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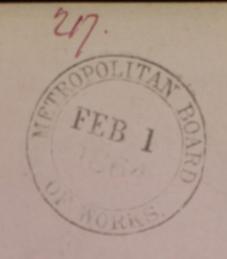
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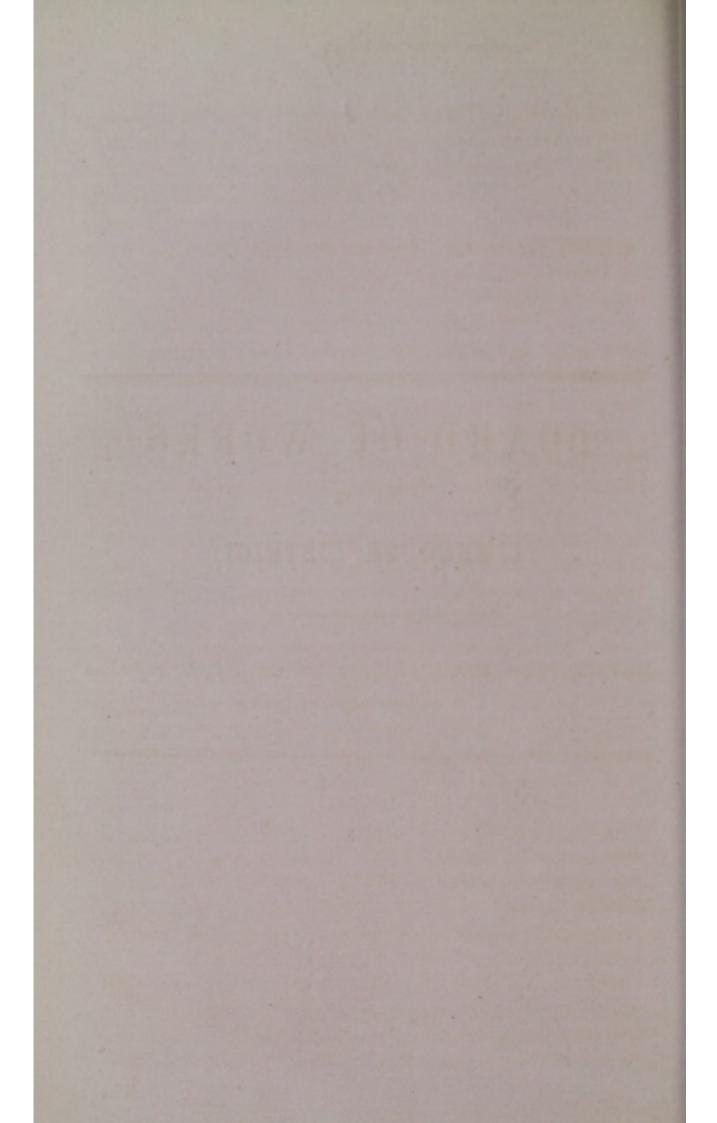


# BOARD OF WORKS

FOR THE

## LIMEHOUSE DISTRICT.

REPORT of the MEDICAL OFFICER OF HEALTH for the Year ending Lady-day, 1863.



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## LIMEHOUSE BOARD OF WORKS.

GENTLEMEN,

The time has again come round for taking an account of the sanitary condition of the District, in accordance with the requirements of the "Metropolis Management Act," so that we may see how far disease and other causes have affected the population in the aggregate, as well as in the distinctive parts of Parishes; to notice any differences in these divisions, and in what these differences consist; to take a glance at our neighbours-to give a little attention to the sanitary condition, in relation to mortality, of other Districts, and observe how far they approximate to, or diverge, in their more important features, from our own. For to give a summary from one year to another merely of the births and deaths, with a classification of the diseases, conveys very little information; and to compare this with preceding Reports, does not add much more. What is required, as coming within the design and spirit of the Statute, I take it, is that, while watchful of disease, especially epidemics, as bearing on mortality generally, the Medical Officer of Health should be on the alert for discrepancies which are occasionally sure to attract his attention. He will, at times, notice mortality, it may be, unusually large in his own District, while but an average in another; again, he may be called upon to see special diseases making sad havoc with human life elsewhere, his own locality, in the meantime, presenting nothing out of the ordinary course of mortality.

With this view of the duties of the Officer of Health, I have now to present, for your information, a statement of the vital statistics of the District for the past year, with such references for comparison that the good and evil in our sanitary condition will be readily discernible. It is far from what I could wish to place before you, but I have no "will and pleasure" in the matter. I have officially to do with records of births and deaths as a tabulated truth, and the result has arisen, to use a very forcible expression, from "the inexorable logic of facts."

For the year ending at Lady Day, 1863, the births in the District were 1866—or, 947 males, and 919 females; the deaths were 1483—or, 812 males, and 671 females; and of these latter 667 were under 5 years of age. This yields an addition of 383 in the year to the population.

For the same period, ending 1861-2, the births were 1882, and the deaths 1293, thus affording a nett increase of 589.

From this it will be seen that while the birth-rate has approximated pretty closely for the two years; on the contrary, the death-rate has told much more unfavourably on human life: in the year 1861-2 it amounted to 23 per 1,000, while for the year 1862-3 it has run up to nearly 26 deaths in every 1,000 of the population.

The metropolis in general, however, has experienced an unusual addition to the mortality, and, from the return of the Registrar-General, the Eastern District has felt the shock of disease most severely—comprising the Unions of Shoreditch, Whitechapel, St. George's-in-the-East, Stepney, Bethnal Green, Mile End, Bow and Poplar.

But to make this more clear I will subjoin the estimate of the two years of the mortality.

1861.

London, 23.1 in 1,000. Eastern, 24.0. Limehouse, 23.2.

1862.

London, 23.4. Eastern, 25.9. Limehouse, 26.1.

Hence it appears that 231 persons died throughout London in the year 1861 in every 10,000 persons—240 in the Eastern District, and 232 in the Limehouse. But in 1862, while the Metropolis has made no considerable variation, or, 234 deaths, the Eastern District has jumped up to 259 in the same number, and the Limehouse District counted not less than 262 deaths in every 10,000 of the population.

Now this statement of facts that cannot be gainsaid, demands a little notice, for unless the duties of the Medical Officer of Health are

merely clerical, just to jot down the number of births and deaths from year to year, he ought to be in a position to explain some of the circumstances in connection with this very marked discrepancy.

On reference to the reports of the Registrar General the difficulty is apprehended, though not explained, for I find, in keeping with my own calculations, that the terribly fatal class of diseases has been that called zymotic, such as fevers, measles, small-pox, &c.,—for, while I see 51 persons in 10,000 die from these diseases in London, 48 have died in the South District (generally more fatal) and 65 in the Eastern, thus giving 20 per cent. to the Metropolis over that of our neighbours in the East, and 25 per cent. as a corresponding advantage to that of the South.

To make this more clear, and that the Limehouse District may be seen in all its proportions, as a member of the Eastern Division, I have been at some pains to see how our co-partners stand in this sanitary account. I have also glanced at, while conceding their just merits, the like short-comings of two Districts having no direct communication with ourselves. I have aimed at being precise in these calculations—there may possibly be some slight error, but it is very immaterial, and I am, substantially, correct.

DISTRICTS.*	Inhabitata.	Total Deaths.	Under 5 years.	Six principal Zymotic.	Consumption.	
Limehouse	56,601	Deaths. Per 1483 or 26 1	Desths. Total. 667 or 44.9	Deaths. Cent. 347 or 23		
Mile End	76,825	183623-9	84646	48626.4	20611-2	
St. George's, East	48,909	133227-2	61446	28621.4	13610-2	
Bethnal Green	106,592	253723.8	131151-6	69023-2	25410	
Whitechapel	78,970	238930	112646.8	63026-3	257 9.5	
St.Jas's, Westminster	34,784	72720 9	33245-6	13517.3	11315.5	
St. Marylebone	161,680	377123 3	155241	55612	39410.4	

From this presentment of facts, it will be seen that if the deathrate of the Limehouse District is large, it is not alone; there

<sup>·</sup> Some of the Districts are calculated from Christmas, others from Lady Day.

are those in the Eastern Division still larger. That if zymotic diseases—in their fatality, the most sure criterion of a sanitary condition—have run up to nearly 23 per cent. in the total deaths, there are still other Districts with a yet graver account; and that if 667 children, under 5 years of age, or nearly one-half of the total, have been swept away, it is poor satisfaction if I look elsewhere for a still heavier catalogue.

Now, what is the source of all this inordinate mortality?" is a question it might be expected to be asked, and, most certainly, ought to be answered.

Apart from special diseases of the zymotic class, as measles and scarlatina, which have devastated London, as an epidemic, I learn that fever (proper) which unquestionably owes its origin more especially to local causes, has doubled the number of its victims during the past year, having risen from 55 to 115 in the Limehouse District. This destruction of human life is not so general; it is more limited to the East End of London, as the following comparison will show, from the reports, taken at random of two influential Districts:—

#### 1862.

St. Jas's, Westminster	, Fever,	13 deaths	s, or	17 or	1,000 deaths.
St. Marylebone	"	104		27	n n
Limehouse District	. ,,	115	or	77	,,

Or, to make the contrast and the fact still more striking, I will present the statement thus—

St. Jas's, Westminster, in	n 100,000 persons,	37 have	died of Fever.
St. Marylebone	"	63	"
Limehouse District	"	203	all desired to

Nor let this comparison be considered an extreme case. It is otherwise. Were I to take some of the Northern Districts—Hackney, for instance, the disparity would be found still more remarkable. I have, perchance, however, fixed upon two of the Western divisions, notwithstanding a large admixture of "the upper ten thousand," as affording no indifferent examples for comparison with that of the extreme East.

Then what makes all the difference, without entering on the general question of mortality, between the three districts, in respect of fever?

There is no over-crowding especially calling for interference in the Limehouse District; the parish of Wapping, most thickly peopled, and yet the most healthy, has only 9 persons to a house; housedrainage has been thoroughly carried out; cleansing and white-washing exercised with a liberal hand; neither does the occupation (mostly outdoor) nor the habits of the inhabitants account for this ill-proportioned amount of zymotic deaths and disease.

The difference I apprehend to be this: with more or less of the sanitary evils of the Western Districts, the Limehouse has a more imperfect and inefficient ventilation, and this grand privation to the public health is very largely productive of fever—the true generator of typhus, while giving an intensity, and, frequently, a fatality to other diseases.

But, waiving further allusion to this topic for the moment, the Western Districts in turn must be called to account. The death-rate, the zymotic death-rate—more especially, the fever-rate, is out of all proportion less, particularly so in St. James's, compared with Limehouse. But there I must stop, for, in glancing at the consumptive column, with one exception, I see St. Marylebone has as high a per centage on the deaths from this fatal disease, as any of the Eastern Districts, while St. James's still more exceeds the number, in the proportion of about 15 to 10;—then, again, I survey the infantile column, and find, with the exception of Limehouse, a trifle less, very nearly the same number of children under 5 years die in St. James's parish, or, 45 out of every 100 deaths, as in the Eastern Districts, and 41 in St. Marylebone.

Now, why the Western Districts should have less fever and zymotic disease generally, yet a larger amount of consumption, and a nearly equal degree of infantile mortality, may appear something like a sanitary paradox. Perhaps it can thus be explained:—There is more over-crowding in the Western Districts—for it is admitted in two divisions of St. James's there are 10 persons to a house in one, and 13 in another; and it is this over-crowding, probably, notoriously unfavourably acting on the respiratory organs, is one cause which keeps up the amount of consumption, and is as eminently dangerous, along with its attendant squalor, on infantile life. The Limehouse District is less crowded on the other hand; there is probably, so far at least, less consumption, and no disproportionate amount of infantile mortality. But,

then again, in contradistinction, there is a more defective ventilation; there is probably, therefore, more zymotic disease, especially fever. The poison, the result of animal effluvia, under certain conditions, takes one direction in the West, while, under modifications, it assumes another in the East.

The Eastern Districts, then, have much to bring about in the way of sanitary reform, ere they can expect to be placed on a level with the more favoured, if ever, of the North and the West. If at all a redeeming feature in the estimate, it is a fact beyond controversy that the East can, nevertheless, point to the two Districts in the West, abutting on the regions of fashion, the great centre of civilization, whence migrate to the East the missions of benevolence, and to "London over the border," and see that destroyer of mankind, consumption, in greater excess, while the poor "Rachaels weeping for their children" still find 46 and 41 out of every 100 deaths under 5 years of age, within call of that excellent society, "the Ladies' Sanitary Association."

Having attended to other localities, in order more clearly may be seen our real position, I have now to return to Limehouse, that it may be noticed how far the various parishes of the District agree among themselves. I have said that the increase of births over deaths in the year is 389, which, added to 589 on that preceding, gives a nett increase of 972, since the census of 1861—which, duly distributed, places the population in

Limehouse.	Ratcliff.	Shadwell.	Wapping.
27,453	17,123	8,038	3,987

The birth-rate of London is 3.37 per cent.—that of Limehouse is 3.29; so that if we were to estimate the prosperity of the District by this criterion, it would afford no mean comparison with the rest of the Metropolis.

The Registrar-General counts more on the list of marriages, and, no doubt, in large numbers, this is the correct mode of testing the social progress of a people; but here it would have led me into nothing but error. For instance—in glancing over the Registry, I found something like two marriages at Wapping, in the quarter; four at Shadwell Church; a slight increase at St. James's, Ratcliff; even Limehouse, the leading parish, stood very low in the matrimonial scale, and had but a second-rate reputation. There is here, as elsewhere, a fashion in

these speculations, and it is a fact beyond question that all other competitors have been cast into the shade by the preference given to the Old Church, St. Dunstan's, Stepney.

To have deduced, therefore, the prosperity of the various parishes, and its bearings on public health, by this test, would have been an absurdity. In its absence, however, the births, from one year to another, will give no inadequate representation of the truth, and they stand thus—

### BIRTHS IN 1861, FROM CHRISTMAS TO CHRISTMAS.

Limehouse, 984	Ratcliff. 520	Shadwell. 256	Wapping.
	YEAR	1862.	
968	553	232	108

So that, on the average, to adopt another mode of illustration, there will be to each 1,000 persons in

Limehouse.	Ratcliff.	Shadwell	Wapping.
34 births	30 ,,	29 "	27 "

Wapping, therefore, in the absence of a more correct datum, stands lowest in the social scale, whilst Limehouse, as in population also, takes the pre-eminence.

I am particular about this statement, as it has an important relation to the sanitary influences in operation. Its truth is further corroborated by the published account of the Stepney Union, concerning the numbers receiving relief.

THE IN AND OUT-DOOR POOR RELIEF, TO LADY DAY, 1863.

Limehouse, 905, or 32 in each 1,000 persons
Ratcliff, 762, ,, 44 ,,
Shadwell, 567, ,, 70 ,,
Wapping, 269, ,, 67 ,,

I have hitherto been in the habit of giving the death-rate in each parish, but as this is attended with inaccuracies quite unavoidable, I shall omit this calculation. This will be readily seen on referring to the 15th class of deaths in the Appendix, where 50 cases of drowning will be found,—and when I announce that of these 41 occurred in Shadwell and Wapping, from their larger proportion of water—no small number of these casualties occurring to strangers, and others floating from a distance.

The influence of the river, besides is very great in other respects, and before entering on special mortality, there will be great propriety in giving the legal rateable boundary—

net more been blimer men to	Limehouse.	Rateliff.	Shadwell.	Wapping.
Acres	249	113	68	41
Half the Thames	16	19	31	39
Land and Water Total	265	132	99	80

It is now that the "polluted" Thames comes to bear on special disease, and I have to show how far the "Old Father," as an adjutant to the Sanitary staff, merits all the obloquy heaped upon him of late years. If he be the enemy enunciated by some splendid theorists, his devastations ought to be the most striking where his influence is the most felt. For example, Shadwell and Wapping, in his huge embraces nearly half water, ought, by all the propriety of sentiment, to be at this moment in the agonies of zymotic dissolution. Let us see—

Amount of Six principal Zymotic Deaths for the Year 1862-3.

TRANSPORT OF THE PARTY OF THE P	* Small Box.	Fover.	Scarlatina & Diphtheria.	Messler.	Whooping Cough.	Diarrhosa.	Total	Persons per 1006.
Limehouse	 18	64	26	39	12	22	181	6.5
Ratcliff	 12	38	- 11	25	9	17	112	6.5
Shadwell	 3	9	8	6	7	5	38	4.6
Wapping	 4	+3	3	3	1	2	16	4.3

<sup>·</sup> Two of these in the Workhouse.

<sup>†</sup> The mortality from small-pox is heavy. Probably from a greater ignorance among the poor at the East End of London led to the prophylactic power of vaccination being disregarded till this epidemic had told its tale of woe. Then the public vaccinators were, all at once, beset by applicants. The zeal of these gentlemen in the field of benevolence has been rewarded by 3,013 successful cases, in the course of the year. The number is large, in comparison with the 1,866 births. But, then, as showing, besides, the neglect of parents and others, upwards of 1,800 were of children and others above a twelvemonth old.

Hence, 65 persons have died at the rate of 10,000 of the population of Limehouse, 65 in Ratcliff, from zymotic diseases, while only 46 and 43, respectively, have succumbed in Shadwell and Wapping. And if I take fever (proper) as the most perfect type of these diseases the contrast is still more extraordinary, for then the deaths, at this rate, would be, in Limehouse, 23; in Ratcliff, 22; Shadwell 11, and Wapping 7.

True, this is only for a single year; but these proportions have always been found to prevail, and I have to record the same result from year to year. Nor can it be said that the social condition is superior; but, on the contrary, from the birth-rate and the "In and Out-door Poor" relief rate, it is clear that the prosperity of the District is not in the direction of Shadwell and Wapping. This is, then, a poorer locality, and it is a fact, not to be forgotten, that poverty itself, with its concomitant privations, especially of food, has the very strongest tendency to disease, and to the engenderment of fever.

The explanation of this sanitary anomaly is unquestionably to be found in the river as the great agent in ministering to the health of these two parishes. Of the 80 legal acres of Wapping, 39 are waternearly one-half, and of the 99 of Shadwell, there are 31 water-nearly one-third; and these parishes have, and, I venture to say, always will, as a consequence, have an immeasurably smaller amount of zymotic disease. Limehouse has about 1/16th of its acreage water, and Ratcliff about 1/7th, and the diseases spoken of, assuming all other things equal, have run up to large and inordinate dimensions. To charge the river, then, as the source of disease, and zymotic disease-of cholera, diarrhœa—as some have loudly stated, is to give non causa pro causa, and to assert what is, on careful watching, minute investigation, totally destitute of the necessary substratum of facts. As in my previous Reports has been asserted, so I again express my conviction, that the tidal currents every six hours-the displacement of millions of cubic feet of air every few yards of frontage-the breezes necessarily set up in all directions, immensely outweigh the unquestionable evils of the "polluted" stream, and establish it as my opinion in relation to zymotic disease, as not the mythic but the true "Conservancy of the Thames."

The next class of diseases contributing to the increased death-

rate is that of the organs of respiration—from 185, in 1862, to 242, in 1863. This is probably to be accounted for from a cold summer, succeeded by a mild winter, but with an atmosphere very heavily charged with moisture. This state of the weather is always unfavourable to these diseases, and, doubtless, has led to an enlarged mortality.

It is scarcely necessary to speak of the remainder of the fatal diseases, with the exception of the 15th and last class, or those deaths coming under the inquisition of the Coroner.

It will be remembered that the death of a child preceded by three others, in Tomlin's Terrace, Limehouse, led to the inquest on the former, on an opinion given by me that it had died from chronic arsenical poisoning, the result of living in an atmosphere during the better portion of 24 hours, this mineral having entered largely into the paper on the walls of the room. The evidence given at the time was conclusive, except that the poison was not discovered on analysis by Dr. Letheby. But it is well understood, in the scientific world, that in poisoning in the chronic form, or small doses, after the lapse of 12 to 15 days, is uncertain of detection; in fact, it becomes eliminated, or passes away with the excretions. The non-detection of the poison was not the scruple of the jury, however, in returning a verdict of "natural death "-They had their reasons. The profession, the eminent, whose opinions are worth notice, have, however, long settled this question. It has taken hold of public opinion; the use of this arsenical green paper has fallen into disrepute; many manufacturers have already, and others are ceasing, to make it.

There are 7 deaths from suffocation, or from being "overlaid." Of these, 3 were on Sunday night, 2 on Tuesday, 1 on Monday, and 1 on Wednesday night. There was one death of a child in her mother's arms, from suffocation, on the memorable 10th of March; there was also that of a woman, who subsequently died at Wapping, from being trampled upon in the crowd on that occasion. The loss of the cabin boy and four Lascars, on board the "Ganges," by drowning, in August, 1862, deserves mention. The ship was leaving the dock in ballast, or, short of ballast, rather, when a sudden turn of the vessel from the tugsteamer enabled the strong tide to tilt her over on her broadside, and she immediately filled with water.

This, then, although it has been an unhealthy year, and one fatal

from epidemics, must still be regarded as an exception to the average—it has its tale of death to recount everywhere. But sickness, of the epidemic class especially, has not been altogether indiscriminate in its visitations. It is true, we have seen some of these diseases attack the inmates of abodes of the wealthy, as well as the poor, where all sanitary conditions were most completely fulfilled; but this, of course, must be regarded as the exception—the general laws of health and disease still remain as a guide. Some of those laws are, beyond dispute, which every Medical Officer of Health can confirm, that the badly drained houses, the badly ventilated, are the selected abodes of zymotic disease, amongst dirty people: and further, that, commonly, while among the cleanly, where drainage is complete, and ventilation perfect, where typhus is almost unknown, this same disease shall visit the former class of people, one after another, lay low the whole of them, and almost for a certainty claim a share of some victims.

I have dwelt, at length, I am aware, on zymotic disease. It is the most important of all. If it cannot be extirpated, it ought to be diminished. It can be. If I review my experience, during the past year, where death from typhus has taken place, I may say, with confidence, that in five houses out of 6,\* defective ventilation has been manifest, apart from other sanitary evils not overlooked at the time.

Your Board have long been sensible of this fault among the poorer dwellings, but, at the same time, aware that the District itself was not in a position with its wealthier neighbours, felt disinclined at the outset to resort to constraint, in order to bring about a change in this respect. You were satisfied for a season in issuing printed notices on the subject, pointing out the advantages both to landlords and tenants, in the hope that moral influence would be sufficient. In some cases it has proved adequate to the emergency; but, in the far greater number, perfectly futile. In this difficulty, you then determined, fortified by the provisions of the 8th and 13th sections of the Nuisances Removal Act, to have recourse to the decision of the magistrate.

With the conviction of the necessity for such a step, that it will very materially diminish zymotic disease, especially fevers, and modify

<sup>•</sup> There are probably not less than 2000 houses, of the poorest class, where the upper sashes are fixed and immoveable; and these have been principally the abodes of fever and zymotic pestilence.

the severity of all other diseases, by having adequate ventilation, I hope shortly to see every dwelling of the poor in the District, though debarred from his other comforts, on a footing in this respect with his wealthier neighbours. Cleansing and drainage are all good as far as they go, and no one can find fault with white-washing too much; but, after all this, I could point to many cases of the kind, where, on the first outbreak of an epidemic, say fever, and these abodes may, peradventure, in the absence of better ventilation, turn out to be but so many "whited sepulchres." \*

I have personally inspected 1,293 houses during the past year.

39 slaughter-houses have come under my supervision, in conjunction with Mr. Scott, and 30 cow-houses. In only 2 instances was it found necessary to interpose a temporary objection to the renewal of the licenses.

Notices served for sanitary impro-	vements	during	the year	ar	400
Traps and pans fixed, and cess-po	ols filled	up			89
Cess-pools emptied					20
Cleansing and lime-washing					293
Upper sashes made moveable, on	recomme	endatio	n		56
				1004	
	Total		***	***	858

From this, it will be seen that a great deal has been done, but I cannot conceal the truth that very much more remains for improvement. The large amount of zymotic mortality is not at all satisfactory. I hope, shortly, to see it reduced to something like its normal proportions. This can only be accomplished by a constant vigilant supervision of the localities where these diseases, from time to time, shall arise.

I am, Gentlemen,

Your most obedient Servant,

THOMAS ORTON,

Medical Officer of Health to the Limehouse District Board of Works.

1863.

<sup>•</sup> Since this Report has been in print, I am gratified to add, that on an appeal by me to the Magistrate, with the sanction of the Board, it has been decided that ventilation shall be improved by the upper sashes being made moveable, or some equally adequate arrangements.—T. O.

## APPENDIX.

## TABLE I.

CAUSES OF DEATH.		Limehouse, acres 249. Population (1861) corrected 27, 453.	Ratcliff, acres 113. Population corrected 17,123.	Shadwell, acres 68. Population corrected 8038.	Wapping, acres 41. Population 3987.	Limehouse District, acres 471. Total Population 56,601.
	90		_	- 10		-
1. Zymotic		229	120	40	19	408
2. Diathetic		18	22	5	9	54
3. Tubercular		100	87	33	20	240
4. Nervous System		51	42	11	14	118
5. Organs of Circulation		18	8	1	10	37
6. Respiratory Organs		109	70	37	26	242
7. Digestive Organs	***	46	15	7	7	75
8. Urinary Organs, &c		9	3	2		14
9. Generative Organs, &c		6		2	1	9
10. Locomotive Organs, &c	23	2			4	6
11. Integumentary System				1		1
12. Malformations		5		1		6
13. Premature Birth, and Debility		24	11	5	9	49
14. Old Age		22	29	2	31	84
15. Violent and Sudden			32	44	18	140
Total Deaths		685	440	190	168	1483

TABLE II.

CAUSES OF DEATH.    1. Small Pox			27222						
1. Small Pox 26 2 4 3 2 37 2. Measles 69 4	CAUSES OF DEATH.	10	Under 10 Years.	8	Under 40 Years.	nder 60 Y	2	Upwards.	Total.
2. Measles       69       4          73         3. Scarlatina       27       6       2       1        36         4. Diphtheria       7       5          12         5. Quinsey       6          6         6. Croup       33          33         7. Whooping Cough       29          29         8. Typhus & Remittent       38       10       13       24       22       8        115         9. Intermittent Fever       8          8          8         10. Erysipelas        4        2        2        8         11. Influenza	Class 1.								
3. Scarlatina       27       6       2       1       36         4. Diphtheria       7       5       12       12         5. Quinsey       6       33       6       6       6         6. Croup       33       33       33       33       33         7. Whooping Cough       29       10       12       12       15         9. Intermittent Fever       8       10       13       24       22       8       115         9. Intermittent Fever       8       10       13       24       22       8       115         9. Intermittent Fever       8       11       1       1       1       2       2       8         10. Erysipelas       4       1       1       1       1       2       2       8         11. Influenza       42       1       1       1       1       2       2       8         12. Diarrhœa       42       1       1       1       4	1. Small Pox	26	2	4	3	2			37
4. Diphtheria        7       5	2. Measles	69	4			***			73
5. Quinsey       6             6         6. Croup	3. Scarlatina	27	6	2		1			36
6. Croup 33	4. Diphtheria	7	5						12
7. Whooping Cough       29 <td>5. Quinsey</td> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6</td>	5. Quinsey	6							6
8. Typhus & Remittent       38       10       13       24       22       8        115         9. Intermittent Fever       8	6. Croup	33							33
9. Intermittent Fever 8 8  10. Erysipelas 4 2 2 8  11. Influenza 1 1 2  12. Diarrhœa 42 42  13. Cholera 3 1 4  14. Pyœmia 1 1 4  15. Rheumatic Fever 1 1  16. Syphilis 1 1 1  CLASS 2.  1. Gangrene 1 3 2 2 8  2. Hemograhage	7. Whooping Cough	29							29
10. Erysipelas        4        2        2        8         11. Influenza          1        1        2         12. Diarrhœa        42           42         13. Cholera        3         1        4         14. Pyœmia        1          1   .	8. Typhus & Remittent	38	10	13	24	22	8		115
11. Influenza         1        1        2         12. Diarrhœa        42           42         13. Cholera        3         1        4         14. Pyœmia        1          1   <	9. Intermittent Fever	8							8
12. Diarrhœa        42          42         13. Cholera        3         1        4         14. Pyœmia        1          1         1         15. Rheumatic Fever            1         1         1          1	10. Erysipelas	4			2		2		8
13. Cholera 3 1 4  14. Pyœmia 1 1  15. Rheumatic Fever 1 1  16. Syphilis 1 1 1  CLASS 2.  1. Gangrene 1 3 2 2 8	11. Influenza			1		1			2
14. Pycemia       1        1         15. Rheumatic Fever         1         16. Syphilis       1        1         CLASS 2.       1        3       2       2        8         2. Hemographsca        1        3       2       2        8	12. Diarrhœa	42							42
15. Rheumatic Fever	13. Cholera	3				1			4
16. Syphilis 1 1 1  CLASS 2.  1. Gangrene 1 3 2 2 8	14. Pyœmia	1				***			1
CLASS 2.  1. Gangrene 1 3 2 2 8	15. Rheumatic Fever						1		1
1. Gangrene 1 3 2 2 8	16. Syphilis	1							1
2. Hemorrhage	Class 2.				anl-s	ia E			337
2. Hemorrhage 1 1 1 3	1. Gangrene	1			3	2	2		8
	2. Hemorrhage		1	1		1			3

## TABLE II .- continued.

CAUSES OF DEATH.	Under 5 Years.	Under 10 Years.	Under 20 Years.	Under 40 Years.	Under 60 Years.	Under 80 Years.	Upwards.	Total.
Class 2—continued.						1000		
3. Dropsy		1		2	7	11		21
4. Abscess	3	1	1	1	2			8
5. Cancer	1		4.	1	4	1		7
6. Tumour				1	4			5
7. Noma (Canker)	2							2
CLASS 3.								
1. Tabes Mesenterica	43	3						46
2. Phthisis	15	7	18	63	26	5		134
3. Anœmia	1		2	2	3	1		9
4. Scrofula	3	1	3	2	1			10
5. Hydrocephalus	40	1						41
CLASS 4.						ition		
1. Apoplexy			1	2	5	10	1	19
2. Epilepsy	1		1	2	1	. 1	1	7
3. Palsy (Paralysis)				1	3	5	4	13
4. Convulsions	25							25
5. Cerebritis	3	2				4		9
6. Meningitis	2	2	1	1			o.nii	16

## TABLE II .- continued.

TAD	LILI X		77666761					
CAUSES OF DEATH.	Under 5 Years	Under 10 Years.	Under 20 Years,	Under 40 Years.	Under 60 Years.	Under 80 Years.	Upwarda	Total.
Class 4—continued.							2000	
7. Trismus				1	1			2
8. Delirium Tremens				2	2			5
9. Disease of Brain, &c.	19	1		4	4	2	2	32
CLASS 5.							100	100
					-		107	0
1. Pericarditis		***	***	***	2		***	2
2. Endocarditis					1			1
3. Aneurism of Aorta	***			1				1
4. Diseased Heart, &c.	2	3	6	7	8	7		33
CLASS 6.							100	2
1. Pneumonia	63	2	2	5	7	5	1	85
2. Bronchitis	50	2	10	7	20	38	2	129
3. Laryngitis	2	4						6
4. Pleuritis				1	3			4
5. Asthma						6	2	8
6. Laryngismus	2							2
7. Lung Disease	2		1	2	2	1		8
CLASS 7.		2						
1. Enteritis	4	1	1	2	4	2	1	15

## TABLE II.—continued.

CAUSES OF DEATH.	Under 5 Years.	Under 10 Years.	Under 20 Years.	Under 40 Years.	Under 60 Years.	Under 80 Years.	Upwards.	Total.
Class 7—continued.				de			-	
2. Gastritis				2	1	1		4
3. Dysentery				1	1	1		3
4. Peritonitis		1	1	2				4
5. Hepatitis					1	2		3
6. Hematemesis		1				1		2
7. Jaundice	1			1		1		3
8. Diseased Liver	. 2	1	3	5	5			16
9. Stricture of Esophagus					1			1
10. Do. of Pylorus					1			1
11. Hernia					1			1
12. Diseased Spleen					1			1
13. Teething	. 16							16
14. Aphtha	. 3							3
15. Diseased Bowel, &c.			1			1		2
CLASS 8.	-	-						
1. Nephritis	. 1	1			1			3
2. Nephria (Bright's Disease)			2					2
3. Disease of Bladder				1	1			2

## TABLE II .- continued.

CAUSES OF DEATH.	Under 5 Years.	Under 10 Years.	Under 20 Years.	Under 40 Years.	Under 60 Years.	Under 80 Years.	Upwards.	Total
	-	-	-	-		_		
Class 8—continued.				- 31				
4. Disease of Prostrate	***					2	1	3
5. Do. Kidneys					2	2		4
								3
Class 9.								
1. Childbirth				3				3
2. Puerperal Inflammata					1			1
3. Uterine Disease				2	3			5
Class 10.				100				
1. Joints		2		2		2		6
Cries 11								
CLASS 11.				10				
1. Skin		***		***		1		1
Class 12.								
		7						
1. Imperforate Anus	1							1
2. Cyanosis				1	1			2
3. Spina Bifida	3							3
						-Unc		-
Class 13.	6			ME		Jend	TOTAL .	2
1. Premature Birth and				1			801	
Debility	49							49

TABLE II .- continued.

CAUSES OF DEATH.		Under 5 Years.	Under 10 Years.	Under 20 Years.	Under 40 Years.	Under 60 Years.	Under 80 Years.	Upwards.	Total.
Class 14.							0000	MIRAS.	
1. Old Age, &c.							50	34	84
Class 15.			161 161						
1. Suffocation		8							8
2. Drowning		4	3	9	24	4	6		50
3. Suicide				1	3	1			5
4. Manslaughter	.,.	1							1
5. Murder		3			2				5
6. Scalds and Burns		2	***						2
7. Disease, &c.		18	1	3	14	10	7	1	54
8. Other Causes									15



TABLE III. Stating the number of Deaths weekly throughout the year, with the

mean temperature of the air during each week.

WEEK	ENDIN	rG	Temperature	Deaths in Limehouse.	Deaths in Rateliff.	Deaths in Shadwell.	Deaths in Wapping.	Total
April		5	 48.6	18	15	5		38
	1	2	 43.8	10	9	2	1	22
	1	9	 43.5	10	5	2	6	23
	2	26	 54.2	12	8	3	5	28
May		3	 53.6	13	4	2	4	23
	1	0	 57.5	4	14	5	5	28
	1	7	 51.9	2	11		2	15
	2	24	 55.6	10	11	3	3	27
	3	31	 57.6	13	5	3	5	26
June	•••	7	 58.6	15	5	1	1	22
	1	14	 55.3	15	8		4	27
	2	21	 54.9	14	11	3	1	29
	5	28	 56.2	18	7	4	4	33
July		5	 56.8	2	7	3	2	14
	1	12	 58.2	15	6	5	1	27
		19	 59.5	8	10	9	5	32
		26	 60.1	8	3	2	3	16
August		2	 61.3	9	4	6	4	23

TABLE III .- continued.

Stating the number of Deaths weekly throughout the year, with the mean temperature of the air during each week.

WEEK END	ING	Temperature.	Deaths in Limehouse.	Deaths in Rateliff.	Deaths in Shadwell.	Deaths in Wapping.	Total.
August	. 9	 59-7	14	7	6	3	30
	16	 58.7	14	7	6	8	35
	23	 59-6	11	6	6	3	26
	30	 58.6	19	7	8	2	36
September	6	 57-	15	4		1	20
	13	 58-	20	9	2	3	34
	20	 58.6	13	7	3	5	28
	27	 56-6	9	6	1	1	17
October .	. 4	58.1	14	10	8	2	34
	11	 56.3	14	8	2	2	26
	18	 53-9	15	8	4	2	29
	25	 47.4	15	6	3	3	27
November	1	 46.8	11	7	2		20
	8	 44.9	7	8	3	4	22
	15	 37.3	16	6	7	3	32
	22	 38.3	17	7	5	2	31
	29	 37.1	20	21	7	3	51
December	6	 44.8	9	12	2	1	24

TABLE III .- continued.

Stating the number of Deaths weekly throughout the year, with the mean temperature of the air during each week.

WEEK EN	DING	Temperature.	Deaths in Limehouse.	Deaths in Rateliff,	Deaths in Shadwell.	Deaths in Wapping.	Total.
December	13	 44.1	15	11	6	4	36
	20	 42.1	11	12	5	3	31
	27	 42.2	8	12	2	6	28
January	3	 43.8	18	10	2	6	36
	10	 40.1	16	3	11	1	31
	17	 38.1	21	13	3	7	44
	24	 43.8	16	14	2	6	38
	31	 44.5	15	11		3	29
February	7	 45.3	20	6	2	3	31
	14	 40.7	13	7		2	22
	21	 39.	11	8	4	4	27
	28	 43.4	17	8	3	5	33
March .	. 7	 47.3	14	9	3	1	27
	14	 38.1	16	13	7	7	43
	21	 41.	11	10	- 5	3	29
	28	 48.	11	7	2	3	23
		12		I TO	02		
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