and it is much below the mortality in France.

One of the most striking facts in the table of deaths according to age, is the increase in the mortality of persons at from 55 to 75 years of age. In the preceding ten years, with nearly the same total mortality at all ages, the annual number of deaths among persons at from 55 to 65 years of age has been but 289, whereas in the last year it was 315; and at from 65 to 75 the number has advanced from 282 to 292. This increase has been almost entirely among males; and the mortality at the first ages has been 57 per 1,000 of the living, and at the last 110. In former years the mortality of males in the City at from 55 to 65 years of age has been only 48 per 1,000, and at from 65 to 75, 99 per 1,000. In all England the death-rate at these ages is 32 per 1,000, and 66; and in France it is but 29 and 65: so that the strain upon a City life is very unmistakably manifested at the ages of from 55 to 75. It would seem too, from the gradual increase in the mortality at these ages, that the strain is becoming more

severe, year by year ; and it is probably the result of that intensity of mental labour which the growing activity of commerce demands. Among the females at those ages, the death-rate is not remarkably excessive, for it ranges from 37 per 1,000 at the first period to 80 at the last—the averages for England and France being about 28 and 60.

With respect to the causes of death, there has been a slight increase in the mortality from phthisis, and a decrease in that from tabes and hydrocephalus. Inflammatory affections of the lungs have also declined from a general average of 503 in the year to 452 ; and with regard to the zymotic class of disease, although they have advanced from 624 to 612, yet some of them, as continued fever, whooping-cough, and the diarrhœa of adults, have been less severe than usual, while scarlet-fever, measles, and the diarrhœa of children have been more than commonly fatal ; and here I may remark that the chief increase in the mortality from phthisis has been in the winter quarter, that of measles in spring and summer, that of infantile diarrhœa in summer, and that of scarlet-fever in autumn. Looking at the principal facts on record during the last ten years, it would seem that these diseases are more prevalent and fatal at certain seasons of the year than at others. Thus, the largest mortality from phthisis and hydrocephalus is during the cold and

changeable weather of winter and spring; while the period for the greatest activity of tabes and scrofula, the other members of the tubercular class, is summer and autumn. And so also of zymotic diseases, there is the greatest difference in their manifestations of power at different seasons: scarlatina, for example, is most virulent in autumn, and least so in winter. The same is the case with continued fever, and with measles, and with the diarrhœa of adults. But the diarrhœa of infants is most fatal in summer—so much so, that of a total number of 80 deaths in the year, 65 occur in the summer quarter, and these mostly in the hot months of August and September. On the other hand, there are some forms of zymotic disease which are most virulent in the colder months of the year. This is so with small-pox, which is by far more fatal in the mild weather of spring and early summer than at any other time; and so also of whooping-cough, croup, and erysipelas, which are especially the zymotics of winter.

The explanation of this is not altogether clear; indeed, there is much to be done in the classification of these facts before any notion can be formed of the laws which govern the manifestations of these diseases. That, however, which we do perceive is, that whensoever the start is given to any one of them, it is more likely to run into an epidemic,

and to become seriously virulent at certain seasons than at others—phthisis, for example, is most fatal in winter, hydrocephalus in spring, and tabes and scrofula in summer; and each form of zymotic disease has its special season of activity.

And lastly, with regard to the ages at which these diseases are most severe, it appears from the returns of the last ten years, that the greatest sufferers from small-pox, pneumonia, and diarrhœa, are infants of less than a year old—that in fact more than half of the total mortality from these diseases is among infants of that age. The deaths from measles are most numerous at from 1 to 2 years of age, and then from 2 to 5. Scarlatina shows the largest mortality at from 2 to 5 years of age, and the smallest at less than a year; but whooping-cough is almost equally fatal at each period of infant life.

Some of these facts are easy of interpretation. The child is very susceptible of the morbid influences which hang about the filthy and overcrowded dwellings of the poor; and in summer time, when these influences are brought into a state of great activity by the putrefying action of warmth, the child falls a victim to diarrhœa; or its vital powers are so depressed that it succumbs to an attack of measles or scarlet-fever; or it more

slowly perishes by tabes or scrofula. It is manifest, too, that the young infant is very susceptible of an attack of small-pox; and this indicates the necessity for early vaccination. As to the greater mortality from scarlet-fever at the ages of from 2 to 5, it is evident that it arises from the circumstance that children are then first associated at play and in school, and are thus unusually exposed to infection.

Lastly, the statistics show us that all the exanthematous diseases are most virulent in the haunts of the very poorest classes, where there is not merely a total disregard of the commonest decencies of life, but where the necessitous over-crowding of members of the same family encourages the spread of disease by intensifying the virus, by bringing the healthy into contact with the sick, and by so lowering the vital powers as to render the system very susceptible of attack, and less able to endure the effects of it. Nor is it alone in the manifestations of zymotic disease that this unwholesome state of things exhibits itself. The mephitic atmosphere of the dirty and over-crowded dwellings of the poor acts slowly on the nutritive functions of the body, and engenders a strumous condition, which ere long shows itself in scrofula, tabes—mesenterica, and hydrocephalus, or in the early symptoms of pulmonary consumption. All this is seen in the

pallid look of the child, and in the sickly condition of the parent, and in the longing for artificial stimulants. How to improve this, and to make the homes of the poor consistent with physical and moral wellbeing is one of the most serious questions of the day. Already, in the course of the last twenty years, much has been done for the improvement of the dwellings of the industrial classes; and the efforts of many societies, as the Labourers' Friend Society, the Metropolitan Association, the Marylebone Association, the Parochial Association, the Strand Building Company, the Improved Industrial Dwellings Company, as well as the labours of the late Prince Consort, Lord Shaftesbury, Lord Kinnaird, Miss Burdett Coutts, Mr. Barry, Mr. Newson, Mr. Gibbs, Mr. Hilliard, and more recently those of Mr. Alderman Waterlow, the Trustees of the Peabody Gift, and the Corporation of London, have been devoted either to the improvement of existing houses occupied by the industrial poor, or in the construction of model dwellings, with every appliance for health and convenience. But although about 2,500 tenements have, in this way, been provided, capable of accommodating as many families, and also nearly 1,000 lodgings for single men, yet the result is insignificant in comparison with the work which is yet to be done. Besides which, the houses in question are only suited for the better and the decent class of arti-

sans ; they are not fitted for the accommodation of the very poorest of unskilled labourers. And here there is work of no ordinary difficulty for the philanthropist ; for at present the denizens of the worst districts of the City are so little accustomed to the comforts of a decent home, that their habits are but little removed from those of the untutored savage, and all our efforts at sanitary improvement are frustrated by ignorance and carelessness. Every sanitary appliance is abused, water butts and cisterns are broken, pipes and taps stolen, drains purposely stopped up, closets intentionally fouled, and the dust and refuse of the house cast into every out of the way corner. It is, indeed, almost impossible to deal with this condition of things ; and there is little or no hope for any permanent improvement, until there is an education of this class of tenantry, to a better use of sanitary appliances ; and this can only be done through the example of better homes and more considerate landlords.

The sickness returns among the poor have not been so numerous as usual during the year. Altogether, there have been 10,187 cases of illness attended by the medical officers of the City unions, the average number per annum for the last four years being 11,486. The most important ailments

have been—fever, 795 ; diarrhœa, 530 ; and small-pox, 110—all of which have been the subjects of special sanitary investigation.

The meteorology of the year is shown in Table VII. of the Appendix ; and, as usual, the facts have been deduced from observations at Guildhall by Mr. Haywood. The mean temperature of the year has been 50·8 degrees Fahr., which is about one degree below the average ; and the range has been from 22·1 degrees in January, to 78·5 degrees in July and August. While, too, the temperature has been less than usual, the humidity of the air has been under the average. The mean proportion of it for the whole year has been rather less than 77 degrees of saturation ; the range having been from only 63 degrees in July, to 93 in November—in fact, the mean proportion of moisture in the atmosphere during the whole of the summer months, was barely 66 degrees of saturation, or scarcely 4 grains of aqueous vapour in a cubic foot of air. This was due to the remarkably small proportion of rain in these months—a proportion that amounted to only about 3·5 inches in the course of all the summer months ; and so dry was the atmosphere that the rain gauges upon the roof of Guildhall showed a larger quantity of rain than those on the ground—the difference being

due to the evaporation of the rain in the act of falling. In consequence of this absence of wet, the river was charged during the summer and autumn with a large proportion of saline matter. As early as the end of May it contained as much as 124 grains of solid matter per gallon, the average proportion in a normal state of the river being but 24 grains; and by the end of August the quantity of impurity had risen to 386 grains per gallon; nearly the whole of this was saline matter from the ocean, the flow of the stream having being upwards instead of downwards; but with this saline matter there was also brought up a large proportion of sewage, the quantity of organic matter (chiefly of sewage) being 43 grains per gallon. It was fortunate that the weather was unusually cold during the whole of that time, and therefore the river did not become offensive from putrefactive decomposition, but if the temperature of the water had risen to 68 or 69 degrees, as it did in the summers of 1858 and 1859, the effects of it would no doubt have been seriously unpleasant. That which keeps down the offensiveness of the river during the summer time is either a low temperature or a copious rain-fall; and it is manifest, from the experience which has been gained from the regular examination of the water of the river during the

last six years, that there are periods of many months duration in every year when, from the evaporation of the water and the small supply from above, the flow of the stream is not downwards, but upwards; and that at such times the sewage discharged into the river, even so low down as the present out-falls, will flow upwards to a distance far above the City bridges. If at these times the temperature of the water rises above 66 degrees Fahr. and the rain-fall is less than usual, the river will undoubtedly become offensive, unless some means are taken for the defecation of the sewage before it is discharged into the river at the new out-falls. I have brought this under your notice on several occasions, because I believe it to be a matter of very great public importance.

The last point to which I would direct your attention is, that during the year there have been 7,429 inspections of houses for sanitary purposes, and 3,301 visits to the common Lodging-houses of the City. These have resulted in the issuing of 3,091 orders for sanitary improvement. And with regard to the inspections of the Markets and Slaughter-houses, the officers have condemned 229,180 lbs., or upwards of 102 tons of meat as unfit for human food; and of this quantity

96,779 lbs. were diseased, and 43,497 lbs. were from animals that had died from natural causes. The quantity of meat condemned during the last year is greatly in excess of that of former years, the average quantity being but 154,003 lbs. yearly ; and this excess is chiefly in the proportion of meat from animals that have died of disease. The amount of this kind of meat has been nearly doubled during the year ; and it indicates the necessity for the severest treatment of those who have consigned such meat to the City Markets. In the course of the year there have been twenty legal prosecutions and convictions of such offenders, namely, nine at the Old Bailey, and eleven before the Justices at Guildhall and the Mansion-house ; and the penalty has ranged from a fine of ten shillings and costs, to fifty pounds and twelve months imprisonment.

Besides the meat thus condemned in the City Markets, there have also been condemned at Billingsgate by the Meters of the Fishmonger's Company, upwards of 774,000 fish, chiefly whiting, plaice, herrings, haddocks, gurnets, dabs and dace ; and 1,264 lbs. of eels, 9,572 gallons of shrimps, and 120 bushels of whelks and winkles ; all of which have been destroyed.

Finally, I have to state that the bakehouses of the City, 139 in number, have been periodically inspected; and that orders have been issued, when necessary, for their sanitary improvement in accordance with the provisions of the Bakehouses Regulation Act of 1860.

I remain, GENTLEMEN,

Your obedient Servant,

HY. LETHEBY.

GUILDHALL,

January 24th, 1865.

No. I.—*Enumeration of Births, Deaths, and Marriages in each of the City Unions for the Year ending September 1864, and a Comparison with the Averages of the last Ten Years.*

QUARTERS ENDING.	EAST LONDON UNION.			WEST LONDON UNION.			CITY OF LONDON UNION.			ENTIRE CITY.		
	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.
December 1863	283	261	169	166	195	125	219	243	151	669	699	445
Average of 10 Years ..	340	293	148	187	190	155	280	266	145	807	749	448
March 1864.....	321	317	118	195	234	93	243	319	151	759	870	362
Average of 10 Years ..	383	318	121	211	218	117	293	295	139	887	831	377
June 1864.....	288	248	106	201	200	93	204	220	164	693	668	363
Average of 10 Years ..	356	272	138	205	186	137	267	250	147	828	708	422
September 1864	278	268	117	183	166	110	199	229	178	660	663	405
Average of 10 Years ..	333	267	142	184	169	145	256	231	164	773	667	451
Sum of the 4 Quarters..	1170	1094	510	745	795	421	865	1011	644	2780	2900	1575
Average of 10 Years ..	1412	1150	549	787	763	554	1096	1042	595	3295	2955	1698

No. II.—*Annual Enumeration of Births for the Year ending September 1864.*

BIRTHS IN THE FOUR QUARTERS.	TOTAL.		EAST LONDON UNION.				WEST LONDON UNION.			CITY OF LONDON UNION.																
			Saint Botolph.		Cripple- gate.		Total.		North.	South.	Total.	S. W.	N. W.	South.	S. E.	N. E.	Total.									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.								
Quarter ending Dec. 1863	362	306	86	54	72	71	158	125	36	44	45	41	81	85	23	15	19	12	25	23	32	23	24	23	123	96
	668		140		143		283		80		86		166		38		31		48		55		47		219	
Quarter ending March 1864	345	414	68	83	77	93	145	176	31	49	55	60	86	109	11	40	19	16	27	22	17	19	40	32	114	129
	759		151		170		321		80		115		195		51		35		49		36		72		243	
Quarter ending June 1864	349	344	81	67	57	83	138	150	43	36	63	59	106	95	21	16	13	18	17	28	25	18	29	19	105	99
	693		148		140		288		79		122		201		37		31		45		43		48		204	
Quarter ending Sept. 1864	349	311	81	73	64	60	145	133	34	44	64	41	98	85	19	18	21	12	16	18	22	16	28	29	106	93
	660		154		124		278		78		105		183		37		33		34		38		57		199	
Sum of the Four Quarters	1405	1375	316	277	270	307	586	584	144	173	227	201	371	374	74	89	72	58	85	91	96	76	121	103	448	417
	2780		593		577		1170		317		428		745		163		130		176		172		224		865	
Annual Average of the last ten years	1692	1603	378	361	344	329	722	690	186	182	214	205	400	387	102	106	89	82	123	108	108	91	148	139	570	526
	3295		739		673		1412		368		419		787		208		171		231		199		287		1096	

No. III.—*Annual Enumeration of Deaths for the Year ending September 1864.*

DEATHS IN THE FOUR QUARTERS.	TOTAL.	EAST LONDON UNION.			WEST LONDON UNION.			CITY OF LONDON UNION.					
		Saint Botolph.	Cripple- gate.	Work- house.	North.	South.	Work- house.	S. W.	N. W.	South.	S. E.	N. E.	Work- house.
Quarter ending Dec. 1863	M. F. 381 318 699	M. F. 65 51 116	M. F. 70 49 129	M. F. 9 7 16	M. F. 44 31 75	M. F. 42 41 83	M. F. 23 14 7	M. F. 17 23 40	M. F. 21 17 38	M. F. 24 15 39	M. F. 29 16 45	M. F. 23 25 48	M. F. 14 19 33
Quarter ending March 1864	460 410 870	81 51 132	70 71 141	20 24 44	47 34 81	49 53 102	34 17 51	19 20 39	27 17 44	22 32 54	34 33 67	38 33 71	19 25 44
Quarter ending June 1864	355 313 668	58 52 110	49 51 100	22 16 38	35 34 69	55 41 96	18 17 35	22 10 32	16 13 29	36 19 55	20 23 43	10 22 32	14 15 29
Quarter ending Sept. 1864	360 303 663	62 53 115	69 54 123	13 17 30	21 27 56	44 40 84	13 13 26	24 24 48	19 8 27	16 14 30	17 13 30	25 19 44	29 21 50
Sum of the Four Quarters	1556 1344 2900	266 207 473	258 235 493	64 64 128	155 126 281	190 175 365	88 61 149	82 77 159	83 55 138	98 80 178	100 85 185	96 99 195	76 80 156
Annual Average of the last Ten years	1533 1422 2955	254 249 503	260 250 510	68 69 137	138 122 260	184 175 359	82 62 144	83 77 160	80 69 149	99 83 182	99 74 173	114 113 227	72 79 151

No. IV.—*Classification of Deaths in the City Unions according to Age, for the Year ending September 1864.*

CITY DISTRICTS.	Total.		Under 1		1 to 5		5 to 10		10 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 to 75		75 to 85		85 to 95		95 and over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
East London Union.	588	506	118	106	138	98	27	12	4	7	23	26	45	33	48	41	57	35	50	53	49	45	25	38	3	12	1	0
Year ending September 1864.	1094		224		236		39		11		49		78		89		92		103		94		63		15		1	
West London Union.	433	362	82	60	100	84	22	16	4	3	31	18	29	22	39	32	30	26	53	37	29	32	12	26	2	6	0	0
Year ending September 1864.	795		142		184		38		7		49		51		71		56		90		61		38		8		0	
City of London Union.	535	476	88	63	86	64	22	21	9	10	25	26	31	25	44	41	65	46	70	52	64	73	29	35	2	20	0	0
Year ending September 1864.	1011		151		150		43		19		51		56		85		111		122		137		64		22		0	
Entire City.	1556	1344	288	229	324	246	71	49	17	20	79	70	105	80	131	114	152	107	173	142	142	150	66	99	7	38	1	0
Year ending September 1864.	2900		517		570		120		37		149		185		245		259		315		292		165		45		1	
Entire City.	1511	1399	298	243	301	297	60	57	26	20	73	68	101	83	140	103	150	108	151	138	134	148	65	107	11	24	1	3
Average of 9 Years.	2910		541		598		117		46		141		184		243		258		289		282		172		35		4	

No. V.—*Classification of Deaths according to Causes, during the Year 1864; and a Comparison with the Averages of the last Nine Years.*

CITY DISTRICTS AND POPULATION IN 1861.	Violence, Privation, Premature Birth, and Poison.	Tubercular Diseases.			Convulsions and Teething.	Zymotic Diseases.								Pneumonia, Bronchitis, and Asthma.	Others, chiefly chronic.	TOTAL.	
		Phthisis.	Tubes and Scrofula.	Hydrocephalus.		Alvine Flux.		Continued Fever.	Scarlet-Fever.	Small-Pox.	Measles.	Whooping Cough, Croup, & Diphtheria.	Erysipelas.				
						Adults.	Children.										
EAST LONDON UNION (Population 41,282)	1864.	47	151	78	27	65	7	40	44	50	5	42	57	5	169	307	1094
	Average	49	131	74	35	67	15	33	48	53	13	36	67	7	207	297	1132
WEST LONDON UNION (Population 26,739)	1864.	47	94	42	17	44	7	25	26	31	7	50	34	5	124	242	795
	Average	45	102	55	23	35	8	17	34	25	7	21	36	6	133	210	757
CITY OF LONDON UNION..... (Population 46,451)	1864.	61	125	42	11	54	6	20	35	41	10	38	32	7	159	370	1011
	Average	65	126	48	24	60	11	17	32	36	9	22	54	5	163	349	1021
ENTIRE CITY..... (Population 114,472)	1864.	155	370	162	55	163	20	85	105	122	22	130	123	17	452	919	2900
	Average	159	359	177	82	162	34	67	114	114	29	79	157	18	503	856	2910

No. VI.—Average Annual Proportion of Deaths, Classified according to Causes, in each of the Quarters for the last Ten Years—namely, from 1855 to 1864.

QUARTERS.	Violence, Privation, Premature Birth, and Poison.	Tubercular Diseases.			Convulsions and Teething.	Zymotic Diseases.								Pneumonia, Bronchitis, and Asthma.	Others, chiefly c.	TOTAL.
		Phthisis.	Tubes and Scrofula.	Hydrocephalus.		Alvine Flux.		Continued Fever.	Scarlet-Fever.	Small-Pox.	Measles.	Whooping Cough, & Diphtheria.	Erysipelas.			
						Adults.	Children.									
Spring Quarter ending in June	38	93	42	25	42	4	5	26	22	10	21	44	3	116	203	694
Summer Quarter ending in Sept.	41	80	50	18	34	12	50	28	27	7	20	31	5	58	185	646
Autumn Quarter ending in Dec.	39	89	41	15	40	12	9	32	43	6	24	35	4	139	212	740
Winter Quarter ending in March	41	97	36	20	47	5	3	28	21	7	21	46	5	194	259	830
Entire Year	159	359	169	78	163	33	67	114	113	30	86	156	17	507	859	2910

No. VII.—*Meteorology of the City of London for each Month in the Year ending in September 1864, from Observations made at the Engineer's Office, Guildhall, under the direction of Mr. Haywood.*

MONTHS. 1863-64.	Barometer.			Dry Thermometer.				Wet Thermometer or Hygrometer.						Rain Gauges.					
	Mean Pres- sure.	Highest Pres- sure.	Lowest Pres- sure.	Mean Temperature.	Highest Temperature.	Lowest Temperature.	Mean Daily Range.	Mean Temperature.		Dew Point.	Degree of Humidity. Saturation = 100.	Weight of vapour in cubic foot of air.	Vapour re-quired to satu- rate ditto.	Total Fall.		Greatest Fall.		Lowest Fall.	
								Wet Bulb.	Dry Bulb.					On Roof.	On Grnd.	On Roof.	On Grnd.	On Roof.	On Grnd.
Inches.	Inches.	Inches.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Grns.	Grns.	Ins.	Ins.	In	Ins.	Ins.	Ins.	
October ..	29.709	30.298	29.082	53.4	63.8	41.3	10.8	50.3	53.4	46.1	80	3.5	1.2	1.78	1.98	0.36	0.39	0.01	0.01
November	29.976	30.538	29.036	47.7	59.0	36.5	8.3	46.3	47.7	45.0	93	3.4	0.3	1.56	1.73	0.24	0.27	0.04	0.05
December	30.016	30.528	29.006	45.5	53.9	31.2	8.8	43.3	45.5	40.7	85	2.9	0	0.97	1.05	0	0.64	0.01	0.01
January ..	30.150	30.576	29.852	39.4	54.0	22.1	6.9	37.6	39.4	35.4	84	2.0	0.5	1.12	1.1	0.27	0.25	0.01	0.01
February	29.872	30.382	29.420	37.7	54.0	27.0	7.8	36.6	37.7	35.6	91	2.4	0.3	0.68	0.73	0.25	0.25	0.01	0.01
March....	29.585	30.198	28.956	42.3	55.7	32.3	11.4	39.8	42.3	36.8	84	2.5	0.5	—	2.50	—	0.47	—	0.01
April	30.043	30.420	29.682	49.0	71.8	38.2	13.4	44.2	49.0	38.6	67	2.7	.3	0.81	0.86	0.40	0.45	0.01	0.01
May	29.932	30.290	29.622	54.6	77.6	44.9	12.6	50.0	54.6	45.6	74	3.4	1.3	0.91	0.90	0.15	0.17	0.02	0.02
June	29.887	30.292	29.560	57.7	71.7	46.0	13.3	52.0	57.7	46.6	66	3.6	1.1	1.78	1.78	0.40	1.38	0.01	0.01
July	29.963	30.222	29.754	62.0	78.5	51.4	15.2	55.9	62.0	50.1	63	4.0	2.4	0.50	0.47	0.13	0.12	0.01	0.01
August ..	30.020	30.470	29.704	60.1	78.5	46.9	14.2	54.5	60.1	49.7	68	3.9	1.9	1.24	1.21	0.37	0.5	0.01	0.01
September	29.674	30.424	29.383	59.9	73.3	47.4	10.8	44.2	57.9	50.4	76	4.1	1.3	2.63	2.64	0.71	0.77	0.02	0.01

Barometer.—The highest readings were on October 23, November 6, December 18, January 4, February 19, March 17, April 8, May 24, June 20, July 30, August 15, September 26. The lowest readings were on October 30, November 2, December 2, January 23, February 12, March 7, April 1, May 9, June 14, July 2, August 19, September 16.

Temperature.—The highest were on October 4, November 4, December 12, January 22, February 13, March 20, April 20, May 20, June 20, July 21, August 5, September 8. The lowest were on October 24, November 30, December 23, January 7, February 20, March 10, April 6, May 30, June 1, July 9, August 25, September 12.

Rain.—The greatest fall on October 2, November 2, December 3, January 17, February 12, March 4, April 6, May 10, June 14, July 4, August 21; September 17. The least fall on October 13, November 6, December 28, January 23, February 3, March 5, April 4, May 11, June 21, July 7, August 29, September 10.

Electricity.—Positive generally throughout the year.

WILLIAM HAYWOOD.

No. VIII.—*Account of the Meat Condemned in the City Markets and Slaughter-houses as unfit for human Food, during each of the Quarters of the Year ending September 1864.*

	WHERE, AND WHY CONDEMNED.															
	Newgate Market.				Aldgate Market.				Leadenhall Market.				Total.			
	Dead.	Dis- eased.	Putrid.	Total.	Dead.	Dis- eased.	Putrid.	Total.	Dead.	Dis- eased.	Putrid.	Total.	Dead.	Dis- eased.	Putrid.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
December 1863..	13123	22804	9905	45832	1500	1271	120	2891	1323	3289	3570	8182	15946	27364	13595	56905
March 1864	7404	19931	594	27929	864	2325	—	3189	1296	2743	12	4051	9564	24999	606	35169
June 1864	8185	16941	23834	48960	497	1499	—	1996	2376	3139	4352	9867	11058	21579	28186	60823
September 1864.	5134	17651	39353	62138	1193	3824	708	5725	602	1362	6456	8420	6929	22837	46517	76283
Sum of 4 Quarters	33840	77327	73686	184859	4054	8919	828	13801	5597	10533	14390	30520	43497	96779	88904	229180
In 1863.....	15780	36280	52493	154553	1458	6446	2851	10755	3086	21394	20717	45197	20324	114120	76061	210505

This consisted of 975 Sheep, 56 Calves, 446 Pigs, 1189 Quarters of Beef, and 2713 Joints of Meat; besides 5 Deer, 1 Goat, 25 cases of Rabbits, and 1078 head of Game and Poultry.

No. IX.—*List of Cow-houses in the City of London, and Number of Cows kept.*

EAST DISTRICT.			WEST DISTRICT.		
Name of Owners.	Situation.	No. of Cows.	Name of Owners.	Situation.	No. of Cows.
George Barnes.....	Dowgate Hill	2	John Evans	Milton Street	6
Mrs. Evans	Widegate Street	11	John Lamball	Fore Street	15
Benjamin Smith	Garden Court	6	Thomas Goodman	Charles Street	13
John Andrew	" "	23	Henry Elmes	Bridgewater Gardens	12
Mr. Bartholomew.....	Goodman's Yard, Minories.....	19	Thomas Jones	Bartholomew Close.....	12
Thomas Davies.....	St. James' Place	24	John Stephenson	Whitefriars	23
James Pullen & Son	Albion Place, London Wall	6	William Phillips	New Street Hill	3
Josh. Roberts	Half Moon Mews	15	Hannah Smith	Shoe Lane.....	18
Thomas Tattam	Half Moon Street	1	John Baynon	Oxford Arms Passage	33
Mary Nelmes	George Yard, Aldgate	2			
No. of Cow-houses .. 10	No. of Cows	109	No. of Cow-houses 9	No. of Cows	135
Total Cow-houses.....		19	Total No. of Cows.....		244

No. X.—*List of Slaughter-houses in the City of London.*

EAST DISTRICT.	WEST DISTRICT.
No. 44, Aldgate High Street	No. 28, Bread Street Hill
45, " "	70, Fetter Lane
46, " "	11, Bear Alley, Farring- don Street
48, " "	25, Newgate Street
51, " "	26, "
52, " "	27, "
53, " "	28, "
55, " "	30, "
56, " "	10, Rose Street
57, " "	169, Aldersgate Street
58, " "	82, "
59, " "	3, Fore Street
60, " "	117, "
62, " "	Paved Passage
66, " "	No. 4, Hosier Lane
67, " "	4, Warwick Lane
68, " "	6, "
68, " "	34, "
68, " "	10, "
68, " "	11, "
69, " "	12, "
70, " "	23, "
73, " "	6, Newgate Market
74, " "	9, "
75, " "	10, "
Harrow Alley	11, "
No. 53, Minories	
63, "	
57, Great Tower Street	
Beehive Passage, Lime Street	
No. 31, Watling Street	
5, Sun Street	
154, Bishopsgate Street	
Gun Yard, Norton Folgate	
Total..... 60	