[Report 1894] / Medical Officer of Health, Plymouth Borough and Port.

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HEALTH OF PLYMOUTH

During the Year 1894.

BY

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Report for the Year 1894.

MEDICAL OFFICER OF HEALTH'S DEPARTMENT,

MUNICIPAL OFFICES, PLYMOUTH.

Mr. CHAIRMAN AND GENTLEMEN,

I have the honour of submitting to you my Fourth Annual Report upon the health of the Borough for the year 1894, and upon the work of the department during that period.

With the report on the public health of the Borough is combined that of the floating population of the port, both being intimately associated.

As in former reports the thirteen ecclesiastical parishes have been dealt with as separate districts, being areas of known extent and population.

HOUSING OF THE WORKING CLASSES.—Considerable progress has been made in this direction during the year, some delay, however, was caused by the death of the Local Government Board inspector, which occurred shortly after his visit here, thus necessitating another inquiry, which has been held, and sanction obtained to the scheme; so I trust that the erection of the houses at Prince Rock for the displaced population wil shortly be commenced.

PUBLIC BATHS AND WASH-HOUSES.—The conditions of these buildings remains the same, that of dilapidation and decay. No progress has been made for the provision of more suitable

baths, an absolute necessity in a district where the houses are not provided with so necessary an adjunct to the sanitary conveniences of every home.

Public Mortuary and Coroner's Court.—During the year some progress has been made in the direction of the provision of a public mortuary; a committee having been appointed, it was decided that the site in Vauxhall Street was the most suitable.

The former plans have been amended and have been accepted by your Committee, application has now to be made for an inquiry by the Local Goverment Board for borrowing powers.

The plans have been so arranged that it will be possible to construct the Mortuary alone or with Coroner's Court and Caretaker's Residence, as may be considered best.

Steam Disinfector and Disinfecting Station.—I am able to report that this most valuable addition to the equipment of the department, is now fixed in a specially constructed building at Mount Gould, and is in full working order.

Refuse Collection and Disposal.—This work is carried out by a contractor as in former years, the method of disposal remains the same, viz, sending it by rail, road, or barge into the surrounding rural districts for the purpose of manure, and as additional land has been purchased for the purpose, I trust that the views of the Sanitary Committee (viz., that some more efficient method of refuse disposal is required) will be carried into effect.

Street Cleansing.—Early in the year the superintendence and administration of the street cleansing was transferred from the Sanitary Committee to Works Committee.

Water Supply.—The laying of the line of pipes from the

Head Weir to Roborough has been completed; the pipe line is not exclusively used at present for the supply of the Borough so that until the leat ceases to be used the water supply of Plymouth is liable to pollution as it has been hitherto.

During the year systematic house to house inspection has been carried on by the inspectors under my personal supervision, the class of houses inspected being those coming under the bye-laws, as houses let in lodgings, or tenement houses. During the year a considerable increase in the number of inspections, as compared with the previous year. During the year 1893, two thousand visits were made, whilst during the year 1894, five thousand visits of inspection were made, resulting in the carrying out of 1,050 sanitary improvements and necessary repairs.

Meat and Fish Inspectors.—The usual vigilance has been exercised by your officials during the year to prevent the sale of unsound meat or fish, with the result that 12½ tons of meat and 26 tons of fish unfit for food has been seized and destroyed.

Cowsheds, Dairies, Milkshops, and Bakehouses.—These have been systematically inspected during the year, in which time some 3,000 visits have been made.

Factory and Workshop Act and Shop Hours' Act.—Under the provisions of the above Acts some 1,300 visits have been made.

I cannot conclude without expressing my appreciation of the excellent manner, the staff without exception, have carried out their multifarious and arduous duties during the past year, duties which are constantly increasing and which have been responded at all times with willingness and ability.

I must again take this opportunity of thanking the medical

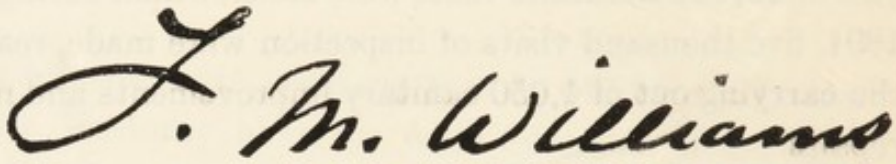
men of the Borough for their valuable assistance and co-operation.

I beg, also, to tender my warmest thanks to the Chairman and Members of the Sanitary Committee for their support during the year.

I have the honour to remain,

Gentlemen,

Your obedient Servant,



General Sanitary Condition of the County Borough of Plymouth at the end of the year 1894.

Borough of Plymouth—Area—Population—Boundaries —Rateable Value—Inhabited Houses.

The area of the Borough is 1,491 acres, which includes the island of St. Nicholas in the parish of St. Andrew. Population calculated to the middle of 1894, 87,931. The Borough consists of two parishes, St. Andrew and Charles; which are again sub-divided into thirteen ecclesiastical districts, namely St. Andrew, St. Peter, St. Saviour, St James, All Saints, Christ Church, St. Matthias, Holy Trinity, Charles, St. Jude, St. John, St. Luke, and Emmanuel.

The limits of the Urban Sanitary District are co-terminus with those of the County Borough of Plymouth.

The district is bounded on the north by the parishes of Egg Buckland and Stoke Damerel, on the west by the township of Stonehouse, on the south by the waters of the Sound, on the east by the parish of Egg Buckland,

The rateable value of the Borough is £315,300.

The number of houses in the Borough is 10,758, of which 150 have been built during the year.

Site and Soil.

The town of Plymouth is situate in Lat. 50·22 N., Long. 4.10 W. The site of the town is on the southern slope of the foot hills of Dartmoor. The town with its environs stands

upon the slate and limestone of the middle Devonian series. The limestone forms a broad band next the sea, broken through at the entrance of Stonehouse Pool, Millbay, Sutton Pool, and by the Plym. It rises to an average height of 100 feet; the slate hills to the north reaching that height within the area of the Borough at Headlands, the highest point of the North Hill ridge. The junction of the limestone with the slate runs roughly parallel on the line of the Millbay Road and George Street, crossing that line to the northward on the west, and to the southward on the east; along this junction are the most productive wells in the district, though there are many good ones also in the slate.

At the north-western corner of St. Andrew's Churchyard there rises a boss of volcanic rock—and interbedded lava—known as dunstone, which occurs in considerable quantity immediately beyond the outskirts of the Borough at Mannamead. There is also a considerable area of low lying alluvial ground in the vicinity of the Octagon, extending thence on all sides. This formed part of the ancient bed of Surpool, and retained a marshy character in part until recently. Much of it is below the level of high water spring tides, and where the alluvium lies deepest, its depth has not been ascertained.

There is also a belt of low reclaimed land round Sutton Pool but of less practical importance from a geographical point of view. The limestone rocks are compact in themselves, but broken by frequent joints and fissures, and contain numerous caverns which provide a system of underground drainage.

The slate rocks vary considerably in character, from the loose broken material locally known as "shillet" to the compact red and purple slates, which is locally distinguished by the absence of water bearing qualities. As a rule, however, the slate rocks admit freely of percolation of rain and sewage, and the shallower wells sunk in them used to be carefully examined if intended for potable purposes. Some of the

deeper wells, however, yield both an abundant and an excellent supply.

The alluvial area excepted, the geological condition of Plymouth, and the contours are singularly favourable for the site of a large town, the subsoil as a rule is shallow, particularly on the limestone.

Water Supply.

The Waterworks of Plymouth belong to the Corporation. The supply of water is entirely by gravitation, and is obtained from the upper reaches of the watershed of the River Meavy on Dartmoor. The gathering ground is about 4,885 acres, or 7½ square miles, in extent, and lies between 700 and 1,700 feet above the sea level. The rocks composing it are of igneous origin, mostly granitic, but a small area is of the altered Devonian.

The water which has hitherto been conducted from Burrator to Roborough in an open channel (and liable to pollution from various causes specified in former reports) is now conveyed by pipes, the leat being also used.

The completion of the scheme (of which conducting the water by pipes is a part) will be of the utmost benefit to the inhabitants of the Borough, it will give them an abundant and constant supply of pure water, thereby removing the numerous dangers inseparable from an intermittent and precarious water supply.

The water is very soft—1½ degrees of hardness—and is eminently suitable for domestic and trade supplies. The quantity supplied per head, including that for trade purposes, is 42½ gallons per day.

The present system of supply is extremely precarious, there being no storage reservoirs, unless the service reservoirs (four in all), with a total capacity of 13,000,000 gallons can be so called, the storage being only sufficient for three days' supply.

The storage capacity of the new Burrator Reservoir when completed will be five hundred million gallons, sufficient for the supply of a population of 130,000 persons (present population supplied, 91,000) for 130 days at the rate of six million gallons per day (present daily supply 4,000,000 gallons).

Sewage, Disposal and Drainage.

The sewage of the town (with the exception of that of a small district on the west of Mutley Plain) is discharged into the harbour by four outfalls at different points. The sewage receives no chemical or other treatment before its discharge.

The Borough for drainage purposes is divided into five districts or drainage areas, each having its own outfall.

The largest area includes the western half of the town, taking the Tavistock Road as the dividing line. The sewage from this district is discharged by an outfall at Millbay, close under the western end of West Hoe Terrace; it is discharged only on the ebb tide, the sewage accumulating during the flood tide in a large impounding sewer recently constructed. The sewage from the area to the east of Tavistock Road is discharged into Cattewater at Deadman's Bay during the ebb tide, the sewage accumulating during the flood tide in an impounding reservoir. The greater part of the parish of St. Saviour, about eight acres, forms another small area, draining into the Harbour at Fisher's Nose.

The area formed by the portion of the north-east part of the Borough to the east of Mutley Plain, drains into the sewer of the Compton Gifford Local Board, by arrangement, and is treated chemically, in the settling tanks owned by that Board the sludge being removed, the remaining liquid is discharged into the Laira.

The remaining area, is that portion of the Borough north of the North Road as far as Mutley Station. The sewage from

this district is received into the Stonehouse and Compton joint sewer, discharging into the harbour at the eastern point of Firestone Bay during the ebb; during the flood tide the sewage is retained in the low level sewer.

The present scheme provides outfalls in deeper water than those of existing sewers. The outfalls at Rusty Anchor and Fisher's Nose will be in five and three fathoms of water, respectively, and well in the tide way.

The main intercepting sewerage scheme for the Borough and surrounding districts has been recently reported upon by Mr. James Mansergh, C.E., the eminent engineer.

On engineering questions it is not for me to speak, but I must point out that whatever your decision as to his proposal may be, it will be necessary for you to watch all schemes for the disposal of sewage from those areas lying on the borders of the Borough whose present condition and means of sewage disposal are open to serious objections upon sanitary grounds.

Vital and Mortal Statistics.

THE AREA OF THE BOROUGH.—1,491 acres.

POPULATION.—At the census taken in April, 1891, the population was 84,248, and it is estimated that at the middle of 1894 the population of the Borough was 87,931.

DENSITY.—The mean density of population is 58·9 persons per acre. The average of 58·9 is greatly exceeded in different parts of the Borough, as will be seen by reference to the localized mortality rates.

INHABITED HOUSES.—10,700 estimated number; 150 have been built during the year.

RATEABLE VALUE.—£315,300.

Distribution.—The population is unevenly distributed over an area of 1,491 acres, the mean density being 58·9 persons per acre. The population density of the thirteen districts into which the Borough is divided varies from 21 persons in St. Jude's to 207 in Trinity.

The average number of persons per house is 8·5, whilst Liverpool (the most densely populated town in the country) averages 6 persons per house; Derby 5 persons; Portsmouth 5·6 persons per house.

The proportion of the inhabitants occupying tenements is considerably in excess of any of the large towns. Of a

population of 87,931 some 50,942 persons occupy tenements of 1, 2, 3, or 4 rooms. This ratio is enormously increased as compared with other towns when we take the proportionate number of persons occupying one and two rooms; as will be seen from the appended table.

Towns.	Ratio of Population occupying tenements of 1, 2, 3, and 4 rooms	Ratio of Population occupying 1 room tenements.	Ratio of Population occupying 2 room tenements.	Ratio of Population occupying 3 & 4 room tenements.
Manchester	0·497	0·007	0·068	0·421
Liverpool	0·406	0·036	0·078	0·291
Birmingham	0·534	0·005	0·028	0·500
Bristol	0·372	0·035	0·095	0·241
Leicester	0·195	0·001	0·038	0·157
Portsmouth	0·180	0·012	0·037	0·131
Cardiff	0·260	0·007	0·077	0·176
Bolton	0·650	0·001	0·064	0·585
Preston	0·402	0·002	0·016	0·385
Derby	0·206	0·002	0·021	0·184
Plymouth	**0·605**	**0·134**	**0·235**	**0·235**
Wolverhampton	0·472	0·015	0·062	0·409
Averages	0·390	0·0214	0·0682	0·3096

Table showing the Total Tenements and Number of Persons occupying Tenements with less than Five Rooms, in 12 large Towns.

Cities and Boroughs.	Total tenements	No. of tenements with less than five rooms.	No. of Persons occupying				Total.
			1 room tenements	2 room tenements	3 room tenements	4 rooms tenements	
Manchester	103,720	57,463	3,694	34,650	23,423	189,614	251,381
Liverpool	104,890	51,135	18,627	40,460	61,620	89,410	210,117
Birmingham	98,219	57,147	2,307	13,658	165,264	73,940	255,169
Bristol	48,140	23,826	7,799	21,190	24,863	28,640	82,492
Leicester	36,147	9,042	209	6,617	4,266	23,058	34,150
Portsmouth	33,980	9,435	1,991	5,918	6,792	14,066	28,767
Cardiff	25,353	9,117	969	9,933	7,997	14,695	33,594
Bolton	23,663	16,364	115	7,430	4,279	63,007	74,831
Preston	22,679	10,439	177	1,711	5,099	36,281	43,268
Derby	19,371	4,882	154	1,927	3,077	14,244	19,402
Plymouth	**19,647**	**14,385**	**11,301**	**19,835**	**12,113**	**7,693**	**50,942**
Wolverhampton	16,262	8,454	127	5,152	6,362	27,436	39,077

MARRIAGES.—The number of marriages recorded in the Borough during 1894 was 864, equal to a marriage-rate of 9·83 per 1,000 persons living, as against 872 for the previous year.

BIRTHS.—The Births registered during 1894, numbered 2,528, and comprised those of 1,265 males and 1,263 females. The Birth-rate for the past year was 28·8 per 1,000, or 1 per 1,000 less than that of 1893, and the lowest recorded rate. The Births and Birth-rates for the past ten years are as follows :—

	Number of Births.	Birth-rate per 1,000.
1885	2,325	29·7
1886	2,416	30·5
1887	2,433	30·3
1888	2,454	30·2
1889	2,505	30·4
1890	2,405	29·3
1891	2,508	29·6
1892	2,483	29·0
1893	2,590	29·8
1894	2,528	28·8

The Birth-rate of the Borough has fallen in the same ratio as of the 10 years prior to 1894, being below the average of the 33 large towns and below the average of England and Wales.

The National Birth-rate which for some years has shewn a steady decrease until last year, when there was a slight increase in the rate, has this year assumed its downward tendency. The rate for the year 1894 for England and Wales was 29·6 per 1000. The rate for the third quarter of the year was 28·5 (the lowest rate recorded since civil registration was established).

The natural increase of the population, or the excess of births over deaths during the year was 932. The estimated increase, in the population was 1,150.

DEATHS.—During the year ending December 31st, 1894 1,596 deaths were registered as having occurred in the Borough, and the Borough Asylum at Blackadon as against 1860 in the previous year, males 809, and females 787. The gross annual rate uncorrected for sex or age distribution, and based upon the estimated population, is equal to 18·2 per 1,000; this will give a ratio of one death to every 55·3 persons during the year. The death-rate is the lowest recorded.

	No. of Deaths	Uncorrected Death-rate per 1,000.	Corrected Rate.
1885	1,700	21·7	21·2
1886	1,805	22·8	22·3
1887	1,764	21·9	21·4
1888	1,734	21·3	20·8
1889	1,982	24·0	23·5
1890	1,759	21·1	20.6
1891	1,900	22·4	21·9
1892	1,616	18·8	18·3
1893	1,860	21·4	20·9
1894	1,596	18·2	17·8

As is usual the Public Institutions have been considered for statistical purposes as separate localities.

The deaths of persons from other districts occurring in these institutions (which are registered here and tend to increase our rate), are eliminated in calculating the corrected annual rate, which is 20·9, as against 18·2 the recorded rate.

The population density of the Borough is equal to 58·9 per acre, and is increasing year by year, in some portions of the Borough the density is upwards of 200 per acre. Plymouth next to Liverpool being the most densely populated town in England and Wales.

As might be expected under such conditions the general mortality rate would be above the average urban rate, taking the average of the past ten years the rate is 21·3 as against the general urban rate of 19·8.

Not only have we an abnormal population density, but we have a greater proportion of our population living in tenements than that of any of the large towns.

Take as an instance the town of Portsmouth (the inhabitants of which as regards social conditions and employment may fairly be compared with the inhabitants of the Borough), we find that the proportion of the population living in tenements is one sixth, whilst that of Plymouth is greater than a half.*

In a previous report I have pointed out these facts, and take this opportunity of doing so again to impress it upon the minds of the members of the Council and also on the minds of the public, so that the action that is being taken at the present time by your Committee, and their future policy in regard to relieving the congested areas of population may receive the unanimous approval of the Council and the inhabitants of the Borough.

I am gratified to report that in my judgment the scheme already formulated and to which you have after much anxious work obtained legislative sanction is comprehensive, well considered, and well calculated to minimize the evils to which I have alluded.

In carrying to completion a scheme which touches so many interests and involves the acquisition of such a large amount of property and the building of dwellings for the displaced population, much time is necessarily consumed. I am led, however, to hope that the work of erecting suitable dwellings

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* As the mortality of any given area bears a direct ratio to the number of its inhabitants, and also that while the general mortality is greatly increased in tenement populations, the mortality from diseases of the respiratory organs amongst children is quadrupled. Having a knowledge of these facts it is clearly the duty of the municipal body, through your Committee, to reduce the existing overcrowding and distribute the population of the densely populated areas over those vacant areas within the Borough.

at Prince Rock, will, thanks to the exertion of Housing of the Working Classes Committee, be commenced during the current year.

I attribute the lessened mortality to the large amount of constructive and administrative work which has been done, and I look to a further reduction of the death-rate from a continuance of the policy, which aims for securing for the Borough—first, pure air in abundance; second, a pure and abundant water supply; third, a pure soil and subsoil. The powers conferred upon local authorities by recent legislation will enable your Committees to clear the congested areas, to widen streets, and to provide the working classes with better dwellings, more light, and more air.

Many street improvements have already been effected and others are being carried out to the ornament of the Borough and to the advantage of its sanitary condition.

By the vigorous and wise policy of the Committee entrusted with the administration of the water supply of the Borough the second requirement has been practically fulfilled, although as a sanitarian I must remark that I shall not be satisfied until the storage reservoir is completed, and the use of the leat for the purpose of conveying the water to the Borough for potable purposes is absolutely discontinued. In reference to the third requirement that of a pure subsoil, I cannot too strongly insist that the low level districts having many defective sewers should receive the early attention of the Council. These districts are subject under certain recurring conditions to flooding, to the danger of the health of the inhabitants.

The subsidiary sewers throughout the Borough are being examined with a view to the relaying of such as are defective and leaky. I am aware that many such have been relaid during the past three years, and I hope that the remainder will be similarly dealt with as soon as circumstances permit.

Plymouth is entitled from her great physical advantages and geographical position to rank among the sanatoria of the country, and when the works now in hand and in contemplation have been brought to a conclusion, I feel little doubt that she will hold even a higher place in public estimation as a health resort than she does to-day.

I have appended a table giving the comparative mortality, births, and density rate for 20 of the large towns, and the average of the 33 large towns as given by the Registrar-General.

Comparative Mortality Table.

Shewing the Estimated Population, Density, Birth-rate, Death-rate, Zymotic-rate, and Infantile Death-rate of 20 large towns of England and Wales for the year 1894.

Cities and Boroughs.	Estimated Population in the middle of 1894.	Persons to Acre (1894)	Birth-rate.	Death-rate.	Zymotic rate.	Deaths under 1 year to 1,000 Births.
33 Large Towns ..	10,458,442	34·9	30 7	18·1	2·44	153
London	4,349,166	58·2	30·1	17·8	2·66	144
Manchester	520,211	40·3	32·0	20·4	2·38	160
Liverpool	507,230	97·3	35·4	23·9	3·42	180
Birmingham	492,301	38·7	31·7	18·6	2·49	163
Leeds	388,761	18·0	32·2	17·9	2·00	156
Sheffield	338,316	17·2	33·4	17·8	2·26	157
Bristol	226,578	50·8	28·2	17·3	2·04	148
Nottingham	223,584	20·4	28·6	17·2	2·34	174
Hull	212,679	25·9	32·4	16·4	1·31	140
Newcastle	201,947	37·6	31·0	18·3	2·16	157
Leicester	189,136	22·0	31·4	14·7	2·00	163
Portsmouth	170,973	39·6	27·6	15·2	1·95	131
Cardiff	148,890	24·6	34·3	16·2	1·95	141
Sunderland	136,101	47·5	35·1	20·3	3·07	168
Blackburn	125,797	18·0	28·8	17·9	1·61	169
Bolton	118,303	50·2	31·5	18·8	1·82	163
Preston	111,425	27·2	32·0	20·8	2.61	218
Derby	98,796	28·6	29·3	15·0	1·64	123
PLYMOUTH	**87,931**	**57·1**	**28·8**	**18·3**	**1.58**	168
Wolverhampton ..	85,036	24·1	34·1	20·7	3·24	166

Mortality at Different Seasons.

To a certain extent the mortality rates are governed by the meteorological conditions of the different seasons, the periods

of low temperature and generally inclement weather, as might be expected, would affect the old and feeble and those suffering from diseases of the respiratory organs, so that we should expect the first and fourth quarters of the year should show the highest mortality.

During the first quarter of 1894, 602 deaths were registered as compared with 482 for the corresponding quarter of 1893.

During the second quarter, 333 deaths were registered as against 477 for the corresponding period of 1893.

During the third quarter, 298 deaths were registered as against 388 for the corresponding quarter of 1893.

During the fourth quarter, 363 deaths were registered as against 513 for the corresponding period of 1893.

The first quarter of the year shews a very heavy death toll especially amongst young children, the result of influenza and whooping cough which were epidemic during this period.

The number of deaths from whooping cough during this period was 56, whilst influenza caused 25 deaths.

The number of Deaths registered during each quarter of the year are as follows :—

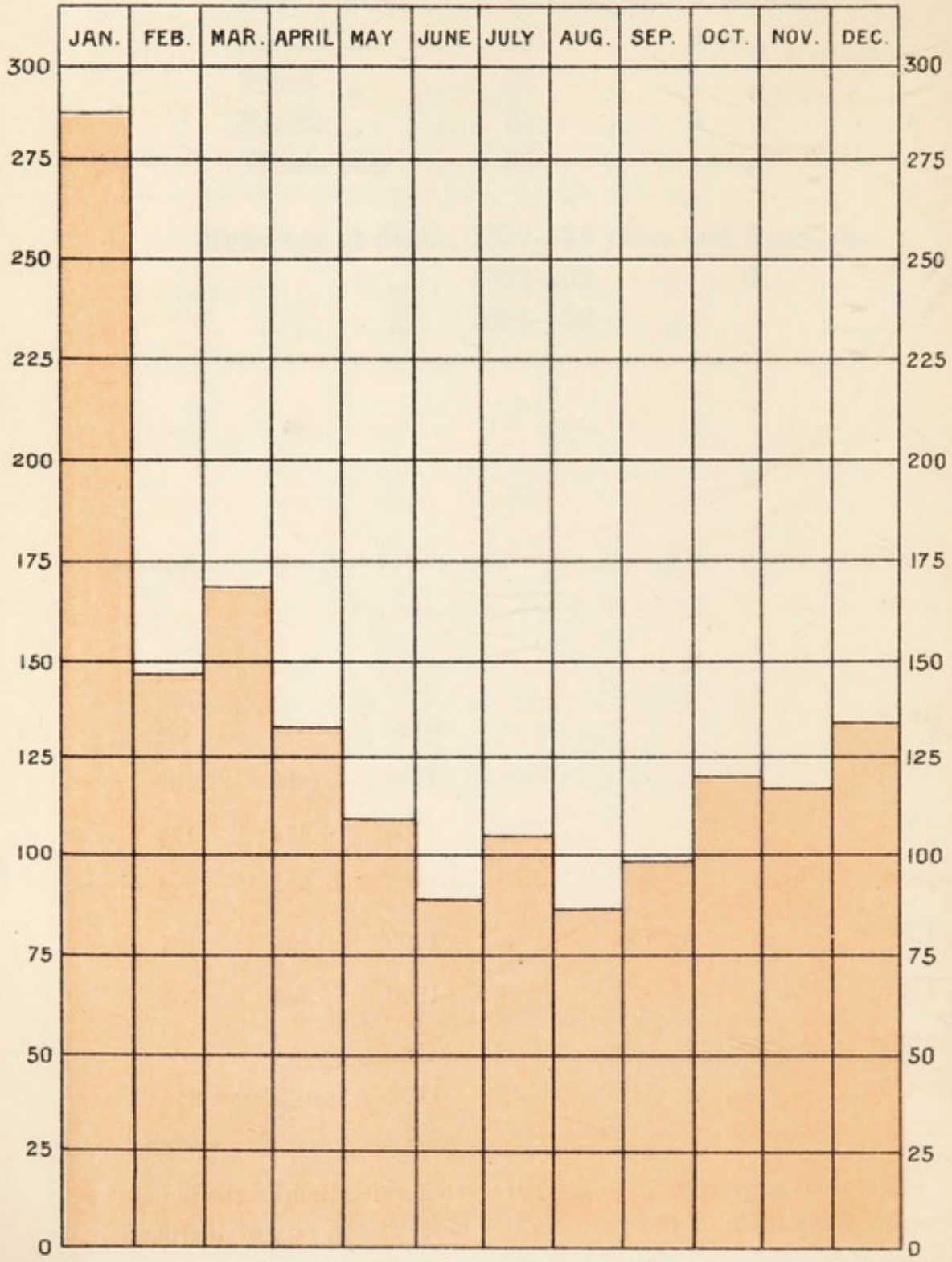
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.
Total deaths	602	333	298	363	1596
Male	306	160	145	198	809
Female	296	173	153	165	787
Death-rate..	27·4	15·1	13·6	16·5	18·2

The mean age at death during each quarter of the year is shewn below:—

First quarter	.....	32	years and	4	months
Second ,,	.....	35	,,	9	,,
Third ,,	.....	32	,,	5	,,
Fourth ,,	.....	31	,,	6	,,
Whole year	.....	33	,,	...	,,

Mean age at death, 1892—36 years and 8 months.
,, ,, 1893—32 ,, 9 ,,
,, ,, 1894—33 ,, ... ,,

CHART SHEWING MORTALITY FROM ALL CAUSES, 1894.



The lowest number of deaths in one month was in August viz 93, and the highest in January viz 287.

JOHN SMITH, LITH, PLYMOUTH

TABLE I.

Showing the Estimated Population, Marriages, Births, and Deaths for the year, 1894, and 10 years preceding.

Year.*	Estimated Population.	Marriages	Registered Births.	Number of Deaths.		
				All Ages.	Under 1 Year.	Principal Zymotic Diseases
1894	87,931	864	2528	1596	426	138
1893	86,781	872	2590	1860	443	236
1892	85,646	920	2483	1616	342	150
1891	84,526	899	2508	1900	452	202
1890	83,421	857	2445	1759	392	214
1889	82,330	844	2505	1982	419	454
1888	81,254	829	2454	1734	400	139
1887	80,191	859	2433	1764	479	177
1886	79,142	796	2416	1805	375	232
1885	78,108	742	2325	1700	364	181
1884	77,086	789	2412	1600	360	155
Average of 10 years 1884-93		841	2457	1772	402	214

* For statistical purposes the Registrar-General estimates the population to the middle of the year, on the basis of the rate of increase ruling between the two preceding census periods.

TABLE II.

Showing the Density, Birth-rate, Death-rate, Zymotic-rate, and Infantile Death-rate for the year 1894, and 10 years preceding.

Year.	Persons to an acre.	Birth-rate.	Death-rate	Zymotic-rate.	Deaths under 1 year to 1000 Births.
1894	58·9	28·8	18·2	1·58	168
1893	58·2	29·8	21·4	2·71	171
1892	57·4	29·0	18·8	1·75	137
1891	56·7	29·6	22·4	2·39	181
1890	55 9	29·3	21·1	2·56	160
1889	55·2	30·4	24·0	5·51	167
1888	54·5	30·2	21·3	1·71	163
1887	53·8	30·3	21·9	2·20	196
1886	53·0	30·5	22·8	2·96	155
1885	52·3	29·7	21·7	2·31	156
1884	51·7	31·2	20·7	2·01	149
Average of 10 years 1884-93		30·00	21.61	2·61	163

TABLE III.

Shewing the number of Deaths from the Principal Zymotic Diseases for the year 1894, and 10 years preceding.

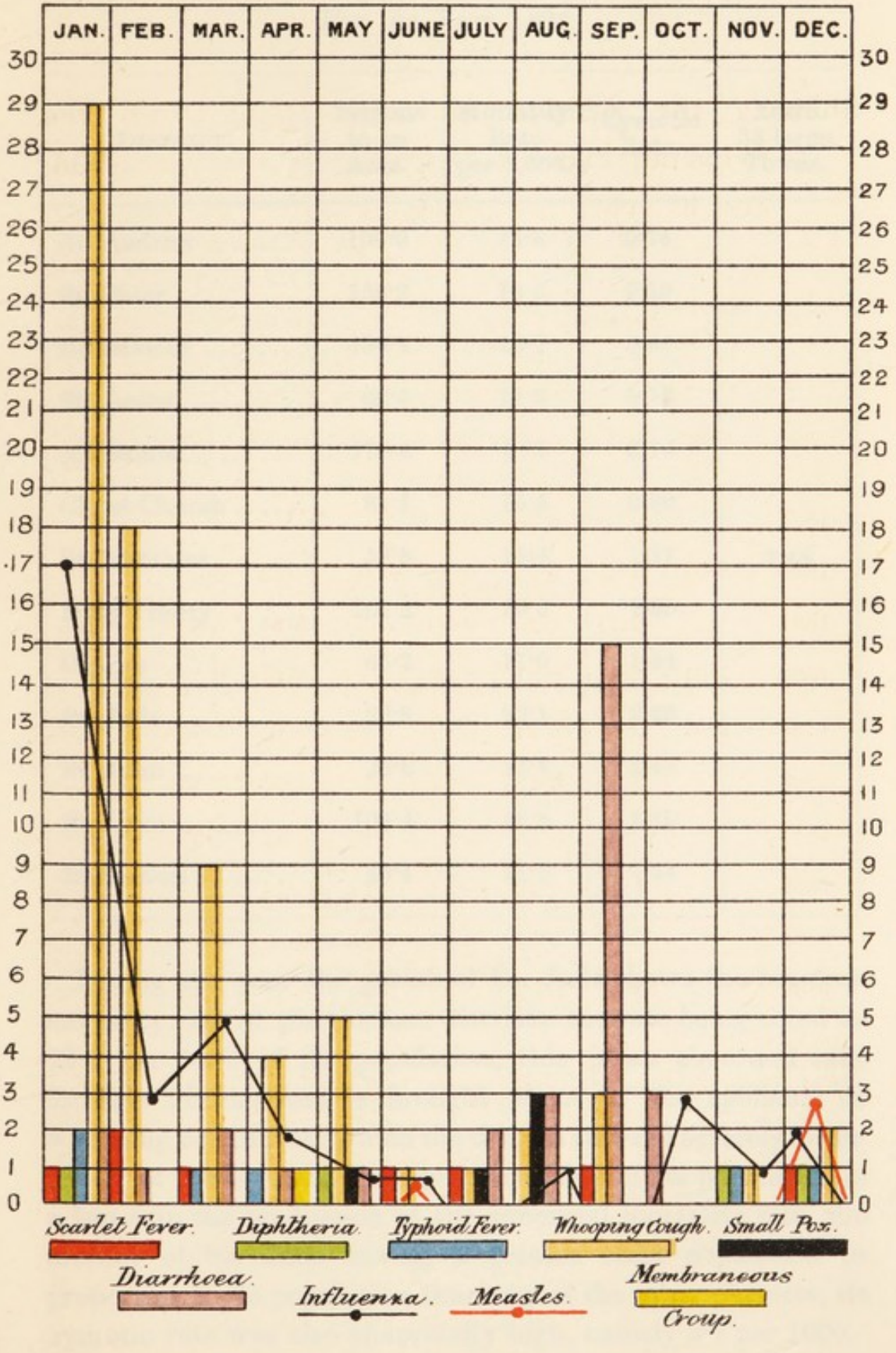
Year.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria	Whooping Cough.	Fever.	Diarrhœa.	Totals.
1894	5	4	8	4	75	12	30	138
1893	..	83	21	10	46	12	64	236
1892	1	18	44	9	4	20	54	150
1891	..	28	17	5	68	15	69	202
1890	1	56	26	14	28	27	62	214
1889	1	16	267	44	53	16	57	454
1888	..	69	7	11	4	16	32	139
1887	..	6	15	6	50	17	83	177
1886	..	83	18	10	17	43	63	234
1885	..	20	12	10	81	17	41	181
1884	..	47	2	9	17	29	51	155
Totals of 10 years. 1884-93	3	426	429	128	368	212	576	2142

TABLE IV.

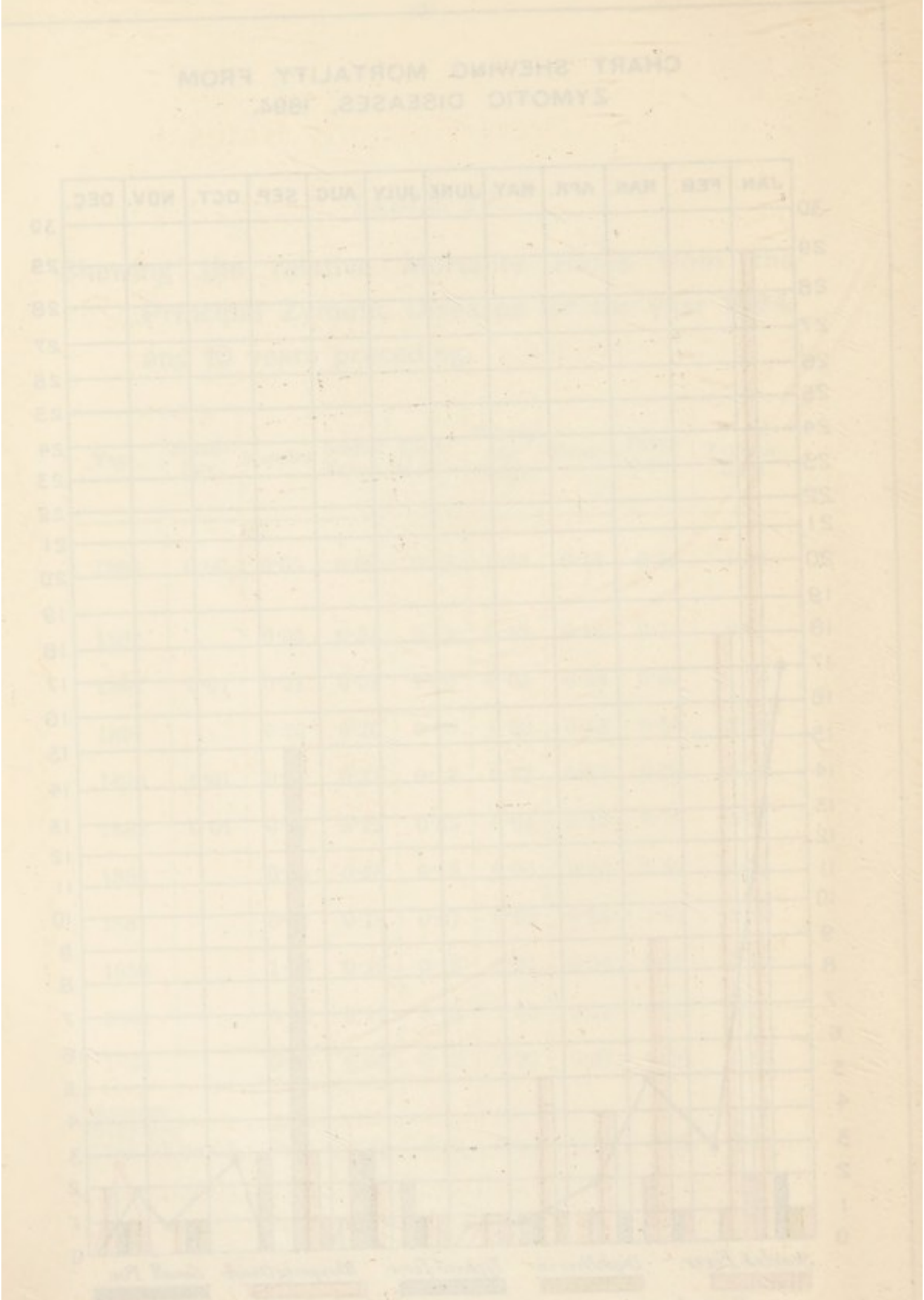
Shewing the relative Mortality Rates from the Principal Zymotic Diseases for the year 1894, and 10 years preceding.

Year.	Small-Pox.	Measles	Scarlet Fever.	Diph-theria.	Whooping Cough.	Fever.	Diarr-hœa.	Total Zymotic Rate.
1894	0·06	0·05	0·09	0·05	0·85	0·14	0·34	1·58
1893	..	0·95	0·24	0·11	0·53	0·14	0·74	2·71
1892	0·01	0·21	0·51	0·10	0·05	0·23	0·63	1·75
1891	..	0·33	0·20	0·06	0·80	0·18	0·81	2·39
1890	0·01	0·67	0·31	0·17	0·33	0·32	0·74	2·56
1889	0 01	0·19	3·24	0·53	0·64	0·19	0·70	5·51
1888	..	0·85	0·08	0·13	0·05	0·20	0·40	1·71
1887	..	0·07	0·18	0·07	0·62	0·21	1·04	2·20
1886	..	1·05	0·22	0·13	0·21	0·54	0·80	2·96
1885	..	0·26	0·15	0·13	1·03	0·22	0·52	2·31
1884	..	0·61	0·02	0·12	0·22	0·37	0·66	2·01
Average of 10 years 1884-93	0·003	0·52	0·52	0·16	0·45	0·26	0·70	2·61

CHART SHEWING MORTALITY FROM ZYMOTIC DISEASES, 1894.



JOHN SMITH, LITH, PLYMOUTH



Localized Mortality Rates.

For the Year 1894.

District.	Persons to an Acre.	Mortality Rate per 1,000.	Zymotic Rate.	Ditto 33 large Towns.
St. Andrew	104·0	13·8	0·74	
St. Peter	159·2	18·5	2·20	
St. Saviour	188·4	19·2	3·67	
St. James	66·6	11·6	0·17	
All Saints	178·4	18·4	0·74	
Christ Church	81·1	15·5	0·80	
St. Matthias	59·8	15·4	1·11	2·44
Holy Trinity	207·2	20·5	1·60	
Charles	65·7	17·0	1·84	
St. Jude	20·9	22·1	2·65	
St. John	23·6	21·4	2·44	
St. Luke	104·4	18·5	1·19	
Emmanuel	43·4	21·6	1·44	

During the year the parish of St. Jude shews the heaviest mortality rate of the thirteen districts, the rate being equal to 22·1 per 1000 of its population, this is an abnormal rate for this district and is brought about by the epidemic of whooping cough from which the district suffered severely in the winter of 1893—1894, the age distribution of its population is a factor in the production of the abnormal mortality rate, the district of St. Jude having a greater child population in proportion to its population than any of the other districts, its zymotic rate was also abnormally high, namely 2·7 per 1000.

The mortality rates of the most densely crowded districts, St. Peter's and Trinity, have again shewn a decline, the rate of Trinity being equal to 20·5 per 1000 of its population as against 25·7 for the year 1893, whilst that of St. Peter's is equal to a rate of 18·5 per 1000 of the population as against 21·5 per 1000 for 1893.

St. Saviour's parish suffered severely from whooping cough the age distribution of its population generally affecting its zymotic rate which was equal to 3·67 per 1000 of its population, while the general rate was equal to 19·2 per 1000 of its population, which is a low rate considering its population density (which is equal to 188 per acre) and also that its population is a tenement one ; its situation on the south-east slope of limestone rock in great measure accounts for its low mortality rate. Another factor, however, is the occupation of most of its male inhabitants who are fishermen.

Infantile Mortality.

The mortality of infants under one year of age was in the proportion of 168·5 deaths to 1,000 births registered, being 2·5 per 1,000 below the rate for 1893. The total number of deaths of infants under one year was 426.

The following table gives the number of births, and of infant deaths, with the infant mortality rate, for the past ten years.

	No. of Births.	No. of Infant Deaths.	Infantile Mortality Rate per 1,000 Births.
1885	2325	364	156
1886	2416	375	155
1887	2433	479	196
1888	2454	400	163
1889	2505	419	167
1890	2445	392	160
1891	2508	452	181
1892	2483	342	137
1893	2590	443	171
1894	2528	426	168

I have appended a table giving the causes of the 433 deaths of infants that occurred during the past two years, from which it will be at once seen that the diseases reponsible for the heaviest mortality are those of the respiratory and digestive organs.

Infant Mortality in Plymouth in 1893 and 1894 from different Diseases.

	1893.	1894.
Measles	18	1
Whooping Cough	23	32
Diarrhœa	48	28
Tabes Mesenterica...	11	12
Premature Births	32	54
Convulsions...	25	35
Bronchitis	57	63
Pneumonia	24	20
Diseases of Stomach	19	11
Enteritis	33	18
Debility, Atrophy, Inanition ...	31	29
Other causes	122	123
Total	443	426

Illegitimacy, 1894.

During the past year 97 births of illegitimate children have been recorded, being 3·8 per cent. of the whole. The number of deaths of illegitimate children under one year was 24, equal to a rate of 247·5 per 1000 births, the rate for legitimate children being equal to 165·4 per 1000 births.

During the year there has been an increase in the number of illegitimate births but a lowered mortality, which is satisfactory to note; I believe this decreased mortality is due to the vigilance of the officers of the N.S.P.C.C., although the mortality of illegitimate children from various causes is twice as heavy as the rate of legitimate children, it is satisfactory to note a decrease.

Certification of Causes of Death.—Of the 1596 deaths registered, 1474 or 92·4 per cent. were duly certified by registered medical practitioners, and 103 or 6·4 per cent. by coroners after inquest, whilst the remaining 19 or 1·2 per cent. were not certified.

There has been an increase in the uncertified deaths in the Borough during the year, and although not a large increase it is a matter for consideration; during the year 19 deaths have occurred in the Borough, the causes of which have not been certified, or in other words these cases received no medical attendance prior to, nor inquiry by coroner, after death. I am strongly of opinion that no corpse should be permitted to be buried without the production of either a certificate as to the cause of death, signed by a qualified medical man, or a coroner after due inquiry.

The laxness of the laws relating to the registration of deaths in this country require speedy amendment.

The Borough coroner has during the year made inquiry into the cause of 103 deaths, the causes of which as certified by him are as follows :—

Violent Deaths—Accident or Neligence :—

Burns and Scalds	7
Drowning	8
Suffocation	6
Other Injuries	18

Violence other than Accidental :—

Homicide	1
Suicide	7
Natural Causes	56
	103

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
All Causes	1596	239	188	100	112	24	21	32	37	52	44	54	52	54	57	76	69	101	101	77	106	1596
I.—Specific Febrile or Zymotic Diseases	186	41	34	24	37	2	4	4	4	5	4	5	2	..	4	5	2	3	2	1	3	186
II.—Parasitic Diseases ..	.	..	..	..	..	..	..	..	.	..	..		..	..	..	..	..	..	..	..	..	..
III.—Dietetic Diseases ..	2	..	..	.	.	..	..	..	..	..	1	..	..	..	1		..	..	..	..	..	2
IV.—Constitutional ..	306	20	19	12	10	10	8	14	14	26	25	23	26	16	26	9	15	7	16	6	4	306
V.—Developmental ..	184	33	34	..	..	..	..	..	..	..		..	..		1	2	..	8	12	37	57	184
VI.—Local	835	126	87	57	59	9	9	12	19	17	7	23	24	38	23	53	52	81	67	33	39	835
VII.—Violence	47	3	1	6	5	3	.	2	..	4	4	3	..	.	2	7	..	2	2	..	3	47
VIII.—Ill-Defined and not Specified Causes	36	16	13	1	1	..	..		.	..	3	..		..	..	..	.	..	2	..	..	36

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		TOTAL.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
I.																						
1.—Miasmatic Diseases	145	18	21	23	36	2	4	4	4	5	3	4	1	.	4	5	2	3	2	1	3	145
2.—Diarrhœal ,,	30	18	10		1	.	..	..	..	..	.	.	1		..	.			..	..		30
3.—Malarial ,,	..		..	..	..		..	..	..	..	.	..	..	.	..				..		..	..
4.—Zoogenous ,,	..	..	..				..		..	..			..	..		..	.	..	.	..		.
5.—Venereal ,,	8	4	3	1	.	.	..	.			.		.	.			..	.				8
6.—Septic ,,	3	1			..	..	.	..	..		1	1	.		..	.	..		..	..	..	3
II.																						
Parasitic Diseases ..	..	..			.	.	..		.		.	..	.			..	..	..		..	.	
III.																						
Dietetic Diseases ..	2	.	..	..	.	..	..	.	..	.	..	..	1	..	..	..	1	..	..	..	..	2
IV.																						
Constitutional Diseases ..	306	20	19	12	10	10	8	14	14	26	25	23	26	16	26	9	15	7	16	6	4	306
V.																						
Developmental Diseases ..	184	33	34	..		..	..	..	..	..	..	..	.	..	1	2	..	8	12	37	57	184

MORTALITY TABLES.—Deaths in the County Borough of Plymouth for 12 months, ending 31st Dec, 1894

CAUSES OF DEATH.	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 upwards.		TOTAL.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
VI.																						
1.—Diseases of Nervous System	178	30	22	6	11	2	4	4	3	2	2	3	3	6	4	16	11	22	12	8	7	178
2.— ,, Organs of Special Sense	3	.	.	1	1		..		1		.	..	.	..			..	..		.		3
3.— ,, Circulatory System	151		3		1	3	2	3	5	4	2	8	6	11	5	10	18	23	23	9	15	151
4.— ,, Respiratory System	326	60	35	43	40	.	1	3	5	6	..	3	4	12	8	19	16	24	24	15	8	326
5.— ,, Digestive System	132	32	26	6	6	2	2	2	3	3	2	7	4	6	3	6	5	4	4		9	132
6.— ,, Lymphatic System and Ductless Glands	.	..	..	..					.	..	..	..	..		..	..		.				.
7.— ,, Urinary System	26	2	..	1	..	..	..	..	..	..	.	2	2	3	2	2	..	8	3	1		26
8.— ,, Reproductive System																						
,, (a) Organs of Generation	6	..		.			.	..	.			..	2		1	..	2	.	1	..	.	6
,, (b) Parturition	5	..	.	.	.	..	..	.	1	..	1	.	3	..			..			.	..	5
9.— ,, Diseases of Organs of Locomotion	6	..	1		..	2	..	..	1	2	.	.	..		..	..	..	.	..	..	..	6
10.— ,, Integumentary System	2	2		..	.		..	.		..	..	..	..	.	..		..	..	.	.		2
VII.																						
1.—Accident or Negligence	39	3	1	6	5	3	..	2	.	3	2	2	.	.	2	3	..	2	2		3	39
2.—Homicide	1		..	..	..	..	.	.	.	..	.	1	..			..	.		..	..	..	1
3.—Suicide	7	.	..	.	.		..	..		1	2	.		..	..	4		..	..	..	..	7
4.—Execution	.	.	..	..		.	..	..	.	.	..	..	..	.	..	..	..		..	.		..
VIII.																						
Ill-defined and not Specified Causes	36	16	13	1	1	..	..				3	..	..		.		..		2			36

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
MIASMATIC DISEASES.																						
Small Pox	5	1	.	1	2	.	..	..	..	..	1	..	..	..	..	..	..	..	..	.	..	5
Chicken Pox	1	1		.	..				..	..		..	.	..	..	.		..	..	..		1
Measles	4	..	1		3	..	..	..	..		..	..	..		..	..	..	..	..	..	..	4
Epidemic Rose Rash	.	..	..	.	..	..	..	..	..	..		.	..	.		..		..	..	.	..	
Scarlet Fever	8	2	..	3	2	.	1	..		..	.	.	..					.	..	..	.	8
Typhus Fever	..	.	.	..	..		..	..	..	..		..	.	..	..	..	..	..		..	..	.
Relapsing Fever	..	.	.			..	..	..	.	.	.	.	..		.	..	..	..	..		..	..
Influenza	36	..	2	2	3	..	..	3	1	2		4	..	..	4	4	2	3	2	1	3	36
Whooping Cough	75	14	18	16	25		2	..	..		..	.			..	..	..		.	..	..	75
Membranous Croup	1		.	1	..	..	..			.	..	..	..	.	.	.		..	..	..	..	1
Diphtheria	4	.	..	.	1	1	..	..	1	1	..	..		.		..		..	..	.	..	4
Cerebro-spinal Fever	..	.	..	..	..	..	.		.		.	..	.	.	..			..	..	..		..
Simple and Ill-defined Fever	..					..		..	..	..	..	..	..	..	..	..		..	..		..	..
Typhoid or Enteric Fever	11		..	.	..	1	1	1	2	2	2	.	1	..	.	1	.			..	.	11
Other Miasmatic Diseases	..	..		..	..			..	..			..	..	.	..		..	..	..	..		..
DIARRHŒAL DISEASES.																						
Cholera	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..		
Diarrhœa, Dysentery	30	18	10	..	1	..	..		..	..			1			..	..	..	..	.		30
MALARIAL DISEASES.																						
Remittent Fever	..	..	.			..	..	..		..	..	..	..	.	..	..		..	..	..	..	..
Ague	..		..		..		..								.		..					..

MORTALITY TABLES.—Deaths in the County Borough of Plymouth for 12 months, ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
ZOOGENOUS DISEASES.																						
Hydrophobia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Splenic Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cow-pox and other effects of Vaccination	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VENEREAL DISEASES.																						
Syphilis	..	8	4	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
Gonorrhœa, Stricture of Urethra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
SEPTIC DISEASES.																						
Phagedæna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Pyæmia, Septicæmia	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Puerperal Fever	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
PARASITIC DISEASES.																						
Thrush	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases from Vegetable Parasites	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hydatid Disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases from Animal Parasites	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DIETETIC DISEASES.																						
Starvation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scurvy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Intemperance { Chronic Alcoholism	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2
Intemperance { Delirium Tremens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

MORTALITY TABLES.—Deaths in the County Borough of Plymouth for 12 months, ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
CONSTITUTIONAL DISEASES.																						
Rheumatic Fever	3	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	3
Rheumatism	5	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	1	..	..	1	5
Gout	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	3
Rickets	9	3	1	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
Cancers	81	..	..	..	..	1	..	..	..	1	2	2	10	8	18	3	12	3	14	4	3	81
Tabes Mesenterica	13	5	7	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13
Tubercular Meningitis (Acute Hydrocephalus)	17	3	2	5	1	2	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	17
Phthisis	131	..	1	5	1	4	4	11	12	23	20	16	15	7	6	4	2	..	..	..	..	131
Other forms of Tuberculosis, Scrofula	36	9	8	..	5	2	1	1	..	2	2	3	..	1	2	..	..	..	..	..	..	36
Purpura, Hæmorrhagic Diathesis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anæmia, Chlorosis, Leucocythæmia	4	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	..	..	..	4
Diabetes	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1	..	4
Other and undefined Constitutional Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DEVELOPMENTAL DISEASES.																						
Premature Births	54	26	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	54
Cyanosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Spina Bifida	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Other Congenital Defects	10	4	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10
Old Age	117	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	8	12	37	57	117

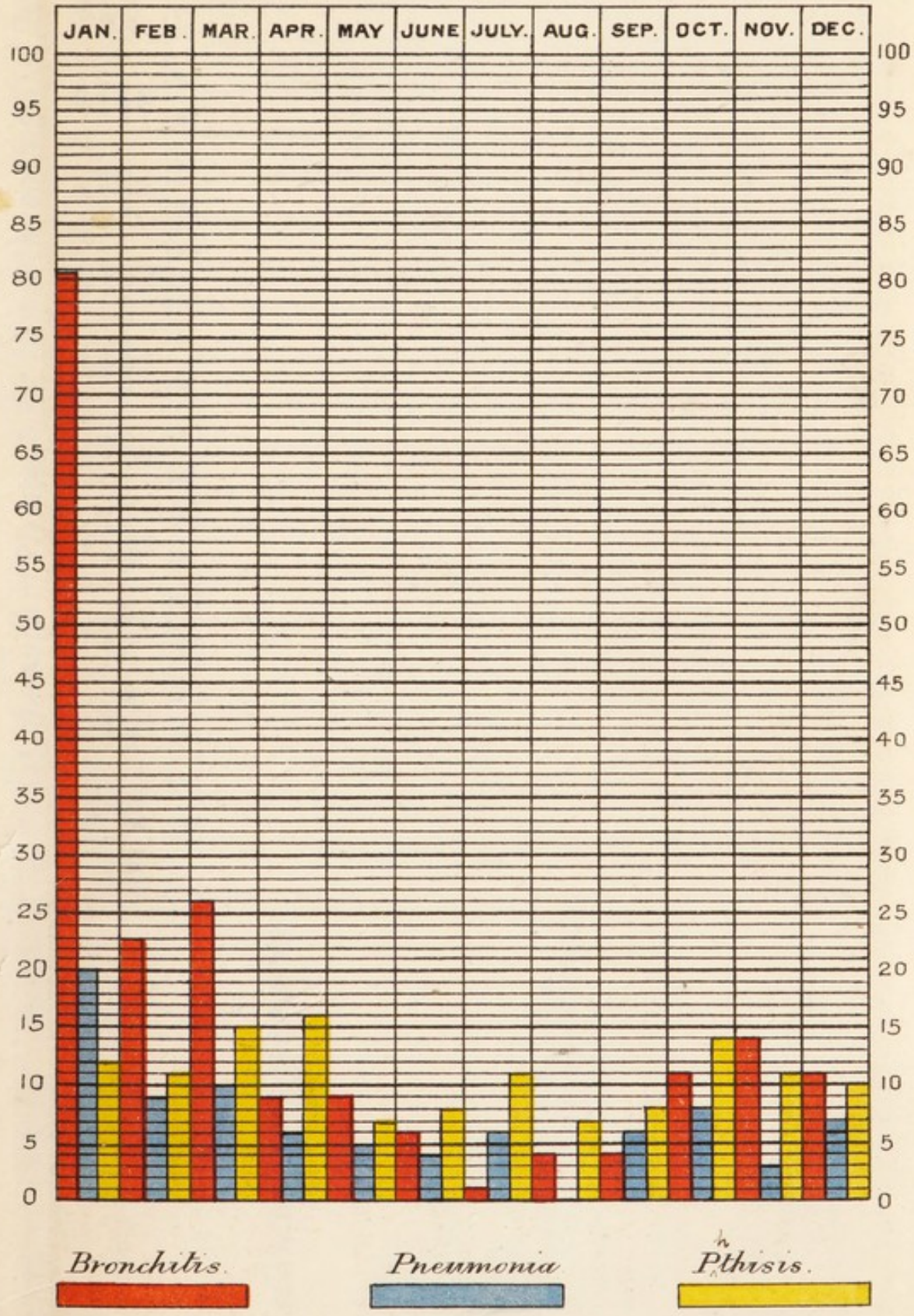
CAUSES OF DEATH.	All ages	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
DISEASES OF NERVOUS SYSTEM.																						
Inflammation of Brain or its Membranes	18	5	2	..	3	2	3	1	..	..	1	1	.	.	.	..	..	.	..	..	..	18
Apoplexy	36	..	..	..	..	..	..	..	..	.	..	2	2	..	8	6	9	4	3	2	36
Softening of Brain	11	.	..	..	.	.	..	..	.	.	..	.	..	.	2	3	2	.	2	2	11
Hemiplegia, Brain Paralysis	6	..	..	..	1	..	..	.	..	.	.	1	.	.	..	.	2	2	..	..	6
Paralysis Agitans	7	..	.	..	.	.	..	.	1	..	.	.	.	.	..	.	3	1	2	.	7
Insanity, General Paralysis of Insane	4	..	.	..	..	..	..	.	..	..	..	..	1	1	1	1	.	..	.	..	4
Chorea	..	.	.	..	.	..	..	..	..	..	..	..	.	.	..	.	..	..	.	..	..
Epilepsy	4	1	..	..	..	..	..	.	.	..	..	1	.	2	..	.	..	.	..	..	4
Convulsions	43	19	16	3	5	..	.	.	.	.	..	..	.	..	..	.	..	..	..	..	43
Laryngismus Stridulus	7	3	2	2	.	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	7
Idiopathic Tetanus	..	.	..	..	..	..	..	..	..	.	.	..	..	..	..	..	..	..	..	..	..
Paraplegia, Diseases of Spinal Cord	.	.	.	.	.	..	..	..	..	..	.	..	.	..	..	..	.	..	..	..	..
Other and undefined Diseases of Brain or Nervous System	42	2	2	1	2	..	1	3	2	2	1	..	.	1	3	5	2	6	5	1	3	42
DISEASES OF ORGANS OF SPECIAL SENSE.																						
Otitis, Otorrhœa	2	..	..	1	1	..	..	.	..	..	..	..	..	..	..	..	..	..	.	..	..	2
Epistaxis and Diseases of Nose	.	..	..	..	.	..	..	..	.	..	..	..	..	..	..	..	..	.	..	..	..	..
Ophthalmia and Diseases of Eye	1	..	..	..	.	.	.	.	1	..	.	..	..	.	.	..	..	.	.	..	..	1

MORTALITY TABLES.—Deaths in the County Borough of Plymouth for 12 months, ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
DISEASES OF CIRCULATORY SYSTEM.																						
Endocarditis, Valvular Disease	18	..	.	..	1	2	1	1	1	1		1	.	2	..	2	..	2	2	..	2	18
Pericarditis	2	.	..	.	..	..	1	1	.	.	.	.	.	.	.	..	..	.	.	.	..	2
Hypertrophy of Heart	1	.	..	..	..	.	.	.	..	.	..	.	.	.	..	..	..	1	..	..	.	1
Angina Pectoris	2	..	..	.	..	.	..	.	.	.	..	..	1	.	..	.	.	.	1	..	..	2
Syncope	11	.	1	..	..	..	.	..	..	.	.	1	2	1	1	1	1	1	1	..	1	11
Aneurism	4	.	..	..	.	..	..	.	..	..	.	1	..	1	..	1	.	1	..	.	..	4
Senile Gangrene	4	..	..	.	..	.	..	..	..	.	..	..	.	.	1	..	.	..	.	2	1	4
Embolism, Thrombosis	2	.	..	..	.	.	.	.	.	1	..	..	.	..	..	..	1	.	.	.	..	2
Other and undefined Diseases of Heart or Circulatory System	107	.	2	.	.	1	.	1	4	2	2	5	3	7	3	6	16	18	19	7	11	107
DISEASES OF RESPIRATORY SYSTEM.																						
Laryngitis	6	1	1	1	1	.	.	.	.	1	..	1	.	.	..	..	..	.	..	..	..	6
Croup	4	2	.	1	1	.	..	..	..	..	..	.	.	.	..	..	..	..	..	..	..	4
Other Diseases of Larynx and Trachea	..	.	..	.	..	.	..	..	.	..	..	..	.	.	..	..	..	..	..	..	..	..
Emphysema, Asthma	5	.	..	.	..	.	..	.	.	..	..	.	.	.	.	2	1	2	..	.	..	5
Bronchitis	200	41	22	21	25	.	.	1	1	1	..	..	1	9	4	14	12	15	16	12	5	200
Pneumonia	83	11	9	17	8	..	.	2	4	3	..	1	3	3	1	3	2	6	7	2	1	83
Pleurisy	5	..	.	..	.	..	1	.	.	1	.	..	.	..	2	..	..	1	.	.	..	5
Other and undefined Diseases of Respiratory System	23	5	3	3	5	.	..	.	..	.	..	1	.	.	1	.	1	.	1	1	2	23

1894

CHART SHEWING MORTALITY FROM RESPIRATORY DISEASES, 1894.



JOHN SMITH, LITH, PLYMº

CAUSES OF DEATH.	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 upwards.		TOTAL.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
DISEASES OF DIGESTIVE SYSTEM.																						
Stomatitis	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Dentition	14	4	4	2	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14
Dyspepsia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Hæmatemesis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Diseases of Stomach	17	5	4	1	1	..	..	..	..	..	..	..	..	1	..	1	2	..	2	..	..	17
Enteritis	23	7	11	2	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	23
Ulceration of Intestine	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	2
Ileus, Obstruction of Intestine	4	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1	..	..	..	..	4
Stricture or Strangulation of Intestine	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Intussusception of Intestine	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Hernia	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	2
Fistula	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis	13	2	..	..	..	2	1	..	3	1	..	1	..	..	..	..	..	1	1	..	1	13
Ascites	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Gallstones	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Cirrhosis of Liver	10	..	..	..	..	..	..	..	..	1	..	2	1	1	1	2	..	2	..	..	..	10
Other Diseases of Liver	7	..	..	..	..	..	..	..	..	..	1	2	..	2	1	..	..	..	..	..	1	7
Other and undefined Diseases of Digestive System	32	12	6	1	..	..	..	2	..	..	1	1	2	1	..	..	1	1	1	..	3	32

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Diseases of Lymphatic System and Ductless Glands.																						
Diseases of Lymphatic System	..	..	..	..	.	..	..	.	.	..	.	..	..	.	..	.	..	.	..	..	..	..
Diseases of Spleen	..	.	..	..	.	.	..	.	.	.	..	..	.	..	..	..	..	..	..	..	..	..
Bronchocele	..	..	..	..	..	..	..	.	.	.	.	..	.	.	..	.	..	.	..	..	..	..
Addison's Disease	..	..	.	..	.	.	.	.	..	.	.	..	..	..	..	..	..	..	..	..	..	..
DISEASES OF URINARY SYSTEM.																						
Acute Nephritis	6	2	.	1	.	..	..	.	.	..	..	1	.	..	..	..	.	2	.	..	..	6
Bright's Disease	8	..	..	..	..	..	..	..	.	..	..	..	2	2	..	..	..	1	2	1	..	8
Uræmia	4	.	..	..	.	..	..	.	.	.	.	.	..	..	..	2	.	2	..	..	..	4
Suppression of Urine	..	..	..	.	..	..	.	.	.	..	..	..	.	..	..	..	..	.	..	.	..	..
Calculus	.	..	..	..	..	..	..	..	..	.	..	..	.	.	..	..	..	..	.	.	..	..
Hæmaturia	1	..	..	..	..	..	..	..	..	..	..	.	..	.	..	..	..	1	..	..	..	1
Diseases of Bladder and of Prostate	4	..	..	..	.	..	..	..	..	.	.	..	..	1	..	..	.	2	1	..	.	4
Other and undefined Diseases of Urinary System	3	.	..	.	.	..	..	..	..	..	.	1	..	.	2	..	..	.	..	..	..	3
DISEASES OF ORGANS OF GENERATION.																						
Ovarian Disease	6	..	..	..	..	..	..	..	.	.	..	..	2	..	1	..	2	..	1	..	..	6
Diseases of Uterus and Vagina	..	..	.	..	.	.	.	.	.	.	.	..	..	..	..	..	..	.	..	..	..	..
Disorders of Menstruation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	.	..
Pelvic Abscess	..	..	..	..	..	..	..	.	.	..	..	.	..	..	..	..	.	..	..	..	..	..
Perineal Abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease of Testes, Penis, Scrotum, &c.	..	..	..	.	.	..	.	.	..	..	..	.	..	..	..	..	.	.	.	..	.	..

CAUSES OF DEATH.	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 upwards.		Total.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
DISEASES OF PARTURITION.																						
Abortion, Miscarriage	1	..		..		..	..	..					1	..	..	..	..	..	..		..	1
Puerperal Mania	.	.	..	..	..	..	..	..	..	.	.	..	..	.	..	..	..	.	..	..	..	..
Puerperal Convulsions	..	..		..	.	..	..	..	..	..	.	.	..	..	..	.	..	..	..	..	..	..
Placenta Prævia, Flooding	1	..	..		..	.	..	..	1	..	..	.	..	..	..	..	..	..	..	..	..	1
Phlegmasia Dolens	..		..	..		..	..	..	..	.	.	..		..	..	..	..	.	..	..	..	.
Other and undefined Accidents of Childbirth	3	..	..	..	..	.	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	3
DISEASES OF ORGANS OF LOCOMOTION.																						
Caries, Necrosis	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Arthritis, Ostitis, Periostitis	1	..	..	.	..	1	..	..	.	.	..	.	..	..	.	..	.	.	..	..	.	1
Other and undefined Diseases of Organs of Locomotion	4		1	.	.	.	..	1	2	..		..	..		..	..	..	.	..	..	..	4
DISEASES OF INTEGUMENTARY SYSTEM																						
Carbuncle	..	.	..	.	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..
Phlegmon, Cellulitis	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..
Lupus	..	..	..	.	.	..	..	..	..	.	..	.	.	.	..	.	.	..	..	..	..	..
Ulcer, Bedsore	..	..	..	.	.	..	..	..	..	.	..	.	..	..	..	..	..	..	.	..	..	..
Eczema	..	..	..	..	..	..	..	..	..	.	..	.	..	..	..	..	..	..	..	..	..	..
Pemphigus	2	2	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	2
Other and undefined Diseases of Integumentary System	..	..	..	..	..	..	..	..		..	..		..	..	..	..	..	..	..	..	..	..

MORTALITY TABLES.—Deaths in the County Borough of Plymouth for 12 months, ending 31st Dec., 1894

CAUSES OF DEATH.	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 upwards.		TOTAL.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
ILL-DEFINED AND NOT SPECIFIED CAUSES.																						
Debility, Atrophy, Inanition	30	14	13	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	30
Other Ill-defined and not Specified Causes	6	2	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	..	5
(INQUESTS.)																						
ACCIDENT or NEGLIGENCE.																						
Fractures, Contusions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gunshot Wounds	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cut, Stab	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burn, Scald	7	..	..	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	7
Poison	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Drowning	8	..	..	..	..	2	..	2	..	2	..	..	..	..	..	..	..	2	..	..	..	8
Suffocation	6	3	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	6
Other and undefined Forms	18	..	..	2	2	1	..	..	..	1	1	2	..	..	2	3	..	..	1	..	3	18
HOMICIDE.																						
Murder, Manslaughter	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1894

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		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
INQUESTS—*Continued.*																						
SUICIDE.																						
Gunshot Wounds	.	..	..	..		..	..	..	..	..	..	.		.	..	..		..	.	..	.	..
Cut, Stab	2	.	..	..	..	..	..	..	.	1	.	..	.	.	..	1	.	..	..	..	..	2
Poison	2	.		..	..	..	..	..	..	..	2		..	.		..		.		..	..	2
Drowning	.	..	..	..	..	..	..	..	..		..	..		.	.	..	..	..	..	..	..	..
Hanging	3	..	..	..		..	..	.	..	..	..	..	..	..	..	3	..	.	..	..	.	3
Other and undefined Methods ..	..		..	..				..	..	..		..	.	..	.	..		..	..	..	.	..
NATURAL CAUSES.																						
Specific Febrile or Zymotic Diseases	1	..	1	..	..				.	..	..	..	..	..	.	..	..	..	.	.	..	1
Constitutional Diseases .. .	1			..	1							..				..	.	.	..	..	..	1
Diseases of Nervous System ..	14	7	1	..	1	..	..	.	..	..	.	..	1	1	..	1	..	2	..	..		14
,, Circulatory System ..	25	..	2	..	..	..	..	.	2	..	..	4	2	3	1	1	2	2	4	1	1	25
,, Respiratory System ..	11	4	2	2	1	.	..				..	..	..	.	1	.	..	..	..	.	1	11
,, Digestive System ..	2	1		..	..	..	..	..	..	..	..	1	..	..	..	..	..	.	..	..	..	2
,, Urinary System ..	..	..	..	.	.	..	.	..	..	..	.	..	..	..	..	.	..	..	..	..		..
Other Causes	2	2	..	..	..	..	..	..	..	..	.		.	..	.	..		..	..	..	.	2

Prevalence of Disease, 1894.

The number of deaths registered from all causes during the year was 1596, of these 139 were attributed to the following seven principal zymotic diseases :—

Smallpox	5
Measles	4
Scarlet Fever ...	8
Diphtheria ...	4
Whooping Cough ...	75
Fever	12
Diarrhœa	30
	139

From diseases of the zymotic class not notifiable there have been registered 115 deaths as against 168 in the preceding year. From Measles, 4; Whooping Cough, 75; and Influenza, 36.

In every case of zymotic disease notified a careful inquiry is made at the residence of the patient, instructions are given as to the necessary precautions to be adopted, disinfectants are supplied and the following public officials notified of the existence of the case: Clerk to the School Board, Public Librarian, Superintendent of Sunday School, if attended by patient, and in cases where necessary the employer of the patient or family of patient. Every effort is made to induce the patient to seek isolation at the Borough Hospital, it being practically impossible to efficiently isolate an infectious case in the great majority of houses. At the termination or removal of the case the rooms occupied by the patient during the illness are disinfected by one of the staff, the clothing, bedding, &c., being disinfected at the disinfecting station.


County Borough of Plymouth.
Shewing localities where Fatal cases of Infectious Disease have occurred during the year.
Scarlet Fever (8)
Diphtheria (4)
Typhoid Fever (11)
Measles (4)
Whooping Cough (75)
Diarrhœa (30)
DRAKE'S WARD
CHARLES WARD
PLYMOUTH
FRANKFORT WARD
SUTTON WARD
ST. ANDREWS WARD
VINTRY WARD
SUTTON HARBOUR
DEADLAKE
THE LAIRA
MUNICIPAL & PARLIAMENTARY BOUNDARY (PLYMOUTH)
JOHN SMITH, LITH. PLYMOUTH.

Measles.—During the year this disease has not assumed epidemic proportions as it did in 1893, four fatal cases have been recorded. The small number of cases occurring during the year is doubtless due to the fact, that the epidemic of the previous year rendered the greater proportion of the susceptible child population immune.

Whooping Cough was epidemic at the close of 1893, and was of a somewhat fatal type during the first two months of the year, the fatalities due to this disease had a most marked effect upon the weekly mortality rates; 49 deaths being due directly to the disease during January and February. Leaflets containing instructions as to the precautions and nursing necessary in cases of Whooping Cough were distributed. The disease is one of the most fatal to childhood; its fatal character being principally due to want of care and the adoption of the necessary precautions. Among the children of the well to do, Whooping Cough is rarely fatal. During the year 75 deaths were registered as being due to this disease, a considerably greater number than was caused by all other zymotic diseases including diarrhœa.

Influenza.—For four years this disease has been present in this country and must apparently be looked upon as a permanent factor in our mortality rates. During this period 217 deaths have been caused by Influenza in the Borough.

During the past year and especially during the first quarter the disease was prevalent amongst children who suffered severely from it and its complications, Bronchitis being the most common complication in children during the first quarter, when Influenza and Whooping Cough were epidemic. 68 deaths occurred in children under five years of age.

Scarlatina.—During the year 182 cases were reported, as against 469 the year previous, eight cases only terminated fatally, being equal to a mortality rate of 4·4 per cent. considerably below the average. The majority of the cases have been of a

very mild type, no doubt there have been many which have escaped notification, owing to the mildness of the attack the disease has not been recognized, the mild type of the disease has no doubt helped to its extension, from the absence of the adoption of precautionary measures.

Enteric Fever.—I have again to record a diminution of the number of cases of Enteric Fever in the Borough.

During the year 38 cases only were notified, five of which were imported from other districts, reducing the number originating in the Borough to 33. Of the total number notified eleven cases terminated fatally, three of them being imported cases.

Thirteen of the cases were removed to the Borough Hospital, one case terminating fatally.

In no instance was any extension recorded, although in two outbreaks two and four members of one family were attacked within a few days of each other.

Of the 28 houses occupied by the patients, the drainage was found to be defective in 21 instances, co-existent with other sanitary defects.

It is highly probable that the origin of some of these cases might be ascribed to the insanitary condition of the houses occupied by the patients, there are others in which the origin of the disease is very obscure, and must be classed as of sporadic origin.

Small Pox.—During the year two outbreaks of this disease occurred in the Borough both of which were traced to infection from cases in other districts. The total number of cases occurring within the Borough was limited to 27 in all.

Taking into consideration the history of these outbreaks, and the comparatively small number of persons attacked, I

consider it a matter of congratulation for your Committee that they possess the means of the most perfect isolation, in their floating Small Pox Hospital. Had not such provision been made in all probability the outbreak would have become epidemic, the cost of dealing with which would have been enormous, and the trade of the town and port seriously interfered with. The total cost of these outbreaks was £142. inclusive of compensation for clothing, as at that time we did not possess a disinfecting station.

Comparing this with a former outbreak, which rapidly became epidemic, I feel sure that no one can but agree that the expenditure, for the provision and maintenance of a floating hospital is wise and economical.

I will briefly narrate the history of the epidemic of 1871-72.

In November of 1871 the first case occurred, the disease rapidly extended, and soon became epidemic, no hospital accommodation being available until four temporary hospitals were partly equipped during the time of panic. The epidemic was not stamped out until July 1872. The number of cases recorded between these dates being 960, of this number 243 terminated fatally. The cost to the ratepayers of this epidemic being a sixpenny rate. During the past three years we have had four outbreaks of Small Pox, which have been controlled before any considerable extension has occurred.

The first case of Small Pox was received on board the Hospital Ship upon April 13th from the Rural Sanitary District of St. Germans, this case was infected from an imported case said to be Chicken Pox. Between April 13th and May 4th twelve cases were received from Saltash, the infection being traced to the same source as the previous case.

Upon May the 4th the first case was notified in the Borough. A. T., a fisherman, from inquiry I learnt that he had been engaged in dredging in the Sound and had, unknown to the

caretakers, made fast his boat during meal times to the stern of the Hospital Ship. Fourteen days later, after the usual prodroma, the rash appeared, the case was somewhat severe, he was removed at once to the Hospital Ship. 13 days later his wife and child were admitted suffering from Small Pox; on the day following another case was removed from the same house.

Upon June 7th a case was received from Stonehouse, the patient had returned from Birmingham some ten days previously, where he had been upon a visit, no doubt the disease was contracted there.

The next case notified in the Borough was upon June 27th, a woman, having applied for admittance to the Workhouse, was found to be suffering from Small Pox, the rash being well developed, she had walked from her lodgings to the relieving officer's house, thence to the Workhouse.

This patient lodged with the mother of the first case reported, there had no doubt been communication between mother and son, previous to his removal to the Hospital.

July 11th.—Two cases removed from Stonehouse, members of the same family.

July 12th.—A case was reported from the lying-in ward of the Workhouse, and was at once removed to Hospital, the history of this case is instructive. Some fifteen days previous to her admission she had given birth to a child and was nursed by the sister of the cases removed the day previously from Stonehouse who had been suffering from so called Chicken Pox.

Upon the same date, July 12th, another case was reported in the Borough. After careful inquiry the origin of the disease could not be traced, the patient, a milliner, may probably have been infected from some article of apparel.

July 13th.—A case notified from the Borough, origin of case somewhat obscure, the patient, a fisherman, had been employed on board a fishing boat where the brother of the first case reported was also employed. The long period from the illness of the first case, and not being able to trace any communication with the earlier cases, renders the origin of this case as somewhat doubtful.

July 14th.—The infant of the Workhouse case had developed the disease and was removed to the hospital.

July 23rd.—A brother of the two previous cases removed from Stonehouse was removed to the hospital ship, having wandered about the town the whole day in the eruptive stage of the disease, finally applying late in the evening at my residence, where I detained him until I had made the necessary arrangement for his removal.

Although not a case originating in the Borough, I have mentioned it as a possible source of an outbreak that occurred in another district of the Borough, some fifteen days later, although no evidence can be adduced that either of the cases that followed came into contact with this case during his wanderings.

August 7th.—A case of a male adult applied for admission to the Borough Hospital having been certified by his medical attendant to be suffering from Scarlatina, upon arrival the Medical Superintendent found him to be suffering from confluent Small Pox, he was at once removed to the Hospital Ship.

Upon the same date a brother of the case removed on July 12th was notified as suffering from the disease, probable source of infection being his sister who was removed on the date mentioned.

August 7th—A case (an adult female) removed from 2 Friary Street, source of infection not traceable.

August 9th—Two cases, both young children of the same family, removed from 17 Green Street, these were severe confluent cases and had been treated by medical attendant in early stage as cases of Chicken Pox, these were removed to Hospital the same day.

August 21st—Two other cases removed from 2 Friary Street, where a case had occurred fourteen days previously.

August 22nd.—The wife of a patient that had been removed to Hospital fifteen days previously, was certified as suffering from the disease, and was removed to Hospital the same day.

August 23rd.—A case reported from 3 Nelson Street, patient, a carpenter, had a workshop in rear of 17 Green Street, where four cases had occurred and who was directly exposed to infection having visited the patients prior to their removal. Two fresh cases were removed from 17 Green Street, directly infected from former cases.

On the same date a case was removed from a house 8 Hill Street, directly in rear of 17 Green Street.

August 24th.—A case reported and removed from Watson Place, the patient was a driver for a firm of carriers, the source of infection could not be traced.

August 26th.—Another case, the fifth removed from 17 Green Street, an extension from former cases of so called Chicken Pox.

August 27th.—Another case, the fourth removed from 2 Friary Street, six days after the removal of the last case.

August 30th.—A case removed from Culme Terrace, no history of exposure to infection. A previous case had been removed from a house near, no satisfactory evidence was forthcoming to shew that this was the source of infection.

October 8th.—Two cases, members of separate families removed from 8 Salem Street, no satisfactory history of exposure to infection, suspicion pointed to a relative of one of the cases who had been under treatment in Hospital for Small Pox but had been discharged convalescent.

No other cases were reported.

There are several interesting facts in connection with these outbreaks which are, however, worth noting.

First that the infection was imported into the Borough from cases that had occurred in other districts and that the earlier cases were all traced to one source of infection, then we have a few isolated cases in which no satisfactory source of infection can be traced.

Now comes a period of immunity for upwards of a month when another case is reported and the infection directly traced to a young woman who was acting as nurse to a lying-in case, and was convalescent from so called Chicken Pox as diagnosed by her medical attendant, but which from the subsequent history was undoubtedly modified Small Pox. No other case is reported in the Borough until August 7th, when the disease appears in a hitherto unaffected locality some fifteen days after the incident of the Stonehouse patient, in the eruptive stage of the disease, being allowed to walk the streets during a whole day. No history of exposure to infection from previous cases could be traced to account for this outbreak, and although there is no evidence that either of the cases came into actual contact with this man, the outbreak of the disease fifteen days later is a curious coincidence.

Vaccination.—Of the 27 cases received from the Borough for treatment, five terminated fatally. One adult and four children, neither of the children had been vaccinated, nor was there any evidence that the adult had been vaccinated, the children were all under five years of age.

The details will be found in the appended tables.

Diphtheria and Membranous Croup.—During the year 54 cases of diphtheria have been reported and three cases of membranous croup. These cases have been confined to no one particular locality nor to any particular period of the year, as in cases of enteric fever, each house from which a case is reported is subjected to a careful inspection in reference to its sanitary condition. Of the 54 cases of diphtheria three were imported from other districts. Defective sanitary conditions were found to exist in 26 of the 51 houses in which cases were reported from, nine cases were removed to Hospital for isolation and treatment. No case of extension in the affected families or houses was recorded during the year, the mortality was a very low one, equal to 7·4 per cent. allowance must, however, be made for errors in diagnosis, which are very frequent and a disturbing element in formulating reliable statistics. The disease in its early stages is difficult of diagnosis, the most reliable method (I refer to a bacteorological examination of throat secretions), is for the general practitioner impractable.

Puerperal Fever.—During the year four cases only have been reported, one of which terminated fatally. It is the practice, upon the case being reported, to at once caution the nurse, or midwife, attending the patient by letter, advising her to abstain from attending any other cases for a period of seven weeks, pointing out the danger her patients would incur by her negligence. She is also advised as to the disinfection of her person and her clothing.

Diarrhœa.—There were registered in the Borough during the year 30 deaths from Diarrhœa, 21 of which were in children under one year of age, the disease being of the zymotic type, the number of deaths from Diarrhœa is comparatively small, due in great measure to the cold wet season; the previous year, when the summer and autumn were unusually hot with considerable periods of drought 64 deaths were registered from

CHART SHEWING NUMBER OF CASES OF SCARLATINA, TYPHOID FEVER, AND DIPHTHERIA, NOTIFIED EACH WEEK
FOR THE YEAR ENDING DECEMBER 31st, 1894.

Diarrhœa; 39 of which occurred during the third quarter. There has been during the past four years a decrease in the number of deaths from infantile Diarrhœa.

Borough Hospital.—Mount Gould.—During the year 111 patients were removed to the hospital for treatment and isolation, the total number receiving treatment being 134, five only of these cases terminated fatally, the majority of the cases treated were Scarlet Fever. Five of the cases were from other districts.

There has been no sickness of an infectious character amongst the members of the staff.

Hospital Ship Maud.—During the year 48 cases of Small Pox have been admitted for treatment 27 of which were patients from the Borough and 21 cases from districts outside, these of course being paid for by their respective authorities, a sum total of £297 being received for patients during the year. The nursing staff has been supplied from the shore hospital, amongst whom no cases of infectious disease have occurred.

During the year five deaths occurred of Small Pox cases, in each instance the patients had not been vaccinated. The value of a floating hospital for the treatment of Small Pox, cannot be over estimated, especially to a town situated as Plymouth is, the isolation is practically perfect, the administration is perhaps a little more troublesome than that of a shore hospital, but on the other hand the patients derive the benefit of ample ventilation and pure air, convalescence is more rapid even in very severe cases, than in those cases treated on shore, the patients, with few exceptions have returned considerably increased in weight and in better health than before the attack of Small Pox.

The details and tabulated results are appended and also the statistics in reference to the zymotic disease that have occurred in the Borough during the year.

Plymouth Sanitary Authority's Hospitals.

Report for the Year 1894.

MOUNT GOULD HOSPITAL.

	Small-pox.	Diphtheria.	Scarlet Fever	Typhoid Fever.	Erysipelas.	Measles.	Whooping Cough.	Totals.	
Remaining from last year	..	1	21	1	..	..	..	23	134
Admitted	..	19	75	13	1	2	1	111*	
Discharged	..	18	90	11	1	2	1	123	134
Died	..	2	1	2	..	..	..	5	
Remaining in Hospital	..	..	5	1	..	..	..	6	

* Five of the 111 cases admitted were from other Sanitary Districts, viz.:—
1 case Scarlet Fever from Devonport.
1 ,, ,, ,, Stonehouse.
1 ,, ,, ,, Plympton Sanitary District.
1 ,, ,, ,, Yelverton.
1 ,, Typhoid Fever from s.s. *Liguria*.

HOSPITAL SHIP *MAUD*.

	Small-pox.	Diphtheria.	Scarlet Fever	Typhoid Fever.	Erysipelas.	Measles.	Whooping Cough.	Totals.	
Remaining from last year ..	..	..	..	..	..	..	..	..	48
Admitted	48*	..	..	..	..	..	..	48	
Discharged	43	..	..	..	..	..	..	43	48
Died	5	..	..	..	..	..	..	5	
Remaining in Hospital	..	..	..	..	..	..	..	..	

* Twenty-one of the 48 cases admitted to the Hospital Ship *Maud* were from other Sanitary Districts, viz.:—Saltash 12
Stonehouse 7
St. Germans 1
Plympton 1

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

Table shewing the number of cases of Infectious Diseases notified each month during the year 1894.

Notifiable Diseases.	Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Small-pox	...	...	...	...	4	1	4	16	...	2	...	...	27
Scarlatina, or Scarlet Fever	29	18	17	11	10	13	7	5	19	20	21	12	182
Diphtheria	7	10	4	4	7	5	2	1	3	2	7	2	54
Membranous Croup	...	...	...	1	...	1	...	...	...	1	...	...	3
Typhus Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid or Enteric Fever	5	4	2	3	1	3	5	2	3	...	8	2	38
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	...	...	...	...	...	...	...	...	...	2	2	...	4
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	19	14	10	8	16	8	11	9	11	16	7	8	137
Totals in each month	60	46	33	27	38	31	29	33	36	43	45	24	445

THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

Table shewing the number of Notifications received in the six years, 1889-1894.

Notifiable Disease.	1889*	1890	1891	1892	1893	1894	Totals.
Small-pox	...	9	3	38	1	27	78
Scarlatina or Scarlet Fever ...	470	353	239	1264	469	182	2976
Diphtheria	42	65	56	52	60	54	329
Membranous Croup	5	9	12	6	10	3	45
Typhus Fever	...	...	...	...	...	...	...
Enteric or Typhoid Fever	14	178	51	93	56	38	430
Continued Fever	...	2	4	7	...	...	13
Relapsing Fever	...	...	...	...	...	...	...
Puerperal Fever	2	4	3	6	6	4	25
Cholera (English)	...	...	...	...	1	...	1
Erysipelas	20	83	101	138	174	137	653
Total	553	702	469	1604	777	445	4550

* The compulsory notification of Infectious Disease came into operation in the Borough on the 12th November, 1889.

Monthly Table of Deaths from All Causes and Zymotic Diseases, with the rates per 1,000 per annum.

MONTH.	No of Deaths from all causes.	Annual Rate per 1,000 living.	No. of Deaths from Zymotic Diseases.	Annual Rate per 1,000 living.	Deaths of	
					Infants under 1 year of age.	Persons aged 60 and upwards.
January	287	39·17	35	0·40	85	90
February	146	19·92	21	0·24	30	42
March	169	23·06	13	0·15	39	53
April	131	17·87	7	0·08	25	39
May	108	14·74	8	0·09	30	36
June	94	12·83	2	0·02	21	29
July...	108	14·74	7	0·08	24	27
August	93	12·69	8	0·09	25	31
September	97	13·24	20	0·23	39	21
October	117	15·96	4	0·04	35	35
November	114	15·56	6	0·07	36	29
December	132	18·02	8	0·09	37	33
Year	1596	18·15	139	1·58	426	465

Slaughter Houses.—In reference to these I am not able to add to or take from my remarks made in my previous report. There are in the Borough eleven of these establishments the majority being in the immediate neighbourhood of the market.

Of the total number, nine are private houses, two are public, five of the total number practically comply with the regulations of the Local Government Board.

In these eleven Slaughter Houses approximately some 50,000 animals are annually slaughtered for food; Stonehouse and Devonport being also largely supplied with dead meat from the Borough. No skilled inspection takes place before slaughtering of any of these animals; with our present knowledge of the diseases of animals communicable to man by the use as food of the flesh of diseased animals it is highly necessary that veterinary inspection of each animal should be made before being slaughtered; under the present conditions this would be impracticable, not so, however, if all animals slaughtered within the Borough were slaughtered in a public slaughter house provided by the Municipality and under their direct control. The approaches to several of the private Slaughter Houses are inconvenient and dangerous.

Each house is regularly inspected by the inspector appointed. I must take this opportunity of recording the fact that every facility is afforded to the Inspector and myself for inspection by the owners or occupiers, and suggestions for improvement adopted. Considering the limited size of the majority of these houses compared to the amount of slaughtering done in them they are maintained in good condition.

All dead meat sold in the market is subjected to a rigid examination by the appointed Inspector, and when necessary by myself, with the result that a considerable quantity is each year condemned as unfit for food; during the past year twelve tons ten hundred was so condemned.

PART II.

Meteorological Report.

PLYMOUTH METEOROLOGICAL OBSERVATORY,
11 MOUNT GOULD ROAD,
PLYMOUTH,
6th April, 1895.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

I have the honour of submitting my Second Annual Report on the work carried on in connection with the Meteorological Observatory.

The equipment of the Observatory on the 1st January, 1894, was as follows, viz:—Standard Marine Barometer by Adie; Maximum Thermometer; Minimum Thermometer; Dry Bulb Thermometer; Wet Bulb Thermometer; Minimum Thermometer for Temperature on Grass; Stevenson Screen (kindly lent by W. L. Calderwood, Esq., late of the Marine Biological Laboratory); two Snowdon Rain Gauges and Campbell-Stokes Sunshine Recorder, and two Self Recording Instruments for indicating level of Sub-soil Water.

All these instruments, with the exception of the Barometer, one Rain Gauge and Sub-soil Water Indicators, are fixed on "The Hoe", to the north of the Gardener's Lodge, the station which is 117 feet above mean sea level is situated in latitude: 50° 21′ 44″; longitude: 4° 8′ 20″ W.

The Barometer is fixed at my residence at a height of 173 feet above mean sea level, the second rain gauge is in Freedom Field at a height of 208 feet above mean sea level.

During the year I was enabled to obtain a valuable set of Standard Thermometers from an Observer who was leaving England, at a very moderate price and these instruments will be found invaluable in case of breakage of any of those which are at present in use as it is most important that the continuity of the observations should not be broken.

The Self Recording Instruments for Registering the level of the Sub-soil Water, are fixed in Union Street and Moir Street; the surface in these streets is about 7 feet above Ordnance Datum and was formerly Marsh land, the Sub-stratum being Shale or Shillat upon which is an alluvial deposit about 5 feet thick.

The observations have been made twice daily at the hours of 9 a.m. and 9 p.m. (local time) and in this part of the work I have again been most ably assisted by Mr. E. H. Whiteford, Mr. W. F. Creber and Mr. J. Jeffery to all of whom I am greatly indebted, as well as to Messrs. Chalice and Venton the Caretakers at Freedom Field for registering the Rainfall at that place.

During the first week in May I had the honour of receiving a deputation from the Plymouth Mercantile Association with respect to the furnishing of daily Climatic Reports to the London and Provincial Press, with the object of inducing holiday seekers to visit the Town, as undoubtedly it is the finest centre for spending a holiday in the West of England. After discussing the matter very carefully it was deemed advisable to let it remain in abeyance until this year when I hope the suggestions which will probably be submitted for your consideration will be favourably received.

It has been very generally stated that Plymouth is an

exceptionally wet place, and as such statement has no foundation in fact I think that all reasonable measures should be taken to refute it, as no doubt it is very prejudicial to the interests of the Town as a holiday resort.

From careful investigations of the Rainfall Statistics for the past 30 years, at some of the most important seaside resorts in the West of England—particulars of which will be found in Table 6 at the end of this Report—it appears that Plymouth compares very favourably indeed, and I also find that as far back as 1874 that Mr. G. J. Symons in tabulating the Rainfall of several of the health resorts in England says.—" Plymouth does not deserve the character for excessive rain which it has obtained; the fall there is but 40 inches or say four inches greater than Torquay."

It will be seen by reference to the Table that the average rainfall for the last 29 years, places Plymouth in a still more favourable position inasmuch as it is only 2·52 inches above Torquay, the respective rainfalls being 37·98 inches and 35·46, but it is not so much the quantity of rain which falls during the year, but the number of wet days which interferes with the enjoyment of holidays—for instance it often occurs that nearly an inch of rain falls in a day, the weather before and after being bright and fine, whilst at other times there is drizzling rain for a week, which does not yield but one half the quantity—from this it appears that the place which has the least number of wet days is the most favourable one for holiday seekers, and by reference to the Table it will be seen that Plymouth stands in a very good position in this respect.

Fortnightly returns and quarterly reports have been supplied to the Medical Officer of Health; Monthly reports to the Chairman of the Sanitary Committee, Cornwall County Council for publication in the very valuable reports on the Health and Climate of Cornwall which are issued monthly; Daily and Weekly reports have been furnished to the Local papers; Agricultural Statistics of the weather have been sent

each week to the Meteorological Office and complete returns at the end of each month.

Full particulars of the Rainfall for the year have been forwarded to Mr. G. J. Symons for publication in his "British Rainfall."

Through the courtesy of Dr. A. N. Davis a rain-gauge was fixed at the Borough Asylum, Blackadon, towards the latter part of May, since which time regular observations have been taken and kindly furnished to me at the end of the year.

Early in September an Inspector from the Meteorological Office, London, visited the Station and inspected and verified the Instruments all of which were in a very satisfactory condition.

I am indebted to the Secretary of the Meteorological Office for Copies of the Daily Weather Report, blank forms, sunshine cards and for his very kind assistance in correcting the various returns as well as for his kind advice on all occasions.

I beg to tender my thanks to S. Trevail, Esq., Chairman of the Sanitary Committee, Cornwall County Council, for the Monthly Health and Climatological Reports of Cornwall.

Particulars of the chief Climatic features during 1893 have been supplied to P. F. Amery, Esq., Secretary of the Climatic Committee, Devonshire Association, and published in the Journal of the Association.

The Mean Temperature for the year was 50·6 degrees or 0·2 degree above the average for the ten years, 1880 to 1889 inclusive.

The Monthly Mean Temperature was in excess of the average during the first four and the last three months. The greatest difference occurred in May and July the deficiency being 3·8 degrees and 3·2 degrees respectively.

The mean daily range of Temperature was 10·8 degrees.

The maximum temperature was 75·8 degrees on June 30th and the minimum 17 degrees on January 5th, the minimum on the grass beiug 16·5 degrees on the same date. The highest minimum temperature was 59·9 degrees on 30th June and the lowest maximum 24·0 degrees on 5th January.

On two days in January the temperature was below 32·0° F. throughout the whole day.

Frost was registered in the Screen on 15 days and on the grass 41 days.

The Atmospheric Pressure was below the average during seven months of the year.

The greatest pressure was 30·751 inches at 9 p.m. on December 27th and the least 28·926 inches at 9 a.m. on November 12th giving a range of 1·825 inches, the mean pressure was 29·974 inches which was 0·014 inches below the average.

The maximum pressure has only been exceeded on two occasions during the 13 years ending 1889 the readings being 30·757 during December 1879 and 30·874 inches in February 1883.

The total rainfall was 42·443 inches at the Hoe and 44·718 inches at Freedom Fields ; the former is 7·266 inches in excess of the average.

There were 217 wet days at the Hoe and 205 at Freedom Fields.

The rainfall was deficient during four months, the greatest difference being in September which was 1·146 inches below the average, but during November it was considerably in excess, being nearly 4 inches above the average, the total for

the month was the most registered here since observations have been taken, with the exception of December, 1876, and November, 1888, but on these occasions rain fell on 26 days and 24 days respectively, whereas in 1894 the total fell during 19 days, the daily average for the wet days being in 1876, ·34; 1888, ·37 and 1894, ·40 inches.

The heavy rainfall during the months of October and November caused very serious floods throughout the South Western Counties.

The total rainfall for 28 days was 12·2 inches and assuming that this quantity fell uniformly over the area of Plymouth it would amount to 3,714 millions of gallons.

The mean level of the Sub-soil water in the low levels was 2·2 feet above Ordnance Datum and was at its highest 4·25 ft. on 14th November and lowest 1·3 feet on 7th January.

Bright sunshine was recorded on 302 days, the total for the year being 1535·25 hours or about 34·7 per cent of the possible; the average daily amount was 4·2 hours.

Observations of the amount of cloud have been taken twice daily throughout the year, the average at 9 a.m. being 6.8, and at 9 p.m. 5·9, the scale used is 0 for cloudless sky and 10 for sky entirely covered or overcast.

The mean Relative Humidity was 80·5 at 9 a.m. and 85·3 at 9 p.m. Saturation=100.

The atmosphere was driest during May.

The prevailing wind during the year was South-westerly.

Gales occurred on the 11th and 23rd February; 12th March; 14th April; 7th and 14th August; 23rd, 24th, 25th and 26th October; 12th and 13th November; and 28th and 29th December.

Some of these gales were very strong but having no Anemometer I am again unable to register the force; I trust however that during the current year some means may be found to supply the necessary instruments.

Thunderstorms occurred on 28th April; 25th and 27th August; 24th, 25th and 28th October.

Lightning was seen but Thunder was not heard on 30th January; 13th March and 5th September.

Lunar Halo was observed on 9th October; and Lunar Coronæ were seen on 22nd January; 14th February; 17th and 18th May; 11th July; 9th October and 4th November.

Solar Coronæ were seen on 1st, 2nd, 21st and 30th January and 17th May.

Snow fell on 4th, 5th, 21st and 22nd May and 31st December.

Hail storms occurred on the 20th and 28th January; 12th February; 26th May; and 6th September.

Fog prevailed on 17th February; 3rd, 19th, 20th, 21st, 22nd and 23rd June; 16th July; 4th and 22nd August.

I have the honour to be, Gentlemen,

Your obedient servant,

H. VICTOR PRIGG,

ASSOC. M. INST., C.E.,

Borough Meteorologist.

Table No. 1. TEMPERATURE IN STEVENSON SCREEN.

1894.	* Mean Temperature	† Difference from Average.	* Means of		* Mean Daily Range.	Absolute Temperature.			
			Maximum.	Minimum.		Maximum.	Date.	Minimum.	Date.
	°	°	°	°	°	°		°	
January	41·4	+0·8	46·2	36·6	9·6	53·5	27th	17·0	5th
February	43·9	+1·6	45·2	39·2	9·5	57 6	27th	26·6	23rd
March	45·9	+2·7	52·4	39·3	13·0	62·7	27th	31·6	16th
April	50·4	+2·7	56·5	44·3	13·7	63·1	11th	33·1	13th
May	49·8	−3·8	55·7	43·9	11·7	69·2	18th	35·8	22nd
June	56·4	−2·9	61·6	51·2	10·4	75·8	30th	42·9	19th
July	58·8	−3·2	63·9	53·7	10·2	74·0	1st	46·0	5th
August	58·8	−2·5	64·2	53·3	10·9	70·4	29th	46·5	20th
September	55·7	−1·5	62·2	49·1	13·0	69·8	1st	40·0	7th
October	51·9	+2·1	57·3	46·6	10·6	63·2	15th	37·0	18th
November	49·0	+1·9	53·1	45·0	8·1	58·1	3rd	36·5	26th
December	46·0	+3·3	50·5	41·6	8·9	61·7	12th	26·5	31st
Means	50·6	+0·2	55·7	45·3	10·8	Highest. 75·8	June 30th	Lowest. 17·0	January 5th

*The Mean Temperature given above are the Means of the daily readings of the Maximum and Minimum Thermometers.

†The Average here referred to is the average of 10 years, 1880 to 1889 inclusive.

Table No. 2. ATMOSPHERIC PRESSURE.

1894.	Mean Pressure (at 32° and Sea Level).	† Difference from Average.	Highest.	Date	Lowest.	Date.	Observed Monthly Range.
	inches.	inches.	inches.		inches.		inches.
January	29·870	−0·159	30·475	3rd	29·414	31st	1·061
February	30·109	+0·219	30·506	4th	29·482	11th	1·024
March	29·991	+0·024	30·432	5th	29·233	12th	1·199
April	29·830	−0·073	30·201	30th	29·302	16th	0·899
May	29·977	−0·009	30·354	1st	29·640	28th	0·714
June	30·042	+0·027	30·282	26th	29·648	6th	0·634
July	29·915	−0·050	30·247	3rd	29·332	11th	0·915
August	29·976	−0·012	30·252	29th	29·626	2nd	0·626
September	30·138	+0·146	30·485	30th	29·602	25th	0·883
October	29·917	−0·032	30·476	1st	29·158	24th	1·318
November	29·800	−0·118	30·509	30th	28·926	12th	1·873
December	30·084	+0·104	30·751	27th	29·582	30th	1·169
Means	29·970	−0·014	30·751	27th Dec.	28·926	12th Nov.	1·026

† The Average here referred to is the average of 10 years, 1880 to 1889 inclusive.

Table No. 3. RAINFALL.

1894.	Total Rainfall.		Average 20 years 1870 to 1889.	Difference from Average.	No. of Rainy Days.		Greatest fall in one day.			
							The Hoe.		Freedom Fields.	
	The Hoe.	Freedom Fields.			The Hoe.	Freedom Fields.	Amount.	Date.	Amount.	Date.
January	3·550	3·815	3·577	−0.027	24	20	0·405	19th	0·450	19th
February	2·621	2·675	2·895	−0·274	16	16	0·610	17th	0·655	17th
March	1·927	2·070	2·443	−0·516	12	12	0·505	12th	0·535	12th
April	3·135	3·255	2·292	+0·843	18	17	0·515	22nd	0·570	22nd
May	2·465	2·885	1·761	+0·704	18	18	0·410	8th	0·460	8th
June	2·548	2·788	2·149	+0·399	21	19	0·880	6th	0·940	6th
July	4·515	4·377	2·932	+1·583	25	21	1·020	22nd	1·060	22nd
August	3·020	3·036	2·792	+0·228	19	18	0·870	22nd	0·960	22nd
September	2·375	2·663	3·521	−1·146	9	9	1·430	21st	1·500	21st
October	5·075	5·075	3·739	+1·336	15	15	0·930	23rd	0·950	23rd
November	7·690	8·194	3·700	+3·990	19	18	1·920	11th	2·000	11th
December	3·522	3·885	3·376	+0·146	22	22	0·580	9th	0·650	9th
Total	42·443	44·718	35·177	+7·266	217	205	1·920	Nov 11th	2·000	Nov 11th

The Rainfall is measured at 9 a.m. and 9 p.m., and the total for the 24 hours ending at 9 a.m. is entered to the previous day, the same as if only one reading was taken, as is usually the case.

The Gauges are eight inches in diameter and fixed about ten inches above the ground.

Table No. 4. DURATION OF BRIGHT SUNSHINE; AMOUNT OF CLOUD; AND RELATIVE HUMIDITY OF THE AIR.

1894.	Total Bright Sunshine (hours)	Most Sunshine in one Day		Number of Sunless Days.	Mean amount of Cloud.		Mean Relative Humidity, Saturation=100.	
		Amount.	Date.		9 a.m.	9 p.m.	9 a.m.	9 p.m.
January	61.97	6·97	11th	8	6·9	6·4	83·1	85·1
February	80·53	9.25	19th	10	7·3	6·4	85·1	86·2
March	183·62	11·00	26th	3	5·0	3·2	77·7	80 6
April	178·31	11·90	13th	..	6·3	4·7	74·2	83·4
May	192·48	13·70	12th	..	7·5	5·7	70·8	81·1
June	165 29	14·70	29th	4	7·8	7·6	80·7	85·0
July	157·92	14·47	5th	4	7·6	7·0	81·0	89·0
August	132·87	11·51	28th	5	7·8	6·4	82·5	87·6
September	151·90	11·10	1st	3	5·2	4·3	79·5	84·8
October	104·35	9·50	1st	5	6·4	6·2	82·1	86·0
November	66·01	6·35	15th	11	7·5	6·2	85·8	86·8
December	60·00	6·16	27th	10	7·1	7·0	84·3	88·2
Total and Means	1535·25	14·70	29th June.	63	6·86	5·92	80·5	85·3

Table No. 5. DIRECTION OF WIND.

1894.	N. %	N.E. %	E. %	S.E. %	S. %	S.W. %	W. %	N.W. %	Calm. %
January	3	18	5	9	5	32	11	16	1
February	4	13	5	7	5	34	11	14	7
March	5	14	23	2	3	18	11	16	8
April	10	12	12	22	8	22	3	3	8
May	16	16	5	2	3	19	15	19	5
June	..	10	12	5	8	26	17	22	..
July	6	6	8	6	6	31	15	18	4
August	2	8	1	5	5	26	16	31	6
September	22	27	13	7	3		3	17	8
October	5	43	5	2	6	21	8	5	5
November	10	12	2	13	12	18	15	15	3
December	7	14	3	8	3	13	16	29	7
Means	8	16	8	7	5	23	11	17	5

Table No. 6. RAINFALL STATISTICS OF SEVERAL HEALTH RESORTS IN THE SOUTH-WESTERN COUNTIES.

	Penzance.	Falmouth.	Sidmouth.	Ilfracombe.	Torquay.	Bath.
Number of Wet Days ..	227	186	185	183	180	178
Average Rainfall (inches) .	45·15	44·97	31·86	26·87	35·46	31·33

	Teignmouth.	PLYMOUTH.	Weymouth.	Exmouth.	Cheltenham.
Number of Wet Days ..	177	176	168	164	159
Average Rainfall (inches) .	35·43	37·98	32·47	32·94	27·66

PATR III.

Report of Analyst.

Borough Laboratory,
Municipal Buildings,
Plymouth,
1st March, 1895.

Gentlemen,

I beg to submit my report of analytical work performed in connexion with the Food and Drugs Act during the past year.

133 samples were received from the Inspector for analysis and examination of which 15 (11·2 per cent) were found to be adulterated.

They consisted of :—

Milk	41	6 adulterated.
Vinegar	16	not adulterated.
Ginger	15	,, ,,
Cream of Tartar... ...	11	2 contained lead.
Soda Water	10	4 adulterated.
Scotch Whiskey	8	2 ,,
Coffee	6	not adulterated.
Butter	5	,,
Lard	5	,,
Olive Oil	4	,,
Honey	3	,,
Compd. Tincture of Camphor	3	,,
Tincture of Nux Vomica	3	1 adulterated.
Tincture Belladonna ...	3	2 ,,

It is with pleasure I record a considerably diminished amount of adulteration for the year, and the Committee are to be congratulated on the satisfactory working of the Act as administered by them. Thus in 1892, 28·5 per cent., and in 1893, 18·7 per cent. of all samples examined were adulterated, while in 1894, 11·2 per cent. only were found not "of the nature, substance, and quality demanded," or approximately only $\frac{3}{8}$ of the adulteration of the previous year; this amount compares very favourably with the rest of the Country.

Milk.—Not only has the sophistication of this food remarkably decreased, *i.e.* from 45·4 to 14·6 per cent, but the general quality and excellence of the specimens examined has greatly improved; in 1892-93 the poor quality of many samples passed as genuine, was such as to leave no doubt they had been tampered with, although not to such an extent as to promise certain conviction before the Borough Justices.

In 1894, very few of such doubtful nature were examined, indeed the last 23 consecutive specimens were as good as could be wished.

These happy results are no doubt due to the activity with which the inspector has carried his crusade into the camp of the peccant purveyor, but by reason of this very activity he has become so perfectly well known to every vendor in the Borough, as to render it difficult to get a fair sample of Milk from a trader ordinarily alert and it is to be feared that the rumour of a special can courteously kept for the inspector's particular use, is not altogether without foundation.

Under existing circumstances these difficulties are not easily surmounted, but much may be done by regularly employing deputies to ask for the samples, the inspector subsequently completing the purchase. I would also commend to the Committee's notice the results of recent Sunday morning raids on the milk-can elsewhere.

The most promising solution seems to exist in the plan of travelling inspectors with which you are familiar.

CREAM OF TARTAR.—The contamination with lead noted above, was of accidental character, occurring in the manufacture, and so small as to be unimportant.

SODA WATER.—Of ten samples examined one was not Soda Water at all inasmuch as it contained no Soda, while three others contained less than the prescribed quantity. A notion still seems to linger with some of the Plymouth manufacturers that Soda Water need not contain any Soda; a single prosecution would clear this doubt.

TINCTURES, BELLADONNA, NUX VOMICA, AND COMPOUND CAMPHOR.—Three of the nine samples examined were seriously adulterated with water to the exclusion of the spirit, and probably also the active principles of the drug.

There is absolutely no excuse for these pernicious frauds, for the British Pharmacopœia, of which no druggist may confess ignorance, precisely lays down the strength of these preparations, and apart from the gross question of selling water at tincture prices (3/- and 4/- per lb) any departure from such standard is either the result of culpable negligence, or deliberate intention, both of which should be visited with the severe penalty they merit. For we have here not to deal with ignorant dairymen, but with men of certificated intelligence, so to speak, who are certainly cognizant of the dangers of tampering with the remedies a physician may prescribe.

None of these last offenders were prosecuted. The other samples require no comment.

I am, Gentlemen,

Yours faithfully,

CHAS. E. BEAN, F.R.C.S.E.

PART IV.

Plymouth Port Sanitary Authority.

GENTLEMEN,

I have the honour of submitting to you my fourth annual report upon the health of the floating population of the port for the year 1894.

During the year 109 cases of sickness and accident have been recorded amongst the crews and passengers of vessels calling at the port.*

Two cases only have been removed to the Pique for treatment both were cases of erysipelas, one passenger suffering from enteric fever was removed to the Borough Hospital for treatment.

The daily inspection of vessels has been carried out throughout the year by the inspector at the wharves, in the docks, and in the Sound. The total number inspected during the year being 3,110, of which 209 were found to be in an insanitary condition, requiring cleansing, painting, or lime-washing, six vessels required repairs to put them in a sanitary condition.

I have had occasion during the year to medically inspect some 69 vessels on account of sickness being reported, I have also inspected in company with the Inspector some 124 vessels. I have appended a list of the cases of sickness reported.

* During the year 27,000 seamen have visited the port, this number is exclusive of the crews of Mail boats which call here, their stay being limited to a few hours, the number is also exclusive of passengers, including only crews of vessels trading here or calling for orders.

I must again take this opportunity of expressing my appreciation of the manner in which the Inspector's work has been performed, and of his vigilance and energy in carrying out his duties; I must also bear testimony of the able and efficient manner in which the remainder of the staff have carried out their work during the year, I refer to the Caretakers, Nurse, and Boatmen, and although their work has not been so heavy as in previous years there has been no diminution in their efficiency, energy, or willingness.

I beg to tender your Committee my thanks for their assistance and support during the year, and especially that of your Chairman, whose intimate knowledge of all matters connected with the mercantile marine, have been of the greatest service to myself and Inspector.

I remain, Gentlemen,

Your obedient servant,

F. M. WILLIAMS.

TABLE OF **DEATHS** during the Year 1894, in the County Borough of PLYMOUTH, Urban Sanitary District, classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities. (Columns for Population and Births are in Table B.) (a)	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.								MORTALITY FROM SUBJOINED CAUSES DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																		
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
													FEVERS.																	
	At all ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.		Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia and Pleurisy	Heart Disease.	Injuries.	All other Diseases.	Total.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)																					
Ecclesiastical Parishes—																													
St. Andrew	130	34	11	4	3	39	39	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	3	3	..	..	..	17	..	1	21	45
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	14	26	14	2	38	85
St. Peter	218	61	39	6	9	63	40	Under 5	..	1	..	..	..	..	..	.	..	..	..	..	16	7	..	..	..	23	..	2	51	100
								5 upwds.	.	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	15	21	19	..	60	118
St. Saviour	47	14	10	2	3	10	8	Under 5	..	1	..	..	..	..	..	..	..	..	..	1	1	3	..	..	..	7	..	..	11	24
								5 upwds.	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	1	4	5	2	8	23
St. James	68	18	3	3	3	18	23	Under 5	..	..	..	..	..	..	..	..	..	..	..	.	1	..	..	..	1	2	..	..	17	21
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	10	6	2	24	47
All Saints	125	41	14	3	6	35	26	Under 5	..	..	..	1	..	..	..	..	..	..	..	..	1	2	..	..	1	17	..	1	32	55
								5 upwds.	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	12	13	5	..	39	70
Christ Church	97	21	10	4	1	33	28	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	1	5	..	1	21	31
								5 upwds.	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	8	10	6	2	37	66
St. Matthias	69	13	6	3	1	17	29	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	4	..	..	11	19
								5 upwds.	..	..	..	..	..	1	..	.	..	..	..	..	..	..	..	..	4	4	7	..	34	50
Holy Trinity	89	39	15	2	4	17	12	Under 5	..	..	..	.	..	..	..	..	..	..	..	1	3	3	..	..	..	15	..	..	32	54
								5 upwds.	..		.	..	..	..	..	..	..	..	..	..	..	..	..	..	7	2	8	..	18	35
Charles	184	42	19	6	11	43	63	Under 5	..	1	..	..	..	..	..	..	..	..	..	..	14	2	..	..	2	12	..	1	29	61
								5 upwds	..	..	..	..	..	1	..	..	..	..	..	..	2	..	..	..	19	19	16	4	62	123
St. Jude	167	44	35	4	12	40	32	Under 5	..	3	.	..	..	..	..	.	..	..	..	1	16	..	..	..	..	19	..	2	38	79
								5 upwds.	.	..	..	..	..	..	..	..	..	..	..	..	.	..	1	..	13	8	13	4	49	88
St. John	149	55	30	..	3	33	28	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	10	6	..	..	2	18	..	1	48	82
								5 upwds.	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	10	5	8	2	38	64
St. Luke	62	19	5	1	2	21	14	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	8	1	..	12	24
								5 upwds.	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	.	2	5	3	..	27	38
Emmanuel	30	11	4	2	1	7	5	Under 5	..	.	..	..	..	.	..	..	..	..	..	1	1	..	..	..	..	5	1	..	7	15
								5 upwds.	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	4	1	1	2	7	15
Public Institutions—																													
Borough Hospital	5	1	1	..	1	2	..	Under 5	..	1	1	.	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	2
								5 upwds.	.	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Hospital Ship "Maud"	5	1	3	..	..	1	..	Under 5	4	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
								5 upwds.	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
S. D. & E. C. Hospital	60	5	5	3	1	41	5	Under 5	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	5	4	10
								5 upwds.	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	3	6	10	28	50
Homeopathic Hospital	8	..	3	2	1	2	..	Under 5	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	3
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	3	5
Institution for the Blind	1	..	..	..	1	..	..	Under 5	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..
								5 upwds.	.	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Millbay Barracks	1	1	..	..	..	..	..	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The Citadel	3	2	..	..	..	1	.	Under 5	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Workhouse	68	4	..	..	4	28	32	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	3	4
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	12	7	2	36	64
Her Majesty's Prison	3	..	..	..	..	2	1	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
								5 upwds.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	3
Plymouth Borough Asylum (BLACKADON, IVYBRIDGE.)	7	..	..	..	..	6	1	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	6	7
TOTALS	1596	426	213	45	67	459	386	Under 5	4	7	1	1	..	..	..	..	..	..	1	4	73	29	..	..	7	154	2	15	341	639
								5 upwds.	1	1	3	..	..	11		.	1				2	1	3	..	124	134	126	32	518	957

(B) TABLE OF **POPULATION, BIRTHS, and of NEW CASES of INFECTIOUS SICKNESS,** coming to the knowledge of the Medical Officer of Health, during the year 1894, in the County Borough of Plymouth, Urban Sanitary District, classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities. *(See Note 2 on back of sheet.)*	POPULATION AT ALL AGES.		Registered Births.	NEW CASES OF SICKNESS IN EACH LOCALITY, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.												NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.											
				1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
								FEVERS.													FEVERS.								
	Census 1891.	Estimated to middle of 1894.		Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.	Cholera.	Erysipelas.			Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.	Cholera.	Erysipelas.		
(a)	*(b)*	*(c)*	*(d)*																										
Ecclesiastical Parishes—																													
St. Andrew	9363	..	..	..	19	6	..	..	2	..	..	..	..	16	..	..	..	11	2	..	..	2	..	..	..	..	1	..	..
St. Peter	11785	..	..	..	22	9	..	..	2	..	..	1	..	18	..	..		10	4	..	..	..	..	..	..	..	..	..	..
St. Saviour	2450	..	..	4	4	2	..	..	5	..	..	.	..	..	..		4	2	..	..	..	..	..	..	..	..	..	..	..
St. James	5864	..	..	..	16	3	..	..	3	..	..	..	..	7	..	..	.	9	2	..	..	2	..	..	..	..	..	..	..
All Saints	6778	..	..	..	7	2	1	.	..	..	..	1	..	9	.	..	.	1	..	..	..	..	.	..	..	..	..	..	..
Christ Church	6244	..	..	..	11	5	..	..	6	..	..	..	..	7	..	..	..	3	1	..	..	1	..	..	..	..	..	..	..
St. Matthias	4488	..	..	..	16	2	..	..	5	..	..	..	..	4	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..
Holy Trinity	4351	..	..	1	10	1	1	..	3	..	..	..	..	6	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..
Charles	10849	..	..	9	31	4	1	..	4	..	..	1	..	21	..	..	9	12	2	..	..	1	..	..	..	..	.	..	..
St. Jude	7557	..	..	5	21	5	..	..	2	..	..	..	..	19	..	..	5	6	2	..	..	2	..	..	..	..	..	..	..
St. John	6964	..	..	4	15	4	..	.	1	..	..	1	..	14	..	..	4	3	3	..	..	..	..	..	..	..	..	..	..
St. Luke	3342	..	..	1	3	7	..	..	4	..	..	..	..	7	..	..	1	1	1	..	..	2	..	..	..	..	..	..	..
Emmanuel	1387	..	..	..	1	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Public Institutions—																													
S. D. & E. C. Hospital	..	..	..	..	2	3	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..
Homœopathic Hospital	.	..	..	.	1	.	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Workhouse	..	..	..	3	..	1	..	..	1	..	..	..	..	5	..	..	3	..	1	..	..	1	..	..	..	..	..	..	.
The Citadel	..	..	..	.	3	..	..	..	..	.	..	..	.	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..
TOTALS	84248	87931	2528	27	182	54	3	..	38	..	..	4	.	137	.	..	27	71	19	.	..	12	..	..	..	..	1	..	..

Pontardawe Rural District Council.

(WESTERN DIVISION.)

AREA IN ACRES, 17,971 POPULATION, 10,483.

GENTLEMEN,

Births. During the year 1894, there were 395 births registered from the Western Division of your Authority. 203 were males and 192 females, out of the total 8 were illegitimate.

Birth-rate 37·6 per 1,000 per annum.

Deaths During the same period, 1894, 158 deaths from various causes were also registered, 73 of which were males and 85 females.

Death-rate 15·07 per 1,000 per annum.

Inquests. A Coroner's Inquisition was necessitated in 10 cases.

Whooping Cough In a mild form was prevalent amongst the young children during the whole of the year.

Influenza Which has been very prevalent throughout the district since June 1893, gradually disappeared in February; fortunately it was not of a malignant type.

Scarlet Fever Came under observation in February and August, and proved fatal to a delicate infant 14 months old. All the necessary precautions, as to disinfectants, &c., were taken, and the results proved satisfactory.

Measles Made its appearance in the district during March and September, and became an epidemic of a mild kind. In November the severe cases only were seen by Medical Practitioners. Two deaths were registered therefrom, both being infants.

Anthrax. An outbreak of Anthrax occurred at Penybank Farm, near Clydach, and four of the Cattle died Every precaution was taken to prevent the disease spreading; the milk from all the cows was destroyed daily for a considerable time—all the outhouses were thoroughly disinfected—

and by the end of September the disease was completed stamped out, and ever since all has gone on satisfactorily.

Typhoid Fever. Two cases of Typhoid Fever in different parts of the district came under observation in October. Both made good recoveries. Where and how the fever was contracted I have so far been unable to satisfy myself.

Phthisis Which henceforth must be looked upon as a contagious disease, has been registered as the cause of 26 deaths during 1894. Hence, so far as practical, I have endeavoured to isolate the sick from the healthy, and directed that all Sputa, &c., should be disinfected and rendered inert. It follows as a natural sequence, that when one of a family, who is predisposed to Phthisis, contracts the disease, that the remainder of the family, with an invalid in their midst, are placed in the most favourable conditions for contracting this fatal scourge.

The variations in the temperature during the first months of the year told sadly on delicate infants and very old people, and those who were suffering from chronic diseases of the respiratory organs.

The general health of the district throughout the year has been fairly good.

The following improvements have been well carried out during the year 1894.

Craigtrebanos. Two dip-wells, which were polluted by surface drainage, besides being inconvenient, and not stored, have now a tank each, and the necessary fittings, thus securing the water from further pollution. These important improvements have given great satisfaction to those who were dependent for their water supply from these sources.

Pontardawe. The upper portion of the town is now supplied from the overflow from the Workhouse Springs, and for that purpose the mains in Brecon Road were extended a distance of 360 yards. It is proposed to build a Storage Reservoir on the adjoining property in the course of a few months, but hitherto the supply has been abundant without any storage. The two supplies are disconnected by a stop-valve in the mains, near the Cross Roads, and should either of the works be damaged by frost or otherwise, the other can be utilized by opening the stop-valve, while repairs are made.

Clydach.

At this place about 440 yards of 18 stone-ware pipes have been laid in Brook Street, Penywern Road, and a portion of Vardre Road, in order to divert the watercourse and to carry off surface drainage.

Nuisances.

The following is a list of nuisances which were abated during the year 1894 :—

No.	Description of Nuisances.	No. of Notices served.	Remarks.
1	Want of privy accommodation.	86	22 Pails, 64 Middens (covered).
2	Foul privies.	95	
3	Filthy fowl-pens.	11	
4	Foul manure heaps.	12	
5	Defective drainage.	9	
6	Foul pig-styes and pig-wash	35	
7	Slops thrown in open drains.	10	No place to deposit slops, except in ash-heaps or road-sides.
	Total	258	

I particularly wish to tender my thanks to your Inspector of Nuisances for the ready and valuable assistance he has rendered me in my endeavours to improve the sanitary state of the district.

I am, Gentlemen,

Your obedient Servant,

G. GRIFFITHS.

Pontardawe, January 30th, 1895.