Report of the health of Tottenham UDC for the year 1906.

Tottenham Urban District Council.

REPORT

ON THE

Health of Tottenham,

FOR THE YEAR 1906,

BY

J. F. BUTLER-HOGAN,

Medical Officer of Health,

(Graduate in Arts, Law, Medicine, Surgery and Obstetrics, Diplomat in Public Health, Barrister-at-Law, etc.)

"To be a nation of healthy animals is the first condition of national prosperity.—*Herbert Spencer.*

"The true wealth of a country depends upon the number of noble, healthy, happy human beings it contains.—*Ruskin.*

Tottenham Urban District Council.

PUBLIC HEALTH COMMITTEE.

Chairman:

COUNCILLOR A. E. HARVEY.

Ex-officio Members:

COUNCILLOR C. C. KNIGHT, J.P., F.Z.S., M.C.C.,
(Chairman of the Council.)

COUNCILLOR E. THOROLD GARLAND (Vice-Chairman of the Council).

Elected Members (other than Chairman):

COUNCILLOR P. B. MALONE, J.P. (formerly Chairman of the Council.)

COUNCILLOR W. BROWN (formerly Chairman of the Council.)

COUNCILLOR G. D. BARNS.

,, J. H. BLOOMFIELD.

N.B.—St. Ann's Ward has been for some months unrepresented on the Committee.

Representatives on the Middlesex Districts Joint Small Pox Hospital Board:

COUNCILLOR P. BUCK.
,, E. T. GARLAND.
,, C. C. KNIGHT, J.P.

Appointed 19th September, 1905.

Council's Representative on the Metropolitan Water Board, under the Metropolis Water Act, 1902.

COUNCILLOR P. B. MALONE, J.P.

Names of Members on the Council, with respective dates of retirement.

		Retires.
	HIGH CROSS WARD.	
1.	J. H. Dobson	1909.
2.	W. Cottle	1909.
3.	W. J. Bresson	1908.
4.	A. E. Harvey	1908.
5.	E. T. Elder	1907.
	MIDDLE WARD.	
6.	T. E. Baker	1909.
7.	G. D. Barns	1909.
8.	H. A. Knight	1908.
9.	C. C. Knight, J.P.	1907.
10.	J. P. Beavan	1907.
	LOWER WARD.	
11.	W. Liquorish	1909.
12.	F. W. Jones	1909.
13.	J. Barker	1908.
14.	W. Brown	1907.
15.	S. C. Lewis	1907.
	WEST GREEN WARD.	
16.	J. H. Bloomfield	1909.
17.	G. W. Rowley	1908.
18.	T. Elderfield	1908.
19.	J. W. Matthews	1907.
20.	P. Buck	1907.
	ST. ANN'S WARD.	
21.	T. F. Taylor	1909.
22.	C. E. Brown	1908.
23.	S. Gray	1908.
24.	E. O. Williams	1907.
25.	(One seat at present vacant)	—
	HARRINGAY WARD.	
26.	H. Heath	1909.
27.	R. Green	1909.
28.	P. B. Malone, J.P.	1908.
29.	W. W. Lewin	1908.
30.	E. T. Garland	1907.

CHIEF OFFICERS OF THE COUNCIL.

(In addition to the M. O. H.)

Clerk :

E. CROWNE, ESQ.

Engineer :

W. H. PRESCOTT, ESQ.

Solicitor :

F. SHELTON, ESQ.

Treasurer :

E. YOUNG, ESQ.

Superintendent of Fire Brigade :

S. M. EDDINGTON, ESQ.

PUBLIC HEALTH STAFF.

Male Sanitary Inspectors :

* REDSTON, W. (105, Broadwater Road.)	Harringay Ward.
* PORTMAN, W. C. (234, Northumberland Park.)	High Cross and West Green Wards.
LIST, A. (79, Chesnut Road.)	
* WEST, W. P. (33, Drayton Road.)	St. Ann's Ward.
* MILLER, H. W. ("Bembridge," Broadwater Road.)	Middle Ward.
* SHILLITO, J. A. (14, The Avenue.)	Lower Ward.

Lady Health Visitor :

ALDRIDGE, MISS C. E. (Cert. San. Insp. Exam. Board.)

Lady Sanitary Inspector :

* NEWTON, MISS M. F. (Cert. San. Insp. Exam. Board.)

* The Officials so marked hold the Certificate of the Royal Sanitary Institute.

Clerical Staff :

COZENS, A. G., Senior Clerk.

BAKER, S.
GODDARD, V. } Special Office Clerks.

GARVEY, R., Shorthand and Correspondence Clerk.

Mortuary Attendant :

A. H. PLUMB, 18, Ranelagh Road.

Disinfectors :

A. PITNEY (Houses).

J. MITCHELL } (Clothing).
H. BYSOUTH }

ADDRESSES OF OTHER PUBLIC OFFICERS, MORE OR LESS CONNECTED WITH PUBLIC HEALTH WORK.

Registrars of Births and Deaths :

East Tottenham : Mr. H. J. ROYNON, 664, High Road.

West Tottenham : Mr. E. S. CHAPMAN, 22, Langham Road.

Relieving Officers :

East Tottenham : Mr. J. GRAVILLE, 186, West Green Road.

West Tottenham : Mr. A. J. WRAMPLING, 13, Ruskin Road.

Public Vaccinators :

DR. W. H. PLAISTER, 632, High Road.

DR. E. R. HUTTON, 42, West Green Road.

DR. W. MILLAR, 139, West Green Road.

Vaccination Officer :

MR. H. J. ROYNON, 664, High Road.

Coroner's Officer :

MR. G. T. GILLINGHAM, 17, Arnold Road, Philip Lane.

By the order of the Local Government Board, dated March 23, 1891, Article 18, Section 14, it is prescribed that the Medical Officer of Health shall "make an Annual Report to the "Sanitary Authority, up to the end of December in each "year, comprising a summary of the action taken, or which "he has advised the Sanitary Authority to take, during the "year for preventing the spread of disease, and an account "of the sanitary state of his District generally at the end "of the year. The report shall also contain an account of "the inquiries which he has made as to conditions injurious "to health existing in the District, and of the proceedings "in which he has taken part or advised under any Statute, "so far as such proceedings relate to those conditions; and "also an account of the supervision exercised by him, or on "his advice, for sanitary purposes over places and houses "that the Sanitary Authority have power to regulate, with "the nature and results of any proceedings which may have "been so required and taken in respect of the same during "the year. The report shall also record the action taken by "him, or on his advice during the year, in regard to "offensive trades, to dairies, cow-sheds, and milk shops, "and to factories and workshops. The report shall also "contain tabular statements (on Forms to be supplied by Us, "or to the like effect), of the sickness and mortality within the "District, classified according to diseases, ages, and localities."

Under Section 132 of the "Factory and Workshop Act, 1901," the Medical Officer is also required in his Annual Report to report specifically on the administration of the Factory Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State.

INTRODUCTION.

PUBLIC HEALTH DEPARTMENT,

TOWN HALL,

TOTTENHAM,

January, 1907.

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

GENTLEMEN,

I have the honour to present my sixth Annual Report upon the sanitary condition and vital statistics of Tottenham.

The year 1906 was a trying one in many respects; the exceptionally hot dry weather which obtained generally throughout England from July to October, caused one of the most widespread and fatal epidemics of Infantile Diarrhœa with which the large towns of this country have been visited in recent years, and though your District has—I rejoice to think—suffered less from the scourge than most similarly circumstanced large towns, the visitation has nevertheless left its dark trace here in an increased zymotic mortality. Scarlet Fever was also unusually prevalent for some months, and there are considerable grounds for the belief that the many severe cases of the disease that occurred in April and May were due to imported milk, which had probably received infection at a producing farm more than 100 miles away. It is therefore gratifying—those and other unfavourable circumstances notwithstanding—to be able to report that there has been no increase in the General Death Rate, but

that on the contrary there has been a slight diminution, the figure standing at 12·4 as compared with 12·7 for 1905.

* * * * * * *

The District has grown during the twelvemonth with even more than the amazing rapidity which I have previously chronicled, *the total number of Inhabited Houses, which stood at* 19,924 *in June*, 1905, *having increased to* 21,606 *by Midsummer*, 1906. Calculating upon the basis that the average number of persons to an occupied house remains the same as it was in 1901, (viz. :—6·23) the figures give an increase of population amounting to rather more than 10,000 during the year : I need scarcely remind you how much such an increase has added to the labours and responsibilities of the officials charged with the local administration of the Public Health Acts.

I have to thank the Council generally, and its Chairman, and the Members of the Public Health Committee more particularly, for the consideration, encouragement and assistance they have so uniformly extended to this Department, though it is useless to ignore the fact that the support of even the majority of the Members of a Sanitary Authority—when accompanied by the open or veiled hostility of [redacted] others—is not a sufficiently powerful lever in the hands of a Medical Officer of Health to enable him to clear away many of the obstacles that block the pathway of Hygienic Reform. What is needed is the enthusiastic but rational and practical support, not merely of every Councillor, but of every lover of his kind in the grand struggle to eradicate disease by the most effective and therefore wisest method—the adoption of Proper Preventive Measures. When we live as we ought to live, and when men—no matter how their opinions may otherwise differ—agree to make the health and happiness of the People their primary object—not

merely on election platforms but in deed and in truth—then, and I fear not till then—may we truly hope that the voices of those Sanitarians, who have been so long crying in the wilderness, will receive due attention, and questions like "Infantile Mortality," "Physical Deterioration," "Consumption" and other "Infectious Diseases," etc., etc., will be dealt with locally and nationally in such a manner as can—and assuredly will—result in the annual saving of tens of thousands of lives within this kingdom alone.

Amongst the many suggestions and recommendations embodied in this report is one, to which I would fain direct your attention in a special manner, viz. :—the necessity of ensuring either directly or indirectly the provision of a pure milk supply for the "little ones" of your District—if you desire to abolish those awful annual holocausts of children to Zymotic Enteritis—which assume even more than their ordinary magnitude in hot, dry summers like that of 1906.

* * * * * * *

It is pleasant to be able to recognise periodically, through the medium of my Annual Reports, the sympathy and co-operation of my colleagues—the Chief Officers of the Council—which I have so uninterruptedly enjoyed since my appointment, as well as the earnest, loyal and conscientious service rendered by so many employees of the Public Health Department to the Council and District.

I am, Gentlemen,

Faithfully yours,

R. Hutt-Hogan

Medical Officer of Health.

RETROSPECT.

(The details under this heading have been mainly reproduced from my Report of last year, in accordance with the request of the Local Government Board that such geological and other information should preface every Annual Report of Medical Officers of Health.)

Tottenham, in the ancient record of Domesday Book, is called Toteham; it formed part of the hundred of Edmonton, in the County of Middlesex, and is situated in latitude 51° 35′ 59″ N., and in longitude 0° 4′ 31″ W. from Greenwich, and is about 6 miles from Charing Cross. It is bounded on the E. by Walthamstow in Essex, from which it is separated by the River Lea, on the W. by Hornsey and Wood Green, on the N. by Edmonton, and on the S. by Hackney and Stoke Newington. The form of the Parish is irregularly trapezoidal. The etymology of the name is derived from the Saxon words "Totia" and "Ham," the first of which signifies a projection with a long end or corner like a horn, and is supposed in this instance to have originated from the form of the Western part of the Parish (now Wood Green); "Ham," the latter portion of the word, is a common ending to the names of places, and signifies a town or dwelling place. According to some authorities the Ancient Roman Basilical Way led through part of Enfield Chase in its passage to Hertford, which road, coming from Moorgate and passing through Newington and thence through several "Green Lanes" to the East of Hornsey entered Enfield Chase. This was the road by which the Londoners marched on, with Alfred at their head, in the year 895, to attack a strong fortification the Danes had built at Hertford. At the Norman Conquest, when England was divided amongst the victorious nobles, Tottenham fell to the share of Judith, the

niece of the Conqueror. This is not the place to enter into details regarding the history of the Bruces, or to even enumerate the many distinguished Lords of the Manor that have since their time held sway in Tottenham. We find from Pole's History of Middlesex that about A.D. 1210, the headlands, commons, waste grounds, and greens formed a very considerable part of the County of Middlesex. They were granted to the tenants of the respective Manors for pastorage for their cattle, for fuel and other necessities; some of them were very extensive, and belonged to and made parts of this Parish, viz. :—Wood Green, West Green, Ducketts Green, Hanger Green, Bean's Green, Bounds Green, Chapman's Green, Else's Green, Smith's Cross Green, Page Green, Tottenham (High Cross) Green, etc.

According to the return of the state of the culture of lands in the Parish in 1822-3 Tottenham had a total area of 3932 acres, 2660 acres of which were "mown land," 289 "marsh land," 650 acres "Fed land," 50 acres "Clover and Hay," 128 acres of "Wheat," 125 acres of "Potatoes," 21 acres of "Turnips," 120 acres of "Oats," 3 acres of "Barley," 28 acres of "Beans," 6 acres of "Cabbages," 48 acres in "Gardens," 34 acres of "Fallow," 48 acres of "Tares," and 11 acres of "Wood"

THE SOIL.

The surface of the principal part of the Parish may be said to consist of a stiff, heavy soil; there is, however, diversity in it, for here and there are found patches of brick earth and loam, and in other places considerable deposits of gravel; but where neither loam nor gravel is found, the vegetable mould, which is general, is not very deep, lies upon a stiff bed of clay; near the surface it has an ocherous tinge, but at no considerable depth it is of a dark blue or blackish colour.

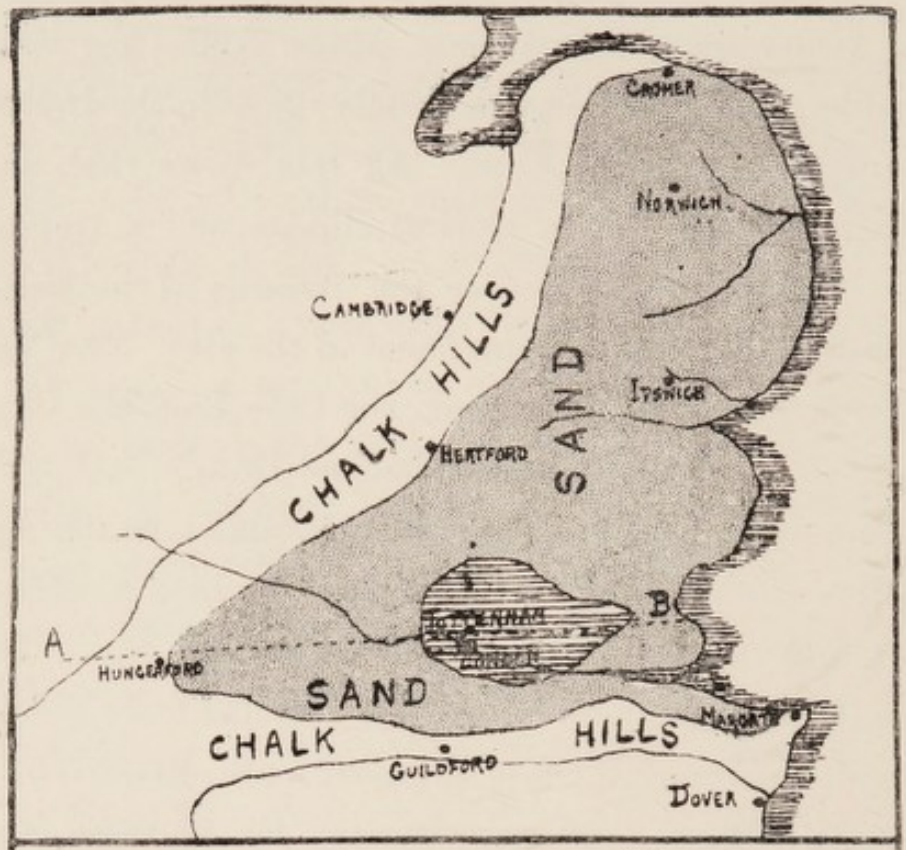
GEOLOGICAL ITEMS.

The range of chalk hills from Hungerford to Cromer dips gently beneath the sand to the S.E., while the range from Hungerford to Dover dips gently towards the North; the chalk of the two ranges is connected, passing beneath Middlesex, Essex, Suffolk and Norfolk, and even beyond them beneath the sea bordering the coast of the three latter counties; we are therefore to conceive the whole of this tract to be situated in a vast hollow in the chalk, which is geologically termed the chalk basin of London. The layer of sand which passes above this chalk from Hungerford to Dover is the very sand from which rises the water which supplies the wells of Tottenham. The fact appears to be that the water which falls on the sand where it is superficial (from Hungerford to within some distance of Tottenham), together with that which passes into it from the chalk, percolates the stratum of sand underlying the clay; hence where an opening is made through the clay, the water rises nearly or quite to the surface, on the principle of seeking its level—the level of the sand at the foot of the chalk hills, and of the clay at Tottenham being nearly the same (*see* Geological Map). The sand lies in a hollow in the chalk and the clay in a hollow in the sand. That both have been deposited by the sea there is the most conclusive evidence, indeed sea shells are found in both. In many parts of the parish red clay or loam, fit for bricks and pottery work, is still found—even as in ancient times—reminding us of the old poem of the "Tournament of Tottenham," where we find that Perkyn the hero, who carried away Tibbe as his bride, was a potter, and lived by that trade in Tottenham.

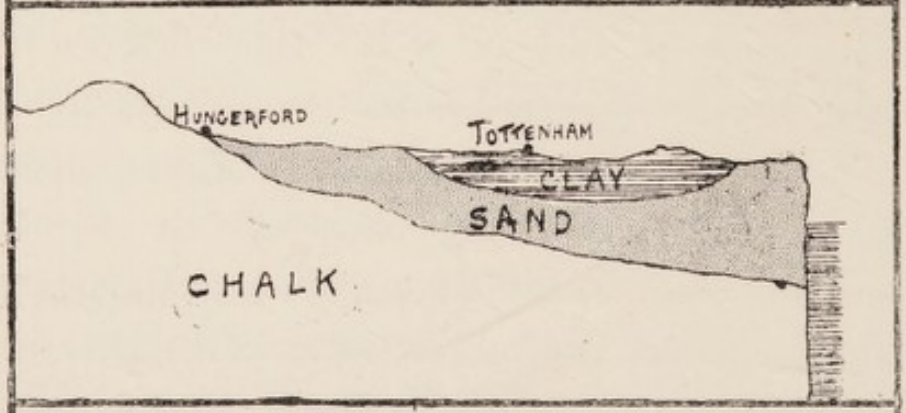
It is interesting to recall that underneath Tottenham there lies a varying depth of one to five hundred feet of clay, which is

not clay belonging to the "ice" period, but to a later geological formation; it was in fact the delta of a great tropical river. The shells in this clay are tropical, and we also find nautili, cones, fruits and seeds of Nipa palms, now only found at Indian river mouths, Anona seeds, Gourd seeds, Acacia fruits; the bones, too, of crocodiles, turtles, of large mammals allied to the Indian tapir, and the water-hog of the Cape. All this shows that there was once, where we now live, a tropical climate and a tropical river running into the sea; moreover the remains of animals which existed before the "ice" age are found in the clay. The Mammoth or woolly Elephant, the Rhinoceros, the Cave Lion, the Cave Bear, the Reindeer, and the Musk Ox inhabited Britain until the "ice" drove them south. When the climate became tolerable again the Mammoth and Rhinoceros, the Bison and the Lion re-occupied our lowlands, and the Hippotamus from Africa and Spain wandered over the plains where now the English Channel flows and pastured side by side with animals which have long since retreated to Norway and Canada. When the ages necessary for all these changes is allowed for, we have not even yet got beyond the latest geological period into which the history of the Globe has been divided. Under the tiertiary deposits lies the chalk—1,000 feet in thickness,—which is composed of the shells of minute animals, that must have been deposited, age after age, at the bottom of a deep and still ocean far out of reach of winds, tides or currents. Recent dredgings in ocean depths have proved beyond a doubt that the greater part of the Atlantic sea floor is now being covered by a similar deposit. It is impossible to deny that periods of a very vast duration must have elapsed while the changes above enumerated took place.

GEOLOGICAL MAP.

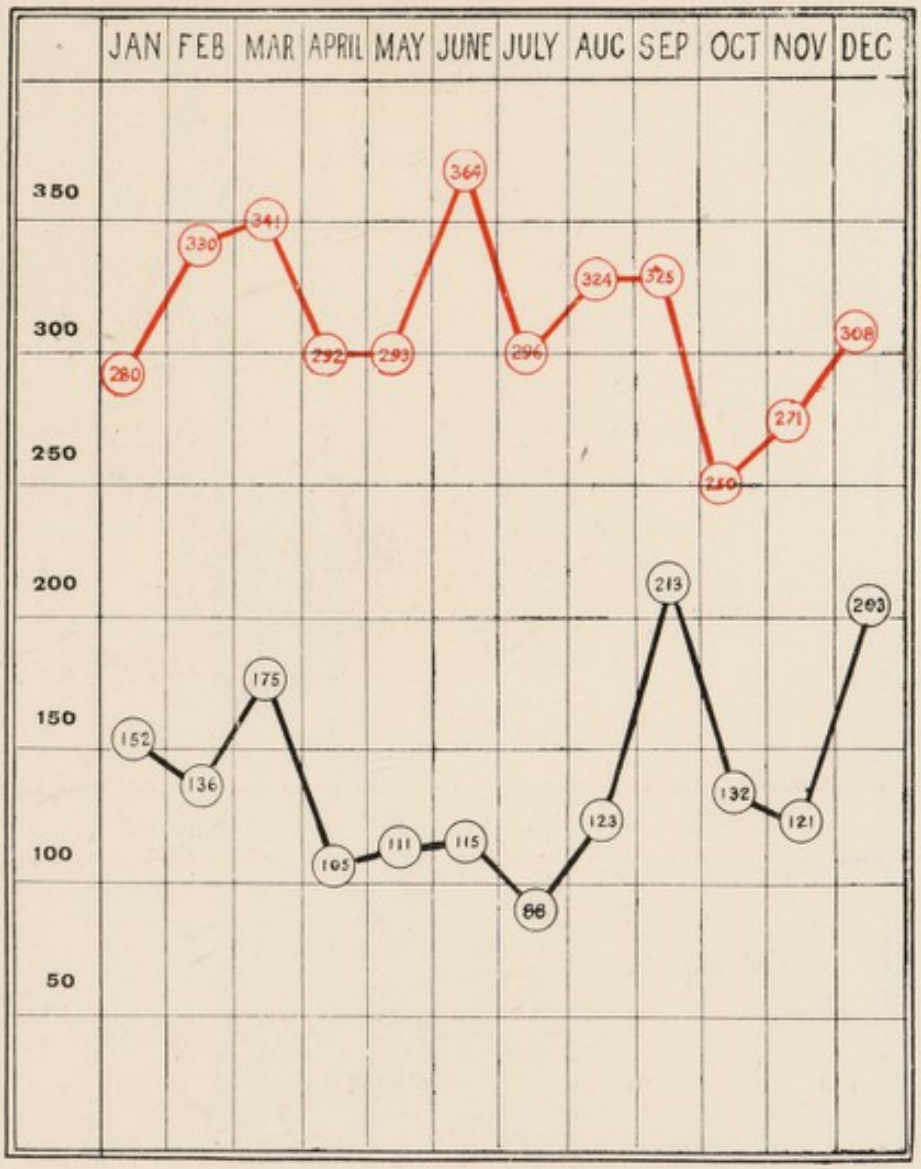


SKETCH OF THE COUNTRY SURROUNDING TOTTENHAM



SECTION IN THE DIRECTION OF THE LINE A. B., ABOVE.

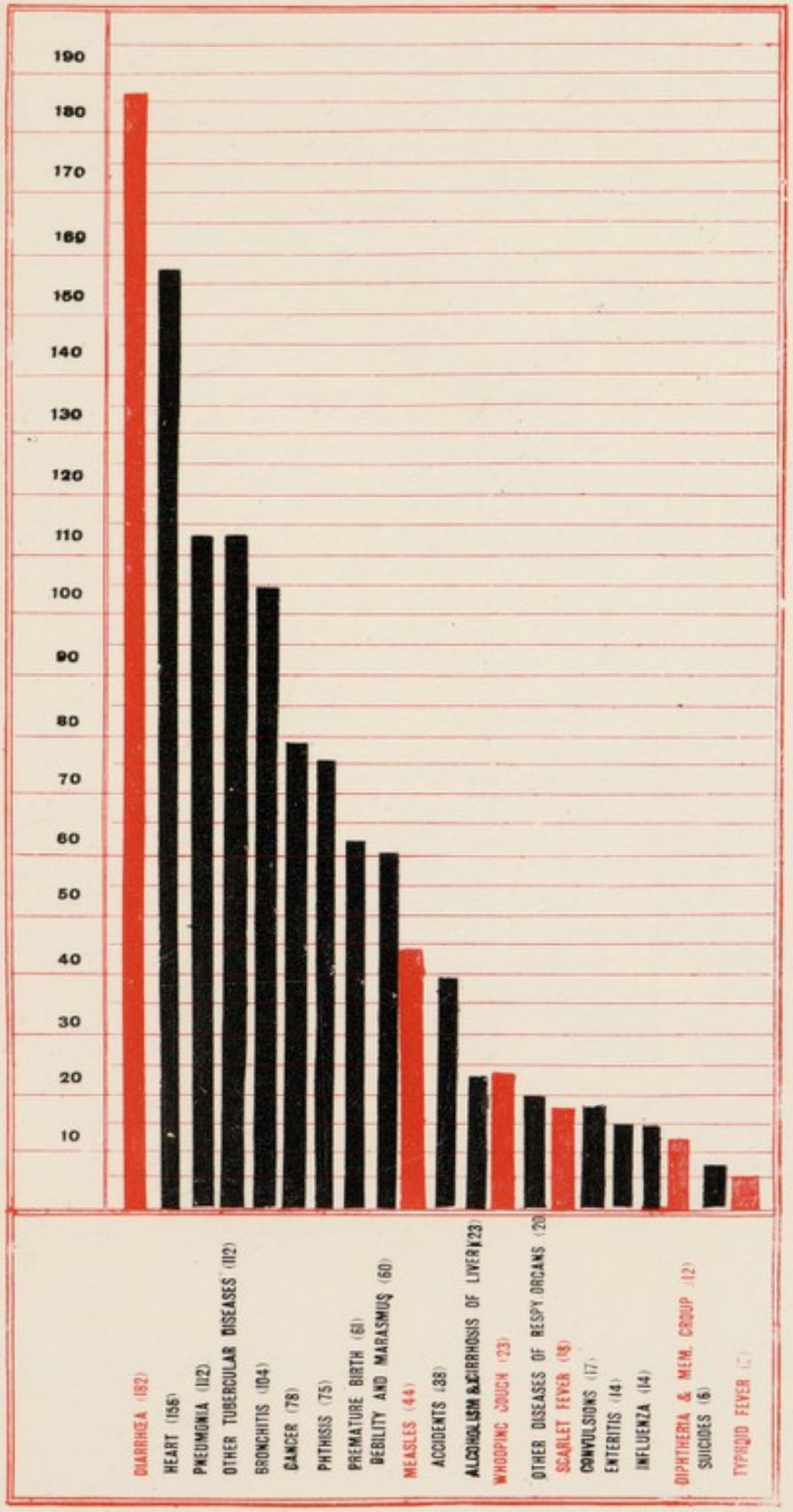
Chart showing incidence of Births and Deaths in Tottenham during the different months of 1906.

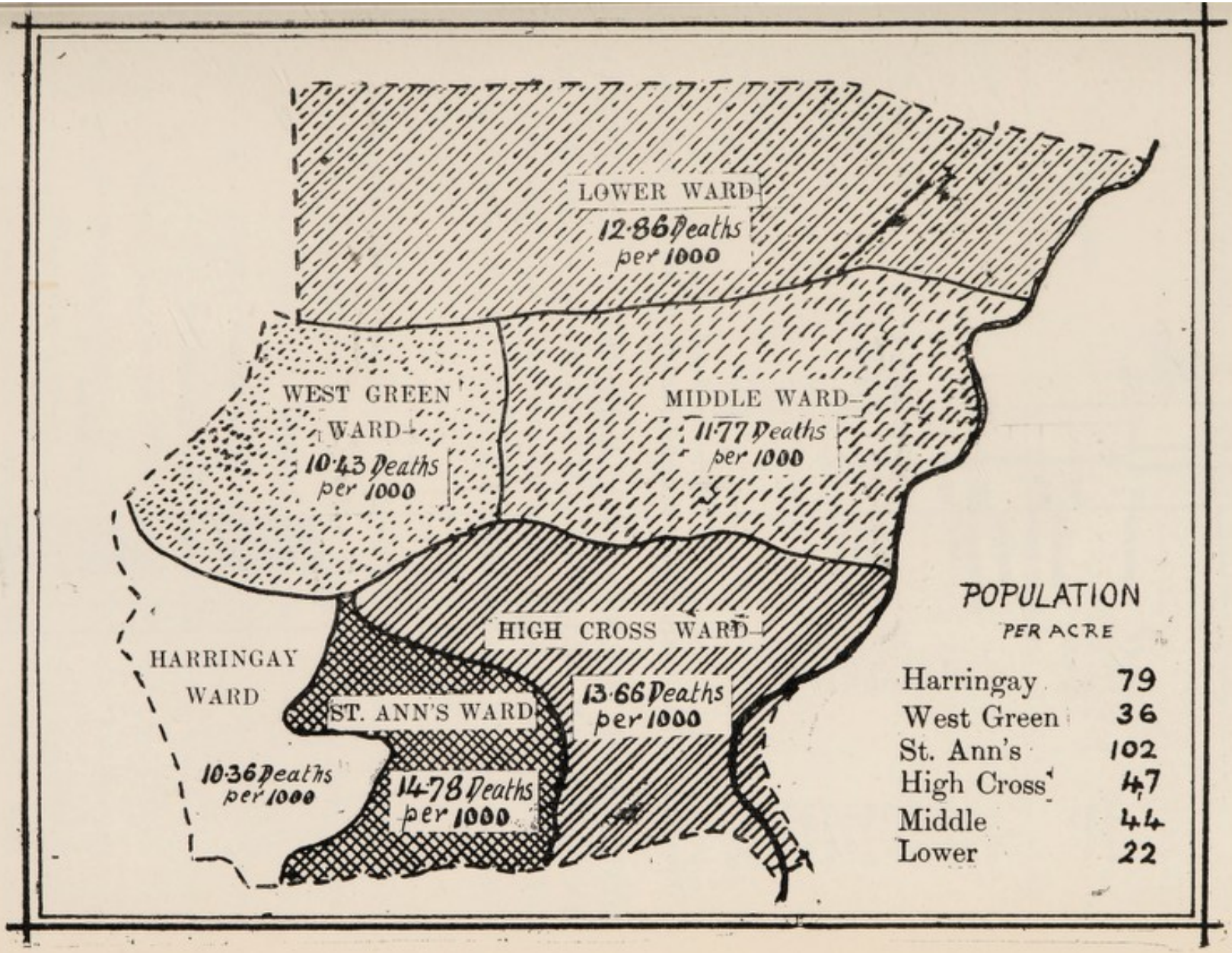


Births _____

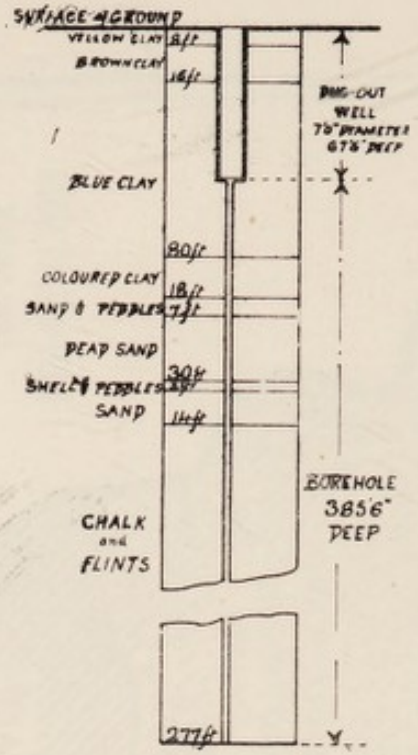
Deaths _____

Chart showing chief causes of Death in Tottenham, the recognised infectious diseases being coloured in red and the other diseases in black.



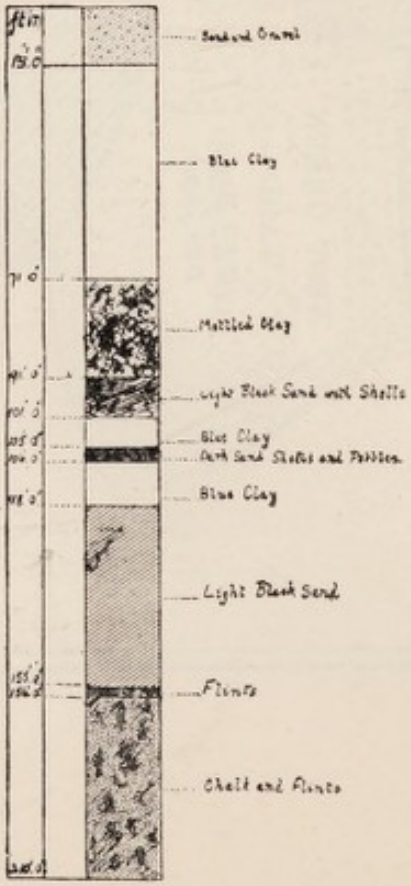

LOWER WARD
12·86 Deaths per 1000
WEST GREEN WARD
10·43 Deaths per 1000
MIDDLE WARD
11·77 Deaths per 1000
HIGH CROSS WARD
13·66 Deaths per 1000
HARRINGAY WARD
10·36 Deaths per 1000
ST. ANN'S WARD
14·78 Deaths per 1000
POPULATION
PER ACRE
Harringay 79
West Green 36
St. Ann's 102
High Cross 47
Middle 44
Lower 22

SECTION OF WELL AT MUNICIPAL BUILDINGS.



From drawing kindly furnished by MESSRS. TAYLER & JEMMETT, Architects.

SECTION OF THE HOLT WELL, BORED AT TOTTENHAM IN THE YEAR OF QUEEN VICTORIA'S ACCESSION, 1837.



GENERAL DISTRICT STATISTICS.

RATES & RATEABLE VALUE.

Date. Half-Year ending.	Amount of Rates in the £.		Amount produced by a 1d. Rate. (General.)	Rateable Value.
	G. D. R.	W. R.		
			£	£
September, 1900	1/10	9d.	1,332	375,659
March, 1901	1/9	11d.	1,387	389,695
September, 1901	2/-	10d.	1,416	401,486
March, 1902	1/11	9d.	1,467	414,559
September, 1902	2/6	6d.	1,532	431,505
March, 1903	2/4	7d.	1,599	453,247
September, 1903	2/4	7d.	1,613	454,145
March, 1904	2/3	6d.	1,678	478,644
September, 1904	2/3	*3d.	1,709	478,492
March, 1905	2/2	—	1,727	483,360
September, 1905	2/2	—	1,772	493,517
March, 1906	2/-	—	1,803	502,360
September, 1906	2/-	—	1,856	509,081
March, 1907	1/11	—	—	512,826

* To June 24th, 1904 only.

POPULATION.

The population of Tottenham at the 1891 census was 71,343, in 1901 it was 102,531, showing an increase of 31,188 during the decade.

The population, estimated to Midsummer 1906, amounted to 134,605, the estimate being arrived at by multiplying the number of houses inhabited in the June of that year by 6·23, which was the average population per house according to the Census Returns of 1901. The Registrar General's method of estimating the population is based upon the assumption that the average annual rate of increase between 1901 and 1906 corresponds to the average annual rate of increase between 1891-1901 ; this estimate (119,503) does not take into account the extraordinary increase that has recently occurred in the number of inhabited houses in your district. By thus underestimating the population, the Registrar General debits Tottenham with a death rate larger than should actually

be attributed to it, and on the other hand with a higher birth rate than we may justly claim credit for. It would be much more satisfactory if there were a Quinquennial instead of a Decennial Census, as there would not then be room for any serious error in the estimation of population either by the Registrar General or the Medical Officer of Health.

The method of estimation I have adopted is used by Medical Officers of Health throughout the country generally.

(The figures up to 1891 **include** Wood Green.)

Acreage of Tottenham, 3,033.

Year.	Houses.	Population.
1801	647	3,622
1811	831	4,771
1821	976	5,812
1831	1,298	7,964
1841	1,466	8,584
1851	1,682	9,120
1861	2,441	13,239
1871	4,154	22,869
1881	7,711	46,441
1891	16,273	97,166
1901	17,976	102,531
1902	18,536	107,003
1903	19,837	117,797
1904	20,667	121,279
1905	21,254	124,126
1906	23,613	134,605

Return of Houses, Population, etc., at Midsummer, 1906.

Ward.	Acreage.	Total No. of Houses.	Inhabited Houses.	Empty Houses.	Estimated Population.	Rateable Value.
						£
High Cross ...	460	3,780	3,453	327	21,512	83,862
Middle ...	640	4,944	4,581	363	28,540	85,713
Lower ...	950	3,763	3,431	332	21,375	105,682
West Green	471	2,954	2,738	216	17,058	59,997
Harringay ...	266	3,735	3,376	359	21,032	99,499
St. Ann's ...	246	4,437	4,027	410	25,088	74,328
Total ...	3,033	23,613	21,606	2,007	134,605	£509,081
			23,613			

BIRTHS.

3,659 Births were registered in Tottenham during the year, while information was sent me by other Medical Officers regarding 15 additional ones which, though they had taken place in outside districts, belonged to ours, thus making a total of 3,674 births which should properly be credited to Tottenham; of those, 1,893 were males and 1,781 females, the stronger sex thus having a numerical preponderance of 112. The Birth Rate therefore amounted to 27·29 per 1,000 of the population, which is 1·61 less than the rate for 1905 (as calculated by me). It will thus be seen that the tendency to a diminished Birth Rate—which has been evident from the returns of recent years—still continues, while my own experience does not lead me to believe that the decrease in the quantity of the vital output is compensated for by any improvement in quality. 76 of the children born died within one week, and 148 before the first month of life had been completed.

There were 61 illegitimate births, as compared with 65 last year, so that the Illegitimacy Rate for Tottenham, as well as that for England and Wales generally, is decreasing.

I have for many years been endeavouring to point out the gradually increasing danger to the Nation of marriages of the physically and mentally unfit, and how we may safely attribute to such a cause the fact that "a greater proportion of our population is now born undeveloped, starved physically and mentally, a tax upon the State when they do survive infancy greater than it has to pay for national education or national defence," for it is the children of such unions that help to swell the Infantile Death Rate, their power of resistance to germ-laden milk being small, and it is again such of those unfortunates as struggle through the

diseases of infancy and childhood, that afterwards help to fill our Asylums, Hospitals, and Unions. The marriages that must ordinarily produce such fruit cannot be blessed either in the sight of God or man, and yet the pity of it all is that while such "undesirables" are allowed to propagate their kind without let or hindrance, another and a larger class of society—possessing all the advantages that health and competency can give—deliberately, systematically and selfishly refuses to fulfil its duty to the State of begetting and rearing up healthy children who would have every opportunity to become gallant men and beautiful women.

We must of course all deplore the steady decline in the national Birth Rate, more particularly associated as it is with a stationary infantile mortality, for that way lies the road to national degradation and extinction, yet better a less numerous but healthy people than a population increased by maniacs, idiots, imbeciles, syphilitics, paralytics, neurotics, and drunkards. A tinge of Spartanism both in our laws and lives would be of inestimable advantage to the Nation of to-day, and fraught with even more beneficient results to the Nation of the future. Emerson has wisely said that "The true test of civilisation is not the census, nor the size of cities, nor the crops—no, but the *kind of man* the country turns out."

Compared with other districts our Birth Rate is fairly high, but it is pitiable to see in one's daily round how large a proportion of Tottenham children are born to a legacy of squalor, ignorance, disease, and consequent early death.

The following interesting comparative statistics have been collected by Dr. Bertillon and quoted by Crackenthorpe in a recent number of the *Fortnightly Review*:—

Comparative Birth Rates of the chief capitals of Europe.

	Paris.	Berlin.	Vienna.	London.
Very poor districts	108	157	200	147
Poor districts	95	129	164	140
Comfortable districts...	72	114	155	107
Very comfortable districts	65	96	153	107
Rich districts	53	63	107	87

Figures showing the decline in the Birth Rate between 1881 *and* 1903 *in the following Countries.*

Austria	Stationary.	Denmark	15
Sweden	7	France	15
Italy	7	England and Wales	17
Bavaria	10	New Zealand	18
Prussia	11	Saxony and Belgium	24
Germany	12	Victoria	25
Scotland	13	New South Wales	33

It would be of untold advantage to Medical Officers of Health —in their campaign against excessive infantile mortality—if *immediate* information could be obtained of all births taking place within their District, indeed many a child would thus be given a chance for life whose doom under the present system is inevitably sealed. In England the law allows a period of six weeks to elapse before births need be registered, whereas in Scotland registration must be effected within three weeks, and there would not appear to me to be any hardship entailed in the further diminution of the period to even one week or less. The County Medical Officer has kindly given me his co-operation in this matter, and supplies me with lists of births voluntarily forwarded to him by the midwives of the District.

It is well recognised that—*ceteris paribus*—countries and municipalities with high birth rates suffer from excessive infantile mortality, and vice versa, that those having low death rates have also a low infantile mortality.

Table shewing number of Births in 1906 and Birth Rate—in Wards.

Ward.	No. of Births.	Population.	Rate.
Harringay	623	21,032	29·621
West Green	392	17,058	22·980
St. Ann's	712	25,088	28·380
High Cross	634	21,512	25·450
Middle	769	28,540	26·944
Lower	544	21,375	25·450
Total	3674	134,605	27·294

Quarterly Return of Births for the different Wards (1906).

	Harringay.	West Green.	St. Ann's.	High Cross.	Middle.	Lower.	Total.
March	157	114	187	163	204	126	951
June	174	92	177	159	202	145	949
September	165	103	183	167	168	159	945
December	127	83	165	145	195	114	829
	623	392	712	634	769	544	3674

Table shewing number of Births and Deaths in District during the year 1906, in quarters.

		Births.	Deaths.
Quarter to 31st March	Males ...	475 ...	232
	Females ..	476 ...	231
,, 30th June	Males ...	488 ...	180
	Females ...	461 ...	144
,, 30th September	Males ...	491 ...	233
	Females ...	454 ...	198
,, 31st December	Males ...	439 ...	239
	Females ...	390 ...	216
Total ...	Males ...	1893 ...	884
	Females ...	1781 ...	789

Male and Female Births and Deaths Registered in the Fifty-second Week of each of the Five Years 1902-1906.

			1902	1903	1904	1905	1906
Births	London	Total Births... ...	1651	2828	2320	1807	1694
		Males	868	1454	1200	937	871
		Females	783	1374	1120	870	823
	Tottenham ...	Total Births... ...	41	73	61	48	43
		Males	18	32	26	20	18
		Females	23	41	35	28	25
Deaths	London	Total Deaths ...	1458	1866	1868	1602	1850
		Males	735	957	939	796	909
		Females	723	909	929	806	941
	Tottenham ...	Total Deaths ...	29	45	28	27	42
		Males	14	16	11	11	18
		Females	15	17	17	16	24

Excess of Births over Deaths for the last 10 years.

Year.	Population.	Excess.
1897	87,180	1329
1898	91,692	1498
1899	96,498	1459
1900	98,268	1427
1901	102,531	1629
1902	107,003	1964
1903	117,797	2208
1904	121,279	2176
1905	124,126	2033
1906	134,605	2001

Births, Deaths, and Births, Deaths and Zymotic Disease Rates for the Towns named.

Town.	Estimated population to middle of 1906.	Births.	Deaths.	Annual Rate per 1,000 living.		
				Births.	Deaths.	Principal Zymotic Diseases.
Tottenham	134,605	3,674	1,673	27·2	12·4	2·1
West Ham	301,617	9,212	4,402	30·5	14·6	3·0
Brighton	128,095	2,848	1,878	22·3	14·6	1·0
Portsmouth	205,118	5,870	3,049	28·6	14·9	1·8
Southampton	117,312	2,913	1,530	24·8	13·0	1·3
Norwich...	117,958	3,086	2,084	26·0	17·7	2·9
Plymouth	118,014	2,821	1,911	...	16·2	1·9
Birmingham	548,022	16,046	9,173	29·2	16·7	2·7
Nottingham	254,563	6,759	4,084	26·5	16·0	2·0
Birkenhead	117,292	3,728	2,021	...	17·2	2·9
Liverpool	739,180	24,128	15,221	32·6	20·6	3·6
Bolton	180,502	4,569	2,731	25·5	15·1	1·6
Manchester	637,126	18,629	12,179	29·0	18·2	3·0
Salford	234,077	7,059	4,261	...	18·2	3·1
Oldham	140,969	3,787	2,636	...	18·7	2·7
Blackburn	134,015	3,384	2,143	25·6	16·0	2·1
Preston	116,399	3,326	2,226	28·5	19·1	3·5
Bradford	288,544	5,936	4,638	20·6	16·0	1·9
Sheffield...	447,951	13,337	7,336	29·9	16·4	2·8
Hull	262,426	7,815	4,435	29·6	16·8	2·8
Sunderland	154,385	5,375	2,859	34·8	18·5	1·9
Newcastle-on-Tyne ...	268,721	8,209	4,595	...	17·1	2·1
Dublin	378,994	11,141	8,495	...	22·5	1·7
Belfast	366,220	11,355	7,378	...	20·3	2·4
76 Great Towns ...	15,818,360	439,811	252,073	27·9	15·9	2·2

Births and Deaths in London, Tottenham, and certain Colonial and Foreign Cities, 1905.

Cities.	Population.	Births.	Deaths.	Annual Rate per 1,000 Persons living.		Principal Epidemic Diseases.						
				Births	Deaths	Small Pox.	Measles.	Scarlet Fever	Diphtheria and Croup.	Whooping Cough.	Fever.	Diarrhoal Diseases.
London	4,684,794	126,620	73,002	27·1	15·6	10	1715	549	573	1507	246	3410
Tottenham	124,126	3,588	1,555	28·9	12·5	...	9	5	17	58	6	39
Calcutta	935,289	15,637	32,181	16·7	34·4	272	122	...	28	12	11,685	5166
Bombay	982,000	19,141	47,762	19·5	48·6	2161	620	...	...	30	17,076	2428
Madras	509,346	23,337	29,887	45·8	58·7	298	281	...	...	...	5,598	9099
Sydney	524,100	13,769	5,770	26·3	11·0	...	7	14	49	3	68	62
Toronto	262,000	5,816	3,915	22·0	14·9	...	2	5	131	18	39	?
Cape Town	77,600	2,717	1,670	35 0	21·5	...	59	...	5	24	14	135
Johannesburg :—												
White	83,363	3,023	1,516	36·3	18·2	21	20	4	6	3	55	88
Coloured ...	72,279	607	2,750	8·4	38·0	15	23	...	...	1	108	235
Paris	2,750,000	53,459	47,843	19·4	17·4	117	424	43	204	309	241	2245
Brussels	598,467	11,433	8,681	19·1	14·5	2	52	16	50	44	55	657
Antwerp	291,949	7,104	4,077	24·3	14·0	...	97	5	38	37	21	597
Amsterdam	553,513	14,773	7,674	26·6	13·8	...	237	14	53	158	64	442
Rotterdam	370,390	12,560	5,451	33·9	14·7	...	96	4	52	105	30	485
The Hague	234,459	6,588	3,207	28·1	13·7	...	6	1	17	42	11	277
Copenhagen ...	425,000	11,933	6,916	28·1	16·3	...	65	29	29	94	11	594
Stockholm	318,395	7,628	5,073	24·0	15·9	...	27	100	82	71	14	259
Christiania	222,373	6,135	3,614	27·6	16·3	2	37	13	137	175	5	168
St. Petersburg ...	1,391,000	41,357	35,205	29·3	25·0	73	1155	714	695	381	1,564	4794
Moscow	1,154,000	...	32,108		27·9	115	240	589	467	315	346	7067
Berlin	2,006,850	49,439	34,450	24·6	17·2	1	418	428	310	440	110	4561
Hamburg	791,460	20,400	12,499	25·8	15·8	...	102	27	85	177	22	1651
Dresden	509,300	14,405	9,039	28·3	17·8	...	61	28	82	118	17	1242
Breslau	465,547	14,339	10,919	30·2	23·0	...	31	10	93	131	40	1050
Munich	534,000	16,162	10,725	30·3	20·1	...	106	33	84	170	16	1380
Vienna	1,897,630	50,944	36,671	26·9	19·3	...	585	180	449	228	84	3530
Prague	430,569	10,477	9,533	24·1	22·0	...	83	17	48	46	49	770
Buda-Pesth... ...	836,267	21,358	16,097	25·5	19·2	...	335	201	158	54	124	1233
Trieste	193,387	6,093	5,439	31·5	28·1	...	98	21	26	31	39	517
Rome	518,176	12,162	10,697	23·5	20·6	2	154	3	49	33	192	932
Milan	529,127	13,638	11,326	25·8	21·4	...	7	75	126	69	151	825
Turin	361,317	6,880	7,207	19·0	19·9	2	79	27	29	19	297	332
Venice	169,417	3,958	3,880	23·4	22·9	...	48	...	23	30	72	422
Cairo :—												
Egyptians ...	615,152	26,241	21,597	42·7	35·1	19	111	...	472	26	605	4987
Foreigners ...	35,219	371	920	10·5	26·1	19	...	...	23	...	19	196
Alexandria :—												
Egyptians ...	316,632	14,118	9,972	44·6	31·5	20	5	..	95	2	180	2608
Foreigners ...	46,118	654	955	14·2	20·7	4	...	1	20	1	19	165
New York	4,024,780	103,875	73,714	25·8	18·3	9	520	473	1544	408	649	6631
Chicago	1,990,750	...	27,212	...	13·7	61	231	79	433	359	329	2570
Philadelphia ...	1,438,318	32,720	24,807	22·8	17·3	...	53	57	462	136	684	2078
Boston	596,565	..	11,007	..	18·5	1	54	44	132	29	119	206
Baltimore	550,000	...	10,695	...	19·4	...	67	33	102	64	208	837
San Francisco ...	475,000	..	7,334	...	15·4	..	2	3	57	43	91	230
New Orleans ...	333,000	...	7,329	..	22·0	6	..	8	42	34	586	489
Rio De Janeiro ...	905,000	15,732	14,663	17·4	16·2	256	217	4	48	28	777	1796
Buenos Ayres ...	994,320	34,203	15,916	35·1	16·0	484	83	25	74	47	142	1477

DEATHS.

The total number of Deaths registered was 1,605 (846 males, 759 females); from this figure, however, 200 has to be subtracted, as that number represents the deaths of non-residents occuring in our Public Institutions, which leaves 1,405 deaths of residents registered in the District; to this number however has to be added 268 Tottenham deaths occurring outside the boundaries of the Parish* and the return of which has only recently been available for insertion in the Report of the Council's Medical Officer of Health. The number of deaths therefore on which the death rate has to be calculated amounts to 1,673, which, with an estimated population of 134,605 gives an annual death rate of 12·4 per 1,000, which must be regarded as a very satisfactory one indeed. The male deaths totalled 884 and the female 789. The following was the death distribution in age groups: —

Deaths under 1 year	... ...	484
,, from 1 — 5 years	... ...	217
,, ,, 5—15 ,,	... ...	80
,, ,, 15—25 ,,	... ...	80
,, ,, 25—65 ,,	... ...	512
,, ,, 65 upwards	... ...	300

N.B.—It is necessary in making comparisons between the death rate of Tottenham and that of other places to consider the age and sex distribution of the population. Those districts in which the proportion of males to females or of young persons to old persons is different to that of other places and the country generally, will have their death rate affected by such age and sex

* At least 17 deaths (from various diseases) which do not properly belong to us, and which took place elsewhere, have been debited to this district because the deceased persons lived in Tottenham "many years ago."

distribution. To eliminate the error due to age and sex distribution varying from that of the whole country, the number of males and females in the district at each age period being known at the last census, and the mean annual death rates for each sex and every age period being given by the Registrar General for the 10 years 1891-1900, we must calculate the number of deaths which should take place in each class, if the local death rate were the same as those for the whole country. The sum of the calculated deaths for all ages gives the "Standard Death Rate," just as the actual number registered gives the "Recorded Rate." By dividing the mean death rate for the whole country by the standard death rate for the local population, we obtain the "factor for correction," and multiplying the recorded death rate by this factor we obtain the "corrected" death rate of the district. Tottenham's factor for correction is 1·079. In this manner, calculating from the return of the Registrar General for 1903, which gives the recorded death rate of Tottenham as 13·0, we find that the standard death rate amounted to 14·03 (that is 13·0 multiplied by 1·079). In 1904 the recorded death rate was 13·86, which, multiplied by the factor for correction, gives a "corrected" death rate of 14·96; while in 1905, the recorded or actual death rate according to the Registrar General was 12·76, which multiplied by 1·0791, gives a "corrected" death rate of 13·77. According to this method of calculation, Tottenham's corrected death rate for 1906 amounts to 13·40 (that is 12·42 multiplied by 1·0791). My own opinion is that the age and sex distribution—and more particularly the age distribution—has altered very considerably in your District since the census of 1901, and that therefore our "corrected" death rate is very far from being what the epithet given it would naturally imply.

Quarterly Return of Deaths for the different Wards (1906).

	Harringay.	West Green.	St. Ann's.	High Cross.	Middle.	Lower.	Total.
March ...	53	51	117	72	103	67	463
June	54	33	71	58	67	48	331
September ...	53	37	88	76	93	77	424
December ...	58	57	95	88	74	83	455

Table shewing number of Deaths in 1906 and Death Rate—in Wards.

Ward.	No. of Deaths.	Population.	General Death Rate.	Infantile Mortality per 1000 of the Population.	Infantile Mortality per 1000 Births.
Harringay	218	21,032	10·36	2·9	99·5
West Green	178	17,058	10·43	2·3	102·0
St. Ann's	371	25,088	14·78	4·3	153·0
High Cross	294	21,512	13·66	4·1	141·9
Middle	337	28,540	11·77	3·9	146·9
Lower	275	21,375	12·86	3·2	128·6
Total	1673	134,605	12·4	3·59	131·7

Comparison of the Quadrennial Periods, beginning with the last four decades.

	General Death Rate.	Zymotic Death Rate.
1873	20·2	4·5
1874	17·9	2·3
1875	17·3	2·7
1876	16·8	1·8
1883	16·1	2·7
1884	16·3	3·2
1885	15·7	2·7
1886	16·5	3·4
1893	16·3	2·2
1894	13·0	1·9
1895	14·6	1·7
1896	13·2	2·5
1903	13·0	1·9
1904	13·8	1·9 (nearly)
1905	13·7	1·31
1906	12·4	2·1

Table shewing Population, and General and Zymotic Death Rates in the last six Census years, compared with 1906.

Census Years.	Population of Tottenham.	Death Rates from all causes.	Death Rate per 1000 from 7 principal Zymotic Diseases.
1851	9,120	17·6	3·6
1861	13,875	19·3	3·4
1871	22,857	20·6	4·7
1881	46,441	16·9	2·8
1891	70,294	15·9	1·7
1901	103,243	14·6	3·7
1906	134,605	12·4	2·1

Table shewing the Annual Death Rate from Special Diseases during the Quinquennium, 1902-1906.

Disease.	1902.		1903.		1904.		1905.		1906	
	No. of Deaths	Rate per 1000.	No. of Deaths	Rate per 1000.	No. of Deaths.	Rate per 1000.	No. of Deaths.	Rate per 1000.	No. of Deaths.	Rate per 1000.
Small Pox	74	·691	...	...	...	...	...	...	...	...
Scarlet Fever	12	·112	4	·034	7	·057	5	·04	18	·134
Diphtheria	35	·327	16	·130	21	·173	17	·136	12	·088
Typhoid Fever ...	15	·140	9	·076	7	·057	6	·04	5	·037
Measles	23	·214	67	·56	34	·280	9	·072	44	·326
Diarrhœa	30	·280	22	·18	145	1·195	39	·31	182	1·352
Phthisis	87	·813	57	·48	75	·619	85	·68	75	·55
Whooping Cough ...	37	·345	50	·42	15	·123	58	·46	23	·170
Puerperal Fever ...	1	·009	2	·017	2	·016	2	·016	5	·037
Cancer	42	·392	144	·37	52	·428	95	·76	78	·57

Table shewing number of Deaths from Special Diseases during each Quarter of 1906.

Ward.		Small Pox.	Scarlet Fever.	Diphtheria & Memb. Croup.	Enteric.	Phthisis.	Measles.	Whooping Cough.	Diarrhœa.	Total.
Harringay.	March ...	...	1	...	...	4	1	1	1	8
	June	...	3	...	...	2	1	1	...	7
	September ...	...	...	...	...	...	1	...	17	18
	December ...	...	...	...	2	2	...	...	2	6
	Ward Total ..	...	4	...	2	8	3	2	20	39
West Green.	March ...	...	2	...	...	1	2	...	...	5
	June	...	2	1	...	2	...	1	...	6
	September ...	...	...	...	...	2	...	...	9	11
	December ...	...	...	1	...	1	...	...	2	4
	Ward Total...	...	4	2	...	6	2	1	11	26
St. Ann's.	March ...	.	...	2	...	5	13	1	2	23
	June	...	1	1	...	3	1	1	3	10
	September ...	...	...	...	...	1	...	...	27	28
	December ...	...	...	1	1	2	...	3	6	13
	Ward Total...	...	1	4	1	11	14	5	38	74
High Cross.	March ...	...	...	...	...	7	6	...	1	14
	June	...	...	...	...	4	3	1	2	10
	September ...	...	...	...	...	3	...	2	28	33
	December ...	...	...	2	...	3	...	5	...	10
	Ward Total...	...	...	2	...	17	9	8	31	67
Middle.	March ...	...	2	1	...	6	8	2	1	20
	June	...	3	...	...	2	...	2	1	8
	September ...	...	...	...	...	5	...	...	44	49
	December ...	...	...	...	...	5	...	3	4	12
	Ward Total...	...	5	1	...	18	8	7	50	89
Lower.	March ...	...	...	1	...	1	5	...	1	8
	June	...	2	...	...	4	3	...	...	9
	September ..	...	1	...	1	5	...	...	26	33
	December ...	..	1	2	1	5	...	...	5	14
	Ward Total...	...	4	3	2	15	8	...	32	64
	Whole District Total ...	...	18	12	5	75	44	23	182	359

Tottenham Grammar School (from block kindly lent by J. T. Cohen, Esq., B.A.)

The following figures are extracted from the recently published Report of the Registrar General for 1905.

Deaths.

Country.	Deaths to 1,000 Living.		Country.	Deaths to 1,000 Living.	
	Average Annual rate in 10 years. 1895–1904.	1905.		Average Annual rate in 10 years. 1895–1904.	1905.
Russia (European) ...	33·6	?	Switzerland	18·1	17·9
Chili	28·8	32·3	Ireland	18·0	17·1
Spain	27·8	25·9	Belgium	17·8	?
Hungary	27·3	27·8	Scotland	17·8	15·9
Ceylon	26·8	27·7	ENGLAND & WALES	17·2	15·2
Roumania	26·8	25·0	The Netherlands ...	17·0	15·3
Austria	25·2	?	Denmark	15·8	15·0
Servia	23·9	24·4	Sweden	15·8	15·6
Bulgaria	23·9	?	Norway	15·1	14·8
Italy	22·7	21·7	Western Australia ...	14·6	10·8
Jamaica	22·4	21·9	Victoria	13·3	12·1
German Empire	20·8	?	Tasmania	11·8	10·1
Prussia	20·5	19·6	Queensland	11·8	10·5
Japan	20·5	?	New South Wales ...	11·7	10·1
France	20·4	19·6	South Australia ...	11·5	10·1
Finland	18·7	?	New Zealand	9·8	9·3

SPECIAL DISEASES,

And Statistics, etc., referring thereto.

SMALL POX.

No case of Small Pox occurred during the year, for although five children were notified to me as suffering from the disease, all were found on examination by your Medical Officer of Health to to be suffering from other diseases than Variola.

Mr. Roynon has kindly furnished me with the Annual Vaccination Return for the year, from which it appears that of the 3,674 children born, only 2,560 were vaccinated within the year that is 69·6 per cent. as contrasted with 73·3 per cent. for 1905.

The Local Government Board has not yet sanctioned the loan for the purchase of Clare Hall for a Small Pox Hospital, under the joint scheme entered into by your Council in conjunction with 12 other Sanitary Authorities, but of course we possess meanwhile unimpaired, our right to accommodation for 15 cases at South Mimms.

SCARLET FEVER.

486 notifications of Scarlet Fever reached me, although there were only 459 actual cases, the remaining 27 being instances either of mistaken diagnosis or dual notification. 18 cases terminated fatally, giving a mortality of ·13 as compared with ·04 for 1905, ·07 for 1904, and with an average of ·10 in the ten years 1894 to 1903, London's average for the same decennium being ·13, that is exactly similar to ours for 1906. Of the 18 deaths, 11 occurred in the second quarter, and, as already stated in the introduction, the infection is supposed to have been derived from imported milk, though the proof is not absolutely conclusive. 5 cases occurred in the first quarter and 1 in each of the third and fourth quarters.

The *fatality* rate, that is the proportion of deaths to actual cases, amounted to 3·9, and was nearly three times as great as in 1905 (when it stood at 1·31), and also largely exceeded the rate for 1904 (2·2). Apart from the presumed infection by milk already alluded to, the ordinary method of propagation was by direct personal contact, and in some cases we were able to assign the spread of infection to discharges from the noses or ears of patients sent home from the Hospitals of the Metropolitan Asylums Board as cured, although the Hospital authorities allege that no such discharges existed on the date of their final examination at their institutions. Such cases must therefore be taken as instances of a type referred to by Dr. Cameron in which it "is not uncommon to find the patient on arrival home suffers for the first time from a purulent discharge from the nose. On enquiry it is not unusual to find that he has had a mild and uncomplicated attack of fever, but that he was noticed to pick his nose and that it becomes sore three or four days before leaving Hospital. Harmless as these cases may appear at the time of discharge, they are as virulent as any other type of infecting case, and have caused as much trouble as any which I have investigated. The explanation of the discharge from the nose is, I believe, the inoculation of the septic material on the broken and inflamed mucous membrane, and the increased infective virulence the effect of the mixed infection." I may state with regard to "return cases," that personally I have never found a genuine infecting case in which there has not been an abnormal condition of the mucous membrane of the nose or ear. I do not say that such cases cannot occur, although I am somewhat sceptical on that point. A serious responsibility therefore rests upon the Medical Superintendents of Infectious Disease Hospitals, who discharge patients in whom there is a morbid condition of the nasal or aural mucous membranes

which it is reasonably possible to discover. It would seem that the period of retention in Hospital of cases which have afterwards caused "returns," is not shorter than that of other cases, and their slowness in the elimination of infection in all probability arises from infection by sepsigenic organisms to which aggregation in hospital predisposes."

We had 17 return cases during 1906 as compared with 9 in 1905.

Dr. Niven, the Medical Officer of Health for Manchester, has pointed out that the phenomenon of return cases is essentially due to imperfections in Hospital management, and that there is every reason to believe that recent association of discharged patients with acute cases is responsible for most, if not all return cases. He found that by placing patients in a convalescent ward for fourteen days before their discharge, and systematically disinfecting the skin, nares, and auditory canals "not a single return case occurred in connection with the Manchester patients discharged from the convalescent wards."

The use of eucalyptus or carbolic ointment to prevent infection by means of the skin, and of antiseptic inhalations, for the throat and the nose, ought to be universally adopted both in Hospital and private practice, while the hair and scalp should be cleansed with a mixture of acetic acid, glycerine, and spirit. Unrecognised cases caused a considerable proportion of the whole, and it is much to be regretted that parents will not take the trouble of procuring medical advice whenever sore throat, rash, or feverish symptoms of any kind are observed in their children.

I discovered nine desquamating cases in the schools of the district during the past year, and those were undoubtedly responsible for the spread of infection to several other cases. I append

once more—chiefly for the information of teachers to whom a copy of this report will be sent—the symptoms of Scarlet Fever :—

(1) Sickness and vomiting, coming on suddenly, and usually without any known cause.

(2) Cold shiverings and headache, followed by flushing, sore throat, and a fine red rash. The rash begins on the chest, and spreads downwards over the limbs.

(3) The tongue is heavily furred, with a red tip at first, and afterwards cleans markedly and becomes bright red with raised points, like the tongue of a cat.

(4) The cheeks are flushed, but there is a pale ring round the mouth.

(5) In a week or more the peeling of the skin begins on the chest and neck, and is afterwards very marked on the palms of the hands and soles of the feet, the skin coming off in flakes.

Many of the above symptoms may be absent, but some will always be present, and in all such cases a Doctor should be called in immediately, the patient being kept in a room away from others, until it is certain that there is no danger of infection. The incubation period of Scarlet Fever (that is, the time between the reception of infection and the development of the first definite symptoms of the disease), is from one to eight days, but usually from three to five, and a quarantine of ten days is required after the latest exposure to infection. It might also be well for the teachers and parents to remember, that the rash appears on the second day and begins to fade on the fifth, and that the disease is catching for at least six weeks and often much longer, *e.g.*, when a discharge from the nose or ear is present.

Ever since my attention has been drawn to the practical study of the question, I have been strongly of the opinion that it is unwise to compel children to attend school before the age of 6 years; Zymotic diseases are mainly spread through the instrumentality of Infants' Schools, and altogether apart from that, the physical and mental damage done to the average child of from 3 to 6 years of age, by such attendance is incalculable.

SEASONAL MORTALITY.

So far as this year's epidemic is concerned, it will be seen that the greatest mortality was in the second quarter, and least in the third and fourth. This is contrary to what usually obtains in this country, as the minimum mortality is generally found in March and April and the maximum in October, although in New York the seasonal prevalence is reversed; the greatest number of deaths occurring in April and the least in September.

SEASONAL INCIDENCE.

The actual number of cases was also highest in the second quarter (157), the fourth quarter coming next with 134, then the first quarter with 104, while in the third quarter was registered the smallest number of cases, 64. With regard to the climatic conditions that are supposed to affect the incidence and fatality of Scarlet Fever, a very great difference of opinion prevails. It is, however, generally recognised that *Ceteris Paribas*, Scarlet Fever, is most fatal in hot dry weather, whereas a heavy rainfall and cool condition of the atmosphere appear to favour a diminished death rate from the disease.

Deaths from the disease are most frequent in the third year of life, from which time they diminish for a while gradually and subsequently rapidly. Although the greatest number of deaths occur in the third year, the disease is relatively most fatal in the

first year of life, that is to say, the chance of recovery from Scarlet Fever is less in an infant, than in a child between two and three years old.

INFECTIVENESS.

The danger of contagion does not probably arise until the appearance of the rash, and the cases most to be dreaded in this respect are, in my opinion, those in the early stages of desquamation and those suffering from nasal discharges. It should be remembered that the disease may be communicated, not only by a desquamating skin, but also by means of the breath and discharges from the nose, mouth, ears, pharynx, kidneys and bowels; furthermore it may be either swallowed or inhaled.

There is no general consensus of opinion as to the spread of the disease in the neighbourhood of Isolation Hospitals, although some facts which have occurred during recent years in our own district would seem to point in the direction of ærial infection; the cases, however, were not numerous enough to be at all conclusive upon the point. It would appear, too, upon the investigations of Power and Klein that "not only may milk be a medium of disseminating Scarlet Fever after its infection by virus from a human case, but that human Scarlet Fever may be produced by milk which owes its infective property to an ailment of the cow"—an opinion which would appear to be fully borne out by the experience gained in the famous Hendon outbreak. Finally, it may be noticed that "Klein failed to detect the *Streptococcus Scarlatinæ* in the urine or desquamating cuticle of advanced cases of Scarlet Fever, but he detected it in the throats and nasal discharges of convalescents at intervals of 6 and 9 weeks from the date of attack."

In the New York Hospital for the treatment of Scarlet Fever there are no Wards, every patient having a private room. The

examination of patients before admission is conducted in a very careful manner, and if, in any instance there is doubt as to the correctness of the diagnosis, the patient is placed in the observation room. The personal antiseptic precautions observed both by Physcians and Nurses also partake of a less slipshod character than those which prevail in many of the British Hospitals. The result is, as might naturally be expected, that there has been no known instance of contagion from a discharged patient. It is interesting to note that the cubicle isolation system of France and America—an example of which I described in my last Annual Report—has been adopted in the neighbouring Parish of Walthamstow, with—as Dr. Clarke informs me—satisfactory results.

Where no Doctor is in attendance, Parents and others in charge of Children are bound under penalty to report all suspicious cases to the Medical Officer of Health ; the same remark applies to Diphtheria and Typhoid Fever.

Any persons not engaging a Doctor, and not reporting such cases, or allowing children to attend shool, or to go out into the streets whilst infectious, will render themselves liable to a heavy penalty under the Public Health Acts, ignorance of the disease being no excuse in law.

At the end of isolation of all cases, even of those which do not seem to have been Scarlet Fever, all the bedding and clothes used by the patient should be washed with hot water and disinfectant soap.

Appended is copy of a leaflet distributed by us at the homes of patients of whose impending discharge from the Hospital the M.O.H. has received notice :—

Public Health Department,
Town Hall,
Tottenham.

"PREVENTION OF "RETURN" CASES OF SCARLET FEVER AND DIPHTHERIA.

It is very difficult to be certain that Children are free from infection on their discharge from Hospital, consequently householders should observe the following precautions regarding discharged patients :—

1.—The child should be sent for a fortnight or more to a house where there are no children, but when this cannot be done, care should be taken that the child does not kiss the other children of the family or otherwise come into close contact with them, and on no account should such child be allowed to sleep with the others, or use the same towels, etc.

2.—A bath should be given every night, carbolic soap being used.

3.—Discharges from the ears and nose are very infectious, and if found to exist, medical advice should at once be sought.

4.—The child should be taken into the fresh air as much as possible, but must not be sent to school or into any other assembly of children for at least a fortnight.

N.B.—Disinfectants can be obtained free of charge at (1) the Town Hall, (2) Coombes Croft House, and (3) St. Ann's Fire Station, by the occupants of any house in which there is an actual or suspected case of infectious disease.

J. F. BUTLER-HOGAN,
Medical Officer of Health."

SCARLET FEVER.

		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Harringay ...	Cases	1	10	6	10	19	2	2	...	3	5	3	5	66
	Deaths	1	...	...	2	1	...	...	...	...	...	...	...	4
West Green ...	Cases	6	5	2	5	4	4	1	4	1	5	3	3	43
	Deaths	1	...	1	1	1	...	...	...	...	...	...	...	4
St. Ann's ...	Cases	1	...	4	4	8	4	1	2	3	8	5	3	43
	Deaths	...	..	..	...	1	...	...	...	...	...	...	...	1
High Cross ..	Cases	3	11	1	10	1	3	5	2	2	7	5	7	57
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Middle	Cases	7	8	12	13	16	7	13	5	6	10	15	22	134
	Deaths	1	...	1	1	1	1	...	..	...	...	...	...	5
Lower	Cases	10	12	5	16	23	8	7	4	3	7	8	13	116
	Deaths	...	...	...	...	...	2	...	...	1	...	...	1	4

DIPHTHERIA (AND MEMBRANOUS CROUP).

122 cases of those diseases occurred in the district during the year, but one was that of a non-resident, notified from the out-patients' department of the Tottenham Hospital; the deaths amounted to 12, which gives a Death Rate of 0·089 per 1,000 of the population as compared with 0·136 for 1905, with 0·20 for 1904, and an average rate of 0·27 for the decennium, 1895-1904; London's decennial average for the same period amounting to 0·37. It will be seen from the above figures that the rate is the most satisfactory one of recent years, and as 121 cases of the disease occurred in 1905 you will further note that the incidence as well as the mortality of the disease has decreased. I have no doubt that this happy state of affairs is due entirely to two causes, (1) improvements in sanitation and (2) the more general adoption of the Serum treatment of the disease. We have, however, had several cases notified during the year, in which the condition of the patient had become so serious before the doctor was called in, that the wonder is there have been so few fatal cases. It is most important that the initial symptoms of the disease should be noted

and prompt medical attention procured immediately. Of the total of 12 deaths, 4 occurred in the first, 2 in the second, none in the third and 6 in the final quarter of the year. Those figures would seem to be in accordance with expert opinion, as to the seasonal prevalence and mortality of the disease, both of which are greater in cold weather, the maximum being reached from November to December and the minimum from July to August. There is not sufficient evidence regarding the influence of humidity upon the prevalence of the disease, for while in our own country moisture is generally considered favourable to its spread, in America it is found that some of the most severe epidemics prevail in dry weather. According to Power and others the attack incidence is greatest upon children between the ages of 3 and 12 years, even apart from the influence of school attendance. It is generally considered that a damp soil favours the prevalence of the disease, but it is possible that the influence may act not directly, but indirectly, owing to the deleterious effect of such a condition upon general health. The incubation period is usually stated as from 3 to 5 days, but from many cases within my own experience, I believe that the period may be as short as 6 hours and as long as 14 days. The period of quarantine which should be observed is 12 days, that is about 2 days longer than for Scarlet Fever, while infection may be presumed to cease in a month, if—in addition to the absence of discharge and albumin—bacteriological examination of the nose and throat gives negative results, but in no case should a patient be assumed to be free from infection where such an examination has not been made. Schäfer and other writers have reported the persistence of Lœffler's bacillus in the tonsillar mucus as long as 7½ months after apparent recovery from an attack of Diphtheria, and I have myself found the bacilli present in such mucus taken from a boy who had resumed attendance at

school for 3 weeks, after his supposed recovery from an attack of the disease; I might add that this boy was a source of infection to two others in his class.

The disease is chiefly spread by direct infection as occurs by inhalation of the breath from the throat of the patient, and by kissing; I have also known it to occur through the medium of dirty handkerchiefs, towels, vessels, etc.

It should not be forgotten that the domestic cat has been known to act as a source of infection, and the most quickly fatal case of Diphtheria I have ever known was undoubtedly due to a feline pet.

Sir Shirley Murphy has shown that there is a marked decrease in the cases of Diphtheria notified during the time embraced by the Summer school holiday, and that the decrease is most marked for the age period 3—13, the years of school attendance, and you will observe that no fatal case of the disease occurred in our District in the months of July, August and September, while 5 occurred during the months of October, November and December, the period of the year when it is most difficult to keep school class rooms properly ventilated.

DIPHTHERIA.

		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Harringay ...	Cases	2	2	2	...	2	1	..	...	4	1	4	5	23
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
West Green ...	Cases	2	1	1	2	7	...	...	2	3	4	3	2	27
	Deaths	...	...	...	1	...	..	...	...	...	1	...	...	2
St. Ann's ...	Cases	8	3	1	1	...	1	1	...	1	1	2	...	19
	Deaths	1	...	1	...	1	...	...	...	...	...	1	...	4
High Cross ...	Cases	1	...	...	...	...	...	1	...	1	2	...	4	9
	Deaths	...	...	...	...	...	...	...	...	...	...	...	2	2
Middle	Cases	2	4	...	2	4	1	2	5	2	2	3	1	28
	Deaths	...	1	...	...	...	...	...	...	...	...	...	...	1
Lower	Cases	3	3	1	...	3	1	...	...	1	2	2	...	16
	Deaths	...	1	...	...	...	..	...	...	...	1	1	...	3

ENTERIC FEVER.

Seventy-three notifications were received, but there were only 62 actual cases. 5 of which had a fatal result, giving a mortality rate of 0·037 per 1,000, as compared with 0·048 in 1905, 0·06 in 1904, 0·08 in 1903, and 0·13 for the 10 years 1895-1904.

Pneumonia or Bronchial Pneumonia heralded the disease in at least 6 of the total number of cases (and was present at a later stage in several of the others), which again points to the correctness of the view expressed in a former report, that Enteric may be introduced by the respiratory passages, in other words, may be inhaled as well as swallowed. The varying frequency and severity of cases of Typhoid, in different places have been attributed, by Pettenkofer and others to corresponding variations in the level of the sub-soil, or "ground" water in those districts, the disease apparently increasing when the "ground" water falls and decreasing when it rises, the level however of the disease not being in exact inverse-ratio to the level of the sub-soil water, but only to the amplitude of its fluctuation on particular occasions. It would not appear however that these observations are of universal application, since in many places where Enteric Fever largely prevails, the sub-soil water is reached at so great a depth and the variation of its level is so small, that its powerlessness to produce any marked effect may be reasonably inferred. It is unquestionable, however, that such a relationship exists where the sub-soil water reaches a high level and the character of the soil is porous. Moreover, in many of the localities instanced by Buhl, leaking cesspools are frequently found even in the neighbourhood of the ordinary water supply. It is generally considered that the incubation period is shorter, when the infection is introduced by milk or drinking water. There is no disease in the treatment of which, cleanliness is of greater importance, than

Typhoid, whether as regards the hand of the attendant nurse or the bedding or clothing soiled by the patient's discharges. Both the urine and fæces are infective from the beginning to the end of the disease, so that the necessity for their early and complete disinfection is at once apparent.

There can be little doubt that direct infection plays the most important part in the spread of the disease, and hence the necessity for that scrupulous regard to cleanliness and disinfection upon which I am striving to insist. Shell fish (mussels and oysters) would seem to have been responsible for five or six cases which occurred in the latter portion of the third and the beginning of the fourth quarter, while vegetables and fruit were probably the cause in at least two other cases; fried fish came under the ban of suspicion in two instances, and pork in another; three cases were imported from other districts, and one of those was doubtless the cause of infection to four other patients. We had on no occasion reason to suspect that lettuce or watercress served as a medium of infection. The water supply was suspected in some cases, and examined both chemically and bacteriologically, with, however, negative results.

It is a noteworthy fact that 52 out of the 62 cases occurred in the portion of the district "watered" by the Moselle and Stonebridge Brooks, most of the objectionable portions of which are now fortunately being culverted.

From personal enquiries made, I have no doubt that many cases of the disease were altogether overlooked, and others confounded with diarrhœa, and this was more particularly the case amongst infants and young children; in two or three instances the wrong diagnoses have been fraught with fatal results.

The house-fly doubtless frequently served as a carrier of infection, and it seems to me that a relentless war should be waged upon this little animal, which does such incalculable harm in spreading Diarrhœa and Typhoid.

ENTERIC FEVER.

		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Harringay ...	Cases	...	...	...	...	2	1	...	...	...	...	1	1	5
	Deaths	...	..	...	...	...	..	...	...	...	...	...	2	2
West Green ...	Cases	1	1	...	...	1	...	1	...	4	1	1	1	11
	Deaths	...	...	...	...	...	...	..	...	...	...	...	...	...
St. Ann's ...	Cases	..	...	...	...	...	1	2	1	1	10	...	...	15
	Deaths	...	...	...	...	...	...	...	...	...	...	...	1	1
High Cross ..	Cases	1	...	...	...	...	1	...	...	...	2	1	...	5
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Middle	Cases	...	1	2	...	1	...	...	...	2	1	5	...	12
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Lower	Cases	...	...	...	...	...	..	...	1	7	2	4	...	14
	Deaths	...	...	...	...	...	...	...	...	1	...	...	1	2

Table Showing Percentage of Removals of all the Notifiable Diseases.

Ward.	Cases.	Removals.	Percentage.
Harringay	104	74	71·15
West Green	87	58	66·66
St. Ann's	97	71	73·19
High Cross	92	65	70·65
Middle	204	145	71·07
Lower	158	117	74·05

Table Shewing Percentage of Removals of Cases of Scarlet Fever, Diphtheria and Enteric Fever.

Ward.	Cases.	Removals.	Percentage.
Harringay	94	74	78·72
West Green	81	58	71·60
St. Ann's	77	71	92·20
High Cross	71	65	91·54
Middle	174	145	83·33
Lower	146	117	80·13

NOTIFICATIONS AND CASES OF INFECTIOUS DISEASES.

	1905.		1906.	
	Notified.	Actual Cases	Notified.	Actual Cases
Small Pox	3	—	1	—
Diphtheria	121	110	141	122
Membranous Croup	7	7	--	—
Erysipelas	89	82	95	92
Scarlet Fever	405	380	486	459
Enteric Fever	52	44	73	62
Puerperal Fever	7	7	7	6
Continued Fever	—	—	1	1
Total	684	630	804	742

MEASLES.

There were 44 deaths from measles in 1906, as compared with 9 in 1905 and 34 in 1904; the death rate was accordingly 0·32 per 1,000 as compared with 0·09 for 1905, and with 0·39, the average of the ten years 1895-1904; the London rate for 1905 was ·37, and the London average for the ten years 1895-1904 amounted to 0·53, while the average of the 76 great towns for 1905 was 0·39, their average for the decennium not being available. It is notable that all the 44 deaths occurred at school

Bruce Castle, where Natural History Museum has been established, and from the Clock Tower of which the sunshine records are taken.

age, and that 37 of them were those of children under 5 years old. The disease not being compulsorily notifiable, the only guide we have as to its incidence is derived from the returns received from the teachers, aided by information gathered by the Lady Inspectors or myself. In that way knowledge of 1,958 cases has reached me; all the houses in which such cases occurred were duly visited, and instructions given to those in charge of the patients regarding all necessary precautions; in several instances the houses were found to be sanitarily defective, so that the visits proved useful in a double sense. It would save valuable time at a critical juncture, and also—in some cases at least—tend to prevent the spread of the disease, if the notifications were sent to me direct instead of through the medium of the local Education Office.

It is very probable that many deaths are attributed to Bronchitis, etc., which are primarily due to Measles, as Bronchitis and Pneumonia are frequent complications of the disease. It is regrettable that both Measles and Whooping Cough should be looked upon so slightingly that their initial stages are so little feared as to be almost wholly neglected; a doctor is seldom called in except to an unusually severe case, and then too often only towards the last stage. It is important to note that in 1903 new powers were granted to Local Authorities regarding Measles, which, it was decided, should henceforth be treated as a "dangerous infectious disease" within the meaning of 38 and 39 Vic., C. 55, Sec. 126, so that children or other persons suffering from the disease are forbidden under penalty of £5 to go to school or attend public meetings, or mix with other children or persons, or travel by train, tram, or other public conveyance; they must be isolated from other persons until free from all infection.

I append copy of leaflet published and distributed by us referring to Measles and Whooping Cough:—

Public Health Department,

Tottenham.

"ADVICE REGARDING MEASLES AND WHOOPING COUGH."

MEASLES.—The fear, which Scarlet Fever and Diphtheria engender in most people, contrasts strangely with the utter disregard shown towards complaints like Measles or Whooping Cough, that are equally infectious and *far more fatal*:—familarity breeds contempt. Measles is very catching for 3 or 4 days before the rash comes out, when the nose and eyes "run," and the eyes are inflamed, and also for 3 weeks after the rash appears. When the disease is about, all those children suffering from "cold in the head" should be promptly isolated from others, and carefully watched for the appearance of a dark red, raised and patchy rash, which comes out first on the face. All patients suffering from Measles should be kept in bed until the rash disappears, and isolated for 3 weeks from the family, no children being allowed to attend either Day or Sunday School during that time.

As Measles is often very like Scarlet Fever, and sometimes like Small Pox (both of which, under a heavy penalty, must be notified to the Medical Officer of Health), a medical man should be called in, in all cases of this disease.

WHOOPING COUGH.—I must again emphasise the importance of proper medical treatment in the early stages of this disease, the want of which is mainly responsible for the large death rate therefrom. *Measles and Whooping Cough are two of the diseases most fatal to children;* most deaths may be prevented by taking care, and especially by seeing that children do not take cold when suffering or recovering from those diseases. Whooping Cough is very infectious, and remains so for 6 weeks at least, and until the

"whoop" disappears; it usually begins like an ordinary feverish cold; in a few days the child gets fits of severe coughing, some of these fits being followed by vomiting and "whooping." In this disease no children should attend school (either day or Sunday) from the house affected until the "whoops" have finally disappeared. The patient should be kept by himself in a warm well-ventilated room (stripped of carpets and surplus furniture). Remember the patient wants both pure air and warmth; the air of a dirty stuffy room poisons the lungs and is more dangerous than colds or even draughts. To prevent the disease spreading to other houses, forbid your house to all, and let nobody from your house go visiting elsewhere. The discharge from the nose and throat should be received in rags, which should be immediately burnt; all bedding when removed should be steeped in boiling water, and special eating utensils should be used; when the last case is free from infection, everything in the sick room should be washed with soap and hot water, and as far as possible placed in the sun and air for a day; I should also be very glad to order special disinfection of such rooms when so requested, but should this not be decided upon, the wall papers should be rubbed down with common dough, which should then be burnt, and the windows kept wide open for 2 or 3 days. Special care should be taken that the sick child's clothes are all washed before he (or she) leaves the room and returns to school. It should be remembered that "any person who, while suffering from infectious disease, goes out in a public place, or allows anyone in his charge so suffering to go out, or takes infected clothes or bedding into a public place, renders himself liable to a heavy penalty.

J. F. BUTLER-HOGAN,

Medical Officer of Health."

WHOOPING COUGH.

178 cases of Whooping Cough came to our knowledge during the year, 23 of which terminated fatally, giving a death rate of 0·17 per 1,000 as compared with 0·54 for 1905 with an average of 0·36 for the ten years 1895-1904. All the fatal cases were those of children under 5 years old, 10 of them being infantile deaths; 15 out of the 23 deaths occured in the High Cross and Middle Wards and 5 in the St. Ann's Ward. It would be most useful to us and have a considerable influence in the saving of child life if Medical Officers of Health were notified of the early cases of Measles and Whooping Cough occurring in a district as even without hospital or sanatorium isolation, much might be done to check the spread of epidemics ot those diseases — were such speedy knowledge available.

Table Showing comparative Death Rates from different Infectious Diseases of the Towns named.

Towns.	Small-Pox.		Measles.		Scarlet Fever.		Diphtheria.		Whooping Cough.		Fever.		Diarrhœa.	
	Ten years 1895-1904.	1905.	Ten years 1895-1904.	1905.	Ten years 1895-1904.	1905.	Ten years 1895-1904.	1905.	Ten years 1895-1904.	1905.	Ten years 1895-1904.	1905.	Ten years 1895-1904.	1905.
London	0·04	0·00	0·53	0·37	0·13	0·12	0·37	0·12	0·41	0·32	0·13	0·05	0·84	0·73
West Ham	0·06	...	0·61	0·35	0·13	0·12	0·56	0·26	0·47	0·56	0·24	0·10	1·39	1·59
East Ham...	?	...	?	0·39	?	1.8	?	0·30	?	0·46	?	0·14	?	0·80
Portsmouth	...	...	0·27	1·08	0·10	0·05	0·34	0·34	0·33	0·22	0·26	0·09	1·18	0·86
Southampton	0·00	0·3	0·28	1·14	0·08	0·09	0·22	0·23	0·29	0·17	0·14	0·09	0·92	0·62
Norwich	...	...	0·46	0·01	0·10	0·02	0·16	0·20	0·34	0·11	0·19	0·07	1·16	1·19
Plymouth	0·00	...	0·53	0·10	0·07	0·26	0·13	0·15	0.29	0·06	0·10	0·07	0·89	0·80
Birmingham	0·01	0·00	0·43	0·44	0·23	0·10	0.28	0·17	0·49	0·29	0·20	0·07	1·39	0·83
Nottingham	0·01	0·00	0·33	0·92	0·15	0·07	0·13	0·19	0·33	0·24	0·28	0·09	1·26	0·76
Birkenhead	0·01	...	0·42	0.27	0·17	0·24	0·25	0·28	0·46	0·09	0·27	0·05	0·04	1·01
Liverpool	0·03	...	0·50	0·32	0·27	0·41	0·25	0·21	0·52	0·20	0·26	0·10	1·57	1·35
Bolton	0·01	...	0·51	0·53	0·27	0·02	0·14	0·10	0·43	0·05	0·28	0·19	1·30	1·05
Manchester	0·01	...	0·79	0·37	0·21	0·13	0·18	0·20	0·49	0·31	0·17	0·09	1·41	1·15
Salford	0·00	...	0·91	0·32	0·34	0·29	0·34	0·36	0·60	0·20	0·32	0·19	1·65	1·21
Oldham	0·05	0·04	0·65	0·44	0·25	0·32	0·20	0·09	0·44	0·41	0·14	0·08	0·82	0·72
Blackburn	0·01	..	0·78	0·35	0·21	0·58	0·27	0·24	0·38	0·09	0·23	0·11	1·15	0·64
Preston	0·01	0·01	0·72	0·75	0·17	0·07	0·18	0·16	0·42	0·68	0·29	0·16	1·85	1·32
Bradford	0·01	0·02	0·33	0.04	0·16	0·16	0·17	0·28	0.29	0·34	0·17	0·08	0·85	0·50
Sheffield	0·00	...	0·51	0·94	0·19	0·22	0·43	0·13	0·39	0·29	0·27	0·10	1·50	1·52
Hull	0·07	0·01	0·53	0·09	0·14	0·09	0·19	0·30	0·34	0·50	0·21	0·10	1·62	1·28
Sunderland	0·01	...	0·52	0·62	0·18	0·01	0·11	0·20	0·44	0·38	0·38	0·20	1·20	1·83
Tottenham	0·07	..	0·39	0·09	0·10	0·04	0·27	0·16	0·36	0·54	0·13	0·05	0·91	0·43

ERYSIPELAS.

95 cases were notified as Erysipelas, but as there were 3 duplicate notifications the actual number of cases was 92. Only one case ended fatally, as against six for 1905, thus giving the exceptionally low death rate of ·007 per 1,000 as compared with 0·04 for the previous year. The morbid condition is caused by a micro-organism called the Streptococcus Erysipelatosus, which is "found at the edge of the inflamed skin occupying the lymphatic channels and spreading along them as the disease advances." The incubation period of Erysipelas is usually from one to three days, but it may in some instances be extended to eight days. Food, defective either in quantity or quality, alcohol, and a previous attack all seem to predispose to Erysipelas, while want of cleanliness and defective drainage and ventilation arrangements are very frequently associated with its occurrence. It should be noted that midwives and others who are suffering from Erysipelas should not attend midwifery cases, as there is considerable danger of blood poisoning or Puerperal Fever from such cases. I have previously animadverted upon the retention of the name Erysipelas as a survival from the time when the disease was believed to be a specific one, whereas it is now recognised that it does not differ materially from other forms of septic infection in wounds. Unfortunately the treatment of patients suffering from the disease is at present conducted in their usually "squalid" homes, by ignorant members of the laity, who are very far from recognising the special necessity for attending to the general vigour of the patient, as well as to the scrupulous cleanliness of his surroundings. Considerable trouble has been caused by several severe cases of the disease which were refused treatment at the General Hospital and Infirmary, while the Metropolitan Asylums Board Authorities have always denied

admission to Erysipelas patients; that of course is one of the disadvantages of relying upon others for the housing and treatment of infectious diseases. It appears to me that some arrangement should be made either with the Guardians, or otherwise, to provide for the isolation of serious cases of this disease arising in the homes of the poor.

PUERPERAL FEVER.

Six cases were notified, 4 of which terminated fatally. Another death was certified by the Coroner as due to this disease which had not been notified to me, indeed, there is considerable doubt as to the correctness of the Jury's verdict in that case; the death occurred outside Tottenham and was credited to us because the woman had been resident in this district.

The mortality rate was thus 0·03, as compared with 0·01 for 1905. There can be little doubt that this is an essentially preventable disease, and should never occur if proper precautions are taken regarding the cleanliness, clothing, diet, exercise and rest of pregnant women. The daily bath which is said by some ignorant old women to be dangerous should be universally adopted, and this is even more requisite towards the close of pregnancy. Exercise in the open air is most desirable, but should not be of too violent or fatiguing a kind, while the advice of the medical attendant should be taken regarding the necessity for, and species of aperient. Pregnant women are very liable to suffer by coming into close contact with cases of infectious disease, and more particularly cases of Scarlet Fever and Septicœmia. It is to be hoped that in time the administration of the Midwives Act in Middlesex, which has been entrusted to Dr. Young, the County Medical Officer, will result in the total abolition of mortality from this disease.

Puerperal Fever includes "all cases of Pyæmia and Septicæmia and Sapræmia, Pelvic Peritonitis, Peri- and Endo- Metritis occurring in the Puerperium."

CEREBRO-SPINAL FEVER.

No death was registered in our District under this heading during the year, but 2 were attributed to Cerebro-Spinal Meningitis, one of which I have reason to believe from subsequent enquiry, should have been certified as Cerebro-Spinal Fever. It may be as well—in the light of recent events—to give here Mr. Netten Radcliffe's definition of Cerebro-Spinal Fever, which is as follows :—

"An acute, epidemic disease, characterised by profound disturbance of the central nervous system, indicated at the onset chiefly by shivering, intense headache or vertigo, or both, and persistent vomiting; subsequently by delirium, often violent, alternating with somnolence or a state of apathy or stupor; an acutely painful condition with spasm—sometimes tetanoid—of certain groups of muscles, especially the posterior muscles of the neck, occasioning retraction of the head; and an increased sensitiveness of the surface of the body. Throughout the disease there is marked depression of the vital powers; not unfrequently collapse; and in its course an eruption of vesicles, petechial, or purpuric spots, or mottling of the skin, is apt to occur. If the disease tends to recovery, the symptoms gradually subside without any critical phenomena but convalesence is protracted; if to a fatal termination, death is almost invariably preceded by coma. After death the enveloping membranes of the brain and spinal cord are found in a morbid state, of which the most notable signs are engorgement of the blood vessels (usually excessive) and an effusion of sero-purulent matter into the meshes of the *pia mater* and beneath the arachnoid." Kernig's sign and *tache cérébrale* may be added to

the above clinical manifestations ; to obtain Kernig's sign, the patient is placed so that the hip-joint is semi-flexed, and while the hip-joint is retained in this position, the knee-joint is extended passively ; a contraction of the ham strings then sets in, which causes resistance to the extension ; the *tache cérébrale* consists in a congested streak produced by drawing the finger nail gently over the patient's thigh, abdomen or face ; in cases of meningitis the streak appears earlier (within 30 seconds), lasts longer (8, 10 or 15 minutes) and is broader and of deeper colour than in healthy persons.

VENEREAL DISEASES.

Two deaths were certified as due to Venereal Diseases ; there can be no doubt, however, that this small number does not represent the havoc caused by those diseases, and that the many deaths for which they are responsible are assigned to the later effects instead of to the original cause.

ALCOHOLISM (AND CIRRHOSIS OF LIVER).

Twenty-three deaths were certified as due to those causes, as against 16 for 1905, 12 for 1904, 16 for 1903 and 18 for 1902. The Death Rate per 1,000 of the population therefore amounted to 0·17, although it is unquestionable that here too, as in the case of Venereal Disease, the certified deaths do not represent the true fatality for which alcohol is responsible A desire not to hurt the feelings of relatives induces many medical men to assign to other diseases which are in truth only the effects of alcoholism, deaths primarily referable to that cause. Most of the cases of excessive poverty, squalor and general insanitary conditions with which we have come in contact during the year have been intimately associated with intemperance in one or more of the members of the

family inhabiting the houses or tenements where such misery was found.

DEATHS FROM VIOLENCE.

Forty-five deaths were certified under the above head as compared with 34 for 1905, the Death Rate thus amounting to 0·33 ; 38 were due to accident, 6 to suicide, and 1 to murder.

Our Death Factors in Chief.

I. DIARRHŒA.

The deaths from this disease amounted to 182 as compared with 145 for 1904 and 39 for 1905. The death rate therefore amounted to 1·07 per 1,000 of the population. It is advisable to examine as fully as possible into the chief causes of a disease which produced such fatal results. The first fact that strikes one on examining the statistics is, that of the total of 182 deaths, 151 were those of infants, and 26 those of children in the 1-5 years age group ; of the remaining 5 deaths, I have good reason to believe that 2 were cases of Enteric Fever ; the next point is that about 83 per cent. of the deaths took place in the (hot) third quarter of the year viz :—that ending on September 29th ; we observe also that the burden of mortality pressed heaviest upon those portions of the district which contain the greatest number of squalid, jerry-built houses, and the greatest proportion of poverty-stricken inhabitants.

The results of an inquiry made by us into the method of feeding adopted in fatal cases are also most instructive in this respect. In the course of that inquiry much valuable information was given me by several of my medical confrêres throughout the district for which I am duly grateful ; on the other hand we were considerably impeded in our efforts to obtain information by opposition largely due to the action of a couple of Members of the Council, who could

not I think at the time have realised the gravity, unwisdom, and danger of the course they adopted. We have not been able to obtain full particulars concerning all the fatal cases, but have succeeded in doing so in respect of the great majority of them. It was found that about 80 per cent. of the children under 1 year old who died from Epidemic Diarrhœa had been hand-fed, that is, their food had consisted either of cow's milk or some form of condensed milk, though it not infrequently happened that those milks were "supplemented" by bread, potatoes,* tea, and even bacon and pork—all articles of diet not only unsuitable, but positively dangerous for infants. I might further add that, after all possible examination of the circumstances of individual cases, I am candidly of opinion that the milk supplied to every child that died can only be described as "dirty and dangerous" from a bacteriological standpoint. From the above facts it will be evident that a heavy load of moral responsibility rests upon the shoulders of those who have the power to ordain that the children of the nation shall be provided with the only proper substitute for the natural food which a mother's breasts should afford, viz:—clean fresh cow's milk. I have thought over the subject long and seriously and I believe it would not be a very difficult matter to inaugurate a system by means of which the Public Health Service of the Country could ensure the cleanliness of the milk supply from production to distribution; indeed, it would be less an inauguration of new, than an extension and co-ordination of existing methods. Purity and freedom from dirt as well as due refrigeration could be obtained at the farm; the conditions of transit could be improved, and—perhaps most important of all—it could be seen that milk was so stored until sale, and sold in such vessels as would prevent the contamination by dust and the millionfold multiplication of bacteria which

*Starchy food should on no account be given to children before the sixth month of life.

now so universally prevails, more especially in our large towns. Meanwhile—and our Parliamentary friends appear to have their hands so full of other things that it may be a long meanwhile—it is well that the public should be educated to the importance of grooming cows (for which, indeed, there is much greater necessity than for grooming horses); of having the milker cleanly, both in his person and habits; of cooling the milk as soon as drawn to a temperature of about 40° F., and of preserving it dust free at that temperature until modified for the immediate use of the little ones, or consumed unmodified by their elder brethren.

It has long been recognised that Epidemic Diarrhœa is both more frequent and more fatal in hot dry summers than in cool wet ones, and in this connection I beg to refer you to my modification of Ballard's well known law upon the subject as printed and discussed in a former report. It does not seem to me that Dr. Ballard is justified in minimising as he did the effects of air temperature as compared with those of earth temperature; we cannot afford to ignore either. I append meteorological particulars (taken at our own station) bearing upon this subject, which tell their own tale with tolerable distinctness.

Date.	Earth Temperature.			Sunshine.	Rainfall.	Deaths.
	Highest.	Lowest.	Mean.	Total hours.	Total inches.	
July 1—7	59·0	58 8	58·9	73·7	Nil.	1
,, 8—14	60·5	59·2	59·9	55·8	Unm.	1
,, 15—21	61·0	60·5	60·7	46·7	0·14	—
,, 22—28	62·2	61·2	61·7	72·0	0·03	2
,, 29—Aug. 4 ...	63·2	62·0	62·7	74·0	0·16	5
Aug. 5—11	64·0	63·2	63·6	60·8	0·06	4
,, 12—18	64·0	63·8	63·7	36·2	0·16	5
,, 19—25	63·4	63·0	63·1	49·8	0·25	17
,, 26—Sept. 1 ...	63·2	63·0	63·1	71·7	Nil.	17
Sept. 2—8	64·2	63·2	63·8	53·1	0·84	19
,, 9—15	64·2	63·5	63·9	48·6	0·73	20
,, 16—22	63·2	61·9	62·5	26·8	0·26	15
,, 23—29	61·9	60·7	61·3	45·1	Nil.	9

If we compare the years 1901 and 1902 with 1906 we find that in the former years a very low death rate from Diarrhœa was associated with cool rainy summers, whereas in the latter year a high death rate from Diarrhœa is associated with a hot dry summer, and that is the lesson which not merely those limited examples teach, but which is brought home to us by the experience of every large town in England during the last 50 years. A hot dry summer means more dust and infinitely more bacteria in milk ; it means also more carriage of tainted matter by the household fly from various infected sources to this food of children—kept as it generally is in uncovered vessels.

It may now be taken for granted—because proved again and again in hundreds of other districts in addition to ours—that the breast-fed child has from ten to fifteen times a better chance of escaping a fatal attack of Summer Diarrhoea than the child fed on cow's milk, and that the latter has from ten to twelve times a better chance of similar good fortune than the unhappy infant fed on condensed milk.

With regard to preventive measures—other than the provision of the clean milk supply already alluded to,—they are embraced in the words " educate, educate, educate." 1. Educate the present mothers with regard to infant feeding when and where you can, by the tactfully conducted visitation of Health Visitors as well as by leaflets issued by the Medical Officer of Health, and short talks or addresses at Mothers' Meetings. It is, however, a difficult task to induce them to adopt other means in the rearing of their children than those used by their own mothers. A woman whom I once attempted to advise upon this subject, and who has since lost her child from Diarrhoea, proudly and typically boasted to me that she was going to feed her children as her mother before

her did, adding "and she had a family of thirteen and lost nine of them." It will take an educational crusade of a few generations to counteract the ignorant and prejudiced counsel of grandmothers.

2. Educate the school children and more particularly the girls of the upper standards (the mothers of the future) in the elementary principles of hygiene and domestic economy, including child management, plain cooking, and the wise choice and purchase of food material, making the study as interesting as possible by confining it to the chief details of every day life—lived healthily. Teach them the value of proper food and clothing, cleanliness, fresh air, and some few details connected with infectious disease. That is what I endeavour to do in our local schools, and I trust that in time there will not be a single teacher in the country who will not have a thorough knowledge of Elementary Hygiene, and hold a certificate therein. When health habits are continually and practically as well as theoretically inculcated at school, their influence will soon come to be felt even in the poorest homes. Working men will come to understand the danger of dirty food, beds, floors, walls, ceilings and yards, the necessity for ventilation, and for the frequent flushing of w.c. and scullery traps, and for preventing the accumulation of all kinds of refuse and rubbish upon the premises.

I confess that my hope for the hygienic reformation of the race is mainly centred in the education of the children; the average adults of to-day think they are at liberty to treat their bodies as they please, and regard as "grievances" disorders entailed by disobedience to nature's dictates through conduct more or less flagitious. Though the evil consequences inflicted upon themselves, their dependants, and upon future generations, are often as great as those caused by crime, yet they do not think themselves in any

way criminal. "It is true," as Spencer remarks, "that in the case of drunkenness, the viciousness of this bodily transgression is recognised, but none appear to infer that if this bodily transgression is vicious, so too is every bodily transgression. The fact is that all breaches of the laws of health are physical sins." If such physical morality was general, if the people, both young and old, were nourished by means of plain, clean, good food, and lodged in clean well ventilated homes; if they were taught to become as far as possible children of the open air, disease and death would soon lose the greatest of their triumphs and the most awful of their terrors.

It is established beyond all doubt that the houses chiefly haunted by epidemic Diarrhœa are those in which the dictates of cleanliness are not observed; houses in which the supply of milk, sugar, jam, and other articles of diet are left unprotected from dust and flies, and in which decaying vegetables and fruit, and fish and meat bones, will be found either scattered about indiscriminately, or imperfectly covered in the refuse receptacle; too often there is in addition a drinking water cistern seldom cleaned, drains frequently blocked, and yards and passages sodden and covered with heterogenous dèbris; occasionally infantile fœces are found on the floors with perhaps a dummy teat a few inches away.

In the course of personal visits paid to the few houses in which children of fairly comfortable well-to-do parents had died from this disease, I ascertained that various kinds of sweets and sweetmeats had been freely provided for the children and had been left for the most part uncovered on the sideboards or mantelpieces so as to be easily procured when required, and it occurred to me that such sweetmeats would possess a special attraction for the household fly whose latest perigrination might have been to the dust-bin, w.c., or other filth-laden haunt. When every

allowance has been made for family weakness or disease, it would appear that multiple deaths in the same families are not, at least as a general rule, due to such a cause, but must be rather attributed, for the most part, to the dirt, carelessness, want of energy, and general ignorance of mothers in the management of their homes and children.

* * * * * * *

The third quarterly return of the Registrar General for 1906 shows that, of the Western Boroughs embraced in the County of London, the highest death rate from Diarrhœa was at Fulham, where it amounted to 4·38 per 1,000 (as compared with 4·11 for the same period in 1905), while the lowest was at Westminster, where it was 1·18 (as compared with 0.73 for the same period in 1905) ; of the Northern Boroughs the highest rate was at Hackney, where it stood at 2·71, and the lowest at Hampstead, where it amounted to 0·81 (as against 0·32 in 1905) ; the Eastern Boroughs as usual suffered more than the other divisions of the Metropolis, the death rate from Diarrhœa in Poplar being 5·43 ; in Shoreditch 5·08 ; in Stepney 4·37 ; and in Bethnal Green 3·9. Of the Southern Boroughs the least fatal visitation of the disease was at Greenwich, where it amounted to 2·17, and the most fatal at Bermondsey, where the rate was 4·15. With one or two exceptions it will be observed that the highest and lowest death rates from the disease prevailed in the same Metropolitan districts as in 1905.

It has been remarked both in London and other large towns that certain of their divisions which were wont to suffer very severely from Summer Diarrhœa, have had much lighter death rates from this cause when the precautions were taken of watering the roads with a slightly antiseptic solution or even with plain water, and considerable improvement has also been noted in such districts when the previously soft and permeable roads were replaced by tar macadam ones.

Tottenham Hospital, shewing recent addition (from block kindly lent by F. W. Drewett, Esq.

Annual Death-rate, per 1000 living, from Diarrhœa in the following Towns in each week of the Third, or Summer Quarter of 1906.

Towns.	Annual Rate in 13 weeks.	July 7th.	July 14th.	July 21st.	July 28th.	Aug. 4th.	Aug. 11th.	Aug. 18th.	Aug. 25th.	Sept. 1st.	Sept. 8th.	Sept. 15th.	Sept. 22nd.	Sept. 29th.
Tottenham	3·9	0·4	0·4	—	0·9	2·2	1·7	2.2	7·4	7·4	8·3	8·7	6·5	3·9
West Ham	6·1	0·7	1·2	0·5	1·4	3·5	10·2	14·0	11·4	9·9	7·8	8·6	7·1	3·3
East Ham	4·4	—	—	0·4	1·6	2·4	2·8	8·0	9·2	7·2	6·4	8·0	7·2	3·2
Portsmouth	3·9	0·5	1·0	0·3	0·8	1·3	2·5	5·3	5·6	5·6	8·9	10·4	5·6	3·1
Great Yarmouth	4·2	—	—	1·0	—	1·0	3·0	2·0	9·9	5·9	6·9	11·9	11·9	1·0
Norwich	5·3	0·4	1·8	2·2	1·8	2·7	4·9	7·5	4·0	9·3	10·2	13·7	6·6	4·4
Hanley	6·5	0·8	0·8	—	0·8	1·6	1·6	1·6	6·3	7·9	17·3	20·4	14·1	11·0
Birmingham	5·3	0·3	0·2	0·8	1·1	1·8	4·3	8.2	10.8	8·1	10·3	10·4	7·7	4·9
Nottingham	5·1	0·2	0.6	0·6	0·4	1·6	6·6	4·7	10·9	9·6	10·2	10·7	7·4	3·1
Birkenhead	6·2	—	0·9	1·3	1·3	3·1	6·2	14·2	12·4	7·1	10·2	11·1	8·4	4·0
Liverpool	5·5	0·4	0·4	1·1	0·7	2·3	4·1	7·8	8·9	9·2	12·3	10·3	7·2	6·3
Wigan	5·0	0·6	0·6	2·4	1·2	4·2	6·0	7·1	7·1	3·6	10·7	10·7	8·4	3·0
Manchester	4·8	0·2	0.5	0·5	0 9	1·4	2·8	6·5	8·1	8·1	11·0	10·6	7·0	5·0
Burnley	5·2	—	1·0	1·5	1·0	1·5	2·0	3·0	4.1	8·6	11·7	14·2	12·2	6·6
Oldham	2·8	—	—	—	0·4	1·1	1·1	1·1	3 0	1·5	8·1	10·7	6·7	3·0
Rhondda	5·0	0·4	—	1·6	0·8	0·4	2·5	4·1	5·7	6·1	12·3	13·9	9·8	7·4
Preston	5·3	0·9	1·3	0·9	0·9	0·4	0·9	—	2·2	4·0	16·1	15·7	12·1	13·0
Middlesboro'	4·4	0·5	1·0	—	1·0	—	3·6	3·6	7·3	8·3	6·3	10·4	6·8	7·8
Sheffield	5·7	1·0	0·3	0·2	1·2	2·9	4·7	5·6	9.0	9·2	13·9	11·6	8·5	6·5
Hull	5·2	—	—	0·4	0·6	2·0	4·6	7·0	7·7	9·3	10·1	11·1	8·1	6·8
Gateshead	4·8	0·4	—	—	—	0·8	1·7	3·8	3·4	5·9	10·6	14·8	13·1	7·6
Walthamstow	4·2	—	—	—	0 9	2·6	3·4	7·3	8·6	7·3	6·4	7·3	5·2	5·2

2. HEART DISEASES.

There were 156 deaths from Heart Diseases, giving a death rate of 1·158 as compared with 1·007 for 1905.

The death rate from Heart Disease appears to be increasing in almost all the large towns, in many cases an interval of ten years has sufficed to double the proportionate number of deaths from this cause. In rural districts no such increase is observable, which points to the injurious effect produced upon the cardiac and nervous system by the conditions of modern town life with its long train of attendant evils—less pure air, less sunshine, less healthy exercise, less wholesome diet, less rest; but, more hurry and worry, more noise, more artficial stimulation, more exposure to the germs of disease. In this connection it is significant that rather more than half the deaths occur in the years of most strenuous work, that is from early manhood to middle life.

3. PNEUMONIA.

112 deaths were registered from this disease giving a death rate of 0·83, as against 1·12 for 1905. The following was the distribution of deaths in the age groups:—

Under 1 year	33
1 and under 5 years	28
5 „ „ 15 „	8
15 „ „ 25 „	1
25 „ „ 65 „	28
65 and upwards	14

As was the experience last year the disease was most fatal to infants, though children between 1 and 5 also suffered heavily, as did adults between the ages of 25 and 65.

Sudden changes of temperature (due largely to imperfect house ventilation) and the want of proper clothing and food, especially in the colder months of the year, were undoubtedly the causes predisposing to this disease; though it should not be forgotten that it is a germ disease and that its progress is favoured by all insanitary conditions.

4. TUBERCULAR DISEASES OTHER THAN PHTHISIS.

112 deaths were certified as due to Tubercular Diseases other than Phthisis (as compared with 96 in 1905) the death rate therefore amounted to 0·83 per 1,000. Tubercle of the larynx, digestive tract and meninges would seem to be slightly on the increase, though it is quite possible that many of the deaths which would now be referred to those specific reasons would formerly have been registered as due to Consumption. The deaths were distributed in age groups as follows:—

Under 1 year	16
1 and under 5 years	22
5 ,, ,, 15 ,, ...	13
15 ,, ,, 25 ,, ...	22
25 ,, ,, 65 ,, ...	37
65 and upwards	2

It is singular that the large proportion of "other tubercular diseases" to "tubercle of the lung," to which I directed attention in a previous report, is even more marked in 1906, the fact being due to two causes, (1) the practically stationary position of our death rate from "other tubercular diseases," (2) the steady improvement in our death rate from Phthisis. I do not anticipate any great diminution in the former rate until we have secured what I am so earnestly advocating, a clean milk supply for our district, for most of the cases of Tubercle which occur in other regions than the

lung are, generally speaking, associated with an improper food supply, this of course being most marked among young children.

If the Bovine type of tuberculous bacillus is taken as being the direct cause of (1) primary intestinal tuberculosis, (2) acute miliary tuberculosis, (3) tubercular glands, joints and bones, (4) tubercular meningitis, and (5) lupus, it will be seen—as Dr. Nathan Raw's recent paper points out—how important it is that our milk, meat, etc.,—and more particularly our milk—should be free from bovine tubercular infection, indeed, the obvious inference is that were we able to ensure such absence of infection we would be enabled to eradicate the above-named varieties of tubercle altogether.

It should also be generally known that as the sputum of consumptives contains myriads of tubercle germs it should not be swallowed, since there would thus be danger of setting up a new deposit of tubercle in another portion of the body (bowels).

5. BRONCHITIS.

104 deaths were certified, giving a death rate of 0·77 per 1000 of the population as compared with 0·805 in 1905. The deaths were distributed in age groups as follows :—

Under 1 year	26
1 and under 5 years	19
5 „ „ 15 „	2
15 „ „ 25 „	2
25 „ „ 65 „	26
65 and upwards	29

It will thus be seen that the disease was most fatal to very old and very young persons.

6. CANCER.

The number of deaths attributed to Cancer was 78, as compared with 95 for 19 5; the Death Rate accordingly was 0·57 per 1,000 of the population, which is therefore more satisfactory than that of last year, and also bears favourable comparison with that of other large towns and that of the country generally.

There was no instance of death from the disease under the age of 25, while in the 25—65 period there were 60 deaths, the remaining 18 occurring in persons above the age of 65.

Irritation has long been recognised as having a distinct etiological signification in connection with Cancer, and it is remarkable that in both sexes the organs and regions which are most frequently abused are those which suffer most from Cancer, thus in the male the disease is most frequent in the various portions of the digestive tract, whilst in the female the womb and breasts are the parts most generally affected. All statistics go to show a history either of an injury or long continued minor irritation in cases of Cancer. I should like to reiterate my previously expressed conviction that irritation of the womb and breasts—either by too frequent child-bearing, which occurs most often amongst the poor, or by various practices, chiefly indulged in by the "upper" classes, with the view of preventing conception or procuring abortion—is a potent element in the production of Cancer amongst women, whilst the abuse of alcohol and tobacco, or the frequent ingestion of bad or unsuitable food, acts similarly in the case of men.

7. PHTHISIS.

The deaths from Pulmonary Consumption amounted to 75, 19 of which took place outside the District; the Death Rate was therefore 0·55, as compared with 0·68 per 1,000 for 1905, and 0·95 for the quadrennium 1901—4; the 1906 Rate for England and Wales was 1·40, for the Urban Counties 1·208, and for the Rural Counties 1·107. Those figures are perhaps the most satisfactory of any contained in this Report, for they show that the mortality from Phthisis is steadily decreasing in our District, and this despite the fact that we have so far failed to provide either a Sanatorium or an Isolation Hospital for the treatment of the disease, or even adopted any form of notification. We have, however, visited all the cases coming to our knowledge and given both verbal and printed instructions regarding the precautions to be taken for the patients' own welfare, as well as to prevent the spread of the disease through their instrumentality to others. It is to such measures and to the improvements effected in the general sanitary condition of Tottenham that this favourable rate is altogether due, for many of the causes contributing to a large phthisical mortality are still prevalent in our midst; I allude more particularly to alcoholism and poverty. The neighbouring Boroughs of Stoke Newington, Hackney and Islington had a phthisical death rate in 1905 of 1·33, 1·15 and 1·26 respectively, while their average rate for the quadrennium 1901—4 was 1·39, 1·41 and 1·49 respectively. Of all the metropolitan boroughs that of Holborn has the *highest* death rate from this disease, its rate standing at 2·84 for 1905, and at 2·96 for the quadrennium 1901—4; Hampstead had the honour of having the *lowest* death rate of any metropolitan borough, its rate being 0·83 for both the above mentioned periods.

PHTHISIS.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Harringay...	2	1	1	...	2	...	...	...	...	2	...	...	8
West Green	1	...	...	1	...	1	..	...	2	...	...	1	6
St. Ann's	2	..	3	2	1	...	...	...	1	..	...	2	11
High Cross	1	1	5	2	1	1	...	...	3	...	...	3	17
Middle	2	...	4	2	...	...	...	3	2	...	1	4	18
Lower	...	1	...	1	1	2	3	1	1	2	1	2	15

It is curious that while with all the money lavished upon the isolation and general treatment of Scarlet Fever during the past twenty years its incidence and mortality would appear to have been very little affected, yet municipalities would seem for the most part to be either unready or unwilling to incur expense with regard to Consumption (and other tubercular diseases) which are so essentially amenable to preventive treatment. All Sanitary Authorities should co-operate in a great national attempt to check the course of this disease, and if such universal co-operation be obtained it is absolutely certain that the necessary expense entailed will be more usefully and properly incurred than has been the case regarding any of the diseases on which hundreds of thousands of pounds are now being annually spent in this country. The deaths from Phthisis occur at the period when life is most precious in the family circle, as well as of the most pecuniary and general value to the State; moreover, it should be remembered that a very large proportion of the inhabitants of Workhouses dying of Consumption have been reduced to poverty chiefly through having contracted this disease. It is pitiable to see, as I have seen, the down grade sequence of events in a family when its head has been incapacitated for work by this fell cause; the wages are no longer coming in and his Friendly Society allowance

(if he has been provident enough to join such an association) does not generally amount to more than a quarter of his usual earnings, while the necessity for special nourishments and medical attention bring the expenses to a much higher figure than they reached when he was in average health and work ; out-door relief becomes, of course, a necessity, and the ratepayers and the nation are in this way burdened, on account of such patients, with ten times the amount which would have been necessary to have saved the sufferers from catching the disease. So well is this understood that, in Germany, Friendly Societies provide Sanatorium and Isolation treatment for their members, thus giving practical recognition to the fact that preventive measures are in the long run not merely more humane but also more economical from a pecuniary point of view than the "save now, no matter what it costs hereafter" policy. Most of the deaths in our district, as elsewhere, occurred in the years of parentage which are in every sense the true "years of production" Taking national figures, one-third of all male deaths between the ages of 20 and 35, and of all female deaths between the ages of 15 and 25 may fairly be debited to Consumption. The chief difficulty in the Sanatorium treatment of Consumption lies in the provision of sustenance for the family of the patient during the time he is undergoing treatment, assuming of course the most difficult case, that it is the breadwinner who is stricken. This is a difficulty which in my opinion should be met by special interference of the State, for if through the isolation of a case of infectious disease mainly for the safety of the public, a man's dependants are temporarily left without provision for their necessities, it is surely not right that either he or they should be branded with the mark, and incur the disabilities of pauperism. In some French towns Public Dispensaries have been established with the twofold object

of affording medical advice and instruction as well as succouring the families of the afflicted; Dr. Calmette read a most valuable paper upon the subject at the London International Congress of 1902 in which he detailed the manner in which his efforts were adopted and his schemes subsidised by the Municipality of Lille.

We cannot hope for much further improvement in our own district until Tuberculosis is added to the list of notifiable diseases and the isolation of patients likely to cause infection suitably provided for, a due distinction being made in the treatment of early and advanced cases. As a temporary measure, it would be well if your authority and the Local Board of Guardians could come to some arrangement by which a separate ward, or wards, could be provided for phthisical cases on the premises of the Edmonton Union.

Notification would give us the opportunity of instructing consumptives and their relatives in the precautions to be taken to prevent the spread of the disease, and would also enable us to disinfect the rooms, clothes and bedding of patients at such intervals as may be advisable.

I am glad to find that the Special Sub-Committee appointed to deal with such matters is submitting a report recommending that a limited amount of Sanatorium accomodation should be provided at Mount Vernon Hospital until a more comprehensive and suitable scheme has been fully matured.

The objections urged against compulsory notification are that it is an infringement on the liberty of the subject and would inflict great hardships on individuals. It has also been urged that the early diagosis of the disease is attended with considerable difficulty and that even when correctly diagnosed, its notification would

subject patients to tiresome sanitary supervision—for a greater length of time than any other disease—extending on an average over a period of three years. Perhaps all these objections would be more properly included in the first, and with regard to that, the trend of modern thought and legislation is certainly towards the recognition of the paramount rights of the state when opposed to those of the individual :

" The individual withers and the world is more and more " :

the " Poor Blind Samson in the land " is yearly becoming a little less poor and much less blind.

We have had several instance of consumptive deaths from houses in which deaths from the same cause had previously occurred and such cases were not found to be specially associated with sanitary defects in those premises. There has been a considerable preponderance of male over female deaths—even when the sexes were apparently living under similar home conditions. The difference is probably due to many causes, amongst which are the more laborious occupations of men, the fact that they expectorate more and frequent public houses, clubs, &c., to a much greater extent. I have no hesitation in saying that the lower class public house—where spitting on the floor is not restricted and where the warm atmosphere is charged with all manner of impurities owing to dust and defective ventilation—is one of the most frequent sources from which phthisical infection is derived ; concert halls, theatres, churches, and the smoking compartments of railway carriages also serve as foci of infection. It is remarkable that in the statistics just published by the Registrar General for England and Wales there is a corresponding preponderance of male over female deaths from pulmonary tuberculosis, the figures being 9,981 for males and 6,961 for females, while Phthisis, not otherwise

defined, accounted for 12,245 male and 9,763 female deaths; the general death rate of males for the country at large was given by the Registrar General as 16·2 per 1,000, and the general death rate of females as 14·3 per 1,000, the London rate being 17·4 for males and 14·5 for females. Contrary to the general notion, heredity plays no direct part in the causation of consumption, that is to say, no child is consumptive when born, though of course the children of consumptive, or otherwise unhealthy parents, are usually less able to resist the infection of this or any other disease. On the contrary, healthy children and healthy people generally do not readily "catch" consumption, indeed such persons when they do contract the disease will be found to have been exposed to some virulent source of infection for long periods. No matter how many of your relatives may have died of Consumption, nor how you may have hitherto believe yourself doomed, if you lead an open air life and have proper nourishment and are not subjected to the strain of overwork, or over-indulgence, it will be practically impossible for you to develop Phthisis; furthermore, your chances of escaping altogether and coming triumphantly through all other varieties of illness will be much greater. The most effectual disinfectants—that is to say the most powerful germ-killers—in the world are light, air and healthy body cells and with ordinary cleanliness any other need seldom be used; an abundance of fresh air militates against the propagation of germs and it is probable, nay certain, that if we all lived open air lives, infectious diseases would soon cease to exist amongst us. Open the windows, and if possible the doors, in all the rooms of your house and keep them open, and you will then have no sudden changes of temperature coming as shocks to your system, not only your actual strength but your power of resistance to disease will be increased owing to greater functional activity

and metabolic and nutritive changes; you will soon find that your former dread of open windows was groundless, and that you have hitherto been afraid of shadows. It should not be forgotten, as it now too often is, even by those who ought to know better, that pure air is as necessary by night as it is in the day, and that the dread of "night air" is another of those bogies which must disappear before the daylight of advancing knowledge. There is no appreciable difference in the composition of day and night air, and the latter should have entrance to your houses just as freely as the former; the most important of all health factors is air pure and undefiled alike by night and by day.

The following table gives the rates per million of male and female deaths from Phthisis in urban and rural counties and in the country generally :—

	Male.	Female.
England and Wales generally	1,347	947
Urban Counties	1,467	965
Rural ,, ...	1,230	991

The incubation period of Phthisis, that is the period between infection and the appearance of the first typical symptoms, is about a year, and the average total duration of the disease about 3 years. It is our practice to thoroughly disinfect the rooms recently occupied by deceased patients, as well as all articles of bedding, clothing, etc., used by them.*

INFLUENCE OF OCCUPATION ON PHTHISIS.

Indoor dusty occupations, more particularly those connected with the manufacture and sale of alcohol, would seem to have

* In cases where the diagnosis of Phthisis is doubtful, we make bacteriological examinations of the sputa for the practitioners in attendance

exercised a banal influence in two ways, (1) by increasing the incidence, and (2) by lessening the chances of cure.

Taking into account the large proportion of labourers to the general population, and the poverty of which many of them are from time to time the victims, they would appear to have suffered little as a class, and the cause is doubtless found in the fact that most of their time is spent in the open air, and in consequence the influence of privation, which is a factor powerfully predisposing to Phthisis, is largely counteracted.

I have for many years been endeavouring to arouse public opinion in your district with regard to the danger involved in the disgusting habit of spitting in public places. When sputum is expectorated by a tuberculous patient it is a fruitful source of infection, for when dried it is carried about on dust wings, with danger to innumerable people who may never have come into personal contact with the Phthisical patient from whom it is derived. Spitting should be prohibited in public places in this country as it is in America, and the bye-laws of tram and railway companies upon this subject should be strictly enforced and no longer remain the "dead letters" they are now.

The following is a copy of a leaflet regarding Consumption distributed by the Department :

"PREVENTION OF CONSUMPTION.

Simple hints for Householders who wish to protect themselves and their families from the above Disease.

1.—Live in the open air as much as possible.

2.—Keep all the rooms of your house—bed-rooms as well as "living" rooms—well ventilated. Bed-room windows should be open at the top at night and top and bottom

during the day. Do not be afraid to let air and sunlight in, they are the best medicines you can have.

As the air of indoor public meeting places is generally very foul, it is well to avoid frequenting such places as far as possible.

3.—Observe the most scrupulous cleanliness in every portion of the house, and see that all house refuse is frequently burnt or removed.

Floors should be sprinkled before being swept, as dust is the usual means by which the germs of most infectious diseases are spread.

As the dirt under the nails and on the tips of the fingers of children usually contains disease germs, and as children frequently suck their fingers and also insert them in their nostrils, the importance of keeping the tips and nails of the fingers clean is very evident.

4.—Allow no spitting on your floors, passages, or yards. Anyone who already suffers from consumption should only spit into (*a*) a special spittoon or (*b*) a cup containing water or a little disinfectant; the spittoon if of paper or cardboard—should afterwards be burnt, and if of earthenware, glass, or metal, should be frequently cleansed with boiling water—as should also any cups or other utensils used by consumptives.

5.—Obtain your milk from the most reliable milk vendor in the district; if you have any doubt as to its purity, boil it before using; this precaution should be invariably taken in hot weather, though it should be remembered that boiling lessens the nutritive value of milk.

6.—As the phlegm of consumptive persons contains multitudes of the germs causing the disease, it should not be swallowed, as there would then be danger of setting up tubercular mischief in other portions of the body (the digestive tract).

N.B.—Disinfectants can be obtained free of charge at (1) The Town Hall, (2) Coombes Croft House, and (3), St. Ann's Fire Station by the occupants of any house in which there is a case of Consumption or other infectious disease.

J. F. BUTLER-HOGAN,
Medical Officer of Health."

The following figures are extracted from the recently published Report of the Registrar General for 1905.

Pulmonary Tuberculosis.

Country.	Deaths to 1,000 Living.		Country.	Deaths to 1,000 Living.	
	Average Annual rate in 10 years. 1895–1904.	1905.		Average Annual rate in 10 years. 1895–1904.	1905.
Hungary	3·73	4·42	Japan	1·41	?
Austria	3·46	?	Belgium	1·35	?
Servia	2·45	3·32	ENGLAND & WALES	1·29	1·14
Ireland	2·15	2·10	Italy	1·22	1·18
Prussia	2·04	1·90	Victoria	1·13	1·02
German Empire	2·02	?	Ceylon	0·89	0·96
Norway	1·99	?	South Australia	0·87	0·75
Switzerland	1·91	?	Queensland	0·86	0·76
Jamaica	1·60	1·52	New South Wales ...	0·81	0·70
Scotland	1·59	?	New Zealand	0·77	0·57
The Netherlands	1·54	1·36	Western Australia ...	0·70	0·65
Spain	1·44	?	Tasmania	0·67	0·75

Quarterly Return of Cases of Infectious Disease notified in the various Wards.

		Small Pox.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Continued Fever.	Total.
Harringay Ward.	March	...	17	6	..	1	...	...	24
	June	...	31	3	3	1	...	...	38
	September ...	...	5	4	...	2	...	...	11
	December ...	...	13	10	2	6	...	...	31
		...	66	23	5	10	...	...	104
West Green Ward.	March	..	13	4	2	1	...	...	20
	June	...	13	9	1	2	...	...	25
	September ...	...	6	5	5	2	...	...	18
	December ...	...	11	9	3	1	...	...	24
		...	43	27	11	6	..	...	87
St. Ann's Ward.	March	...	5	12	...	6	...	...	23
	June	...	16	2	1	9	...	...	28
	September ...	...	6	2	4	...	...	...	12
	December ...	...	16	3	10	5	...	...	34
		...	43	19	15	20	...	...	97
High Cross Ward.	March	...	15	...	1	7	1	...	24
	June	...	14	...	1	4	...	...	19
	September ...	...	9	3	...	3	...	...	15
	December ...	...	19	6	3	6	...	...	34
		...	57	9	5	20	1	...	92
Middle Ward.	March	...	27	6	3	10	2	...	48
	June	...	36	7	1	7	...	...	51
	September ...	...	24	9	2	3	1	...	39
	December ..	...	47	6	6	6	1	...	66
		...	134	28	12	26	4	...	204
Lower Ward.	March	...	27	7	...	4	...	...	38
	June	...	47	4	...	2	1	1	55
	September ...	...	14	1	8	1	...	...	24
	December ...	..	28	4	6	3	...	...	41
		...	116	16	14	10	1	1	158

The following are the Roads in which Fatal Cases occurred from the Infectious Diseases mentioned :—

SCARLET FEVER.

Brunswick Court .. 1
Colsterworth Road ... 1
Dawlish Road 1
Foyle Road 2
Hermitage Road ... 1
Lordship Lane... ... 2
Moselle Street... ... 1
Philip Lane 2
Pretoria Road 1
Sherringham Avenue... 1
Seaford Road 1
Winchelsea Road ... 1

DIPHTHERIA.

Durham Road 1
Elmar Road 1
Hampden Road ... 1
Northumberland Park 1
Paignton Road ... 1
Roslyn Road 1
Somerset Road ... 1
Seven Sisters Road ... 1

MEMBRANOUS CROUP.

Durban Road 1

ENTERIC FEVER.

Beaufoy Road 1
Green Lanes 1
Highweek Road ... 1
Northumberland Park 1
Woodlands Park Road 1

PUERPERAL FEVER.

Bruce Grove Road ... 1
Fawley Road 1
Northumberland Grove 1

ERYSIPELAS.

Chesnut Road 1
Gladesmore Road ... 1

WHOOPING COUGH.

Cape Road 1
Crescent, The 1
Colsterworth Road ... 1
Grand Parade 1
High Road 2
High Cross Road ... 1
Hale Gardens 1

Newton Road 1
Philip Lane 2
St. Loys Road... ... 1
Scales Road 1
Stanley Road 1
Spondon Road... ... 1
Templeton Road .. 1
Tewkesbury Road ... 2
Welbourne Road ... 1

MEASLES.

Avenue Road 1
Avondale Road ... 1
Braemar Road 2
Broadwater Road ... 1
Bruce Grove 1
Brunswick Road ... 1
Colsterworth Road ... 2
Cornwall Road ... 1
Clinton Road 1
Church Road 1
Durban Road 1
Dawlish Road 1
Devon Road 1
Dongola Road... ... 1
Elsden Road 2
Eckington Road ... 1
Fairview Road... ... 1
Foyle Road 1
High Road 1
King's Road 1
Lawrence Road ... 1
Lorenco Road 1
Moreton Road... ... 1
Penrith Road 1
Philip Lane 1
Southey Road 1
Scotland Green ... 1
St. Loys Road... ... 1
Spratt's Row 1
Stanley Road 1
Stamford Road ... 1
Tewkesbury Road ... 2
Victoria Crescent ... 1
Wingmore Road ... 1
White Hart Lane ... 1

PHTHISIS.

Avenue, The 1
Alfoxton Avenue ... 1
Albert Road 1
Arnold Road 1
Antill Road 1
Black Boy Lane ... 1
Brook Street 1
Brereton Road... ... 1
Colsterworth Road ... 2
Clarence Road... ... 1
Chesnut Road 1
Durham Road 1
Foyle Road 2
Greyhound Road ... 1
Grand Parade 1
Glenwood Road ... 1
Green Lanes 1
High Cross Road ... 1
High Road 3
Hale Road 1
Junction Road... ... 1
Kimberley Gardens ... 1
Lorenco Road 1
Montague Road ... 1
Manor Road 1
Moselle Street... ... 2
Markfield Road ... 1
Napier Road 4
Newton Road 1
Northumberland Park 1
Plevna Road 1
Poynton Road 1
Philip Lane 2
Richmond Road ... 1
St. Ann's Road ... 2
Somerford Grove ... 1
Southey Road 1
Scales Road 1
Sperling Road 1
Union Row 1
Vale Road 1
Whitehall Street ... 2
Willow Walk 1
William Street ... 1
Woodlands Park Road 1

DIARRHŒA.

Argyle Road 1
Avondale Road ... 3
Ashley Road 1
Abbotsford Avenue ... 1
Arnold Road 2
Arthur Road 1
Antill Road 1
Bloomfield Road ... 1
Black Boy Lane ... 1
Bernard Road 1
Beaconsfield Road .. 1
Brunswick Court ... 1
Culross Road 1
Chestnut Road... ... 3
Chester Road 2
Catherine Road ... 1
Clinton Road 3
Crowland Road ... 1
Cavendish Road ... 1
Cunningham Road ... 1
Cranbrook Road ... 2
Clarendon Road ... 1
Clyde Road 1
Cornwall Road 1
Devon Road 2
Dorset Road 1
Dawlish Road 2
Edith Road 2
Eckington Road ... 1
Effingham Road ... 1
Earlsmead Road ... 1
Fairfax Road 1
Fladbury Road ... 2
Gloucester Road ... 1
Greyhound Road ... 2
Gedeney Gardens ... 2
Glenwood Road ... 2
Grove Park Road ... 2
Green Lanes 1
Gladesmore Road ... 1
Harefield Road ... 2
Headcorn Road ... 3
Hampden Road ... 2
Harringay Road ... 1
Harold Road 1
Hale Gardens 2
Holcombe Road ... 1
High Cross Road ... 2
Higham Road 1
Halefield Road... ... 1
Ipplepen Road ... 1
Junction Road ... 3
Kemble Road 1
Lorenco Road 1
Lordsmead Road ... 2
Langham Road ... 1
Lincoln Road 3
Loxwood Road 1
Lealand Road 1
Moselle Street 3
Mount Pleasant Road 2
Montague Road ... 1
Melton Road 1
Newton Road 1
Newlyn Road 1
Northumberland Grove 1
Old Lane 1
Pretoria Road 3
Paxton Road 1
Plevna Road 2
Pleasant Terrace ... 1
Philip Lane 1
Pelham Road 1
Rosebery Gardens .. 1
Rowley Road 1
Rosebery Avenue ... 1
Russell Road 1
Spratts Row 1
Scales Road 1
Seaford Road 3
Station Road 1
Suffield Road 1
Shrubbery Road ... 1
Seymour Avenue ... 1
Stanley Road 1
St. George's Road ... 4
Sherringham Avenue... 2
Seven Sisters Road ... 3
Scales Road 1
St. Loys Road 2
Spondon Road 1
St. Ann's Road ... 1
Scotland Green ... 2
Stonebridge Road ... 1
Shelbourne Road ... 1
Stanley Grove 1
Tiverton Road... ... 1
Tewkesbury Road .. 8
Terront Road 2
Thackeray Avenue ... 2
Tenterden Road .. 1
Templeton Road ... 3
Tilson Road 1
Vale Road 1
Victoria Crescent ... 1
Vicarage Road... ... 1
Wingmore Road ... 2
Willow Walk 2
West Green Road .. 2
Woodside Gardens ... 1
Whitehall Street ... 2
Welbourne Road ... 3
Warwick Gardens ... 1
Woodville Grove ... 1
Walton Road 1
Westerfield Road ... 2
Wycombe Road .. 1
Winchelsea Road ... 1
Waggon Lane 1
White Hart Lane ... 1

INFANTILE MORTALITY.

The expression " Infantile Mortality " means the annual number of deaths of children *under twelve months* old to every 1000 births that have taken place during the same year. During 1906 there were 3674 children born in Tottenham, and of that number 484 died before reaching the age of one year. The Infantile Mortality rate was therefore 128, as against 117 for 1905, the average for the ten years 1895-1904 being 148.

It will be seen from the following figures, published by the Registrar General, that no improvement took place in the Infantile Mortality of the country generally for the 50 years 1851-1900, and though the average rate of the 76 great towns for 1905 only amounted to 140, it is to be feared that when the full national statistics for 1906 are available, the rate for the large towns generally (as well as for Tottenham) will be found much higher than it was in the preceding year.

In 1851—1860 the Infantile Mortality of England and Wales was				154	per 1,000 Births.
,, 1861—1870	,,	,,	,,	154	,,
,, 1871—1880	,,	,,	,,	149	,,
,, 1881—1890	,,	,,	,,	142	,,
,, 1891—1900	,,	,,	,,	154	,,
,, 1901—1906	,,	,,	,,	138	,,

There have, of course, from year to year been very considerable fluctuations in the rate both locally and nationally, but such fluctuations were not sufficient to influence to any great extent decennial averages.

The years during the quinquennium (1901-6) in which the Infantile Mortality of England and Wales exceeded the average were 1901, for which it was 151, and 1904, when it was 145, while in 1905 it was well below, the average only amounting to 128 (that is 11 higher than the Tottenham rate for the same year).

The following are the rates for the different Wards :—

Harringay Ward ...	...	99·5 per 1,000 births
West Green Ward...	...	102·0 ,, ,, ,,
Lower Ward ...	...	128·6 ,, ,, ,,
High Cross Ward ...	...	141·9 ,, ,, ,,
Middle Ward ...	...	146·9 ,, ,, ,,
St. Ann's Ward ...	...	153·0 ,, ,, ,,

You will see from the above figures that the Infantile Mortality rate of the Harringay Ward is rather less than $\frac{2}{3}$ that of St. Ann's. When we remember the exceptional character of the past summer with regard to heat and drought, and also recollect that for many years prior to 1901, the Infantile Mortality of Tottenham generally exceeded 170 per 1,000, the rate for 1906—unsatisfactory as it is to me—compares favourably with the old conditions of things. I have calculated that in 1900 when the general Infantile Mortality of the district stood at 173, that of the St. Ann's Ward amounted to more than 203 per 1000. If my recommendations regarding a pure milk supply for infants be carried into effect, I venture to predict that the rate will be reduced to 100 per 1,000 or even less—and that despite climatic influences. The difference between the 1905 and 1906 rates is of course due to the heavy mortality in the latter year from epidemic diarrhœa. Most of the houses in which children died were visited either by a Lady Inspector or myself, and in nearly all cases the information we desired was courteously given ; and I do appeal most strongly to every member of the Council during the coming year to endeavour to help and not to hinder this most useful work.

Table 5 gives the cause of death and the age incidence of the mortality from the various diseases.

The large proportion of the deaths which occur in the early weeks of life, and more particularly in the first week, deserves to be carefully noted. It will be seen that 76 deaths took place in the first week, and 148 in the first month of life, while 243 or rather more than half the number of deaths occurred in the first 3 months of life, and that the cause of half the deaths in the first week of life was prematurity, while debility, congenital defects, injury at birth, convulsions, suffocation, etc., make up the other half; prematurity was also a prominent factor in the deaths of the second and third weeks, while the fatal effects of diarrhœa and pneumonia are most plainly in evidence from the second to the ninth month inclusive.

* * * * *

England is one of the few civilised countries that places no restrictions whatever upon the marriages of the physically and mentally afflicted. In Michigan, Connecticut, Minnesota, New Jersey, Servia, etc., persons suffering from certain specified kinds of physical and mental diseases are forbidden to marry, while in Austria parents can refuse their consent not only if intending candidates for matrimony are suffering from physical or mental affliction, but also if they are of bad character. When we remember that in England and Wales there were only 37,143 lunatics in 1849, and that the number had increased to 121,802 in 1906, we may well question the wisdom of the English policy of *laissez faire* with regard to the description of marriages above alluded to. When we further recognise that there are upwards of 124,000 cripples in the country, and that their number, too, is increasing yearly, it will be seen that arguments may be drawn—from the number of physically as well as of the mentally incapacitated—for the establishment of restriction upon or control over the marriage of persons whose progeny would be likely to be not only

a burden to themselves and their relatives, but also a reproach, if not a danger, to the nation at large. Healthy parents, and above all, healthy common-sense mothers, are the first essential in the production of viable children, that is to say, children who will not only live through the years of childhood, but grow up healthy and hardy, to be a support and credit to their homes and their country. Given then healthy parents, we next require the *datum* of a suitable milk supply, as advocated more fully in another portion of this report; thirdly, it is most essential that, when breast milk is not available, cows' milk should be given, properly modified in suitable quantities and at regular intervals; and in this connection I do not think I can do better than reproduce an extract from a former report which deals with those particulars: —

"Assuming that 'clean' milk has been procured from a reliable source, the question arises how should it be prepared for use? In the first place, it should be kept in a clean covered jug or other tall vessel for three hours, as nearly as possible at a temperature of 40° F.; the top half of the milk should then be removed, the lower half being rejected altogether, as far as the baby is concerned. This top milk contains twice the ordinary amount of fat and the usual amount of proteid and sugar; for a child under 3 months of age 7½ oz. of water, ⅜ of an oz. of sugar†, and 10 grains of bicarbonate of soda (some authorities consider lime water the best alkali, and others barley water*, but the bicarbonate helps considerably in the digestion of curd formed in the stomach;

† Lactose is of course preferable to cane sugar, but is not ordinarily obtainable.

* If barley water is used, care should be taken that it is properly made. About a tablespoonful of pearl barley should be taken, carefully washed in cold water, and placed in a clean earthenware vessel, preferably one narrower at the top than at the bottom; half-a-pint of boiling water should then be poured upon it, and the whole left to soak from a quarter-of-an-hour to half-an-hour, when the liquid should be strained off, and set aside for use, precautions being taken by covering the vessel to prevent the entrance of dust, flies, etc. A fresh supply should be made 3 or 4 times a day, more particularly in Summer-time, and fresh barley should be used every time.

indeed it may be to this that it's generally acknowledged 'anti-constipation' effect is due), added to 2½ oz of such milk will form a suitable food, thenceforwards a weekly addition of half-an-oz. of top milk and subtraction of half-an-oz. of water should be made until we reach an equal proportion, that is, 5 oz. of both. In that way the amount of proteids present, which at first did not exceed 1 per cent., will ultimately amount to about 2 per cent., while the fat and sugar present will be 4 and 6 per cent. respectively. If in the opinion of the medical attendant (in whose presence the child should be regularly weighed) more fat be required, the top one-third, or even one-fourth, of the original milk should be used instead of the top half.

Amount of Feed.—With regard to the quantity at each feed, it has been laid down that at birth infants require an amount equal to 1 per cent of their body weight, that is on an average, about 1⅓ oz., which should be increased weekly by a quarter-of-an-oz., until the end of the fourth week; from the fourth to the ninth week the amount should be be 2⅓ oz., thence to the sixth month 4 oz., and after that age 5 to 6 oz

Frequency of Feeding—During the first month an infant should be fed 10 times daily at intervals of 2 hours, during the second month 8 times daily at intervals of 2½ hours, from the third to the fourth month 7 times daily at intervals of three hours; when this period is reached, the feeds may be reduced to 6 daily with intervals of 3½ hours, and finally to 5 with 4 hour intervals.

Most authorities recommend that the milk should be either sterilised (raised to a temperature of 212 degrees F. for one hour) or pasteurised (raised to 158 degrees F. for half-an-hour), and such a course may be advisable in hot, dry summers, or when the milk is of doubtful quality; but my own opinion is that *too much* attention

has been paid to the advantages of the treatment of milk by heat and *too little* to its drawbacks. Medical Officers of Health have dwelt too much on the destruction of germs caused by sterilisation, and too little on the consequent loss in general nutritive value as well as in special anti-scorbutic qualities:—for the weight of evidence would seem to show that the use of such milk is associated with the development of Rickets, Hip-disease, etc..

Amongst the undesirable changes produced by sterilisation are the following:—1, Caseinogen is only partially coagulated by Rennin, and its digestion is delayed; 2, Fat emulsion is injured or even occasionally destroyed; 3, Nuclein and lecithin are decomposed; 4, Inorganic phosphorus is increased, organic phosphorus is diminished and phosphates become insoluble; 5, Lime and magnesia salts are precipitated; 6, Normal lactic acid fermentation is hindered; 7, Lactalbumin is coagulated. Clean, fresh raw milk should be deemed the only proper basis for the diet of artificially nurtured infants. Moreover, again and again do we find instances in which sterilisation is so incompletely carried out as to produce little of its good, though most of its evil effects. Indeed the heat required to destroy the Bacillus Enteritidis Sporogenes of Klein, the deadly Bacillus of Gartner or the peptonising organism of Flugge is very seldom applied in practice.

It must of course be remembered that no directions, however good, are of universal application, and that a modification of cow's milk which would suit one child would not suit another; accordingly, the advice of an experienced medical man should be invariably and immediately procured when an infant does not appear to thrive. It is, I trust, scarcely necessary now to advise mothers never to use tube bottles, as it is almost impossible to keep them properly cleansed. The bottle should be of the boat-shape type ("Allenbury") and fitted directly with an indiarubber teat.

The directions above given represent, of course, the combined efforts of science and experience to humanise cow's milk, but it must not be forgotten that the best way of humanising such milk is to pass it through the mother's body; the mother who at first may not have sufficient breast milk for her baby should be recommended to drink—not stout, or any other form of acoholic stimulants but—good cows' milk and should be reminded that "the mother who cannot nurse her child is physically degenerate, the mother who can and will not is morally degenerate."

INFANT LIFE PROTECTION ACT.

Recent revolting local disclosures would seem to have aroused the Edmonton Board of Guardians to the necessity of appointing a special officer to enforce the provisions of the Infantile Life Protection Act in the District. It is to hoped that the scope of the Act may soon be extended so as to afford protection to "every child nursed for hire or reward."

Comparative Infantile Mortality Rates.

Towns.	Ten Years. 1895—1904.	1905.	1906.	Towns.	Ten Years. 1895—1904.	1905.	1906.
London	155	131	132	Liverpool ...	186	153	171
West Ham ...	169	153	149	Bolton	171	167	138
East Ham ...	?	124	127	Manchester ...	187	157	166
Portsmouth ...	158	133	130	Oldham ...	174	150	?
Tottenham ...	145	132	132	Blackburn ...	193	146	156
Norwich... ...	178	174	176	Preston ...	218	154	200
Plymouth ...	170	135	?	Middlesborough	184	173	?
Hanley	206	195	?	Sheffield ...	185	167	158
Birmingham ...	188	154	168	Rhondda ...	199	200	173
Nottingham ...	184	155	171				

Table shewing Infantile Deaths for each Quarter of 1906—in Wards.

	Harringay.	West Green.	St. Anns.	High Cross.	Middle.	Lower.	Total.
March ...	14	13	24	16	27	14	108
June	13	5	12	13	15	8	66
September ...	22	14	45	37	54	34	206
December ...	13	8	28	24	17	14	104
	62	40	109	90	113	70	484

The following figures are extracted from the recently published Report of the Registrar General for 1905.

Infantile Mortality.

Country.	Deaths of Children under 1 year to 1000 Births.		Country.	Deaths of Children under 1 year to 1000 Births.	
	Average Annual rate in 10 years. 1895-1904.	1905.		Average Annual rate in 10 years. 1895-1904.	1905.
Chili	326	?	Western Australia ...	147	104
Russia (European) ...	268	?	Bulgaria	144	?
Austria	224	?	Switzerland	142	129
Roumania	218	?	Finland	134	?
Hungary	216	230	Denmark	127	?
Prussia	197	198	Scotland	126	?
Spain	182	?	New South Wales ...	108	81
Jamaica	176	165	Victoria	105	83
Italy	170	?	Ireland	103	95
Ceylon	169	176	South Australia ...	102	73
Belgium	156	?	Queensland	101	76
France	153	?	Sweden	98	?
Servia	154	165	Tasmania	94	80
Japan	151	?	Norway	90	?
ENGLAND & WALES	150	128	New Zealand	79	68
The Netherlands	147	131			

Notes to (L.G.B.) Table 1.

The gross rate includes deaths of persons belonging to other Districts which take place in Public Institutions (Tottenham Hospital, M.A.B. Hospital, &c.)

The nett rate is the true one as it represents the deaths of all Tottenham people whether they take place within or without the Parish, and is the rate adopted by the Registrar-General, non-residents being always allocated to the district to which they belong.

By the term "Non-Resident," is meant persons brought into the District on account of illness, and dying there; and by the term "Resident" is meant persons who have been taken out of the District on account of illness, and have died elsewhere.

1 Institutions within the District receiving sick and infirm persons from outside the District.	3 Other Institutions, the deaths in which have been distributed among the several localities in the District.	
Tottenham General Hospital M.A.B. (N.E.) Hospital Jewish Home for Incurables	Enfield Workhouse London Hospital St. George's Hospital St. Mary's Hospital Metropolitan Hospital Brompton Hospital Charing Cross Hospital St. Bartholomew's Hospital London Fever Hospital Gt. Northern Hospital N.E. (Children's) Hospital St. Thomas's Hospital Royal Free Hospital Victoria Hospital Royal Free Hospital	University College Hospital Cancer Hospital German Hospital Homœpathic Hospital Gt. Ormond Street Hospital Queen Charlotte's Lying-In Hospital Convent Hospital, Shoreditch Children's Hospital, Shoreditch Eastern (M.A.B.) Hospital Middlesex Asylum, Napsbury Claysbury Asylum County Asylum, St. Albans
2 Institutions outside the District receiving sick and infirm persons from the District.		
South Mimms Small-pox Hospital Edmonton Union M.A.B. Hospitals (other than N.E.)		

L.G.B. TABLE I.

Table showing the Population, Birth Rate, and Death Rate from all causes, in Tottenham during the last ten years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Deaths under One Year of Age		Gross Death of all Ages		Deaths in Public Institutions.	Deaths of Non-Residents registered in District.	Deaths of Residents registered beyond District	Deaths at all Ages Nett.	
		Number	Rate.*	Number	Rate per 1000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1896	83,790	2513	29·4	377	151·9	1227	14·6	103	99	...	1128	13·4
1897	87,180	2643	30·3	430	162·8	1314	15·0	115	110	...	1204	13·8
1898	91,692	2707	29·5	465	171·7	1209	14·2	90	83	...	1126	12·2
1899	96,498	2925	30·3	478	163·4	1466	15·1	82	81	...	1385	14·4
1900	98,268	2964	30·1	501	169·0	1527	15·5	116	82	...	1445	14·7
1901	103,243	3179	30·0	431	135·5	1550	15·0	274	40	...	1510	14·6
1902	107,003	3397	31·7	421	123·6	1656	15·5	318	223	5	1438	13·4
1903	117,797	3476	29·5	431	123·9	1430	12·1	230	162	...	1268	10·7
1904	121,279	3578	29·5	494	138·0	1626	13·4	308	224	...	1402	11·5
1905	124,126	3588	28·9	419	116·7	1564	12·6	325	231	222	1555	12·5
Averages for years 1896 - 1905	103,087	3097	29·9	444	145·6	1456	14·3	196	133	...	1346	13·1
1906	134,605	3674	27·2	484	131·7	1605	12·3	301	200	268	1673	12·4

* Rates calculated per 1,000 of estimated population.

L.G.B. Table II.

Vital Statistics in 1906 and previous years.

WHOLE DISTRICT. Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under one year.
1896	83,790	2513	1227	377
1897	87,180	2643	1314	430
1898	91,692	2707	1209	465
1899	96,498	2925	1466	478
1900	98,268	2964	1445	498
1901	103,248	3179	1550	421
1902	107,003	3397	4438	408
1903	117,797	3476	1268	431
1904	121,279	3578	1402	494
1905	124,126	3588	1555	419
1906	134,605	3674	1673	484

Ward Statistics for the Year.

Harringay (New District 1902) Ward	21,032	623	218	62
West Green Ward	17,058	392	178	40
St. Ann's ,, ...	25,088	712	371	109
High Cross ,, ...	21,512	634	294	90
Middle ,, ...	28,540	769	337	113
Lower ,, ...	21,375	544	275	70

L.G.B. TABLE III.—*Table of cases of infectious disease coming to the knowledge of the Medical Officer of Health during the year 1906, in the Tottenham Urban Sanitary District, classified according to diseases, ages, and localities.*

Notifiable Disease.	Cases Notified in Whole District.							Total Cases Notified in each Locality.						No. of Cases Removed to Hospital from each Locality.						
	At all Ages.	At Ages—Years.						1	2	3	4	5	6	1	2	3	4	5	6	7
		Under 1.	1 to 5.	5 to 15.	15 to 25	25 to 65	65 and upwards.	Harringay.	West Green.	St. Ann's.	High Cross.	Middle.	Lower.	Harringay.	West Green.	St. Ann's.	High Cross.	Middle.	Lower.	Total.
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	..	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	122	3	41	64	8	6	...	23	27	19	9	28	16	17	18	19	12	26	13	105
Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	92	7	3	5	9	59	9	10	6	20	20	26	10	...	...	...	...	...	...	...
Scarlet Fever ...	459	4	123	264	47	21	...	66	43	43	57	134	116	52	30	39	49	112	95	377
Typhus Fever ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	62	...	5	18	19	19	1	5	11	15	5	12	14	5	10	13	4	7	9	48
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Puerperal Fever ...	6	...	...	...	3	3	...	...	...	...	1	4	1	...	...	...	...	...	...	...
Totals	742	14	172	351	86	108	11	104	87	97	92	204	158	74	58	71	65	145	117	530

Notes to (L.G.B.) Table IV.

(a) In this table all deaths of "Residents" occuring in public institutions, whether within or without the district, are included with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-13, included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-Residents" occuring in public institutions in the district and in like manner excluded from columns 2-8 and 9-13 of this table.

(b) All deaths occuring in public institutions situated within the district, whether of "Residents" or of "Non-Residents," are, in addition to being dealt with as in note (*a*), entered in the last column of this table. The total number in this column equals the figures for the year in column 9, Table 1.

(c) Under the heading of "Diarrhœa," are included deaths certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis;
Zymotic enteritis;
Epidemic diarrhœa, Summer diarrhœa;
Dysentery and dysenteric diarrhœa;
Choleraic diarrhœa, cholera nostras
(in the absence of Asiatic cholera.)

Deaths from diarrhœa secondary to some other well-defined disease are included under the latter.

Under the beading of "Enteritis" are included only deaths over 1 year of age certified as from Gastro-enteritis, Muco-enteritis, and Gastric-catarrh, excepting in cases where I have found, on enquiry, reason to include such deaths—especially those of infants —under the specific term of "Diarrhœa."

Under the headings of "Cancer" and "Puerperal Fever" are included all registered deaths from causes comprised within these general terms.

L.G.B. TABLE IV.

TABLE OF DEATHS during the Year 1906 in the Tottenham Urban Sanitary District, classified according to Diseases, Age, and Locality.

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.												Death at all ages of "Residents" belonging to Localities, whether occurring in or beyond the District.						Total Deaths whether of Residents or non "Residents" in Public Institutions in the District.
	All Ages.	Under 1 year	1 and under 5.	5 and under 15.	15 and under 25	25 and under 35.	35 and under 45.	45 and under 55.	55 and under 65.	65 and under 75.	75 and under 85.	85 and upwards.	Harringay.	West Green.	St. Ann's.	High Cross.	Middle.	Lower.	
1	2	3	4	5	6	7				8			9	10	11	12	13	14	15
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	44	4	33	7	..	..	..	..	..	..	..	..	3	2	14	9	8	8	8
Scarlet-fever	18	1	7	9	1	..	..	..	..	..	..	..	4	4	1		5	4	69
Whooping-cough	23	10	13	..	..	..	..	..	..	..	..	..	2	1	5	8	7	..	2
Diphtheria and Membranous Croup	12	..	9	3	..	..	..	..	..	..	..	..	..	2	4	2	1	3	35
Croup	2	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..
Fever (Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever (Enteric	5	..	..	1	1	1	1	1	..	..	..	..	2	..	1	..	..	2	15
Fever (Other continued	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	14	1	4	..	..	..	..	2	3	4	..	..	3	3	2	3	2	1	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa (see notes)	182	151	26	..	..	..	1	1	2	1	..	..	20	11	38	31	50	32	11
Enteritis (see notes)	14	..	8	..	..	..	1	1	1	3	..	..	2	1	7	3	1	..	3
Puerperal Fever (see notes)	5	..	..	..	3	1	..	1	..	..	..	..	..	..	..	3	2	..	..
Erysipelas	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Other Septic Diseases	7	3	..	..	3	1	..	..	..	..	..	..	..	3	2	..	1	1	2
Phthisis	75	..	..	3	10	22	14	16	8	2	..	..	8	6	11	16	19	15	3
Other Tubercular Diseases	112	16	22	13	22	11	12	9	5	2	..	..	17	15	31	20	14	15	7
Cancer, malignant disease	78	..	..	..	..	2	6	26	26	12	6	..	14	9	12	4	22	17	12
Bronchitis	104	26	19	2	2	..	2	12	12	11	15	3	12	10	40	16	11	15	2
Pneumonia	112	33	28	8	1	5	7	10	6	10	3	1	17	13	16	20	27	19	5
Pleurisy	7	..	..	..	..	..	1	4	1	1	..	..	..	1	1	1	3	1	..
Other Diseases of the Respiratory Organs	20	2	4	..	1	1	2	3	4	3	..	..	3	1	5	2	4	5	..
Alcoholism, Cirrhosis of Liver	23	1	..	..	2	..	3	3	9	5	..	..	5	2	5	5	4	2	1
Venereal Diseases	2	..	..	..	1	..	..	1	..	..	..	..	..	..	1	1	..	..	..
Premature Birth	61	61	..	..	..	..	..	..	..	..	..	..	11	6	11	17	13	3	2
Diseases and Accidents of Parturition	6	..	..	..	1	2	3	..	..	..	..	..	..	1	2	2	..	1	..
Heart Diseases	156	10	4	6	11	10	11	26	33	25	17	3	25	15	35	31	31	19	18
Accidents	38	5	6	2	1	4	3	5	8	3	1	..	2	3	14	10	4	5	18
Suicides	6	..	..	..	1	..	1	2	1	..	1	..	1	1	1	..	2	1	2
Murder	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
All other causes	545	158	34	25	19	26	31	36	48	67	77	24	67	68	110	90	105	105	84
All causes	1673	484	217	80	80	86	99	160	167	149	120	31	218	178	371	294	337	275	301

L.G.B. TABLE V.

Table of INFANTILE MORTALITY during the Year, 1906.—Deaths from stated Causes in Weeks and Months under one Year of Age.

CAUSE OF DEATH.		Under 1 wk.	1-2 Wks.	2-3 Wks.	3-4 Wks.	Total under 1 month.	1-2 Mths.	2-3 Mths.	3-4 Mths.	4-5 Mths.	5-6 Mths.	6-7 Mths.	7-8 Mths.	8-9 Mths.	9-10 Mths.	10-11 Mths.	11-12 Mths.	Total Deaths under One Year.
All Causes.	Certified	76	26	34	12	148	55	39	36	31	30	39	25	22	14	21	23	484
	Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases.	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
	Measles	...	...	...	...	...	...	...	...	..	...	...	...	...	1	1	2	4
	Scarlet Fever	..	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	Diphtheria : Croup	...	...	...	...	..	..	..	...	...	...	...	...	..	...	...	...	...
	Whooping Cough	...	...	...	...	...	2	...	...	2	1	2	1	...	..	1	1	10
Diarrhœal Diseases.	Diarrhœa, all forms	...	...	4	1	5	7	12	11	8	14	15	9	6	7	7	5	106
	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	2	..	2	9	8	6	4	3	5	1	3	...	2	2	45
	Gastritis, Gastro-intestinal Catarrh	..	...	...	2	2	4	1	1	1	...	...	1	1	...	1	...	12
Wasting Diseases.	Premature Birth	38	7	12	2	59	1	..	1	...	...	...	...	...	...	...	...	61
	Congenital Defects	10	2	...	...	12	2	1	1	1	...	2	...	...	...	...	...	19
	Injury at Birth	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2
	Want of Breast-milk, starvation	...	1	...	...	1	...	1	...	1	...	1	...	...	...	...	...	4
	Atrophy, Debility, Marasmus	13	7	6	2	28	16	6	4	3	...	2	...	...	...	1	...	60
Tuberculous Diseases.	Tuberculous Meningitis	...	...	...	...	...	1	1	...	...	...	1	...	...	...	1	1	5
	Tuberculous Peritonitis : Tabes Mesenterica	...	..	...	...	...	1	...	3	...	1	2	...	...	1	...	...	8
	Other Tuberculous Diseases	...	...	...	..	...	2	2	1	1	2	1	...	1	..	...	2	12
	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (*not Tuberculous*)	...	...	...	...	...	1	1	..	1	1	2	1	1	1	1	..	10
	Convulsions	2	2	3	...	7	1	1	1	2	1	..	2	...	...	1	1	17
	Bronchitis	1	2	2	1	6	3	1	1	..	2	3	1	4	1	1	3	26
	Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia	...	...	2	1	3	...	2	3	2	4	2	4	6	2	1	4	33
	Suffocation, overlying	2	...	1	...	3	..	...	...	1	...	...	...	...	...	...	..	4
	Other Causes	8	4	2	3	17	6	2	3	4	1	1	5	...	1	3	1	44
		76	26	34	12	148	55	39	36	31	30	39	25	22	14	21	23	484

Mortuary Table for the Year 1906,

Month.	Bodies admitted. Males.	F'males	Total.	No. of Post Mortems. Males	F'males	Total.	Number of Inquests.	Deaths from Violence.	Number of Drowning Cases.
January	9	9	18	8	7	15	18	2	1
February	10	5	15	7	5	12	15	3	1
March	6	6	12	3	5	8	11	1	0
April	9	7	16	8	4	12	16	4	2
May	12	3	15	8	3	11	14	3	3
June	8	4	12	4	4	8	11	4	1
July	7	8	15	4	6	10	14	4	1
August	8	6	14	6	5	11	12	0	0
September ...	10	3	13	8	2	10	13	0	2
October	10	6	16	6	4	10	16	6	0
November	10	0	10	8	0	8	10	3	0
December	11	7	18	10	5	15	16	2	1
Total	110	64	174	80	50	130	166	32	12

The following List gives the causes of to which deaths were attributed by the Coroner's Juries:—

Syncope	48	Septicæmia	3	Cancer	2
Scarlet Fever	1	Peritonitis	2	Ptomaine Poisoning...	1
Gastric-Enteritis ...	3	Apoplexy	4	Accidents—	
Stillborn	2	Congestion of Lungs...	1	Burns	12
Phthisis	2	Inanition	10	Falls...	3
Pneumonia	13	Cerebral Hemorrhage	3	Scalds	1
Bronchitis	3	Unknown	6	Suicides—	
Mal-nutrition... ...	1	Meningitis	8	On Railways ..	3
Diarrhœa	5	Suffocation	6	Poisonings	3
Convulsions	10	Measles	1	Drownings	12
Puerperal Fever ...	1	Tetanus	1	Cut Throats ...	2

Tottenham Tenements (Estimated, 1906).

Urban District.	Rooms in Tenement.	Tenements of less than five rooms.	Persons per Tenement. 1	2	3	4	5	6	7	8	9	10	11	12 or more.
Tottenham	1	1256	568	393	202	65	20	7	1	...	...	...	...	...
Total Tenements— 28714	2	2602	284	779	623	487	250	117	39	18	4	1	...	...
Tenements of less than five rooms— 12361	3	4114	140	913	1118	746	560	299	194	105	26	10	2	1
	4	4389	64	609	781	835	790	557	387	199	129	26	14	7

COMPARISON OF THE HEALTH OF THE DIFFERENT WARDS.

The St. Ann's Ward has again the highest general Death Rate, viz. :—14·78 per 1,000 (as compared with 16·319 for 1905), but it is a matter for congratulation that, though this Ward still retains the unenviable notoriety of the highest mortality, it has, nevertheless, diminished its rate since last year by 1·53 per 1,000, which is a higher rate of improvement than that obtained in any other ward. The diseases from which St. Ann's chiefly suffered were Bronchitis (40 deaths), Diarrhœa (38), Heart Diseases (35), Tubercular Diseases other than Phthisis (31), Pneumonia (16), Measles (14), Cancer (12), and Phthisis (11) ; there were also 14 accidental deaths, and 11 deaths from prematurity. There was no death from Puerperal Fever, and only one from Scarlet Fever.

The High Cross Ward again comes next in order of mortality, its Death Rate amounting to 13·66 (as against 14·81 for 1905) ; the chief causes of death were Diarrhœa (31), Heart Diseases (31), Pneumonia (20), other Tubercular Diseases (20), Prematurity (17), Consumption (16), Bronchitis (16), Measles (9), and Whooping Cough (8). There was no death from any form of fever, but the number of deaths from Prematurity was higher than in any other ward. The insanitary condition of Bailey's Lane, which was so long a disgrace to this ward and the parish, is, I rejoice to say, at last being remedied.

The Lower Ward had a Death Rate of 12·86 per 1,000 (as compared with 11·28 in 1905) ; the chief causes of death in the ward were Diarrhœa (32), Pneumonia (19), Heart Diseases (19), Cancer (17), Consumption (15), other Tubercular Diseases (15), Bronchitis (15), and Measles (8). There was no death from Puerperal Fever in the ward. The deterioration in this Ward has been very considerable.

The Middle Ward had a Death Rate of 11·77 (as compared with 11·72 for 1905), the chief causes of death in the ward being Diarrhœa (50), Heart Diseases (31), Pneumonia (27), Cancer (22), Consumption (19), other Tubercular Diseases (14), Prematurity (13), Bronchitis (11), Measles (8), Whooping Cough (7), and Scarlet Fever (5). There was no death from Enteric or Puerperal Fever.

The Death Rate for the West Green Ward amounted to 10·43 (as compared with 11·21 for 1905), the chief death factors in the Ward being Tubercular diseases other than Phthisis (15), Heart Diseases (15), Pneumonia (13), Diarrhœa (11), Bronchitis (10), Cancer (9), Consumption (6), Prematurity (6), and Scarlet Fever (4). There were no deaths from Enteric or Puerperal Fever.

The Harringay Ward once more occupies the proud position of being the healthiest Ward in Tottenham; its general death rate for the year amounted to 10·36 as compared with 9·17 in 1905. The chief causes of death in the Ward were Heart Diseases (25), Diarrhœa (20), Tubercular Diseases other than Phthisis (17), Pneumonia (17), Cancer (14), Bronchitis (12), Prematurity (11), Consumption (8), Scarlet Fever (4). There were no deaths from Diptheria, Enteric or Puerperal Fever.

WARD ALTITUDE.

It may be well to remind you once more that the West Green and Harringay Wards are the highest in your District, portions of the former reaching an altitude of 100 feet, and of the latter one of 75 feet; and a small portion of St. Ann's Ward on the extreme southern boundary is 75 feet high, as is also the south-western corner of the High Cross Ward, and the extreme westerly portion of the Middle Ward; while the easterly portion of the Middle, High Cross and Lower Wards are the lowest portions of the District; I need scarcely add that the Marshes are situated on the eastern boundary of the district near the River Lea.

SCHOOLS AND SCHOOL HYGIENE.

The Tottenham Education Committee provides accommodation for 21,265 children. The accommodation in the different schools is shown in the following table as well as the number on rolls, the average attendance, etc., etc.

STATISTICS OF ATTENDANCE

For the 4 weeks ending November 30th, 1906.

School.	Accommodation. Normal.	Accommodation. Allowed.	PROVIDED SCHOOLS. On Rolls.	Average Attendance.	Per Centage.	No. of new Scholars Admitted.	Left.	Refused.	Aver. Att. above Accom wk. ending Nov. 30th.	Aver Att. below Accom. wk. ending Nov. 30th.
Coleraine Park **BOYS** ...	380	461	538	508	95·6	10	20	6	41	—
Lancasterian ,, ...	570	570	649	613	95·4	17	24	—	35	—
Bruce Grove ,, ...	500	720	691	637	94·	9	12	—	69	—
Seven Sisters ,, ...	476	476	593	541	93·9	16	20	—	11	—
West Green ,, ...	436	545	604	562	93·5	15	22	—	—	88
Earlsmead ,, ...	430	539	584	540	93·2	6	7	—	17	—
Downhills ,, ...	520	650	745	672	92·8	13	21	—	36	—
Woodlands Park ,, ...	450	562	644	596	91·5	11	25	—	—	40
Stamford Hill ,, ...	700	700	771	697	90·9	12	21	—	21	—
Page Green ,, ...	362	470	476	432	90·8	15	20	—	3	—
Coleraine Park **GIRLS** ...	360	475	444	392	94·2	7	13	—	—	79
Earlsmead ,, ...	365	454	423	387	93·2	10	19	—	53	—
Seven Sisters ,, ...	476	476	582	525	92·6	17	31	—	69	—
Downhills ,, ...	420	525	620	559	92·2	15	8	—	—	31
Stamford Hill ,, ...	500	500	638	571	92·	—	8	—	—	19
Bruce Grove ,, ...	430	550	568	513	92·	9	16	—	—	166
Lancasterian ,, ...	576	576	464	417	91·7	12	22	—	22	—
Woodlands Park ,, ...	500	625	715	647	91·4	8	9	—	—	73
West Green ,, ...	396	490	534	489	90·8	11	26	—	37	—
Page Green ,, ...	372	483	461	388	87.7	13	20	—	—	98

School			Accommodation Normal.	Accommodation Allowed.	On Rolls.	Average Attendance.	Per Centage.	No. of new Scholars Admitted.	Left.	Refused.	Aver. Atten. above Accom. wk. ending Nov. 30th.	Aver. Att. below Accom. wk. ending Nov. 30th.
Lancasterian	**INFANTS**	...	600	600	524	484	95·1	41	25	—	—	125
Coleraine Park	,,	...	402	402	457	419	94·3	23	27	—	4	—
Belmont Road	,,	...	250	250	193	173	92·5	28	11	—	—	84
Woodlands Park	,,	...	600	600	708	634	92·1	42	29	—	—	8
Bruce Grove	,,	...	632	632	575	515	91·4	47		—	—	156
Seven Sisters	,,	...	615	615	724	639	91·	41	20	—	—	11
West Green	,,	...	449	449	517	455	91·	51	33	—	—	17
Earlsmead	,,	...	330	330	397	362	90·7	1	21	10	10	—
Downhills	,,	...	600	600	669	576	89·3	30	36	—	—	81
Stamford Hill	,,	...	505	505	618	529	88·3	57	31	—		—
Page Green	,,	...	421	421	575	479	87·7	38	25	—	33	—
Belmont Road	(Mixed)	...	300	300	343	324	95·2	29	20	—	14	—
Deaf and Dumb	,,	...	30	30	32	30	93·7	—	—	—	1	—
Forster Road	,,	...	256	256	250	226	92·2	7	14	—	—	38
Page Green (Jun.)	,,	...	409	535	358	320	90·6	21	23	—	—	229
Boys			4824	5693	6358	5893	93·9	183	217	—	224	128
Girls			4395	5163	5530	5001	92·2	161	210	1	158	458
Infants			5404	5404	5957	5265	91·	399	280	10	54	482
Mixed...			995	1121	983	900	92·7	57	57	—	15	267
		Total	15618	17381	18828	17059	92·4	800	764	11	451	1335

NON-PROVIDED SCHOOLS.

School.		Accommodation Normal.	Accommodation Allowed.	On Rolls.	Average Attendance.	Per Centage.	No. of new Scholars Admitted.	Left.	Refused.	Aver. Att. above Accom. wk. ending Nov. 30th.	Aver. Att. below Accom. wk. ending Nov. 30th.
St. Francis de Sales	**BOYS** ...	141	141	168	152	94·4	13	5	—	7	—
National S., Park Lane	,, ...	238	238	286	265	92·6	5	11	—	19	—
St. Ann's	,, ...	205	205	217	199	92·1	14	12	—	—	13
St. Paul's	**GIRLS** ...	214	214	222	206	94·9	8	13	—	—	17
Green	,, ...	218	218	255	237	93·6	10	6	—	9	—
Hermitage, St. Ann's	,, ...	141	141	165	150	92·5	5	2	9	12	—
Middle Class	,, ...	147	147	153	138	90·1	7	8	—	—	19
St. Francis de Sales	,, ...	144	144	139	116	90·	3	4	—	—	32
St. Katharine's	,, ...	159	159	170	148	89·1	9	7	—	—	17
St. Paul's	**INFANTS** ...	131	131	146	139	94·5	11	13	—	—	—
St. Francis de Sales	,, ...	124	124	127	113	93·3	16	6	—	—	18
Hermitage, St. Ann's	,, ...	130	130	170	147	88·5	8	5	14	8	—
Holy Trinity	,, ...	105	105	141	115	88·4	2	6	1	—	2
St. Katharine's	,, ...	160	160	196	166	87·3	5	7	—	—	9
St. Ignatius	**MIXED** ...	300	300	340	283	88·	18	15	—	—	32
Boys		584	584	671	616	92·9	32	28	—	26	13
Girls		1023	1023	1104	995	92·1	42	40	9	21	85
Infants		650	650	780	680	90·1	42	37	15	8	29
Mixed...		300	300	340	283	88·	18	15	—	—	32
TOTAL		2557	2557	2895	2574	91·3	134	120	24	55	159
TOTALS:—											
Provided Schools		15618	17381	18446	17059	92·4	800	764	11	451	1335
Non-Provided Schools... ...		2557	2557	2819	2574	91·3	134	120	24	55	159
TOTAL		18175	19938	21265	19633	92·3	934	884	35	506	1494

ATTENDANCE OFFICERS.

Mr. Cleversley, Earlsmead and St. Ignatius.
,, Fulker, West Green and St. Ann's Boys.
,, Heley, Downhills and St. Ann's Infants.
,, Goddard, Coleraine Park, St. Paul's, St. Francis de Sales.
,, Green, Page Green and Green School.
Mr. Harris, Seven Sisters and Holy Trinity.
,, Lyden, Woodlands Park and St. Ann's Girls.
,, Nunn, Stamford Hill.
,, Robertson, Lancasterian, St. Katharine's, Park Lane Boys.
,, Rowe, Bruce Grove and Middle Class.

The following is a list of the number of children coming to my knowledge as absent from school owing to the fact that they suffered from the ailments named themselves, or lived in houses from which an infectious case had been notified :

Scarlet Fever	229	Fever	6
Chicken Pox	294	Eruptions	1
Typhoid Fever	17	Eruptions on Face	1
Measles	2211	Eruptions on Hands	1
Whooping Cough	178	Eruptions on Head	1
Ringworm	184	Discharging of Ear	2
Mumps	240	Jaundice	1
Eczema	210	Infectious Disease of the Eye	1
Diphtheria	74	Tonsillitis	4
Influenza	104	Rheumatism	1
German Measles	3	St. Vitus' Dance	6
Erysipelas	1	Ulceration	1
Sore Throat	21	Abscess	1
Diphtheritic Throat	6	Impetigo	1
Bad Throat	5	Itch	5
Swollen Glands	21	Dirty Head	1
Ophthalmia	13	Bronchitis	4
Blight	7	Infectious Sore Throat	1
Ulcers on Eyes	2	Diarrhœa	1
Conjunctivitis	1	Not Clean	3
An Affection of the Eyes	1	Sores	8
Bad Eyes	2	Sickness	1
Sore Eyes	2	Consumption	1
Skin Disease	9	Chest Trouble	2
Nettle Rash	1	Croup	1
Scabies	2	Sore Head	17
Skin Eruption	1	Chorea	1
Sores on Face	6		
Rash	1		3917
Rash on Hands and Face	1		

The homes of all the children were visited and suitable advice given regarding isolation, etc. The convenience—provided by the Council in 1905—for cleansing the bodies and clothing of persons infested with vermin has not been so largely availed of as I could desire by school children ; the fact is, that, though the mothers will not take the trouble of cleansing such children properly at home, they resent the indignity of having to send them to a public disinfecting station.

NUTRITION OF SCHOLARS.

The nutrition of many of the poorer children attending our schools is very defective, but, as I understand proposals are now being submitted by the Education Committee to the Council

under the new Act, it is unnecessary for me to deal with the details of the subject here.

DEFECTIVE EYESIGHT.

262 children were found suffering from various visual defects, the chief of which were astigmatism and myopia. Speaking generally, the parents (or guardians) have carried out the advice of the Medical Officer and procured suitable glasses for their children where necessary. Mr. Sharland, of 7 & 9, Thavies' Inn, Holborn Circus, has agreed to supply Tottenham children with glasses at the same rate at which he supplies them to London children (viz. : —10d. for spherical and 2s. 6d. for cylindrical glasses), so that very few parents can now have the excuse they formerly advanced that poverty prevented them from purchasing the glasses prescribed.

MENTALLY DEFECTIVE CHILDREN.

There are between 100 and 150 children in your schools who are mentally deficient, and for whom I trust you will be able to organise special classes and provide special teachers at no distant date.

HEART DISEASE IN SCHOLARS.

Nineteen grave cases of Heart Disease were discovered amongst the children ; none of those were, when examined, fit to attend school ; several of them, however, have since improved under treatment and been able to resume attendance.

* * * * * * *

The following improvements in the sanitary condition of the schools have been effected during the year :—

Coleraine Park School—

New boiler for heating provided.

Downhills School—

Iron fences erected in various positions to prevent trespass of boys on to roofs.

New footpath formed from Mannock Road to Belmont Road Temporary School.

St. Francis de Sales School—

Improvement made in gas lighting.

Stamford Hill School—

Extensive examination of the hot water circulations was made to find a serious leakage. The School was heated by gas stoves in the meantime.

Forster Road Temporary School—

New ventilators fixed in the large windows at each end of hall.

The Cedars—

Old green-house removed and a new play-shed erected

West Green School—

The whole of the drainage of the boys' latrine was taken up and entirely renewed on the latest system.

Downhills, Bruce Grove, and Earlsmead Schools—

Buildings were erected for the storage of chairs to save cartage.

The following schools were cleaned, re-decorated both inside and out, and many improvements made during the summer holidays :—

Lancasterian School.
Bruce Grove School.
Woodlands Park School.
St. Francis de Sales School.
St. Paul's School.
Holy Trinity School.
National School.

Repairs were also executed to various play-grounds and also to the heating apparatus.

PAGE GREEN SCHOOL—

The old boarded floors of four of the girls' class-rooms were taken up and a proper bed of concrete and new wood block floors laid. In eight of the infants' class-rooms concrete was laid under the galleries where none existed.

WOODLANDS PARK SCHOOL—

Iron fencing erected around the margins in boys' and infants' play-grounds.

COLERAINE PARK SCHOOL—

The S.W. drains having become choked, several portions were taken up and re-laid.

During the Christmas holidays the following schools have been re-decorated internally by direct labour :—

Middle Class School.
Hermitage Girls' School.
„ Infants' School.
Stamford Hill Infants' School.
Downhills Cookery Centre and Caretaker's House.

BRUCE GROVE SCHOOL—

New Curtains and rod put up to divide two classes in girls' hall. Sliding partition to divide two classes in the infants' hall.

Various repairs to roofs, gutters, etc., have been done during the year, also improvements in gas lighting both inside and out at many of the schools.

I was sorry to note during the course of my visits to the schools that some of the class teachers are still very fond of closing the windows when there is the slightest cold or wind, although I think on the whole that the number of such teachers is gradually diminishing. Most of the teachers set a splendid example to the children, by keeping the windows and other fresh air inlets constantly open. Some of our schools are still considerably overcrowded, but it is to be hoped that the two new schools, now in course of erection, will remove any serious cause for complaint on this subject.

My gratitude is due to the teachers of the district for the assistance they have afforded me during the year in the cause of Public Health ; nor is such credit confined to the teachers of the Elementary Schools only, for valuable opportunities and assistance have also been given me by the Head Master of the Grammar School (J. T. Cohen, Esq.), as well as by Mr. Cox and others.

* * * * *

FACTORY AND WORKSHOP ACT, 1901.

In compliance with Section 132, I beg to submit a resumé of the work effected during the year—under the provisions of the above Act—in the form prescribed by the Home Office :—

1.—*Inspection.*

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	153	6	
Workshops (including Workshop Laundries) / Workplaces	668	35	
Total	821	41	

2.—*Defects Found.*

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
*Nuisances under the Public Health Acts:—**				
Want of cleanliness	4	4	...	...
Want of ventilation	3	3	...	...
Overcrowding	13	13	...	...
Want of drainage of floors	...	...	...	...
Other nuisances	3	3	..	...
†Sanitary accommodation — insufficient	1	1	...	...
†Sanitary accommodation — unsuitable or defective	...	...	...	...
†Sanitary accommodation — not separate for sexes	1	1	...	...
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	16	16	...	...
Other offences	...	...	...	...
Total	41	41	..	...

* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

† For districts not in London state here whether section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.

Nature of Work.*	OUTWORKERS' LISTS, SECTION 107.								
	Lists received from Employers.				Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Prosecutions.		Number of Inspections of Outworkers' premises.
	Twice in the year.		Once in the year.				Failing to keep or permit inspection of lists.	Failing to send lists.	
	Lists.	Outworkers.	Lists.	Outworkers.					
Wearing Apparel—									
(1) making, &c.	2	21	4	62	609	42	...	...	532
(2) cleaning and washing ...	...	...	...	...	...	...	..	...	...
Lace, lace curtains and nets ...	...	...	...	...	...	...	...	...	...
Furniture and Upholstery ...	...	...	...	...	...	...	...	...	...
Fur pulling	...	..	...	...	...	...	...	...	...
Umbrellas	...	...	...	...	...	...	...	...	...
Paper Bags and Boxes... ...	...	...	...	...	10	...	...	...	...
Brush making	...	...	...	...	14	...	...	...	...
Stuffed Toys	...	...	...	..	...	...	...	..	...
File making	...	...	...	...	...	...	...	..	...
Electro Plate	..	...	...	...	...	...	...	...	...
Cables and Chains	...	...	...	...	...	...	...	...	...
Anchors and Grapnels... ...	...	...	...	...	...	...	...	...	...
Cart Gear	...	...	...	...	...	...	...	...	...
Locks, Latches and Keys ...	...	...	...	...	...	...	...	...	...

The figures required in columns 2 and 3 are the *total* number of lists received from employers who sent them both in February and August as required by the Act and of the entries of names of outworkers in those lists. They will, therefore, usually be double of the number of such employers and (approximately) double of the number of individual outworkers who names are given, since in February and August lists of the same employer the same outworker's name will often be repeated.

4.—*Registered Workshops.*

Workshops on the Register (s. 131) at the end of the year.	Number.
Factories	22
Workshops	190
Laundries	34
Bakehouses	55
Total number of Workshops on Register	301

5.—*Other Matters.*

Class.		Number.
Matters notified to H.M. Inspector of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (sec. 133) ...		14
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	5
	Reports (of actions taken) sent to H.M. Inspector	3
Other		—
Underground Bakehouses (s. 101) :—		
Certificates granted during the year		—
In use at the end of the year		8

NOTE.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office).

WORKSHOPS, WORK-PLACES AND OUT-WORKERS.

All the workshops and work-places in the District have been kept under due surveillance; our attention being directed more particularly to securing proper ventilation, cleanliness and sanitary conveniences, and also to ensuring that home-work should be carried on under healthy conditions with regard to the air space and the general character of the rooms used for the purpose.

Perhaps the most important point of all in this connection is our insistence that no work shall be carried on in unwholesome or infected premises (Sections 107—115).

The Act provides that we shall be notified of the addresses of out-workers living in Tottenham twice yearly, viz. :—on or before 1st February, and on or before 1st August. Whenever a case of infectious disease occurs at any of the addresses so notified we communicate immediately with the employer, have the case itself isolated, and stop the production of further work upon the premises until the disinfection of the rooms, clothing, etc., affected has been duly carried out; moreover, all persons who have been in close contact with the case are quarantined for the requisite period.

CHIEF LOCAL INDUSTRIES.

The chief industries of the Parish are building, printing, cabinet making, boot and shoe making, the manufacture of stationery and indiarubber, brewing, stick and umbrella making, silk spinning, whalebone cutting, dress and blouse making, tie making, tailoring, and wig making.

LAUNDRIES.

Thirty-four Laundries now exist in Tottenham all of which are periodically inspected; those premises—though they do not come

within the definition of "Factories and Workshops" given in Section 103 of the Factory and Workshop Act—are, so far as sanitary conveniences and means of escape from fire are concerned, to be treated as "Factories" if mechanical power, and as "Workshops" in the absence of mechanical power; the requirements of Section 22 of the Public Health Acts Amendment Act have been carefully enforced by us in all instances. Most of the houses used as laundries in Tottenham are ordinary dwelling-houses and are consequently lacking in the conveniences necessary for carrying on laundry work under suitable conditions; the nuisances to which we have most frequently had to direct attention have been imperfect ventilation, and light and defective flooring. The practice—so common in small laundries where all the work is done by hand—of drying clothes in the hot ironing-rooms is much to be deprecated, though not specially prohibited by the Act of 1901.

BAKEHOUSES.

There are 55 Bakehouses in your District which have all been systematically inspected and which may now be described as in a fairly satisfactory condition. In several instances we have had a considerable amount of repairs and cleansing effected. Eight licensed underground bakehouses exist under Section 101 of the Act; before granting the licenses, the Council in many cases insisted upon extensive alterations with a view to improvement in the lighting and ventilation.

ICE-CREAM FACTORIES.

There are now 15 Ice-Cream Factories registered in the District, that is 2 less than last year; all have been regularly inspected and precautions taken to enforce cleanliness.

SAFETY FROM FIRE (OF FACTORIES AND WORKSHOPS).

I regret to find that your Council has not taken any action upon the advice given you by me, as to the desirability of making special Bye-laws providing for means of escape from fire in the cases of factories and workshops; Section 16 of the Act gives you that power, and taking into account the yearly increase in the number of factories which have been removed from the Metropolis to Tottenham, it appears to me not only important but necessary that you should safeguard the workers from fire by the most stringent precautions you can adopt.

FOOD INSPECTIONS.

2,318 inspections were made, either by the Ward Inspectors or your Medical Officer of Health, the distribution of which was as follows:—

Butchers' Shops	791
Fruiterers and Greengrocers	292
Fishmongers	442
Miscellaneous Stalls and Barrows ...	693

The inspections have been made at irregular periods of the day and night, and it has been our object to carry them out as quietly and with as little trouble as possible to the respectable tradesmen. The following list will give some idea of the character of the food-stuffs condemned from time to time.—

Meat	1 sheep
,, ...	10 lbs clod of beef
,, ...	3 lbs. breast of mutton
,, ...	1 stone meat (various)
,, ...	3½ lbs. flank of beef
, ...	1 beef liver and set of lungs

Meat	...	... 1 carcase of beef
,,	...	... 6 lbs. beef
,,	...	... 87 rabbits
Fish	...	... 3 stone plaice
,,	...	... 2 stone skate
,,	...	... 2½ bushels winkles
,,	...	.. 1 kit fresh herrings
,,	...	... 2 boxes kippers
,,	...	... 2 trunks (fresh) haddocks
,,	..	... 1 box skate
,,	...	... 1 box cod and haddock
,,	...	... 1 stone cod and plaice
Fruit and Vegetables		... 1 crate bananas

Whenever retail dealers voluntarily submit food for my inspection, regarding the quality of which they are doubtful and I find the same unfit for human consumption, a certificate is granted by me which enables the retailers in question to recover the price paid by them for such meat, fish, fruit, &c.; a very large quantity of food has been brought to me in this way during the year most of which I found it necessary to condemn.

LEGAL PROCEEDINGS.

Subjoined is a list of the cases in which it was found necessary to take legal proceedings against persons violating some of the more serious provisions of the Acts intended to protect the public health. There was a much more numerous group of instances in which technical offences were committed, and regarding which warnings were given, but no actual proceedings instituted.

Prosecution is one of the most disagreeable duties that public servants can be called upon to fulfill, and the officer who summons

offending tradesmen for disobedience to the law, or seeks to make them bear their proper share of the public burdens, is invaribly considered their enemy, and only too often is subjected to any penalty which the ingenuity of petty malice can suggest.

Date.	Result.	Remarks.
11th September.	Fined 20/- and costs.	Unsound Fried Fish.
13th September.	Fined 40/- and costs.	Insanitary Cowsheds.
4th October.	Fined 20/- and costs.	Selling Milk in Dirty Can.
29th November.	Fined 5/- and costs.	Failure to Notify Case of Scarlet Fever.
29th November.	Fined 10/- and costs.	Diluted Milk.
13th December.	Fined 20/- add costs and Analyst's Fee.	Diluted Milk.
13th December.	Fined 40/- and costs.	Unsound Meat.

N.B.—It will be noted that in every case in which legal proceedings were taken I was successful in obtaining a conviction, accompanied by penalty and costs.

SLAUGHTER-HOUSES.

The 17 private slaughterhouses existing in your district have been periodically inspected during the year by the male staff and once by the Medical Officer of Health. It was found necessary to serve notices requiring certain alterations and repairs in 4 instances, and our requirements in this respect were invariably carried out within a reasonable time. None of the 17 slaughter-houses can be considered model structures.

The following list gives the surnames and addresses of the owners of all Slaughterhouses in the District :—

Crisp, 638, High Road

Smith, 506, High Road

Pate, High Cross

Foskett, 201, Philip Lane

Elderfield, 175, Clyde Road

Garner, 193, St. Ann's Road

Eastman, 102, Park Lane

Wood, 801, High Road

Dean, 655, High Road

Peachey, 29, West Green Road

West, 51, West Green Road

Coltman, 263, West Green Road

Smith, 168, High Cross Road

Cross, 751, High Road

Smidt, 9, Church Road

Jary, 601, High Road

I am still as strongly as ever of opinion that it would be advisable to provide a municipal abattoir and public market place for your District, so as to safeguard the character of the meat portion of the District's food supply. The butchers of the District, however, seem to be universally against the proposal, and as under present legal conditions, it would be necessary to compensate the owner of every private slaughter-house abolished, I fear the present is not a suitable time for urgent advocacy of this reform. I do trust, however, that the Council will help us in the matter of food examination, by allowing this department the services of a special inspector, who shall, by practical experience as well as theoretical knowledge be peculiarly fitted for that work.

DAIRIES, COWSHEDS AND MILKSHOPS.

Twenty-two applications (14 purveyors, 6 dairies, 2 cowsheds) have been received during the year for registration under the Dairies, Cowsheds and Milkshops Order, 1885, as against 29 in 1905, 10 in 1904, 23 in 1903, 49 in 1902, and 12 in 1901.

The following are the addresses of the proprietors of the cowsheds, dairies and milkshops registered in Tottenham.

COW KEEPERS.

Haskins, Whitehall Street.
Ayres, 9, James' Place.
Carr, Church Farm.
Norman, 35, Church Road.
Branch, 365, West Green Road.
Sharp, 484, West Green Road.
Young, Waggon Lane.
Gale, St. Loy's Road.
Bowerman, Quainton Cottage, Brograve Road.
Bowerman, Hale Dairy, The Hale.
Kirby, Broadwater Dairy, Tottenham Hale.
Reeve, Asplin's Farm, Park Station.
Haskins, Gravel Pit Field, Church Road.
Moore, 2, Willoughby Park Road.
Jones, 40, Summerhill Road.
Hollier, 247, West Green Road.
Dowding, Broadwater Farm, Lordship Lane.
Hobbs, 108, Park Lane.
Norwood, 3, Vale Grove, Hermitage Road.

DAIRYMEN.

Williams, 145, St. Ann's Road.
Sutton, 545, Seven Sisters Road.
Newman, 195, Philip Lane.
Wilding, 8, Downs Row.
Hislop, 10, Vartry Road.
Orris, 397, Seven Sisters Road.
Benson, 41, Stamford Road.
Turner, 12, Wycombe Road.
Chopping, 5, Willoughby Park Road.
Collins, 547, Green Lones.
Wright, 133, High Road.
Jones, 49, Rangemoor Road.
Brook, 397, Green Lanes.
Ginn, 4, St. John's Yard.
Bowerman, 71, Chesnut Road.
Britton, 70, Birkbeck Road.
Abbott, 477, High Road.
Corbett, 142, Clyde Road.
Rogers, 628, Seven Sisters Road.
Hollier, 307, West Green Road.
March, 446, West Green Road.
Long, 643, High Road.

Oliver, 38, Avenue Road.
Rose, 605, Seven Sisters Road.
Jones, 127, St. Ann's Road.
Benjamin, 50, Broad Lane.
Davies, 181, St. Ann's Road.
Bennett, 103, St. Ann's Road.
Reeve, 263, Park Lane.
Lilly, 134, Markfield Road.
Jarvis, 877, High Road.
Potts, 133, High Road.
Coombes, 36, Church Road.
Lilley, 6, Swan Terrace, Langhedge Road.
Bracebridge, 31, Woodlands Park Road.
Rose, 242, High Road.
Cox, 784, High Road.
Kelson, 2, Glenwood Road.
Jenkins, 4, Elizabeth Place.
Fricker, 149, Mount Pleasant Road.
West London Dairy Co., 643, High Road.
Smith, 67, Somerset Road.

PURVEYORS OF MILK.

Jarrett, 760, Seven Sisters Road.
Wood, 808, Seven Sisters Road.
Deeprose, 5, Stonebridge Road.
Hartnell, 707, Seven Sisters Road.
Holland, 7, Chalgrove Road.
Lovell, 94, Church Road.
Giles, 23, St. George's Road.
Harris, 61, Tewkesbury Road.
Smith, 39, Tewkesbury Road.
Barrett, 3, Harefield Road.
Jacklin, 37, Markfield Road.
Dongray, 18, Moreton Road.
Stevens, 74, Clyde Road.
Leigh, 330, High Road.
Coleman, 1, Stamford Terrace, White Hart Lane.
Brooking, 4, St. Ann's Road.
Key, 5, Sherboro' Road.
Frayling, 7, Newton Road.
Barnes, 1, Chesnut Grove.
Moore, 25, Rangemoor Road.
Field, 53, Asplins Road.
Cook, 28, St. Ann's Road.
Ward, 134, High Cross Road.
Hine, 392, West Green Road.
Newman, 836, High Road.
Harris, 174, Markfield Road.
Jarvis, 877, High Road.
Ledwell, 432, St. Ann's Road.
Stone, 9, Moselle Street.
Whiting, 23, St. Ann's Road.
Bennett, 599, Green Lanes.
Burfield, 18, Church Road.
Aldridge, 11, Park Road.
Friern Manor Dairy, 533, Green Lanes.
O'Brian, 665, Seven Sisters Road.
Wonters, 6, Markfield Road.
Eggins, 104, Northumberland Park.
Watts, 453, West Green Road.
Wilce, 730, High Road.
Staples, 52, West Green Road.
Ridley, 23, Stamford Road.
Munson, 29, Cranleigh Road.

Pittman, 10, Richmond Road.
Cox, 681, Seven Sisters Road.
Emerton, 56, Grand Parade.
Hill, 38, Somerford Grove.
Taylor, 11, Stonebridge Road.
Harris, 18, Crescent Road.
Nash, 24, Crescent Road.
Birch, 11, Love Lane.
Delight, 10, Park Lane.
Evans, 133, High Road.
Scott, 126, Philip Lane.
Beavis, 66, Broad Lane.
Collins, 547, Green Lanes.
Kenner, 146, High Road.
Coomes, 13, Stoneley Road.
Owen, 93, West Green Road.
Williams, 92, High Road.
Payne, 597, High Road.
Smith, 53, Asplins Road.
Burns, 6, Markfield Road.
Pegg, 49, Rangemoor Road.
Wellington, 774, Seven Sisters Road.
Harris, 6, Whitehall Street.
Trundell, 27, Minster Road.
Tatton, 1, Sherboro' Road.
Bricker, 81, Stonebridge Road.
Stevens, 2, Willoughby Park Road.
Brooks, 69, Stonebridge Road.
Williamson, 17, Crescent Road.
Wells, 91, Cornwall Road.
Robson, 153, West Green Road.
Jones, 14, Stanley Road.
Dawson, 103, High Road.
Ford, 3, Swan Terrace, Langhedge Road.
Barber, 1, Railway Terrace, White Hart Lane.
Clark, 29, Vernon Road.
Manning, 55, Cornwall Road.
Cross, 329, St. Ann's Road.
Bennett, 57, Scales Road.
Dabbs, 2, Dawlish Road.
Ward, 36, Wycombe Road.
Shickle, 4, Stamford Terrace, White Hart Lane.
Tinsley, 121, St. Ann's Road.
Coe, 681, Seven Sisters Road.
Jordison, 144, Park Lane.
Davies, 61, West Green Road.
Verlander, 21, St. Paul's Road.
Osborne, 50, Stamford Road.
Billham, 221, St. Ann's Road.
Gillett, 62, Cornwall Road.
Wright, 71, Avenue Road.
Mitchell, 730, High Road.
Noyce, 7, Swan Terrace, Langhedge Road.
Masini, 79, Avenue Road.
Plant, 812, Seven Sisters Road.
Tamlin, 6, Victoria Crescent.
Davis, 39, St. George's Road.
Forsyth, 25, Clarence Road.
Leverell, 1, Nelson Terrace, Manor Road.
Kilberd, 110,Tiverton Road.
Castle, 54, Osman Road.
Walls, 29, Templeton Road.
Ross, 2, Hale Terrace.
Cook, 28, St. Ann's Road.
Phillips, 32, Hartington Road.
Saville, 656, High Road.
Blanchflower, 20, Willow Walk.
Wilson, 81, St. Ann's Road.
Daniel, 109, Clyde Road.

Hall, 217, Cornwall Road.
Hawkes, 125, Tiverton Road.
Bertram, 53, Asplins Road.
Taylor, 33, Nelson Road.
Lilley, 6, Swan Terrace, Langhedge Road.
Beadle, 69, Stonebridge Road.
Barringer, 25, North Grove.
Rich, 64, Scales Road.
Davey, 44, Napier Road.
Scott, Belton Stores, Belton Road.
Wright, 730, High Road.
Beckett, 36, Compton Road.
Smylie, 16, Clinton Road.
Stallard, 80, Roslyn Road.
Whipp, 41, Culvert Road.
Berndes, 115, Love Lane.
White, 149, Mount Pleasant Road.
McGregor, 46, Grand Parade.
Freeman, 80, Elmar Road.
Foster, 16, The Parade, Bruce Grove.
Treegan, 175, High Road.
Southwell, 34, Philip Lane.
Manley, 5, Forster Road.
Kallender, 645, Seven Sisters Road.
Wiseman, 14, Priory Road.
Lea, 609, Seven Sisters Road.
Griffiths, 43, Whitehall Street.
Bailey, 50, Park Lane.
Baroux, 50, Whitehall Street.
Ralls, 6, Market Place, White Hart Lane.
Stacey, 65, Asplins Road.
Guy, 6, Whitehall Street.
Blake, 22, Clarence Road.
Wells, 42, Seaford Road.
Gordon, Oak View Corner, Hermitage Road.
Stringer, 38, Park Road.
Smith, 61, Lordship Lane.

Cowsheds, Cows, etc.

The most important points in connection with the construction of cowsheds are the provision of adequate lighting, efficient ventilation, impervious flooring and effectual drainage; unfortunately few of the old-fashioned cowsheds in our District can be considered models in that respect, and many of them I should desire, if possible, to see abolished altogether. With reference to the animals themselves, our instructions—regarding the necessity for keeping their udders, thighs, flanks and tails free from excreta in the winter, and their bellies, legs and teats uncontaminated by clay or other dirt in the summer—have been most frequently ignored, as they lacked a legal sanction. It would be very advisable to provide (1) shorter stalls, having "rails along the front to

prevent the animal reaching into the feeding passage; (2) dung drops of sufficient height, and channels of adequate width to accomodate the large amount of solid excreta." Straining, however conscientiously carried out,—and it is generally done in a very coarse manner—can never wholly remove excretions which have once found their way into milk.

I am glad to find the Tuberculine test is being pretty generally applied to the herds of dairy farmers throughout the country, and that special attention is being paid to the presence or absence of Tubercle of the Udder, and to the personal cleanliness of the milkers.

Dairies and Milkshops.

The Dairies, Cowsheds and Milkshops Order should be so amended as to prohibit the sale of milk either in small "general" shops or on any premises which the Medical Officer of Health, after a careful inspection, considers unsuitable; such an amendment would be an immense boon not only to the children of the people, but to the people themselves, in a district like ours. 3,500 gallons of milk are, on an average, daily consumed in Tottenham, three-fourths of which amount comes from various parts of Leicestershire, Derbyshire, Suffolk, Staffordshire, Warwickshire, Essex, Bedfordshire, Buckinghamshire, etc.

Legal proceedings were taken in two cases under the provision of the Order, and a conviction obtained in both instances; one was for having supplied milk in a dirty vessel, and the other for keeping a cowshed in an insanitary condition.

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FOOD AND DRUGS ACT.

The County Council is the authority responsible for the administration of the above Act, a rather anomalous condition of

things in a district so large and populous as Tottenham, and one which we can only hope to see remedied through the medium of Incorporation. We have, however, taken 28 samples of milk and 4 of butter during the year and submitted same to analysis in the manner required by the Act. None of the butter samples were adulterated, but in two of the milk cases there were varying percentages of adulteration ; legal proceedings were accordingly instituted and fines inflicted on each of the offending purveyors.

MILK DEPOTS.

The establishment of Milk Depots by certain Muncipal Authorities has for the most part been fraught with considerable advantage to their district, and pending broader legislation on the whole question of milk supply, Milk Depots may be looked upon as of undoubted service in abating infantile mortality, more particularly during hot summers ; nevertheless, the loss of nutrition involved in the sterilisation or pasteurisation of the milk must not be forgotten.

FISH SHOPS.

There are at present 52 Fish Shops in Tottenham, all of which are subjected to periodical inspection ; very few complaints have arisen regarding their condition during the year.

BUTCHERS' SHOPS.

70 Butchers' Shops exist in Tottenham, at several of which a considerable quantity of *inferior* meat is still sold, although proceedings in connection with the sale of *unsound* or *diseased* meat have only been necessary in 2 cases. There has, on the whole, been considerable improvement in the quality of the meat "exposed for sale" in shops, although the reverse obtains with respect to the meat sold on barrows, etc.

PAWNSHOPS.

A dozen Pawnbrokers' premises exist in Tottenham, all of which have been regularly inspected, and their cleansing and general sanitation insisted upon ; special inspections are also made whenever a pawnbroker applies for the renewal of his license and the latter is only granted upon a favourable report being received from the Medical Officer of Health.

PUBLIC HOUSES.

There are 58 Public Houses and 80 "Off License" premises, that is exactly the same number as mentioned in my last Annual Report, though I am glad to say there will be a diminution in the total within a very short time. We have experienced considerable difficulty with regard to the urinals and conveniences attatched to Public Houses, but I am pleased to be able to report that most of our requirements concerning those matters have been complied with.

GIPSY ENCAMPMENTS.

248 Encampments have been removed by your Inspector during 1904 exclusive of those dealt with by the Police. The number removed in 1905—35, in 1904—41, and in 1903—525. Those van-dwellers must continue to be a continuous source of expense and danger to the district until the Sanitary Authority has power to deal with them under the nuisance clauses of the Public Health Act whenever the Medical Officer considers such action to be necessary in the interests of the Public.

OFFENSIVE TRADES.

The only complaints under the above head received during the year were those which had reference to fish frying, and in those

instances we have been enabled to effect improvements which have abated the nuisance.

The rearing of pigeons, hens, ducks or rabbits comes under a different category and there are multitudinous complaints on that score, though in no one instance were the circumstances such as would justify us in taking legal proceedings.

SMOKE NUISANCE.

The Smoke Nuisance is still with us, and must continue to be, until a more suitable heating material is used both for factory and home fires, and until the factory stoker and the domestic grate have undergone such improvements as to ensure the combustion of all smoke generated. It cannot be too widely known, that not only is smoke injurious to flowers and plants and furniture and drapery, but that it is also inimical to animal life, that it diminishes the energy even of the healthy, that it lessens the chance of recovery of the sick, and that it interferes with the healthy growth and development of children, and this altogether apart from that most disagreeable form in which it is exhibited periodically—the town fog : let us make a serious endeavour to minimise the amount of soot, sulphuric acid and hydrychloric acid which makes our fogs so dangerous, and shuts out so much sunshine from our lives. Anthracite, coke, wood, oil, gas, electricity, might all beneficially replace bituminous coal as a material for our fires, and only those better forms of grates which consume their own smoke should find a place in our houses.

DUST NUISANCE.

Closely connected with the subject of smoke nuisance is the more general one of dust nuisance. Those towns which are noted for their dusty roads and dusty atmosphere are also noted for their

high mortality from the respiratory diseases, Bronchitis, Pneumonia, Whooping Cough, Laryngitis, etc., and, indeed this is only what we might beforehand have expected, nor is it merely that class of disease ordinarily known as respiratory which is affected, but also diseases so widely different in character and locality as Phthisis, Conjunctivitis, Diphtheria, Diarrhœa, Typhoid, etc. If we consider for a moment what the constituents of dust are, we shall find they include the excretions of horses, cattle, sheep, pigs, dogs, and even human beings. All those are objectionable in themselves, but when they serve, as they too often do, as the carriers of the microbes of specific diseases, it will be recognised that the danger from dust is very real and that those who are alive to the necessity of combating that danger are not merely faddists, and yet an immense number of women—many of them too belonging to the "upper" classes—allow their skirts to sweep the dusty footpaths of our streets, and so gather and retain all those abominations to which I have above alluded as constituents of town dust. Lazy, thoughtless housekeepers, too, will sweep the dust of their houses and passages into the faces of passers by, and shake their mats and carpets in such places, and at such hours, as to be a fertile source of nuisance to all in their immediate locality. Sweeping the dust of houses into the street should be absolutely forbidden, as should also the cleansing of mats and carpets in public places, except at a very early hour in the morning. The housewife who is careful of the health of her own family, as well as that of others, will sprinkle all floors before she begins to dust them, and will remember that heavy carpets and curtains, and other draperies, if not properly looked after frequently become sources of disease. I have already pointed out in dealing with the question of milk the necessity of guarding infants' food from that danger, and the same remark applies to every other species of food; the larder should

be the sweetest, best ventilated, most efficiently lighted chamber of the whole house. Our streets and roads should be made of impermeable material which admits of easy and frequent washing, and the dry sweeping of streets should be absolutely forbidden as a public nuisance. Both the production and accumulation of house dust could be very materially lessened, if it were the practice to burn animal and vegetable débris in the kitchen fires, and that step, simple as it is, would tend to prevent the spread of infectious disease in innumerable instances.

ALMSHOUSES, HIGH ROAD.

The Tottenham Charity Trustees have, in accordance with my suggestions, closed the Sanchez Almshouses, 578-592, High Road.

ALIEN IMMIGRATION.

The influx of aliens has been greater than in 1905, and I have again found it advisable to pay several night visits to houses in the foreign quarter in which overcrowding was either actually reported to, or suspected by, us; in only two of those cases could overcrowding be said to exist, and the nuisance was in each instance abated on my requisition to that effect.

HOUSING OF THE WORKING CLASSES ACT.

The various schemes under the provision of the above Act for the erection of Workmen's Dwellings at the Hale having been rejected by the Council, a portion of the land originally provided for that purpose has already been disposed of by the Council.

COMMON LODGING HOUSES.

The Common Lodging Houses at 2 and 4, Whitehall Street, and 1 and 2, Union Row have been regularly inspected and are in a fairly satisfactory condition.

HOUSES DEMOLISHED.

Seven houses (1-7, Shipfield Cottages) were demolished during the year owing to our representation to the Agent and Owner that they were, in my opinion, unfit for human habitation. This was done without any necessity for legal proceedings, and new houses are now being erected upon the site of the old ones.

BACTERIOLOGICAL AND CHEMICAL LABORATORY.

The facilities afforded by this laboratory have been much more extensively availed of than during the preceding year. 49 swabs taken from the throats of suspected cases have been examined for the presence of the Klebs Lœffler Bacillus, 71 specimens of sputum for that of the Tubercle Bacillus, and Widal's Test for Typhoid has been employed in 27 instances. The results were positive in 37 cases. In using Widal's Test for Typhoid it was found necessary in several instances to have more than one specimen of blood by reason of the fact that the reaction in the first examination was not sufficiently definite; control experiments were made in all cases.

Water.—The following table gives the result of my most recent examination of Tottenham Water as taken from a tap in Lansdowne Road :—

Colour in a 2 ft. Tube—very faintly greenish
Turpidity ... ... none
Odour ... ... none

Constituents in.	Parts per 100,000.	Parts per million.
Total Solids (residue left on evaporation) ...	42·99	—
Loss of residue after ignition...	8·57	—
Chlorine present as chlorides...	2·7	—
Free ammonia	—	·039
Albuminoid Ammonia...	—	·076
Nitrates	·299	—
Nitrites	·039	—
Hardness { Total	27·1	—
Hardness { Temporary	21·3	—
Hardness { Permanent	5·8	—

There was no trace of lead, copper or iron.

It will be seen from the above analysis—which corresponds fairly closely with the average of the 27 analyses made during the year—that the total solid matter in our water exceeds the average of that in last year's analyses by more than 7 parts per 100,000. The amount of chlorine is about the same, while the amount of nitrogen present as nitrates and nitrates is considerably less. It is, however, a less economical water to use for domestic purposes, since the hardness is considerably greater, so that, while we cannot say it is organically impure, it is certainly not an ideal water for household use. Moreover, while hitherto the water supplied to our District has been of a much higher standard of organic purity than the Thames water, it would now appear to have sunk to the level of the latter.

No recognised pathogenic organisms were found, and though I no longer consider it an accurate or scientific expression to state the number of organisms found per cubic centimetre (since I have found that the number of bacteria present in such cases is considerably influenced by the medium employed, as some will not grow on particular media), yet I might mention that they were fewer than in last year's samples, notwithstanding that one would perhaps have been led to expect otherwise from the results obtained by means of the chemical analyses.

I have examined several samples of tinned foods for the presence of poisonous metals, but only found any traces of the presence of such in one instance—a tin of pears, which proved to have been contaminated by lead in solution.

Milk.—Owing to the considerable distance between this office and the laboratory, it has not this year been possible for me to make many bacteriological examinations of milk samples, as the

process is one which requires a very considerable amount of care and time to accomplish it successfully.

I trust that the suggestion of the Public Health Committee, that laboratory accommodation should be provided in the new buildings, will soon be carried into effect, as it will be an immense saving of time and energy in ordinary laboratory work, and also enable me to carry out work of a most useful kind which it is impossible for me to undertake under present circumstances; moreover, our evacuation of the laboratory at Bruce Castle would provide that further accommodation there which the Library Committee so much desires.

I have, however, succeeded in making a bacteriological examination of one sample of milk taken from a street vendor's churn, but did not find that either the bacillus coli or the bacillus enteritidis sporogenes was present in one m.g., though there were more than 750,000 bacilli of the colon group present in one gramme.

I have made a laboratory examination of seven other samples of milk in a more general way, and more particularly with regard to the amount and kind of dirt present therein. In one sample there was as much as 10 grains of dirt per gallon, consisting chiefly of dung, slime, epithelial scales, hairs, etc., as well as various forms of bacteria amongst which cocci preponderated.

Preservatives in Food.—During the course of the year I detected the presence of preservatives in samples of milk, sausages and jam submitted to me, viz.:—of formic aldehyde in milk, of boric acid in sausages, and of salicylic acid in jam. Formalin was found in milk on two occasions but only in very small amounts, the boric acid was present in the proportion of two grains to the ounce in the sample of sausages examined, and although the amount

of salicylic acid in the jam was not exactly estimated, it was considerably more than "a trace," and as jam is frequently given to young children, the presence of what is really an unnecessary preservative—as far as properly made and stored jam is concerned—is certainly a rather serious matter. It may be interesting to you to know that a Conference was convened on the 22nd October, 1906, by the Incorporated Institute of Hygiene to discuss *inter alia* the question of preservatives in canned foods, and I had the honour to belong to the Special Committee of 13 appointed to consider and draw up resolutions upon the subject. The Committee amongst other resolutions unanimously agreed to the following :—

RESOLUTION 5.

"That the import of tinned foods sterilised by means of heat should be prohibited if they contain any preservatives other than salt and saltpetre, providing that this prohibition is not to apply to traces of preservatives which are of an accidental character or clearly not added for preservative purposes."

RESOLUTION 6.

"That similar provisions should in all cases apply to English manufacturers, and that the Acts relating to food inspection should be strictly enforced."

AIR SAMPLES.

27 samples of air, taken from various schools, the Council and Education Committee chambers, were examined during the year; there was a marked improvement in the air of the schools, showing greater attention to ventilation on the part of the teachers, but the samples from the Council and Education Committee chambers were most unsatisfactory, both containing a huge excess of carbonic acid, and a large quantity of organic matter.

CHARACTER OF LONDON WATER SUPPLIES.

The following table published by the Registrar General gives some interesting information regarding the comparative quality of the water derived from different sources in London.

Results of Analysis expressed in Parts per 100,000.

Districts.	Date and Place of Collection.	Temperature in Centigrade Degrees.	Total Solid Matter.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen as Nitrates and Nitrites.	Total Combined Nitrogen.	Chlorine.	Total Hardness.
THAMES.										
Chelsea ..	December 17th, Cab Rank, Victoria Street, near Christ Church	5·6	33·70	0·250	0·024	—	0·294	0·318	1·80	23·2
West Middlesex	December 17th, Cab Rank, Albert Road, N.W.	4·6	29 94	0·210	0·023	—	0·217	0·240	1 80	20·3
Southwark	December 17th, Cab Rank, St.George's Church Borough	5·1	33 30	0·185	0·018	—	0·302	0·320	1 80	23·0
Grand Junction	December 17th, Cab Rank, Pickering Place, Westbourne Grove	4 9	32·16	0·178	0·020	—	0·290	0·310	1·75	22·7
Lambeth ..	December 17th, Cab Rank, St. George's Road, Southwark	5·3	32·78	0·210	0·019	—	0 315	0 334	1 85	22·0
LEA, WELLS, THAMES, etc.										
New River	December 17th, Cab Rank, Canonbury Station	4·8	34·93	0·073	0·007	—	0·328	0·335	1·70	25 7
Eastern ..	December 17th, Tap on Main at Lea Bridge Works	4 0	41·42	0·231	0·026	—	0·348	0·374	2·25	27·4
DEEP WELLS										
Kent ..	December 17th, Police Station, Blackheath Road	11·0	39·20	0·040	0·005	—	0·488	0·493	2·10	28·1
Column 1	2	3	4	5	6	7	8	9	10	11

All the numbers in columns 4-11 relate to 100,000 parts of the waters. The Table is to be read thus:—The water collected in the Chelsea district of the Water Board on the 17th December at the cab rank in Victoria Street had a temperature of 5·6° C.; 100,000 lbs. of it contained 33·70 lbs. of solid matter in solution; the organic substances constituting a portion of this matter contained 0·250 lb. of carbon and 0·024 lb. of nitrogen. The above quantity of water also contained 0·294 lb. of nitrogen in the form of nitrates, and the total amount of combined nitrogen was 0·318 lb. The above weight of water also contained 1·8 lbs. of chlorine and 23·2 lbs. of carbonate of lime, or an equivalent quantity of other hardening or soap-destroying ingredients.

The numbers in the Analytical Table can be converted into grains per imperial gallon by multiplying them by 7, and then moving the decimal point one place to the left. The same operation transforms the hardness in the Table into degrees of hardness on Clark's scale.

FEMALE STAFF.

The work performed by the two members of the female staff during the past year was most important and far-reaching in its effects, for no subject is more intimately or intrinsically connected with the health of a locality than the proper feeding of infants, and the precautions taken to prevent the spread of infections diseases amongst children, whilst inspecting out-workers premises, and ensuring that the execution of home-work shall be carried on under healthy conditions, is scarcely of less serious significance. There are, of course, individual cases in which the effort to improve and uplift would seem to be like "ploughing the sands," so transient is the apparent result for good upon some of the mothers and some of the out-workers. Yet, those things must be judged as a whole, and I have no hesitation in stating that the work so arduously performed by the female staff has been, and is being followed by incalculable and permanent benefit to many a home and many a child in our District. The following particulars give some idea of the nature and amount of the work so conscientiously performed by Miss Aldridge and Miss Newton.

PREMISES VISITED :

(a) On notification of birth	2063
(b) ,, deaths under 12 months	398
Number of Babies breast-fed	1598
,, ,, hand-fed	114
Cases where Breast-feeding supplemented by hand-feeding	169
,, ,, followed ,,	182
Visits on account of absence of children from school from Measles, Whooping Congh, etc. ...	955
,, on notification of deaths from Phthisis ...	95
,, ,, Puerperal Fever	6

Complaints attended to	25
Visits to Outworkers, Laundries, etc.	170

VARIOUS NUISANCES ABATED :

Houses cleansed, repaired, etc.	71
Roofs and gutters „ „	20
Cisterns and Water Pipes repaired, etc.	37
W.C's. and Gullies unstopped	7
Yards paved or repaired	6
Dust bins supplied or repaired	43
Check cisterns „	34
Windows made to open	6
Overcrowding abated	12

* * * * *

DRAINS TESTED DURING THE YEAR.

1,928 drains were examined, 524 were found to be defective.

COLLECTION OF SLOP.

13,657 loads of slop were collected and removed during the year.

COLLECTION OF HOUSE REFUSE.

The following list gives the days of the week on which the dust collections are made from the roads mentioned, and the names of the drivers and fillers responsible for the collection in each "beat" :—

LOWER WARD—No. 1 Beat.

Drivers, Wright (12) and Underwood (11); Filler, Wilson.

Monday.

Park Lane (north side).
Park Avenue Road.
Northumberland Grove.
Somerford Grove.
Laurel Terrace.
Waverley Road.
Chameleon Road.

Tuesday.

High Road, from Park Lane to Northumberland Park.
Northumberland Park.
Paxton Road.

Wednesday.

Almond Road.
Trulock Road.
Farningham Road.
Willoughby Park Road and Lane.
West Road.
Willoughby Grove.
Heybourne Road.
Coniston Road.
Grange Road.
Cromer Road.
Brantwood Road.
Waggon Lane.
Union Row.

No. 2 Beat.

Drivers, Arnold (6) and Smith (3); Filler, Peck

Monday.

High Road, from Lansdowne Road to Park Lane.
Park Lane (South).
Vicarage Road.
Argyle Road.
Hampden Road.
Sutherland Road.
Bromley Road.

Tuesday.

St. Paul's Road.
Manor Road.
Asplin's Road.
Chalgrove Road.
Wycombe Road.
Foyle Road.

Wednesday.

Lansdowne Road.
Baronet Road.
Liston Road.
Kemble Road
Siddons Road.
Burlington Road

Thursday.

Scotland Green.
Hartington Road.
Poynton Road.
Shelbourne Road.
Spencer Road.
Glendish Road.
Halefield Road.
Sherringham Avenue.
Seymour Avenue.
Thackery Avenue.
Windsor Park Estate.

Friday.

Stoneley Road.
Scales Road.
Hendricks Road.
Junction Road.
Dawlish Road.
Mitchley Road.
Malvern Road.
Holcombe Road.
Devon Road.
Circular Road.

Saturday.

High Road, from Stoneley South to Scotland Green.
Brook Street.
Reform Row.
Waverley Cottages.
Albert Place.

No. 3 Beat.

Drivers, Barker (3); Filler, Callaghan.

Monday.

Pleasant Cottages, Place and Terrace.
Beaufoy Road.
Wingmore Road.
Tebworth Road.
Nursery Street.
Gretton Road.
New Road.
King Street.
Church Road.

Tuesday.

Love Lane.
Stanley Grove.
Brereton Road.
Whitehall Street.
Moselle Street.
Charles Street.
William Street.

Wednesday.

Lorenco Road.
Compton Road.
Durban Road.
Pretoria Road.
Arthur Road.
Bloomfield Road.

Thursday.

Bruce Castle Road.
King's Road.
Birkbeck Road.
James' Place.
Ashford Road.
Tenterden Road.
Headcorn Road.
Cranbrook Road.

Friday.

Lordship Lane (Bruce Castle to High Road.
Pembury Avenue.
Cedar Road.
Ruskin Road.
High Road, from Lordship Lane to Church Road, Brunswick Court, etc.

Saturday.

White Hart Lane.
Queen Street.
Prince's Street.
Old Lane.
College Road.
College Park Road.

MIDDLE WARD—No. 1 Beat.

Drivers, Green (14) and Day (4); Filler, Petts.

Monday.

Arnold Road (East and West).
Handsworth Road.
Gloucester Road.

Tuesday.

Dongola Road.
Durham Road.
Chester Road.

Wednesday.

St. Margaret's Road and Terrace.
Morrison Avenue.
Strode Road.
Clyde Road and Circus.
Janson Road.
Collingwood Road.
Nelson Road.
Carlton Road.

Thursday.

Napier Road.
Loxwood Road.
Ranelagh Road.
Belton Road.
Eve Road.
Downhills Park Road.
Clonmell Road.
Lismore Road.
Dunloe Road.
Alton Road.

Friday.

Philip Lane, from Downhills School to High Road (both sides).
Greyhound Road.

Saturday.

Steele Road.
Winchelsea Road.

No. 2 Beat.

Drivers, Palmer (18) and Ryan (7); Filler, Berkeley.

Monday.

Sperling Road.
St. Loy's Road.
Bruce Grove and Road.
Woodside Gardens.

Tuesday.

Elmhurst Road.
Radley Road.
Linley Road.
Church Lane.
Broadwater Road.
Lordsmead Road.
Lordship Lane, from Bruce Grove to Mount Pleasant Road.
Whitley Road.

Wednesday.

The Avenue.
Drayton Road.
Chandos Road.
Wimborne Road.
Marden Road.
Mount Pleasant Road.
Fairbourne Road.
Higham Road.
Forest Gardens, etc.

Thursday.

Newlyn Road.
Elsden Road.
Hartham Road.
Lordship Lane, from Railway Bridge to School.

Friday.

High Road, from Lordship Lane to High Cross.
Pembury Road.
Felixstowe Road.
Forster Road.

Saturday.

Backs of St. Loy's Road and backs of Sperling Road.

HIGH CROSS WARD—No. 1 Beat.

Drivers, Coomber (8) and Wheeler (10); Filler, Pearce.

Monday.

Chesnut Road.
Somerset Road.
Edith Road.
Fawley Road.
The Hale.

Tuesday.

High Road, from Almshouses (Stoneley South) to High Cross Road.
High Cross Road.
The Hale.

Wednesday.

Antill Road.
Station Road.
Brograve Road.
Ashley Road.
Ventnor Terrace, Broad Lane.
Page Green School.
Montague Road.

Thursday.

High Cross to Tynemouth Road.
Tynemouth Road.
Springfield Road.
Hanover Road.
Talbot Road.

Friday.

High Road from Tynemouth Road to South Tottenham Station.
Townsend Road.
Pembroke Road.
Melton Road.
Earlsmead Road.
Wakefield Road.
Ashmount Road.

Saturday.

Hale Gardens.
Colsterworth Road.

No. 2 Beat.

Drivers, Wright (12) and Underwood (11); Filler, Wilson.

Thursday.

Broad Lane.
Newton Road.
Stamford Road.
Harold Road.
Walton Road.
Herbert Road.

Friday.

Welbourne Road.
Spondon Rod.
Cunningham Road.
Cape Road.
Lincoln Road.
Selwyn Road.

Saturday.

Rangemoor Road.
Markfield Road.
Norman Road.
Bernard Road.
Page Green Road.
Victoria Road.

WEST GREEN WARD—No. 1 Beat.

Drivers, Walker (20) and Keneley (29); Filler, Moyns.

Monday.

L.C.C. Estate.
Boundary Road.
Sirdar Road.
Westbury Avenue.
Mannock Road.
Lakefield Road.
Frome Road.

Tuesday.

West Green Road, from Waldeck Road to Green Lanes.
Green Lanes, from West Green Road to Westbury Avenue.
Milton Road.
Willow Walk.
Carlingford Road.
The Triangle.

Wednesday.

Stanmore Road.
Waldeck Road.
Langham Road (part).

Thursday.

West Green Station to Waldeck Road.
Caversham Road.
Vincent Road.
Linden Road.
Belmont Road.
Langham Road (part).

Friday.

Etherley Road.
Terront Road.
Cranleigh Road.
Black Boy Lane.
Abbotsford Avenue.
West Green Road, from Abbotsford Avenue to Terront Road (including West Green Council School).

Saturday.

West Green Road, from Clinton Road to Abbotsford Avenue.
Clinton Road.
Shrubbery Road.
Clarence Road.

No. 2 Beat.

Drivers, Ryal (23) and Westwood (21); Filler, Ryan.

Monday.

Seaford Road.
Dorset Road.
Ida Road.
Braemar Road School.
Municipal Offices.

Tuesday.

Bedford Road.
Avenue Road.
Elmar Road.
Beaconsfield Road.

Wednesday.

Eagle Avenue.
High Road, from Eagle Avenue to West Green Road (including Jew's Hospital, Police Court, and Tottenham Polytechnic).
Portland Road.
Pelham Road.
Houghton Road.
Municipal Offices.
Grove Park Road.

Thursday.

North Grove.
Spratt's Row.
Cornwall Road.
Alexandra Road.
Penrith Road.
Douglas Road.
Ascott Road.

Friday.

Summerhill Road.
Lawrence Road (including backs of Bedford Road).
West Green Road, from High Road to "Troon Villas."

Saturday.

Jews' Hospital, Court House, and Polytechnic (High Road).
Braemar Road.
Roslyn Road.
Municipal Offices.

St. Ann's Ward—No. 1 Beat.

Drivers, Grover (28) and Babbs (9); Filler, Thompson.

Monday.

West Green Road, from High Road to Braemar Road.
The Broadway.
Greenfield Road.
Birstall Road.
Seven Sisters Road (West side).
Westerfield Road.

Tuesday.

Brunswick Road.
Suffield Road.
Elizabeth Road.
Kent Road.
Southey Road.

Wednesday.

Woodville Grove.
St. Ann's Road, from Hospital to Seven Sisters Road (both sides).
Culvert Road.
St. George's Road.

Thursday.

Russell Road.
Grove Road.
Henry Road.
Sutton Road.
Tewkesbury Road.

Friday.

Stroma Terrace (Seven Sisters Road).
Templeton Road.
Tiverton Road.
Moreton Road.
Osman Road.
Fladbury Road.
Harefield Road.
Eckington Road.
Netherton Road.

Saturday.

South Grove.
Minster Road.
Suffolk Road.
Priory Road.

No. 2 Beat.

Drivers, Clements (24) and Cranwell (25); Filler, Bugle.

Monday.

Manchester Road.
St. John's Road.
Albert Road.
Heysham Road.
Candler Street.
Gladesmore Road.
Shirley Road.
Ferndale Road.

Tuesday.

Seven Sisters Road.
Highweek Road.
Fairview Road.
Lealand Road.
High Road, from No. 1 to Seven Sisters Road.

Wednesday.

The Crescent.
Sherboro' Road.
Holmdale Road.
Vartry Road.
Berkeley Road.
Franklin Street.
High Road, from Bailey's Lane to South Tottenham Station.

Thursday.

Frinton Road.
Thorpe Road.
Howard Road.
Richmond Road.
St. Ann's Road, from High Road to Seven Sisters Road.
Daleview Road.
Eastbourne Road.
Paignton Road.

Friday.

Bailey's Lane.
Hillside Road.
Catherine Road.
Laura Road.
Henrietta Road.
Plevna Road.
Nassau Road.

Saturday.

Howard Terrace (High Road.
Ipplepen Road.
Shaftesbury Street.
Gourley Street.
Crowe's Market (Seven Sisters Road).

HARRINGAY WARD—No. 1 Beat.

Drivers, Snapes (26) and Toomer (15); Filler, Connor.

Monday.

Harringay Road.
Park Road (to Harringay Road).
Culross Road.
Derby Road.
Albany Road.

Tuesday.

Conway Road.
Glenwood Road.
Rowley Road.
Ritches Road.

Wednesday.

Brampton Road.
St. Ann's Road, from Woodlands Park School to Green Lanes (both sides).
Salisbury Road.

Thursday.

"Queen's Head," Green Lanes.
Fairfax Road.
Effingham Road.
Falkland Road.
Beresford Road.
Green Lanes, from "Queen's Head" to Hewitt Road.

Friday.

Grand Parade and Flats to Chesterfield Gardens.
Seymour Road.
Allison Road.
Hewitt Road.

Saturday.

Wordsworth Parade.
St. Margaret's Avenue.
Alfoxton Avenue.
West Green Road to Woodlands Park Road.
Stanley Road.

No. 2 Beat.

Driver, Cull (30); Filler, Cullen.

Monday.

Warwick Gardens.
Stanhope Gardens.
Doncaster Gardens.
Portland Gardens.

Tuesday.

Rutland Gardens.
Rosebery Gardens.

Wednesday and Thursday.

Green Lanes, from Seymour Road to Boundary.
Warham Road.
Pemberton Road.
Mattison Road.
Duckett Road.
Cavendish Road.
Umfreville Road.
Lothair Road.
Endymion Road.

Friday.

Grand Parade and Flats, from Chesterfield Gardens to Harringay Park Station.
Burgoyne Road.

Saturday.

Chesterfield Gardens.

ODD VAN.

Driver, Cox (5); Filler, Cullen.

Monday and Tuesday.

Woodlands Park Road.
Clarendon Road.
Avondale Road.

Wednesday and Thursday.

Hermitage Road.
Vale Road.
Vale Grove.
Harefield Road.
Oakfield Road.
Eade Road.

Friday.

Green Lanes, from West Green Road to St. Ann's Road.
Harringay Gardens.
Colina Road.
Templeton Road.

Saturday.

Kimberley Gardens.
Cleveland Gardens.

EXPENSE OF DUST COLLECTION, 1906.

Week Ending		£	s.	d.
January	3	56	18	2
	10	58	11	8
	17	55	15	2
	24	54	13	7
	31	52	18	6
February	7	54	18	6
	14	53	0	5
	21	52	19	0
	28	53	1	1
March	7	53	7	4
	14	53	16	8
	21	52	6	6
	28	53	13	0
April	4	55	2	5
	11	57	4	5
	18	54	15	8
	25	59	14	4
May	2	56	18	2
	9	57	4	5
	16	55	4	10
	23*	55	3	8
	30	57	4	2
June	6	56	16	0
	13	58	7	9
	20	61	12	10
	27	57	2	4
July	4	57	19	8

Week Ending—		£	s.	d.
July	11	56	18	4
	18	59	13	9
	25	57	3	5
August	1	56	19	6
	8	67	1	11
	15	62	8	10
	22	58	10	5
	29	57	1	0
September	5	60	1	8
	12	58	12	8
	19	59	17	10
	26	60	14	6
October	3	60	6	5
	10	59	10	11
	17	58	10	1
	24	57	17	2
	31	59	1	10
November	7	57	7	5
	14	58	2	2
	21	57	1	2
	28	55	10	8
December	5	59	11	6
	12	56	19	0
	19	58	2	5
	26	57	5	5
		£2977	0	3

Tools, etc. ... ... £80 0s. 0d.

REFUSE DESTRUCTOR.

The Refuse Destructor continues to work satisfactorily; no complaints whatever having been received as to any nuisance caused by it during the year, while the most careful supervision continues to be exercised by Mr. Fowler in his general management.

A considerable income has accrued during the year from the sale of clinker, tins, bowls, iron, etc., which, of course, considerably reduces the working expenses.

The following table gives monthly particulars of the various kinds of refuse destroyed :—

A Yearly Return of Refuse, etc., Delivered and Destroyed at Refuse Destructor.

Date.	Fish Offal.				Shop Refuse.				Miscellaneous.				House Refuse.				Total Weight.				Loads.				
																					Fish.	Shop.	Misc.	House	Total.
1906.	Tons.	Cwt.	Qrs.	Lbs.	Tons.	Cwt.	Qrs.	Lbs.	Tons.	Cwt.	Qrs.	Lbs.	Tons.	Cwt.	Qrs.	Lbs.	Tons.	Cwt.	Qrs.	Lbs.					
Week ending Jan. 1 to 3 ...	5	3	3	...	15	17	3	14	...	...	...	...	278	6	...	21	299	7	3	7	3	9	...	129	141
,, ,, 10 ...	13	1	...	...	24	10	3	14	...	...	...	...	531	5	2	14	568	17	2	...	7	16	...	237	260
,, ,, 17 ...	15	15	3	...	25	7	2	...	1	2	...	...	474	...	3	..	516	6	...	...	7	16	1	215	239
,, ,, 24 ...	12	15	2	..	22	17	2	...	...	10	1	14	442	7	3	...	478	11	...	14	7	15	1	210	233
,, ,, 31 ...	14	2	1	21	19	11	1	...	...	...	...	...	432	7	1	...	466	...	3	21	7	15	...	206	228
,, Feb. 7 ...	13	17	...	14	19	13	...	...	1	9	2	...	443	8	2	21	478	8	1	7	7	14	2	213	236
,, ,, 14 ..	14	19	3	7	21	14	3	7	2	14	1	14	437	6	2	14	476	15	2	14	7	14	2	208	231
,, ,, 21 ...	14	12	2	...	20	12	3	7	4	10	...	...	452	13	1	21	492	8	3	..	7	15	2	210	234
,, ,, 28 ...	14	12	2	...	16	12	3	21	...	...	..	...	447	8	..	7	478	13	2	...	7	12	...	210	229
,, Mar. 7 ...	15	13	...	21	15	2	2	21	...	16	...	...	442	7	1	...	473	19	..	14	7	13	2	216	238
,, ,, 14 ...	16	3	1	7	17	11	...	21	1	7	3	7	424	17	1	...	459	19	2	7	7	14	1	214	236
,, ,, 21 ...	14	10	1	14	15	11	...	14	...	...	...	...	416	1	2	21	446	3	...	21	7	13	...	209	229
,, ,, 28 ...	16	11	2	7	21	10	3	...	...	...	...	...	432	1	...	...	470	3	1	7	7	15	...	212	234
,, April 4 ...	16	13	2	7	20	4	2	14	...	...	...	...	451	12	2	7	488	10	3	...	7	15	...	218	240
,, ,, 11 ...	17	5	2	14	11	15	1	21	...	...	...	...	487	8	3	21	516	10	...	...	7	9	...	236	252
,, ,, 18 ...	14	11	3	21	7	5	3	...	...	...	...	...	240	5	1	...	262	2	3	21	6	4	...	123	133
,, ,, 25 ...	15	8	...	7	14	...	1	7	4	7	2	...	516	19	1	...	550	15	...	14	7	9	3	247	266
,, May 2 ..	15	9	3	7	9	19	2	...	...	...	...	...	396	5	2	...	421	14	3	7	7	8	...	191	206
,, ,, 9 ...	14	17	3	21	10	19	2	21	...	5	2	14	479	6	2	14	505	9	3	14	7	9	1	231	248
,, ,, 16 ...	15	5	...	21	11	2	3	7	1	11	3	...	435	15	2	14	463	15	1	14	7	9	3	220	239
,, ,, 23 ...	14	17	1	7	10	10	2	...	...	3	2	...	408	2	2	7	433	13	3	14	7	9	1	212	229
,, ,, 30 ...	15	12	2	7	11	3	1	14	...	...	...	.	415	4	...	7	442	...	...	...	7	9	..	213	229
,, June 6 ...	15	1	1	14	10	12	2	7	...	...	...	...	339	16	1	7	365	10	1	...	7	7	...	182	196
,, ,, 13 ...	15	16	1	..	9	16	2	14	1	18	_	...	404	19	...	7	432	9	3	21	7	9	1	225	242
,, ,, 20 ...	16	4	2	21	11	14	...	21	...	...	...	...	354	...	2	14	381	19	2	...	7	9	...	211	227
,, ,, 27 ...	17	6	...	14	10	1	1	21	...	...	...	...	317	5	3	...	344	13	1	7	7	7	...	186	200

A Yearly Return of Refuse, etc., Delivered and Destroyed at Refuse Destructor—CONTINUED.

Date.	Fish Offal.	Shop Refuse.	Miscellaneous.	House Refuse.	Total Weight.	Loads.				
						Fish.	Shop	Misc.	House	Total.
1906.	Tons. Cwt. Qrs. Lbs.	Tons. Cwt. Qrs. Lbs.	Tons. Cwt. Qrs. Lbs.	Tons. Cwt. Qrs. Lbs.	Tons. Cwt. Qrs. Lbs.					
Brought forward ...										
,, July 4 ...	15 18 ... 14	9 9 ... 14	... 10	413 11 3 ...	439 9	7	9	1	226	243
,, ,, 11 ...	15 14	8 19 2 21	... 18	370 13 1 21	396 5 ... 14	7	9	1	217	234
,, ,, 18 ..	14 4 2 14	9 16 ... 21	... 2	329 9 ... 21	353 12	7	9	1	217	234
,, ,, 25 ..	13 15 1 21	9 5 .. 14	... ...	325 19 1 7	348 19 3 14	7	9		215	231
,, Aug. 1 ...	14 19 ... 21	9 ... 2 14	... 14	317 13	342 6 3 7	7	9	1	213	230
,, ,, 8 ..	13 16 ... 7	8 8 ... 14	.. ..	263 7 2 14	285 11 3 7	7	7	...	179	193
,, ,, 15 .	15 1 2 7	8 10 2 21	1	308 21	332 12 1 21	7	8	1	215	231
,, ,, 22 ...	14 16 3 ...	8 13 2 7	.. 12 2 ..	286 8	310 10 3 7	7	8	1	203	219
,, ,, 29 ..	14 9 ... 21	8 5 1 21	5 10 .. 14	299 17 ... 14	328 1 3 14	7	8	5	209	229
,, Sept. 5 ...	14 11 1 7	8 ... 1 7	... ...	306 5 3 21	328 17 2 7	7	8	...	211	226
,, ,, 12 ...	14 18 3 ...	9 3 ... 7	... 1 2 7	296 8 1 21	320 11 3 7	7	8	1	207	223
,, ,, 19 ...	15 19 2 21	9 13 1 14	.. ..	304 19	330 12 .. 7	7	8	...	207	222
,, ,, 26 ...	14 11 3 21	8 5 3 14	.. ..	312 19 2 21	335 17 2 ...	7	8	...	207	222
,, Oct. 3 ..	16 18	10 9 3 ...	... ...	331 11 1 14	358 19 ... 14	7	8	...	211	226
,, ,, 10 ...	16 17 2 ...	10 11 3 ...	... ...	363 3 1 14	390 12 2 14	7	8	...	207	222
,, ,, 17 ...	17 13 3 7	12 5 1 14	1 5	370 6 1 7	401 10 2 ...	7	8	1	210	226
,, ,, 24 ..	16 1	11 15 1 21	... .	369 18 2 ...	397 14 3 21	7	8	...	208	223
,, ,, 31 ...	17 13 ... 14	11 1 3 ...	... ...	375 10 1 21	404 5 1 7	7	8	...	210	225
,, Nov. 7 ...	16 6 2 14	10 13 ... 14	... .	392 5 2 ..	419 5 1 ...	7	8	...	208	223
,, ,, 14 ...	16 2 3 7	11 11 1 ...	... ...	412 12 3 7	440 6 3 14	7	8	...	208	223
,, ,, 21 ...	15 16	11 11 1 14	... .	433 4 2 ...	460 11 3 14	7	8	...	210	225
,, ,, 28 ...	16 8	13 11 ... 21	1 16 1 ...	426 8 3 ..	458 4 ... 21	7	8	2	210	227
,, Dec. 5 ...	16 11 2 21	11 13 ... 21	1 8 2 ...	415 18	445 11 1 14	7	8	1	212	228
,, ,, 12 ..	14 6 2 ...	12 9 3 .	.. 10	404 11 1 21	431 17 2 21	7	8	1	210	226
,, ,, 19 ...	14 16 3 14	12 16 3 14	... ...	429 9 3 14	457 3 2 14	7	8	...	212	227
,, ,, 26 ...	12 16 ... 7	8 11 2 ...	... .	303 17 3 21	325 5 2 ...	5	5	...	142	152
,, ,, to 31 ...	9 12 1 14	9 13 .. 14	.. ..	188 10 1 14	207 15 3 14	5	6	...	120	131
	797 6 1 ..	680 7 3 ...	35 4 1 14	20254 15 2 7	21767 13 3 21	362	509	37	10888	11796

SWIMMING AND WARM BATHS.

The First-Class Swimming Bath, with a water space of 100 ft. by 35 ft., is fitted with the most modern requirements, and is specially adapted for Swimming and Water Polo Competitions and Aquatic Entertainments. Admission 6d., which includes use of water chute, diving stages, spring board, shower baths, 2 towels and bathing drawers. Special terms for Clubs. Children up to 14 years of age, admission 3d. Open from April to September from 7 a.m. to 10 p.m., Sundays from 6 a.m. to 10 a.m. On Wednesdays during the summer the First-Class Swimming Bath is reserved for the use of Ladies only. Admission to Second-Class Bath 2d. Open for Gentlemen daily, with the exception of Wednesdays (winter months only), when it is reserved for the use of Ladies (costumes provided), from 7 a.m. to 10 p.m. during the summer months, viz., April to the end of September, and the winter months, viz., October to the end of March, from 9 a.m. to 9 p.m. (Tuesdays, First-Class Day, 6d.). Sundays, for Gentlemen only, summer months from 6 a.m. to 10 a.m., winter from 7.30 a.m to 9.30 a.m. School children admitted to the Second-Class Swimming Bath 1d.

PRIVATE (SLIPPER BATHS).

Open for Ladies and Gentlemen during the summer months on week-days from 7 a.m. to 10 p.m., and during the winter months from 9 a.m. to 9 p.m. ; Sundays (summer) 6 a.m. to 10 a.m., (winter) 7.30 a.m. to 9.30 a.m. Admission, First-Class 6d. ; Second-Class 2d. Books containing 12 First-Class Tickets 5s., available for either Swimming or Slipper Baths. Tickets are issued and accepted up to within 30 minutes of the time of closing. First-class Season Tickets are available for either Swimming or Slipper Baths, 21/-.

OPEN-AIR SWIMMING BATH.

Tottenham Marshes (5 minutes from Park Station, Great Eastern Railway).

This Bath, the largest in England, covering a water area of 180 ft. by 60 ft., is open from 1st May to 30th September from 6 a.m. to 9 p.m., and on Sundays from 6 a.m. to 9 a.m. Admission 2d., bathing drawers and towels included. School Boys 1d., towels and drawers included.

IMPROVEMENTS DURING 1906.

Establishment of Natural History Museum at Bruce Castle.

Culverting Stonebridge Brook (East of Avenue Road to South Grove).

Culverting Stonebridge Brook at Green Lanes.

Culverting Moselle Brook at Scotland Green.

Constructing Relief Sewer in Winchelsea Road.

Fencing and laying-out the extension of Downhills Park.

Widening Turnpike Lane.

Constructing terrace, dwarf wall and bandstand at Downhills Park.

Erecting cart shed for dust vans at General Depôt.

Constructing tar macadam carriageway in front of West Green Schools.

Asphalting carriageway, etc., Hale Gardens.

Tar paving common in front of Earlsmead School.

Asphalting passageway from Stoneley South to Hendricks Terrace.

Paving Bruce Grove footpath from Hartham Road to Lordship Lane.

Paving paths in Lordship Lane from Bruce Grove to Moselle Brook, etc.

Extension of greenhouse accommodation at Downhills.

THE FOLLOWING WORKS ARE NOW IN HAND :—

Erection of New Schools at Parkhurst Road.

Do. do. Belmont Road.

Levelling and Draining the Downhills Recreation Ground.

Digging Gravel on the Marshes.

Constructing Bowling Green at Bruce Castle.

Do. Croquet Lawn at the Downhills.

Extension to the Central Library.

Repairs at Bruce Castle for Caretaker of Museum, etc.

LIST OF WORKS

NOW UNDER THE CONSIDERATION OF THE COUNCIL.

(a) Culverting the Stonebridge Brook between Chestnuts Estate and Culvert Road.

(b) Culverting the brook rear of houses in Hermitage Road.

(c) Widening Green Lanes from Harringay Station to Stoke Newington Boundary.

(d) Widening Seven Sisters Road from Albert Road to Candler Street.

(e) Widening High Road (W. side) from Philip Lane to the Central Library.

(f) Widening High Road (E. side) from Brook Street to Bruce Grove.

(g) Culverting Moselle Brook on the L.C.C. Estate and Peabody Estate.

(h) Underground Convenience at High Cross.

(i) Additional Cartshed at General Depôt.

(j) Widening Stamford Hill from Gladesmore Road to Bailey's Lane.

(k) Extension of the Conservatory at Downhills Park.

(l) Floods prevention works Markfield Estate, Springfield Estate, St. Ann's District, and Harringay.

(m) Making up of all roads on the L.C.C. Estate (Section B).

PARLIAMENTARY BILLS.

Session 1907.

THE FOLLOWING BILLS ARE NOW UNDER THE CONSIDERATION OF THE COUNCIL :—

(1) The Metropolitan Water Board (Charges, etc.)
(2) Do. do (various powers).
(3) North-East London Railway.
(4) North Metropolitan Electric Power Supply.
(5) London Electric Supply.
(6) Administrative County of London and District Electric Power.
(7) London County Council Electric Supply.
(8) London and District Electric Power.

WORKS DEPARTMENT.

A very large amount of important work has been carried out by the employees of the Works Department, including the building of water vans, tumbril carts, slop carts and hand trucks, and a multiplicity of repairs to slop vans and carts, dust vans, water carts, etc., etc.; various repairs, including paving, painting, etc., have also been effected at the Sewage Works, Disinfecting Station, and Refuse Destructor; while the Municipal Offices, Fire Brigade, Baths, Public Library, Parks, and Highways have also called, in a varying degree, for the exercise of the industry and reliability so characteristic of the Works Department and its Superintendent, Mr. H. W. Cant.

* * * * *

The following Highway Improvements have also been carried out under Mr. D. M. MacGregor's superintendence :—

Brunswick Square, Asphalting.
St. Margaret's Avenue, Making up of.
Wordsworth Parade, ,,
Morrison Avenue, ,,
Clonmell Road, ,,
Alton Road, ,,
Lismore Road, ,,
Dunloe Avenue, ,,
Downhills Park Road, ,,
,, Footpath, West side.
Post Office Cable Trenches, High Road.
,, Broad Lane.
,, Lordship Lane.
,, Green Lanes.
London County Council Estate, Footpaths.
Levelling Common Land, Green Lanes.
Brograve Road, Public Footpath.
Hermitage Road, Widening at Midland Railway Bridge.
Clarence Road, Alterations west corner Blackboy Lane.
White Hart Lane, Altering Kerb Channels and Footpaths, Piper's Court and Devonshire Hill.
Hermitage Road, Making up of 3rd Section.
Frinton Road ,,
Thorpe Road ,,
Stainsby Road ,,
Higham Road ,,
Dongola Road ,,
Marden Road ,,
The Avenue (3 Sections) ,,
Downhills Lane, Footpath at Belmont and Mannock Road for New Schools.

Langham Road, West End of Graham Road, Altering Kerbs and Channel.

High Road, Fixing Railings round Common Land, opposite 'Seawards.'

New Sewers constructed and supervised during the year, and lengths of the same.

		Surface.	Soil.
Dunloe Avenue, Extension of ...	... 9 in.	75	75
Devonshire Hill...	... 12 in.	405	405
Frinton Road	... 9 in.	61	67
Overbury Road	... 9 in.	102	104
Creighton Road, White Hart Lane	... 12 in.	409	409
Graham Road	... 9 in.	325	325
Fairview Road	... 12 in.	246	246
NEWSAM'S ESTATE.			
Wargrave Avenue	... 12 in.	240	240
Wyndham Avenue	... 9 in.	164	164
Rostrevor Avenue	... 9 in:	175	175
Cadoxton Avenue	... 9 in.	118	118
BELMONT ESTATE.			
Downhills Lane...	... 9 in.	162	132
Belmont Road	... 9 in.	192	—
No. 2 Road	... 9 in.	147	147
Surface Total Yards	...	2,828	2,532
Soil „ „	...	2,532	
TOTAL		5,360	Yards.

SUMMARY :—

12 in. Soil Sewers	...	...	1,060 yards.
12 in. Surface Water	...	...	1,060 ,,
9 in. Soil Sewers	...	...	1,472 ,,
9 in. Surface Water	...	...	1,768 ,,
Total length of New Sewers			5360 yards.

SEWER WORK CARRIED OUT DURING YEAR 1906,

under the superintendence of Mr. D. Bagshaw :—

Soil Sewers New and Reconstructed.

Length.	Size.	Remarks.
70 feet	18 inches.	Stoneware
470 ,,	12 ,,	,,
950 ,,	9 ,,	,,
3596 ,,	6 ,,	,,

Surface Water Sewers New and Reconstructed.

Length.	Size.	Remarks.
1000 feet	18 inches.	Stoneware
760 ,,	12 ,,	,,
1162 ,,	9 ,,	,,
2165 ,,	6 ,,	,,
100 ,,	4 ,,	,,

620 feet of Brook 9 feet by 4 feet has been culverted in.

4000 do. Brooks cleared out.

8270 do. Main Sewers cleared out.

163 new connections in Private Roads.

1116 feet of new Soil connections in Public Roads.

1384 do. Surface water connections in Public Roads.

303 drain connections have been examined and passed.

51 defective mains have been repaired.

5 new gullies have been built.

10 blind manholes built up.

157 new manholes have been built.

469 main stoppages have been cleared.

The total length of sewers to be kept clear and in working order is 300 miles.

The whole of the manholes throughout the Parish are examined and cleansed periodically.

BUILDING OPERATIONS DURING 1906.

(Particulars supplied through Mr. W. Hall.)

The number of houses and shops *actually erected* during the year was 876, as against 722 for the previous year. Buildings of other description numbered 73. The number of additions and alterations made to existing buildings was 21.

New streets numbered 14, their total length being 8,089 feet.

PLANS PASSED FOR NEW BUILDINGS IN TOTTENHAM DURING THE PAST 10 YEARS.

1897	...	...	...	...	349
1898	...	...	...	...	907
1899	...	...	...	...	1,216
1900	...	...	...	...	1,366
1901	...	...	...	...	1,073
1902	...	...	...	...	897
1903	...	...	...	...	947
1904	...	...	...	...	682
1905	...	...	...	...	1,413
1906	...	...	...	...	1,010

PRIVATE STREET WORKS.

During the year 1906, 16 private roads were made up under the Tottenham Local Board Act, 1890, at a cost of £7,200, and 5 private roads were made up by the owners and declared public highways.

Eight private roads were made up under the Tottenham Local Board Act, 1890, at a cost of £4,150, but have not yet been declared public highways.

Plans for making up 8 private roads have been submitted and notices for same served, and plans for 3 more roads are now being prepared.

	Miles.	Fur.	Yds.
Total length of Highways	65	5	59

PRIVATE ROADS DECLARED PUBLIC HIGHWAYS FROM 1ST JAN., 1906, TO 31ST DEC., 1906, WITH PARTICULARS OF COST OF SAME.

	£	s.	d.
Finsbury Park Avenue	230	9	6
Vale Terrace	171	8	0
Field Road	467	15	7
Ryde Road	388	13	4
Shanklin Road	225	13	5
Ashley Road (part of)	450	18	6
Lealand Road (2nd Section)	494	19	3
Ferndale Road (2nd Section)	481	10	5
Gladesmore Road (2nd Section)	869	7	3
Wordsworth Parade	188	9	1
St. Margaret's Avenue	453	6	1
Vale Road (2nd Section)	329	12	9
Clarence Road	502	12	1
Morrison Avenue	571	17	5

	£	s.	d.
Brunswick Square	209	11	8
Hermitage Road (2nd Section)	1,198	4	2
	£7,234	8	6

PRIVATE ROADS MADE UP BY OWNERS.

Clonmell Road (1st Section)
Clonmell Road (2nd Section)
Alton Road
Downhills Park Road
Lismore Road

PRIVATE ROADS MADE UP BUT NOT YET DECLARED PUBLIC HIGHWAYS.

	£	s.	d.
Hermitage Road (rem.)	2,234	13	5
Stainby Road	189	1	3
Higham Road (1st Section)	332	16	0
Dongola Road (2nd Section)	255	16	0
Marden Road	223	15	5
The Avenue (3rd Section)	283	18	7
Frinton Road	324	7	2
Thorpe Road	292	2	2
	£4,136	10	0

PLANS OF PRIVATE ROADS WHICH HAVE BEEN SUBMITTED AND REGARDING WHICH NOTICES HAVE BEEN SERVED.

Hale Road
Holmdale Road (rem.)
Stirling Road
Howard Road
Seymour Avenue
Thackeray Avenue
Parkhurst Road
Sherringham Avenue

PLANS OF OTHER PRIVATE ROADS NOW BEING PREPARED.

Boundary Road (2nd Section)
Boundary Road (3rd Section)
Cross Road between Westbury Avenue and Boundary Road

LONDON COUNTY COUNCIL ESTATE.

Certificates have been signed for 31 additional houses completed during the year, and 69 others are nearing completion.

PEABODY TRUST ESTATE.

142 cottages have been practically completed, but none of them are to be let until the building of the whole estate has been completed.

SEWERAGE OF THE DISTRICT.

Main Sewers :—(with special reference to the new extensions, opened on July 27th, 1905) :—

The Main Sewers of the District are four in number ; three are controlled by the Joint Drainage Committee of Tottenham and Wood Green, the fourth serves Tottenham alone.

The Sewage of Wood Green enters Tottenham through two main channels—the 18 in. Pipe Sewer in High Road, Wood Green, and the 3 ft. 6 in. by 2 ft. 4 in. Brick Oval Sewer in Lordship Lane.

It will be well to trace these Sewers in turn, as each becomes one of the four Main Sewers mentioned above.

The 18 in. Pipe Sewer in the High Road, Wood Green, flows along Green Lanes to Colina Road, then turns due East to Cornwall Road. Here it becomes the 2 ft. 6 in. by 1 ft. 8 in. Brick Oval Sewer known as the Chestnuts Estate Relief Sewer, constructed in 1899. The Sewer takes an approximately South-Eastern flow until meeting Seven Sisters Road, it syphons to the South-East side and flows North-East, then through Highweek Road to a man-hole near South Tottenham Station. In this man-hole, in conjunction with two other Brick Sewers, it becomes a 5 ft. by 3 ft. 4 in. oval Sewer, which flows as directly as possible into what will be again

referred to as the "Culvert Man-hole" outside the Sewage Works. The 3 ft. 6 in. by 2 ft. 4 in. Sewer in Lordship Lane continues the same size through its entire length, and serves practically the whole of the Northern and part of the Eastern district of Tottenham. It flows through Lordship Lane and the High Road down Chestnut Road, along Broad Lane, to the Culvert Man-hole before mentioned.

Identical in route, except that it cuts off a corner by passing down Bruce Grove, is the new Sewer which forms part of the recent extensions.

Commencing at Westbury Avenue to Lordship Lane, it is 3 ft. 6 in. by 2 ft. 4 in., until it reaches Mount Pleasant Road, when it becomes 5 ft. by 3 ft. 4 in., and so flows to the Culvert Man-hole, serving the whole area between itself and the ridge of high ground running from High Cross to the Downhills and Wood Green.

These three Main Sewers then discharge into the Culvert Man-hole, and their place is taken for a length of about 100 feet by a Culvert 6 ft. wide and 4 ft. 6 in. high, lined with Blue Staffordshire bricks and roofed with girders and concrete. This Culvert carries the Sewage through the low and narrow entrance to the Pumping Station, and ends at a Man-hole just clear of the Railway property. Two 5 ft. by 3 ft. 4 in Sewers then complete the outfall, picking up on their way the fourth Main Sewer known as the Northumberland Park Sewer. This, commencing in Northumberland Park as a 15 in. pipe, increases to an 18 in. pipe, then to a 27 in. Brick Circular Sewer, and finally within the Works to a 3 ft. 3 in. by 2 ft. 2 in. Oval Sewer. It serves "the Marshes" area of East Tottenham, and is practically straight throughout its length.

Having thus indicated the means by which the Sewage is brought to this Pumping Station, it now remains to follow it through its final stages until it is delivered to the London County Council Sewers.

The two 5 ft. by 3 ft. 4 in. Outfall Sewers flow to the screening chamber outside the 45 H.P. Engine House, and separate behind the screen. One turns between the Engine House, and feeds the old 45 H.P. Engine and on to the new Worthingtons. The other flows straight on to the East end of the deep storage tanks, each of which it feeds through 5 ft. penstocks and at the last of which it terminates.

The Sewage flows through this last tank and out into a Culvert, which drains the upper water of the deep tanks into the pump well of the 100 H.P. Engine. This completes the flow of ordinary Sewage up to the pumps.

In storm time, however, special provision has to be made. The whole of the deep tanks can be filled, and in addition about 100 feet inside the gates of the Pumping Station there is a Manhole into which storm water flows when the two 5 ft. Sewers become two-thirds full, and from which two Culverts 2 ft. 9 in. by 4 ft. lead direct through a screen, where the water is treated with lime, to the Storm Water Dock, which is a huge tank with a capacity of half a million gallons.

When this is full, as happens in times of heavy rainfall, there is an overflow into the River Lea; but the usual method of emptying is by a 24 in. pipe leading to the Sludge Well.

This Sludge Well is connected with the deep tanks, the Worthington Sump, and the pump well of the 100 H.P., so that the Dock can be emptied with either old or new plant.

The Sewage is pumped by the 45 H.P. and 100 H.P. Engines through a 21 in. cast iron delivery main and by the Worthingtons through a similar one 30 in. in diameter, the two mains run side by side, and on the South side of the 100 H.P. Engine house, a cross-connection box with valves has been provided so that either main may be used by either Engine.

The mains are rather over 2,000 feet in length and connect with the London County Council's Sewer in Craven Walk beyond Bailey's Lane.

The Engines and their capacities are as follows:—

(1) 45 H.P. Horizontal Simple condensing Engines (date 1873). driving by a continuation of its piston rod, one double-acting piston pump 24 in. diameter and 48 in. stroke. Capacity at 16 revolutions per minute—3¼ million gallons in 24 hours.

(2) 100 N.H.P. Compound Condensing Beam Engines (dated 1886), driving from the beam, two single-acting Plunger Pumps, each 26 in. diameter and 51 in. stroke. Capacity at 16 revolutions per minute,—4 million gallons per 24 hours.

The new plant consists of:—

(3) Three sets of Triple Expansion Horizontal Worthingtons, driving by a continuation of the piston rods, double-acting Plunger Pumps, 27 in. diameter and 15 in. stroke.

All of these sets are in duplicate, so that there are six pumps and 18 steam cylinders.

Every set is complete in itself, and is capable of delivering at full pressure and 38 revolutions, 4,475 gallons per minute.

The total capacity of the new plant at this speed is 20 million gallons in the 24 hours, but the ordinary working rate will give 10 millon gallons per day ; the higher figure being reserved for storm times.

The normal flow of the sewers in dry weather is about 3 million gallons per 24 hours, but in wet weather it rapidly increases up to 10 millions, and in storm times as much as 1½ million gallons have reached the station in half-an-hour This is of course beyond all provision, and on such occasions the top water is treated with lime and allowed to pass into the River Lea as before described.

On the usual figures the ultimate possible flow of Sewage from the area of Tottenham and Wood Green, excluding storm water, is just over 17 million gallons, and the extension recently inaugurated should therefore be ample to provide for all contingencies that can be reasonably foreseen.

The Engines are supplied with steam from any of the three Lancashire boilers ; the two old ones, which are 30 ft. by 7 ft., having a working pressure of 70 lbs. per square inch, and the new boiler, 21 ft. by 7 ft., working at 100 lbs. per square inch.

The water to the new boiler is supplied by a small Worthington pump worked by the steam from the jackets of the large engine cylinders. The water passes through a Webster Feed Water Heater and enters the boiler at a temperature of about 100 to 120 Fah.

The Loans sanctioned by the Local Government Board for the erection of these Works were :—

Outfall Sewers	£30,000
Extension of Buildings, Machinery and Pumping Main	£13,800
	£43,800

UNDERGROUND CONVENIENCES.

I reported last year that at least three further underground conveniences were needed in your District, viz. :—One in the St. Ann's Ward (near St. Ann's Road Station), one towards the junction of the Middle and Lower Wards, and a third in the High Cross Ward, the latter of which is, I understand, about to be proceeded with immediately.

ELECTRIC LIGHTING OF THE DISTRICT.

Agreements have at length been exchanged between the Council and the Metropolitan Electric Power Supply Co. for supplying the District with electric light, and the Council's order transferred to the Company. It is hoped that electricity will be available both for public and private lighting within the course of the next few months.

CORRESPONDENCE.

The departmental correspondence has again increased, having amounted to almost 7,000 communications.

PETROL, PETROLEUM, AND CARBIDE OF CALCIUM LICENSES.

The definition of Petroleum given in the Petroleum Act of 1891 includes any oil or product of petroleum which, when tested, gives off inflammable vapour at a temperature of less than 73 deg. F. ; persons desiring to store—for the purpose of sale—any

oil or spirit as above defined, are required to obtain from the Local Authority, a license as provided by Section 9 of the Act: similar licenses are required for the storage of Benzine, Naphtha, Petrol, and Carbide of Calcium. During the year 14 such licenses have been granted for the sale of Petrol, 5 for that of Petroleum, 2 for Carbide of Calcium, and 1 for Naphtha.

FIRE STATIONS IN THE DISTRICT.

1. Central Fire Station, The Green.
2. Conway Road (Woodlands Park Road).
3. Coombes Croft House, 712, High Road.
4. St. Ann's (Minster Road).
5. Green Lanes (Umfreville Road).

FIRE ALARM POINTS.

At Junction of High Road and Snell's Park.
" High Road and White Hart Lane.
" College Road and White Hart Lane.
" Langhedge Road.
" Chalgrove Road.
" Trulock Road and Northumberland Park.
" Tebworth Road and Church Road.
" Sutherland Road and Park Lane.
" Park Lane and Northumberland Park.
Lansdowne Road, corner of High Road.
Kemble Road, near corner.
Poynton Road.
Opposite G.E.R. Station, Bruce Grove.
Sperling Road
Stoneley South (near Devon Road).
Broad Lane, opposite Post Office.
Colsterworth Road.
The Hale, opposite The Pound.

At Junction of High Road and West Green Road.
" West Green Road and Avenue Road.
" Braemar Road (opposite Board School).
" Culvert Road, facing Braemar Road.
" Nassau Road and St. Ann's Road.
Vale Road.
At Junction of Vartry Road and Seven Sisters' Road.
Vartry Road, opposite Board School.
St. John's Road.
Corner of Holmdale Road.
Hillside Road, corner of High Road.
Lealand Road.
Fairview Road.
High Road, opposite South Tottenham Station.
Opposite St. Ann's Railway Station.
Moreton Road, corner of Tewkesbury Road.
Green Lanes, facing Endymion Road.
" " Mattison Road.
" " St. Ann's Road.
" corner of Fairfax Road.
" facing "Wellington" P.H., corner Turnpike Lane.
West Green Road, opposite Willow Walk.
Stanmore Road, corner of Carlingford Road.
West Green Road, corner of Woodlands Park Road.
West Green Road, corner of Black Boy Lane.
Philip Lane, corner of Mount Pleasant Road.
" corner of Summerhill Road.
Lawrence Road, opposite Mr. Duncan Tucker's Saw Mills.
Lordship Lane, opposite Bruce Castle.
Mount Pleasant Road, facing the Avenue.
Westberry Avenue, Junction with Lordship Lane.
" in middle of.
Hermitage Road, corner of Finsbury Park Avenue.
St. Ann's Road, opposite Warwick Gardens.
Roseberry Gardens.
Rutland Gardens.

FIRE BRIGADE AND APPLIANCES.

There are 27 men all told, 5 being on duty day and night, the remaining 22 are in bell call, available for turning out at any time.

All Fire Stations are in Telephonic Communication with the Chief Fire Station, Police Stations, and nearest Turncocks.

The principal appliances consist of—

1 Horsed Steamer, capable of throwing 400 gals. per minute.

1 Motor Oil Fuel Steamer throwing 320 gals per minute.

2 Combined Motor Chemical Fire Engines, Hose Tender, and Fire Escapes.

1 Petrol Pumping and Chemical Engine, 100 h.p. (in course of construction in Council's Workshops).

1 6in. Manual.

1 4in. Curricle.

4,000ft. of 2in. rubber-lined canvas hose.

350ft. of hose for Chemical Fire Engine.

6 Hand Fire Escapes always on duty, one being permanently stationed in rear of Hospital.

5 Horses.

Each escape carries hose, stand-pipes, and turncock's tools; and jumping sheets, long lines and life lines are carried with all appliances.

In addition to the Fire Alarms there are nearly 40 Telephones connecting all points in the District, and the Brigade is connected with the National Telephone Company's Exchange, No. 77, Tottenham.

PUBLIC LAMPS.

The total number of Public Lamps in April, 1906, was 2,053, and all are fitted with incandescent burners.

PARTICULARS REGARDING PARKS, OPEN SPACES, ETC.

OPEN SPACES.

		AREA.	DATE ACQUIRED.
1.	Bruce Castle Park, Lordship Lane, Tottenham ...	20 acres	25th June, 1892
2.	"The Chestnuts" Recreation Ground, St. Ann's Road, South Tottenham (including Common Land) ...	13 ,,	3rd May, 1898
3.	Land in Marshes	122 ,,	Between 1898 and July, 1905
4.	"The Down Field" Recreation Ground, near Tottenham Hale ... ... about (*i.e.*, Freehold Land 2 acres, late Lammas Land, 17½ acres.)	19½ ,,	Sept. and Xmas. 1900.
5.	"The Downhills" Recreation Ground (including 4 acres purchased from G.E.R. Company, March, 1905) ...	20¼ ,,	Aug. 11th, 1902
6.	Land East side of River Lee, conveyed by Metropolitan Water Board under East London Water Works Company's Act, 1897	25 ,,	March, 1905
	Total ...	229¾	

COMMONS.

		ACRES.	RDS.	PLS.	YDS.
1.	Tottenham Green (East), High Road		2	31	24
2.	Tottenham Green (West), High Road	1	2	6	4
3.	Page Green, between High Road and Earlsmead Council School	1	2	8	26
4.	Page Green Terrace, High Road, South Tottenham ...		2	35	13
5.	West Green, at the junction of Philip Lane and West Green Road	1	0	0	0
6.	West Green, near Green Lanes	2	1	8	27
7.	Duckett's Green, Green Lanes	6	1	0	0
8.	Common, High Road, between West Green Road and Seven Sisters' Road			27	0
9.	Common, opposite The Grove, High Road, South Tottenham		3	32	
10.	High Cross Common, High Road...			31	
		15	3	21	10

OTHER LANDS AND BUILDINGS.

		DATE PURCHASED.
1.	The Council Buildings, The Green, Tottenham, which include the Council Chamber and General Offices, 1st and 2nd Class Swimming and Slipper Baths, Central Fire Station, Firemen's Quarters, Coroner's Court and Mortuary; and in the rear (with an entrance from Clyde Road) the Central Depôt, consisting of Stables, Cart Sheds, Workshops, Stores, &c.	(Opened for use November 2nd, 1905.)
	The whole of the above buildings have been erected on the sites of the following Properties, viz. :—	
	Eaton House, The Green, Tottenham (Fr'ld)... ...	21st Nov., 1892
	Wilton House, The Green, Tottenham (Fr'ld)... ...	3rd August, 1899
	"The Ferns," The Green, Tottenham (Fr'ld)... ...	25th March, 1901
	Hatfield House, The Green, Tottenham (Fr'ld)	25th Dec., 1901
2.	Sewage Outfall Works (part of) Markfield Road, South Tottenham (Fr'ld)...	13th Dec., 1861
3.	Bruce Castle, Lordship Lane, Tottenham (Fr'ld)	25th June, 1892
4.	Public Library, 395, High Road, Tottenham (Fr'ld)	16th Aug., 1894
5.	Fire Station, Minster Road, South Tottenham (Fr'ld)	23rd Feb., 1888
6.	"The Chestnuts," St. Ann's Road, South Tottenham (Fr'ld), part used as Branch Reading Rooms	3rd May, 1898
7.	Gas Testing Station, Beulah Place, Wood Green (Fr'ld) ...	19th Oct., 1886
8.	In Tottenham Hale, 12½ acres for the erection of Workmen's Dwellings under the Housing of the Working Classes Act, 1890 (Fr'ld)...	29th Sept., 1900
9.	Conway Road, Woodlands Park, Fire Station, Stables and General Depôt (Fr'ld)	13th May, 1902
10.	Refuse Destructor Buildings and Site for Electrical Generating Station (upwards of 4 acres), Down Lane	29th Sept., 1900

[NOTE.—This Land originally formed part of 23½ acres acquired for a Recreation Ground, but owing to the difficulties experienced in securing a site for Refuse Destructor purposes, the Local Government Board sanctioned the use of this portion of the land for those purposes.]

METEOROLOGICAL STATION.

A Meteorological Station has been established during the year, and is now recognised by the Meteorological Office, an Inspector having first been delegated to inspect the instruments and enquire into the details of the working. Complete reports are furnished to the Head Office monthly, an analysis of which will in future appear in the quarterly returns of the Registrar General.

STREAMS.

The foul condition of our local streams (for the cleansing of which the County Council is responsible) has again been a continuous source of anxiety to the Department during the year, and more particularly during the summer months—when Diarrhœa was so prevalent. Happily, most of those portions of the streams which were specially objectionable are now being culverted, but it is most advisable that similar treatment should be extended to the Moselle from the Rubber Factory to Junction Road.

INCORPORATION.

No further action has been taken regarding incorporation, although many leaders of local public opinion who seemed inclined to favour the inclusion of Tottenham in the London area, would now appear to have come to the opinion, that such a step is anything but desirable.

SHOOTING OF HOUSE REFUSE, SLOP, ETC. WITHIN THE DISTRICT.

Some complaints were received regarding the shooting of slop by a Contractor on the old Hermitage Shoot at the back of the Metropolitan Asylums Board's Hospital, but no nuisance from this cause now exists.

LECTURES, REPORTS, ETC., BY THE MEDICAL OFFICER OF HEALTH.

In addition to the written reports made to the Public Health Committee and the fortnightly printed ones to the Council, I have endeavoured during the year to give Lectures on Hygiene to the senior standards of the various Schools, and also issued leaflets on the following subjects:—1. The precautions to be taken with

Consumptives; 2. Directions regarding the Feeding and Management of Infants; 3. Brief instructions regarding Measles and Whooping-Cough, etc., etc.; 4. Instructions to be observed on the return of infectious cases from the M.A.B. Hospitals.

EMPLOYMENT OF CHILDREN ACT, 1903 (3 EDW. 7, CHAP 39) AND SHOP HOURS ACT, 1892 (55 & 56 VICT., CHAP. 62, SEC. 3 [1]

I regret that neither of these acts has been yet put in force in your District, and trust that the time may arrive when an enlightened public opinion will be strong enough to overcome the factitious and largely fictitious opposition to their adoption in Tottenham.

A country must always pay heavily in untrained, undisciplined, semi-developed and semi-educated young men and young women for the paltry outcome of their childish labour; if you continue to sin in this way now, you do so in the face of light and knowledge and it must be remembered that in this, as in other matters, there is a spurious economy which is the worst form of extravagance and that arguments founded on such a principle are the outcome of egregious, conceited—and it is to feared invincible—ignorance.

TRAIN SERVICE.

There are altogether 10 Stations in Tottenham, 3 on the Midland and Great Eastern Joint Railway, viz.:—South Tottenham, St. Ann's, and Harringay Park, connecting this district with Southend, Tilbury, and Woolwich on one side and King's Cross and Moorgate Street on the other; 2 on the Main Great Eastern Line from Liverpool Street, viz.:—Tottenham Hale and Park, 1 West Green, on the Great Eastern Line to Palace Gates, and 4, viz.:—Stamford Hill, Seven Sisters, Bruce Grove, and White

Hart Lane,.connecting Tottenham with Liverpool Street on one hand and Enfield and Cheshunt on the other.

I have been compelled to draw the attention of the Great Eastern Railway Company to the dirty condition of some of their carriages and waiting rooms, and trust as a result there will not be any cause for complaint upon this head during the current year.

THE TRAMWAY SYSTEM.

Electric cars run between this district and Wood Green, Muswell Hill, Bowes Park, Finsbury Park, Shorditch, *via* Stamford Hill and Kingsland Road and the Tramway Avenue, Edmonton, and also between Wood Green and the Alexandra Palace and Tottenham, *via* Lordship Lane. The service is a three minute one over most of the line, and the trams run from 4.0 a.m. till past midnight. Cars run frequently between Stamford Hill and Aldgate, Moorgate Street, London Docks (*via* Commercial Road) and Holborn, and also from Finsbury Park to Holloway, Islington, Moorgate Street, Holborn and Euston Road.

AMBULANCES.

The Council possesses two ambulances, one suitable for the removal of ordinary infectious cases and the other specially built for the removal of small pox patients; the former, however, is scarcely ever used, as the M.A.B. authorities at present send their own ambulance for all cases admitted into their hospitals. I believe it would at once be a gain in efficiency and a saving of expense if we were allowed to remove our own fever patients, as we do those suffering from small pox; the M.A.B. has however, so far, refused to permit the Council to do so.

FREE PUBLIC LIBRARIES.

The Central Library is situated at 395, High Road, and is at present being considerably enlarged and improved, while in

addition to the old Branch Library at "The Chesnuts," St. Ann's Road, it has recently been decided to establish a Reading Room at Bruce Castle for the convenience of the Lower Ward. The Library hours are 9 a.m. to 10 p.m. The Librarian is Mr. F. W. West. When a case of infectious disease occurs in any house containing books borrowed from the Library, and which have been handled by the patient, such books are invariably disinfected or if necessary destroyed altogether.

PUBLIC INSTITUTIONS.

The North-Eastern Fever Hospital at the close of the year contained 391 patients (81 Tottenham residents) and 325 officials, the Tottenham General Hospital 76 patients (32 Tottenham residents) and 48 officials, the Jewish Home for Incurables 66 patients and 24 officials, and the Edmonton Workhouse 341 Tottenham inmates. The number of Tottenham persons receiving out-door relief at the end of the year was 1,130.

MEDICAL EXAMINATIONS.

I have made a careful medical examination of all newly appointed teachers and members of the Fire Brigade during the year, and have also visited all persons bringing claims against the Council on account of alleged accidental or other injuries.

INHABITED HOUSE DUTY.

A larger number than usual of inspections have been made under the Customs and Inland Revenue Act, 1890, on application from owners for certificates exempting them from Inhabited House Duty. I have only granted such certificates where the houses have been so constructed as to afford suitable accommodation for those families or persons inhabiting them, having special regard to the sanitary requirements.

Sanitary Work carried out during the Year in the various Wards.

HARRINGAY WARD (Mr. W. Redston).

House to house inspections	260	Overcrowding	4
Re-inspections	1672	Accumulations of refuse	28
Drains examined, tested, etc. ...	263	Gipsies removed	...
,, unstopped	12	Houses closed (unfit)	...
Drains re-constructed	52	Visits in connection with cases of infectious disease	210
Soil pipes and drains ventilated ...	22	Rooms inspected after disinfection...	39
Disconnecting traps inserted ...	9	Other nuisances, etc.	25
R.W. pipes, wastes, etc., disconnected	20	Com. lodg. houses, No. of insptns. ...	...
Dust bins repaired or provided ...	21	Factories ,, ...	21
Roofs repaired	32	Workshops & workplaces ,, ...	145
Gutters ,, ...	23	Laundries ,, ...	76
Cisterns cleaned, repaired, etc. ...	27	Dairies, etc. ,, ...	174
W.C. new apparatus provided ...	29	Cowsheds ,, ...	16
,, repaired, cleaned, etc. ...	21	Bakehouses ,, ...	28
,, ventilated	4	P.H. urinals ,, ...	78
,, water fittings repaired ...	51	Stables and mews ,, ...	300
Yards paved and drained	32	Slaughter-houses ,, ...	...
Premises cleansed, etc.	35	Marine stores ,, ...	10
Ventilation below floor provided ...	17	Complaints investigated	31
Smoke nuisances	32	Appointments	80

HIGH CROSS AND WEST GREEN WARDS (Mr. A. List).

House to house inspections	58	Overcrowding	...
Re-inspections	1653	Accumulations of refuse	10
Drains examined, tested, etc. ...	187	Gipsies removed	...
,, unstopped	20	Houses closed (unfit)	...
Drains re-constructed	111	Visits in connection with cases of infectious disease	540
Soil pipes and drains ventilated ...	50	Rooms inspected after disinfection ..	1132
Disconnecting traps inserted ...	...	Other nuisances, etc.	...
R.W. Pipes, wastes, etc., disconnected	24	Com. lodg. houses, No. of insptns. ...	...
Dust bins repaired or provided ...	70	Factories ,, ...	...
Roofs repaired	19	Workshops & workplaces ,, ...	...
Gutters ,, ...	19	Laundries ,, ...	...
Cisterns cleaned, repaired, etc. ...	..	Dairies, etc. ,, ..	89
W.C. new apparatus provided ...	...	Cowsheds ,, ...	60
,, repaired, cleaned, etc. ...	...	Bakehouses ,, ...	...
,, ventilated	...	P.H. urinals ,, ...	..
,, water fittings repaired ...	33	Stables and mews ,, ...	...
Yards paved and drained	25	Slaughter-houses ,, ...	...
Premises cleansed, etc.	12	Marine stores ,, ...	...
Ventilation below floor provided ..	17	Complaints investigated	105
Smoke nuisances	2	Appointments	170

ST. ANN'S WARD (Mr. W. P. West).

House to house inspections	470	Overcrowding	7
Re-inspections	2127	Accumulations of refuse	26
Drains examined, tested, etc. ...	421	Gipsies removed	12
,, unstopped	57	Houses closed (unfit)	...
Drains re-constructed	66	Visits in connection with cases of infectious disease	279
Soil pipes and drains ventilated ...	11	Rooms inspected after disinfection ..	7
Disconnecting traps inserted ...	4	Other nuisances, etc.	79
R.W. pipes, wastes, etc., disconnected	48	Com. lodg. houses, No. of insptns....	...
Dust bins repaired or provided ...	57	Factories ,, ...	95
Roofs repaired	44	Workshops & workplaces ,, ...	157
Gutters ,, ...	36	Laundries ,, ...	19
Cisterns cleaned, repaired, etc. ...	22	Dairies, etc. ,, ...	128
W.C. new apparatus provided ...	44	Cowsheds ,, ...	...
,, repaired, cleaned, etc. ...	18	Bakehouses ,, ...	57
,, ventilated	12	P.H. urinals ,, ...	100
,, water fittings repaired ...	29	Stables and mews ,, ...	214
Yards paved and drained	63	Slaughter-houses ,, ...	39
Premises cleansed, etc.	124	Marine stores ,, ...	...
Ventilation below floor provided ...	5	Complaints investigated	99
Smoke nuisances	9	Appointments	227

Sanitary Work carried out during the Year—CONTINUED.

HIGH CROSS AND WEST GREEN WARDS (MR. W. C. PORTMAN).

House to house inspections	316	Overcrowding	1
Re-inpections	1155	Accumulations of refuse	5
Drains examined, tested, etc. ...	350	Gipsies removed	15
,, unstopped	9	Houses closed (unfit)	...
Drains re-constructed	101	Visits in connection with cases of infectious disease	...
Soil pipes and drains ventilated ...	101	Rooms inspected after disinfection...	...
Disconnecting traps inserted ...	...	Other nuisances, etc.	89
R.W. pipes, wastes, etc., disconnected	35	Com. lodg. houses, No. of insptns....	...
Dust bins repaired or provided ..	30	Factories ,, ...	4
Roofs repaired	46	Workshops & workplaces ,, ...	6
Gutters ,, ...		Laundries ,, ...	1
Cisterns cleaned, repaired, etc. ...	7	Dairies, etc. ,, ...	...
W.C. new apparatus provided ...	31	Cowsheds ,, ...	...
,, repaired, cleaned, etc. ...	6	Bakehouses ,, ...	43
,, ventilated	...	P.H. urinals ,, ...	28
,, water fittings repaired ...	10	Stables and mews ,, ...	...
Yards paved and drained	34	Slaughter-houses ,, ...	18
Premises cleansed, etc.	99	Marine stores ,, ...	...
Ventilation below floor provided ...	4	Complaints investigated	169
Smoke nuisances	16	Appointments	62

MIDDLE WARD (MR. H W. MILLER).

House to house inspections	211	Overcrowding	19
Re-inspections	2253	Accumulations of refuse	9
Drains examined, tested, etc. ...	308	Gipsies removed	21
,, unstopped	69	Houses closed (unfit)	7
Drains re-constructed	97	Visits in connection with cases of infectious disease	410
Soil pipes and drains ventilated ...	62	Rooms inspected after disinfection...	...
Disconnecting traps inserted ...	4	Other nuisances, etc.	86
R.W. pipes, wastes, etc., disconnected	66	Com. lodg. houses, No. of insptns....	...
Dust bins repaired or provided ...	53	Factories ,, ...	25
Roofs repaired	35	Workshops & workplaces ,, ...	19
Gutters ,, ...	33	Laundries ,, ...	8
Cisterns cleaned, repaired, etc. ...	86	Dairies, etc. ,, ...	33
W.C. new apparatus provided ...	14	Cowsheds ,, ...	21
,, repaired, cleaned, etc. ...	17	Bakehouses ,, ...	55
,, ventilated	11	P.H. urinals ,, ...	62
,, water fittings repaired ...	50	Stables and mews ,, ...	29
Yards paved and drained	92	Slaughter-houses ,, ...	21
Premises cleansed, etc.	101	Marine stores ,, ...	...
Ventilation below floor provided ...	2	Complaints investigated	60
Smoke nuisances	13	Appointments	95

LOWER WARD (MR. A. SHILLITO).

House to house inspections	362	Overcrowding	12
Re-inspections	2052	Accumulations of refuse	7
Drains examined, tested, etc. ...	399	Gipsies removed	200
,, unstopped	93	Houses closed (unfit)	2
Drains re-constructed	97	Visits in connection with cases of infectious disease	300
Soil pipes and drains ventilated ...	83	Rooms inspected after disinfection...	...
Disconnecting traps inserted ...	...	Other nuisances, etc.	...
R.W. pipes, wastes, etc., disconnected	52	Com. lodg. houses, No. of insptns....	63
Dust bins repaired or provided ...	37	Factories ,, ...	8
Roofs repaired	35	Workshops & workplaces ,,	97
Gutters ,, ...	35	Laundries ,,	
Cisterns cleaned, repaired, etc. ...	39	Dairies, etc. ,,	73
W.C. new apparatus provided ...	63	Cowsheds ,,	
,, repaired, cleaned, etc. ...	28	Bakehouses ,, ...	49
,, ventilated	12	P.H. urinals ,, ...	45
,, water fittings repaired ...	96	Stable and mews ,, ...	...
Yards paved and drained	57	Slaughter-houses ,, ...	23
Premises cleansed, etc.	38	Marine stores ,, ...	...
Ventilation below floor provided ...	26	Complaints investigated	52
Smoke nuisances	20	Appointments	208

TOTTENHAM URBAN DISTRICT.

COUNTY OF MIDDLESEX.—SANITARY WORK, 1906.

Inspections.					Notices.				Dwelling Houses.					Houses let in separate Dwellings or Lodgings.		Common Lodging Houses.		Movable Dwellings, Caravans, Tents, Etc.			Workshops and Workplaces.		Laundries.		Bakehouses.	
Number of Premises Inspected on Complaint.	Number of Premises Inspected in connection with Infectious Diseases.	Number of Premises under periodical Inspection.	Houses Inspected from House-to-House.	Total Number of Inspections and Re-inspections.	Cautionary Notices Given.	Statutory Orders Issued.	Summonses Served.	Convictions Obtained.	Houses, Premises, Etc., Cleansed, Repaired, Etc	Closed as unfit for Habitation.	Re-opened after Repairs, Alterations, Etc.	Demolished.	Illegal Underground Dwellings Vacated.	Number Registered under Bye-Laws.	Number of Contraventions.	Number Registered under Bye-Laws.	Number of Contraventions	Number observed during the year.	Number of Nuisances therefrom abated.	Number Removed from District.	Number in District.	Contraventions of Factory Acts.	Number in District.	Contraventions of Factory Acts.	Number in District.	Contraventions of Factory Acts.
665	1739	..	1677	23164	1935	665	10	7	480	9	..	..	..	19	..	4	..	248	50	248	487	25	34	..	55	16

SANITARY WORK, 1906—CONTINUED.

Slaughter-houses.		Cowsheds		Dairies and Milkshops.		Uns'nd Food.			Adulterated Food.		Water Supply & Water Service.					Drainage and Sewerage.									
												Cisterns.				Water Closets.			Drains.						
Number on Register.	Contraventions of Bye-Laws.	Number on Register.	Contraventions of Regulations.	Number on Register.	Contraventions of Regulations.	Animals seized.	Articles or Parcels seized.	Articles or Parcels surrendered.	Samples taken.	Found Adulterated.	Percentage of Houses Supplied from Public Water Service.	New, Provided.	Cleansed, Repaired, Covered, Etc.	Overflow Pipes Disconnected from Drains	Draw Taps removed from Cisterns to Mains.	Percentage of Houses supplied on Constant System.	New, Constructed.	Number of Water Closets substituted for Dry Receptacles.	Repaired, Supplied with Water, or otherwise Improved	Percentage of Houses Provided with Water Closets.	Examined, Tested, Exposed, Etc.	Unstopped, Repaired, Trapped, Etc.	Waste Pipes, Rain Water Pipes Disconnected, Repaired, Etc.	Soil Pipes and Drains Ventilated.	Disconnecting Traps or Chambers Inserted.	Reconstructed.
17	4	19	3	190	6	..	5	30	..	3	99·99 p.c.	..	228	..	..	..	..	..	305	100 p.c.	1928	267	245	329	17	574

SUMMARY WORK, 1906—CONTINUED.

Drainage and Sewerage.	Disinfection.			Dust.			Sundry Nuisances Abated.						
Percentage of Houses Draining into Sewers.	Rooms Fumigated.	Rooms Stripped and Cleaned.	Articles Disinfected or Destroyed.	New Bins Provided or Repaired.	Periodical Frequency of Dust Removal.	Number of Complaints of Non-removal of Dust.	Overcrowding	Smoke.	Accumulation of Refuse.	Foul Ditches, Ponds, Etc., and Stagnant Water.	Foul Pigs and other Animals.	Dampness	Other Nuisances.
99·95 p.c	773	551	26425	311	Weekly.	120	55	92	85	..	..	..	279

SOCIAL CONDITIONS.

You have now had a considerable amount and variety of vital statistics placed before you, from which you may be presumed to be able to deduce your own conclusions regarding the actual and comparative position of Tottenham from a hygienic standpoint; allow me, however, to remind you that there are influences and conditions vitally affecting that position not included in any of the foregoing tables, since they do not generally lend themselves to such inclusion, for—no matter on what analysis or enquiry we may enter—mere figures scarcely ever represent the whole of the facts, and one of the most important facts in connection with the social life of your district is the extraordinary extent to which the 10 to 12 roomed house, with its small front and large back garden, has been replaced by the 4 roomed workmen's cottage with tiny yard and little or no forecourt. When we find that our population is 33 times greater than it was a century ago, the information conveyed therein is not merely the occurence of an extraordinary numerical increase, but a change in the whole character and social conditions of the locality; indeed the metamorphosis has been very striking even within the last 10 or 12 years. Tottenham was but lately the rural home of men who had inherited or otherwise secured a competency; it is to-day

the home, or rather the dormitory, of a large proportion of London workers—a veritable wilderness of houses; time was when there were about 5 acres of land to every house, now we have almost as many houses per acre as London, our figure standing at 7·7 as compared with that of 8·2 for the Metropolis.

The class which has a decided numerical preponderance amongst us is composed of unskilled labourers and it is largely for that reason that so much has been heard of the want of employment and consequent poverty which have been such bug-bears during recent winters, though doubtless general thriftlessness (including alcoholism) has had its own share in bringing about the unhappy result.

The large majority of our population lives in tenements containing less than 5 rooms and the tendency is towards a steady annual augmentation in the percentage of persons so residing.

While there were few houses in such a condition as to warrant an endeavour to secure their closure, yet there is a considerable amount of old and jerry-built property which gives the Public Health Department unending trouble with a minimum of satisfactory results. It is noticeable that this border-line class of property is chiefly tenanted by people of careless, not to say uncleanly habits. The wise, thrifty, cleanly heads of families knowing the importance to themselves and their children of living in healthy homes—exercise greater caution and incur more trouble in choosing their dwelling places and are willing, too, to pay a higher price for suitable ones when found, than are the happy-go-lucky characters who are generally found occupying old or jerry built property. A great many infantile deaths (from Diarrhœa, Debility, Wasting, &c.) take place in the small dirty houses of men reduced to poverty either by want of regular employment or faults in personal habits or character. Poverty generally carries other evils in its

train in addition to the want of proper food, clothing and attention for the young child, or the pregnant woman; when the struggle for existence is too keen there is excessive mental and bodily strain all round, and neither mother nor father as a general rule long retains either the will or the energy to pay much regard to the practice of cleanliness; we cannot wonder, therefore that the infantile mortality for St. Ann's Ward is so much greater than that for Harringay.

THE QUESTION OF PUBLIC HEALTH REFORM.

It is generally admitted by all who have taken the trouble to interest themselves in the subject that there is much need for the amendment, simplification and condensation of sanitary law, the present condition of which—particularly with regard to food, drainage and education questions—reflects no credit upon us as a nation. In the legislation of the future we want still greater consideration for "the child" who is "father of the man"; we want increased recognition of the units of mankind, no matter of what age; we want a wider development and comprehension of social justice, and a greater consciousness of the range of social duty; we want a readier hearing for the individual voices that ask relief from pain or redress of wrong. "The greatest happiness of the greatest number" is surely a noble goal, but as the movement towards it must be based largely on emotional grounds it must not be expected to be altogether free from sallies of exaggeration and unwisdom. The hopes and thoughts which can sustain the steady life-long work of strong and evenly-balanced minds will intoxicate others into excess; in the movement for public health reform, as in most similar movements, vain, foolish, superficial persons are apt to press themselves disproportionately to the front with officiousness and tiresome fuss. Let us discourage in the statement of our case, that exaggeration

which is so common with the laity when dealing with medical questions, let there be no onesideness, no vanity, for such things vex the commonsense of sober men and require and receive correction. Should, however, occasional extravagances and errors occur—as occur they must—they must not be taken too seriously to heart, but rather looked upon as the accidents of advancing development. Let us earnestly, perseveringly and with all humility point out that the nation generally, and the leaders of the nation particularly, are morally responsible for the havoc which is being wrought year after year by essentially preventable diseases such as Consumption, Summer Diarrhœa and indeed the whole class of diseases termed "zymotic"; those are the questions of the truer civilisation and stand on a much higher plane than the attainment of wealth or the extension of Empire which now seem to practically monopolise the time and energy alike of statesman and private citizen.

WHAT ARE WE DOING?

This report cannot in my opinion be more fittingly concluded than by giving a short summary of the work which is carried out by the Sanitary Authority for the welfare of the District and which may be classed under the following heads :—

1.—GENERAL SANITARY MEASURES such as house to house inspection, remedying defective drainage, having yards paved, dust removed, sewers flushed, streets cleansed, smoke nuisances abated, walls, ceilings, etc. cleansed and various kinds of nuisances abated.

2.—Steps taken to prevent the spead of Infectious Diseases, including notification, isolation, disinfection of houses, bedding, clothes, etc., tracing sources of infection, etc.

3.—Inspection of Factories, Workshops and Workplaces and causing any defects found therein to be remedied.

4.—Inspecting Schools and visiting the homes of children absent through illness and giving suitable advice to their relatives, in fact, supervising from a public health point of view, the general conditions under which the children are being educated. Under this head too may be classed the visitations paid to the houses from which births and deaths are notified and the giving of proper instructions in connection therewith.

5.—Endeavouring to secure, as far as the law gives us power to do so, the good quality of the food, both of children and adults.

6.—Provision of Chemical and Bacteriological Laboratary to aid in the diagnosis of disease and the ascertainment of the quality of water, milk, air, etc.

We may now ask : " What else should we do ? "

WHAT ELSE SHOULD WE DO?

Summary of Reforms suggested by the Medical Officer of Health to which he invites the special attention of Councillors :—

1.—The complete control over the production, transit and storage of the milk needed to supply the infantile population of Tottenham.

2.—The compulsory notification of Consumption (which would furnish us with a suitable opportunity for instruction and disinfection).

3.—Provision for the *Sanatorium Treatment of a certain number of Consumptives in the early stage of the disease* and for the *isolation of all who are in the late stages of the disease* and consequently a serious danger to the community.

4.—Combined Legislative and Municipal endeavour to abate dust and smoke nuisances.

5.—The appointment of a special Food Inspector.

6.—The prevention of expectoration in public places.

7.—Power to prevent the aggregation of gipsies altogether in yards and other confined areas, or *under any other conditions which, in the opinion of the Sanitary Authority, constitute a nuisance.*

8.—The provision of one or more créches, preferably in connection with the *practical* teaching of hygiene and infant management in schools.

9.—The more frequent watering of roads and the nightly washing of main streets, more especially in dry weather and on the evenings of those days on which big football matches are played in the district.

10.—The tar macadam paving of courts and alleys, particularly in the poorer and more populous portions of the district.

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