GOVERNMENT NOTIFICATION.—No. 257.

The following Reports of the Medical Officer of Health, the Sanitary Surveyor, and the Colonial Veterinary Surgeon for the year 1898, are published.

By Command,

J. H. STEWART LOCKHART, Colonial Secretary.

Colonial Secretary's Office, Hongkong, 28th April, 1899.

REPORTS OF THE MEDICAL OFFICER OF HEALTH, THE SANITARY SURVEYOR, AND THE COLONIAL VETERINARY SURGEON FOR THE YEAR 1898.

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EDWARD OSBORNE.

To the President of the Sanitary Board.

Sanitary Board Offices, March 14th, 1899.

SIR,—I have the honour to submit for the information of the Board the following Report upon the health of the Colony of Hongkong during the year 1898.

AREA.

The island of Hongkong has an area of rather more than 29 square miles, and the city of Victoria, which is situated upon its northern shore, extends along the sea-front for a distance of four and a half miles and up the hillside to the city limit of 800 ft. above high-water mark; the total area of the city covered by buildings being approximately 580 acres. The opposite peninsula of Kowloon, which is also comprised within British territory, has an area of some 2\frac{3}{4} square miles.

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The domestic buildings of the city of Victoria number 7,438 (exclusive of Barracks and Police Stations) of which 539 are European dwellings, while there are also some 120 houses in European occupation in the Hill district. The various villages over the island contain 31 European dwellings and 1,600 Chinese dwellings, while in British Kowloon there are 93 European dwellings and 1,850 Chinese dwellings, exclusive of the Barracks for the Hongkong Regiment and 72 small houses used by

this Regiment as married quarters.

This shows an increase upon last year of 64 European dwellings and 282 Chinese dwellings; the plans of these 346 new buildings have all passed through my hands during the year, with a view to seeing that they complied strictly with the Public Health Ordinances of the Colony, and the same procedure has been adopted with all plans for alterations to existing buildings; and I am thus enabled to keep the Inspectors of Nuisances well informed as to the proposed alterations to buildings in their several districts.

CLIMATE.

The average monthly temperature throughout the year has been 72.2° F as compared with 71.7° F during 1897; the maximum monthly temperature was attained in July when it reached 81.7° F and the minimum monthly temperature was recorded in the month of January, being 60.1° F as compared with 54.2° F in 1897.

The highest recorded temperature was 91.5° F on May 30th, and the lowest was 46.1° F on the

25th January.

The total rainfall for the year was 57.025 inches as compared with 100.03 inches during 1897, the wettest months were June with 14.25 inches and August with 9.9 inches, and the driest was

December with 0.025 inch.

The greatest amount of rain which fell on any one day was 2.585 inches on August 25th, while no rain fell on 213 days of the year; the relative humidity of the atmosphere throughout the year was 74.6 per cent, being lowest in December when it stood at 52 per cent, and highest in May and June when it stood at 83 per cent. The average daily amount of sunshine throughout the year was 5.8 hours as compared with 4.78 during the previous year; on 41 days only was no sunshine recorded.

These figures have been calculated from the monthly Reports issued by the Director of the Hong-

These figures have been calculated from the monthly Reports issued by the Director of the Hong-kong Observatory; the temperatures were taken at 108 feet above mean sea-level and at 4 feet above

the grass.

GENERAL SANITARY CONDITION.

The provisions of the Public Health Ordinance (No. 24 of 1887) and of the Insanitary Properties Ordinance (No. 15 of 1894) have been steadily enforced throughout the year, and it cannot be denied that the sanitary condition of the three or four hundred new houses which have been erected during the year shows a vast improvement upon that of the buildings which were erected prior to the passing of the latter Ordinance, but I regret to say that the laws of this Colony still permit of the erection of back to back houses, which are universally admitted to be unhealthy, and the prohibition of the further erection of which was so strongly urged by Mr. Osbert Chadwick, as far back as 1882, and by many others since that date. The provision of open spaces in the rear of buildings is an absolute necessity to render them suitable as human habitations and yet the whole city of Victoria, with the exception of the Taipingshan resumed area and the Praya Reclamation, might, under the existing laws, be rebuilt without a single backyard, area or open space attached to any house, and although the Architects do their best, I know, to persuade property owners to provide these open areas, yet it not infrequently happens that a penurious landowner insists upon the whole of his land being covered by bricks and mortar, and a roof, to the great detriment, not only of his own, but also of his neighbour's property, and to the great injury to the health of all future occupants. The Model Bye-laws which were drawn up by the Local Government Board many years ago, and which have been very generally adopted by Sanitary Authorities at home, require a minimum open space, exclusively belonging to each house, of 150 square feet in area, and although I am quite willing to admit that there are special circumstances connected with the erection of domestic buildings for Chinese which would render this requirement excessive in some cases, yet there can be no doubt that legislation is urgently needed to secure some provision of this nature in respect of all houses that may be erected in the future.

The compulsory provision of open spaces in connection with existing dwellings is a somewhat more difficult problem, but I have no hesitation in saying that most of the Chinese dwellings in the city of Victoria would, if they existed at home, be at once condemned as "unfit for human habitation" under the Housing of the Working Classes Act, and it is only necessary to quote the opening paragraph of the Report of the Insanitary Properties Commission, issued last year, to show how urgent is the necessity

for some definite and prompt action on the part of the Government.

This paragraph reads-

"We regret to have to report that there are many insanitary properties in the Colony and dwellings which, in their present condition, are unfit for human habitation. The back portions of a number of "the houses visited by us are dark, ill-ventilated, extremely dirty and in some cases mere dens of filth. "The interior of the cubicles or sub-divisons of the living rooms was such that in the great majority of

"cases their contents could be seen only by the aid of an artificial light."

It is hardly necessary to argue that if dwelling rooms, occupied by Chinese of the coolie class, are dark, it is impossible for any staff of Inspectors to ensure their being kept in a cleanly condition, and although the present state of the dwellings in the city compares most favourably with that which obtained

only some four or five years ago, yet it is indeed an almost hopeless task to seek for cleanliness with a bull's eye lantern in the almost Cimmerian darkness of the typical Chinese tenement dwelling.

There is still most urgent necessity throughout the Colony, and especially in the City of Victoria, for many additional free public latrines and urinals; provision was, I believe, made for the erection of two additional latrines in the city during the ensuing year; these would not, however, have sufficed even to keep pace with the rapid increase in the population, so that the city would have been no better off than heretofore, but unfortunately the expenditure upon these has been disallowed, so that the condition of the city in this respect is rapidly becoming worse.

No provision whatever has been made for the erection of additional urinals, either for Europeans or for Chinese, although only three public urinals at present exist in the city for a male population of Many are the complaints of the offensive smell of urine in the side and back lanes, and from the gully traps in the streets throughout the city, but so long as no provision is made, in this respect, for the thousands of coolies who daily traverse these streets, I fail to see what other result can

be expected, or in what way this undoubted nuisance can be prevented.

POPULATION.

The population of the Colony at the Census taken in 1891 was found to be 221,441 while the census taken in 1897 showed a population of 246,880.

The following is the estimated population of the 6

Non-Chinese Civil Population,	8,732
Chinese Population, City of Victoria, including Peak and Stonecutters' Island, Villages in Hongkong and Kowloon, Floating Population,	
Army,	3 072
Total Population of the Colony,	•

The total strength of troops in Garrison on June 30th, 1898, was 86 British officers and 1,624 British Warrant Officers, N. C. O.'s and men, with 18 Indian Officers and 1,053 Indian Warrant Officers, N. C. O.'s and men, making a total strength of 2,781 as compared with 2,577 in 1897 and There were in addition 78 British women and 118 British children and also 48 Asiatic women and 48 Asiatic children.

The total strength of the British Fleet on the China Station, on June 30th, 1898, was 7,497 British Officers and men, 361 Chinese servants and I Japanese servant. At the census taken in January, 1897, the actual number of Officers and men of Her Majesty's Navy present in the Colony was 2,268, and in view of the considerable increase in the numerical strength of the Fleet since that date, the estimated number resident here (ashore and afloat) in 1898 has been put at 3,385. It must be remembered, however, that there is an important Naval Hospital in Hongkong to which invalids from the entire Fleet may be sent, and that the deaths occurring in that institution necessarily influence the death-rate to a degree proportionate to the strength of the entire Fleet rather than to the strength of the

local contingent.

The Chinese boat population of the Colony has been estimated to the middle of the year to have been 33,370; but it is, I am afraid, a somewhat uncertain quantity, for the floating population of the Colony was given at the census taken in 1891 at 33,098 (including those in the Mercantile Marine), while at the census taken in 1897, it was found to be 33,275 which would indicate that this section of the population was not increasing in number to any extent. It would appear, however, that the census return of the floating population for 1891 cannot be relied upon and that the number given is probably considerably in excess of the real figure, and in view of the steady increase in the number of registered Chinese craft in the Harbour, it is probable that the floating population is increasing in number to a greater extent than would appear from the census figures. These people make their homes on board the junks, sampans, cargo-boats, etc., and it is interesting therefore to note the differences in the incidence of various diseases upon them and upon the land population.

Fishing and Trading Junks,	5,79 7 4,353
Total,	10,150

The number of boats licensed in 1897 was 9,954, in 1896 was 9,731, and in 1895 was 9,434. The population of the Colony is classified primarily into Chinese and Non-Chinese, the former being greatly in the majority. The Non-Chinese comprise a white population of 12,486, of whom 6,028 are civilians and the remainder belong to the Army and the Navy. The coloured races number 2,704 and comprise East Indians, Malays, Philipinos and a few Africans. The white civilian population was shown at the 1897 census to consist of 2,374 British, 2,267 Portuguese, and a sprinkling of Americans, Germans, French and other Europeans.

The population is essentially a male adult one, as no less than 70.9 per cent. of the Chinese population and 58.6 per cent. of the Non-Chinese population are males, while considerably more than half of the population (52.6 per cent. of Non-Chinese and 55.9 per cent. of Chinese) are between the ages of 20 and 45. The proportion of the population of Great Britain between these ages is only 33.8 per cent. The City of Victoria is divided into ten Health Districts with one Inspector of Nuisances in charge

of each, and the following table gives the number of houses and floors (i.e., separate Chinese dwellings in most cases), the population and the area of each of these districts.

Districts.	Chinese Houses.	Floors.	Chinese Population.	Non-Chinese Houses.*	Non-Chinese Population.	Acreage.	Total No. of persons per acre.
1 2 3 4 5 6 7 8 9 10	421 870 36 954 957 825 759 820 999 401	862 2,119 85 3,019 2,857 2,330 2,197 1,750 2,619 962	7,885 21,626 4,294 23,794 22,244 17,072 16,380 18,993 24,435 7,527	57 13 348 112 25 5 7 5 19 47	420 1,152 1,920 1,898 350 420 176 148 170 296	531 267 158 45 23 23 27 42 40 258	15.6 85.3 39.3 568.7 982.3 760.5 612.1 455.7 615.1 30.3
	7,042	18,800	164,250	638	6,950	1,414	113.1

* Exclusive of Barracks.

From this it will be seen that No. 5 Health District, which is situated in the centre of the city, shows acute surface crowding, while Districts 6, 7 and 4 are almost as densely crowded. The most densely populated metropolitan districts of the city of London are St. James's, Westminster, White-chapel and St. George's in the East, but none of these had a population of more than 200 persons to the acre in 1891.

BIRTHS.

The births registered during the year were as follows:—

Chinese,	White,	Males. 592 100 40	Females. 371 78 25	963 178 65
				1,206

This is equal to a general birth-rate of 4.7 per 1,000 as compared with 5.5 per 1,000 during the previous year. The birth-rate among the Non-Chinese community alone was 15.9 per 1,000 as compared with 17.7 during the previous year, so that it is apparent that the year 1898 was not favourable to any great increase of the population from this cause. The nationalities of the Non-Chinese parents were as follows:—British 85, Portuguese 72, German 11, French 4, Spanish 1, American 1, Pole 1, Jew 3, Indian 58, Malay 5, Japanese 2. The most remarkable feature, however, about the birth-rate of this Colony is the great preponderance of male over female births; in Great Britain and in temperate climates generally the proportion is 104 male births to every 100 female births, but in this Colony the proportion is, among the white races, no less than 128 male births to 100 female births.

The number of Chinese births registered does not, however, give an accurate record of the number

The number of Chinese births registered does not, however, give an accurate record of the number of births which have occurred in the Colony for many of the infants that die during the first month or so of life remain unregistered, although their deaths must be registered to obtain the necessary burial orders. It is customary therefore to add to the registered births the number of infants of one month old and under that die in the various Convents or are found by the Police in the streets or in the Harbour. This number during 1898 was 214 males and 317 females and 11 sex unrecorded, and thus the total births among the Chinese are estimated at 1,605 which makes the Chinese birth-rate 6.3 per 1,000 and the general birth-rate of the Colony 6.8 per 1,000 as compared with 7.3 during the previous year.

general birth-rate of the Colony 6.8 per 1,000 as compared with 7.3 during the previous year.

The preponderance of male births over female births is not nearly so marked among the Chinese as among the white inhabitants, but yet the ratio stands at 117 to 100, which is greatly in excess of what

obtains in Europe.

DEATHS.

The total number of deaths registered during the year was 5,674 as compared with 4,688 during 1897 and 5,860 during 1896. The death-rate for 1898 was therefore 22.3 per 1,000, as compared with 18.85 during the previous year and an average of 23 per 1,000 during the preceding five years (exclusive of 1894). These deaths, however, include no less than 1,175 from Bubonic Fever (Plague), and if these are omitted the death-rate appears at 17.7 per 1,000. The total number of deaths among the Chinese was 5,383, which is equal to a death-rate of 22.5 per 1,000.

The deaths registered among the Non-Chinese community were 291, of which 200 were among the white races and 91 among the coloured. The deaths among Non-Chinese include 49 deaths from Bubonic Fever, and the total death-rate among the white races was 16.2 per 1,000 and among the

coloured races was 33.6 per 1,000.

DISTRIBUTION OF DEATHS.

The 291 deaths among the Non-Chinese population were distributed as follows:—British 117, Portuguese 59, German 10, Spanish 5, French 5, Italian 2, Norwegian 1, Austrian 1; Indian 62, Japanese 13, Malay 9, South American (coloured) 6, Siamese 1.

The number of deaths occurring in the Army was 32 of which 23 were British, the remainder being Indians. The average age at death of the British soldier was 23.6 years, and the causes of death

were as follows:-

BRITISH.

Soldiers.	Wives and Children.
Remittent Fever,11	Dysentery,1
Intermittent Fever, 1	Diarrhœa,1
Enteric Fever,	Convulsions,1
Bubonic Fever (Plague), 1	Debility,2
Acute Rheumatism, 1	,
Hepatic Abscess, 1	
Concussion of Brain, 1	
IND	IAN.
Soldiers.	Wives and Children,
Bubonic Fever (Plague),2	Phthisis,2
Bubonic Fever (Plague),	Remittent Fever,2
0 ,	Premature Birth,1
	Hydrocephalus,

This shows a loss of something over 7 per 1,000 per annum among British troops, from Malarial diseases alone - a sufficiently high death-rate to warrant active measures of protection on the part of the military authorities. The pure white civilian population of the Colony (i.e., not including the locally born Portuguese) numbers nearly double that of the British troops and yet only three deaths from Malarial diseases occurred among them during the year, two being old men, aged 67 and 70 respectively, and the third, a lad of nine years.

The three deaths from Bubonic Fever were not incurred in the execution of Plague duty, but must

have been contracted by the men in some of the Chinese houses of entertainment.

The

Eleven deaths occurring in the China Squadron were registered in this Colony during the year; the average age at death was 30, and the causes of death were as follows:-

7 avorago ago im admin	Bright's Disease,1
Enteric Fever,2	
Small-pox,	Cancer of Stomach,1
Remittent Fever,1	Heat Apoplexy1
Remittent rever,	Drowning,1
Dysentery,1	Drowning,
Pneumonia.	Uut Throat (Suicide),

The deaths of persons other than Chinese employed in the Mercantile Marine and in Foreign Navies were 38 in number and comprised the following nationalities:—British and American 18, Indian 5, German 4, Portuguese 3, South American (coloured) 3. Japanese 2, and Norwegian, Spanish and Italian, each 1.

causes of death were as follows:—	
Phthisis,6	Peritonitis,1
Bright's Disease,4	Pleurisy,1
Small-pox,3	Remittent Fever,1
Alcoholism and Delirium Tremens,3	Hydatids,1
	Pneumonia,1
Dysentery,	Melancholia,1
Heart Disease,2	Bubonic Plague,1
Enteric Fever,2	Electric Shock,1
Heat Apoplexy,2	
Apoplexy,	Fracture of Skull,
Syphilis,	Undiagnosed,2
Enteritis. 1	

The total number of deaths therefore which occurred among the Non-Chinese resident civil community during the year was 210 (which is equal to a death-rate of 24.05 per 1,000) as compared with 149 during the previous year and 199 during 1896.

The principal causes of death among the Eu	Suropean civil community were as follows:—
Bubonic Fever (Plague),1	11 Infantile Convulsions,
Alcoholism and Delirium Tremens,	5 Bright's Disease,
Phthisis,	4 Remittent Fever,3
Peritonitis,	

UNCERTIFIED DEATHS.

During the year there were 641 deaths of Chinese who were not attended by a medical man, and in every case the relatives of the deceased were interviewed by myself, and the dead bodies inspected by one of the Inspectors of Nuisances, and, in all cases of doubt, by myself also. In this manner we were enabled to discover 37 deaths from Bubonic Fever (Plague) and 2 deaths from Small-pox which would otherwise have been recorded as due to some less alarming maladies. I am still of the opinion, moreover, that there is great scope in this direction for one or more Chinese doctors, well trained in Western medicine, who should be attached to the Sanitary Staff, and who would prove most valuable allies, in encouraging their countrymen to observe the elementary principles of sanitation, and in detecting the commencement of any outbreaks of infectious disease. Many of the hygienic crimes committed by the Chinese in this Colony are unquestionably due rather to ignorance than to wilfulness, and the intelligent propagation of our laws by men of their own nationality would, I feel sure, go far towards ameliorating those conditions which at present tend so largely to the discomfort of European colonists and to the detriment of the health of the Chinese themselves.

AGE-DISTRIBUTION OF DEATHS.

The death-rate among the infant population is a most serious item in the mortality returns for the Colony, since no less than 18.4 per cent. of the deaths recorded occur in infants under one year of age. The infant death-rate among the Non-Chinese inhabitants of the Colony during the year was 139.9 per 1,000, as compared with 120 during 1897, and the rate among the Chinese population was 630 per 1,000 as compared with 593 during 1897. This rate still shows, however, an improvement upon former years, among the Chinese, for in 1896 it was 745 and in 1895 it was 759 per 1,000. As I have pointed out in previous reports, this high infant death-rate is largely due to the insanitary condition of the houses of the poorer classes and the fact that it has been so far reduced since 1894 is an earnest of the further beneficial results which may be expected to accrue from the improvements in the sanitary condition of the Colony generally. The rise in the rate for the past year is merely a part of the general rise in the mortality, due to the fact that last year, like most exceptionally dry years, was an unhealthy one, as well for the European as for the native members of the community.

The following is a table of the age-periods at which the several deaths occurred:

	Under 1 month.	1-12 months.	1-5 years.	5-15 years.	15-25 years.	25-45 years.	45-60 years.	60 years and over.	Ages unknown.	Totals.
Chinese,	560 11	$\begin{array}{c} 452 \\ 23 \end{array}$	552 16	484 18	597 51	1,359 120	731 29	627 23	21	5,383 291
Totals,	571	475	568	502	648	1,479	760	650	21	5,674
Percentage,	10.6	8.3	10.0	8.8	11.3	26.0	13.3	11.4	0.3	•••

DEATHS AMONG THE CHINESE COMMUNITY. CHEST DISEASES.

The total number of deaths among the Chinese from respiratory diseases was 1,221 or 22.6 per cent. of the total deaths. This represents a death-rate from these diseases of 5.1 per 1,000 as compared with 4.7 during the previous year. As observed in former years the death-rate from these causes is much heavier among the boat population than among the land population, being for the former 8.2 per 1,000 and for the latter 4.6 per 1,000. No less than 56 per cent. of these deaths are due to **Phthisis**, a disease which is always intimately associated with overcrowding, inefficient ventilation and structural insanitary conditions generally.

NERVOUS DISEASES.

The deaths recorded under this heading number 786, and no less than 572 of these or 72 per cent, occurred in infants under one year of age, the causes of death being Tetanus, Trismus and allied disorders of a convulsive type. These are well known to be induced by residence in insanitary dwellings, and it is noteworthy that the slow and gradual improvement in the sanitary condition of the Chinese dwellings is being accompanied by a gradual fall in the number of these infant deaths from convulsive diseases, as will be seen from the following table:—

1890,		1,107
1896,	***************************************	711
1897.	***************************************	655
1898	***************************************	570
x 000,		012

MALARIAL DISEASES.

The total number of deaths among the Chinese from malarial diseases was 506 as compared with 712 during the previous year; this is equal to a death-rate from this cause alone of 2.1 per 1,000. The death-rate from this cause among the boat population was not so heavy as in former years, although it still remains greater among them than among the land population, being 2.6 per 1,000 for the former and 2.0 per 1,000 for the latter.

There were 117 deaths recorded as due to Beri-Beri.

INFECTIOUS DISEASES.

The total number of cases of infectious disease reported by registered medical practitioners during the year was 1,591 and comprised the following:—

$\begin{bmatrix} 2 & 7 \\ 2 & \dots \\ 6 & 3 \end{bmatrix}$	2	1	2	•••	1	1,320 199
1	1	•••	6	6	2 1	52 5 6
•• •••	•••	•••			•••	5 5

No less that 44 of these cases are known to have been imported into the Colony, while it was in addition impossible to discover whence many of the cases of Bubonic Fever and Small-pox had come, as they were not discovered until the patients had died and the bodies been deserted by the other occupants of the house; of these 44 cases, 16 were Small-pox, 22 Bubonic Fever, 5 Enteric Fever, and 1 Diphtheria. The question of the medical inspection of the shipping of the Port, urged by me during the past three years, and dealt with in detail in my Report for 1897, is still, I regret to say, in abeyance, with the result that persons suffering from infectious disease may land in the Colony, with impunity, provided that they are unaware (or refuse to admit that they are aware) of the infectious nature of the disease from which they are suffering. For mail steamers and others that carry a Surgeon, the present regulations may no doubt be admirable, but as it is the vessels which do not carry Surgeons, and especially the native craft that are most likely to foist cases of infectious disease upon the Colony, I must adhere to my previously expressed opinion that we have only ourselves to blame when grave epidemics are originated, as unquestionably they are in many instances, by the unrecognized importation of the initial cases.

BUBONIC FEVER.

A serious epidemic of this disease occurred during the spring of the year, no less than 1,320 cases being reported, of which 1,175 died, which is equal to a mortality of 88.1 per cent. As this outbreak has formed the subject of a special report which was presented to the Board by me in August of last year, it will be unnecessary to enter here into any further details.

SMALL-POX.

The epidemic of Bubonic Fever was preceded by a smaller outbreak of Small-pox, the total number of cases reported being 199 while the deaths numbered 110, which represents a mortality of 55.2 per cent. Sixteen of these were imported into the Colony while in many others the origin could not be traced as the disease was not discovered until after the death of the patients. The nationalities of the patients were as follows:—Chinese 130, European 51, Indian 7, Japanese 4, Philipino 4, Negroes 3. Of the European cases, one came from H.M.S. Powerful, one from H.M.S. Edgar, one from H.M.S. Centurion, and one from H.M.S. Tamar. There were no cases of Small-pox among the troops stationed ashore, whom one would expect to be brought into more intimate contact with the natives, during the epidemic, than the sailors; the most probable explanation is therefore that the troops are better vaccinated than are the sailors.

The recommendation contained in my Report for 1897, that a small bonus should be offered to the Chinese House Surgeons at the Native Hospitals (Tung Wah, Alice Memorial and Nethersole) for all successful vaccinations, the vaccine to be supplied free by the Government, with a view to increasing the number of vaccinated persons in the Colony, has not yet, I regret to say, been adopted, although it was specially recommended by the Board, by resolution, in August of last year.

The total number of vaccinations recorded last year was 7,051, the great majority of them being prisoners in the Gaol.

ENTERIC FEVER.

Fifty-two cases of Enteric Fever were reported during the year, of which fourteen were imported into the Colony. The nationalities of these cases were as follows:—European 37, Chinese 10, Japanese 3, Indian 2. Four of the European cases occurred on board H.M.S. Edgar, three on H.M.S. Tamar, one on H.M.S. Powerful, one on H.M.S. Immortalité, two on U.S.S. Boston and one on S.M.S. Gefion. There were also two cases in the Military Barracks and one in the Police Barracks. The large number of cases of this disease among the Fleet compares somewhat unfavourably with the two cases among the troops, but I think one of the most probable explanations is that, while the soldier has practically no temptation to take meals away from his Mess the sailor, especially on first arrival in the Port, eagerly samples the fresh salads, the mineral waters of Chinese manufacture and other like delicacies doubtful origin and thus contracts the disease. In any case the discrepancy between the figures in the two services rather discounts the theory that sewer emanations have much to do with the causation of the disease in this Colony.

The total deaths from this disease was 23, which is equal to a case mortality of 44.2 per cent. The mortality among the European cases was 35.1 per cent.

Two of the ten Chinese cases were imported and three of the remaining eight were in children under ten years of age. Since my Report was issued last year, in which reference was made to the apparent immunity of the Chinese to this disease, and the explanation offered that it is probably due to an attack during infancy or early childhood, a more careful search has, I believe, been made, at the Government Mortuary, for deaths from this cause among Chinese infants, with the result that several of such bodies have been found to present typical typhoid ulcers of the intestine.

DIPHTHERIA.

Five cases of Diphtheria were reported during the year, as compared with two during the previous year, and no less than four of these cases died. Two of the cases were Europeans, one of them being imported, and the other three were Chinese, two female children and one adult male.

PUERPERAL FEVER.

Six cases of Puerperal Fever were notified during the year of which one only was a European, and the remaining five Chinese. Ten deaths from this disease were, however, registered, all being Chinese, while thirty-four deaths among Chinese were also registered as due to **child-birth**, and some of these also no doubt were really deaths from septic absorption.

In view of the fact that the registered births among the Chinese number only 963, (the estimated births being 1,605), these 44 deaths represent a very high death-rate among young Chinese parturient women, and there appears to me to be a very great need for some Maternity Charity among the Chinese, preferably in connection with the Tung Wah Hospital and under similar management.

SCARLET FEVER.

Four cases of Scarlet Fever were reported during the year, two on board H.M.S. Barfleur, and two on board H.M.S. Powerful. The infection appears to have been brought out from England, as this disease is practically unknown here, and does not appear to have any tendency to spread among the Chinese.

CHOLERA.

Five cases of Cholera among Chinese were imported by the S.S. Devawongse, from Bangkok in the month of April, and two of them died.

PROSECUTIONS.

The following is a return of the prosecutions that were instituted during the year by myself and the Inspectors of Nuisances acting under my instructions:—

Offences.	Sum- monses	Con- victions.	Penalties.	Remarks.
	0		\$ 75.00	
Occupation of Basements,	. 3	3		2 cases withdrawn.
Cockloft and Cubicles,	138	136	1,658.00	1
Unlicensed Common Lodging-Houses,	117	95	2,400.00	16 absconded, 3 dismissed, 3 withdrawn.
Overcrowding Common Lodging-Houses,.	126	119	1,525.00	6 absconded, 1 withdrawn.
Overcrowding Opium Divans,	7	7	103.00	
Overcrowding Tenement Houses,	1	1	14.00	
Overcrowding Matsheds,	2	2	24.00	
Insanitary condition of Matsheds,	8	8	130.00	
Bakehouses	5	ő	150.00	
Causing Nuisances:				
On Private Premises,	74	73	793.00	1 withdrawn.
In Common Lodging-Houses,	3	3	20.00	
In Public Latrines,	9	9	175.00	
In Public Streets,	18	17	93.50	1 dismissed.
On Crown Land,	1	1	10.00	
In Harbour,		9	32.00	
Neglect to notify infectious disease,	$\frac{9}{1}$	ľ	10.00	
Neglect to notify infectious disease,	$\overline{3}$	$\hat{3}$	6.00	
Keeping Swine without License,	11	11	162.00	
Sleeping in Public Laundry,	1	i	25.00	
Sleeping in Fat-boiling Premises,	9	9	36.00	
Obstructing Backyards,	11	ıĭ	140.00	
Not concreting ground surfaces,		3	35.00	
Unregistered Laundries,	$\frac{3}{1}$	1 1	10.05	1
Unregistered Bakehouse,	1	9	1	
Miscellaneous,	9	9	157.00	
Total,	570	537	\$7,783.00	

DISINFECTING STATION.

The following is a return of the number of articles which have passed through the steam disinfecting apparatus during the year:—

Articles	removed	from	private houses,	161,023
**	**	,,	Government Civil Hospital,	1,905
,,	,,	,,	Victoria Gaol,	113
"	,,	,,	Tung Wah Hospital,	4,900
,,	17	,,	Military Barracks,	117
				168,058

Inspector Grimble, of No. 3 Health District, who has been in charge of the machinery and has performed these duties in a satisfactory manner, reports that the boiler and jacket are in good working order but that the building—a wooden one—is in a very dilapidated condition. It is proposed, however, to erect a new brick building on another site during the forthcoming year and remove the apparatus thereto.

The apparatus was in use on 249 days of the past year.

STAFF.

The only changes in the staff during the year were those occasioned by the death of Inspector Rennie while on leave in England and the resignation of Inspector McAllister. Inspector Cotton was lent to the Colonial Veterinary Surgeon, during the absence on leave of the Inspector of Markets, and will be transferred to that Department on the retirement of the latter. The vacancies were filled by the appointment of Inspectors Fincher, McKenzie and Acting Inspector McVicar. The health of the staff during the year has been good and the work of the Department has been carried out, I venture to think, in an efficient and at the same time a judicious manner by the various Inspectors and those working under them.

The following is a list of the Inspectors of Nuisances employed by the Board during the year:-

Senior Inspector.

Mr. J. R. GERMAIN (on leave).

No.	1	Health	Distric	et,Mr.	L. Brett.						F. FISHER.
,,	2	,,	•		W. Fincher.	,,,	10	19	,,	,,	J. J. CLERIHEW.
99	_	"	**		J. R. GRIMBLE.		11		"	,,	A. McVicar.
,,			.,		GEO. BURNETT.		12	••	••		W. McDonald.
"			,,		JOHN REIDIE.		13	••	••		H. Baker.
37 . 39:			"		W. Phillips.	1	14	**			P. McNab.
	_		**	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	F. ALLEN.		15		•		W. WITHERS.
Þ.		**	"	•••••• ,,	D. McKenzie.	**		,-	"	,,,	
23	0	• • • • • • • • • • • • • • • • • • • •		***** ,,	D. MICINENZIE.						

I have the honour to be, Sir,

Your most obedient Servant,

Francis W. Clark, Medical Officer of Health.

APPENDIX.—RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

		Briti				÷	(CHI	NESE	co	ммі	J NI I	ry.			
	[AND OREI	•		***************************************		-		v	істо	RIA.					ė,
CLASSIFICATION OF	Co	MMU	NITY.	-				 I	HEAL	тн Т)istr	CT.				
CAUSES OF DEATH.		1		-	1.	ī	1		1	T	1		1	1	1	
(In Groups.)	Civil.	Army,	Navy.	.1.	. 2.	. 3.	4.	. 5.	. 6.	7.	.8.	.6	. 10.	Unknown.	ık.	Harbour.
	င်	Ā	ž	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	Un	Peak.	HB
I.—General Diseases.																
Group A.,	90 27 13 10	22 1 1	5 3 	92 5 24 	389 94	39	164 18 19 6	6 10	5 6	108 5 9 1	138 20 19 5	228 12 18 7	115 5 11 2	46 2 2	4	156 51 21 6
II.—Local Diseases.																
A.—The Nervous System, B.—The Circulatory System, C.—The Respiratory System, D.—The Digestive System, E.—The Urinary System, F.—The Generative System, G.—Affections connected with Pregnancy, H.—Affections connected with Parturition, L.—The Skin,	23 13 35 19 9 1	3 1	1	1 1	111 143 4 4 4 3 3 3 4 4	3	11 7 64 5 3 2 5 1	11 12 91 4 1 	9 14 47 2 1 1	6 8 59 2 2 1 3	23 9 56 3 4	13 8 113 2 4 1 	5 3 43 3 2 	6 5 15 1 2	•••	1 5
J.—Diseases of Organs of Locomotion,	•••	•••	•••	•••	2	•••		1	•••	•••	1	1		•••	•••	2
III.—Undefined & Undiagnosed,	6	1	<u></u>	20	18		2	2	3	4	5	5	5			58
Total, all Causes,	248	32	11	189	1,159	423	307	303	190	208	283	413	196	79	4	441
I.—General Diseases. A.—Specific Febrile Diseases.																
(1)—Zymotic. Small-pox, Measles, Whooping Cough, Diphtheria, Typhoid Fever (Enteric), Simple Continued Fever, Cholera, Choleraie Diarrheea, Diarrheea, Dysentery, Bubonic Fever (Plague),	11 1 10 2 2 6 46	2 2 2 1 3	1 2 1	6 1 10 1 53	9 2 82 7 155	8 18 1 27	9 1 8 3 110	10 2 14 2 100	7 1 10 1 60	8 11 2 68	3 1 23 4 76	4 1 2 36 12 135	9 1 11 3 68	3 7 3 27		15 1 2 1 17 4 66:
(D) W	79	8	4	71	255	54	131	128	79	89	107	190	92	40	3	106
(2)—Malarial. Fever, Intermittent,	 5 4	1 13 	1	5 13 3	17 29 74 10	1 6 13 2	5 19 1 6	6 12 2 8	4 8 6	3 6 1 4	1 12 15	6 19 	2 11 2 4	:: 2 :: 3	" 1	3 11 32
	9	14	1	21	130	22	31	28	18	14	28	38	19	5	1	46
(3)—Septic. Pyæmia,	1	•••	•••	•••	 1	1			2	2	i	•••		•••		1
This are 1	•••	•••	•••	•••		•••	1 1	1	 1	 1	 1	•••	1 1	•••	•••	1
, Puerperal, Puerperal Fever,						1	2	1	3	3	2		2		•••	2
Puerperal Fever,	1	•••	•••	•••		_	1 '	1						1 1		
Puerperal Fever,	1	•••			1 1	•••	•••			1 1	1		2	1	•••	2
Puerperal Fever,	1	•••	•••	•••	1		***		•••	1 1 2	1		2 2			2 2

DURING THE YEAR ENDED THE 31st DAY OF DECEMBER, 1898.

	CHI	NES	E C	OMM	LUNI	TY.					To	TAL	AT	тн	e D	IFFI	ERE	NT A	AGE	PE	RIOI)s.				
Lo D	OW- ON IS- ICT.	w D	UKI- AN IS- ICT.	DF D	BER- EEN IS- ICT.	D	nley is- ict.	Under 1	month.	1 month and	months.	1 year and	under 5 years.	5 years and	under 15 years.	15 years and	under 25 years.	25 years and	under 45 years.	45 years and	under 60 years.	60 years	and over.	Age	Unknown.	Grand Total.
Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	
253 12 23 2	93 6. 16 1	81 8 7 2	39 1 3 	40 1 15 2	22 19 	4 5 	1 2 	 1 5 	8 19 52 	4 3 1	167 3 57 8		237 15 64 8	$\frac{2}{}$	337 16 2 5	30 5 	411 26 1 4		1	•••	300 7 10 6	 5	159 2 175 5		2 	2,424 197 375 60
28 12 120 1 2	7 4 105 2 	6 6 40 2 	2 21 	4 3 28 	1 24 	3 1 11 	.: 5 	2 2 	471 2 	10 3 2 	101 62 1 	3 3 1 	136 1 32 2 1	1 1 	21 2 52 1 7	2 1 7 3 1	6 96		50	6 7 3 1	22 49 308 6 10	3 2 2 1 1	11 13 246 1 3	•••		812 134 1,260 51 45
1	 1 	3 1	1 2 	4	1	•••	 1 		 	•••	 28	•••	 7		 I	1	4 17 1		6 17 1		 1	•••		•••	•••	11 36 39
28	24	12	5	5		2		1	8		25		49		3 37	1	18	!	35 	 2 	12	1	11	•••	18	220
482	259	169	74	102	67	26	9	11	560	23	452	16	552	18	484	91	597	120	1,359	29	73.1	23	627	•••	21	5,674
			-																							
3	2	1	1	***.	 .						11		39 1			3.	l i	6	11	• • •	1		1	•••		110
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 5		 1			 1	•••	•••	•••			₁		1		3	4	1 4	9	 4 2		•	1 2		•••		23 15
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41 5	16	17 5	12	5		3	•••		17	1	116	1 1	39		12 3		11	1 5	55		47	ŀ	34	•••		845
5 120	35	11	1	10		1	•••		•••	•••	6		63	6	228	13	267		357		$\begin{array}{c} 16 \\ 142 \end{array}$	1	61	•••	2	65 1,175
174	59	35	18	15	1	4			7	2	136	8	166	9	269	20	304	41	4 54	6	207	5	106	•••	2	1,742
37 30	26 7	18 25	14 7	20. 4	19	•••	•••		,		2	•••	9	2	29 26		22 39	1 6		••••	36 35		33	•••		188
1 7		2				•••	ï	•••	•••		24		48	•••	7	1	6	- 1	- 6	- 1	2 13	1	17 2	•••		243 99
75	34	45	21	25	21	•••	1			1	28		71	2		10	34 101		64 218	!	- 86	2	53			647
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1	•••	•••	•••	•••		•••	•••	•••			1				1	•••	•••	•••	4 1		3					9
3	•••	•••	•					• • •				•••			•••		6		3	•••	1					10
4	•••	1	•••	•••	•••	•••		•••	•••	1	2		•••	•••	2		6	•••	8		5			•••		24
•••		•••	•••	•••	•••		·	: : [1		 1		·	•••		•••			6		2					9 2
	•••	· •••		- •••					1		1		•••		•••			1	6		2	•••				11
2 53	93	81	3 9	40	22	4	1	•••	8	4	167	8	237	11	337	30	411	50	686	7	300	7	159	•••	2	2,424

RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

And the second of the second	1	BRITI	su			٠.	C	HIN	ESE	CO:	MMU —	NIT	Υ.			
		AND OREI	GN				· · · ·		V	ICTO	RÍA.					11.
	Co	MMUN	uty.				***	F	IEALT	тн D	ISTRI	CT.				
CAUSES.			1	<u> </u>	1	1			1	1		1			,	
			1.	١.	1.		١.	1.	١.	١.				Unknown.		ä
	Civil.	Army.	Navy.	2.1.	2.	. 33	. 4.	5. 5.	6.	. 7.	8.	9.	No. 10.	ıkı	Peak.	Harbour.
	ට	₹	Ž	No.	No.	No.	No.	No.	No.	No.	No.	No.	Z	i i	Pe	Ha
Brought forward, (Group A.),	90	22	5	92	389	77	164	157	100	108	138	228	115	46	4	156
General Diseases, Continued.																
B.—Diseases dependent on Specific External Agents.																
(1)—Parasites.					'											
Worms,						3			•••				1	••••		
(2)—Poisons.																
Mineral—Arsenic (accidental), Vegetable—Opium (suicide),		1	•••		.;;						;				•••	1
, , (accidental),		•••			1	***	2	:::		1	1	1	•••		•••	
" (no evidence),								1		1	1	2				
" Chloral (accidental),]	•••		•••	•••	•••	•••	•••			•••				•••	•••
	1	1			1		2	1		2	2	3			•••	4
(3)—Effects of Injuries.									 		†					+
Burns,					••		1	1	1		1					1
Scalds,Sun-stroke,	1				•••				•••		2					•••
Drowning,	2		1		i								1			38
Heat Apoplexy,	4		1						•••					•••		•••
Hanging (execution),	1	***	•••	1		•••	7		•••	•••	1		•••	•••		•••
Cut-throat (suicide),		1	1						i	•••	1	1	•••	•••		•••
Fracture of Skull,	3				1	•••	1		2	1	4	1			•••	1
Fractured Pelvis,		•••	•••	1	••••		•••	1		,	•••	•••		•••	***	•••
,, of Thigh and of Leg,						` 	l "i	1			•••		•••	•••	•••	
Fracture and Dislocation of Neck,	•••	•••				•••					1		1			
" of Spine, Shock following Injuries,,	•••	•••	•••		1	•••	•••	• • • •		•••				•••	•••	•••
, from Wounds,				:::	•••	•••			1		ī		:::			
" from Fall,		•••	•••			•••	1									
" Splenectomy,		•••	•••		•••	•••	•••	•••	•••		•••					1
Electric Shock,	1	•••			:::	•••			:::			•••	1	•••	•••	•••
Intra-Cranial Hœmorrhage,	•••	•••				•••	1				•••		:::	•••	•••	•••
Hœmorrhage from Lung (old wound of chest),]						ļ		,		1			
Hœmorrhage—Rupture of Arteries of	`•••	•••	'''	•••	***	•••	•••	•••	•••		1		•••	•••	•••	•••
Calf, Hœmorrhage—Rupture of Liver,	•••	•••	•••		•••	•••	•••	•••		•••	1	•••	•••	•••	•••	
Multiple Injuries,		•••		•••		•••					1	•••	•••	•••	•••	•••
Injury to Head,	•••	•••			•••	2								•••	•••	
Internal Injuries to Abdomen,	1 1	•••	•••	•••	•••	•••	•••		•••	•••	•••	•••			•••	•••
Rupture of Spleen,		•••		1	•••	•••			•••	•••	 1	···	•••	•••	•••	1
" of Uterus,						•••		:::				1		•••	•••	
Wounds of Scalp,		•••	•••	•••		•••				1	•••			•••		•••
Amputation of Leg	1	•••		•••		•••		•••	•••	•••		···	•••	•••	•••	•••
Sangrene of Leg (traumatic),				•••		••••					i		•••	•••	•••	•••
Neglect after Birth,	•••	•••	•••	2	1		4	3		1	1	4	•••	•••		3
Asphyxia,	•••	•••	•••	•••	•••	1		•••	•••	•••	•••	•••	•••	•••	•••	•••
Concussion of Brain,	1	•••		•••	•••	•••					•••	•••		•••	•••	2
	16	••••	3	5	4	3	16	5	5	3	17	9	4			47
Carried forward, (General Diseases),	107	23	8	97	394	83	182	162	105	112		940	100			
5 (- "	20	٥	31	034	00	103	163	105	113	157	240	120	46	4	207

DURING THE YEAR ENDED THE 31st DAY OF DECEMBER, 1898,—Continued.

				os.	RIO	РЕ	AGE	NT A	ERE)1FF1	e D	тн	LAT)TA	To		*******			TY.	UNI	ОММ	E C	NES	CHI	
GRAND Total.	Unknown.	Age	and over.	60 years	years.	45 years and	years.	25 years and under 45	years.	15 years and under 25	years.	5 years and	years.	1 year and	months.	1 month and	month.	Under 1	IS-	STAN Di TRI	EN IS-	AB DE D:	AN IS-	SHA W. Di TRI	ON	LO D: TRI
	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population:
2,424	2		159	7	300	7	6 8 6	50	411	30	337	11	 237	8	167	4	8		1	4	22	40	39	81	93	253
4 .	•••	•••	•••	•••	•••	•••		•••	• • •	• • •	1	•••	2	•••]	•••	•			•••	•••		•••	•••	•••	•••
1 7 4 5 1	•••	::					 3 2 4	1 1	 4 1		 1		 1 							•••	•••				•••	" 1 … …
18						•••	9	2	5		1		1										•••			1
7 2 1 53 5 8 5 3 20 1 1 1 2 1					1 1 2		5 1 22 2 9 1 1 2 1 1 1	4 1 1 1 	1 9 2 2 2	2 1 1 	 9. 3. 		8 				1						1	2 1 1 1 	6	1 1 5
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î	•••										1		•••		•••					***						•••
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164			2		7	<u> </u>	68	 	21	4	14	2	12		2		19	1				1	1	8	6	11
2,610	2		161	7	307	7	763	64	437	34	353	13	252	!	170	!		I	1	4	22	41	40	89	 	265

RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

							(CHIN	NESE	CO	мми	TINU	Y.	100		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
and the second s		RITI							v	істо	RIA.			,	•	
		OREI MMUN														
CAUSES.		1	1	_	- 				LEALT	r H D	ISTRI	CT.	-	1	1	-
	Civil.	Army.	Navy.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour,
Brought forward, (General Diseases),	107	23	8	97	394	83	182	163	105	113	157	240	120	46	4	207
General Diseases,—Continued.																
(4)—Errors of Diet. Alcoholism,	3 2 5						•••	•••		•••	1	•••		•••	•••	
Total Group B.,	27	1	3	5	5	6	18	6	5	5	20	12	5			51
C.—Developmental Diseases. Immaturity at Birth, Debility, Old Age, Marasmus and Atrophy, Inanition, Tabes Mesenterica,	2 2 5 3 1			1 2 20 1	1 15 70 8	 4 34 1	4 1 9 5	3 6 1	 5 1	2 1 4 1	2 4 7 1 5	2 3 8 5	1 3 3 1 3	2	•••	3 2 14 2
Total Group C.,	13			24	94	39	19	10	6	9	19	18	11	2		21
" of Neck, " of Œsophagus, " of Liver, " of Stomach, " of Bladder, " of Rectum, " of Penis, " of Uterus, Pelvic Cancer, Sarcoma of Neck, Scrofula, Tuberculosis, Anæmia, Diabetes, Lyphadenoma, Gangrene of Leg,	•••	1			 	 1 	1	 	 1 	1	 	 1 2 3 1 	1			1
II.—Local Diseases. A.—The Nervous System. Meningitis, ,, (Tubercular), ,, (Traumatic), Cerebral Embolism, ,, Tumour, Softening of Brain, Apoplexy,	3 1 2 2 8	1 1		 2 2 121	3 2 2 7		 3 207	2 1 3	1 5 6	 1 3 4	3 1 1 3 8	2 1 3	 1	 1 3 		 1

DURING THE YEAR ENDED THE 31st DAY OF DECEMBER, 1898,—Continued.

				DS.	erio	PE	1 GE	NT A	ERE) _{IFI}	не]	ат т	AL A	Гот	,					ITY.	IUN	OM	SE C	INES	CHI	*******
GRAND	Unknown.	Ago	and over.	60 years	years.	45 years and	years.	25 years and under 45	years.	15 years and	nnder 15 years.	5 years and	under 5 years.	I year and	months.	1 month and	month.	Under 1	NLEY IS- ICT.	D	ER- EN IS- ICT.	DF D	UKI- AN IS- ICT.	D.	OW- OON IS- ICT.	r.c D
TOTAL.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.
2,610	2		161	7	307	7	763	64	437	34	353	18	252	8	170	4	27	1	1	4	22	41	40	89	99	265
4 2 5	•••				•••	•••		3 1 5	•••		•••								•••	•••	•••	•••		•••	•••	•••
11		<u></u>					1	9		1											•••	•••		•••	•••	•••
197	ļ	<u> </u>	2		7		78	23	26	5	16	2	15	<u></u>	3		19	1		•••		1	1	8	6	12
23 30 171 109 39 3			 11 164 	 5 	 8 2 	•••	1	•••		•••	 2		2 49 10 3		36 17	 33 	18 4 19 11	2 2 1	 2 	 5 	 2 17 	 3 12 	3	7	 12 4	3 4 13 1 2
375			175	5	10		1		1	•••	2		64		57	3	52	5	$\frac{1}{2}$	5	19	15	3	7	16	23
1 2 1 1 1 1 2 3 2 1 1 1 1 1 1 1 1 1 1 1			 	1			1 1 2 4	1	3 1		1 4		1		: : : : : : : : : : : : : : : : : : : :							 1 		 		
60			5	1	6	2	12	5	4	•••	5	2	8	1	8	1					•••	2		2	1	2
15 2 1 1 1 2 28 3			:	1	11					•••			7 1	1	1	•••										
53	<u> </u>			1	12		9	3			6		8	1	1	2					•••	•••		•••		1
3,056	2		41	13	2 3	9 3	77	78 77	42	35 4	60	15	324	9	33	8 2	79	6	3	9	41	58	43	98	116	290

RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

	В	RITIS	H		: .		C	HIN	ESE	COI	MMU	NIT	Υ.		:	
		AND OREIG							V	стон	RIA.					
CAUSES.	Cox	IMUN	ITY.					Н	EALT	н Д	ISTRI	CT.				
	Civil.	Army.	Navy.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	Nc. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour.
Brought forward, (General Diseases),	140	$\frac{}{24}$	9	121	489	127	207	177	113	123	182	265	133	 50	4	234
Local Diseases,—Continued.																
The Nervous System,—Continued.														1		
Brought forward, Hemiplegia,	1 1	1		2 1 1	7 118 320		3 1 1 1 4	3 1 1 2 1 3	6 1 1 1 	4 1 1	8 1 1 9 2	3 2 3 1 2 2	1 1 3	1		1 2 1
Hydrocephalus, Epilepsy, Mania, Melancholia,	1	1 	•••		1 1 1 		1 	•••			1 1 					•••
Senile Dementia,	23	3	•••		440	105	11					10	٠			
B.—The Circulatory System.	20	0	•••	4	448	195	11	11	9	6	23	13	5	6		4
Heart Disease, Aneurysm, ,, (Aortic),	9 3 1		•••	2 1	11	3	7	12	13 1	8	9	8	3	5		10
Total Group B.,	13			8	11	3	7	12	14	8	9	8	3	5		12
C.—The Respiratory System.										-						-
Œdema of Larynx, Bronchitis, Pneumonia, Broncho-Pneumonia, Phthisis, Gangrene of Lung, Pleurisy, Empyema, Asthma,	6 4 1 20 1	1 2 	1	15 2 20 	62 	1	12 8 1 43 	33 6 52 	16 2 1 28 	21 5 33 	9 11 1 35 	43 8 1 60 1 	17 6 20 	1 2 12 	· · · · · · · · · · · · · · · · · · ·	38 4 76
Total Group C.,	35	3	1	37	143	80	64	91	47	59	56	113	43	15		119
D.—The Digestive System. Necrosis of Jaw, Dentition, Cancrum Oris, Thrush, Gastritis, Enteritis, Gastro-Enteritis, Melæna, Hepatic Abscess, Cirrhosis of Liver, Acute Yellow Atrophy of Liver,	2 1 2 1 1 1						2 1	1				1		1		
Colic, Biliary Colic (Gallstone), Jaundice, Peritonitis, ,, (Suppurative), ,, (Tubercular), Hernia—Strangulated,	5				2		1 1 	2		 1	1 2 	1	1 1	•••		
Total Group D.,	19	1		1	4	•••	5	4		2	3	2	3	1		1
Carried forward, (General Diseases),	140	24	9	121	489		207	ļ	 		-	 	133	50		234

DURING THE YEAR ENDED THE 31st DAY OF DECEMBER, 1898,—Continued.

1	- 1																	ı —								
	<u> </u>							T A			е D ——	тн	AT	TAL						TY.	UNI	MM	E CC	NESI	CHI	
GRAND TOTAL.	Unknown.	Age	and over.	60 years	years.	45 years and under 60	years.	25 years and under 45	years.	15 years and under 25	years.	5 years and	years.	1 year and under 5	months.	1 month and under 12	month.	Under 1	s-	STAN DI TRIC	en s-	ABE DEI DI TRIC	N S-	SHAU WA Dis	on s-	Ko Loc Di TRI
	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Boat Populatiou.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.
3,056	2		3 4 1	13	32 3	9	777	78	142	35	360	15	324	9	235	8	79	6	3	9	41	58	43	98	116	290
53 11 6 2 246 5 7 471			8 1 1 	1	12 8 1 	1	9 2 2 1 6	3 1 		1	6 11 2 1	1	8 127 	1 2 	1 93 6	2 6 	 5 1 465			 3 		 4 	 1 1	 11 4 	1 5 1	1 1 24
3							1				₁			•••		1					•••	•••				
3						•••				 1						•••					•••			1		
1	•••	•••	•••	1	• • •	•••		•••	•••	•••				•••	<i></i>		•••		•••		•••	•••	•••	•••		
812		<u></u>	11	3	22	1	22	4	2	2	21	1	136	3	101	10	471	2	•••	3]	4	2	6	7	28
125 1 • 4 3 1	•••		13 		48 1 	 2 	46 1 2 1	2 1 1	6 	1 	 									1	•••	 		 	3 1 	12
134		,	13	2	4 9	6	50	4	6	1	2		1	•••						1		3		6	4	12
1 457 64 5 705 1 3 1 23			 156 4 70 	2	 141 9 153 5	1 3 1	1 8 3 20 316 1	1 	 26 7 63 	2 	20 9 23 		$\frac{11}{3}$	1 1	 13 6 2 41 	 2 1 	 1		 		 20 4 			 1 1 24 	 73 32 	54
1,260			246	2	308	7	42 3	16	96	7	52	1	32	. 3	62	3	2	5	ő	11	24	28	21	40	105	120
4 3 1 2 1 1 5 7 1 3 1 1 1 4					1		11 3 2 1 1 1 5 5	 1 1 1 1		2		1						1								
0	ļ	<u></u>			2	<u> </u>	1		-						•••	<u> </u>	•••	<u> </u>					Į.	1	•••	
 	•••			<u> </u>	ļ	<u> </u>		L.				_	<u> </u>		<u> </u>	1	111						<u> </u>	2	2]
2 3,056	2		341	13	323	9	777	78	442	35	360	15	324	9	235	8	79	31 6) 3	1 9	4	58	43	9 8	116	290

RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

	В	RITIS	н				C	HIN	ESE	COI	имu	NIT	Y.	4	•	
	F	AND OREIG	÷N						V	стог	RIA.					
CAUSES.	CON	IMUN.	ITY.					Н	EALT	н D	ISTRI	c T.				
	Civil.	Army.	Navy.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour.
Brought forward, (General Diseases), .	140	24	9	121	489	127	207	177	113	123	182	265	133	50	4	234
Local Diseases,—Continued. Brought forward,	90	7	1	45	606	278	87	118	70	75	91	136	54	27		136
EThe Urinary System. Nephritis (Acute),	8			 1	, 1 3	•••	1 2		1	2	3	3		2	•••	4
Stone in Bladder,	• • •		•••	•••					•••	•••	1	 1	1 	•••		1
Total Group E.,	9		1	1	4	3	3	1	2	2	4	4	2	. 2		5
F.—The Generative System. Metrorrhagia, Pyo—Salphynx, Stricture of Urethra,	 1 	•••		•••	•••	•••		• • •	1			1		•••	•••	
Total Group F.,	1		•••		•••		•••		1	•••		1				
G.—Affections connected with Pregnancy. Abortion,	 1 1	•••		1	3		2 2	•••	•••	1			•••			1 1
H.—Affections connected with Parturition.					1											
Child-birth,			•••		3	•••	1	4		3		1	1	•••		5
Total Group H.,	1	•••	•••		3	ļ	5	4		3	•••	1	1	•••	•••	5
I.—The Skin. Carbuncle,				1	1 32 1	•••	1		1				1 		•••	
J.—Diseases of Organs of		•••	•••	1	34	•••	1		1				1			
Locomotion. Hip Joint Disease, Disease of Knee-joint, Spinal Ankylosis,	•••			•••	1 1	•••	•••	1			1	1		•••	5# 	1 1
Total Group J.,					2			1			1	1	•••			2
III.—Undefined.					-											
Dropsy,					2 16	5 10	 1 1	2	 3	 4	 5	5	 5			 58
TOTAL UNDEFINED,	-	1		20	18	15	2	2	3	4	5	5	5	•••		58
GRAND TOTAL,	248	32	11	189	1,159	423	307	303	190	208	283	413	196	79	4	441

DURING THE YEAR ENDED THE 31st DAY OF DECEMBER, 1898,-Continued.

	СНІ	NES	E C	OMM	IUNI	ITY.					To	TAI	AT	тн	E I)IFF	ERE	NT	A G F	P	ERIO	DS.				
\mathbf{D}	ON	w. D	UKI- AN IS- ICT.	AB DE Dr	EN	STAN Di TRI	ıs-	Under 1	month.	1 month and	months,	1 year and	years.	5 years and	years.	15 years and	years.	25 years and	years.	45 years and	years.	60 years	and over.	Age	Unknown.	GRAND TOTAL.
Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Non-Chinese.	Chinese.	Non-Chinese.	Chiuese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	
290	116	98	43	58	41	9	3	6	79	8	235	9	334	15	360	35	442	78	777	9	323	13	341		2	3,056
161	118	54	23	35	25	15	5	4	4 73	15	164	7	171	3	76	13	109	31	510	17	385	8	271			2,257
 2 						•••	•••				•••			•••	2 5 	 1 	 3 1 1	1 6 	 6 1 1	 1 	 10 	 1 	 3 		 1	4 87 2 1 1
2	••••	•••			•••	•••							!		7	1	5	7	8	1	10	1	3		1	45
•••					•••			•••		• • •	•••	• • •		•••	•••				1 1							1 1 1
					•••	•••	•••	•••			•••		•••	•••			••••	1	2	•••		•••	•••	•••		
	•••	1	1	•••			•••								•••		4		6						•••	10 1
		1	1	• • •			•••			•••						1	4		6	•••			••	• • •		11
 	1	3	2	4	1		1 			•••			•••	•••		•••	16 1 		17 	•••	 	•••			•••	34 1 1
1	1	3	2	4	1	·	1						•••			···	17	1	17		. 1					36
•••											 28 		6 1	•••									1		•••	2 35 2
•••		1			 	ļ		<u> </u>	 	<u> </u>	28	<u> </u>	7		1	 	1	···	1	···			1			39
•••			•••										1					<u> </u>								5 1 1
	<u></u>			ļ						ļ		 	ļ		3		1		1			<u></u>			<u> </u>	7
5 1 22	3 21 24	5 7	2 3	3 2		2	 				23	9	48		33			5		2	2	 		2	18	
$\frac{28}{482}$	259.	<u> </u>		102	67	ļ	9	<u> </u>	↓	į		-		2 18	<u> </u>	1		_	0 1 35	1	$\frac{2}{9.73}$	1		1	- -	<u></u>
							•												-							,,,,,

RETURN SHOWING THE NUMBER OF DEATHS THAT OCCURRED IN THE UNDERMENTIONED INSTITUTIONS,

During the Year ended the 31st day of December, 1898.

Causes. Causes. No. Causes. Causes.	The Government Civil Hospitals.	l	The Tung Wa Hospital	Tung Wa Hospital M ortuary.		
Diphtheria	Causes.	No.	Causes.	No.	Causes.	No.
Total Tota	Small-pox,	25	Small-pox,	4	Diptheria,	. 1
Cholera, 2 Dysentery, 39 Discriptions, 20 Discriptions, 21 Discriptions, 22 Ever, Intermittent, 23 Ever, Remittent, 24 Ever, (Undefined), 25 Ever, (Undefined), 26 Ever, (Undefined), 27 Bord-liver, 28 Ever, Remittent, 27 27 Bord-liver, 28 Ever, Remittent, 27 28 Ever, (Undefined), 39 Ever, Remittent, 27 28 Ever, (Undefined), 39 Ever, Remittent, 27 28 Ever, (Undefined), 30 Ever, Remittent, 28 Ever, (Undefined), 30 Ever, Remittent, 28 Ever, 30 Ever,	Diphtheria,]	Typhoid Fever,	_	Diarrhœa,	. 18
Cholerate Diarrhoca,	Chalara		Diarrhœa,		Dysentery,	. 2
Diarrhoca 2 Fover, Intermittent 7 Fover, (Undefined) 7 Fover, (Elague) 319 Fever, Remittent 127 Fover, Conditional 1 1 1 1 1 1 1 1 1	Choleraic Diarrhos		Bubonia Ferrar (Dlama)		Fever, Intermittent,	. 2
Dysontery Dysontery Seri-Bari, 127 Bori-Bari, 128 Buthonic Fever, (Plague), 318 Beri-Beri, 128 Beri-Beri,	Diarrhea.	_	Favor Intermittent	243	Fever, Kemittent,	15
Babonic Fever, (Plague), 319 Fever, (Undefined), 4 Septicemia, Sphills, Compound France, 3 Septicemia, 8 Sphills, 1			Fever Remittent	197	Ravi Ravi	
Remittent Fever. 3 Beri-Beri, 88 Puerperal Fever, Sphillis, Congenital, Opium Poisoning, 1 Soptieumia, 9 Wounds of Sealp, 1 Soptieumia, 9 Puerperal Fever, 3 Prostature of Skull, 2 Opium Poisoning, 1 Soptieumia, 9 Puerperal Fever, 3 Prostature of Skull, 4 Opium Poisoning, 2 Convolutions, 1 Stock-from Wounds, 1 Street, 1 Opium Poisoning, 2 Convolutions, 1 Stock-from Wounds, 1 Street, 1 Opium Poisoning, 2 Convolutions, 1 Stock-from Wounds, 1 Street, 1 Opium Poisoning, 2 Convolutions, 1 Trianus, 1	Bubonic Fever, (Plague)		Fever (Undefined)		Santiamnia	. 14
Pymnia	Remittent Fever		Beri-Beri.		Puerneral Fever	1
Spuin Possoning, 1 Septicemia, 3 Wounds of Scalp, Birris, 2 Seadis, 3 Tendature Birth, 4 Tuberculosis, 5 Seadis, 5 Seadis, 4 Tuberculosis, 5 Seadis, 5 Seadi	Syphilis,	1	Pyæmia,	_	Syphilis, Congenital	1
Burns, 2 Parepearal Fever, 3 Prendator Birth, Socalds, 1 Fracture of Skull, 2 Worms, 1 Strock Horn Wounds, 1 Shock from Wounds, 1 Shock from Wounds, 1 Shock Spleen, 1 Fracture of Skull, 2 Convulsions, 1 Shock from Wounds, 1 Burns, 1 Tetanus, 1 Te	Opium Poisoning,	1	Septicæmia,	8	Wounds of Scalp.	ì
Total	Burns,	2	Puerperal Fever,	3	Premature Birth	. i
Fracture of Skull,	Scalds,		Syphilis,	4	Tuberculosis,	i
Sunjoular Tracture of Tools, 1 Optum Possoning, 2 Convulsions, 3 Sincek From Wounds, 1 Sincek February of Conversion of Parin, 1 Cancer of Skinl, 1 Heart Disease, 1 Triamus, 3 Triamus, 5 Scalds, 6 Skinl, 1 Heart Disease, 1 Triamus, 5 Sincek From Rupture of Uterns, 1 Dislocation of Neck, 1 Concussion of Brain, 1 Treature and Dislocation of Spine, 2 Concussion of Brain, 1 Treature and Dislocation of Spine, 3 Triamus, 5 Spracepe, Concussion of Brain, 1 Treature and Dislocation of Spine, 2 Concussion of Brain, 1 Treature and Dislocation of Spine, 3 Triamus, 3 Tria	Fracture of Skull,		Worms,	1	Scrofula,	1
Shock-Splenectomy, 1 Scalds, 1 Heart Disease, 1 Heart Diseases, 1 Heart Disease, 1	Compound Fracture of Foot,		Opium Poisoning,	2	Convulsions,	8
Rapture of Cybeen,	Shock from wounds,		Burns,	l l	Tetanus,	1
Rapture of Uterus,	Runtura of Splean	_	Scalds,	1	Trismus,	7
Concussion of Brain,	Runture of Uterus		Dislocation of Nools	1	Consens	6
Concussion of Leng	Concussion of Brain.		Fracture and Dislocation of China	1	Branchitic	1
Hemorrhage From Rupture of Arteries of Calf,	Amputation of Leg.		Concussion of Brain	1	Proumonia	9
Arteries of Calf,	Hœmorrhage from Rupture of	•	Intra-Cranial Homorrhage	1	Phthicis	ā
Hemorthage from Lang (old Wound of Chest), 1 1 1 1 1 1 1 1 1		1	Shock from Fall.	î	Asthma	32 1
Wound of Chest),	Hæmorrhage from Lung (old		Premature Birth.	î	Hernia, Strangulated	1
Gangrene of Leg (Traumatic), 1	Wound of Chest),	1	Debility.	10	Nephritis.	1
Debility Cancer of Upper Jaw 1 Totai, Debility Cancer of Neck 1	Gangrene of Leg (Traumatic),	ì	Old Age,		Unknown	4
Debility 2 Cancer of Upper Jaw 1 Totai, Debility 2 Cancer of Upper Jaw 1 Cancer of Neck 1	Alcoholism,	2	Purpura Hæmorrhagica,		, , , , , , , , , , , , , , , , , , , ,	
Cancer of Upper Jaw, 1 1 1 1 1 1 1 1 1	Delirium Tremeus,		Malignant Growth of Orbit,	1	Totai.	137
Cancer of Neck,	Debility,		Cancer of Upper Jaw,	1		· · · · ·
Cancer of Neck	Old Age,		" of Œsophagus,	1	·	
Cancer of Liver,	Cancer,		" of Liver,	2		•
Tuberculosis, 2	Cancer of Tiver		" of Bladder,	1		
Anæmia,	Puberenlegie		,, of Penis,	1		
Meningitis 2			,, of Uterus,	2		
Meningitis (Traumatic), 1 Anæmia, 5 Aopplexy, 3 Gargrene of Leg, 1 Softening of Brain, 2 Meningitis, 3 Totanus (Traumatic), 1 Cerebral Tumour, 1 Dementia, 1 Apoplexy, 19 Mania, 3 Hemit Disease, 8 Heart Disease, 5 Convulsions, 3 Aneurysm (Aortic), 1 Tetanus, 1 Pericarditis, 1 Trismus, 1 Bronchitis, 3 Trismus, 4 Peneumonia, 4 Epilepsy, 1 Premumonia, 4 Epilepsy, 1 Broncho-Pneumonia, 2 Heart Disease, 73 Broncho-Pneumonia, 2 Heart Disease, 73 Gangrene of Lungs, 1 Premonia, 1 Edema of Larynx, 1 Heart Disease, 73 Gantritis, 1 Preminia Thospital Canerum Oris, 2 Phthisis, 280 Carritis, 1			Sarofula	9		
Apoplexy, 3 Gangrene of Leg, 1 3 3 3 4 4 4 5 5 5			Angemia	1 5	Mho Alice Manuauter	
Meningitis, 2 Meningitis, 3 The Nethersole Hospital			Gangrene of Leg	1	The Africe Memorial Hosp	ital
Catalog (Traumatic),			Meningitis.	9	The Nethercole Herrite	
Cerebral Tumour,		1			The Remersore Hospita.	ı.
Dementia 1 Apoplexy 19 Mania	Melancholia,	1	Cerebral Tumour,	. 1	Causes	No.
Mania,	Dementia,	1	Apoplexy,		544000.	240.
Convulsions, 3	Mania,		Hemiplegia,		Diphtheria,	1
Redurysin (Aorte), Pericarditis,			Convulsions,	3	Diarrhœa,	$\dot{2}$
Gronchitis, 3 Pneumonia, 4 Broncho-Pneumonia, 4 Broncho-Pneumonia, 4 Broncho-Pneumonia, 2 Phthisis, 12 Broncho-Pneumonia, 12 Broncho-Pneumonia, 13 Broncho-Pneumonia, 14 Brie-Beri, Pyæmia, Py				1	Bubonic Fever (Plague),	ī
Prismus,	Tericaruitis,		Traumatic),	6	Fever, Remittent,	5
Broncho-Pneumonia, 2 Phthisis, 12 Heart Disease, 73 Broncho-Pneumonia, 15 Pleurisy, 16 Edema of Larynx, 17 Edema of Larynx, 17 Eastritis, 17 Enteritis, 17 Enteritis, 17 Enteritis, 17 Enteritis, 17 Eritonitis, 18 Eright's Disease, 18 Eritonitis, 18 Eright's Disease, 18 Eritonitis, 19 Eritonitis (Tubercular), 19 Eritonitis (Tubercular), 19 Eritonitis (Eritorial), 19 Eritonitis, 19 Eritonitis (Eritorial), 19 Eritorial, 19 Eritori	Proumania		Trismus,		Fever, (Undefined,)	1
Phthisis,			Epilepsy,	- 6	Beri-Beri,	1.
Fangrene of Lungs, Pleurisy, Pleurisy, Pneumonia, Phthisis, Pleurisy, Pleurisy, Phthisis, Pleurisy, Prestroitis, Prestroitis, Prestroitis, Prestroitis, Prestroitis, Prestroitis, Prestroitis, Post Partum Hoemorrhage, Prestroitis (Tubercular), Prestroitis (Tubercular), Prestroitis (Tubercular), Prestroitis (Prestroitis (Tubercular), Post Partum Hoemorrhage, Prestroitis (Prestroitis (Tubercular), Post Partum Hoemorrhage, Prestroitis (Prestroitis (Prestr			Hoort Discose		Pyaemia,	1
Pleurisy, 1 Edema of Larynx, 1 Cancrum Oris, 2 Gastritis, 280 Fleurisy, 1 Enteritis, 1 Enteritis, 1 Errhosis of Liver, 1 Hepatic Abscess, 2 Peritonitis, 5 Grangulated Hernia, 1 Bright's Disease, 8 Grangulated Hernia, 1 Bright's Disease, 8 Grangulated Disease of Kidneys, 1 Grangulated Urethra, 1 Grangulated Urethra, 1 Grangulated Hernia, 1 Grangulated Urethra, 1 Grangulated Hernia, 1 Grangulate	Gangrene of Lungs		Bronchitis		Puerperal Fever,	1
Edema of Larynx, 1 Cancrum Oris, 2 Cancrum Oris, 3 Cancer of Esophagus, 3 Cancer of Esophagus, 3 Cancrum Oris, 3 Cancer of Esophagus, 3 Cancrum Oris, 4 Cancrum Oris, 3 Cancrum Oris, 4 Cancrum Oris, 4 Cancrum Oris, 5 Cancrum Oris, 5 Cancrum Oris, 1 Cancru	Pleurisy.		Pneumonia		Syphilis,	1
Cancrum Oris,	Edema of Larvnx		Broncho-Phoumouia		Snock—Uperation,	1
Gastritis,	Cancrum Oris,		Phthisis.		of Towns Town	1
Enteritis, 1 Asthma, 1 Heart Disease, 2 Pritonitis, 2 Peritonitis, 5 Strangulated Hernia, 1 Bright's Disease, 8 Bright's Disease, 8 Bright's Disease, 8 Bright's Disease, 1 Post Partum Hœmorrhage, 1 Bright's Disease, 2 Bright's Disease, 1 Childbirth, Boils, 1 Unknown, 2 Bright's Disease, 1 Total, 1,187		_	Pleurisy.		of Rooting	Ţ
Cirrhosis of Liver, 1 Hepatic Abscess, 2 Peritonitis, 5 Cirangulated Hernia, 1 Bright's Disease, 8 Civercular Disease of Kidneys, 1 Cuptured Urethra, 1 Cirrhosis of Liver, 1 Ci	Enteritis,		Asthma.		Heart Disease	i
Hepatic Abscess,	Cirrhosis of Liver,	1	Cancrum Oris.	i	Pneumonia	1
Strangulated Hernia,	Hepatic Abscess,	2	Peritonitis,	4	Phthisis.	3
Strangulated Hernia,	Peritonitis,		" (Suppurative),	ī]	Necrosis of Jaw.	4 1
Bright's Disease,	Strangulated Hernia,		Nephritis,	1	Cirrhosis of Liver.	1
Fubercular Disease of Kidneys, 1 Suptured Urethra, 1 Stricture of Urethra, 1 Hip Joint Disease, 1 Hip Joint Disease, 1 Unknown, 2 Total, 1,187 Fost Partum Hœmorrhage, 1 Bright's Disease, Stone in Bladder, Childbirth, Boils,	Sright's Disease,		Bright's Disease,	13	Peritonitis (Tubercular)	i
Auptured Urethra, 1 Hip Joint Disease, 2 Stone in Bladder, Childbirth, 1 Unknown, 2 Hip Joint Disease, 1 Total, 1,187 Total,	Stone in Bladder,		Post Partum Hœmorrhage,	1	Bright's Disease,	1
Hip Joint Disease,	uvercular Disease of Kidneys,		Hip Joint Disease,	2	Stone in Bladder,	î
Hip Joint Disease,	Auptured Urethra,		Gluteal Abscess,	1	Childbirth,	î
Total, 1,187	Juniciare of Ureinra,		Unknown,	2	Boils,	ī
Total, 1,187 Total	Trp outin Disease,	ა ქ		[
Total ACO	T-1-1	160	Total, 1,	187	Total,	33
Total, 468	1 Ofal,	408				

RETURN SHOWING THE NUMBER OF DEATHS, -- Continued.

The Italian Convent.		L'Asile de la Ste. Enfance.	
Causes.	No.	Causes.	No.
Small-pox, Diarrhea, Fever, Remittent, Fever, (Undefined), Worms, Marasmus and Atrophy, Inanition, Old Age, Scrofula, Gout, Convulsions, Trismus, Heart Disease, Bronchitis, Phthisis, Asthma, Peritonitis, Bright's Disease, Dropsy, Unknown,	1 12 2 14 3 40 . 1 4 2 1 58 127 1 6 66 1 1 2 5 4	Small-pox, Diarrhœa, Dysentery, Fever, Intermittent, Fever, Remittent, Fever, (Undefined), Pyæmia, Syphilis, Debility, Old Age, Marasmus and Atrophy, Inanition, Meningitis, Apoplexy, Paralysis, Convulsions, Trismus, Hydrocephalus, Heart Disease, Bronchitis, Phthisis, Nephritis, Boils, Spinal Ankylosis, Dropsy, Unknown,	66 2 4 5 68 2 2 1 3 64 1 2 112 326 1 1 1 1 5
Total,	851	Total,	712

A. W. BREWIN,
Acting Registrar General.

FRANCIS W. CLARK, Superintendent of Statistics.

Report of the Sanitary Surveyor for the year 1898.

SANITARY BOARD OFFICES, Hongkong, 31st December, 1898.

SIR,—I have the honour to forward herewith my annual report for the year 1898:—

NEW HOUSE DRAINS.

1. Plans have been deposited and passed by me during the year for the drainage of 738 houses. The plans of 590 houses were carried forward from 1897, making a total of 1,328 in hand during the year.

2. The drainage of 768 houses has been completed and the plans for 97 houses have been

cancelled during the year, leaving 463 carried forward to 1899.

3. In addition to the above repairs and additions notices for repairs or additions to the drainage arrangements of 62 houses were carried forward from 1897 and new notices for 447 were received, making a total of 509 for the year; of these 417 have been completed, 3 have been cancelled, leaving 89 to be carried forward to 1899.

4. A summary of the above is appended in tables A. B. and C.

INSPECTION OF EXISTING PRIVATE DRAINS.

5. The drains of 670 houses have been inspected; of this number 259 required reconstructing, 385 amending, and 26 were found to be in order.

Notices have been served on the owners of 644 houses to carry out the necessary work; of this number 545 have been completed and the remainder are due for completion by the end of this month.

Since the commencement of inspections 7,976 have been inspected up to date.

Number of houses for which notices have been served... 6,118

Number of houses that have complied with notices 5,324

Number of houses with regard to which plans or notices

for re-drainage or repairs have been submitted 5,720

Number of houses in which the drains have been found defective:—old drains....... 3,921

new drains....... 3,921

14,344

WATER CLOSETS.

7. During the past year water-closets and urinals have been erected by permission of the Board and connected to the house drains in the following buildings:

Water-closets

Urinals

•	vater-vioseis.	Ormais.
Praya West, Sailors' Home	. 3 seats.	
Queen's Road Central, Hongkong Hotel	. 6 ,,	
Zetland Street, Masonic Hall	. 1 ,,	3
16. Queen's Road Central	• — ,,	1
New Praya Central, E. E. Telegraph Co	. 2 ,,	2
-		
Total,	12 seats.	6
•		

8. Water-closets and urinals which had been erected without the sanction of the Board in the following buildings have been removed:—

	vr acer	-cioseis.	Orinais.
39, Caine Road	4	seats.	
27, Gage Street			2
21, Cochrane Street			1
•			
	6	seats.	3

NEW BUILDINGS.

9. Certificates have been granted during the year to 367 new houses and 6 additions certifying that they have been built in accordance with the provision of section 74 of Ordinance 24 of 1867.

CEMETERIES.

GENERAL.

The number of houses redrained (vide table B) this year is 768 against 1,201 last year. The reason for this is—1st, That the Assistant Sanitary Surveyor and a clerk were seconded for plague duties for sometime. 2nd, That the majority of houses redrained are European or detached houses and not in blocks of 20 or 30 in which latter case about 100 can be inspected in a day.

There are many houses in the hill district that will require to be dealt with, but it is proposed to deal with the more densely populated part of the city first where it is becoming more difficult to pick out imperfect drains.

I have the honour to be, Sir, Your obedient Servant,

R. F. DRURY,
Acting Sanitary Surveyor

The Secretary, Sanitary Board.

Table A.
(Drainage and Re-drainage.)

Year.		No. of Houses re-drained.		No. of Houses Plans of which have been cancelled.		Total.		No. of Houses for which Plans have been received.		No. of Houses in hand.		
	/ lst Q	uarter,	, ,,,,,,	123		8	,	131				1
Plans brought	2 nd	,,		. 56		6		62				
forward from 1897.	3rd	,,		69	-	49		118				;
* *	4th	,,	•••••	117	0.0.5	30	00	147	458		590	132
•	/1st Q	uarter	,	7	365	•••	93	7	400	146	030	102
Plans for	$2\mathrm{nd}$,,		11				11		127		
1898.	3rd	,,	• • • • • • •	66		1		67		267		·
	4th	"	•••••	319	403	3	4	322	407	198	738	331

Table B.
(Drainage and Re-drainage.)

	Year.	No. of Houses for which Plaus have been received.	No. of Houses drained, or re-drained.	No. of Houses Plans of which have been cancelled.	No. of Houses carried forward each year.	No of New Houses granted certificates.
1890, 1891, 1892, 1893, 1894, 1896, 1897,		500 681 693 847 878 2,815 1,786 803	573 529 643 577 699 555 1,889 2,128 1,201 768	 7 30 106 104 8 44 84 35 97	226 190 198 208 252 267 1,449 1,023 590 463	175 409 475 228 219 46 131 425 400 367
·	Total,		9,562	5 15	* * *	2,875

Table C.
(Repairs and Additions.)

Year.	No. of Houses for which notices have been received.	No. of repairs completed.	No. of Houses notices for which have been cancelled.	No. of repairs in hand, at end of each year.
1897,	62 47 74 145 181 —————————————————————————————————	41 52 41 283 ————————————————————————————————————	3 9 2 3	89 43 72 62 89

Colonial Veterinary Surgeon's Report for the year 1898.

GOVERNMENT OFFICES, Hongkong, 10th January, 1899.

Sir, -- I have the honour to submit herewith for the information of the Sanitary Board this my Annual Report for the year ending December 31st, 1898.

REPORT.

IMPORTATION OF LIVE STOCK.

Since the autumn of 1897 Foot and Mouth Disease has been raging over the whole of South China, and spreading rapidly from place to place invaded Tonquin, Cambodia and, I believe, the whole of Indo-China also. In the month of November, 1897, the disease appeared for the first time in eleven years in the Colony and since then it has been impossible to stamp it out under the ordinary precautions which would be taken elsewhere.

Dependent, as we are, entirely upon the mainland for supplies, it would be impossible to prohibit the importation of cattle altogether, or the meat supply of the Colony would be cut off, and, as the disease still remains general over all the districts from whence our cattle are drawn, it naturally follows

that from time to time a few infected animals are brought in.

Therefore until the disease runs its course in the adjacent provinces it is impossible to prevent a few cases being landed occasionally in the Colony, though much might be done to prevent its spread had we proper Inspection Lairs for Cattle, of which I urged the necessity as far back as 1888.

I again referred to the matter in my Annual Report for 1892 mentioning an instance where an outbreak of Rinderpest at Kobe once cut off the entire milk supply of that port; and here quote an

"There is nothing to prevent a similar outbreak in Hongkong sooner or later unless something is done to provide a proper Inspection Lair to which all cattle should be driven directly upon landing there to remain at least 12 hours before being inspected and passed into the permanent depôts or elsewhere. This is the method adopted in the United Kingdom and other countries, and even then occasional cases of disease escape detection and so cause wide-spreading outbreaks which are difficult to check, hence it will be easy to understand the risk which is run here with no Inspection Lair at all.'

During the early part of the year the provinces of Kwang Tung and Kwang Si were also over-run with Rinderpest or Cattle Plague, which killed off large numbers of animals, and this, together with a rise in the value of rice, caused a scarcity of animals and higher prices; but the supply, though at times intermittent, was always equal to the demand.

It will be seen under the heading of "animal depôts" that the number of animals imported for slaughter during the year 1898 exceeded those for 1889 by 3,721 cattle, 5,846 sheep and goats, and

27,332 swine.

As most of these animals are brought from long distances to Hongkong it is desirable that an effort should be made to encourage the breeding of cattle and swine upon some parts of the extended territory when it is taken over, should suitable localities become available, though there might be many difficulties to contend with at first owing to the great reluctance of the Chinese to depart from the rigid rules of "olo custom."

Animal Depôts.

With the exception of the outbreak of Foot and Mouth Disease in the cattle depôts the general health of the animals housed during the year was good.

The total number of cattle admitted into the depôt at Kennedy Town was 21,611 and at the Hung

Hom Depôt 1,029.

In the swine depôt at Kennedy Town 137,237 animals were admitted, and at Hung Hom 15,154. At Kowloon there is great need of a small swine depôt, these animals at present being accommodated in part of the cattle depôt.

24,686 sheep and goats were housed at the Kennedy Town depôt during the year.

SLAUGHTER HOUSES.

Victoria and Kouloon.—These two buildings are both in a good state of repair and amendment and will meet all requirements for some time to come.

Shaukiwan and Aberdeen.—Both these places are still without a proper slaughter house although section 8 of Ordinance 17 of 1887 reads that "a sufficient number of fit and proper slaughter houses to meet the requirements of the Colony shall be provided by the Government.

I called the attention of the Sanitary Board to this matter as far back as 1890 in my Annual Report.

There is no doubt in my mind whatever that, in order to maintain a complete check upon the main source of the meat supply of the Colony, the Slaughter House at Kennedy Town to be properly and efficiently managed should be under the immediate control of the Government and not leased out to a private individual as at present.

To prevent the slaughter of pigs in the roast pork shops of the Colony, which at present prevails to a considerable extent, it is necessary to amend Section 12 of Ordinance 17 of 1887 as pointed out to the Board in my letter dated 14th June, 1898.

The total number of animals slaughtered at Kennedy Town, Kowloon, Shaukiwan and Aberdeen for the year ending December 31st, 1898, was as follows:—

District of Slughter-house	Number of Cattle.	Number of Sheep and Goats	Number of Swine.
Kennedy Town, Hung Hom, Shaukiwan, Aberdeen,	1,029	15,399 557 	132,034 15,154 4,043 2,254
Total,	21,541	15,956	153,485

In order to show the large increase in the annual number of animals slaughtered I insert below a list giving the total for the past ten years.

The decrease in the number of Swine killed during the year 1894 I attribute to the Plague epidemic of that year, and it will be seen that its effects may also be traced into the two following years.

The number of swine slaughtered during the past two years points to a considerable increase in the native population of the Colony during that period.

Annual list of animals slaughtered for the past ten years, from 1889 to 1898.

Year.	Cattle.	Sheep and Goats.	Swine.
889,	17,863	10,110	[119,856
890,	18,519	10,091	123,833
891,	18,218	9,673	122,942
892,	18,180	11,571	126,766
893,	17,866	11.770	131,298
894,	16,898	10,937	125,725
895,	19,218	12,592	129,035
896,	19,546	14,693	129,103
897	20,094	14,226	137,748
898,	21,541	15,956	153,485
Total,	187,943	121,619	1,299,791

DAIRIES.

During the year two outbreaks of infectious disease occurred in the dairies of the Colony.

On February 28th Rinderpest or Cattle Plague broke out at the "Sassoon's Villa" premises of the Dairy Farm Company at Pokfulum. Most of the European breeds of cattle died, but fortunately the measures taken prevented the spread of the disease elsewhere.

I may mention in connection with this outbreak that I had an opportunity of treating the last case which occurred with serum prepared by myself, and am pleased to record that the animal recovered under the treatment.

From the result of my observations I am confident that, given the necessary appliances, etc. I could successfully combat an outbreak of this disease, and think that at least 90 % of the animals infected might be saved if taken in time.

On December 22nd Foot and Mouth disease broke out on the premises of the East Point Dairy at Wong-nei-Cheong. The disease assumed a very mild type and up to the end of the year had not spread to any of the other farms.

In both cases the premises were declared infected areas by the Board under the provisions of Bye-laws Nos. 12 and 13 of Schedule A of Ordinance 17 of 1887.

Although as far back as 1889 I recommended that no cow sheds be licensed by the Board within the precincts of the city, I regret to note that nothing has yet been done to consider or carry out my suggestion.

In my report to the Board dated 31st January, 1898, I went very fully into the subject of the milk supply of the Colony, and pointed out that consumers would do well if, in protection of their own interests, they were to insist upon a guarantee from the dairy supplying them that they had given up the practice of purchasing milk from outside sources—that is to say, from native dairies—as the condition under which their milk is collected leaves much to be desired.

Native cow-keepers can never be brought to understand how very essential it is that the strictest sanitary principles should be observed when dealing with milk, nor can they, I am afraid, be ever prevented from adulterating it, which fraud, I am sorry to say, is now carried on to a very large extent.

Pure water added to milk—although constituting in itself an illegal act—does not render such milk harmful, but when it is known that the added water may possibly be polluted, then the danger of consuming such a mixture becomes great.

At the present time, as mentioned above, much adulterated milk is sold in the Colony, and I think that if the Board's officers were to take more samples and submit them for analysis that much good might result to the milk consumers of the community generally.

To boil all milk before using it is the only real safeguard against the dangers of contamination.

MARKETS.

Central Market.—This building is in a good state of repair and amendment, and most of the shops and stalls are let.

Owing to increase of trade additional accommodation is required in the Poultry Section for killing and plucking fowls, etc. Vide my report to the Board dated 7th September, 1898.

The lighting of the market is very inefficient.

Western Market.—The central position of this market has always made it a very popular one, and it supplies a large district. The articles of food sold therein are almost entirely for native consumption.

The building is old and cramped and does not at all meet present requirements.

In a report dated May 19th, 1891, the Board recommended that the market be rebuilt and somewhat later I believe plans were made by the late Director of Public Works, Mr. F. A. Cooper, for this purpose, but nothing further was done in the matter.

I understand that arrangements are now being made to build a large new market upon a portion of the resumed area at Taipingshan to take the place of the present Western Market, which would be abolished upon the completion of the new one.

The Chinese generally, and more especially the present stall-holders in the Western Market, are unanimous in condemning this project, and I think not without reason when it is remembered that the old Taipingshan market—which was but a small one containing 74 stalls—had always more than half that number vacant from the time when I took over charge of the food supply of the Colony in 1887 up to June 19th, 1894, when it was closed.

One of the chief objections raised by the Chinese is that the extra cost of conveying all the market produce so far up the hill to the new building would necessitate a higher scale of prices for food stuffs sold therein, and that they would not in consequence be able to compete successfully with stall-holders in the other markets.

Another point is that instead of the market being situated as at present in the centre of a thickly populated district and fairly close to the harbour, it would then be removed to the extreme edge of that district up a steep hill, and as far away from the sca as possible.

Personally I am of opinion that the Taipingshan site as at present chosen is most unsuitable in every respect. A new market built upon the site of the present Western market, or even nearer to

the sea might with advantage be erected to afford double the accommodation of the existing one, and even then all the stalls would let readily; but the prospects of one such as proposed for Taipingshan would, I think, be very poor indeed.

Saiyingpoon Market—Might be re-built and extended with advantage.

Tai-kok-tsui Market-Is a new building which was to be occupied on January 1st, 1899.

Shaukiwan Market.-This building is in a good state of repair and all the stalls are let.

In my Annual Report for 1889 I recommended that accommodation for at least thirty more stalls be provided, but the extension has not yet been carried out.

Shektongtsui, Wanchai, Sokonpoo, Yaumati, and Hung Hom Markets are all in a good state of repair and meet all present wants.

STAFF.

Inspector Fisher went home upon twelve months' leave on March 18th, 1898.

Inspectors Watson and Cotton are both deserving of the highest praise for the manner in which they have performed their duties during the year.

Owing to their zeal and vigilance several serious cases of infringement of regulations have been brought to light which might otherwise have remained undiscovered.

Much credit is also due to Overseer Johannsen for the smart and cleanly condition in which he kept the Central Market during the year.

On April 19th I drew the attention of the Board to the fact that the close proximity of the Chinese Mortuary to the Inspector's quarters at Kennedy Town was at times, especially during the summer months, a source of considerable annoyance to the occupant of these quarters both upon sanitary and other grounds, and I believe that it was then decided that the mortuary should be closed but up to the present time it continues as before.

Watchmen.—These men have proved a continual source of trouble and dissatisfaction ever since they were first engaged for the markets in 1887. It being found after a long trial that they were useless in the markets, they were then drafted to the slaughter-houses, but there they have proved an equal failure, hence my decision after having tried about fifty of them, to recommend that their services be dispensed with altogether at the end of the year. Vide my report to the Board dated September 29th, 1898.

Market Coolies.—On May 11th, 1898, I forwarded a petition to the Board, from the market staff of coolies, praying for an increase of salary, and strongly recommended that their pay should be raised to that of ordinary market rates. Such men, being drawn from the chair coolie class, readily obtain from \$7 to \$7.50 per month outside, whereas at least half my coolie staff only receive \$5 and \$6 a month. Hence it is obvious that the only men who join at all are very inferior ones, and they knowing that if they resign can immediately obtain situations at the same rate of pay, if not higher, elsewhere, are naturally unruly and insubordinate, and the work is not efficiently done in consequence.

A good deal of sickness was prevalent during the year amongst the members of the staff which I take it was due in a great measure to the nature of the duties required to be performed. I was also temporarily incapacitated from duty upon several occasions owing to attacks of tropical disease.

I have the honour to be,

Sir.

Your most obedient Servant,

C. VIVIAN LADDS,
M.R.C.V.S., F.E.V.M.A., F.Z.S.,
Colonial Veterinary Surgeon.

The Acting Secretary,

SANITARY BOARD.