[Report 1897] / Medical Officer of Health, Plymouth Borough and Port.

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HEALTH OF PLYMOUTH

During the Year 1897.

BY

F. M. WILLIAMS,

M.R.C.S., Lond., L.R.C.P., L.M., Edin.,
D.P.H., Cambridge, F.R.M.S.,

Medical Officer of Health for the Borough and Port.

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CONTENTS.

Report for the Year 1897.

Medical Officer of Health's Department,

Municipal Offices, Plymouth.

January, 1898.

Gentlemen,

I have the honour of submitting to you for your information my Seventh Annual Report on the Public Health of the Borough for the year 1897, and the work carried out by the department during the same period.

The report also includes that of the Public Analyst, the Meteorologist, and the Annual Report on the health of the floating population within the jurisdiction of the Port Sanitary Authority.

The present year is the first in which the report has dealt with the public health of the enlarged Borough.

The amalgamation of the adjoining districts within the older Borough will not alter the method of dealing for statistical purposes with the areas of like extent and known population.

Formerly for purposes of the report the 13 ecclesiastical parishes only were taken as the basis of division; to these have been added the parishes or portions of parishes of Pennycross, Compton, and Egg-Buckland, now included in the Borough.

Housing of the Working Classes.—This most important and interesting problem has, during the year received the continuous thought and attention of the Committee intrusted with this duty.

The buildings at Prince Rock have been completed and occupied; the greater part of the condemned area has been demolished and tenders for the construction of the new buildings on this site have been advertised for.

When this work is completed much will have been done towards solving the problem of providing wholesome dwellings for the working classes, but much more remains to be done, only the fringe of the evil has been touched. There are still districts in the borough in which the inhabitants are crowded in dwellings that are old, dilapidated and insanitary; many of the houses from their position and condition are beyond improvement, and should be demolished, of this the Sanitary Committee are fully aware, but the difficulty at once presents itself as to what is to be done with the displaced inhabitants; by experience it has been found that a great majority of the tenants that have been displaced from condemned houses have moved to other houses of the same type, thus augmenting the evil. As I have stated in a previous report, the energies of the responsible Committee must be mainly directed to the distribution of the inhabitants in the crowded areas. This distribution will be the work of years. Until it is completed the evils, moral and physical, associated with the existing conditions in our densely crowded areas will remain.

Public Baths and Wash-houses.—I had hoped ere this to have been able to report the commencement of the construction of improved accommodation, and also the construction of swimming baths. It is now some four years since this matter was taken in hand, and I am sorry to say after considerable trouble on the part of the Committee in causing plans to be prepared, etc., the matter was shelved. As to the present condition of the Corporation Baths and Wash-houses

I can only reiterate the remarks I have made in former reports upon the same subject. I must again point out to the Committee how essential to the physical well-being and convenience of our dense population, is the provision of the most ample and perfect accommodation for washing and bathing. The provision of swimming baths is also most pressing, considering the number of our population who seek their living upon the waters; and especially with the knowledge we have of the very small percentage of the child population that are able to swim. The actual percentage of boys able to swim attending the Elementary Schools, is less than eight per cent., these statistics were furnished from a most reliable source, and published in my last annual report.

Mortuary and Coroner's Court.—This building which was completed towards the close of last year has been completely furnished and equipped. During the year 12 inquests have been held at the Court.

Steam Disinfector and Disinfecting Station.—The Disinfector has now been continuously at work for a period of three years without repairs or a breakdown. The total number of articles of clothing, bedding, etc., dealt with during the year being 31,000; this number includes 27,000 articles from the s.s. "Nubia." No compensation has been paid during the year for articles damaged during the process of disinfection.

Borough Isolation Hospital. — The erection of the administrative block so urgently needed, has been considerably delayed owing to strikes. I am pleased, however, to be able to report that the work is now practically completed. The completion and occupation of the administration buildings will be a great benefit to the staff who are at present occupying what is practically a portion of the hospital; the accommodation is also very limited.

Other most necessary requirement for the efficient administration of the hospital, is the erection and equipment of a

laundry, for which plans have been made and approved of by the Committee.

The erection of an Ambulance Shed and Mortuary have also been sanctioned. During the year 140 cases of infectious sickness have been under treatment, 22 of which remained over from the past year.

During the same period 11 deaths have occurred in the institution, 6 of which occurred prior to June 25th. Five have occurred since that date, 2 of which were due to the incidence of other illness than that for which the patients were admitted; one from Peritonitis, probably the result of a chill during convalescence from Diphtheria; the other the result of Puerperal Septicæmia, in a patient admitted with severe Erysipelas of the face and scalp. Two of the remaining four were admitted in a moribund condition and died within twelve hours of admission.

During the year 407 cases of infectious sickness have been notified, 211 of which were Erysipelas, leaving 196 cases of other diseases of which 100 cases were removed to hospital or equal to rather more than 50 per cent. of cases notified.

Two cases of infectious sickness have occurred amongst the staff during the year:—A probationer contracted a somewhat severe attack of Enteric Fever which terminated favourably. A ward maid contracted Scarlatina, and is still under treatment. A few cases of hospital throat have also occurred amongst the nurses.

Refuse Removal and Disposal.—This work which has hitherto been so inefficiently performed by Contractors has been taken over by the Corporation, since June. The present method of collection, reported by the Surveyor from time to time to the Council, is giving general satisfaction and is efficiently performed. The method of disposal remains practically the same—with the exception of a certain quantity being disposed of at sea by means of hopper barges.

The accumulation of refuse at the soil depôt remains much in the same condition as hitherto, and until a destructor is provided the difficulty of disposal will not be remedied. Tenders have recently been invited for the erection of some approved form of destructor; and I trust, that during the ensuing year this most needed and essential part of the sanitary equipment of the Borough will be provided and at work.

General and Systematic Inspection.—The continuous supervision of tenement houses we find is absolutely necessary. The staff of inspectors are employed two days in each week under my personal supervision at this important work. From experience it is found that this is hardly sufficient, the pressure of the general work will not permit of more time being devoted to systematic inspection. The structural condition of the majority of the houses, combined with the carelessness of many of the tenants, necessitate constant repairs to the sanitary fittings of these tenement houses. The surface of the yards also require continual repair, in great measure owing to the character of the materials employed in paving or rendering impervious the surface of the curtilages.

During the year 16,000 visits of inspection have been made to premises in the Borough. Upwards of 3,000 notices have been served upon owners, requiring them to make good defects in the sanitary conditions of their property.

Drain testing is a portion of the routine of systematic inspection. During the year 1,554 tests have been applied to house drains.

Of the 3,000 notices served, 2,910 have been complied with, leaving 90 uncomplied with, those outstanding are either in progress or in abeyance from various circumstances

During the same period some 4,435 improvements have been effected, principally in re-construction of house drains, provision of refuse receptacles, repairing curtilages, and providing general sanitary requirements.

2939 visits have been made by the Sanitary Officials of the Port Sanitary Authority, to vessels within the jurisdiction of the Authority.

The inspection of meat, fish, and other food has been carried out continuously during the year by the appointed inspectors, resulting in the seizure and destruction of 25 tons of fish, and 12½ tons of meat. Under the Food and Drug's Act, periodical visits to various parts of the Borough have been made for the purpose of the purchase of samples of various foods for analysis by the Analyst. In this manner 116 samples have been taken, of which 12 were found to be adulterated. Seven persons have been proceeded against, and in each case have been convicted for the offence against the Act.

Cowsheds, Dairies, Milkshops, and Bake-houses.—During the year continuous supervision of this class of premises has been carried on, some 3,457 visits of inspection having been made.

There is a marked improvement in the sanitary condition of the cowsheds and dairies. The over-crowding of cattle is diminishing. Dairymen are recognizing the necessity of keeping their dairy cattle under the most favourable sanitary conditions.

Upon the premises of 13 dairymen structural alterations and additions have been carried out, for improvement in the provision of increased cubic space, ventilation, paving, and drainage.

Water Supply.—I am glad to be able to report the complete disuse of the open leat for the conveyance of water from the Head Weir to the Roborough Reservoir so that the danger of the pollution of the water in transit has been completely obviated.

Arrangements have also been made by the Water Committee for the periodical, chemical and bacteriological examination of samples of the water supplied to the public.

The construction of the storage reservoir at Burrator has made very considerable progress since the issue of my last annual report; the following details of progress have been furnished by the courtesy of the Water Engineer, and are as follows:—

The Burrator Main Dam has now reached a height of 121 feet above the foundation or 70 feet above the level of the river bed.

The Sheepstor Subsidiary Dam is completed with the exception of the stone pitching.

Meteorological Station.—During the year sanction of the Council was obtained for the completion of the equipment of the Observatory, and a yearly sum authorised to be expended in the circulation of the reports. In future, in addition to the daily records forwarded to the Meteorological Office, arrangements have been made to furnish daily at 10 a.m. the hotels, clubs, and public buildings, with the result of the morning observations, as to the barometrical pressure, temperature, direction and force of wind, and condition of the sea in the immediate neighbourhood of the Port. The observations will also be furnished to certain towns by telegraph. The equipment of the station will consist of standard barometer, self recording aneroid barometer, self recording anemometer (force and direction of wind), sunshine recorder, self recording rain guage, maximum and minimum thermometer (in Stevenson's screen), radiation thermometer, ground thermometer, and hygrometer. Daily observations are also taken of the temperature of the sea at a depth of 6 feet. A small observatory has also been built on an excellent site on the Hoe.

I again take this opportunity of heartily thanking the medical men of the Borough for their assistance and co-operation, also to express my appreciation of the manner in which the staff of the department have carried out their duties.

To the Chairman and members of the Sanitary Committee, I offer my warmest thanks for their continuous support.

I have, the honour to remain,

Your obedient Servant,

T. M. Williams

General Sanitary Condition of the County Borough of Plymouth at the end of the year 1897.

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

The area of the Borough is 2,417 acres, which includes the island of St. Nicholas, in the parish of St. Andrew. Population calculated to the middle of 1897, 97,658. The Borough consists of two parishes, St. Andrew and Charles, which are sub-divided into thirteen ecclesiastical districts, and portions of three others, namely, St. Andrew, St. Peter, St. Saviour, St. James, All Saints, Christ Church, St. Matthias, Holy Trinity, Charles, St. Jude, St. John, St. Luke, Emmanuel, Egg Buckland, Pennycross and Compton Gifford.

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 £401,844.

The number of houses in the Borough is 12,508, of which 250 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 reclaim 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 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 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, 100,000) 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 forming the north-east part of the Borough to the east of Mutley Plain, drains into the tanks at Laira (erected by the late Compton Local Board), from whence the effluent passes into the estuary at Laira. The greater part of the sewage of Laira flows into the "Mullet Pond," which communicates also with the tidal water of the estuary.

It is intended, as early as possible, to abandon the use of the tanks (which are practically cess pits) and construct a sewer, or sewers, that will carry the whole of the sewage, and discharge it at one of the outfalls.

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 discharged into the Harbour at Rusty Anchor, West Hoe. During the flood tide the sewage is retained in the low level sewer.

One of the deep water outfalls, that at Fisher's Nose, has been completed and is in use. The sewage is now discharged in five fathoms of water on the ebb tide.

The scheme for the prevention of flooding in the west portion of the Borough by the erection of a pumping station and other works has not yet been commenced. I am informed that for some time negotiations have been proceeding with the Great Western Railway Company in reference to a site for the pumping plant, I trust ere long this most necessary work will be carried out.

The work of reconstructing the subsidiary wall sewers has been continuously carried on during the past year, and it is the intention of the Corporation to proceed with the work until the whole of the wall sewers in the Borough have been replaced by sewers of the best type.

The Local Government Board inquiry for borrowing powers to carry out Mr. Mansergh's scheme of intercepting sewers has been held, but sanction for the loan has not yet been received, the work will be commenced forthwith on sanction being given.

Vital and Mortal Statistics.

THE AREA OF THE BOROUGH.—2,417 acres.

POPULATION.—At the census taken in April, 1891, the population was 88,910, and it is estimated that at the middle of 1897 the population of the Borough was 97,658.

DENSITY.—The mean density of population is 42·6 persons per acre. The average of 42·6 is greatly exceeded in different parts of the Borough, as will be seen by reference to the localized mortality rates.

INHABITED HOUSES. -12,508 estimated number. 250 have been built during the year.

Distribution of Population.—The population is unevenly distributed over an area of 2,417 acres, the mean density being 42·6 persons per acre. The population density of the thirteen districts and portions of three others into which the Borough is divided varies from 21 persons in Pennycross, to 207 in Trinity.

Marriages —The number of marriages recorded in the Borough during 1897 was 1016 (equal to a rate of 10·4 per 1,000 persons living), as against 906 for the previous year.

Births.—The Births registered during 1897 numbered 2764, and comprised those of 1364 males and 1400 females. The Birth rate for the past year was 28·3 per 1,000. The Births and Birth-rates for the past ten years are as follows :—

	Number of Births.	Birth-rate per 1,000.
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
1895 ...	2,551 ...	28·7
1896 ...	2,643 ...	29·3
1897 ...	2,764 ...	28·3

The birth rate has again this year resumed its decreasing rate, the rate, 28·3 per 1,000, being the lowest recorded.

The rate is again below that of the 33 large towns. The whole of England and Wales as shown by the returns of the Registrar-General participates in the yearly decreasing number of births.

The natural increase of the population, or the excess of births over deaths during the year was 898. The estimated increase in the population was 1,457.

Deaths.—During the year 1866 deaths occurred in the Borough, inclusive of those dying at the Corporation Asylum at Blackadon, as against 1769 during the previous year. The uncorrected rate for the year being equal to 19·1 per 1,000 living, as against 19·6 for the year 1896. The rate is the same as the 33 large towns. The corrected rate for age and sex distribution is equal to 18·6 per thousand, which is below the general urban rate.

Zymotic Infantile Diarrhœa was very prevalent and fatal during the summer months, which were characterized by high temperature and dry weather, the conditions especially favourable to the development of Diarrhœa amongst the infant population of crowded areas. During July and August 67 deaths were registered as the result of this disease.

Appended will be found the Mortality Rates for the past ten years.

	No. of Deaths.	Uncorrected Death rate per 1,000.	Corrected rate.
1888	1,734	21·3	20·3
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	20·2
1894	1,596	18·2	17·8
1895	1,800	20·2	20·0
1896	1,769	19·6	19·4
1897	1,866	19·1	18·6

Public Institutions have been considered for statistical purposes as separate localities. Deaths occurring in the district institutions of persons from other districts are eliminated in calculating the corrected rate, while the deaths of inhabitants of the Borough occurring in other districts are added. The gross rate is also corrected for sex and age distribution.

The uncorrected or recorded rate for the year is 19 1, the corrected ratio being 18·6 per 1,000.

The average mortality rate in Plymouth, in the ten years 1887-97 is 20·9, as against the general urban rate of 19·5.

The death-rate in England and Wales in 1897 was 17·4 per 1000, this being lower than the rate in any previous year, excepting 1894 and 1896; compared with the rate in the ten years 1887-96, the death-rate in 1897 shows a decrease of 1·2 per 1,000.

Having regard to the conditions under which a large proportion of our population live, the death toll, although a somewhat heavier one than that of the general urban rate throughout the country, is not a high one. High mortality rates from certain diseases are invariably associated with

density of population This is especially noticeable in diseases affecting the respiratory organs, and in those infectious diseases in which the respiratory organs are liable to be involved; I refer to Measles and Whooping Cough, the most fatal diseases of child life in crowded districts.

Zymotic diarrhœa of infants is also especially prevalent and fatal in crowded districts, under meteorological conditions favourable to its development.

The dangers and evils associated with overcrowding of dwellings and density of population are not only physical but moral and social, tending to arrest the progressive enlightment and evolution of the people so typical of the present age. The responsibility of arrest or progression is in the hands of the municipality generally, and to the special committees of that body entrusted with this most vital work, which has been so well commenced and energetically carried on. I trust that in the future the same progressive policy will be continued. The welfare of the people is in their hands.

Appended is a comparative mortality, birth rate, and density table for 20 of the large towns.

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 1897.

Cities and Boroughs.	Estimated Population in the middle of 1897.	Persons to an Acre (1897).	Birth-rate.	Death-rate.	Zymotic rate.	Deaths under 1 year to 1,000 Births.
33 Large Towns..	10,992,524	35·5	30·7	19·1	2·87	177
London ..	4,463,169	59·8	30·0	18·2	2·59	159
Liverpool ..	633,078	47·8	35·3	24·4	3·81	200
Manchester ..	534,299	41·4	33·3	23·1	3 81	194
Birmingham ..	505,772	39·8	33·3	21·6	3·88	215
Leeds ..	409,472	13·0	31·6	19·9	2·79	191
Sheffield ..	351,848	17·9	34·4	21·2	3·49	197
Nottingham ..	232,934	21·2	28·9	18·8	2·81	206
Bristol ..	232,242	49·7	27·8	17·2	1·84	149
Hull ..	225,045	27·4	33·4	18·6	3·26	179
Newcastle ..	217,555	40·5	31·3	19·1	2·08	178
Leicester ..	203,599	23·7	30·6	17·7	3·14	205
Portsmouth ..	182,585	39·1	26·9	16·2	2·54	168
Cardiff ..	170,063	28·1	31·1	14·9	2·19	151
Sunderland ..	142,107	43·1	34·6	19·7	2·57	164
Blackburn ..	131,330	18·8	27·7	19·5	3·45	207
Bolton ..	121,433	51·5	32·6	21·9	4·01	186
Preston ..	115,103	28·1	31·9	24·4	5·63	263
Derby ..	103,291	29·9	27·1	16·1	1·91	168
PLYMOUTH ..	**97,658**	**42·6**	**28·3**	**19·1**	**2·18**	**188**
Wolverhampton..	87,287	24·8	35·1	22·0	4·23	218

Mortality at Different Seasons.

The year 1897, like that of the previous year, was meteorologically a very equable one, the spring was mild and dry, especially favourable to those suffering from affections of the respiratory organs. At the close of the year 1896 Measles was epidemic in the Borough, the disease rapidly declined during the early months of the year.

The summer months were dry and warm and especially favourable to the development of Infantile Zymotic Diarrhœa, which was very fatal during July and August.

The autumn and early winter months were generally fine and mild, but not characterized by the incidence of Zymotic disease in epidemic form, the mortality being generally below the average for the fourth quarter of the year.

The exact daily meteorological conditions of the year will be found recorded in the report of Mr. Prigg in another part of this report.

During the first quarter of 1897, 520 deaths were registered, as compared with 407 for the corresponding quarter of 1896.

During the second quarter 450 deaths were registered, as against 398 for the corresponding period of 1896.

During the third quarter 483 deaths were registered, as against 429 for the corresponding quarter of 1896.

During the fourth quarter 413 deaths were registered, as against 535 for the corresponding period of 1896.

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	520	450	483	413	1866
Male	264	206	233	217	920
Female	256	244	250	196	946
Death-rate ..	21·3	18·4	19·8	16·9	19·1

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

First quarter	.....	33	years and	4	months.
Second ,,	.....	32	,,	1	,,
Third ,,	.....	27	,,	7	,,
Fourth ,,	.....	41	,,	0	,,
Whole Year	.....	33	,,	3	,,

Mean age at death,		1892—36	years and	8	months.
,,	,,	1893—32	,,	9	,,
,,	,,	1894—33	,,	...	
,,	,,	1895—35	,,	2	,,
,,	,,	1896—33	,,	5	,,
,,	,,	1897—33	,,	3	,,

TABLE I.

Shewing the Estimated Population, Marriages, Births, and Deaths for the year, 1897, and 10 years preceding.

*Year.	Estimated Population.	Marriages	Registered Births.	Number of Deaths.		
				All Ages.	Under 1 Year.	Principal Zymotic Diseases.
1897	97,658†	1016	2764	1866	521	215
1896	90,276	909	2643	1769	460	206
1895	89,096	906	2551	1800	456	169
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	1960	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
Average of 10 years 1887-96		875·9	2514	1778	426·9	208·5

* 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.

† Borough extended.

TABLE II.

Shewing the Density, Birth-rate, Death-rate, Zymotic-rate, and Infantile Death-rate for the year 1897, and 10 years preceding.

Year.	Persons to an Acre.	Birth-rate.	Death-rate	Zymotic-rate.	Deaths under 1 year to 1,000 Births.
1897	42·6	28·3	19·1	2·20	188
1896	60·5	29·3	19·6	2·29	174
1895	59·7	28·7	20·2	1·90	179
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
Average of 10 years 1887-96		29·52	20·89	2·46	169·6

TABLE III.

Shewing the number of Deaths from the Principal Zymotic Diseases for the year 1897, and 10 years preceding.

Year.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria	Whooping Cough.	Fever.	Diarrhœa.	Totals.
1897	..	52	5	13	53	9	83	215
1896	..	90	3	15	18	5	75	206
1895	..	76	3	10	29	6	45	169
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
Average of 10 years 1887-96	0.8	44·6	41·1	12·8	37·5	14·6	57·1	208·5

TABLE IV.

Shewing the relative Mortality Rates from the Principal Zymotic Diseases for the year 1897, and 10 years preceding.

Year.	Small-pox.	Measles	Scarlet Fever.	Diph-theria.	Whoop-ing Cough	Fever.	Diarr-hœa.	Total Zymotic Rate.
1897	..	0·53	0·05	0·13	0·54	0·09	0·85	2·20
1896	..	1·00	0·03	0·17	0·20	0·06	0·83	2·29
1895	..	0·85	0·04	0·11	0·33	0·07	0·50	1·90
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
Average of 10 years 1887-96	0·009	0·52	0·49	0·15	0·44	0·17	0·67	2·46

Localized Mortality Rates

For the Year 1897.

District.	Persons to an Acre.	Mortality Rate per 1,000.	Zymotic Rate	Ditto 33 large Towns.
St. Andrew	104·0	14·6	1·71	
St. Peter	159·2	21·1	3·39	
St. Saviour	188·4	18·8	1·22	
St. James...	66·6	15·5	1·71	
All Saints	178·4	13·4	1·33	
Christ Church	81·1	16·7	1·92	
St. Matthias	59·8	15·2	1·11	
Holy Trinity	207·2	21·4	4·60	
Charles	65·7	20·2	1·75	2·87
St. Jude	20·9	25·5	2·65	
St John	23·6	25·7	4·02	
St. Luke	104·4	12·0	1·80	
Emmanuel	43·4	13·7	2·16	
Compton Gifford ...	6·8	17·9	1·86	
Egg Buckland	10·8	31·6	5·58	
Laira	4.2			
Pennycross	1·8	65·9	8·60	

During this the first year of the inclusion of the adjoining districts of Compton, Laira, Egg Buckland, and Pennycross, the comparison of the mortality rates with those of the districts in the old Borough are somewhat interesting. The added areas, with the exception of Compton Gifford, are characterized by the heaviest mortality rates, Laira having a death rate for the year equal to 31·6 per 1000, Pennycross rate being equal to 65·9 per 1000, while that of Compton, a residential district, is equal to 17·9 per 1000, or taking the added areas collectively the death rate is equal to 38·5 per 1000. Although the population density of the added areas in no instance exceed 10·8 persons per acre the sanitary conditions were deplorable. The Zymotic rate was considerably higher in the added areas than in any of the parishes in the old Borough.

The parishes of St. Jude and St. John with a dense population, and a large proportion of child population, afford the next highest rates, namely, 25·5 and 25·7 per 1000 respectively, these rates are probably in excess of the true rates, as owing to the extensive building operations carried on, the increase of population is considerably above the general increase of the of the Borough. The age distribution of the inhabitants also greatly affect the mortality rates.

The districts furnishing the lowest mortality rates are those of St. Luke's, Emmanuel and All Saints; the rate in St. Luke's was equal to 12 per 1000, in Emmanuel 13·7, while in All Saints it was 13·4 per 1000.

These are the lowest recorded rates ever reached in these parishes. The mortality rate of St. Luke's, a densely populated district, 104·4 persons per acre, is very satisfactory.

The low rates in the densely populated districts is in great measure due to the fact that during the year the Borough has been free from those epidemics of disease especially fatal to child life.

The crowded parishes of St. Saviour and Trinity also shew a reduction in the general mortality and zymotic rates.

The rates in St. Peter's and Charles are slightly increased, while the remainder of the districts shew a decided lowering of the mortality rates. There is a general improvement in the mortality rates of the old Borough, the rates of the added areas have not tended to lowering the general mortality rate of the Borough.

Infantile Mortality.

The mortality of infants under one year of age was in the proportion of 188 deaths to 1,000 births registered, being 14 per 1,000 above the rate for 1896. The total number of deaths of infants under one year was 521.

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.	Infant Mortality Rate per 1,000 Births.
1888 ...	2,454 ...	400 ...	163
1889 ...	2,505 ...	419 ...	167
1890 ...	2,445 ...	392 ...	160
1891 ...	2,508 ...	452 ...	181
1892 ...	2,483 ...	342 ...	137
1893 ...	2,590 ...	443 ...	171
1894 ...	2,528 ...	426 ...	168
1895 ...	2,551 ...	456 ...	179
1896 ...	2,643 ...	460 ...	174
1897 ...	2,764 ...	521 ...	188

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

Infant Mortality in Plymouth in the Years 1894-97, from Different Diseases.

	1894.	1895.	1896.	1897.
Measles	1	17	26	13
Whooping Cough ...	32	14	8	31
Diarrhœa	28	38	58	70
Tabes Mesenterica ...	12	21	10	6
Premature Births ...	54	50	55	51
Convulsions	35	28	26	53
Bronchitis	63	65	61	51
Pneumonia	20	16	28	26
Diseases of Stomach ...	11	2	17	11
Enteritis	18	34	31	50
Debility, Atrophy, Inanition	29	30	19	21
Other causes	123	141	121	138
Totals	426	456	460	521

Illegitimacy, 1897.

During the past year 81 births of illegitimate children have been recorded, being 2·9 per cent. of the whole. The number of deaths of illegitimate children under one year was 34, equal to a rate of 419·7 per 1,000 births, the rate for legitimate children being equal to 181·5 per 1,000 births.

Certification of Death.—During the year 1866 deaths were registered in the Borough, 1,746 (or 93·57 per cent.) of which the causes were duly certified by registered medical practitioners, and 114 (or 6·11 per cent.) by coroner after inquiry, leaving the causes of six deaths uncertified, a decrease of two as compared with the previous year.

During the past year the percentage of uncertified deaths registered in England and Wales was equal to a percentage of 2·0 as against 0·32 in the Borough.

The Borough Coroner has during the year made inquiry into the cause of 114 deaths, the causes of which as certified by him are as follows :—

Violent Deaths—Accident or Negligence :—

Burns and Scalds...	7	
Poison	1	
Drowning	6	
Suffocation	4	
Other Injuries	14	
	—	32

Violence other than Accidental :—

Homicide	2	
Suicide	8	
	—	10
Natural Causes...	72	
	—	72
		114

MORTALITY TABLES—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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	1866	276	245	115	102	21	28	38	41	58	65	62	48	69	59	84	95	95	130	103	132	1866
I.—SPECIFIC FEBRILE or ZYMOTIC DISEASES	274	56	83	43	38	3	9	4	6	4	2	1	2	7	3	3	2	1	3	..	4	274
II.—PARASITIC DISEASES ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III.—DIETETIC DISEASES ..	2	..	..	..	..	..	..	..	..	..	..	..	..	.	..	1	..	..	1	..	..	2
IV.—CONSTITUTIONAL DISEASES ..	322	17	5	11	6	7	5	16	24	30	29	23	18	19	17	17	24	10	26	7	11	322
V.—DEVELOPMENTAL DISEASES .	202	34	30	..	..	..	..	..	..	..		..	.	..	..	..	..	7	22	48	61	202
VI.—LOCAL	994	153	112	59	55	7	13	15	10	20	33	35	27	38	36	62	66	75	76	46	56	994
VII.—VIOLENCE	42	2	3	2	3	4	1	3	1	4	..	3	1	5	2	1	1	2	2	2	.	42
VIII.—ILL-DEFINED AND NOT SPECIFIED CAUSES ..	30	14	12	..	..	..	..	..	..	..	1	..	..	..	1	..	2	..	..	..	..	30

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897.

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 .. .	151	17	28	38	33	2	8	3	3	3	.	1	..	5	1	3	2	.	2	..	2	151
2.—Diarrhœal ,, ...	94	32	47	5	5		..	1	.		..	..	1	..	1	..		1	..	..	1	94
3.—Malarial ,, . ..	..	..	..	..	..		..	..	..	.	..	..	..	.	..	..	..	..	..		.	..
4.—Zoogenous ,, ...	..	.	.	..	..		..	..	..	..	..	..	.	.	.	.	.	.	..		..	..
5.—Venereal ,, ...	16	6	7	.	..		..	..	..	..	2	..	1	..	..			..	..	..	..	16
6.—Septic ,, ...	13	1	1	..	.	1	1	..	3	1	..	..	..	2	1	..		.	1	..	1	13
II.																						
Parasitic Diseases	..	.	..	..	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..		.	..
III.																						
Dietetic Diseases .. .	2	..	..	..	.	..	.	.	..	..		..	..	..	..	1	..	.	1	..	.	2
IV.																						
Constitutional Diseases .. .	322	17	5	11	6	7	5	16	24	30	29	23	18	19	17	17	24	10	26	7	11	322
V.																						
Developmental Diseases	202	34	30	..	..		..	..	..	..	..	..	..	..		..	..	7	22	48	61	202

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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	226	44	19	11	12	2	5	2	2	3	7	10	2	6	7	17	10	20	16	13	18	226
2.— ,, Organs of Special Sense	..	.	..	..	..	..	.	.	..	..	.	..	..	..	.	..	..	..	.	..	..	..
3.— ,, Circulatory System	193	2	3		1	.	1	7	3	6	4	19	12	12	8	20	23	21	21	18	12	193
4.— ,, Respiratory ,,	310	44	41	36	35	4	6	..	3	5	6	1	3	10	9	13	16	17	28	11	22	310
5.— ,, Digestive ,,	191	59	46	12	6	1	.	3	1	2	5	3	3	4	10	6	9	7	10	2	2	191
6.— ,, Lymphatic System and Ductless Glands	4	..	.	..	.	..		1	..	..		..	1	..	1	1	..	..	..	..	..	4
7.— ,, Urinary System	46	1	1	.	1		1	1	..	3	4	2	3	6	1	4	4	9	1	2	2	46
8.— ,, Reproductive System—																						
,, (*a*) Organs of Generation	3	..	..	..	..	..	..	..	..	.	..	..	2	..	..	..	1	..	..	..	..	3
,, (*b*) Parturition	9	1	..	..	..	..	..	..	1	..	6		1	..	..		..		..	..	..	9
9.— ,, Organs of Locomotion	8		1	.	..	..	..	1	..	1	1	..	..	.	..	1	2	1	..	..	..	8
10.— ,, Integumentary System	4	2	1	.	..	.	..	..	..	..	..	..	..	..	..	..	1	..	.	..	..	4
VII.																						
1.—Accident or Negligence	32	2	2	2	3	3	1	3	1	3	..	3	.	2	1	1	1	1	2	1	..	32
2.—Homicide	2	..	1	..	..	1	..	..	..	..	..	..	..	..	.	.	..	..	..	..	.	2
3.—Suicide	8	..	..	..	.	..		..	..	1	..	.	1	3	1	..	..	1		1	..	8
4.—Execution	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..
VIII.																						
Ill-Defined and not Specified Causes	30	14	12	..	..	..	..	..	..	.	1	..	..	..	1	..	2	..	..	..	..	30

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken Pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	52	7	6	18	18	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52
Epidemic Rose Rash	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	5	..	..	2	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	5
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Influenza	19	..	..	1	..	..	2	1	..	1	..	1	..	5	1	3	..	..	2	..	2	19
Whooping Cough	53	10	21	11	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	53
Membranous Croup	6	..	1	3	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
Diphtheria	7	..	..	3	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
Cerebro spinal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Simple and Ill-defined Fever	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Typhoid or Enteric Fever	8	..	..	..	..	..	1	2	2	2	..	..	..	..	..	..	1	..	..	..	..	8
Other Miasmatic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DIARRHŒAL DISEASES.																						
Cholera	11	2	7	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11
Diarrhœa, Dysentery	83	30	40	5	3	..	..	..	1	..	..	..	1	..	1	..	..	1	..	..	1	83
MALARIAL DISEASES.																						
Remittent Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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	16	6	7	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	16
Gonorrhœa, Stricture of Urethra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
SEPTIC DISEASES.																						
Phagedæna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	7	1	1	..	..	..	..	..		1	..	..	..	1	1	..	..	..	1	..	1	7
Pyæmia, Septicæmia	3	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3
Puerperal Fever	3	..	..	..	..	..	..	..	3	..	..	..	..	..	..		..	..	..	..	..	3
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, 1897

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	4	..	..	..	..	..	..	..	2	1	..	1	..	..	..	..	..	.	..	..	..	4
Rheumatism	4	..	..	..	..	..	..	..	..	..	..	..	.	..	..	1	..	..	3	..	..	4
Gout	2	.	..	..	..	..	..	.	..	..	..	.		..	..	1	..	1	..	..	..	2
Rickets	1	..	..	1	..	..	..	.	..	..	..	.		..	..	1	..	1	..	..	..	1
Cancer	93	..	..		..	.	.	.	1	.	2	5	4	6	7	9	16	7	20	6	10	93
Tabes Mesenterica	9	3	3	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
Tubercular Meningitis (Acute Hydrocephalus)	12	5		4	1	2	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12
Phthisis	139	1	..	2	1	3	1	12	16	22	24	14	13	8	6	5	6	1	3	1	..	139
Other forms of Tuberculosis, Scrofula	38	8	2	1	3	1	2	2	3	4	3	3	1	3	2		..	.	..	..	.	38
Purpura, Hæmorrhagic Diathesis	.	.	..	..	..	..	..	.	..	..	..	..	.	..	..	..	..	..	..	.	.	..
Anæmia, Chlorosis, Leucocythæmia	13	.	..	1	1	1	1	2	1	1	..	..	..	1	1	1	..	1	..	..	1	13
Diabetes	7	..	.	..	..	.	.	.	1	2	..	.	..	1	1	..	2	..	..	..	..	7
Other and undefined Constitutional Diseases	.	..			..	..		..	..	..	..	..	.	..	..	..	..		..		..	..
DEVELOPMENTAL DISEASES.																						
Premature Births	51	27	24	..	.		.		..	..	.	..	.	..	..	..	..	..	..	..	..	51
Cyanosis		..		..	..	..	..	..	..	..	..	.	..	.	..	.	..	..	..	..	..	.
Spina Bifida	2	1	1	.	.	..		..	..	..	..	..	..	..	..	..	..	..	.	..	..	2
Other Congenital Defects	11	6	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11
Old Age	138	..	..	..	.		..	.		..	..	..	..	..	..	..	..	7	22	48	61	138

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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	20	5	1	..	4	1	3	..	2	1	1	1	..	..	1	..	..	..	..	..	..	20
Apoplexy	30	..	..	..	..	..	..	..	..	..	..	1	1	..	3	5	3	7	3	3	4	30
Softening of Brain	11	.	..	..	..	..	..	..	.	..	1	..	..	..	1	1	1	3	..	2	2	11
Hemiplegia	4	..	..	..	..	..	..	..	..	..	..	..	..	.	..	1	..	1	..	1	1	4
Paralysis Agitans	14	..	..	..	..	1	1	..	..	1	..	..	..	..	..	.	1	1	6	.	3	14
Insanity, General Paralysis of Insane	11	..	..	..	..	.	..	..	..	..	1	5	..	3	..	1	1	..	..	..	..	11
Chorea	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..
Epilepsy	6	1	..	..	..	..	..	..	..	..	..	1	..	1	..	2	..	..	.	1	..	6
Convulsions	71	35	18	10	7	..	..	..	..	..	..	1	..	..	..	..	..	..	.	..	..	71
Laryngismus Stridulus	3	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	3
Idiopathic Tetanus	..	..	..	..	..	..	..	..	..	.	..	..	..	..	.	.	..	..	..	..	.	..
Paraplegia, Diseases of Spinal Cord	2	..	..	..	..	..	..		.	..	..	..	..	..	..	.	..	1	1	..	..	2
Other and undefined Diseases of Brain or Nervous System	54	1	..	1	..	..	1	2		1	4	1	1	2	2	7	4	7	6	6	8	54
DISEASES OF ORGANS OF SPECIAL SENSE.																						
Otitis, Otorrhœa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	.	..	..	..
Epistaxis and Diseases of Nose	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..
Ophthalmia and Diseases of Eye	..	..	..	..	..		..	..	..	..	..	..	..	..		..	..	..	..	.	..	..

MORTALITY TABLE.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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 ..	28	1	..	..	.		..	1	1	1	1	3	3	1	1	5	2	4	2		2	28
Pericarditis	2	..	..	..	..	..	..	..	.	..	.	2	..	..	..	..	..	..	..	..	..	2
Hypertrophy of Heart	..	..		..	..	..	..	..	.	..	.		..	..	..	..	..	..	..	..	..	..
Angina Pectoris	2	..	..	..	.	..	..	.	.	..	1	1	..	..	..	..	..	..	..	..	..	2
Syncope	20	..	1	..	1	..	..	..	..	1	..	3	2	1	1	1	1	4	1	2	1	20
Aneurism	3	..	..	..		..	..	..	..	1	.	1	..	..	..	1	..	..	..	..	..	3
Senile Gangrene	3	..	..	..	..	.	..	..	..	..	.	.	..	..	..	..	.	.	..	..	3	3
Embolism, Thrombosis	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Other and undefined Diseases of Heart or Circulatory System ..	134	1	2	..	..	..	1	6	2	3	2	9	6	10	6	13	20	13	18	16	6	134
DISEASES OF RESPIRATORY SYSTEM.																						
Laryngitis	3	2	..	1	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	3
Croup	5	1	..	1	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Other Diseases of Larynx and Trachea	2	1	..	..	..		.	..	..	.		..	..	1	.	..	..	..	..	..	..	2
Emphysema, Asthma	9	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2	1	1	1	1	1	9
Bronchitis	173	27	24	21	15	1	2	..	2	2	1	..	1	2	4	5	11	10	19	6	20	173
Pneumonia	100	13	13	12	18	2	3	..	1	3	3	1	2	5	4	3	3	6	4	3	1	100
Pleurisy	7	.	..	..	..	1	..	.	..	..	1	..	..	..	1	2	1	..	1	..	..	7
Other and undefined Diseases of Respiratory System ..	11	..	4	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	3	1	..	11

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	1	.	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Dentition	9	2	3	2	2	..	..	..	..	..	.	..	..	..	..	.	..	..	..	..	..	9
Dyspepsia	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	2
Hæmatemesis	2	..	..	..		..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	2
Diseases of Stomach	21	6	5	2	..	..	..	..	1	..	2	..	..	..	3	..	..	..	2	..	..	21
Enteritis	64	33	17	3	2	1	..	1	..	..	..	..	..	1	2	2	..	..	1	1	..	64
Ulceration of Intestine	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ileus, Obstruction of Intestine	7	..	.	..	..	..	..	.	..	1	..	..	..	1	1	..	2	2	.	..	..	7
Stricture or Strangulation of Intestine	1	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1	..	..	..	1
Intussusception of Intestine	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..
Hernia	6	..	..	..	..	..	..	..	..	..	..	..	.	..	..	2	2	..	1	1	..	6
Fistula	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis	11	1	1	..	..	..	..	2	..	..	1	1	1	1	2	..	..	1	..	..	..	11
Ascites	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..
Gallstones	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	.	..	..	..
Cirrhosis of Liver	10	.	..	..	..	..	..	..	..	..	1	2	1	..	..	1	2	1	2	..	..	10
Other Diseases of Liver	6	.	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	1	..	1	6
Other and undefined Diseases of Digestive System	51	17	19	5	2	..	..	..	..	1	1	.	..	..	1	..	1	..	3	..	1	51

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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 ..	2	..	..	..	..	..	..	1	..	..	..	..	.	..	.	1	..	..	..	..	..	2
Diseases of Spleen	..	..	..	..	..	..	..	..	.	..	..		..	..	..	..	.	..	..	..	..	
Bronchocele	1	..	..	..	..	..	..	..	.	..	..	..	..	.	1	..	.	..	..	..	.	1
Addison's Disease	1	..	..	..	..	..	..	..	..	..	..	..	1	.	..	..	.	..	..	..	..	1
DISEASES OF URINARY SYSTEM.																						
Acute Nephritis . ..	21	..	..	..	1	..	1	1	..	1	3	1	2	3	1	1	2	3	..	..	1	21
Bright's Disease, Albuminuria ..	5	..	..	..	..	..		..	.	..	1	..		1	..	..	2	..	1	..	..	5
Uræmia	2	..	1	..	..	..		..	..	..	..	..	1	..	..			..		..	..	2
Suppression of Urine	1	1	..	..	..		..	..	..	.	.	..	..	.	..	..	..	..		..	..	1
Calculus	1	..	..	.	..	..	..	..	..	1	..	.	..	..	..	..	..		..	..	..	1
Hæmaturia	..	.	..	..	.	..		.	..	..		.	..	..	..	..	.	.	..	..	..	..
Diseases of Bladder and of Prostate	10	..	..	..	..	.	.	..	..	.	..	..	..	1	..	3	..	4	..	2	..	10
Other and undefined Diseases of Urinary System	6	..	..	..	..	..	.	.		1	..	1	..	1	..	.	..	2	.	..	1	6
DISEASES OF ORGANS OF GENERATION.																						
Ovarian Disease	2	..	..	..	..	..		..	..	..	..	..	1	.	..	..	1	..	.	..	..	2
Disease of Uterus and Vagina ..	1	..			..	..	.	..	.	..	..	..	1		..	..	..	..	..	..	..	1
Disorders of Menstruation ..	..	..	..	..		.	..	..	..	..	..	..		.	..	..	..	.	..	..	..	..
Pelvic Abscess	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Perineal Abscess	..	..	..	..	..	..	..		..	..	..	..	.	..	..	..	..	..	..	..	..	..
Diseases of Testes, Penis, Scrotum, &c.	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..		..	.	..	..	..

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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	2	..	..	.	.		.	..	1	..	1	..	..	.	..	..	..	..	..	..	..	2
Puerperal Mania	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Convulsions	..	..	..	..	..	..		..	..	..	..	.	..	..	..	..	..	..	..	..	..	..
Placenta Prævia, Flooding .	..	.	..	..	..	.		..	.	..	..	.	..	..	..	..	..	..	.	..	..	..
Phlegmasia Dolens	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	.	..	.	..	..	..
Other and undefined Accidents of Childbirth ..	7	1	..	.	..	..	..	.	..	..	5		1	..	..	..	..	..	..	..	..	7
DISEASES OF ORGANS OF LOCOMOTION.																						
Caries, Necrosis	4	.	.	.	..	..	..	1	..	1	.	..	..	..	..	1	1	..	..	..	..	4
Arthritis, Ostitis, Periostitis	..	..	.	..	..	..	..	..		..	..	..	..	..	..	..		.	..	..	..	..
Other and undefined Diseases of Organs of Locomotion	4	.	1		.	.	..	..	..	..	1	..	..	.	.	..	1	1	..		.	4
DISEASES OF THE INTEGUMENTARY SYSTEM.																						
Carbuncle	..	.	..	..	..	..	..	..	..		..	..	..	.		..	..	..	..	..		..
Phlegmon, Cellulitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..		..	1
Lupus	..	..	.	..	..	..	..	..	..		..	..	..	..		..	..	..	..	.	..	..
Ulcer, Bedsore	..		..	..	..	..	.	..	..	..	.	..	..	..		..		..	..	.	..	..
Eczema	1	1	..	..	.	..	..	..	.				..	..	..	..	..	..	..	..	..	1
Pemphigus	1	..	1	..	..	..	.		..	..	..	..	..	..		..	..	..	.	..	..	1
Other and undefined Diseases of Integumentary System	1	1		..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	.	1

MORTALITY TABLES—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897

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 ..	23	10	11	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..		23
Other Ill-defined and not Specified Causes	7	4	1	..	..	..	..	..	..	..	1	..	..	.	1	..	..	..	..	..	..	7
(INQUESTS.)																						
ACCIDENT or NEGLIGENCE																						
Fractures, Contusions	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..
Gunshot Wounds	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..
Cut, Stab	..	..	..	..	..	..	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burn, Scald	7	..	..	..	2	1	1	..	1	..	..	..	..	..	1	..	..	..	1	..	..	7
Poison	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Drowning	6	.	..	1	..	..	..	3	..	..	..	.	..	1	..	1	..	..	..	..	..	6
Suffocation	4	2	2	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	4
Other and undefined Forms ..	14	..	..	1	1	2	..	..	..	3	..	3	..	..	..	..	1	1	1	1	..	14
HOMICIDE.																						
Murder, Manslaughter	2	..	1	..	..	1	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	2

MORTALITY TABLES.—Deaths in the County Borough of Plymouth, for 12 months ending 31st Dec., 1897.

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	
INQUESTS—*Continued.*																						
SUICIDE.																						
Gunshot Wounds .. .	..	..	..	..	..	..	..	..	..	.	.	..	..	..	..	..	..	..	..	..	..	..
Cut, Stab	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	1	.	..	..	1
Poison	1	.	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	.	1
Drowning	1	..	..	..	..	..	.	..	..	..	..	..	..	1	..	..		..	..	..	.	1
Hanging	5	.	..	..	.	..		.	..	1	..	.	1	2	..	..	..	..	..	1	..	5
Other and undefined Methods ..	..	..	..	..	.		..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..
NATURAL CAUSES.																						
Specific Febrile or Zymotic Diseases ..	.	.	..	..	.	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..
Constitutional Diseases .. .	1	.	..	1	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	1
Diseases of Nervous System	21	8	5	4	2			..	..	..	..	1	..	..	.	1	.	..	..		..	21
,, Circulatory System .	31	..	..	..	1		.	..	..	2	1	6	1	2	2	3	3	5		5	..	31
,, Respiratory System ..	8	2	..	4	..			..	..	1	..		..	..	..	..	..	..	1	..	..	8
,, Digestive System ..	5	1	1	..	.	..	..	..	..	..	.	.	..	1	..	..	1	1	..	..	..	5
,, Urinary System ..	1		.	..	..		..	..	..	..	..	..		1	..	..		..	..	..	..	1
Other Causes	5	2	1	..	..	..	.	..	..	..	1	.		..	..	..	..	..	..	..	1	5

Prevalence of Disease, 1897.

Of the 1866 deaths registered as having occurred within the Borough during the year, 234 were caused by zymotic diseases :—

Influenza - -	19
Measles - -	52
Scarlet Fever - -	5
Diphtheria - -	13
Whooping Cough -	53
Fever - -	9
Diarrhœa - -	83
	234

From non-notifiable diseases, viz :—Measles, Whooping Cough and Influenza, there have been 124 deaths, as against 127 for the year 1896.

At the close of 1896 Measles was epidemic in the Borough but declining—the number of deaths during the year resulting from the disease was 52, whilst Whooping Cough which is endemic in our large centres of population caused 53 deaths. Influenza was also responsible for 19 deaths.

I must again call the attention of your Committee to the number of deaths caused by these two most fatal zymotic diseases of childhood and infancy—I refer to Measles and and Whooping Cough—both highly infectious diseases, generally spread through the medium of public elementary schools, and generally treated by the public as trivial ailments, with the result that sufficient care is not exercised to prevent

serious complications which rapidly prove fatal. As in previous reports I have called attention to these facts I again note them—I am of opinion that both Measles and Whooping Cough should be notifiable—the annual loss of life from these diseases in England and Wales is alarming—during this year 23,343 deaths were registered as being caused by Measles and Whooping Cough.

The extension of Syphilis amongst the military, naval, and civilian population of our great centres, a disease more far-reaching in its effects than any other contagious or infectious disease, and a preventable disease, surely requires the most vigilant attention from the members of our Legislature. The repeal of the Acts for the suppression of this and allied disease has been most disastrous in its effects on the moral and physical well-being of the young of our great naval and military centres, the present disgraceful condition of our streets at night is sufficient proof of the harm wrought. The repeal of the Acts was a pandering to the hysterical sentimentality of an irresponsible body of men and unsexed women. I trust ere long, now that the attention of the thoughtful public has again been directed to this subject, that some preventive legislative measures will be enacted for the control and suppression of this most terrible disease.

Influenza.—During the past seven years this disease has been present in the Borough, the death roll has now amounted during that time to 318 persons. During the past year there were only two months (June and September) in which deaths were not registered as having been caused by Influenza.

Enteric Fever.—I have to notice a slight increase in the number of cases, the chief increase being in the added areas.

49 cases were reported during the year, 17 of which occurred in Pennycross, the remainder being fairly evenly distributed over the Borough. One [redacted] was an imported case Of the 49 cases reported, 26 were removed to the Borough Hospital

for treatment. The outbreak at Pennycross was clearly traced to the distribution of infected milk, and ceased upon the stoppage of its sale. The outbreak has been fully reported to your Committee, so I have not considered it necessary to again repeat it.

Of the 26 cases removed to hospital two only terminated fatally.

In 25 instances sanitary defects existed in the houses of the infected.

Of the 23 cases nursed at their homes 5 terminated fatally.

Scarlatina.—The number of cases reported during the year was 78, as against 118 reported during the preceding period. Five cases terminated fatally, four were those of children under 5 years of age. 44 of the 78 cases were removed for treatment to the Borough Hospital.

Small Pox.—There have been no cases reported in the Borough since 1895.

Vaccination.—Apparently the effect of the report of the Royal Commission on Vaccination has been to create an attitude of indifference or opposition in the minds of the public as to its practice, and on the part of the Authorities vested with the responsibility of carrying out the Acts the adoption of a policy of *laissez faire*. This condition of affairs will, I presume, obtain until the promised legislation on Vaccination has become law.

Diphtheria and Membranous Croup.—These diseases which are practically one and the same are however classified as separate diseases under the Notification Act.

There has been a marked increase in the number of cases as compared with the previous year, the cases have, however, been generally distributed throughout the Borough. Although

the number of cases notified have increased by 20, the mortality has been less than that of last year.

57 cases of Diphtheria have been notified, of which 20 were removed to the isolation hospital, one case terminated fatally after tracheotomy.

Of the 37 cases treated at their homes 5 terminated fatally.

Eight cases of Membranous Croup have been reported, none of which were removed to hospital. Six of the cases terminated fatally.

Grave sanitary defects existed in 21 of the houses from which the above cases were reported.

11 of the cases of Diphtheria were in connection with one of the Public Elementary Schools, confined to the infant department; as the result of a personal investigation of the outbreak I concluded that probably one or more mild cases had attended school during the illness, many children were absent with throat trouble, but not of a diphtheretic character. I considered it advisable to close the schools for a period, during which time they were thoroughly cleansed and disinfected.

The result of the action taken proved effectual in arresting any further extension of the outbreak.

Puerperal Fever.—Four cases of this disease were reported during the year, three of which terminated fatally. The majority of these cases occur in the practice of so called midwives, who are generally absolutely ignorant of the elements of aseptic midwifery. Each midwife in whose practice a case occurs, is duly warned to abstain from attending any further cases for a period of six weeks, her clothing is disinfected and instructions are given her for personal disinfection by means of baths.

Diarrhœa.—The meteorological conditions prevailing during the late spring and summer were especially favourable to the incidence of infantile zymotic diarrhœa, 83 deaths from which disease were registered during the year. The heaviest mortality occurring in the crowded districts.

Hospital Ship "Maud."—No cases have been received on board the vessel for the year. She has been thoroughly painted throughout, and is always kept in a state of preparedness for the reception of cases of Small Pox.

The tables containing the details of all cases notified will be found appended.

Plymouth Sanitary Authority's Hospitals.

Table of Cases Treated During 1897.

MOUNT GOULD HOSPITAL.

	Scarlet Fever.		Diphtheria.		Typhoid Fever.		Erysipelas.		Measles.		Mumps.		"Observation."		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Remaining from last year	5	3	...	...	1	1	...	...	6	6	...	...	...	...	22	140
Admitted	24	22	8	12	8	18	5	3	6	8	1	2	1	...	*118	
Discharged	23	16	6	8	6	16	4	1	12	14	1	2	1	...	110	
Died	2	2	2	1	1	1	...	2	...	...	...	...	...	...	11	140
Remaining in Hospital ...	4	7	...	3	2	2	1	...	...	...	...	...	...	...	19	
Mortality %	$7\frac{11}{27}$		15		$7\frac{1}{7}$		25		...		...		...		...	

*Four of the 118 cases admitted were from other Sanitary Districts viz :—
1 case of Scarlatina from Stonehouse.
1 „ „ „ Yelverton.
1 „ „ „ sc. *Mary Emily*.
1 „ „ Erysipelas s.s. *Freda*.

Plymouth Sanitary Authority's Hospitals.

Table shewing the number of cases admitted in each month during 1897.

MOUNT GOULD HOSPITAL.

MONTH.	Scarlatina.		Diphtheria.		Typhoid Fever.		Erysipelas.		Measles.		Mumps.		'Observation.'		Aggregate No. of days spent in Hospital.	Average No. of days for each Patient.
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths		
January	8	...	2	...	2	1	1	...	3	...	...	...	...	...	681	18
February	5	...	3	1	1	...	...	...	1	...	...	...	...	...	367	13
March	5	2	1	...	...	...	...	...	5	...	...	...	...	...	306	14
April	4	1	2	...	...	...	1	...	3	...	...	...	...	...	349	16
May	5	1	2	...	...	...	...	...	...	...	...	...	...	...	233	15
June	4	...	...	...	...	...	...	...	1	...	...	...	...	...	178	13
July	1	...	2	...	9	...	...	...	1	...	...	...	...	...	268	19
August	...	...	...	...	2	...	...	...	...	...	...	...	1	...	488	25
September	...	...	...	1	7	...	1	...	...	...	...	...	...	...	437	18
October	3	...	3	1	3	1	3	1	...	...	1	...	...	...	400	17
November	5	...	3	...	1	...	...	...	...	...	2	...	...	...	522	19
December	6	...	2	...	1	...	2	1	...	...	...	...	...	...	602	19
Year	46	4	20	3	26	2	8	2	14	...	3	...	1	...	4831	18

THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

Table shewing the number of cases of Infectious Disease notified in each month during the year 1897.

Notifiable Diseases.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlatina, or Scarlet Fever	10	9	8	6	10	6	5	2	5	4	6	7	78
Diphtheria	5	5	3	4	4	4	3	...	2	10	13	4	57
Membranous Croup	2	...	...	2	...	1	...	...	...	2	...	1	8
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid or Enteric Fever	4	6	...	1	1	2	16	6	7	2	1	3	49
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	2	...	...	...	...	...	...	...	...	...	1	1	4
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	20	19	16	15	25	19	8	8	12	28	21	20	211
Totals in each month.	43	39	27	28	40	32	32	16	26	46	42	36	407

THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

Table shewing the number of Notifications received in the nine years, 1889-97.

Notifiable Disease.	1889*	1890	1891	1892	1893	1894	1895	1896	1897	Totals.
Small-pox	...	9	3	38	1	27	1	...	...	79
Scarlatina or Scarlet Fever ...	470	352	239	1264	469	182	73	118	78	3245
Diphtheria	42	65	56	52	60	54	33	37	57	456
Membranous Croup	5	9	12	6	10	3	6	12	8	71
Typhus Fever	...	...	...	...	...	...	...	...	...	...
Typhoid or Enteric Fever	14	178	51	93	56	38	28	28	49	535
Continued Fever	...	2	4	7	...	...	...	...	...	13
Relapsing Fever	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	2	4	3	6	6	4	11	7	4	47
Cholera (English)	...	...	...	...	1	...	...	...	...	1
Erysipelas	20	83	101	138	174	137	108	141	211	1113
Totals	553	702	469	1604	777	445	260	343	407	5560

*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	211	25·93	23	2·83	61	63
February	160	19·66	29	3·56	33	43
March	149	18·31	12	1·47	34	53
April	149	18·31	11	1·35	32	46
May...	169	20·76	16	1·96	46	44
June...	132	16·22	14	1·72	34	35
July...	137	16·83	22	2·70	48	34
August	223	27·40	60	7·37	116	43
September	123	15·11	8	0·98	35	34
October	114	14·01	11	1·35	18	44
November	137	16·83	2	0·25	26	53
December	162	19·91	7	0·86	38	56
Year	1866	19·11	215	2·20	521	548

Slaughter Houses.—The private slaughter houses in the Borough remain much in the same condition as described in previous reports—none of them meet the requirements of to-day, although they are kept as well as it is possible to keep houses of this class—I have each year called attention to their condition and to the necessity of the erection of public abbatoirs, and the necessity of their control by the Corporation. The establishment of public abbatoirs will enable the officials to examine all animals before and after slaughter as to their fitness for consumption as food.

I am glad to be able to report that the Corporation are promoting a Bill in the coming session of Parliament applying for powers to close all private slaughter houses and public abbatoirs, for a building on their land at Prince Rock.

Cattle Inspection and Milk Supply.—Again I must call attention to the necessity for the periodical skilled inspection of all milch cattle whose milk is used by the inhabitants of the Borough. It is beyond question that the infection of tuberculosis (the scourge of this country) may be, and often is, conveyed by milk from tuberculous cows, and that a very large proportion of dairy cattle are infected. Knowing how largely milk enters into the diet of our infant population, and how frequent and fatal is the incidence of tubercular disease among children, it behoves municipalities to take such measures as are within their power to prevent the use as food, milk from diseased cattle. I trust that in the near future the authorities will take up this most important subject, or failing them that the legislature will frame such enactment that will render the sale of tuberculous milk practically impossible. The public are fully alive to the dangers I have referred to, and that which up to the present municipalities have failed to do in this matter private enterprise has succeeded in carrying out in some of our large centres.

I have approached the principal dairy company in the Borough in reference to the supply of filtered and sterilized

milk. After several consultations with the managing director the company has decided to instal a filtering and sterilizing plant equal to the necessities of their business. The apparatus selected is the best possible kind and will soon be in position and in use.

I feel sure the public as well as the medical profession will fully appreciate the progressive enterprise of the company, in providing the necessary facilities for the supply of sterilized and filtered milk.

Meteorological Report.

PLYMOUTH METEOROLOGICAL OBSERVATORY,

THE HOE,

25th March, 1898.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

I have the honour of submitting my Fifth Annual Report upon the work it has been my privilege to carry on in connection with the Meteorological Observatory.

The equipment of the Station on the 1st January, 1897, comprised the following instruments :—Marine Barometer by Adie ; Maximum and Minimun Thermometers for Shade Temperature ; Terrestial Radiation Thermometers for recording Minimum Temperature on Grass ; Hygrometer and three Rain Gauges.

In May I had the honour of submitting a report respecting the completion of the equipment of the Station and the further utilisation of the observations, which suggestions you generously adopted, with the result that the following Instruments were immediately obtained :—Solar Radiation Thermometer (Black Bulb in vacuo) ; Earth Thermometer for

recording Temperature one foot below surface of ground; Thermometer for taking Temperature of the Sea in Plymouth Sound; in addition to these, authority was given for the purchase of Self Recording Barometer, Anemometer and Rain Gauge, and the erection of a Computing Room. These instruments will be fixed as soon as the Computing Room is completed, and daily and monthly reports circulated locally and to the Provincial Press.

Observations have been taken twice daily, at 9 a.m. and 9 p.m., throughout the year, and in this work I have received valuable assistance from Mr. E. H. Whiteford, Mr. W. F. H. Creber and Mr. E. H. Netten, to all of whom I tender my thanks, as well as to Messrs. Chalice, Venton and Sprague for registering the rainfall at Freedom Fields, and to the last-named for taking the Sea Temperature from the Hospital Ship "Maud" at 9 a.m. and at half flood each day.

Daily and weekly reports were supplied to the local press, and paragraphs descriptive of special phenomona furnished as such occurred.

Monthly Climatological Reports were forwarded to the Chairman of the Sanitary Committee Cornwall County Council, and published in the monthly health reports issued by that authority, and which is largely circulated throughout the kingdom with very gratifying results.

Agricultural Statistics of the weather were furnished each week to the Meteorological Office and full reports at the end of each month.

Particulars of the year's sunshine, temperature and rainfall was supplied to A. Chandler, Esq., Secretary of the Climatological Committee of the Devonshire Association for publication in the Association's proceedings, and the annual rainfall statistics have been forwarded to G. J. Symons, Esq., for insertion in his *British Rainfall*, 1897.

Numerous enquiries were received during the year for information concerning the climate of Plymouth from persons seeking a mild and sunny resort, to all such enquiries comparative statistics were furnished and the fullest information readily accorded.

Early in the year, at the request of the Secretary of the Plymouth Incorporated Mercantile Association, a short article with statistics was prepared for insertion in the Association's Annual Report.

Through the courtesy of Dr. A. N. Davis the rainfall at Blackadon Asylum was measured daily throughout the year and will be found in table No. 4. at the end of this report.

I am indebted to the Secretary of the Meteorological Office for copies of the Weekly Weather Reports from which the table of sunshine and temperature during 1897 at numerous towns and health resorts has been prepared and will be found in Appendix No. II.

From an analysis of this table it will be observed that the climate of Plymouth still maintains its high position for mildness and equability of temperature and large amount of bright sunshine, standing fifth in British Isles for mean temperature, sixth for range and fifth for bright sunshine.

During September the Station was inspected by J. A. Curtis, Esq., of the Meteorological Office, London, and the whole of the Instruments were tested and compared with Standard Instruments brought with him, and found to be in a satisfactory condition in all respects.

Explanatory notes are appended to the Tables at the end of this report, and it is therefore unnecessary for me to enlarge on their contents here.

I cannot conclude without tendering my most sincere and respectful thanks for the kind assistance and cordial co-operation which you have accorded me throughout the past year.

I have the honour to be, Gentlemen,

Your obedient servant,

H. VICTOR PRIGG.

Borough Meteorologist.

RESULTS OF OBSERVATIONS MADE DURING THE YEAR, 1897.

The Observatory is situated on "The Hoe," to the north of the Gardener's Lodge, and is in latitude 50° 31′ 44″ N.; longitude 4° 8′ 20″ W.; its altitude is 117 feet above mean sea level.

The barometer is a marine pattern by Adie, and is fixed 116 feet above sea level.

The thermometers are by Negretti and Zambra and Casella.

All readings of the barometer and thermometers are corrected for index error.

Duration of bright sunshine is ascertained by a Campbell-Stokes' sunshine recorder.

The rain gauges are the Meteorological Office pattern, made of copper, and fixed 10 inches above the ground. Those at "The Hoe" and Freedom Fields are 8 inches in diameter and fixed at 117 feet and 208 feet above mean sea level, respectively. The gauge at Blackadon Asylum (situated about 13 miles east of Plymouth on the south-east border of Dartmoor) is 5 inches in diameter and fixed at a height of 607 feet above sea level.

All the instruments were supplied through the Meteorological Office and verified at Kew Observatory.

The observations are made twice daily at the hours of 9 a.m. and 9 p.m. local time (Greenwich time 9 hrs. 16 mins.)

The direction of the wind is taken to true and not magnetic bearings.

The averages which the results in the tables are compared with are as follows :—

Temperature	25 years	1870 to 1895.
Atmospheric pressure	10 years	1880 to 1889.
Sunshine	15 years	1880 to 1895.
Rainfall	30 years	1865 to 1895.

CHIEF CHARACTERISTICS OF THE WEATHER DURING EACH MONTH, 1897.

JANUARY.

For the first ten days the weather was fairly mild and wet with heavy rain on 6th and 7th. From the 13th to the end of month the temperature fell considerably, with sharp frosts and slight fall of snow.

Pressure was slightly below the average and ranged from 30·518 inches on the 1st to 29·299 inches on 30th. Early in the month a depression passed over the town but filled up again rapidly, a smaller depression occurring suddenly about the 21st, after this high pressure was maintained until 29th, when a deep disturbance was observed and was accompanied with heavy rain and north-westerly gale.

Frost was registered in the screen during eleven nights and on the grass upon seventeen occasions.

The minimum on the grass was 19·5 degrees on the 18th.

Mean temperature was below the average for the month, but compared very favourably with the temperature at the towns named in Appendix II., being exceeded at four only, one of which was Jersey.

Bright sunshine slightly above the average.

The prevailing wind was northerly ; gales occurred on three occasions.

FEBRUARY.

The first half of the month the weather was very mild, dull and wet, with light variable winds, temperature considerably above the average and sunshine very deficient.

Pressure was very low at the beginning of the month and increased gradually until 7th, after which it remained steady for several days and continued to increase until 22nd, when the maximun—30·689 inches—was registered.

Mean temperature 46·4 degrees ; and exceeded the temperature at all but three towns included in Appendix II., and was only half degree below mean temperature at Jersey.

Frost was registered on the grass on four occasions, but not at all in the screen.

Wind was very light and chiefly from the south-west, a gale occurred on one day but was not very severe.

Rainfall was above the average, and fell during nineteen days.

MARCH.

The weather during the earlier half of the month was very boisterous and wet, gales and thunderstorms being experienced.

Pressure below the average and ranged from 29·026 inches to 30·160 inches.

There were two deep depressions, the minimum being observed on the 3rd and 15th.

Temperature above the average and placed the town fourth in the group of towns previously referred to.

Frost was not registered in the screen but slight frosts were recorded on the grass on four nights.

Bright sunshine was below the average.

Rainfall considerably above the average and fell during twenty-five days.

Gales occurred on the 2nd, 3rd, 4th, and fogs were prevalent between 20th and 24th.

South-westerly and westerly winds prevailed.

APRIL.

Most changeable and unsettled weather was experienced throughout the month; temperature, sunshine and pressure were below the average, and rainfall exceeded average by more than 100 per cent.

Pressure very variable and ranged from 29·027 inches on 1st to 30·329 inches on 15th.

Frost was registered twice on the grass but not at all in the screen.

There were several days with bright continuous sunshine, but the total for the month was below the normal.

Prevailing winds, westerly and north-westerly.

MAY.

Fine genial weather, with large amount of bright sunshine, was experienced during the greater part of the month.

Mean pressure about the normal, and was generally steady until 26th, when a sudden fall occurred accompanied with dull and showery weather during two or three days.

Temperature was exactly one degree below the average, and was only exceeded by two towns enumerated in Appendix II., and was equal to the mean temperature for the month at Jersey.

The mean temperature for the third week of the month was the highest recorded in the British Isles.

Continuous bright sunshine was recorded on eighteen days.

Rainfall was below average, and mostly fell in light showers during the night.

Westerly and north-westerly winds predominated, and were generally light.

JUNE.

The weather was fine, warm and sunny, excepting for a few days towards the middle of the month when it was very stormy and wet.

Temperature slightly above average; the absolute maximum was 74·8 degrees, or more than 5 degrees lower than at several leading health resorts, and 15 degrees below the maximum registered in London.

Bright sunshine was more than one hour per day above the average and exceeded the amount recorded at all the leading health resorts in the United Kingdom.

Rainfall below the average and fell during nine days.

The mean temperature of the sea in Plymouth Sound was 57·3 degrees, with a range of 6 degrees, the warmest being 60·5 degrees on 30th.

Wind light and variable excepting on 19th when a south-westerly gale occurred.

JULY.

During the first half of the month the weather was mostly fair, dry and sunny, also during last week, the intervening period being wet and unsettled.

Temperature above the average, but cooler than was generally experienced throughout the country.

Pressure fairly high until 18th when a somewhat sharp and deep depression was observed which was filled up by 23rd, and normal pressure continued until end of the month.

Large amount of bright sunshine was recorded and again exceeded the average by one hour per day. During one week of this month the amount of sunshine recorded at Plymouth was only exceeded at one other town in the British Isles, and another week at two other places.

Rainfall was much below the average and fell during eight days; more than two-thirds fell during the night.

Mean temperature of sea was 61·1 degrees and ranged from 58 degrees to 64 degrees.

Cooling breezes from the north-west predominated.

AUGUST.

Extremely changeable weather prevailed throughout the month with a large amount of rainfall.

Pressure below average and fluctuated considerably, recording a series of minor depressions.

Temperature was normal, and very small range was registered, the maximum was 79·1 degrees, and was the highest registered for the year.

Sunshine above the average by 16 per cent., but was mostly intermittent, excepting during first week when 73 hours was recorded, and was only exceeded at one other town in British Isles.

Rainfall nearly double the normal, and fell during 23 days.

Mean sea temperature 61·5 degrees, and maximum 64 degrees.

Fifty per cent. of the wind was from the south-west.

SEPTEMBER.

The month commenced with very stormy and wet weather, and upon the whole was very changeable, with the exception of the second week, when it was fair and dry.

Pressure was very low at first, increasing afterwards, and reaching 30·5 on 13th ; the average for the month being above the normal.

Temperature was lower than the average for the month.

Bright sunshine was also very deficient, excepting for week ending 11th, when the amount was such as to place Plymouth second in British Isles.

Rain fell upon 18 days, but the quantity was below average, and was considerably less than the rainfall at most stations.

Sea temperature ranged from 57 degrees to 59·5 degrees; the mean being 57·9 degrees.

Wind was variable, but blew chiefly from south-west to north-west, with a gale on the 1st.

OCTOBER.

Remarkably dry and mild weather was experienced during greater part of the month.

Pressure was above the average, and ranged from 29·33 inches to 30·51 inches.

A deep and well defined depression passed over the town on the 15th, when stormy weather prevailed.

The mean temperature was above the average, and was only exceeded at one other town comprised in the Official Weather Reports for British Isles.

Range of temperature was extremely small.

Bright sunshine very deficient ; there were 11 sunless days.

Rain fell in very small quantities during 13 days, but in the aggregate did not amount to one inch, which was very much below the average.

The temperature of the sea was 57·0 degrees, with a total range of 3 degrees, the lowest being 55·0 degrees at half flood on the 30th.

The prevailing winds were easterly and light excepting for a few days about the middle of the month when there were gales from the south-east and south-west.

NOVEMBER.

During this month the weather was somewhat changeable, but upon the whole fair and dry with a large amount of cloud.

Pressure was considerably above the average, a system of low pressure set in at the end of second week and was accompanied with heavy rain and strong southerly gale ; this depression was filled in as rapidly as it developed and was

succeeded by a system of very high pressure which remained until the last few days when another depression was observed.

Temperature exceeded the average and was extremely high for the time of year. Range was very small.

There was no frost registered in the screen, but on three occasions on the grass.

Sunshine was more than 30 per cent. below the average.

Rainfall was also very much below normal, and fell during 12 days.

Prevailing winds were easterly and north-easterly.

The temperature of the sea ranged but 3·0 degrees; the mean being 55·0 degrees.

DECEMBER.

With the exception of a few days in the beginning and towards the latter part of the month, the weather was very mild and changeable, with frequent gales and heavy falls of rain.

Pressure was below average, and ranged from 30·515 inches to 29·153 inches; two deep depressions were observed during the first half of the month, and another in the last week; on each occasion storms and heavy rain prevailed.

Large amount of bright sunshine was recorded, and the amount during the third week was the most recorded at any station included in the Weekly Weather Report.

Temperature was above the average, and during second week was highest in British Isles.

Rain fell during 19 days, and amounted to more than 30 per cent. above average.

Frost was registered twice in the screen and five times on the grass.

Mean temperature of the sea was 50·4 degrees.

Winds were mostly south-westerly and westerly.

THE YEAR.

The weather during the year was rather changeable, temperature was slightly warmer than usual and was accounted for by the mildness of the second, third and last three (winter) months. the deficiency of rain during 1896 was partially made up this year, the amount being 3·71 above the average.

Sunshine was above the average and amounted to 34 per cent., or more than one-third of the time the sun was above the horizon.

Cold months.—January, April, May, and September.

Warm months.—February, March, July, October, November and December.

Wet months.—February, March, April, August and December.

Dry months.—July, September, October and November.

Snow fell on two days in January.

Hailstorms occurred in April and December.

Thunderstorms in April and distant lightning was observed in August and December. Mean Relative Humidity was 84 per cent.

Table No. 1.—TEMPERATURE IN STEVENSON SCREEN.

1897.	* Mean Temperature.	† Difference from Average	* Means of		* Mean Daily Range.	Absolute Temperature.			
			Maximum.	Minimum.		Maximum.	Date	Minimum.	Date.
	o	o	o	o	o	o	o	o	
January	38·9	−2·6	43·0	34·9	8·1	49·9	7th	24·5	18th & 24th
February	46·3	+3·7	49·8	42·9	6·8	55·0	20th	33·0	17th
March	46·0	+1·9	50·7	41·4	9·3	57·1	24th	34·0	3rd
April	46·9	−1·7	52·2	41·6	10·6	60·0	28th	34·0	2nd
May	52·5	−1·0	58·3	46·7	11·6	72·7	18th	36·5	13th
June	59·9	+0·9	66·0	53·8	12·2	74·8	12th	47·0	19th
July	62·9	+1·5	69·6	56·3	11·7	76·8	1st	42·1	8th
August	61·2	−0·1	66·5	56·0	10·5	79·1	4th	48·7	27th
September ...	55·0	−2·7	60·9	49·2	12·0	67·9	14th	40·0	19th
October	54·1	+3·0	58·3	50·0	9·3	63·7	19th	41·1	7th
November	48·7	+2·1	53·2	44·3	8·9	60·0	1st	33·1	30th
December	45·2	+2·6	50·4	40·0	10·0	56·7	16th	29·2	4th
Means	51·5	+0·6	56.6	46.4	10·1	79·1	4th Aug.	24·5	18th & 29th Jan.

*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 25 years, 1871 to 1895.

REMARKS (TABLE No. 1).

Temperature of the Air.

The mean temperature of the air for the year was slightly above the average—0·6 degree. During February, October, November and December the mean temperature was considerably above the average, the greatest excess being in February 3·7 degrees.

During January, April, May and September the temperature was below the average.

The warmest day was 4th August, the shade temperature being 79·1 degrees and the coldest days 18th and 29th January, the minimum for the day was 24·5 degrees.

The warmest night minimum temperature was 65·5 degrees on the 13th June, and coldest day maximum temperature 34·4 on 7th January.

Table No. 2.—ATMOSPHERIC PRESSURE.

1897.	Mean Pressure (at 32 degs. F. and Sea Level).	Difference from Average.	Highest.	Date.	Lowest.	Date.	Observed Monthly Range.
	inches.	inches.	inches		inches.		inches.
January	29·887	−0·142	30·518	1st	29·299	30th	1·219
February	30·126	+0·236	30 689	22nd	29·161	2nd	1·528
March	29·712	−0 255	30·160	20th	29·026	2nd	1·134
April	29·860	−0·043	30·329	15th	29·027	1st	1·302
May	29·989	+0·004	30·393	15th	29·277	27th	1·116
June	30·039	+0·024	30·308	11th	29·616	18th	0·682
July	30·046	+0·079	30·354	29th	29·592	20th	0·762
August	29·833	−0·155	30·173	3rd	29·550	24th	0 623
September	29·864	+0·350	30·509	13th	29·370	1st	1 139
October	30·141	+0·192	30·519	21st	29 330	15th	1·189
November	30·169	+0·351	30·670	21st	29·509	30th	1·161
December	29·911	−0·069	30·515	22nd	29·153	10th	1·362
Means	29·981	−0·003	30·689	22nd Feb.	29·026	2nd Mar.	1·663

REMARKS (TABLE No. 2).

The extremes observed were 30·689 inches on the 22nd February, and 29·026 inches on the 2nd March, giving a total range of 1·663 inches.

The greatest monthly range occurred in February, and the least in August.

The mean pressure was slightly below the average.

Table No. 3.—DURATION OF BRIGHT SUNSHINE.

1897.	Actual Sunshine (hours).	Percentage of Possible.	Difference from Average (hours).	Greatest Daily Amount (hours).	Percentage of Possible.	Sunny Days.	Sunless Days.
January	53·58	20	+ 2·5	6·75	77·7	22	9
February	39·49	14	−40·5	7·93	78·6	14	14
March	102·73	28	−36·4	8·03	62·8	24	7
April	124·64	30	−53.1	12·00	83·8	25	5
May	259·41	55	+47·4	14·40	84·8	29	2
June	239·74	50	+31·7	15·12	91·0	29	1
July	231·63	48	+38·7	14·60	90·3	30	1
August	225·56	51	+38·7	13·72	89·6	29	2
September	139·67	37	−12·3	11·75	85·1	26	4
October	102·75	31	− 3·8	9·70	84·8	20	11
November	49·23	19	−10·5	6·90	72·9	16	14
December	82·26	34	+30·5	6·50	87·2	25	6
Totals and Means ...	1650·69	34·6	+33·1	15·12 12th June.	91·0	289	75

REMARKS (TABLE No. 3).

Bright sunshine during the year was above the average of 15 years—1881-1895. The greatest excess was during July and August; 15 and 20 per cent. respectively.

During six months the sunshine was deficient, April being more than 29 per cent. below the normal.

The greatest daily amount during the year was registered on the 12th of June with 15·12 hours which was 91 per cent. of the possible for that day.

The mean daily sunshine was 4·53 hours.

The sun shone on 289 days.

Table No. 4.—RAINFALL.

1897.	Total Rainfall.				Wet days or falls of 0·01 or more.			Greatest fall in one day.					
	The Hoe.		Freedom Fields.	Blackadon Asylum.	The Hoe.	Freedom Fields.	Blackadon Asylum.	The Hoe.		Freedom Fields.		Blackadon Asylum	
	Rainfall.	Difference from Average.						Amount.	Date.	Amount.	Date.	Amount.	Date.
	Inches.	inches.	Inches.	Inches.				Inches.		Inches.		Inches.	
January	3·29	−0·62	3·62	4·42	17	17	18	0·61	7th	0·62	7th	0·89	7th
February... ...	4·06	+1·19	4·20	6·32	19	19	21	0·85	1st	0·92	1st	1·25	1st
March	5·22	+2·76	5·22	7·35	25	23	28	0·83	2nd	0·86	2nd	1·17	2nd
April	5·04	+2 75	5·34	6·82	24	23	23	0·71	5th	0·70	5th	0·85	16th
May	1·68	−0·35	1·77	2 51	11	10	15	0 45	29th	0·44	29th	0·61	29th
June	1·77	−0·20	2·50	4·11	9	10	12	0·63	19th	0·73	19th	1·20	19th
July	1·10	−1·87	1·14	0·85	8	10	7	0·70	18th	0·69	18th	0·30	18th
August	5·85	+2·92	5·43	6·76	23	20	24	1·13	7th	1·20	7th	0·87	30th
September ...	2·56	−0·95	2·98	4·47	18	18	20	0·56	5th	0·65	5th	0·99	5th
October	0·94	−3·02	1·28	1·92	13	11	16	0·22	14th	0·26	10 & 14	0·39	15th
November ...	1·94	−1·83	1·95	2·54	12	12	15	0·46	12th	0·51	12th	0·74	12th
December ...	6·82	+2·93	7·19	10·34	19	18	19	1·13	29th	1·19	29th	1·85	29th
Totals ...	40·27	+3·71	42·62	58·41	198	191	218	1·13	Aug. 7th Dec. 29th	1·20	Aug. 7th	1·85	Dec. 29th

REMARKS (TABLE No. 4).

Remarks on the Rainfall.

During five months the quantity registered was considerably above the average, the wettest month being December, with a fall of 6 82 inches.

Daily falls of over one inch was registered on two days at The Hoe, two days at Freedom Fields, and four days at Blackadon Asylum, including one day on which 1·85 inches fell.

The mean wet day rainfall for the year was 0·21 inch.

Table No. 5.—AMOUNT OF CLOUD, RELATIVE HUMIDITY, AND GENERAL PHENOMENA

1897.	Mean amount of Cloud.		Mean relative humidity. Saturation-100		Number of days observed.						
	9 a.m.	9 p.m.	9 a m.	9 p.m.	Fog.	Snow.	Hail.	Clear Sky	O'cast.	Thunder Storms.	Distant Lightning
January	6·8	6·0	85	83	2	2	—	6	9	—	—
February	8·5	9·0	91	92	5	—	—	4	14	—	—
March	7·8	6·3	84	87	5	—	3	8	7	1	—
April	7·3	6·3	81	86	2	—	—	9	5	—	—
May	5·4	5·4	70	81	—	—	—	16	2	—	—
June	6·1	5·7	75	85	1	—	—	13	1	—	—
July	6·1	4·1	73	84	2	—	—	11	1	—	—
August	6·1	5·8	81	88	—	—	—	6	2	—	1
September	6·3	5·4	84	86	2	—	—	4	4	—	1
October	7·0	6·0	88	90	1	—	—	5	11	—	—
November	8·0	6·5	88	88	—	—	—	5	14	—	—
December	6·6	5·0	87	87	—	—	—	5	6	—	—
Means and Totals ...	6·8	6·0	82	86	20	2	3	92	76	1	2

REMARKS (TABLE No. 5).

Amount of Cloud, Relative Humidity and General Phenomena.

The sky was clearest during May, June and July, and overcast in February and November.

The air was driest during May, the mean Relative Humidity being 75. The driest air recorded was on 25th May, when it contained 43 per cent. of moisture. On fifteen days during the year the moisture in the air was under 60 per cent.

Fogs were most prevalent during February and March.

Table No. 6.—DIRECTION OF WIND.

1897.	N. per cent.	N.E. per cent	E. per cent.	S.E. per cent.	S. per cent.	S.W. per cent.	W. per cent.	N.W. per cent.	Calm per cent.
January	19	18	18	13	5	1	10	11	5
February	2	3	9	5	13	38	14	14	2
March	6	3	3	8	15	35	23	7	—
April	—	8	17	17	6	18	12	20	2
May	15	14	5	8	13	11	16	18	—
June	6	7	8	22	7	17	15	18	—
July	3	9	8	5	16	16	15	25	3
August	—	2	5	11	13	50	14	5	—
September	8	13	8	3	5	17	24	19	3
October	5	16	27	13	5	10	3	18	3
November	3	27	25	10	5	10	7	10	3
December	5	14	13	10	15	24	16	3	—
Means ...	6	11	12	10	10	21	14	14	2

REMARKS (TABLE No. 6).

The wind during the year was chiefly South-westerly to North-westerly.

Only 29 per cent of the Winds were Easterly and Northerly, whilst 69 per cent were Westerly and Southerly.

Gales occured in March, April, September, and December.

APPENDIX. No. I.

Mean Temperature, Sunshine, and Rainfall, at various Towns and Health Resorts in the British Isles.

Town.	Mean Temperature 25 years.	Mean Daily Range. 25 years.	Average Annual Sunshine 15 years.	Average Annual Rainfall 30 years.
	°	°	Hours.	Inches.
PLYMOUTH	50·8	11·8	1617·5	36·56
Aberdeen	46·2	11·4	1420·9	30·84
Glasgow	46·8	11·2	1095·8	39·61
Durham	46·7	14·2	1297·2	28·21
York	47·8	14·2	1279·8	25·95
Blackpool	48·1	11·9	1339·7	33·89
Douglas	48·0	11·1	1592·1	41·25
Manchester	47·6	13·3	—	37·81
Liverpool	48·8	10·4	—	28·93
Llandudno	49·7	10·8	1349·6	31·14
Pembroke	49·7	7·4	1654·5	35·16
Oxford	48·9	13·9	1482·2	25·72
Cambridge	48·7	16·7	1521·9	23·29
London	49·9	14·8	1240·1	24·84
Southampton	50·2	13·8	1647·8	31·27
Hastings	49·6	10·5	1761·1	29·54
Falmouth	50·8	8·6	1734·4	47·69
Armagh	47.4	12·2	1262·9	31·17
Dublin	49.5	11·0	1514·3	27·55
Valencia	51·0	10·3	1487·7	55·80
Jersey	51·9	10·1	1930·5	34·18

APPENDIX. No. II.

Particulars of Temperature and Bright Sunshine at Various Towns and Health Resorts in the British Isles during 1897.

Town.	Mean Temperature.	Mean Daily Range.	Absolute Temperature.		Total Hours of Bright Sunshine.	Per Centage of Possible.
			Maximum.	Minimum.		
	°	°	°	°		
PLYMOUTH	51·5	10·1	79	25	1650·6	34·6
Aberdeen	46·5	11·3	74	9	1501·4	31·4
Glasgow	47·3	10·0	81	24	1119·4	23·0
Durham	47·2	13·9	85	19	1405·7	29·1
Scarborough	47·7	10·8	84	21	—	—
York	48·3	14·3	88	20	1464·3	29·5
Blackpool	48·9	12·9	84	18	1487·9	30·3
Douglas	49·0	10·6	77	25	1616·9	33·9
Manchester	48·1	12·8	84	20	1276·5	27·4
Liverpool	49·3	10·5	84	26	—	—
Llandudno	50·5	10·3	84	25	—	—
Pembroke	50·6	7·1	74	29	1606·5	34.6
Oxford	49·7	14·0	86	21	1567·6	32·8
Cambridge	49·4	16·5	90	20	1640·6	34·4
Yarmouth	48·4	9·9	75	22	—	—
London	50·9	14·2	90	22	1419·7	27·4
Southampton	51·9	14·8	88	22	1721·4	36·1
Hastings	50·6	11·2	81	25	1793·3	38·3
Falmouth	52·0	8·8	74	27	1743·9	35·9
Armagh	48·1	13·5	77	16	1361·8	29·3
Dublin	50·5	11·0	77	25	1556·8	34·0
Valencia	51·3	10·0	77	24	1383·8	30·6
Jersey	53·2	9·4	82	29	1812·0	39·2

Report of Analyst.

Borough Laboratory,

Municipal Buildings,

Plymouth,

January, 1898.

Gentlemen,

During 1897 I received from your Inspector, Mr. Addiscott, 116 samples of food for analysis, consisting of :—

Whisky	16
Butter	20
Demerara Sugar	7
Milk	56
Chocolate	5
Confectionery	9
Lard	3
	116

Twelve of these (10·3 %) were found adulterated. In 1896 103 samples were examined, of which 10·7 % were found adulterated, the result therefore of last year's analysis shows the percentage of articles tampered with to remain practically

the same. This amount (10·3 %) is somewhat higher than that for the whole country (9·2 %) as given in the last report of the Local Government Board.

Milk by reason of its rapid sale and the readiness with which it may be adulterated by the fradulent addition of water, or abstraction of the cream offers to the unscrupulous dealer a strong inducement to exercise these gentle arts so profitable, and which are occasionally and deservedly rewarded with public recognition in the Police Courts.

Plymouth, it seems, still contains a considerable number of this class of dealers, who carry on their trade to the loss of the consumer in pocket, and often in health. Of the 56 samples submitted me by your inspector ten (17·8%) were adulterated by the addition of water in varying amounts from 24% downwards, or by the removal of the cream. Besides these, there were several others of an extremely poor quality, but which were returned as genuine owing to the want of a satisfactory official standard.

These figures show a state of affairs rather worse than in London, where it is so notoriously bad; there the last official return states that 17·7% of samples were certified as adulterated, as against 9·1% for the rest of the Country, and that in the 32 great towns included in the Registrar General's Weekly Returns, only seven had a percentage of milk adulterated as bad as London.

How far this is due to the tendency recently shown to relax the penalty in those cases where convictions have been obtained, it is difficult to say, but there can be no question that these fraudulent but extremely profitable practices will be repressed only so long as the penalty, on discovery, is sufficiently severe to make the gains unequal to the risks.

In the six cases where prosecutions were undertaken, convictions were obtained in all, and fines imposed averaging £2 for each offence.

Two samples of whisky were found to be adulterated, and proceedings taken against the vendor of one which resulted in a conviction and fine of £8.

The other articles were "of the nature and quality demanded."

Photometric Report.

Throughout the whole year Plymouth gas has never had an illuminating value below that prescribed by the recent Act. Owing to the introduction of new processes of production at the Company's works, it has become an easy matter to maintain this standard of efficiency. The pressure at the Borough Testing Station has also been well maintained; but whether this is the case in certain other parts of the town is a matter of some doubt.

The monthly average for 1897 were as follows:—

January ...	...	15·47 Standard Candles.
February ...	...	15·94 ,,
March ...	...	15·78 ,,
April ...	...	15·60 ,,
May ...	...	15·61 ,,
June ...	...	15·73 ,,
July ...	...	15·55 ,,
August ...	...	15·30 ,,
September	...	15·55 ,,
October ...	...	15 74 ,,
November...	...	16·63 ,,
December...	...	15·69 ,,

Illuminating value required by the Act=15·00 Standard Candles.

I am, Gentlemen,

Your obedient Servant,

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

ANNUAL REPORT OF THE PORT MEDICAL OFFICER FOR 1897.

Plymouth Port Sanitary Authority.

GENTLEMEN,

I have the honour of presenting to you my Seventh Annual Report upon the health of the floating population of the Port, and upon the administration of your Authority for the year 1897.

As a result of the repeal of the Quarantine Act, your Committee at their meeting in January, resolved that medical inspection of all vessels arriving from infected ports, should be carried out, according to the regulations formulated by the Local Government Board.

Curiously enough, almost immediately after the adoption of the resolution referred to above, the "s.s. Nubia" arrived in the port, having a somewhat serious outbreak of cholera on board; 3 cases had terminated fatally before arrival here; one other case died about the time of entering the port, and another within twelve hours after arrival. Eight other cases were removed to the hospital ship "Pique." The outbreak was fully reported to your Authority at the time, and also to the Local Government Board, so that I have not considered it necessary to give a detailed account.

On August 26th, another vessel, the "Britannia" arrived, having had 2 fatal cases of cholera on board, during the homeward voyage.

On October 14th, the s.s. "Medway" arrived from the West Indies, having had an outbreak of yellow fever on board—two European members of the crew were attacked, and both succumbed to the disease, the outbreak was limited to these two cases.

I have called attention to the above cases as they were the most serious your officials had to deal with during the year, and also as being the first dealt with under the new regulations, after the repeal of the Quarantine Laws.

During the year 509 cases of sickness or accident have been reported to me, as existing on board vessels arriving at the port.

Of the total number reported 100 were cases of infectious sickness.

The number of vessels medically inspected during the year was 149, as against 89 the previous year; the number inspected and visited by the inspector during the year was 2712; in 227 of these, conditions likely to be prejudicial to the health of the crew, were found to exist. These defective conditions were, in the majority of instances, remedied during the stay of the vessels in port. The most common defects were—leaky decks on forecastle—defective or dirty water casks—forecastles dirty, or requiring lime washing or painting.

During the year 13 cases of infectious sickness were removed to the hospital ship "Pique." 8 cases of cholera, 4 of enteric fever and 1 case of erysipelas. Two cases of enteric terminated fatally.

A few repairs have been found necessary to the "Pique" during the year, the principal item being the renewal of the

port gangway ladder. No changes have taken place in the staff of the hospital ship during the year. I have, however, to note with regret the loss by death of the senior boatman, who had been a faithful and efficient servant of your Authority for many years.

General inspection of vessels has been carried on continuously during the year by the Inspector. As is customary the disinfection of cabins, forecastles, etc., has been carried out under my personal supervision. Bedding, clothing and personal effects have been removed to the Borough Disinfecting Station for disinfection.

Appended will be found the details of the work carried on during the year.

I must again take this opportunity of tendering my thanks to the Officers of H.M. Customs, Dock Officials of the Great Western Railway Company, and the Shipping Agents, for their courtesy and assistance always afforded to your officials.

To the Chairman and Members of your Authority I tender my hearty thanks for their co-operation and support during the year.

I have the honour to remain,

Gentlemen,

Your obedient Servant,

F. Jn. Williams

Report of Vessels inspected during the year 1897.

Inspected	2,712 vessels.
Insanitary	227 do.
Registered tonnage of above	964,535 tons.
Carrying	43,845 seamen.

British vessels	2,469
Foreign do.	243

Coasting vessels	1,987
Foreign ports	725

E. B. KELLY,

Port Sanitary Inspector.

Cases of Sickness reported to the Port Sanitary Officials, and seen by the Port Medical Officer during the Year 1897.

Ship's Name.		Date of Arrival.		From Whence.	Nature of Sickness or Accident.
Nubia	s.s.	January	9	Calcutta & Colombo	8 men suffering from Cholera, removed to Hospital Ship "Pique"
Austral	,,	,,	14	Australia ...	1 case of Ulceration of Intestine
Coromandel	,,	,,	19	Bombay ...	2 cases of Malarial fever
Elbe	,,	,,	21	West Indies ...	3 cases of Malarial fever
Oro	,,	,,	28	Buenos Ayres ...	3 cases of Rheumatism
Oriental	,,	,,	30	Bombay ...	1 case of Typhoid fever, proceeded in ship
Atrato	,,	February	2	West Indies ...	1 case of Enlarged Inguinal Glands (coal trimmer)
Sophie	bk.	,,	3	Savannah ...	1 case of Rheumatism (seaman)
Anne	kt.	,,	5	—	1 case of Enlarged Inguinal Glands (seaman)
John A. Briggs	sch.	,,	5	Port Blakely ...	1 case of Rheumatism
Rome	s.s.	,,	7	Australia ...	1 case of Typhoid fever ; 1 death from Tropical Abscess of Liver
Simla	,,	,,	11	Calcutta ...	1 case of Chicken Pox, landed at Colombo ; 1 case of Apoplexy, removed to Homœopathic Hospital (died)
Clyde	,,	,,	15	Bombay ...	1 case of Malarial fever
Lilian Morris	bk.	,,	15	Iquique ...	Seaman, Erysipelas of face
Medway	s.s.	,,	17	West Indies ...	2 cases of Malarial fever
Himalaya	,,	,,	19	Australia ...	2 cases of Malarial fever
Donna Julia	bk.	,,	22	Caleta Buena ...	Seaman, Congestion of Lungs
Oroya	s.s.	,,	23	Australia ...	1 case of Malta fever, and 1 Diabetes
Peninsular	,,	,,	26	Bombay ...	Fireman, Tumour in groin
Oceana	,,	March	8	Australia ...	Steward, Venereal Disease
Malta	,,	,,	10	Calcutta ...	1 case of Debility, from excessive heat
Folkvaug	bk.	,,	10	Norway ...	Seaman, injured at sea

Cases of Sickness reported, &c.—*Continued.*

Ship's Name.		Date of Arrival.		From Whence.		Nature of Sickness or Accident.
Faerder	bk.	March	10	Cardiff	...	Seaman, severe cold
Ares	s.s.	,,	10	Honfleur	...	Seaman, severe cold ; seaman, injury to hand
J. D. Everett	sh.	,,	10	Cardiff	...	3 seamen, accidents at sea
Derwent	s.s.	,,	12	London	...	Chief officer, injury to leg ; seaman, broken ribs, removed to S.D. and E.C. Hospital
Shannon	,,	,,	14	Bombay	...	1 case of Typhoid fever
Cariad		,,	14	—		Seaman, Intestinal Obstruction, removed to S.D. and E.C. Hospital
Lucy Rippon	bk.	,,	15	Buenos Ayres	...	Seaman, broken arm ; seaman, injury to hand
Para	s.s.	,,	17	West Indies	...	1 case of Malarial fever
Angamos		,,	17	West Indies	...	1 death from Meningitis
Valetta	s.s.	,,	22	Australia	...	1 case of Phthisis ; 1 Bright's Disease
Bengal	,,	,,	23	Calcutta	...	2 cases of Malarial fever
Caledonia	,,	,,	24	Bombay	...	1 case of Small Pox, proceeded in ship ; fireman, Venereal Disease
Orinoco	,,	,,	31	West Indies	...	1 case of Phthisis ; 1 Gastric Ulcer
Nairnshire	bk.	,,	31	Esmeralda	...	1 death from Chronic Diarrhœa
Jumna	s.s.	April	2	Bombay	...	Purser, Heart Disease
China	,,	,,	2	Australia	...	2 cases of Malarial fever
Adele and Sabina	bk.	,,	2	Hull	...	1 case of Venereal Disease
Imaun	s.s.	,,	2	Bombay	...	Seaman, injury to leg
Mary Emily	sch.	,,	6	—		Master, Scarlet fever, removed to Borough Hospital
Chusan	s.s.	,,	7	Calcutta	...	3 cases of Malarial fever ; 1 Phthisis ; 1 death from Pneumonia
Esther	sch.	,,	13	—		Seaman, Erysipelas, removed to Borough Hospital
Atrato	s.s.	,,	14	West Indies	...	2 cases of Malarial fever ; 2 Phthisis
Minnie Elkan	sch.	,,	15	—		1 death from Heart Disease

Cases of Sickness reported, &c.—*Continued.*

Ship's Name.		Date of Arrival.		From Whence.		Nature of Sickness or Accident.
Nubia	s.s.	April	18	Calcutta	...	2 deaths :—1 from Dysentery, 1 from Malarial fever
Massilia	,,	,,	20	Australia	...	2 cases of Typhoid fever ; 1 of Dysentery ; and 1 of Bronchitis
India	,,	,,	21	Bombay	...	4 cases of Malarial fever
Medway	,,	,,	29	West Indies	...	2 cases of Malarial fever
Oriental	,,	,,	29	Calcutta	...	3 cases of Malarial fever, 1 Continued fever
Arcadia	,,	,,	29	Australia	...	3 cases of Malarial fever, 1 death from Abscess of Liver
Britannia		,,	30	—		2nd steward, Typhoid fever, removed to Hospital Ship "Pique"
Burma	sh.	May	2	Buenos Ayres	...	Mate, fever
Peninsular	s.s.	,,	7	Bombay	...	2 cases of Malarial fever
Edith	sch.	,,	10	—		Seaman, swollen leg
Don	s.s.	,,	12	West Indies	...	3 deaths ; 2 from Malarial fever, and 1 from Sunstroke
Simla	,,	,,	18	Calcutta	...	1 case of Enlarged Inguinal Glands ; 4 cases of Malarial fever
Paramatta	,,	,,	18	Australia	...	2 deaths :—1 from Pneumonia, 1 from Heart Disease. 1 case of Chicken Pox
Arthur		,,	19	Rotterdam	...	Seaman, injury to arm
Britannia	,,	,,	21	Bombay	...	3 cases of Malarial fever ; 1 death from Croup
Para	,,	,,	26	West Indies	...	3 deaths :—1 from Congestion of Lungs, 1 from Remittent fever, 1 from general Debility
Caledonia	,,	June	3	Bombay	...	1 case of Measles ; 2 cases of Malarial fever
Noreg		,,	4	Mobile	...	3 cases of Enteric fever, removed to Hospital Ship "Pique"
Orinoco	,,	,,	8	West Indies	...	1 case of Remittent fever ; 2 of Phthisis
Ironopolis	,,	,,	9	Antwerp	...	1 case of Muscular Rheumatism
Rome	,,	,,	12	Australia	...	1 case of Typhoid fever (convalescent)

Cases of Sickness reported, &c.—*Continued.*

Ship's Name.		Date of Arrival.		From Whence.	Nature of Sickness or Accident.
Robin	s.s.	June	12	—	Chief engineer, Phthisis
Malta	,,	,,	15	Calcutta ...	1 case of German Measles
Vectis		,,	17	—	1 death from Heart Disease (2nd engineer)
Carthage	,,	,,	19	Bombay ...	2 deaths :—1 Heart Disease ; 1 Pneumonia ; chief officer, Gastro Enteritis
Atrato	,,	,,	23	West Indies ...	2 cases of Malarial fever
Himalaya	,,	,,	24	Australia ...	4 deaths :—1 Apoplexy ; 1 Measles ; 1 Pleurisy ; 1 Gastro Enteritis
City of Calcutta	,,	,,	27	—	5 cases of Malarial fever
Dunvegan Castle	,,	,,	27	Cape Town ...	1 case of Measles (convalescent)
Eling	sch.	,,	30	—	Seaman, severe cold
Coromandel	s.s.	July	5	China and Bombay	1 case of Pneumonia ; 2 of Malarial fever ; 1 of Venereal Disease
Maggie	,,	,,	6	Mariupol ...	Fireman, Pneumonia
Medway	,,	,,	7	West Indies ...	1 case of Malarial fever ; 1 death from Malarial fever
Oceana	,,	,,	10	Australia ...	23 Naval invalids removed to R.N. Hospital
Bengal	,,	,,	13	Calcutta ...	2 cases of Malarial fever ; 14 Naval Invalids removed to R.N. Hospital
India	,,	,,	14	Bombay ...	2 cases of Malarial fever
Don	,,	,,	20	West Indies ...	14 Naval Invalids removed to R.N. Hospital
Columbus	sch.	,,	22	Java ...	4 cases of Beri Beri
Sunda	s.s.	,,	23	Japan and China ...	2 cases of Phthisis ; 8 Naval Invalids removed to R.N. Hospital
Victoria	,,	,,	24	Australia ...	6 Naval Invalids removed to R.N. Hospital
Clyde	,,	,,	26	Alexandria ...	Passenger, severe sea sickness
Nubia	,,	,,	27	Calcutta ...	1 death from Heat Apoplexy (stewardess)
Concord	,,	,,	30	Taganrog ...	1 case of Inflamed Kidney ; 1 of Venereal Disease

Cases of Sickness reported, &c.—*Continued.*

Ship's Name.		Date of Arrival.		From Whence.		Nature of Sickness or Accident.
Oriental	s.s.	July	31	Bombay	...	2 deaths:—1 Syphilis; 1 Malarial fever; 1 case of Measles
Standard	bk.	August	16	Fredericia	...	Seaman, sore leg
Gronsvere	,,	,,	17	West Indies	...	Master, Dysentery
Australia	s.s.	,,	20	Australia	...	10 Naval Invalids removed to R.N. Hospital
Britannia	,,	,,	26	Bombay	...	1 death from Asiatic Cholera in Red Sea
Caledonia	,,	September	8	Bombay	...	1 death from Marasmus; 1 case of Bilious fever; 5 Naval Invalids removed to R.N. Hospital
Austral	,,	,,	9	Australia	...	1 death from Convulsions; 2 cases of Malta fever
Orinoco	,,	,,	15	West Indies	...	4 cases of Malarial fever
Arcadia	,,	,,	16	Australia	...	16 Naval Invalids removed to R.N. Hospital
Malta	,,	,,	21	Calcutta	...	1 case of Malarial fever
Don	,,	,,	29	West Indies	...	4 cases of Malarial fever
Freida	,,	October	4	—		Mate, Erysipelas, removed to Borough Hospital
India	,,	,,	6	Bombay	...	2 Naval Invalids removed to R.N. Hospital
Massilia	,,	,,	6	Australia	...	1 death from Sunstroke; 17 Army and Naval Invalids
Medway	,,	,,	14	West Indies	...	2 deaths from Yellow fever
Zippohra	bk.	,,	15	Mobile	...	1 death from Malarial fever; 3 cases of Malarial fever
Carrie Bell	sch.	,,	16	—		Seaman, severe cold and rash about face
Torpedo	s.s.	,,	17	—		Fireman, Erysipelas, removed to Hospital Ship "Pique"
Paramatta	,,	,,	18	Australia	...	8 cases of Enteric fever; 43 of Malarial fever
Coromandel	,,	,,	19	Calcutta	...	3 deaths:—1 Beri Beri; 1 Insolation; 1 Bright's Disease
Avondale Castle	,,	,,	20	Cape Town	...	3 cases of Dyspepsia; 1 Catarrh
Orizaba	,,	,,	20	Australia	...	5 Naval Invalids removed to R.N. Hospital
Oriental	,,	,,	22	Calcutta	...	8 Naval Invalids removed to R.N. Hospital
Atrato	,,	,,	26	West Indies	...	3 cases of Malarial fever
Himalaya	,,	,,	28	Australia	...	4 cases of Malta fever; 2 of Malarial fever; 60 Naval Invalids

Cases of Sickness reported, &c.—*Continued.*

Ship's Name.		Date of Arrival.		From Whence.		Nature of Sickness or Accident.
Bengal	,,	November	3	Calcutta	...	6 cases of Malarial fever
Oroya	,,	,,	3	Australia	...	4 cases of Malarial fever
Britannia	,,	,,	5	Bombay	...	3 cases of Malarial fever; 1 of Continued fever; 1 death from Sunstroke
Ballarat	,,	,,	14	Australia	...	4 cases of Typhoid fever (convalescent); 11 cases of Malta fever
Adjutant	,,	,,	15	Smyrna	...	1 case of Malarial fever
Borneo	,,	,,	17	Calcutta	...	2 cases of Malarial fever; 1 of Dysentery
Orient	,,	,,	19	Australia	...	10 Invalids landed (Army 8, Navy 2)
Albuera	sh.	,,	20	Caleta Buena	...	1 case of Rheumatism; 1 Accident, removed to S.D. and E.C. Hospital
Don	s.s.	,,	24	West Indies	...	1 case of Malarial fever
Oceana	,,	,,	28	Australia	...	Steward, Scarlet fever
Egypt	,,	December	2	Bombay	...	7 cases of Malarial fever; 1 of Typhoid fever
Ezel	sch.	,,	2	—		Seaman, severe cold
Cuzco	s.s.	,,	3	Australia	...	1 case of Enteric fever (convalescent)
Palawan	,,	,,	6	Calcutta	...	4 cases of Enteric fever; 1 of Malta fever; 1 of Phthisis
Para	,,	,,	8	West Indies	...	1 death from Dropsy (passenger)
Dilwara	,,	,,	9	Bombay	...	3 deaths :—1 Ague, 1 Heart Disease, 1 Suicide
China	,,	,,	11	Australia	...	3 cases of Beri Beri
Peninsular	,,	,,	17	Bombay	...	3 cases of Malarial fever
Malta	,,	,,	22	Calcutta	...	4 cases of Malta fever; 1 of Malarial fever; 2 of Typhoid fever
Medway	,,	,,	22	West Indies	...	3 cases of Malarial fever
Victoria	,,	,,	25	Australia	...	2 deaths; 1 Heart Disease, 1 Abscess of Liver
Ormuz	,,	,,	25	Australia	...	1 case of Heart disease; 1 Religious mania; 1 Brain affected
India	,,	,,	31	Bombay	...	2 cases of Malarial fever

TABLE OF **DEATHS** during the Year 1897, in the Urban Sanitary District of Plymouth, 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.*)	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	1	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.		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	Total.
(*a*)	(*b*)	(*c*)	(*d*)	(*e*)	(*f*)	(*g*)	(*h*)	(*i*)																					
Ecclesiastical Parishes—																													
St. Andrew	137	38	13	...	5	46	35	Under 5	...	...	...	...	...	...	...	...	...	...	...	5	5	6	...	1	8	...	...	1	25	51
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	11	18	...	3	41	86
St. Peter	248	86	35	6	6	65	50	Under 5	...	...	1	1	...	...	...	...	...	3	...	8	14	15	...	1	21	...	...	...	57	121
								5 upwds.	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	12	25	15	1	8	62	127
St. Saviour	46	12	5	...	1	15	13	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	5	...	...	2	7	17
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	6	6	...	...	16	29
St. James	91	31	12	2	3	31	12	Under 5	...	...	...	...	...	...	...	...	...	1	...	1	6	3	...	1	7	...	...	...	24	43
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	9	3	4	3	2	26	48
All Saints	91	29	8	2	1	26	25	Under 5	...	...	...	...	...	...	...	...	...	...	...	1	6	2	...	...	3	1	...	...	24	37
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	7	6	1	...	35	54
Christ Church	104	35	14	1	7	21	26	Under 5	...	...	...	...	...	...	...	...	...	1	...	4	2	4	...	...	12	...	...	1	25	49
								5 upwds.	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	10	8	8	...	...	26	55
St. Matthias	68	9	2	2	6	20	29	Under 5	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	3	...	...	...	5	11
								5 upwds.	...	...	1	...	...	1	...	...	...	...	...	...	...	1	...	4	5	6	...	1	38	57
Holy Trinity	93	36	19	3	2	21	12	Under 5	...	...	...	1	...	...	...	...	...	...	...	8	2	9	...	...	14	...	...	...	21	55
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	7	8	1	2	10	38
Charles	219	52	22	9	11	68	57	Under 5	...	...	...	1	...	...	...	...	...	...	...	1	5	6	...	...	16	...	1	...	44	74
								5 upwds.	...	...	...	...	...	2	...	...	...	...	...	3	...	1	...	16	12	19	3	2	87	145
St. Jude	193	59	22	8	7	44	53	Under 5	...	1	...	1	...	...	...	...	...	2	1	6	2	10	...	...	14	1	...	1	42	81
								5 upwds.	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	14	16	15	6	...	59	112
St. John	179	73	31	9	8	32	26	Under 5	...	...	1	1	...	...	...	...	...	4	1	11	3	7	...	...	21	2	...	3	50	104
								5 upwds.	...	...	1	1	...	2	...	...	1	...	...	...	...	1	...	9	14	6	1	4	35	75
St. Luke	40	12	4	...	1	11	12	Under 5	...	...	...	...	...	...	...	...	...	...	...	1	1	3	...	...	4	...	...	...	7	16
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	2	4	...	2	12	24
Emmanuel	19	6	3	...	1	7	2	Under 5	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	2	...	...	1	3	9
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	3	...	...	5	10
Compton Gifford	58	10	5	2	2	14	25	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	1	5	...	...	3	...	...	...	6	15
								5 upwds.	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	4	9	1	...	26	43
Laira	34	13	7	1	...	7	6	Under 5	...	...	...	...	...	...	...	...	...	...	...	1	...	5	...	...	6	...	...	...	8	20
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	11	14
Pennycross	23	5	3	...	2	7	6	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	1	...	...	...	4	8
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	...	10	15
Public Institutions—																													
Borough Hospital	11	...	5	...	4	2	...	Under 5	...	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
								5 upwds.	...	...	...	...	...	2	...	...	...	...	1	...	...	1	...	...	...	...	...	...	2	6
S. D. & E. C. Hospital	39	...	4	3	5	22	5	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	4
								5 upwds.	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	3	1	3	...	6	21	35
Homœopathic Hospital	3	...	...	...	...	2	1	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	3
The Citadel	5	4	1	...	...	...	...	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	4	5
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Workhouse	142	10	3	1	5	61	62	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	11	13
								5 upwds.	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	18	11	29	1	1	67	129
Plymouth Borough Asylum, (Blackadon, Ivybridge.)	23	...	...	...	2	17	4	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
								5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	...	...	17	23
Totals	1866	520	218	9	79	539	461	Under 5	...	4	4	5	...	...	...	...	...	11	2	49	53	78	...	4	143	4	1	10	370	738
								5 upwds.	...	1	3	1	...	8	1	...	3	...	5	3	...	5	4	135	137	165	18	32	607	1128

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1897, 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 on separate localities.	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.								
	Last Census	Estimated to middle of 1897		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Cholera.	Erysipelas.			Smallpox.	Scarlatina.	Diphtheria	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Cholera.	Erysipelas.		
(a)	*(b)*	*(c)*	*(d)*																										
Ecclesiastical Parishes—																													
St. Andrew	9363	—	—	—	5	5	—	—	—	—	—	—	—	19	—	—	—	5	2	—	—	—	—	—	—	—	1	—	—
St. Peter	11785	—	—	—	4	3	1	—	2	—	—	—	—	16	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—
St. Saviour	2450	—	—	—	—	—	—	—	3	—	—	—	—	7	—	—	—	—	—	—	—	2	—	—	—	—	1	—	—
St. James	5864	—	—	—	5	4	—	—	2	—	—	—	—	7	—	—	—	3	3	—	—	1	—	—	—	—	—	—	—
All Saints	6778	—	—	—	7	5	—	—	2	—	—	—	—	8	—	—	—	5	2	—	—	1	—	—	—	—	—	—	—
Christ Church	6244	—	—	—	6	4	—	—	—	—	—	—	—	3	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
St. Matthias	4488	—	—	—	7	7	—	—	2	—	—	1	—	8	—	—	—	6	2	—	—	—	—	—	—	—	—	—	—
Holy Trinity	4351	—	—	—	3	2	1	—	1	—	—	—	—	5	—	—	—	3	1	—	—	1	—	—	—	—	1	—	—
Charles	10849	—	—	—	8	7	1	—	10	—	—	—	—	30	—	—	—	5	2	—	—	2	—	—	—	—	1	—	—
St. Jude	7557	—	—	—	14	7	2	—	1	—	—	2	—	32	—	—	—	5	2	—	—	—	—	—	—	—	—	—	—
St. John	6964	—	—	—	2	8	3	—	7	—	—	1	—	35	—	—	—	1	3	—	—	4	—	—	—	—	—	—	—
St. Luke	3342	—	—	—	4	1	—	—	—	—	—	—	—	9	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—
Emmanuel	1387	—	—	—	1	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Public Institutions—																													
S. D. & E. C. Hospital	—	—	—	—	3	2	—	—	1	—	—	—	—	2	—	—	—	1	1	—	—	—	—	—	—	—	2	—	—
Homœopathic Hospital	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Workhouse	—	—	—	—	1	1	—	—	—	—	—	—	—	20	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
"Ships" in Harbour	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—
Compton Gifford	3232	—	—	—	6	—	—	—	3	—	—	—	—	5	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—
Laira and Egg Buckland	1076	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennycross	349	—	—	—	—	1	—	—	14	—	—	—	—	1	—	—	—	—	—	—	—	14	—	—	—	—	—	—	—
Totals	88910	97658	2764	—	78	57	8	—	49	—	—	4	—	211	—	—	—	43	20	—	—	26	—	—	—	—	8	—	—