THE

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

URBAN SANITARY DISTRICT OF CAMBORNE, CORNWALL.

FOR THE YEAR ENDING DECEMBER 31st, 1908

THE CAMBORNE PRINTING & STATIONERY, CO., LTD.

Annual Report of the Medical Officer of Health

FOR THE

Urban Sanitary District of Camborne, Cornwall,

For the year ending 31st December, 1908.

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

GENTLEMEN,

Herewith I have much pleasure in presenting to you my Annual Report on the Health and Sanitary Condition of your District for the year 1908.

SITUATION.

The Urban District of Camborne is situated mainly on the side of a hill, the town itself being about 400 feet above sea level and extending in a north-westerly direction to the sea coast. The soil is loam and the sub-soil is clay.

POPULATION.

The population of your district at the last census was as follows :—

Ecclesiastical District.	Males	Females.	Total
Camborne	3228	4295	7523
Tuckingmill	1416	1794	3210
Treslothan	1106	1277	2383
Penponds	730	880	1610
	6480	8246	14726

The population of your district is mainly a mining one, and for the reasons stated in my last Annual Report, it is more than probable that the present population would shew a considerable increase over that of the last census, but as it is impossible to arrive at anything like a correct estimate, I have taken the figures at the last census in calculating the various statistics.

The average population of your district for the past fifty years was 14,153.

AREA AND DENSITY OF POPULATION.

Your district has an area of 6744 acres and a density of population of 2·18 per acre, but as it is partly urban and partly rural in character, this density would vary considerably in the different localities.

INHABITED HOUSES.

The number of inhabited houses at the last census was 3530, and of these 1810 contained less than five rooms. These figures give an average of 4·16 persons per inhabited house.

The number of inhabited houses at the end of 1908 was 3768, an increase of 238 since the last census.

BIRTHS.

During the year 1908 the births of 178 Males and 173 Females were registered, a total of 351 births. These give a Birth Rate of 23·83 per 1000 as compared with one of 24·58 for 1907

The Birth Rate for Cornwall for 1908 was 22·28 per 1000 as compared with 21·45 for 1907, and for England and Wales 26·5, as compared with 26·3 for 1907.

The following table shows the number of Births and the Birth Rates in your district for the previous ten years.

Date.	Births.	Birth Rate per 1000
1898	373	25·37
1899	377	25·64
1900	396	26·89
1901	392	26·61
1902	385	26·14
1903	345	23·42
1904	379	25·73
1905	341	23·15
1906	336	22·81
1907	362	24·58

These give an average Birth Rate of 25·03 per 1000.

ILLEGITIMATE BIRTHS.

The total number of Illegitimate Births registered during the year was 17, being eight males and nine females. These give an Illegitimate Birth Rate of 1·15 per 1000 as compared with 1·01 for 1907, and a proportion of 48 per 1000 births as compared with 41 for 1907, 47 for 1906 and 46 for 1905.

DEATHS.

During the year the Deaths of 122 Males and 116 Females were registered, a total of 238 Deaths. These figures give a Death Rate of 16·16 per 1000, as compared with one of 16.77 for 1907.

The Death Rate for Cornwall for 1908 was 14·55 as compared with 15·08 for 1907, and for England and Wales 14·7 as compared with 15·0 for 1907.

The following Table shows the number of Deaths and the Death-Rates per 1000 for the previous ten years giving an average rate of 17·60 per 1000.

Date.	Deaths.	Death-Rate per 1000
1898	348	23·67
1899	251	17·07
1900	269	18·29
1901	252	17·11
1902	311	21·11
1903	234	15·89
1904	240	16·29
1905	220	14·93
1906	219	14·87
1907	247	16·77

The various ages at Death were as follows :—

Under 1 year ...	51	Between 45 and 55 ...	16
Between 1 and 5 ...	15	„ 55 „ 65 ...	38
„ 5 „ 15 ...	7	„ 65 „ 75 ...	46
„ 15 „ 25 ...	11	„ 75 „ 85 ...	20
„ 25 „ 35 ...	13	„ 85 „ 95 ...	4
„ 35 „ 45 ...	17		

NATURAL INCREASE.

The Natural Increase of population for 1908 is 113, giving a Rate of 7·67 per 1000 as compared with one of 7·72 for Cornwall.

The National Increase for 1907 was 115 and for 1906 it was 117.

INFANTILE MORTALITY.

During the year the deaths of 51 Infants under one year of age were registered, eight of these being Illegitimate or nearly one half of the total Illegitimate Births.

The causes of death were as follows :—

Prematurity	18	Suffocation ...	1
Gastro Enteritis ...	9	Marasmus ...	1
Convulsions	8	Pyloric Spasm...	1
Whooping Cough ...	5	Diarrhœa ...	1
Broncho-Pneumonia ...	4	Rachitis ..	1
Asphyxia	2		

The various ages at death of these infants were as follows :—

Under 1 week ...	14	Between 1 „ 2 months	11
Between 1 and 2 weeks	2	„ 2 „ 3 „	3
„ 2 „ 3 „ ...	3	„ 3 „ 4 „	4
„ 3 „ 4 „ ...	2	„ 4 „ 5 „	2

Between 5 and 6 months	3	Between 9 and 10 months	1
„ 6 „ 7 „	0	„ 10 „ 11 „	0
„ 7 „ 8 „	3	„ 11 „ 12 „	2
„ 8 „ 9 „	1		

It will be seen that 44 of these deaths were under six months.

These 51 Deaths give an Infantile Mortality Rate of 145 per 1000 Births as compared with a Rate of 146 for 1907.

The Rate for England and Wales for 1908 was 121 per 1000 Births and excluding 218 large towns it was 110. The following table shews the Infantile Mortality Rate in your district for the previous ten years giving an average Rate of 169 per 1000 Births.

Date.	Deaths under 1 year.	Death-rate per 1000 Births.
1898	112	300
1899	70	185
1900	64	161
1901	48	122
1902	81	210
1903	53	153
1904	60	158
1905	41	120
1906	46	136
1907	53	146

The Infantile Mortality Rate in your district for 1908 though below the average of the previous ten years remains unduly high, and I must once more call your attention to the pernicious habit which obtains in this in common with other districts, of feeding young infants of a few days or weeks old on biscuits, baked flour, boiled bread and other starchy foods, which they are quite unable to digest, and also to the growing custom of substituting condensed milk for breast milk, the former often given in uncleanly bottles containing the milk in a state of decomposition.

ZYMOTIC DEATH-RATE.

Seven deaths from Whooping Cough, two from Diphtheria and one each from Typhoid Fever and Diarrhœa, a total of eleven deaths, give a Zymotic Death Rate for the year of 0·74 per 1000 as compared with one of 1·35 for 1907 and one of 0·88 for 1906.

Excluding the deaths from Whooping Cough, a disease which has nothing to do with the sanitary condition of a district we have a low Zymotic Death Rate of 0.27 per 1000.

The Zymotic Death Rate for Cornwall for 1908 was 0·616 per 1000 as compared with a rate of 0·691 for 1907.

INQUEST CASES.

There were 15 Inquest Cases during the year as compared with 20 for the previous year. Of these, seven were attributed to Natural Causes, seven were due to Accidents and in one the cause of death was uncertain.

Of the Accidental Deaths three occurred in Mines, two underground and one on surface, the latter being attributed to a strain whilst lifting a weight; one was a case of hanging (suicide); one was attributed to a fall; one to a strain whilst lifting a heavy weight and one was an infant suffocated whilst in bed with her parents.

PHTHISIS.

There were 38 Deaths registered from Phthisis during the year, giving a Death Rate of 2·58 per 1000 and a percentage of 15·96 of the total deaths.

The following table shews the rates for the previous ten years.

Date.	Deaths from Phthisis.	Rate per 1000	Percentage of Total Deaths.
1898	33	2·2	9·4
1899	22	1·4	8·7
1900	40	2·7	14·8
1901	35	2·37	13·92
1902	43	2·92	13·82
1903	42	2·85	17·94
1904	43	2·92	17·91
1905	39	2·64	17·70
1906	27	1·83	12·32
1907	39	2·64	15·78

These give an average rate of 2·45 per 1000 and a percentage of 14.22 of the total deaths.

Of the deaths in 1908, 31 were in Miners, 22 being registered from Pulmonary Tuberculosis and nine from Fibroid Phthisis.

Of these cases of Pulmonary Tuberculosis 10 were in Gold Miners, the average age at death being 37, and 11 were in Tin Miners, the average age at death being 38.

Of the cases of Fibroid Phthisis three were in Gold Miners and five in Tin Miners, the average age at death in both being 49. One case occurred in a Silver Miner at the age of 66.

Of the remaining cases six were in females (average age 23,) and one was a male 10 years of age.

I am pleased to report that you have adopted the recommendation contained in my last Annual Report, that in all fatal cases of Phthisis the rooms should be disinfected by your Authority, and this has been done on several occasions during the year.

As, however, we have had to depend on the voluntary notification of the cases, this proceeding has not been carried out in all instances.

Their is no doubt that the predeposing cause of the prevalence of phthisis amongst metalliferous miners is the inhalation of stone-dust, and that this dust, produced mainly by rock drills, can easily be prevented by a small jet of water. I find, however, that the Home Office Regulations on this important matter are in many cases not complied with by the miners themselves, and unless offenders are prosecuted by the Mine Authorities it is difficult to see how the law can be enforced.

There were five deaths registered from Tubercular Diseases other than Phthisis.

OTHER RESPIRATORY DISEASES.

There were 20 deaths registered from other Respiratory Diseases during the year, 12 being from Bronchitis, 6 from Pneumonia and 2 from Pleurisy. These give a Death Rate of 1·35 per 1000 and a percentage of 8·30 of the total deaths.

OTHER DISEASES.

There were 40 deaths registered from Heart Disease (a large increase on previous years), 13 from Cancer and 6 from Influenza.

INFECTIOUS DISEASES.

During the year 41 cases of Infectious Diseases were notified, giving an Infectious Disease Rate of 2·78 per 1000. This is the lowest return for the past fifteen years and probably longer. The Infectious Disease Rate for 1907 was 6·99 per 1000 and for 1906 it was 17·5 per 1000.

Of the cases notified 21 were from Scarlet Fever, 4 from Diphtheria, 4 from Typhoid Fever, one from Puerperal Fever and 11 from Erysipelas.

The Infectious Disease Rate for Cornwall for 1908 was 4·09 per 1000.

SCARLET FEVER.

21 Cases of Scarlet Fever were notified during the year as follows :—

January ...	2 cases.	July ...	4 cases.
February ...	1 „	August ...	1 „
March ...	2 „	September	7 „
April ...	1 „	October ...	1 „
June ...	2 „		

Six of the cases were at Carn Entral in one house, four were at Tuckingmill, four at Wheal Gurry, two at Bellman's Row, two at Penponds, and one each at Kitty's Lane, Dolcoath Road and Enys Road.

These give a Disease Rate of 1·42 per 1000 as compared with one of 4.82 for 1907 and one of 13·17 for 1906.

Most of these were of a mild type and there was no death registered from the disease.

DIPHTHERIA.

During the year four cases of Diphtheria were notified, two of which were fatal. These give a Disease Rate of 0.27 per 1000 and a Death Rate of 0·13 as compared with a Disease Rate of 0·54 and a Death Rate of 0·20 for 1907.

One fatal case of a very virulent type was notified at Park Holly in July, and removed to the Isolation Hospital. In this case the disease was undoubtedly contracted in another district. There were two cases notified in August, one at Edward Street, Tuckingmill and one at Dolcoath Road, and these both recovered. The other case which proved fatal occurred at Great Wheal Seton in September.

In neither of these cases could the exact cause of the disease be determined.

TYPHOID FEVER.

Four cases of Typhoid Fever with one death were notified during the year, giving a Disease Rate of 0·27 and a Death Rate of 0·06 per 1000 as compared with a Disease Rate of 0·40 and a Death Rate of 0·06 for 1907.

One case which proved fatal (a girl 13 years of age), occurred at Reskadinnick in January.

The next case notified was in March at Crane, a boy 14 years of age.

The other two cases occurred at Wellington Road, one a man aged 35, being notified in November, and the other a boy of 11 in December.

These last three cases were removed to the Isolation Hospital for treatment.

In neither of the cases could the exact cause of the disease be determined, though it is probable that at Reskadinnick it was due to the drinking of water polluted with sewage matter.

PUERPERAL FEVER.

One fatal case of Puerperal Fever occurred at Troon in November, giving a Disease and Death Rate of 0·06 per 1000.

ERYSIPELAS.

During the year 11 cases of Erysipelas were notified, giving a Disease Rate of 0·74 per 1000. There was no death registered from this disease.

WHOOPING COUGH.

Whooping Cough was very prevalent during the months of May, June and July. The first cases occurred at Beacon and Condurrow and from these places it spread over the whole district.

There were seven deaths registered from this disease, five being infants under one year of age and the others under two years of age. These give a Death Rate of 0·47 per 1000.

MEASLES.

As far as I can ascertain there were no cases of measles in your district during the year nor was any death registered from this disease.

INFLUENZA.

Influenza was present in an epidemic form in most parts of your district during the months of February, March and April.

The disease was mostly however of a mild type and of the six deaths registered from this disease, five were in persons over 65 years of age.

ANKYLOSTOMIASIS.

A few cases of Ankylostomiasis have been brought to my notice during the year but the number of persons infected is comparatively few. Less cases however would occur if the regulations drawn up for the prevention of this disease were rigidly observed.

VACCINATION.

During 1907 the latest period for which returns are as yet available out of 362 Births, 294 were successfully vaccinated, 21 were exempted, 38 died unvaccinated and 9 were postponed.

Excluding those that died unvaccinated and those postponed, these figures give a percentage of 90·15, as compared with one of 96·9 for 1906.

ISOLATION HOSPITAL.

The Isolation Hospital was used during the month of March and portions of the months of November and December, for the treatment of three cases of Typhoid Fever.

DISINFECTOR.

The Disinfector at West Tolgus was used on four occasions during the year, and 10 houses were disinfected with Formalin.

DRAINAGE.

During the year the drains of 64 houses have been connected with the main sewers and the drains of 24 others have been repaired and put in order. The main drains have been periodically flushed and disinfected with Izal.

In all 1266 feet of drain pipes have been laid down.

I have again to report the absence of any flushing tank in the drainage system of Baripper, and that their is no method for periodically flushing the drains there beyond the ordinary rainfall.

This matter has been considered by your Sanitary Committee during the year, but no decision has been arrived at.

No progress has been made towards the drainage of Beacon, Wheal Gerry, Hughville Street, portions of Roskear Row and Pengegon, and the extension of the Main Drain at Mount Pleasant Road. This matter has been held in abeyance pending the definite adoption of the scheme for dealing with the whole of your sewage.

SEWAGE OUTFALLS.

The Sewage Outfalls are still in an unsatisfactory condition.

At Rosewarne, however, you have carried out the scheme suggested by your Sanitary Engineer, for the temporary disposal of the sewage, and new detritus tanks have been erected there. After preliminary treatment in these tanks the sewage, after flowing through a channel over the land, discharges into the Red River at Reskadinnick Mill. This arrangement, however, which has been carried out with the approval of the landowner concerned, is only of a temporary nature during the carrying out of the larger scheme for the disposal of the whole of your sewage. The final adoption of the scheme for the conveyance of the sewage to the sea at the North Cliffs and its disposal there, has been held in abeyance, pending a decision from the chief landowners in the district as to their materially contributing to the cost of the same.

Frequent correspondence has taken place on the question and your Sanitary Committee have given their earnest attention to the matter, and it is hoped that some satisfactory arrangement will soon be arrived at so that the plans may be submitted to the Local Government Board for their approval at an early date.

SCAVENGING.

During the year the middens and ash pits in the town and at Wheal Gerry, Tuckingmill, Pengegon, Beacon and Troon have been periodically cleaned out by your Authority and 4464 loads of manure and house refuse removed from the vicinity of dwellings. There are now roughly about 940 Ash Boxes and 65 Box Closets emptied by your scavengers twice a week.

Five middens have been converted into W.C.'s during the year and 12 new W.C.'s provided in connexion with private dwellings.

Seven notices were served on the owners of private dwellings for the providing of closet accommodation and six middens have been provided.

Your Sanitary Committee, recognising the insanitary condition of the midden pits in your district and the great desirability of converting existing middens into w.c.'s where water for flushing the same is available, instructed your Sanitary Inspector to prepare a list of those most urgently needing attention. This report has been presented to that Committee, who are now giving the matter their earnest consideration.

NEW BUILDINGS.

Plans for 77 new houses and of additions to 25 others were submitted to and approved by your Council during the year.

96 new houses erected were inspected and certified as fit for occupation. These are provided with 63 w.c's and 35 middens. These latter were sanctioned because no water was available for flushing, they being outside the area of the Water Co.'s service.

HOUSE ACCOMMODATION.

Though many houses have been erected during the year suitable for the working classes, yet in my opinion others are still required, and if possible at a still lower rental. It is questionable, however, whether taking into consideration the cost of the land and the expense of the materials, these class of houses could be built at a profit so as to let at a lower rental.

Nearly all the houses abutting on the public roads in your district are now provided with proper spouting for the conveyance of the rain water from the roofs, but this necessary improvement should apply to all houses in your district.

WATER SUPPLY.

I have on several occasions inspected the sources of the Camborne Water Company's supplies at Boswyn and Cargenwyn, and there has been a constant supply of water for domestic and industrial purposes.

Complaints, have however, been constantly brought to your notice as to the scarcity of water for domestic purposes to private dwellings more particularly in the higher parts of the town. Though this is frequently due to the incrustation of the private service pipes, yet in many cases the Water Co.'s mains require renewing, and it is hoped that this serious defect will be remedied more promptly by them during the coming year.

At Boswyn the Water Co. are immediately erecting pressure filters constructed on the latest scientific principles for filtering the surface water there, and here also a new ferro-concrete tank capable of holding about 3,850,000 gallons of water is to be built. A supplementary 6-in. main has been laid in Pendarves Street, Tuckingmill, and this has been extended to Illogan district.

A new 4-in. main is also to be laid in College Street to the Cattle Market.

The Clinical Research Association send the following most satisfactory report on a sample of the water taken from one of the ordinary service taps submitted to them for Bacteriological Analysis :

" The Bacteriological examination of this sample of water gives the following results :—

1. **Quantitative.** The average number of organisms capable of producing visible colonies on gelatine plates incubated at 20° C for three days is found to be 16% of the water, whilst less than one organism per C.C. develops on agar plates at 37° C in two days.

2. **Qualitative.** Neither the Bacillus Coli nor the Bacillus Enteritides Sporogenes is found in 100 C.C. of the water taken for each examination, nor are Streptococci found in 30 C.C.

The results are eminently satisfactory showing the water to be of a high degree of bacterial purity, with no indication of recent pollution with sewage or animal excreta."

SLAUGHTER HOUSES.

There are 13 Slaughter Houses registered in your district. These have been frequently inspected during the year and found in a satisfactory condition.

DAIRIES, COWSHEDS, AND MILKSHOPS.

There are 45 Dairies and Milkshops registered in your district, and they have been inspected from time to time during the year.

I have again to repeat what I have stated in former reports, that the sanitary condition of many of the cowsheds in the district is far from satisfactory, no attention seeming to be paid by the owners either to cleanliness or sufficient ventilation. The cows are in many cases milked amongst filthy surroundings, and the milk contaminated both by the dirty hands of the milkers and the unclean udders of the cows. This condition of things is one which can and should be remedied.

Your Sanitary Committee have visited many of these places on different occasions and there results a slight improvement for a time, but only too soon the old order of things obtains. In some cases the conditions are quite satisfactory, but these exceptions are I am afraid few in number.

Meanwhile the public should be taught the necessity of only using milk sterilized by boiling, particularly in the case of infants and young children.

BAKEHOUSES.

There are seven Bakehouses registered in your district. These have been frequently inspected and found in a satisfactory condition.

There are no underground bakehouses in your district.

COMMON LODGING HOUSE.

There is one Common Lodging House. This is registered, frequently inspected, and on the whole kept in a satisfactory condition.

MEAT AND FISH MARKETS.

The Meat and Fish Markets have been constantly inspected during the year.

There has been no seizure of unsound food, nor any prosecution under the Sale of Food and Drugs Act.

OFFENSIVE TRADES.

There are no offensive trades carried on in your district, and as far as I can learn, there has been no case of Lead, Arsenic or Phosphorous poisoning, nor of Glanders, Anthrax or Hydrophobia in man.

BURIAL GROUNDS.

The state of the various Burial Grounds in your district is satisfactory.

BYE-LAWS.

The following Bye-Laws are in existence in your district :—

New Streets and Buildings	Nuisances.
Slaughter Houses.	Public Wash Houses.
Common Lodging Houses.	Hackney Carriages.

Though these have all undergone careful revision by your General Purposes Committee more than twelve months ago, they have not as yet been presented to you for your adoption.

FACTORY AND WORKSHOPS ACT 1901.

There are some 50 Factories and Workshops in your district to which this Act is applicable. These have been inspected from time to time and found to comply with its provisions.

Two New Workshops have been registered during the year and two have been closed.

I am, Gentlemen,
Your obedient servant,
J. TELFER THOMAS,
Medical Officer of Health.

Camborne, February 12th, 1909.

SUMMARY OF

VITAL STATISTICS.

FOR 1908

Population (Census 1901) 14,726.

Area—6,744 acres.

Density of Population—2·18 per acre.

Inhabited Houses

1901—3,530

1908—3,768

Houses with less than five rooms—1,810.

Birth-rate—23·83 per 1000.

" Cornwall—22·28 per 1000.

" England and Wales—26·5 per 1000.

Illegitimate Birth-Rate 1·15 per 1000.

Death-rate—16·16 per 1000.

" Cornwall 14·55 per 1000.

" England and Wales 14·7 per 1000.

Natural Increase—113.

" Rate 7·67 per 1000.

" Cornwall 7·72 per 1000.

Infantile Mortality Rate—145 per 1000 Births.

" England & Wales 121 per 1000 Births.

Zymotic Death-rate—0·74 per 1000.

" Cornwall—0·616 per 1000.

Infectious Disease Rate—2·78 per 1000.

" Cornwall 4·09 per 1000.

Phthisis Death-rate—2·58 per 1000.