

GOVERNMENT NOTIFICATION.— No. 431.

The following Report of the Principal Civil Medical Officer for 1898 is published.

By Command,

J. H. STEWART LOCKHART,
Colonial Secretary.

Colonial Secretary's Office, Hongkong, 29th July, 1899.

No. 105.

MEDICAL DEPARTMENT,
GOVERNMENT CIVIL HOSPITAL,
HONGKONG, 9th May, 1899.

SIR,—I have the honour to forward, for the information of His Excellency the Governor, the Annual Report of the Medical Department for the year 1898.

2. MEDICAL STAFF.

Name of Officer.	Date of first Appointment under Government.	Offices held in 1899.	Leave taken in 1898.		Name of Acting Officer.
			Full Pay.	Half Pay.	
Dr. J. M. Atkinson,	6th August, 1887.	Principal Civil Medical Officer.	2 months and 7 days.	.....	Dr. J. A. Lowson.
„ G. P. Jordan,	17th August, 1888.	Health Officer of Port.	.....	.....	.....
„ J. A. Lowson,	1st Nov., 1889.	Medical Officer, Infectious Hospitals, and Acting Principal Civil Medical Officer.	1 month and 22 days.	.....	Dr. J. Bell.
„ F. W. Clark,	14th Sept., 1895.	Medical Officer of Health.	.....	.....	.....
„ J. Bell,	1st June, 1896.	Medical Officer, Lunatic Asylums, Assistant Superintendent Govt. Civil Hospital, and Actg. Principal Civil Medical Officer.	29 days.	.....	.....
„ J. C. Thomson,	1st January, 1897.	Visiting Surgeon to Tung Wa Hospital and Medical Officer, Victoria Gaol.	.....	.....	.....

POLICE.

3. The admissions to Hospital show a decrease of 38, the number being 488 as compared with 526 in 1897, the average strength of the Force being slightly higher.

The rate of sickness was less with the Europeans and Indians but greater with the Chinese.

The admission to Hospital from the various sections of the Force is given in the following table:—

Year.	Europeans.	Indians.	Chinese.
1889,	166	230	194
1890,	149	254	179
1891,	169	285	118
1892,	152	224	120
1893,	134	255	133
1894,	127	244	134
1895,	96	254	116
1896,	94	370	124
1897,	99	320	107
1898,	87	279	122

There have been no less than nineteen deaths amongst the members of the Force during the year; eight of these having occurred in the hospital, four in the European section and four in the Chinese.

Of the Europeans one died from Hepatic Abscess, one from Enteric Fever whilst two died from Delirium Tremens.

Table I. gives the admissions to the hospital and the mortality during each month of the year.

Table II. gives the average strength, rate of sickness and mortality.

Table III. shows the admissions to hospital from the different stations and districts in each month of the year. *Aberdeen* continues much healthier and there were less admissions from *Hunghom* and *Yaumati*. *No. VII Police Station* contributed 67 admissions; additional accommodation is to be provided by building a new Police Station for the west district, this is undoubtedly an urgent necessity, as that at *No. VII* is very inadequate.

The following table gives the total admissions to hospital and deaths in the Force for the last ten years :—

Year.	Admissions.	Deaths.
1889,.....	590	14
1890,.....	582	7
1891,.....	570	7
1892,.....	496	7
1893,.....	522	6
1894,.....	505	15
1895,.....	466	8
1896,.....	588	14
1897,.....	526	7
1898,.....	488	19

TROOPS.

4. There has been a decided decrease in the number of admissions to the hospital as compared with 1897 notwithstanding that the strength of the Troops has increased.

From Table IV it will be seen that the rate of mortality was higher in the European troops but lower amongst the Indians.

The average daily rate of sickness is higher in both the European and Native troops, this being more marked in the former.

Of the 21 deaths no less than 12 were due to malarial fevers, there were three deaths from plague; but in no case was the disease contracted whilst on plague duty.

The following table gives the sickness and mortality among the Troops for the past ten years :—

Year.	Admissions.	Deaths.
1889,.....	1,732	16
1890,.....	1,915	15
1891,.....	1,851	17
1892,.....	2,844	31
1893,.....	2,927	28
1894,.....	2,905	39
1895,.....	3,099	28
1896,.....	4,274	19
1897,.....	4,455	15
1898,.....	3,896	21

GOVERNMENT CIVIL HOSPITAL.

5. There were 162 more Asiatics admitted during the year than in 1897. Year by year more Chinese avail themselves of the benefits of this Hospital as the following figures prove :—

Year.	No. of Asiatics.
1893,	613
1894,	783
1895,	1,054
1896,	1,126
1897,	1,188
1898,	1,350

If it is the intention of the Government to meet this yearly increasing demand additional accommodation will have to be provided.

The Victoria Hospital for Women and Children, when erected, will to some small extent effect this, but I am convinced that an entirely New Hospital supplying increased accommodation and arranged in accordance with the best modern practice will be one of the requirements of the Colony in the near future.

It is with deep regret that I have to record the deaths of two of the members of the Nursing Staff, viz., Sisters FRANCES and GERTRUDE.

They both succumbed to pneumonic plague contracted whilst in the performance of their duties.

Sister FRANCES evidently contracted it from one of her Chinese ward boys, who was under observation suffering from what proved to be the pneumonic form of the disease. This was the first case of the kind that had occurred here, the boy was only ill for 36 hours and rapidly succumbed.

Sister GERTRUDE must have contracted the disease whilst nursing Sister FRANCES. The loss to the Hospital occasioned by the deaths of these two ladies is well nigh irreparable, and I take this opportunity of testifying to the untiring zeal and unselfish devotion which always characterised their work.

They were two of the first English trained Nurses, who arrived in 1890 to join the Nursing Staff of this Hospital.

The community has shewn its respect for their memory and recognition of their noble work by erecting two marble crosses in the Happy Valley, and a memorial window in St. John's Cathedral.

Sister CATHERINE was laid up at the same time with a mild attack of the disease and fortunately recovered.

The Staff was still further lessened through this epidemic by the death of Indian Police Constable TULSEE SINGH who for 11 years was the cook to the Indian patients and acted as Interpreter; he was a faithful servant to this Department and his loss was keenly felt.

One of the coolies and the stoker also caught this disease, the former died but the latter fortunately recovered.

The following table gives the number and classification of those admitted during the past ten years :—

	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.
Police,	590	582	570	496	522	505	466	588	529	488
Board of Trade,	135	110	135	157	132	100	129	87	45	65
Private paying Patients,...	402	527	464	378	467	491	498	632	603	741
Government Servants,	135	191	179	168	205	168	203	269	227	186
Police Cases,	252	264	240	232	247	272	319	244	299	306
Destitutes,	279	283	279	284	262	427	668	778	742	785
	1,793	1,957	1,867	1,715	1,835	1,963	2,283	2,598	2,445	2,571

From this it will be seen that there is a diminution in the Police and Government servants and an increase in all the other classes, this being the most marked in the case of the private paying patients.

The admissions and deaths in Hospital for the past ten years are as follows :—

	Admissions.	Deaths.
1889,.....	1,793	77
1890,.....	1,957	98
1891,.....	1,867	84
1892,.....	1,715	68
1893,.....	1,835	67
1894,.....	1,963	101
1895,.....	2,283	114
1896,.....	2,598	143
1897,.....	2,445	119
1898,.....	2,571	138

The percentage of deaths (5.36) is higher than that of the previous year.

It will be observed by referring to Table VI. that the mortality has been highest in the three plague years 1894, 1896 and 1898; this is accounted for by the deaths occurring in the hospital from this disease.

LUNATIC ASYLUMS.

6. The diminution in the number of admissions is due to the fact that only those who have been *certified* as being of unsound mind are given in the table, in previous years those under observation were so included: During the year there were 6 deaths and 37 were transferred to Canton.

INFECTIOUS HOSPITALS.

7. *Kennedy Town Hospital.* In the months of January and February there were 70 admissions from small-pox with 16 deaths.

During the plague outbreak there were 379 cases of plague admitted with 310 deaths—a mortality of 81.79 per cent; 29 were under observation and 17 in attendance.

HOSPITAL HULK "HYGEIA."

This ship was moved and anchored off Kennedy Town in the month of February, the Small-pox cases being transferred from Kennedy Town Hospital, so that the hospital could be available for plague patients.

MATERNITY HOSPITAL.

8. There were 24 confinements during the year, with no deaths. The one fatal case was that of a Chinese woman admitted from the Tung Wah Hospital, who aborted at the third month whilst suffering from Malarial fever, she was moribund on admission and never rallied.

PUBLIC MORTUARY.

9. 1,314 bodies were received during the year as compared with 568 in 1897, the increase in due to the outbreaks of small-pox and plague.

Particulars as to nationality and cause of death are given in the report of the Medical Officer in charge.

VICTORIA GAOL.

10. The following table gives the number of admissions to the Gaol and the daily average number of prisoners for the past ten years :—

	<i>Total number admitted to Gaol.</i>	<i>Daily average No. of prisoners.</i>
1889,.....	3,705	581.00
1890,.....	3,444	566.00
1891,.....	5,231	507.00
1892,.....	5,046	515.00
1893,.....	4,010	458.00
1894,.....	3,913	455.00
1895,.....	5,014	472.00
1896,.....	5,582	514.00
1897,.....	5,076	462.00
1898,.....	5,427	511.00

These figures show a considerable increase in the number of prisoners, 351 more being admitted than in 1897, only once during the past ten years has this number been exceeded, viz., in 1896.

Notwithstanding this the number of prisoners admitted to hospital was less than in 1897, the figures being 298 as compared with 342.

Malarial fevers contributed 33 of these cases and 14 were admitted suffering from General Debility.

The total number of floggings with the birch was 173 as compared with 141 in 1897.

There were six deaths from natural causes, two prisoners committed suicide during the year by hanging themselves in their cells and six were executed.

Amongst the structural alterations effected during the year a new hospital has been formed where the former warders' barracks were situated; this, however, has not yet been occupied as a hospital owing to the non-erection of new quarters for the warders.

TUNG WAH HOSPITAL.

11. The number of cases treated in this Hospital during the year was 2,898, an increase of 122 as compared with 1897; of these 2,029 were discharged. Of this number 417 were transferred to other institutions, e.g. :—

Government Civil Hospital,	36
" Lunatic Asylums,	3
Kennedy Town Hospital,	153
Branch Plague Hospital,	222
Italian Convent,	3
Total,.....	<u>417</u>

Of the 2,442 cases remaining 23 per cent. were treated by Western methods and 77 per cent. by Chinese methods, a distinct improvement on last year. The mortality at the hospital is still very high: there were 842 deaths, 217 being moribund on admission.

1,588 vaccinations were performed during the year by the native doctors, 1,358 in Victoria and the remainder in the outlying districts.

Several improvements have been effected during the year, viz. :—

The reflooring of some of the wards with wood.

The provision of stoves to the wards.

Neither of the recommendations I made in my report last year have been effected. I refer to—

- (1.) The provision of a water closet system in place of the present plan of removal of excreta.
- (2.) The abolition of the Ko Fong Wards.

VACCINE INSTITUTE.

12. The Institute was closed in December, 1897, owing to the prevalence of Foot-and-mouth disease and was not re-opened until November, 1898. During this time calf lymph was obtained direct from the Institut de Microbiologie at Saigon and gave every satisfaction.

The following vaccinations were performed during the year :—

Victoria Gaol,	4,507
Government Civil Hospital,	718
Alice Memorial Hospital,	238
Tung Wah Hospital :—	
Victoria,	1,358
Aberdeen,	45
Stanley,	68
Hung Hom,	16
Shauiwan,	31
Yaumati,	70
Total,.....	<u>7,051</u>

HEALTH OF THE COLONY.

13. I have omitted the usual tables showing the number of deaths amongst the European and Chinese members of the community attributable to filth as being out of date, these matters are more fully dealt with in the Annual Report of the Medical Officer of Health to the Sanitary Board.

Small-pox—was practically epidemic during the first three months of the year, it was so prevalent in February that on the 15th of that month No. 4 Health District was declared an area infected with this disease.

A house to house visitation was made, free vaccination stations were appointed, and the attention of the inhabitants was drawn by printed notices to the different places where this was being carried out, the Chinese being especially urged to take this opportunity of protecting themselves against this disease.

In all 199 cases were notified during the year, 178 of these occurring in the first three months.

Plague.—Unfortunately the Colony was again attacked in an epidemic form by this disease which was most prevalent during the months February to June inclusive; out of 1,320 cases reported during the year 1,298 occurred in these months.

Dividing the population into Chinese and non-Chinese it is found that the mortality amongst the non-Chinese attacked was 65.3 per cent., whereas that amongst the Chinese was 89.6 per cent.

The disease attained its maximum in the month of May; this was also the case in the 1896 outbreak, indeed in this Colony the months of maximum mean temperature have always been followed by a material reduction in the number of cases.

Unfortunately more Europeans were attacked than was the case in 1896, the numbers being 26 as against 16.

It is worthy of note that an outbreak of rinderpest (cattle plague) occurred amongst the cattle at the Pokfulam Dairy Farm in the months of February and March and that during the earlier part of the year the neighbouring provinces of Kwangtung and Kwangsi were overrun with this disease which killed off large number of cattle.

A similar outbreak of rinderpest prevailed before the 1894 and 1896 outbreaks.

In the months of November and December, 1897, an epidemic of foot-and-mouth disease prevailed, all the dairy farms of the Colony being affected—native and European.

Brigade-Surgeon-Lieutenant-Colonel WEIR reports an outbreak of foot-and-mouth disease as preceding the first epidemic of plague at Bombay.

In 1896 an epidemic occurred amongst the pigs imported from Pakhoi.

Pork, in many cases only sun-dried, is one of the staple foods of the Chinese.

Dr. WILM and myself examined several of these pigs and the symptoms and *post mortem* appearances were similar to those of rinderpest in cattle, we obtained a diplococcus from the nasal mucus, spleen and mesenteric glands of these pigs almost identical with the plague bacillus in man.

In 1898, I found a like bacillus in the spleen and mesenteric glands of cattle that were killed on account of rinderpest.

I am informed that an epidemic amongst pigs occurred in and around Canton in the early part of 1898 before plague broke out in these districts.

Dr. MACDONALD, of Wuchow, writes me that plague is epidemic there this year and that preceding the outbreak in man there was an epidemic of rinderpest amongst the native cattle. Any facts like these are worthy of record as bearing possibly on the etiology of this prevalent disease.

Other diseases,—as is usually the case in plague years, were less prevalent, Malarial fevers judging by the admissions to the Government Civil Hospital being especially so. Excluding the deaths from plague, the death rate of the Colony would have been 17.74 per 1,000 as against 18.85 in 1897.

General sanitary condition of the Colony.—Though much has been done of late years to improve the sanitary condition of the Colony by:—

- (a) The removal of illegal cocklofts, mezzanine floors and backyard obstructions;
- (b) The concreting of the Chinese houses not only in Victoria but at Hung Hom, Yaumati and Tai Kok Tsui in British Kowloon;
- (c) The steady improvement of defective house drains;
- (d) The closure of polluted wells, &c.;

no one acquainted with the elements of sanitation and the conditions of *overcrowding*, filth and ignorance that exists, can fail to see that it will be years before those conditions necessary for the maintenance of the public health are satisfactory established in this City.

The Insanitary Properties Commission who had been sitting since August, 1896, issued their report in March of last year, and in it they state—

“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 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-divisions of the living rooms was such that in the great majority of cases their contents could only be seen by the aid of an artificial light.”

They call particular attention to the tabulated statement of the Medical Officer of Health in which he states that in Health Districts V and VI out of a total of 3,095 Chinese houses 2,530 are insanitary. In the other Health Districts it appears from his evidence that a similar unsatisfactory state of affairs exists.

To show to what extent *overcrowding* exists I append the following table from the Medical Officer of Health's report for 1897 :—

Districts.	Chinese Houses.	Floors.	Chinese Population.	Non-Chinese Houses.	Non-Chinese Population.	Acceage.	Total No. of persons per acre.
1.....	503	811	7,720	31	428	531	15.3
2.....	955	2,353	21,120	...	1,108	267	83.2
3.....	18	33	4,210	355	1,869	158	38.5
4.....	776	2,341	23,230	128	1,834	45	556.9
5.....	980	2,686	21,720	21	351	23	959.6
6.....	805	2,308	16,680	3	398	23	742.5
7.....	722	2,227	16,010	7	179	27	599.6
8.....	732	2,231	18,540	5	129	42	444.4
9.....	1,023	2,457	23,860	19	160	40	600.5
10.....	564	1,213	7,370	47	296	258	29.7
	7,078	18,660	160,460	616	6,732	1,414	...

From this it is seen that in No. V Health District there are no less than 959 persons to the acre.

To remedy these insanitary defects it is necessary to aim towards the attainment of abundance of pure air and light in houses, shops and streets, to provide an abundant supply of pure wholesome water, to do away with back to back houses, to abolish blind courts and alleys, to prevent overcrowding and to increase as far as practicable open spaces in the crowded part of the City.

A Bill has been framed to make further provision for the sanitation of the Colony and is now under consideration by the Legislature.

It contains regulations as to cubicles, doing away with them entirely in houses fronting streets of a width of 15 feet or less, limiting their height, &c.

It makes the erection of mezzanine floors or cocklofts illegal without the permission of the Sanitary Board.

It limits the heights of buildings.

The most important regulations are those that insist on the provision of an open space in the rear of every domestic building already erected, erected hereafter or now in process of erection; these, if passed, will do away with back to back houses.

It also requires that no obstructions shall be in any private streets or lanes upon which domestic buildings abut.

This Bill if passed and carried out will considerably improve the sanitary condition of the Colony, but I am convinced that the main evil to overcome is that of *overcrowding* and until this is seriously considered and practically dealt with, the Colony will be liable to epidemics of plague and other similar diseases.

14. I attach to this the reports of :—

1. Government Civil Hospital.
2. Medical Officer in charge of the Mortuary.
3. Medical Officer to Victoria Gaol.
4. Visiting Surgeon to the Tung Wah Hospital.
5. Medical Officer to the Lunatic Asylums.
6. Government Analyst.
7. A report on the prevalence of plague in the Colony of Hongkong during the years 1897 and 1898.

I have the honour to be,

Sir,

Your most obedient Servant,

J. M. ATKINSON, M.B. (Lond.), D.P.H. (Camb.) &c.
Principal Civil Medical Officer.

The Honourable J. H. STEWART LOCKHART, C.M.G.,
Colonial Secretary.

POLICE.

Table I.—Showing the ADMISSIONS into and DEATHS in the GOVERNMENT CIVIL HOSPITAL during each Month of the Year 1898.

MONTHS.	EUROPEANS.		INDIANS.		CHINESE.		TOTAL Admissions.	TOTAL Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st Jan., 1898,.....	2	...	3	...	1	...	6	...
January,.....	9	1	20	...	13	...	42	1
February,.....	8	...	25	...	10	...	43	...
March,.....	7	...	36	...	7	...	50	...
April,.....	6	...	23	...	7	...	36	...
May,.....	12	...	26	...	7	1	45	1
June,.....	8	1	34	...	14	...	56	1
July,.....	7	1	25	...	9	...	41	1
August,.....	4	...	21	...	12	...	37	...
September,.....	5	...	26	...	7	...	38	...
October,.....	5	...	11	...	19	1	35	1
November,.....	8	1	12	...	10	1	30	2
December,.....	6	...	17	...	6	1	29	1
Total,.....	87	4	279	...	122	4	488	8

J. M. ATKINSON,
Principal Civil Medical Officer.

Table II.—Showing the RATE of SICKNESS and MORTALITY in the POLICE FORCE during the Year 1898.

AVERAGE STRENGTH.				TOTAL SICKNESS.			TOTAL DEATHS.			RATE OF SICKNESS.			RATE OF MORTALITY.		
European.	Indian.	Chinese.	Total.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.
112	226	292	630	87	279	122	4	3	12	77.67	123.45	41.78	3.57	1.32	4.10

J. M. ATKINSON,
Principal Civil Medical Officer.

Table III.—POLICE RETURN of ADMISSIONS to HOSPITAL from each District during the Year 1898.

Months.	CENTRAL No. 5 " 8			GOVERNMENT HOUSE No. 2 " 3			No. 1 STONE CUTTERS' ISLAND.			GAP No. 6 MOUNTAIN LODGE.			WATER POLICE STATIONS TSIDSHATSUL.			TSAT-TSZ-SUI, SHAKIWAN, SHEK-O.			POKFULAN.			ABERDE			STANLEY, TAITAMUK.			No. 7.			YAU MATTI, HENGHOM.			TOTAL.		
	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.						
Remaining on 1st Jan., 1898,.....	2	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
January,.....	2	13	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42
February,.....	7	19	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43
March,.....	4	19	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
April,.....	4	17	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
May,.....	7	17	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45
June,.....	4	20	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	56
July,.....	2	11	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41
August,.....	3	7	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
September,.....	4	13	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
October,.....	4	8	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35
November,.....	5	10	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
December,.....	5	11	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29
Total,.....	53	167	60	2	15	11	1	11	2	13	7	13	12	7	...	10	1	...	10	4	...	4	...	10	31	23	6	12	...	488

J. M. ATKINSON,
Principal Civil Medical Officer.

Table IV.—Showing the RATE of SICKNESS and MORTALITY of the TROOPS serving in HONGKONG during the Year 1898.

AVERAGE STRENGTH.			ADMISSIONS INTO HOSPITAL.			DEATHS.			AVERAGE DAILY RATE OF SICKNESS.		RATE OF MORTALITY PER 1,000 OF THE STRENGTH.	
White.	Black.	Total.	White.	Black.	Total.	White.	Black.	Total.	White.	Black.	White.	Black.
1,569	1,274	2,843	2,535	1,361	3,896	17	4	21	175.83	52.83	10.83	3.13

E. W. EVATT,
Colonel, R.A.M.C.,
Principal Medical Officer,
China and Hongkong.

Table Va.—LIST of OPERATIONS performed during the Year 1898.

SURGICAL OPERATIONS.	OPERATIONS.	DEATHS.
Removal of Tumours,—Buboës, Incision,	48	...
" Seraping,.....	24	...
Sebaceous Cyst,	6	...
Strumous Glands,	1	...
Schirrus of Breast, ...	1	...
Lipoma,	1	...
Epithelioma of Scrotum,	1	...
Polypus Nasi, ...	1	...
Epithelioma of Scalp,	1	...
Wounds,—Of Abdomen, ...	1	...
Of Thigh (Gun-shot),.....	2	...
Of Arm (Gun-shot),	1	...
Of Chest,	1	1
Operations on the Eye,—Excision of Eye-ball,	3	...
Trichiasis,	2	...
Iridectomy,	1	...
Operations on the Head and Neck,—Abscess of Jaw,	1	...
Closed Auditory Meatus,	1	...
Abscess of Neck,	4	...
Abscess of Scalp,	1	...
Necrosis of Jaw,	2	...
Fractured Skull,	2	1
Malignant Pustule,	1	...
Operations on Organs of Circulation,—Ligature of Femoral Artery,	1	1
Operations on Respiratory Organs,—Paracentesis Thoracis,	1	...
Operations on Genito-Urinary Organs,—		
<i>Male</i> ,—Stricture of Urethra,	3	...
Perinœal Section,	1	...
Hydrocele (Radical Cure),	3	...
Circumcision,	23	...
Lithotomy,	1	1
Perineal Abscess,	2	...
Urethral Calculus,	1	...
Abscess of Penis,	1	...
Elephantiasis Scroti, ...	1	...
Extravasation of Urine,	1	1
Phagœdœna,	6	...
<i>Female</i> ,—Ruptured Perinœum,	1	...
Labial Abscess,	4	...
Ovariectomy,	1	...
Operations on Digestive Organs,—Hœmorrhoids,	2	...
Fistula in Ano,	4	...
Paracentesis Abdominis,	1	...
Splenectomy,	1	1
Hernia, ...	3	2
Appendicitis,	1	...
Hernia (Radical Cure),	1	...
Abscess of Tonsil,	1	...
Prolapsus Recti, ...	1	...
Operations on Organs of Locomotion,—Amputation of Thigh,	1	1
" of Arm,.....	1	...
" of Fingers and Toes,	6	...
Wound of Leg,	1	...
Bursa Patellæ, excision of,	1	...
Necrosis of Femur,	1	...
" of Os Calcis, ...	1	...
" of Sternum, ...	1	...
" of Finger,	1	...
" of Elbow Joint,	1	...
Periostitis,	1	...
Suppurating Corns,	1	...
Operations on Cellular Tissue,—Abscess of Axilla,.....	2	...
" of Arm,	2	...
" of Finger, ...	2	...
" of Palm,	4	...
" of Leg,	1	...
" of Buttock, ...	2	...
" of Heel,	2	...
" of Plantar, ...	9	...
" of Back,	2	...
" of Chest Wall,	1	...
Psoas Abscess,	1	...
Ischio-rectal Abscess,	1	...
Diffuse Cellulitis,	5	1
Total,	224	10

J. M. ATKINSON,
Principal Civil Medical Officer.

Table Vb.—Showing the ADMISSIONS and MORTALITY in the GOVERNMENT CIVIL HOSPITAL during the Year 1898.

GENERAL DISEASES.	ADMISSIONS.				DEATHS.			
	Europeans.	Indians.	Asiatics.	Total.	Europeans.	Indians.	Asiatics.	Total.
<i>Group A.—Sub-Group 1.</i>								
1. Small-pox, (transferred to Small-pox Hospital),.....	4	3	3	10	..	..	..	..
2. Cow-pox,.....	..	..	..	..	..	..	..	..
3. Chicken-pox, .....	..	1	..	1	..	..	..	..
4. Measles,	5	..	1	6	..	..	..	..
5. Epidemic Rose-rash, (Rotheln),	2	..	..	2	..	..	..	..
6. Scarlet Fever,.....	1	..	..	1	..	..	..	..
7. Dengue, .....	..	..	..	..	..	..	..	..
8. Typhus, .....	..	..	..	..	..	..	..	..
9. Plague,.....	12	6	38	56	3	..	6	9
10. Relapsing Fever, .....	..	..	..	..	..	..	..	..
11. Influenza,.....	5	7	12	24	..	..	..	..
12. Whooping Cough, .....	..	..	..	..	..	..	..	..
13. Mumps,	4	8	..	12	..	..	..	..
14. Diphtheria,	1	..	2	3	..	..	1	1
15. Cerebro-spinal Fever,.....	..	..	..	..	..	..	..	..
16. Simple Continued Fever,	1	1	6	8	..	..	..	..
17. Enteric Fever, Synonym, Typhoid Fever,	22	2	9	33	3	1	4	8
18. Cholera, Synonyms, Asiatic Cholera, Epidemic Cholera, ...	..	..	..	..	..	..	..	..
19. Sporadic Cholera, Synonyms, Simple Cholera, Cholera - Nostras, .....	..	..	..	..	..	..	..	..
20. Epidemic Diarrhoea, .....	..	..	..	..	..	..	..	..
21. Dysentery,	30	10	8	48	2	..	..	2
Total,.....	87	38	79	204	8	1	11	20

J. M. ATKINSON, Principal Civil Medical Officer.

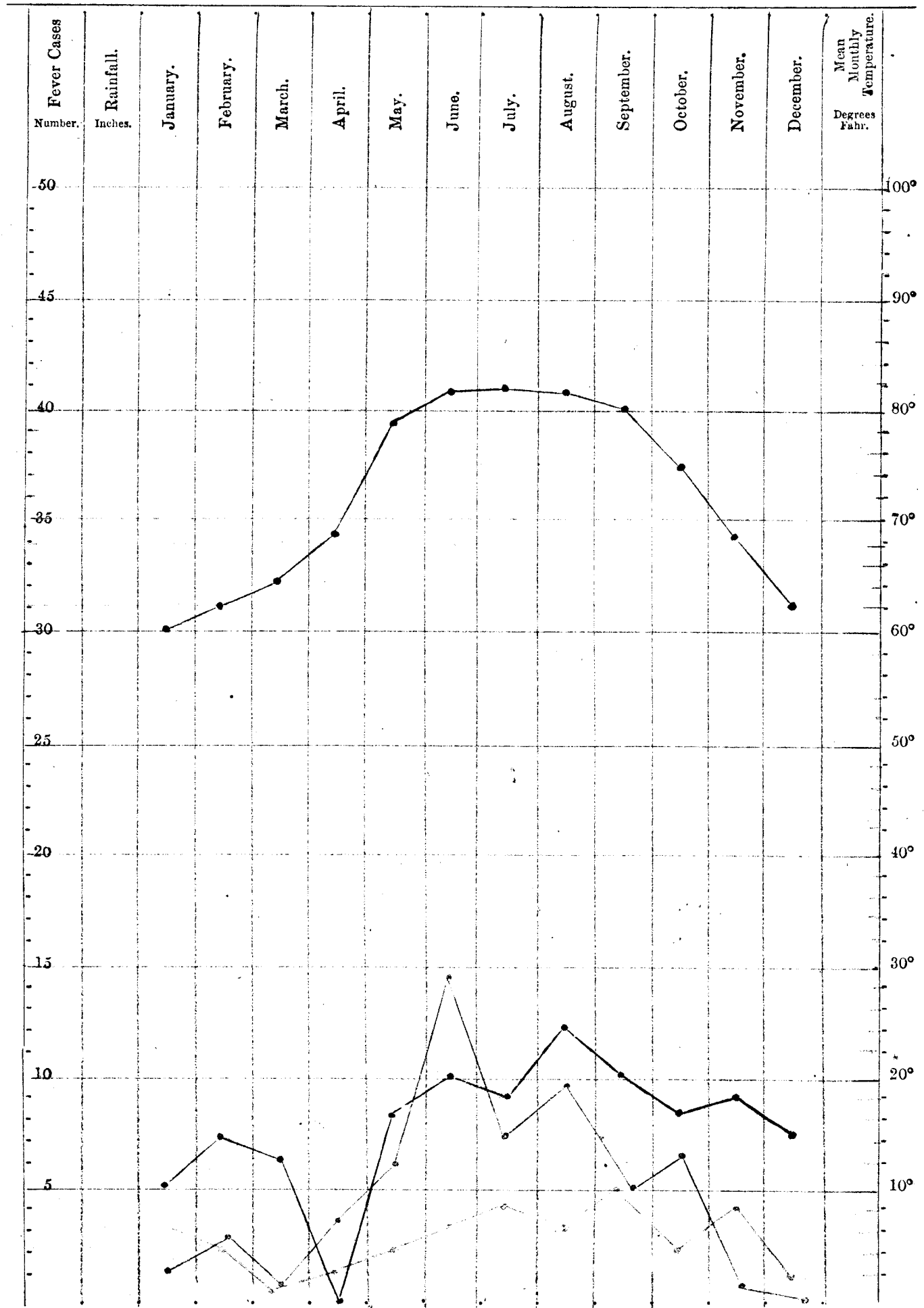
Table Vc.—Showing the ADMISSIONS and MORTALITY in the GOVERNMENT CIVIL HOSPITAL during the Year 1898.

GENERAL DISEASES.	ADMISSIONS.				DEATHS.			
	Europeans.	Indians.	Asiatics.	Total.	Europeans.	Indians.	Asiatics.	Total.
<i>Group A.—Sub-Group 2.</i>								
1. Malarial Fever,—								
a. Intermittent, Synonym, Ague,	62	83	102	247	..	..	..	..
b. Remittent,	28	25	34	87	..	1	3	4
c. Malarial Cachexia,	6	2	2	10	..	..	..	..
2. Beri-Beri,	1	1	27	29	..	..	..	..

<i>Monthly Table of Malarial Fever Cases amongst the Police.</i>										
MONTH.	INTERMITTENT.				REMITTENT.				Total Number of Cases.	Total Number of Deaths.
	Europeans.	Indians.	Asiatics.	Deaths.	Europeans.	Indians.	Asiatics.	Deaths.		
January, .....	..	4	1	..	1	2	..	..	3	..
February,	1	4	2	..	..	2	..	..	9	..
March,	2	2	2	..	..	..	..	..	6	..
April, .....	..	..	..	..	1	..	..	..	1	..
May,	2	5	1	..	2	..	..	..	10	..
June,	3	6	1	..	2	1	..	..	13	..
July,	1	7	1	..	2	1	1	..	13	..
August,	1	7	4	..	1	2	..	..	15	..
September,	1	8	1	..	1	4	..	..	15	..
October,	4	4	2	10	..
November,	1	6	2	..	2	2	1	..	13	1
December,	7	1	8	..
Total,.....	12	60	19	..	4	18	8	1	121	1

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Table Vd.—DIAGRAM showing CASES of MALARIAL FEVER occurring every Month amongst the POLICE FORCE, the MEAN MONTHLY TEMPERATURE and the MONTHLY RAINFALL during the Year 1898.



Red Wave,.....Intermittent Fever Cases.
 Green Wave,.....Remittent " "
 Blue Wave,.....Monthly Rainfall in inches.
 Black Wave,.....Mean Monthly Temperature in Degrees Fahrenheit.

J. M. ATKINSON,
 Principal Civil Medical Officer.

Table VI.—Showing the RATE of MORTALITY in the GOVERNMENT CIVIL HOSPITAL during the last 10 Years.

Rate to Total Number of Admissions.		Rate to Number of Europeans Admitted.		Rate to Number of Coloured Persons Admitted.		Rate to Number of Asiatics Admitted.	
<i>Per cent.</i>		<i>Per cent.</i>		<i>Per cent.</i>		<i>Per cent.</i>	
1889,.....	4.29	1889,.....	3.37	1889,.....	4.13	1889,.....	5.41
1890,.....	5.00	1890,.....	2.38	1890,.....	5.30	1890,.....	7.80
1891,.....	4.49	1891,.....	3.46	1891,.....	2.97	1891,.....	7.33
1892,.....	3.96	1892,.....	2.92	1892,.....	3.28	1892,.....	5.74
1893,.....	3.65	1893,.....	1.57	1893,.....	2.28	1893,.....	7.34
1894,.....	5.14	1894,.....	3.71	1894,.....	3.51	1894,.....	7.36
1895,.....	4.99	1895,.....	2.47	1895,.....	1.32	1895,.....	8.35
1896,.....	5.50	1896,.....	3.65	1896,.....	1.84	1896,.....	8.88
1897,.....	4.86	1897,.....	3.63	1897,.....	2.61	1897,.....	6.56
1898,.....	5.36	1898,.....	5.07	1898,.....	2.07	1898,.....	6.59

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Table VII.—Showing the ADMISSIONS into and DEATHS in the GOVERNMENT CIVIL HOSPITAL during each Month of the Year 1898.

MONTHS.	EUROPEANS.		COLOURED.		ASIATICS.		Total Admissions.	Total Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st January, 1898,.....	31	..	10	..	53	..	94	..
January,.....	61	4	36	3	92	9	189	16
February,.....	48	1	39	1	120	10	207	12
March,.....	58	1	50	1	100	9	208	11
April,.....	57	4	34	..	121	16	212	20
May,.....	79	6	34	..	97	3	210	9
June,.....	71	8	38	..	86	2	195	10
July,.....	62	3	33	2	134	6	234	11
August,.....	62	..	39	..	123	7	224	7
September,.....	76	4	42	..	116	10	234	14
October,.....	61	2	20	..	110	8	191	10
November,.....	61	4	27	2	97	5	185	11
December,.....	61	3	26	..	101	4	188	7
Total,.....	788	40	433	9	1,350	89	2,571	138

J. M. ATKINSON,
Principal Civil Medical Officer.

Table VIIa.—MONTHLY AGGREGATE NUMBER of PATIENTS visited in the HOSPITAL daily for 1898, 1897, and 1896.

Months.	1898.	1897.	1896.
January,.....	3,321	3,501	3,346
February,.....	3,006	2,819	2,615
March,.....	3,184	3,270	2,939
April,.....	3,138	3,212	2,671
May,.....	3,316	3,295	3,074
June,.....	3,086	3,146	3,008
July,.....	3,449	3,384	3,726
August,.....	3,353	3,442	3,996
September,.....	3,654	3,453	3,952
October,.....	3,303	3,391	3,420
November,.....	2,732	3,226	3,350
December,.....	3,188	3,131	3,690
Total,.....	38,730	39,270	39,787

J. M. ATKINSON,
Principal Civil Medical Officer.

Table VIIb.—*Shewing the ADMISSIONS into and DEATHS in the GOVERNMENT LUNATIC ASYLUMS during each Month of the Year 1898.*

MONTHS.	EUROPEANS.		COLOURED.		CHINESE.		Total Admissions.	Total Deaths.	Discharged to Canton.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.			
Remaining on the 1st January, 1897,	1	..	..	..	5	..	6	..	..
January, .....	..	..	..	..	2	..	2	..	..
February,	1	..	..	..	6	..	7	..	..
March,	1	..	..	..	7	1	8	1	..
April,	1	1	..	..	4	1	5	2	8
May, .....	..	..	..	..	12	..	12	..	9
June, .....	..	..	..	..	2	..	2	..	..
July,	2	1	..	..	9	..	11	1	6
August, .....	..	..	..	..	13	1	13	1	..
September,	1	..	2	..	6	..	9	..	8
October,	1	1	3	..	4	1	..
November,	1	5	..	6	..	6
December,	3	..	3
Total,	8	2	3	1	77	3	88	6	37

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Principal Civil Medical Officer.

Table VIIc.—*Shewing the ADMISSIONS into and DEATHS in the GOVERNMENT HOSPITAL HULK Hygeia during each Month of the Year 1898.*

MONTHS.	EUROPEANS.		COLOURED.		CHINESE.		Total Admissions.	Total Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st January, 1898, .....	..	..	..	..	..	..	..	..
January, .....	..	..	..	..	..	..	..	..
February,	14	1	4	1	21	5	39	7
March,	4	..	3	..	3	2	10	2
April,	3	..	..	..	10	3	13	3
May, .....	..	..	..	..	..	..	..	..
June, .....	..	..	..	..	..	..	..	..
July, .....	..	..	..	..	..	..	..	..
August, .....	..	..	..	..	..	..	..	..
September, .....	..	..	..	..	..	..	..	..
October, .....	..	..	..	..	..	..	..	..
November, .....	..	..	..	..	..	..	..	..
December, .....	..	..	..	..	..	..	..	..
Total,	21	1	7	1	34	10	*62	†12

* Of these 51 cases were of Small-pox, 1 Beri-beri and 10 Cholera.

† Of these 9 deaths were from Small-pox, and 3 from Cholera.

J. M. ATKINSON,
Principal Civil Medical Officer.

Table VII*d*.—*Shewing the ADMISSIONS into and DEATHS in the GOVERNMENT KENNEDY TOWN HOSPITAL during each Month of the Year 1898.*

MONTHS.	EUROPEANS.		COLOURED.		CHINESE.		Total Admissions.	Total Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st January, 1898,	1	..	1	..	2	..	4	..
January,	9	1	4	..	20	8	33	9
February,	7	1	1	..	43	27	51	28
March,	4	1	4	2	54	38	62	41
April,	15	4	15	5	220	173	250	182
May,	20	7	16	8	39	45	75	60
June,	2	..	2	3	11	4	15	7
July, .....	..	..	..	..	2	1	2	1
August,	1	..	..	..	1	..	2	..
September, .....	..	..	..	..	..	..	..	..
October, .....	..	..	1	..	..	..	1	..
November, .....	..	..	..	..	..	..	..	..
December, .....	..	..	..	..	..	..	..	..
Total,	59	14	44	18	392	296	*495	†328

* Of these 379 were cases of plague, 70 of Small-pox, 29 under Observation, and 17 in attendance.

† Of these 310 deaths were from plague, 16 from Small-pox, 1 from Bronchites and 1 from Diphtheria.

J. M. ATKINSON,
Principal Civil Medical Officer.

Table VII*e*.—*Shewing the ADMISSIONS into and DEATHS in the GOVERNMENT LYING IN HOSPITAL during each Month of the Year 1898.*

MONTHS.	EUROPEANS.		COLOURED.		CHINESE.		Total Admissions.	Total Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st January, 1898,	1	..	..	..	..	..	1	..
January,	1	..	..	..	1	..	2	..
February,	2	..	..	..	..	..	2	..
March, .....	..	..	..	..	..	..	..	..
April, .....	..	..	..	..	..	..	..	..
May, .....	..	..	..	..	..	..	..	..
June, .....	..	..	..	..	..	..	..	..
July, .....	..	..	..	..	2	..	2	..
August,	2	..	..	..	1	..	3	..
September, .....	..	..	..	..	1	..	1	..
October,	4	..	..	..	5	..	9	..
November,	1	..	..	..	2	1	3	1
December,	3	..	..	..	2	..	5	..
Total,	14	..	..	..	14	1	*28	†1

* Of these 24 were cases of confinement.

† Death from Malarial Fever.

J. M. ATKINSON,
Principal Civil Medical Officer.

Enclosure I.

GOVERNMENT CIVIL HOSPITAL.

I.—HOSPITAL BUILDINGS.

The main portion of the Hospital has been unaltered with the exception of the construction of a covered way connecting the main building with the Women's Hospital where at present the clothing store is located; this is a great convenience especially in the rainy season.

Nothing has been done yet towards supplying the Hospital with a suitable Laundry and Wash-house. I have referred to this need in each of my annual reports since 1892.

II.—LUNATIC ASYLUMS.

These buildings have been satisfactorily maintained during the year.

III.—INFECTIOUS HOSPITAL AND HOSPITAL HULK *Hygeia*.

The Infectious Hospital at Kennedy Town was in use practically for the whole of the year at any rate up to August owing to the existence of small-pox and plague in the Colony.

Extra matsheds were erected in the compound to provide the extra accommodation required.

The *Hygeia* was transferred to this side of the Harbour and anchored off Kennedy Town for the reception of small-pox cases in the month of February by which time plague had become epidemic.

In addition to small-pox five cases of cholera from the S.S. *Devawongse* were admitted to the *Hygeia*; two of them died. This disease was imported from Bangkok.

IV.—MATERNITY HOSPITAL.

This building was maintained in a satisfactory state of repair.

V.—MEDICAL STAFF QUARTERS.

No alterations of any importance have been made during the past year.

VI.—HOSPITAL PREMISES.

Additional accommodation, which was much needed, have been provided at the Lodge by the erection of a building containing two rooms, one for the Indian cook and the other for the Indian porter.

A separate cook-house for the Indian patients was erected adjoining the Lower Hospital.

The approach from the Queen's Road has been roughly concreted, rendering this steep road much easier to walk on.

VII.—HOSPITAL AND NURSING STAFF.

Mrs. MARY CONRY, probationer, resigned on 28th February (C.S.O. No. 340 of 1898).

Mr. ALFRED FELTHAM, Wardmaster, died on 17th March and was succeeded by Hospital Warder Mr. GEORGE TUOHY (C.S.O. No. 717 of 1898).

Staff-Surgeon HOME and Surgeon R. T. GILMOUR were gazetted temporary Deputy Health Officers of the Port on the 15th April, their services having been kindly lent by the Naval Authorities to assist in the performance of the medical inspection of shipping; they were re-called to their Naval service on 12th June (C.S.O.'s No. 967 and No. 1378 of 1898).

Mr. J. BURGESS was temporarily employed as Wardmaster at Kennedy Town Hospital from 19th April to the 30th May (C.S.O. No. 1019 of 1898).

Miss ELIZABETH HIGGIN (Sister Frances) died on the 29th April (C.S.O. No. 1103 of 1898).

Miss EMMA G. IRELAND (Sister GERTRUDE) died on 5th May (C.S.O. No. 1153 of 1898).

Dr. J. H. SWAN acted as Medical Officer to the Goal from 19th May (C.S.O.'s Nos. 1048 and 1227 of 1898).

Miss ANNE CHARLOTTE MEADEN was engaged temporarily from the 25th May to 24th June to assist the nursing staff (C.S.O. No. 1216 of 1898).

Miss ANN M. T. MILLINGTON and Miss MARY ROBINS arrived on the 10th June and joined the Nursing Staff, their services to be available for the public as Private Nurses (C.O.D. 84 of 1898).

Miss CLARA EASTMOND (Matron) resigned on the 23rd July and was succeeded by Miss C. McINTOSH (C.O.D. 194 of 1898).

Miss HELEN BATCHELOR and Miss ELIZABETH MAKER arrived from England on the 21st June in place of the late Miss E. F. HIGGIN and Miss E. G. IRELAND (C.O.D. 147 of 1898).

Mr. LO FUK LAM, Assistant Clerk, was promoted to a clerkship in the Public Works Department on 1st September and was succeeded by Mr. IP HIN SING (C.S.O. No. 2019 of 1898).

Mrs. U I KAI was engaged as probationer from the 1st September (C.S.O. No. 1972 of 1898).

Mr. W. E. CROW, Government Analyst, was suspended from duty on 4th December.

Miss GEORGINA FRANKLIN arrived on the 14th November from England to join the Nursing Staff (C.O.D. 218 of 1898).

Miss ANNE PATTISON resigned on 13th December (C.S.O. No. 2517 of 1898).

Miss GERTRUDE BROOKES resigned on the 27th December (C.S.O. No. 2861 of 1898).

VIII.—The following officers were away on leave:—

Dr. J. M. ATKINSON from 4th January to 13th January and from 1st August to 27th September (C.S.O. No. 3059 of 1897 and C.S.L. No. 1085 of 1898).

Dr. J. A. LOWSON from 1st January to 12th January, from 21st September to 4th October and from 6th December to 31st December (C.S.O. No. 942 of 1896, C.S.O. No. 2277 of 1898, and C. S. O. No. 2871 of 1898).

Mr. W. E. CROW, Government Analyst, from 1st January to 14th August (C.S.O. No. 360 of 1896).

Miss CLARA EASTMOND (Matron) from 1st January to 14th April (C.S.O. No. 652 of 1897).

Miss GERTRUDE BROOKES (Sister ANNIE) from 20th January to 28th October (C.S.O. No. 3053 of 1897).

Mr. LO FUK LAM (Assistant Clerk) from 4th April to 18th April (C.S.O. No. 840 of 1898).

Dr. J. BELL from 19th June to 17th July (C.S.O. No. 1534 of 1898).

Mrs. J. ACKERS (Matron, Female Venereal Ward) from 1st August to 25th August (C.S.O. No. 1699 of 1898).

Mr. F. BROWNE, Assistant Apothecary, from 21st September to 31st October (C.S.O. No. 2283 of 1898).

Miss ANNIE E. PENRUDDOCKE (Sister MARGARET) from 27th September to 31st December (C.S.O. No. 1851 of 1898).

IX.—WORK DONE DURING THE YEAR.

Attached to this report are the following tables:—

GOVERNMENT CIVIL HOSPITAL.

I. Showing the admissions into and deaths in the Government Civil Hospital, during each month of the year, of the Police.

II. Showing the rate of sickness and mortality in the Police Force during the year.

III. Police Return of admissions to Hospital from each district during the year.

V. General Return of the sick treated in the Hospital.

Va. Surgical operations performed during the year.

Vb. Zymotic Diseases, sub-group 1.

Vc. " " " 2.

Vd. Diagram showing number of cases of Malarial Fever occurring amongst the members of the Police Force admitted in each month of the year.

VI. Showing the rate of mortality in the Government Civil Hospital during the last 10 years.

VII. Showing the admissions into and deaths in the Government Civil Hospital during each month of last year.

VIIa. The aggregate monthly number of patients visited in the Hospital daily for the last three years.

VIIb. Table of admissions into and deaths in the Lunatic Asylums during the year.

VIIc. Table of admissions into and deaths in the Epidemic Hulk *Hygeia* during the year.

VIIId. Table of admissions into and deaths in the Infectious Hospital, Kennedy Town.

VIIe. Table of admissions into and deaths in the Lying-In Hospital.

THE HONGKONG GOVERNMENT GAZETTE, 29TH JULY, 1899.

The total number of cases treated during the year was as follows :—

In-patients,.....	2,571
Out-patients,	11,061

Minor surgical cases such as scalp wounds, simple fractures, dislocations, dog-bites, teeth extractions, &c. which were treated in the Receiving Ward are not included.

In-patients.—The total number shows an increase of 126 as compared with 1897; the following figures give the number treated during the past five years :—

1895,.....	2,283
1896,.....	2,598
1897,.....	2,445
1898,.....	2,571

The greatest increase has been in the number of Private Paying Patients and Destitutes; in both these classes the numbers are the largest for the past 10 years. There is a decrease in the number of Police and Government Servants admitted.

The total number of deaths was 138, a percentage of 5.36 as against 4.86 in 1897, the increase being due to the plague cases admitted. It will be noted that the mortality has been highest in the three plague years.

Of the total number of deaths 56 were in a moribund condition on admission, 39 dying within 24 hours, and 17 within 48 hours of their admission.

The average daily number of sick was 98.81 as against 100.09 in 1897.

Of the total number of patients 411 were females, an increase of 27 as compared with 1897.

Private Paying Patients.—The following gives the number of First and Second class patients for the past three years :—

	1896.	1897.	1898.
First class.....	65	53	58
Second class.....	146	153	154
	<u>211</u>	<u>206</u>	<u>212</u>

Nationality.—As compared with 1897 there was a decrease of 10 Europeans and 26 Indians and an increase of 162 Chinese under treatment as in-patients.

To show how the Asiatics appreciate the advantage offered by this Institution, I give the numbers admitted during the past 7 years :—

1892,.....	592
1893,.....	613
1894,.....	783
1895,.....	1,054
1896,.....	1,126
1897,.....	1,188
1898,.....	1,350

The following diseases give the greatest number of admission :—

Fevers :—	
Simple continued (Febricula)	8
Enteric,	33
Malarial,—Intermittent,	247
" —Remittent,	87
	<u>375</u>
Injuries,	352
Venereal Diseases,	233
Diseases of Digestive System,	222
" " Respiratory " 	139
" " Nervous " 	136
Rheumatism,	105
Alcoholism,	101
Plague,	56
Dysentery,	48

Deaths.—The following diseases caused the greatest number of deaths :—

Diseases of Respiratory System,	21
Injuries,	18
Diseases of Digestive System,	14
" " Urinary, " 	14
" " Circulatory, " 	12
Plague,	9
Enteric fever,	8
Alcoholism,	8

Police.—The total number under treatment was 488, 41 less than in 1897.

There was a decrease of 12 amongst the European members of the Force, a decrease of 41 among the Indian and an increase of 15 in the Chinese.

Gaol Officers.—There were 30 under treatment during the year as against 54 in 1897 :

Principal Warders,.....	3
Warders,.....	8
Assistant Warders,	10
Gaol Guards,	9
	30

Eleven of these were due to malarial diseases ; there were no fatal cases.

Influenza.—There were 24 cases under treatment, no fatal case.

Typhoid.—There were 33 cases under treatment during the year with 8 deaths, a mortality of . per cent as compared with a case mortality of 44.2 per cent of the total number of cases reported during the year as occurring in the Colony. (See Medical Officer of Health's report.)

The mortality amongst the Europeans under treatment in Hospital was 13.6 per cent as against a case mortality of 35.1 per cent.

Seventeen originated in the Colony, two were from Canton, one from Wuchow, and one from Shanghai, the remainder were admitted from ships.

Diphtheria.—There were three cases under treatment with one death.

Cholera.—There were no cases admitted to this Hospital during the year, the only cases were those under treatment on the "Hygeia" admitted from the s.s. "Devawongse."

Dysentery.—There were 48 cases under treatment with two deaths.

Malarial Fevers.—The admissions from this class of disease were 334 as against 432 in 1897 ; there were four deaths, one Indian and three Chinese dying from remittent fever.

Beri-beri.—There were 29 cases under treatment with no deaths.

Veneral Diseases.—I have again to record an increase in the number of cases admitted suffering from constitutional syphilis as the following figures will show :—

	1896.	1897.	1898.
Primary Syphilis,	74	66	76
Secondary	46	82	87
	120	148	163

There is a considerable diminution in the numbers admitted suffering from Gonorrhœa, namely, 48 as against 77 in 1897.

Injuries.—There were 352 admissions with 18 deaths as against 373 with the same number of deaths in 1897.

Surgical Operations.—There were 224 during the year with 10 deaths, a large increase as compared with the previous year.

Amongst the more important operations during the year were the following :—

Ovariectomy.—In this case the cyst was multilocular with slight adhesions on the right side ; the patient made an uninterrupted recovery.

Hernia.—There were four cases operated on. In three, who were Chinese, the hernia was strangulated ; of these two died. This is not to be wondered at when it is considered that in each of these the strangulation was of some duration, in one case the intestine being quite gangrenous.

The fourth case, that of an European, was a radical cure in an irreducible adherent omental hernia ; the result was very satisfactory.

Splenectomy.—The patient never rallied from the shock of the operation and died of collapse.

Elephantiasis Scroti.—Dr. BELL removed successfully an elephantoid scrotum weighing 12 $\frac{3}{4}$ lbs. from a Chinaman who came to Hongkong from Swatow to be operated on.

Ligature of Femoral Artery.—This artery was tied in order to stop the hæmorrhage from an extensive wound of the leg ; the Chinaman had lost too much blood before admission and died of collapse.

Malignant Pustule.—This case, which appeared to be almost hopeless, recovered after free incisions into the phlegmonous skin and tissue of the lower lip and face, pure Carbolic Acid being applied to the mucous membrane of the lip and cheek.

Psoas Abscess.—After incision and free drainage the patient, an European, rapidly recovered and was discharged cured.

Appendicitis.—There was one case operated on during the year, result satisfactory.

BULLET WOUNDS.

As usual there were several cases admitted from the outlying districts, the most severe was one on Yaumati with a bullet wound that entered the neck just above and to the left of the sternum, it the clavicle and skirting the upper two or three intercostal spaces emerged in the back at the posterior fold of the axilla. Fortunately the large blood vessels escaped injury and after the removal of several pieces of the clavicle the wound healed up.

The other two presented no particular features of interest: one was a bullet wound of the forearm admitted from Hung-Hom; the bullet had passed through the arm and was lying under the skin; it was extracted without any difficulty; in the second case, the bullet had passed through the thigh just above the patella, fortunately escaping the joint.

COMPOUND FRACTURE OF THE SKULL.

This case shows the extraordinary vitality some of the Chinese possess:—

The patient, a Chinaman, was admitted from the Tung Wah Hospital on the 26th April where he had been for two weeks, with a compound fracture extending through the right parietal and occipital bone; the wound was very dirty and covered with the usual Chinese pitch; the cause of the injury was a fall of some 30 feet from the third storey of a house. On the 29th as there was severe hæmorrhage which could not be stopped the man was anæsthetised and the wound explored, on elevating some depressed bone a quantity of brain matter extruded and as it was impossible to seize any bleeding vessel the huge hole in the cranium was plugged with carbolic oiled lint, no less than 8 inches of lint half an inch wide being used; two days afterwards this was removed and the wound syringed with 1 in 2,000 corrosive solution; there was no return of the hæmorrhage; with the exception of slight left facial paralysis, he recovered completely. The temperature, which rose to 105° the day after the operation, remained high for three or four days, by the 4th May it had fallen to 100° and was normal on the 6th May; it did not rise again to 100°; the wound took a long time in filling up, but he was eventually discharged cured on the 17th August.

ANÆSTHETICS.

Since October 1st a regular diary has been kept of all cases in which anæsthetics have been employed and a resumé is now appended.

 Anæsthetics have been administered to 60 cases.
 Average time taken to produce Anæsthesia, 6'.32".
 Average duration of operation, 14'.20".
 Average quantity used, 2 $\frac{3}{4}$ drams.

Europeans.			Chinese.		
Men.	Women.	Children.	Men.	Women.	Children.
13	1	0 = 14	33	10	3 = 46.

Chloroform has been the anæsthetic used throughout and has been administered with Krohne and Seissman's modification of Junker's Inhaler. No dangerous symptoms have at any time occurred in the administrations and little or no trouble has been experienced in producing anæsthesia.

FRACTURES AND DISLOCATIONS.

The following fractures and dislocations were treated during the year:—

Skull,	7
Skull (base),	2
Femur,	7
Tibia,	6
Tibia and Fibula (compound),	4
Humerus,	4
Radius and Ulna,	4
Metacarpal,	2
Patella,	2
Nose,	1
Ribs,	1
Foot,	2
Dislocation of shoulder,	1
" " knee,	1

Alcoholism.—This disease was, as is usual in plague years, much more prevalent, there being 101 cases admitted as against 54 in 1897; no less than 8 proved fatal, the cause of death being *delirium tremens*.

Poisoning.—There were 13 cases of poisoning during the year with three deaths, in each of these opium was the poisonous agent.

Vaccination.—

	Successful.	Unsuccessful.	Total.
Primary cases,.....	157	107	264
Re-vaccinations,	199	255	454
			718

Fees.—The fees received during the year were as follows :—

Government Civil Hospital,	\$23,476.34
Lunatic Asylums,	588.50
Infectious Hospitals,	2,085.52
	26,150.36

An increase of \$7,746.73 on that of the previous year, this increase of fees that came into force on 1st January, 1898, a copy of which is enclosed in Appendix A.

In addition to this \$629.29 were received in fees for the services of private Nurses.

Staff.—My thanks are due to the several members of the staff for their assistance during the most trying year.

Gifts of Flowers, Newspapers, &c.—I take this opportunity of thanking those who have during the past year remembered the patients in the hospital by forwarding them flowers, newspapers, &c. &c.

I have the honour to be,

Sir,

Your most obedient Servant.

Principal

The Honourable

J. H. STEWART LOCKHART, C.M.G.,
Colonial Secretary.

Appendix A.

GOVERNMENT NOTIFICATION.—No. 561

The following revised Scale of Fees required to be paid by patients at the Government Hospital, the Hospital Hulk *Hygeia* and the Kennedy Town Hospital, on and after the 1st January 1898, is substituted for that published in Government Notification No. 530 of 30th November 1897.

By Command,

J. H. STEWART LOCKHART,
Colonial Secretary.

Colonial Secretary's Office, Hongkong, 16th December, 1897.

SCALE OF FEES.

CIVIL OFFICERS.

Salaries under \$ 40 per month,	0.15 cents per diem.
„ from \$ 40 to \$ 60 per month,	0.20 „ „
„ „ \$ 60 to \$ 80 „ „	0.50 „ „
„ „ \$ 80 to \$100 „ „	0.75 „ „
„ over \$100, as Second Class Patient,	\$2.00 „ „
„ „ \$100, as First Class Patient,	\$3.00 „ „
„ less than \$20 per month,	Free.

Wives of Civil Officers will be charged on the same scale.

POLICE.

Inspector,	70 cents per diem.
European Constable,	21 „ „
Indian Constable,	17 „ „
Chinese Constable,	13 „ „

OTHER PATIENTS.

Private Patient, 1st Class,	\$6 00 „ „
„ 2nd „	\$4 00 „ „
„ 3rd „ (European),	\$2 00 „ „
„ 3rd „ (Asiatic),	0.50 cents „ „
„ 3rd „ („), at the <i>Hygeia</i> and Kennedy Town Hospital,	\$2.00 „ „
Seamen,	\$1.50 „ „
Children,	Free.

GOVERNMENT NOTIFICATION.—No. 562.

The following revised Scale of Fees required to be paid by patients at the Government European Chinese Lunatic Asylums on and after the 1st of January, 1898, is substituted for that published in Government Notification No. 531 of 30th November, 1897.

By Command,

J. H. STEWART LOCKHART,
Colonial Secretary.

Colonial Secretary's Office, Hongkong, 16th December, 1897.

SCALE OF FEES.

CIVIL OFFICERS.

Salaries under \$	per month,	0.15 cents per diem.
„ from \$	to \$ 60 per month,	0.20 „ „
„ „	to \$ 80 „	0.50 „ „
„ „	to \$100 „	0.75 „ „
„ „	as Second Class Patient,	\$2.00 „ „
„ „	as First Class Patient,	\$3.00 „ „
„ „	\$20 per month,	Free.

W. Officers will be charged on the same scale.

POLICE.

Police,	70 cents per diem.
Constable,	21 „ „
„ stable,	17 „ „
„ onstable,	13 „ „

OTHER PATIENTS.

First Class.

Diem. If any extraordinary attendance is desired, the extra cost to be added.

Second Class.

European (a) Local and such others as may be approved by the Governor,	\$1.50 per diem.
(b) Lunatics landed from ships on order or guarantee of Consuls or ship's agents,	\$2.00 „
Asiatics—Sent in from ships on Consular or ship's agents' guarantee,	\$3.00 „
„ „	\$2.00 „

Third Class.

Asiatics,	\$0.50 „
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Enclosure II.

PUBLIC MORTUARY,
HONGKONG, 31st January, 1899.

SIR,—I have the honour to forward to you, for the information of His Excellency the Governor, the enclosed report on the Public Mortuary for the year 1898.

I have the honour to be,
Sir,

Your obedient Servant,

JAMES A. LOWSON,
Medical Officer in charge.

Dr. J. M. ATKINSON,
Principal Civil Medical Officer.

PUBLIC MORTUARY.

What I have to report on this institution at present must be mainly statistical as the more important remarks must be combined with those on Plague, which will be treated later on.

Drs. BELL and THOMSON were in charge until I arrived in the Colony from leave on January 13th. From that date I remained in charge until July 29th, from which time till September 20th I acted as Principal Civil Medical Officer, Dr. THOMSON taking charge of the Mortuary. After October 3rd Dr. THOMSON and I exchanged duties to a certain extent, and he remained in charge until the end of the year.

Thanks to an enlightened Police Magistrate, who has the power to order post-mortem examinations to be made, a fairly reliable statement of causes of deaths can at last be supplied to the public. For years the cry of "No post mortem" has been dinned into one's ears by people who did not know the great issue at stake, but fortunately now the mere word "Plague" is sufficient to stop the croakings of those whose only fear was hurting (?) Chinese prejudices. On this point I may say that during my stay in Hongkong I have never heard a complaint about a *sectio cadaveris* after the friends are told that the Magistrate has ordered such *sectio* to be made. It is the old story; when a few Chinese wish to push some scheme of their own, they will always be able to raise some popular battle cry, such as cutting up pregnant uteri instead of buboes, etc. as happened in 1894. It is to be hoped for the sake of the Colony that no more attention will be paid to these in future. In 1898 over 1,100 *sectiones cadaveris* in Chinese have been made by Drs. BELL, THOMSON, and myself at the Mortuary alone, and not one word has been heard about them.

A large number of these were made with the tacit consent of relatives without the necessary intervention of a Police Magistrate.

The importance of knowing the cause of death is now much more acknowledged and seen by the Chinese than by Europeans; to a Chinese a doubtful case means disinfection and cleansing of his house, and he prefers to have his relatives examined on the off chance of their not having Plague, to having himself and his house thoroughly cleaned up.

During the year 1,314 human bodies were received at the Mortuary, and of these 610 died (diagnosed) of Plague, almost entirely between February and July. Of the 1,314 bodies received, 16 were those of Europeans, 5 of Portuguese, 4 of Indians, 3 semi-decomposed dogs, 2 Japanese, and the remainder Chinese.

Of the 610 plague bodies received, the addresses of 277 were known. The remainder were picked up in the harbour, streets, hill-sides, and out-of-the-way places. During the plague period 114 bodies were received so decomposed that the cause of death could not be accurately ascertained. It is needless to say that commonsense points to many of these having died of plague, as during the rest of the year only 13 decomposed bodies were received. The importance of these figures will be seen, when treating of plague later on. The diagnosis of all plague cases was confirmed by bacteriological examinations where there was the slightest doubt.

Of the 74 deaths from small-pox 66 % were those of children below 5 years of age, of which most were below 3 whilst there were only 3 adults received who had died of the disease. Conclusions will be drawn in writing of infectious disease. There has been some talk in late years about Typhoid, and occasionally scares have been caused. It has been the policy—at least of Dr. THOMSON and myself—to open every body we possibly could, with the permission of the Magistrate, and we only found 3 cases of Typhoid Fever (all in children) out of the large number we examined. To my mind, this only points out it *may* occur in Hongkong, but to say Typhoid is prevalent is to mis-state the case.

In the tables which follow, the figures speak for themselves. Under the heading of "Still-born" are included fœtuses, those born dead, and those dying evidently within a few hours of birth. 96 is a pretty large number for Hongkong; probably a lot more were never heard of. A majority of these cases were returned "want of attention at birth." Malnutrition is responsible for 31 deaths, principally those of very tender years, and it will be seen that the care of the young in Hongkong is not much to talk about from a favourable point of view. 43 deaths from drowning is also a large order, most of of them occurring *before* the typhoon season had set in. The deaths from diarrhœa (79) almost all occurred in young children, the result of gastro-enteritis—another proof of the absence of care for the young in Hongkong.

The following tables have been drawn up in very simple form, as it is really in the province of the Medical Officer of Health to report on the *total* death statistics of the Colony. During the year the method of keeping the records has been improved and next year a better set of tables will probably be the result. Of the poisoning cases, 12 were due to opium, 1 to arsenic, and 2 to irritants not discovered.

As regards accommodation in the Mortuary, additional tables had to be provided during the plague epidemic, as the number hitherto in use was quite inadequate.

The water supply was hopelessly insufficient at different times of the year, and the stench was often unbearable on this account.

The caretaker has greatly improved the appearance of the Mortuary by some careful gardening. This man is known amongst his friends by the sobriquet of "The Butcher," and he has done all his duties in a most satisfactory manner.

Table of Bodies received in each Month of the Year.

Month.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Total,	65	96	161	260	315	108	58	58	39	56	47	51

The following Table shows the Cause of Death :—

(a) Specific Febrile and allied Diseases,—

Plague,	610
Small-pox,	74
Tuberculosis,	36
Septicæmia,	1
Trismus and Tetanus,	16
Typhoid Fever,	3
Beri-beri,	1
Syphilis,	1
Malarial Fever,	37
Dysentery,	4

783

(b) Developmental Diseases,—

Still-born,	96
Senilitas,	8
Malnutrition,	31

135

(c) Effects of Injuries, Heat, Cold, &c.,—

Drowning,	43
Shock (Burns),	2
„ (Electric),	1
Heat Apoplexy,	4
Exposure,	1
Excessive Exertion and Strain,	1
Asphyxia (Hanging),	5
„ (Earth),	1
Cut-throat,	2
Multiple Injuries,	9
Rupture of Spleen,	5
„ of Liver,	1
„ of Small Intestine,	1
Bullet Wounds,	3
Fracture of Skull,	7
Concussion and Hæmorrhage Brain,	1

(d) Poisoning,—

Arsenic,	1
Opium,	12
Irritants (unknown),	2
Alcohol,	1

103

(e) Diseases of different Systems,—

Pneumonia,	6
Chronic Bronchitis and Emphysema,	6
Cardiac Disease,	28
Diarrhœa (Gastro-Enteritis),	79
Bright's Disease,	1
Meningitis,	3
Hydrocephalus,	1
Strangulated Hernia,	1
Peritonitis,	1
Post Partum Hæmorrhage,	1
Suppurative Fallopian Tube,	1
Boils and Exhaustion,	1
Aortic Aneurism,	2

131

(f) Decomposed,	127
Undiagnosed,	25
Skeletons,	10

162

Total, 1,314

Enclosure III.

Report of the Medical Officer of Victoria Gaol.

VICTORIA GAOL,
HONGKONG, 27th January, 1899.

SIR,—I have the honour to submit, for the information of His Excellency the Governor, the medical report of the health and sanitary condition of Victoria Gaol for the year 1898.

The total number of Admissions to the Gaol was 5,427, as compared with 5,076 in 1897 and 5,582 in 1896; and the daily average number of prisoners was 511, as compared with 462 and 514 in the previous two years respectively.

298 prisoners were admitted to the Gaol Hospital, as compared with 342 in 1897 and 507 in 1896; and 1,033 less serious cases, including skin diseases, were treated in the cells, as compared with 455 in 1897 and 740 in 1896. In these figures no account is taken of a large number of trivial complaints made daily, many of them by malingerers trying to shirk labour tasks to which they have been sentenced.

The Hospital cases included 33 Malarial Fever, 12 Venereal Diseases, 11 Rheumatism, 14 General Debility, and 17 Mechanical Injuries. A considerable number of these injuries were known, or believed, to have been self-inflicted in order to escape hard labour. Eleven of the cases of skin disease among Europeans were Pemphigus Contagiosus, all of which occurred during the month of September. They were at once isolated, and daily inspection of all European prisoners was carried out until cases ceased to appear. No cases occurred among the Chinese prisoners.

The increase in the number of extern cases was due partly to the smaller number received into Hospital, but chiefly to a more systematic treatment of all cases of skin disease and venereal disorders.

The following extracts from the appended table and from the corresponding table of last year illustrate this:—

	1897.	1898.
Syphilis,.....	86	149
Gonorrhœa,	39	73
Diseases dependent on Animal Parasites,.....	82	164
" " " Vegetable " " 	60	172
Other Skin Diseases,.....	49	177

I have endeavoured also to make the largest possible use of the Gaol towards the stamping out of Small-pox in the Colony, and all prisoners admitted during the year have been vaccinated, when calf lymph has been available, unless age, health, or other consideration rendered the operation undesirable. Formerly only long-sentence prisoners were vaccinated. The number of persons vaccinated was 4,507, a very much larger number than in any previous year. One of the appended tables shows the number and results of vaccinations in the Gaol during the past ten years. It will be noted that a very considerable proportion of the prisoners vaccinated have had marks of previous vaccination. After all due allowance is made for the fact that in the case of habitual criminals many of such previous marks were probably made in the Gaol itself during former imprisonments, it seems evident that vaccination is fairly wide-spread among the Chinese of this neighbourhood.

A case of Small-pox having occurred in a European warder in the month of January, I promptly made a careful inspection of all the officers and inmates of the institution for marks of previous vaccination or of Small-pox, and, with the assistance of Dr. CHUNG KING UE and the late Dr. U I KAI, vaccinated all who were unable to prove either recent vaccination or an actual attack of Small-pox. Of 498 persons inspected, 290 were vaccinated, as follows:—

	Examined.	Vaccinated.
European Officers,	22	21
Indian Officers,	33	33
Native Servants,	6	4
Prisoners,.....	437	232
	—	—
Total,.....	498	290

There were three cases of Plague, two of which are shown in the Table as having been in the Hospital while under observation. The third was removed direct from his cell to the Plague Hospital at Kennedy Town. All three occurred in prisoners recently admitted to Gaol, and presumably infected before admission. In each case careful measures were adopted to prevent the spread of the disease in the Gaol, fortunately with complete success.

Six deaths from natural causes occurred during the year, as follows:—Chronic Bronchitis, Tuberculosis of Lungs (two cases), Multiple Liver Abscess, Gall-Stone, and Plague. There were also eight deaths by Hanging:—two suicides and six executions.

The total number of Floggings with the birch was 173:—101 by order of the Police Magistrate, 3 by the Supreme Court, 51 by the Superintendent, and 18 by the Superintendent along with a Justice of the Peace. In no case was injury caused requiring surgical treatment or any modification of the prisoner's labour.

Twenty-seven prisoners were during the year discharged from the prison on the recommendation of the Medical Officer, as follows:—11, found to be suffering from Leprosy, were handed to the police for deportation from the Colony; 9 were found to be of unsound mind, for the most part on their first admission to the Gaol, and were sent to the Lunatic Asylum; 2 were transferred to the Government Civil Hospital, 4 to the Tung Wah Hospital, and 1 to Kennedy Town Hospital.

During the year I have, in consultation with the Superintendent of the Gaol, and with the fullest information on the subject before me from local and convict prisons in Great Britain and from prisons in different parts of India, reconstructed the whole of the Diet Scales in the Gaol, and the amended dietaries have been adopted by the Government.

The health of the warders has been satisfactory, an unusually small number of them having been sent to Hospital during the past year.

The sanitary condition of the Gaol is good, and is being greatly improved in connection with extensive structural alterations now in progress.

These alterations have included the transformation of part of the warders' barracks into a commodious hospital; but, while the necessary structural changes have been made, the wards have had to be re-occupied by Indian warders, pending the erection of their own new quarters. Meanwhile, the old hospital having been given up to be merged in the female prison, on the understanding that the new one would at an early date be available, the medical work of the Gaol has during the greater part of the year been carried on at great inconvenience, and unsatisfactorily, in certain cells previously assigned to debtors.

I append the following Tables:—

- I. Showing the Admissions and Mortality in Victoria Gaol Hospital during the year 1898;
- II. Showing cases treated by the Medical Officer in Victoria Gaol, but not admitted to Hospital, during the year 1898;
- III. Showing the Rate of Sickness and Mortality in Victoria Gaol during the year 1898;
- IV. Showing the number and results of Vaccinations in Victoria Gaol during the past ten years;
- V. Showing General Statistics connected with Victoria Gaol and the Gaol Hospital during the past ten years.

Tables IV. and V. are new, and afford a good general view of the medical work of the Gaol; Table III. I have modified in one or two slight details; and the tables that formerly appeared concerning Opium Smokers and cases admitted to Hospital at their first medical examination by the Medical Officer I have, with your previous approval, omitted as being no longer necessary, sufficient data on these subjects having been placed on record.

I have the honour to be,

Sir,

Your obedient Servant,

JOHN C. THOMSON, M.D., M.A.,
Medical Officer.

Dr. J. M. ATKINSON,

Principal Civil Medical Officer,

&c. &c. &c.

Table I.—Showing the ADMISSIONS and MORTALITY in VICTORIA GAOL HOSPITAL during the Year 1898.

	ADMISSIONS.				DEATHS.			
	Euro-peans.	Indians and Coloured Persons.	Asiatics.	Total.	Euro-peans.	Indians and Coloured Persons.	Asiatics.	Total.
GENERAL DISEASES :—								
Rubella, .....	...	...	1	1	...	...	...	...
Plague, .....	...	...	2	2	...	...	1	1
Dysentery,	1	1	3	5	...	...	...	...
Beri-beri, .....	...	...	4	4	...	...	...	...
Malarial Fever—								
<i>a.</i> Intermittent, .....	...	1	8	9	...	...	...	...
<i>b.</i> Remittent,	4	1	19	24	...	...	...	...
Erysipelas, .....	...	...	5	5	...	...	...	...
Syphilis—								
<i>a.</i> Primary,	2	...	2	4	...	...	...	...
<i>b.</i> Constitutional,	2	...	5	7	...	...	...	...
Gonorrhœa,	1	...	...	1	...	...	...	...
Diseases dependent on Animal Parasites, .....	...	1	1	2	...	...	...	...
Diseases dependent on Vegetable Parasites, .....	...	...	3	3	...	...	...	...
Rheumatism,	4	...	7	11	...	...	...	...
New Growth, non-malignant, .....	...	...	1	1	...	...	...	...
" malignant, .....	...	...	1	1	...	...	...	...
Anœmia, .....	...	...	2	2	...	...	...	...
Debility, .....	...	...	14	14	...	...	...	...
LOCAL DISEASES :—								
Diseases of the Nervous System,	1	...	14	15	...	...	...	...
" of Eye, .....	...	...	5	5	...	...	...	...
" of Ear, .....	...	...	1	1	...	...	...	...
" of Circulatory System, .....	...	...	9	9	...	...	...	...
" of Respiratory System, .....	...	...	20	20	...	...	3	3
" of Digestive System,	3	2	38	43	...	...	2	2
" of Lymphatic System,	1	...	10	11	...	...	...	...
" of Urinary System, .....	...	...	4	4	...	...	...	...
" of Generative System, .....	...	1	4	5	...	...	...	...
" of Organs of Locomotion,	1	...	3	4	...	...	...	...
" of Connective Tissue, .....	...	2	31	33	...	...	...	...
" of Skin,	13	...	11	24	...	...	...	...
Local Injuries,	3	1	13	17	...	...	...	...
Under Observation,	4	1	6	11	...	...	...	...
Total,	40	11	247	298	...	...	6	6

OTHER DEATHS :—Suicide by Hanging, 2 Chinese.
 Executions, 1 European.
 " 5 Chinese.

Total, 8

JOHN C. THOMSON, *Medical Officer.*

Table II.—Showing CASES TREATED by the Medical Officer in VICTORIA GAOL, but NOT ADMITTED TO HOSPITAL, during the Year 1898.

	Europeans.	Indians and Coloured Persons.	Asiatics.	Total.
GENERAL DISEASES :—				
Syphilis— <i>a.</i> Primary,	21	3	124	148
<i>b.</i> Constitutional, ... ..	...	...	1	1
Gonorrhœa,	17	...	56	73
Diseases dependent on Animal Parasites,	4	...	160	164
" " Vegetable Parasites,	38	1	133	172
LOCAL DISEASES :—				
Diseases of the Eye,	1	...	24	25
" Ear,	11	2	17	30
" Digestive System,	1	1	13	15
" Lymphatic " ... ..	...	...	20	20
" Generative " ... ..	...	...	1	1
" Connective Tissue,	10	...	120	130
" Skin,	15	2	160	177
Local Injuries,	14	5	58	77
Total,	132	14	887	1,033

JOHN C. THOMSON, *Medical Officer.*

Table III.—Showing the RATE of SICKNESS and MORTALITY in VICTORIA GAOL during the Year 1898.

TOTAL NUMBER OF:—				DAILY AVERAGE NUMBER OF:—			RATE PER CENT. OF:—		
Prisoners admitted to Gaol.	Admissions to Hospital.	Cases, including Skin Diseases, treated in the Cells.	Deaths due to Disease.	Prisoners in Gaol.	Sick in Hospital.	Sick not in Hospital.	Admissions to Hospital to Total Admissions to Gaol.	Daily Average number of all Sick to Daily Average number of Prisoners.	Deaths due to Disease to Total Admissions to Gaol.
5,427	298	1,033	6	511	7.78	26.26	5.49	6.66	0.11

JOHN C. THOMSON,
Medical Officer.

Table IV.—Showing the NUMBER and RESULTS of VACCINATIONS in VICTORIA GAOL during the past ten Years.

Year.	Number of Prisoners Vaccinated.	Successful.	Unsuccessful.	Not inspected, owing to early discharge from Gaol.	Number of those Vaccinated who showed marks of previous Vaccination.
1889.....	2,060	1,445	615	...	2,057
1890.....	1,736	1,024	712	...	1,722
1891.....	2,836	1,090	1,346	...	2,521
1892.....	2,625	1,985	640	...	2,618
1893.....	1,417	763	654	...	1,325
1894.....	747	242	505	...	746
1895.....	942	455	487	...	941
1896.....	831	631	200	...	831
1897.....	2,830	1,678	1,016	136	2,410
1898.....	4,507	2,875	1,252	380	4,181

JOHN C. THOMSON,
Medical Officer.

Table V.—Showing GENERAL STATISTICS connected with VICTORIA GAOL and the GAOL HOSPITAL during the past ten Years.

Year.	Admissions to the Gaol.	Daily Average Number of Prisoners.	Number of Cases treated in Hospital.	Number of less serious Cases, including Skin Diseases, treated in the Cells.	Deaths due to Disease.
1889.....	3,705	581	244	217	4
1890.....	3,444	566	368	699	6
1891.....	5,231	507	364	558	8
1892.....	5,046	515	312	723	6
1893.....	4,010	458	271	523	2
1894.....	3,913	455	272	614	5
1895.....	5,014	472	281	948	7
1896.....	5,582	514	507	740	10
1897.....	5,076	462	342	455	4
1898.....	5,427	511	298	1,033	6

JOHN C. THOMSON,
Medical Officer.

Enclosure IV.*Report of the Inspecting Medical Officer of the Tung Wah Hospital.*

TUNG WAH HOSPITAL,
HONGKONG, 9th February, 1899.

SIR,—I have the honour to submit, for the information of His Excellency the Governor, the Annual Report of the Tung Wah Hospital for the year 1898.

The number of patients in the wards at the beginning of the year was 121; 2,898 were admitted during 1898, making a total of 3,019 under treatment; 2,029 were discharged; 842 died; leaving 148 in the Hospital on the evening of 31st December.

The Admissions during the past ten years have been:—

1889.....	2,050
1890.....	2,260
1891.....	2,514
1892.....	2,455
1893.....	2,255
1894.....	2,354
1895.....	2,732
1896.....	2,041
1897.....	2,776
1898.....	2,898

From these figures it will be seen that the number of Admissions last year was greater than in any year during the decade, as was the case also for 1897 as compared with the ten years preceding that; so that the resolution of the Government two years ago to insist upon necessary reforms in the Tung Wah Hospital has been accorded the approval of at least the classes for whose benefit the institution exists.

Of the 2,898 Admissions, 1,873 were treated by the Chinese native doctors; 569 by Dr. CHUNG according to European methods; and 456 are classed as transferred to other Hospitals. In this 456, however, 39 cases of Plague and Small-pox, brought to Tung Wah Hospital in a dying condition, and allowed to die before removal to Kennedy Town, are included for convenience of classification, so that the actual number removed elsewhere for treatment was 417. These were distributed as follows: 36 to the Civil Hospital, 3 to the Lunatic Asylum, 153 (16 Small-pox and 137 Plague) to Kennedy Town Infective Diseases Hospital, 222 to the Tung Wah Branch Plague Hospital at Kennedy Town, and 3 to the Italian Convent.

Thus only 65 per cent. of the total number of patients admitted came under native treatment, 35 per cent. being treated by Dr. CHUNG or transferred to other institutions for foreign treatment. If those transferred be excluded, and the 2,442 cases actually treated at the Tung Wah Hospital be alone considered, 23 per cent. were treated by Western methods, and 77 per cent. by Chinese methods. When it is mentioned that there are six native doctors, it will be apparent that even in this second year of the new régime Dr. CHUNG and his European practice have secured more than a proportional share of the work being done in the wards. The selection of treatment is entirely at the option of the patients or their friends, no pressure being brought to bear, except in certain well-defined circumstances which are recognised and submitted to by the native doctors, viz.:—all cases of infective disease at once pass under the care of Dr. CHUNG; all cases brought in by the Police are treated by him; and in cases of emergency, where life or limb would manifestly be sacrificed by non-interference, under special instructions from myself, or occasionally on his own initiative, Dr. CHUNG steps in and takes control.

90,880 consultations in the Out-Patient Department, which is a separate building on the opposite side of Po Yan Street, are reported by the native doctors. In 1897 the number was 117,542.

1,588 vaccinations were performed, as compared with 2,142 in the previous year, in Hongkong and the out-lying villages, as shown in the appended Table, by a Public Vaccinator connected with the Tung Wah Hospital.

853 male Destitutes were supplied with food and shelter for varying periods during the year, and given such further assistance as was considered desirable by the Directors of the Hospital. They came from sources as follows:—

Shipwrecked sailors and fishermen,	82
Sent from Registrar-General's Office,	153
Brought by Police,	3
Lodged for Po Leung Kuk Committee,	96
Arrived from Saigon,	478
" " Macao,	12
Recommended by various hong, etc.,	29

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The large numbers coming from Saigon are chiefly people who have been unable to pay the poll-tax there, and who after being in prison for this reason are handed to a Chinese charitable society to be returned to their native districts. The Tung Wah Directors assist this society by receiving them on their arrival in Hongkong, and arranging for their being forwarded to their destinations, while contributions sent to the Hospital funds from Chinese in Saigon more than cover the outlay involved.

The similar work of the refuge known as the Po Leung Kuk, adjoining the Tung Wah Hospital, which while under the management of another Board of Directors works in co-operation with the other, may here be mentioned. This institution has during the past year found husbands for 30 women, secured adoption into families for 7 girls, and sent to their homes in the country 106 men and 205 women and girls.

Of the 842 deaths, 217 (176 male and 41 female) were moribund on admission, death occurring within a few hours after reception into the Hospital. Where curative treatment is hopeless, such palliative treatment as may be possible is administered by the Chinese doctors or by Dr. CHUNG using Western methods as may have been selected by the patient or his friends, and the cases are classed accordingly. Thus of the 217 moribund cases, 60 are classed in the Table showing Admissions and Mortality as having been under European treatment, and 157 as under Chinese treatment.

In addition to the above, 344 dead bodies (257 male and 87 female) were brought to the Tung Wah Hospital mortuary to await burial. An approximate diagnosis of the causes of death for the purposes of the Registrar-General's returns is made by means of inspection of these bodies and cross-questioning of the friends or relatives as to the symptoms and duration of the illnesses preceding death. On account of the antipathy of the Chinese to any mutilation of the dead body, *post-mortem* section is resorted to as seldom as possible; but where the statements made seem to be not straightforward, or where death may have resulted from infective disease, or where medico-legal questions are involved, as in sudden death and death by accident, suicide, poisoning, &c., the bodies are transferred to the Public Mortuary for internal examination. Such internal examination was considered necessary in 20 cases during the year.

Some of those who die in the Hospital and of those brought to the Hospital Mortuary are buried privately by their relatives, but the larger proportion are buried at the expense of the Hospital funds. Large numbers of poor people also who die in the Government Civil Hospital, and abandoned dead bodies found by the Police and taken to the Public Mortuary, are buried by the charitable funds of the Tung Wah Hospital. During 1898 free burial was thus provided for 1,309 persons, as follows:—603 from Tung Wah Hospital; 159 bodies brought in already dead; and 547 from the Government Civil Hospital and the Government Public Mortuary.

THE HOSPITAL STAFF.

The Steward who was on probation at the date of my last report proved satisfactory, and his appointment was confirmed. This carries into effect the recommendation of the Tung Wah Commission that such an office should be created, and the duties assigned to the Steward are those suggested:—he is held responsible for the sanitary maintenance of the Hospital buildings and drainage, for the personal cleanliness of the patients, their bedding and clothing, for the proper carrying out of the conservancy system, for the proper ventilation of the wards, &c., and the working staff of the Hospital is under his control. The Steward along with Dr. CHUNG and a head coolie accompany me all over the Hospital daily at my morning inspection, and I am thus able at once to point out anything requiring attention to the person immediately responsible for it.

A second student of the College of Medicine for Chinese, named LEUNG CHIK FAN, was early in the year appointed by the Directors to assist Dr. CHUNG.

TANG KING FAI, his first student-assistant, has been appointed by the Directors, and recognised by the Government, as Public Vaccinator in connection with the institution, in addition to his clinical duties.

THE HOSPITAL BUILDINGS.

All the six large wards on the ground-floor have been re-floored with wood.

The wards are now warmed by means of stoves instead of the small fire-places formerly in use, though the latter are still available in case of need.

The kitchen has been re-floored and re-constructed, with very considerable improvements in its arrangements and equipment.

A covered gangway has been constructed between the verandahs of the upper floors of the North and West Blocks of wards, facilitating communication between them.

A strong iron fence has been erected round the verandah of the upper storey of the West Block of wards, which includes the Fever Wards, to obviate risks to delirious patients.

All the drains have been examined, and where defective have been put in order, under the supervision of the architect, and of officers of the Public Works Department.

The appearance of the Hospital has been materially improved during the year by a free use of paint and colour-washing, and by the placing of plants in pots all over the institution.

Certain of the Ko Fong wards still remain, and the use of these for the accommodation of the female patients is in every respect unsatisfactory. This question would probably have been dealt with in 1898 but for the disturbance in the financial calculations of the late Board of Directors that resulted from the Plague Epidemic, and the consequent necessity of maintaining for a time a special Plague Hospital. It is to be hoped that the new Directors will move vigorously towards the removal of this ground of complaint, under the stimulus of the generous offer made by His Excellency at his recent meeting with them on 10th January to grant a site for the necessary enlargement of the Hospital on part of the adjoining resumed area on Taipingshan.

THE WARDS AND THE WARD WORK.

A uniform has been provided for the use of the ward-coolies.

During the summer over 250 small blankets were purchased, and were in use in all the wards. The Directors of the previous year had refused to sanction the use of blankets. As the cold weather advanced, the cotton quilts ("meen-tois") were issued again, to a large extent new, however, and all of them clean and in good order, but the use of blankets during the autumn indicates the beginning of the disappearance of the opposition that formerly existed to all forms of bedding except these quilts. I make a weekly inspection of all "meen-tois" in use with their covers removed.

Clothing and bedding are now kept clean, and the regulations which I made regarding them are carried out to my satisfaction. The clean clothing is laid out on the beds for my personal inspection before use every Wednesday and Saturday morning, and the soiled clothing is changed and removed from the Hospital immediately after my visit. In former times all the washing was done within the Hospital, but under new conditions this soon became impossible, and now nearly all of it is done by outside laundrymen.

A temperature chart is now kept in all cases of Diarrhœa as well as in all cases of Fever, whether under native or Western treatment, to obviate the probability of obscure cases of Enteric Fever being classed as simple Diarrhœa, with the consequent risks of infection.

Quinine is now systematically used, though under protest on the part of some of the native doctors, in all cases diagnosed malarial, whether under native or Western treatment. In the more virulent types and in cases brought in comatose, it is administered by Dr. CHUNG subcutaneously. By this means the mortality in malarial fevers has been reduced from 33 per cent. (191 deaths in 571 cases) in 1897 to 23 per cent. (122 deaths in 521 cases) in 1898. It is still abnormally high, and would no doubt be further reduced were all cases treated properly, but it is to some extent at least due to the large number of cases of Pernicious Remittent Fever brought in advanced stages from out-lying districts such as Aberdeen and Quarry Bay.

It is necessary throughout the Table showing the proportion of deaths to admissions to have in mind the fact that the Tung Wah Hospital is largely used as a sort of dying house by the lower orders of the Chinese community, many cases "*in extremis*" being brought in from the coolie houses, &c., and many others being in perfectly hopeless stages of Pulmonary Tuberculosis, Heart Disease, Malarial Cachexia, &c.

OPERATIONS.

Almost from the beginning of his connection with the Tung Wah Hospital Dr. CHUNG has performed surgical operations of a minor character, but only lately has he felt himself at liberty to attempt there anything at all serious, though he had previously had considerable operative experience. During the latter part of the year he has successfully performed the following:—

- Amputation through the thigh,
- Lateral Lithotomy for Vesical Calculus (3 cases),
- Reduction of Dislocation of Hip Joint,
- Removal of Necrosis of Lower Jaw,
- Operations for Cataract, Entropion, Pterygium, Fistula in Ano, Cysts, &c.

This is specially worthy of note as marking the introduction of European Surgery under the influence of Chloroform into the Tung Wah Hospital. In all cases where a general anæsthetic was used, it was administered by Dr. WAN TŪN MO, House-Surgeon of the Alice Memorial Hospital, who is an experienced anæsthetist. All the patients have done well, and there has been no case of death following operation.

THE PLAGUE EPIDEMIC.

During the Plague Epidemic of 1898 the Tung Wah Hospital was used as a convenient centre for the inspection and diagnosis of suspicious cases found alive by the search parties, and from the beginning of May all Chinese patients were first conveyed thither. Dr. CHUNG at once forwarded those found to be suffering from Bubonic Plague to Kennedy Town, and less pronounced cases were detained in the Receiving Ward for further examination by myself.

The Captain Superintendent of Police appointed Chinese constables to superintend the transfer of Plague cases to the Plague Hospitals, and these were on duty at the Tung Wah Hospital day and night while the epidemic lasted.

THE TUNG WAH BRANCH PLAGUE HOSPITAL.

To assist the Government to cope with the epidemic, and to induce the Chinese to make earlier declaration of cases of Plague occurring in their houses, a Native Plague Hospital was opened by the Directors of the Tung Wah Hospital on 2nd May, and remained open until 27th June.

This Hospital, which was described as the Tung Wah Branch Plague Hospital, consisted of twenty-two matsheds erected on the shore in front of the Government Infective Diseases Hospital at Kennedy Town, three of which had previously been used in connection with that institution, whilst the others were specially built. These were used for purposes as follows:—

- 5 wards,
- 1 (in 3 divisions) Directors' Room, Students' Room, and Office,
- 2 divided to form Doctors' Rooms,
- 1 Dispensary and sleeping room for dispensers,
- 1 Room for disinfecting visitors,
- 1 Fire-engine house,
- 1 Porter's room,
- 3 Coolie houses,
- 1 Amahs' room,
- 2 Kitchens,
- 1 Laundry,
- 1 Mortuary,
- 1 Coffin store,
- 1 Latrine.

The five wards contained accommodation for 100 patients, and might in case of need have taken in a larger number without being injurious or overcrowded. Fortunately, the epidemic was not such as at any time to use them to their full capacity.

The wards and some of the other matsheds were built on piles, out from the sea-wall, the floors being on a level with the top of the wall; and thus was secured the advantage of having the whole area under them washed twice a day by the tides, as well as a very free circulation of air within them. They all had verandahs on the side fronting to the sea, and the new ones also on the opposite side.

The following staff of Employés was arranged for at the date of opening:—

- 2 Students of Western medicine,
- 8 Native Chinese doctors,
- 1 Chinese clerk,
- 1 Head-coolie,
- 2 Dispensers,
- 4 Cooks,
- 3 Boys (attendants for doctors and students),
- 2 Amahs,
- 30 Coolies (ward attendants, &c.),
- 2 Night-soil coolies,
- 1 Messenger,
- 1 Barber.

This Staff was gradually reduced as it became apparent that the epidemic was not going to prove so serious as was at one time anticipated.

I visited the Branch Hospital twice a day for purposes of diagnosis and sanitary supervision, until near the end of the epidemic when I attended once a day. Dr. CHUNG, Resident House-Surgeon in the Tung Wah Hospital for European treatment, also visited the Branch Hospital twice daily.

The two students of the College of Medicine for Chinese were engaged at my suggestion to allow patients the same option of treatment by Chinese or European methods that is now given to all who enter the Tung Wah Hospital. It was found, however, in practice that the choice made at the Tung Wah Hospital by patients or their friends to be sent to the Government Plague Hospital or the Tung Wah Branch Hospital respectively, included their choice of methods of treatment, and all who came to the latter expected to be treated by the Chinese doctors. The work of these students, therefore, came to be the keeping of necessary records; the preparation of the daily returns made to His Excellency the Officer Administering the Government, the Principal Civil Medical Officer, and the Sanitary Board; and the carrying out of my instructions regarding the sanitary maintenance of the Hospital; while they were occasionally called in by the native doctors to incise buboes and otherwise to some extent modify the native treatment.

A police guard was maintained night and day at the gate of the Branch Hospital by the Captain Superintendent of Police, to secure the carrying out of regulations for the prevention of the spread of infection from the Hospital.

The encoffining and burial of the Dead were under the supervision of two English soldiers, who were for the time being on the staff of the Sanitary Board. They also overlooked the disposal of excreta, &c., from the wards. The night-soil from the wards was mixed with sawdust, and destroyed by fire on an incinerator, which consisted of two parallel brick walls about 2 feet 6 inches high and six feet long, with a close grating of iron bars across the top, the ground surface between the walls being concreted.

The visits of friends of patients were carefully regulated and limited, and all such visitors were required to disinfect themselves after leaving the wards.

The total number of Admissions to the Branch Hospital was 224, of whom 222 came viâ the Tung Wah Hospital. Of these, 15, all male, proved after due observation not to be suffering from Plague, and were returned to the Tung Wah Hospital for treatment of their various conditions, or permitted to return to their homes.

Of the 209 cases of Plague (138 male and 71 female), 5 were transferred to the Government Plague Hospital, 3 were removed by their friends to Canton, 28 were discharged cured, and 173 died. This gives a death-rate of 82.8 per cent., as compared with the general rate among the Chinese of 89.6 per cent.

In addition, two dead bodies of Plague patients were received, and two premature births occurred in the Hospital.

76 had femoral buboes, 25 axillary, 24 inguinal, 8 cervical, 3 were of pneumonic type, and 73 had neither buboes nor pneumonic symptoms. No *post-mortem* examinations were possible, so that no information regarding internal glandular swellings was obtainable. Bacteriological examination was made of blood, &c. from doubtful cases.

None of the employés of the Hospital contracted Plague.

When the Branch Hospital was closed on 27th June, careful precautions were adopted to secure the efficient disinfection of such furnishings as could be returned to the Tung Wah Hospital, and such as could not be thoroughly disinfected were destroyed.

Bedboards were washed with Jeyes' Fluid and exposed to the sun, and were afterwards re-painted before being stored for future use. White clothing and blankets were soaked in Jeyes' Fluid, boiled, washed, and sent to the Public Disinfector for steam disinfection, after which they were removed direct to the Tung Wah Hospital. All other clothing and bedding, including the quilted cotton coverlets, quilted jackets, bedmats and pillows, with the beds, &c., used in the Mortuary, were destroyed by fire in my presence. All dishes and other vessels used in the wards were broken.

The matsheds and the incinerator were by direction of the Government left *in situ*, for future use should the occasion arise.

THE BOARD OF DIRECTORS.

I desire to acknowledge my sense of indebtedness to the late Directors of the Tung Wah Hospital, who have given the most courteous consideration and attention to every matter that I have found it necessary to bring under their notice, for their efforts to carry into effect my suggestions regarding the working of both the Tung Wah Hospital itself and the Branch Hospital.

Especially I would direct the attention of His Excellency the Governor to the work of Mr. FUNG WA CHÜN whose influence has had much to do with the fact that the relations between the Government, the Tung Wah Directors, and the Chinese community during a very trying year have been so uniformly harmonious.

TABLES.

I append the following Tables :—

I. Showing the Admissions and Mortality in the Tung Wah Hospital during the year 1898, with the proportion of cases treated by European and Chinese methods respectively ;

II. Showing General Statistics relating to the Tung Wah Hospital during the year 1898 ;

III. Showing Vaccinations in, and in connection with, the Tung Wah Hospital during the year 1898.

I have the honour to be,

Sir,

Your obedient Servant,

JOHN C. THOMSON, M.D., M.A.,
Inspecting Medical Officer.

Dr. J. M. ATKINSON,

Principal Civil Medical Officer,

&c., &c., &c.

Table I.—Showing the ADMISSIONS and MORTALITY in the TUNG WAH HOSPITAL during the Year 1898, with the proportion of Cases treated by European and Chinese methods respectively.

	ADMISSIONS.			DEATHS.		
	European Treatment.	Chinese Treatment.	Total.	European Treatment.	Chinese Treatment.	Total.
GENERAL DISEASES :—						
*Small-pox,	17	...	17	1	...	1
*Plague,	397	...	397	38	...	38
Influenza,	2	1	3	...	...	...
Enteric Fever,	3	1	4	3	1	4
Dysentery,	8	61	69	3	35	38
Beri-beri,	39	129	168	15	69	84
Malarial Fever,—						
<i>a.</i> Intermittent,	11	87	98	...	5	5
<i>b.</i> Remittent,	77	346	423	16	101	117
Erysipelas,	2	6	8	...	...	...
Pyæmia, ... ..	...	1	1	...	1	1
Septicæmia,	4	6	10	4	6	10
Tetanus,	1	7	8	1	5	6
Tubercle,	1	...	1	1	...	1
Syphilis, Constitutional,	31	10	41	1	3	4
Alcoholism, ... ..	...	2	2	...	...	...
Rheumatism,	30	35	65	...	...	...
New Growth, non-malignant,	1	1	2	...	...	...
" malignant,	8	6	14	2	6	8
Anæmia,	2	11	13	...	4	4
Debility,	5	30	35	1	14	15
LOCAL DISEASES :—						
Diseases of the Nervous System,	36	38	74	12	20	32
" of the Eye,	8	...	8	...	...	...
" of the Circulatory System,	18	89	107	15	48	63
" of the Respiratory System,	49	468	517	29	264	293
" of the Digestive System,	54	201	255	20	69	89
" of the Lymphatic System,	17	12	29	...	...	...
" of the Urinary System,	11	15	26	3	11	14
" of the Generative System,—						
Male Organs,	11	1	12	...	...	...
Female Organs,	1	4	5	...	1	1
" of the Organs of Locomotion,	41	34	75	1	1	2
" of the Cellular Tissue,	56	74	130	...	1	1
" of the Skin,	40	66	106	1	2	3
Local Injuries,	40	127	167	2	4	6
Poisons,	2	1	3	1	1	2
Parasites,	2	3	5	...	...	...
Total,	1,025†	1,873	2,898	170‡	672	842

* Transferred at once, unless actually dying, to Kennedy Town.

† Includes 456 cases sent (39, as below, after death) to Kennedy Town and other Hospitals.

‡ Includes 1 Small-pox and 38 Plague, received *in extremis*, and allowed to die before removal to Kennedy Town.

JOHN C. THOMSON,
Inspecting Medical Officer.

Table II.—Showing GENERAL STATISTICS relating to the TUNG WAH HOSPITAL during the Year 1898.

Patients.	Remaining in Hospital on 31st Dec., 1897.	Admitted.	Total under Treatment.	Discharged.	Deaths.	Remaining in Hospital on 31st Dec., 1898.	Out-Patients.	Vaccinations.	Destitutes temporarily housed and fed.	Dead Bodies brought to Hospital Mortuary for burial.
Male,	111	2,477	2,588	1,789	668	131	62,576	731	853	257
Female,	10	421	431	240	174	17	28,304	857	...	87
Total,	121	2,898	3,019	2,029	842	148	90,880	1,588	853	344

JOHN C. THOMSON,
Inspecting Medical Officer.

Table III.—Showing VACCINATIONS at, and in connection with, the TUNG WAH HOSPITAL during the Year 1898.

Hongkong.	Shaikiwan.	Aberdeen.	Stanley.	Yaumati.	Hunghom.	Total.
1,358	31	45	68	70	16	1,588

JOHN C. THOMSON,
Inspecting Medical Officer.

Enclosure V.

GOVERNMENT LUNATIC ASYLUM,
HONGKONG, 1st January, 1899.

SIR,—I have the honour to submit a report on the Government Lunatic Asylum during the year 1898 with two tables showing the admissions and deaths that have occurred and the diseases for which the patients were admitted.

Eighty-two patients were admitted during the year, of which number 6 died, 37 were sent to Canton, and 36 were discharged in the care of friends or relatives either cured or partially relieved.

Europeans.—Two deaths occurred amongst these patients, one from cerebral softening in the person of an old man aged 63 and the other from Meningitis. The European admitted in April is a German suffering from General Paralysis of the Insane. It has been found impossible to compel his Consul to remove him to his native place, and he is still in the Asylum—the only male European—and likely to last another 6 months. The female lunatic is the well known American whom it has also been found impossible to get rid of.

It is worthy of note that the only two remaining on hand in this Asylum are both foreigners, six of whom have been admitted to the Asylum during the year, as against two Britishers. No female Europeans have been in the Asylum during the past year.

Chinese.—The majority of these were as usual “harmless lunatics” including a case in which the dementia appears to have been a sequelæ of plague. Only one authentic case of puerperal mania was admitted, but the history of the illnesses antecedent to the mental trouble is very difficult to obtain in the case of these patients.

Wardmasters LEE and SYDNEY have both been on duty throughout the year and have both worked well and satisfactorily.

Miss EASTMOND returned from home and resumed duty on the 14th April up to 23rd July when she left the Government Service and was succeeded by the Matron, Miss C. McINTOSH.

I have the honour to be,

Sir,

Your obedient Servant,

J. BELL,
Medical Officer in Charge of Lunatic Asylums

THE PRINCIPAL CIVIL MEDICAL OFFICER.

Table VII.—TABLE shewing the ADMISSIONS into and DEATHS in the GOVERNMENT LUNATIC ASYLUMS, during each Month of the Year 1898.

MONTHS.	EUROPEANS.		COLOURED.		CHINESE.		Total Admissions.	Total Deaths.	Discharged to Canton.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.			
Remaining on the 1st January, 1898,	1	..	..	..	5	..	6	..	..
January, .....	..	..	..	..	2	..	2	..	..
February,	1	..	..	..	6	..	7	..	..
March,	1	..	..	..	7	1	8	1	..
April,	1	1	..	..	4	1	5	2	8
May, .....	..	..	..	..	12	..	12	..	9
June, .....	..	..	..	..	2	..	2	..	..
July,	2	1	..	..	9	..	11	1	6
August, .....	..	..	..	..	13	1	13	1	..
September,	1	..	2	..	6	..	9	..	8
October, .....	..	..	1	1	3	..	4	1	..
November,	1	..	..	..	5	..	6	..	6
December, .....	..	..	..	..	3	..	3	..	..
Total,	8	2	3	1	77	3	88	6	37

J. BELL,
Medical Officer in Charge.

TABLE showing the number of patients ADMITTED to the ASYLUM under the respective diseases.

DISEASE.	EUROPEANS.		CHINESE, &c.	
	Male.	Female.	Male.	Female.
Idiocy, .....	..	..	1	2
Mania,	2	..	8	4
Melancholia,	3	..	5	2
Dementia,	1	..	38	14
Delusional Insanity,	1	..	..	..
Total,	7	..	52	22

Enclosure VI.

GOVERNMENT LABORATORY,
HONGKONG, 1st May, 1899.

SIR,—I have the honour to submit a statement of the work done in the Government Laboratory during the year 1898.

2. The work may be conveniently summarized as follows :—

Description of Cases.	No. of Articles Examined.
Toxicological,	83
Potable Waters,	53
Petroleum,	106
Morphine Ordinance,	18
Food and Drugs Ordinance,	74
Ores,	6
Coal,	2
Fireworks,	13
Samsu,	24
Disinfectant, Braid, Silver Coin, Sulphuric Acid, Table-cloth—one each,	5
	384

TOXICOLOGICAL.

3 The toxicological cases investigated during the past year include 17 cases of human poisoning exclusive of one case of Opium poisoning which occurred beyond the confines of the Colony.

Particulars are as follows :—

Number of cases.	Race.	Poison found.
14	Chinese	Opium
1	European	Chloral
1	European	Chloral and Morphine
1	Asiatic	Arsenic

4. There were no cases of Datura poisoning during the past year.

5. Some powder thrown into the eyes of a boy with intent to rob was found to be pepper.

WATERS.

6. The results of the analyses of samples taken each month from the Pokfulum and Tytam Reservoirs, and from the Kowloon Service, indicate that these supplies continue to maintain their excellent qualities. The quality of the water from Pokfulum Reservoir is in no way inferior to that supplied from Tytam or by the Kowloon Service. The analyses of the Pokfulum supply show that the quality of this water is as high as when water was first collected there. In an Appendix will be found particulars of the monthly analyses of the public supplies and also the results of the examination of 16 well waters.

7. *The Dangerous Goods Ordinance, 1873 and 1892.*—Of petroleum 103 samples were examined and were found to give off inflammable vapour at temperatures considerably above the 73° F. limit. Three other samples of petroleum were examined as to purity and for use as fuel.

8. *Morphine Ordinance.*—There were four prosecutions under this Ordinance and eighteen exhibits were forwarded for examination, of which fourteen contained Morphine Hydrochloride.

9. *The Food and Drugs Ordinance, 18 of 1896.*—Sixty-three samples were examined.

The following table shows the results :—

Description.	No. of samples.	No. found genuine.	No. found adulterated.
Whisky,.....	29	21	8
Beer,	5	5	0
Brandy,	16	6	10
Gin,	2	2	0
Rum,	2	2	0
Port wine,	1	1	0
Porter,	1	1	0
Earth nut oil,.....	2	2	0
Milk,	5	2	3

Water was the adulterant present in the condemned samples.

10. *Chinese Fireworks.*—A number of experiments were made to ascertain the degree of inflammability of the Chinese fireworks that are so largely used in this Colony especially at the Chinese New Year Festival. The kinds mainly used are :—

1. *Pou-chang.*—A firework about six feet in length containing 5,000 crackers. Weight about seven pounds.
2. *Ng-loong-to-chü*—A small firework which vomits squibs.
3. *For-chin.*—A squib which rises in the air about 40 feet carrying a piece of wood.
4. *Fa-tung.*—Coloured fire and crackers.
5. *Kim-chin-po-ap.*—Duck with a squib of yellow fire issuing from its base.
6. *Ngou-nü-oi.*—Coloured fire above a cylinder of crackers.
7. *Kim-chiu-pou.*—Missiles which explode when thrown on a hard surface.
8. *Kum-pun-hi-yüt.*—Fish with a squib of yellow fire at its base.
9. *Ye-ming-chü.*—Squib.
10. *Fa-tung.*—Coloured fire only.
11. *Tiu-lan-fa.*—Burns dropping sulphur which explodes on touching water.
12. *Kim-pun-hi-yüt.*—Ignited on a plate whirls a height of 40 to 60 feet.
13. *Fa-tung.*—Small coloured fire and crackers.

The fuse in all descriptions consists of a thin coil of nitrified paper about $\frac{1}{8}$ inch in diameter, the interior of which is filled with gunpowder. The gunpowder is native made, in moderately fine powder, and contains the same ingredients as the European make.

To ignite a firework the incandescent end of a smouldering joss-stick is placed on the fuse and ignition is affected after about one second. Experiment showed that Chinese fireworks take fire when a spark is applied quite as readily as the best English manufactured fireworks.

The Chinese, however, being from an early age accustomed to their use, are well acquainted with their inflammable properties, and accidents seldom occur. It is customary amongst all classes of Chinese to receive presents of fireworks on certain occasions. Thus it is but an ordinary occurrence for a coolie about to marry to have in his possession three large crackers, weighing altogether 21 pounds, and 10 pounds of other fireworks.

11. For the purpose of the Alcoholic Liquors Commission an investigation was made of the Chinese liquors known as "samshu." Samshu is a name which is derived from the Chinese word "Sam Shiu," or thrice burnt. The term samshu refers to that variety of Chinese liquor known as Sam Ching Chau, but as now used it covers the three spirits known as Leu Pun Chau, Sheung Ching Chau, and Sam Ching Chau, all of which are obtained from rice. Moreover, the name samshu is frequently loosely applied so as to include any spirit of Chinese production, such as beverages in which either Leu Pun Chau, Sheung Ching Chau, or Sam Ching Chau forms a part, and also to the liquor known as Fa Chau—a spirit obtained from molasses, and to the beverages prepared from Fa Chau.

There are three well-known varieties of samshu :—

1. Leu Pun Chau.
2. Sheung Ching Chau, or twice distilled liquor.
3. Sam Ching Chau, or thrice distilled liquor.

To make Leu Pun Chau, a mixture of rice and water is placed in an iron pan heated direct by means of a wood fire. After boiling, the softened rice is put into pots, into which the fermenting substance—Chau Pang—is placed.

Chau Pang is a substance composed of rice, bean flour, red earth, and leaves which are stated to be cassia leaves.

After fermenting the liquid is distilled from a pot-still.

Sheung Ching Chau and Sam Ching Chau are varieties of Leu Pun Chau and contain more alcohol. A number of wines are prepared from Leu Pun Chau, some for use as beverages and others for medicinal purposes.

Visits were paid to all the Chinese distilleries to observe the processes employed and the materials used. A full report upon this subject is recorded in the evidence of the Alcoholic Liquors Commission and in the *Pharmaceutical Journal*, October 29, 1898.

The amount of samshu distilled in Hongkong in 1897 was 1,979,831 catties (1 catty = $1\frac{1}{2}$ English pound Avoir.).

COMPOSITION OF SAMSHU.

The following table shows the nature of samshu. The ethers and higher alcohols were determined by the method as used by BELL in his investigations for the Select Committee on British and Foreign Spirits, 1891, as described in Appendix No. 4 of their report:—

Description.	Strength of Sample.	Total Solids dried at 100° C. in 100 fluid parts.	In 100 fluid parts of proof strength.		
			Free acid as acetic.	Compound ethers as acetic ether.	Higher Alcohols.
Leu Pun Chau, 1	58.7 u.p.	0.015	0.279	0.230	0.032
Do., 2	50.9 u.p.	0.006	0.127	0.305	0.034
Sheung Ching Chau, 1	53.5 u.p.	0.035	0.217	0.231	0.062
Do., 2	42.4 u.p.	0.008	0.123	0.321	0.035
Sam Ching Chau, 1	15.0 u.p.	0.012	0.078	0.242	0.034
Do., 2	22.6 u.p.	0.018	0.073	0.205	0.068

All the samples contain a faint trace of furfuraldehyde.

The amount of compound ethers is noteworthy, but it is not a surprising amount considering the nature of the materials used for the production of samshu.

12. *Library.*—The following works of reference were added during the past year:—

- Dana's Mineralogy.
- Ure's Dictionary, 3 vols.
- Muspratt's Chemistry, 2 vols.
- Gold, Lock.
- Precious Stones and Metals, King.
- Micrographic Dictionary. Griffith and Henfry.
- Cooley's Encyclopædia, 2 vols.
- Pharmacographia, Flüickiger and Hanbury.
- Sugar Growing and Refining by Lock, Wigner, and Harland.
- Phillip's Geology.
- National Dispensatory.
- Year-book of Pharmacy, 22 vols. and Index.
- Taylor's Medical Jurisprudence.
- Trials for Murder by Poisoning. Browne and Stewart.
- Bentley's Botany.
- Carpenter, Microscope.
- Chemistry of Foods, Bell, 2 vols.
- Water Analysis, Wauklyn.
- Plant Analysis, Dragendorff.
- Oils and Varnishes, Cameron.
- Analyst, 11 vols.
- Chemical News, 19 vols.
- Poisons, Taylor.
- Pharmaceutical Journal, 20 vols.
- Medical Reports, Chinese Customs.

Chambers' Encyclopædia, 10 vols.
 Chinese Materia Medica, Smith.
 Materia Medica chez les Chinois, Souberain.
 Materia Medica, India, Dymock.

I have the honour to be,

Sir,

Your obedient Servant,

FRANK BROWNE, Ph. Ch., F.C.S.,
*Sometime Demonstrator of Practical Chemistry in the
 Laboratories of the Pharmaceutical Society,
 Government Analyst.*

THE PRINCIPAL CIVIL MEDICAL OFFICER.

HONGKONG PUBLIC WATER SUPPLIES.

Results of the Monthly Analyses.

Results expressed in grains per Imperial Gallon, (1 in 70,000.)

Month.	Supply.	Total Solid Matter dried at 100° C.	Chlorine.	Saline Ammonia.	Albumenoid Ammonia.	Oxygen absorbed in 4 hours at 80° F.	Nitrites.	Nitrates.	Sugar test for the detection of sewage.
January, ...	Pokfulum,	4.0	.6	Absent.	Absent.	.003	Absent.	Absent.	No trace of sewage indicated.
	Tytam, ...	3.5	.6	"	"	.007	"	"	
	Kowloon, .	2.5	.6	"	"	.003	"	"	
February, .	Pokfulum,	3.8	.6	"	"	.013	"	"	"
	Tytam, ...	3.3	.6	"	"	.013	"	"	
	Kowloon, .	2.5	.6	"	"	.003	"	"	
March,	Pokfulum,	4.2	.6	"	.0014	.003	"	"	"
	Tytam, ...	3.7	.65	"	Absent.	.003	"	"	
	Kowloon, .	2.7	.6	"	"	.003	"	"	
April,	Pokfulum,	4.7	.65	"	"	.003	"	"	"
	Tytam, ...	3.7	.65	"	"	.003	"	"	
	Kowloon, .	3.7	.65	"	"	.003	"	"	
May,	Pokfulum,	4.7	.7	"	"	.013	"	"	"
	Tytam, ...	3.7	.7	"	"	.020	"	"	
	Kowloon, .	3.7	.7	"	"	.013	"	"	
June,	Pokfulum,	5.0	.7	"	"	.010	"	"	"
	Tytam, ...	3.7	.7	"	"	.013	"	"	
	Kowloon, .	3.7	.6	"	"	.003	"	"	
July,	Pokfulum,	4.8	.6	"	"	.010	"	"	"
	Tytam, ...	4.0	.6	"	"	.016	"	"	
	Kowloon, .	2.8	.6	"	"	.013	"	.016	
August, ...	Pokfulum,	4.3	.6	"	"	.010	"	Absent.	"
	Tytam, ...	4.0	.6	"	"	.016	"	"	
	Kowloon, .	3.0	.6	"	"	.006	"	"	
September, .	Pokfulum,	4.3	.6	"	"	.010	"	"	"
	Tytam, ...	4.0	.6	"	"	.016	"	"	
	Kowloon, .	3.0	.6	"	"	.006	"	"	
October,	Pokfulum,	4.3	.6	"	"	.023	"	"	"
	Tytam, ...	4.3	.6	"	"	.027	"	"	
	Kowloon, .	3.0	.6	"	"	.020	"	.008	
November, .	Pokfulum,	4.0	.6	"	"	.020	"	Absent.	"
	Tytam, ...	4.0	.6	"	"	.020	"	"	
	Kowloon, .	2.7	.6	"	"	.020	"	.008	
December, .	Pokfulum,	4.0	.6	"	"	.013	"	Absent.	"
	Tytam, ...	4.0	.6	"	"	.013	"	"	
	Kowloon, .	2.7	.6	"	"	.013	"	.008	

WELL WATERS.

RESULTS EXPRESSED IN GRAINS PER IMPERIAL GALLON, (1 IN 70,000).

Date.	Situation of Well.	Depth.	Total solid matter dried at 100° C.	Chlorine.	Saline Ammonia.	Albumenoid Ammonia.	Oxygen absorbed in 4 hours at 80° F.	Nitrogen in Nitrates and Nitrites.	Nitrites.	General Remarks.
1898.										
Jan. 17	7 and 9, Market Street, Hunghom, .....	..	..	1.8	Absent.	Absent.	.010	..	Absent.	
" 17	No. 3, Police Station, .....	..	..	4.2	.0140	.0014	.080	.08	"	
" 17	6 and 8, Market Street, Hunghom, .....	..	..	5.2	Absent.	Absent.	.033	1.25	"	
" 17	131, Queen's Road East,	7 feet.	..	1.0	"	"	.033	..	"	
May 10	Hok Mu,	8 "	8.0	1.8	"	"	.040	.46	"	
" 10	Hok Yun,	6 "	..	3.7	.0140	"	.030	..	Present.	
Aug. 31	Tung Lo Wan,	15 "	..	1.1	.0028	"	.017	..	Absent.	
" 31	2, Shaukiwan Road,	11 "	..	1.8	Absent.	"	.017	..	"	
" 31	5, Shaukiwan Road,	12 "	..	.9	.0028	"	.006	..	"	
" 31	"The Lodge," East Point,	14 "	..	1.1	.0168	"	.017	.016	"	
Oct. 26	So Kon Po Market,	18 "	..	1.2	.0112	.0014	..	..	"
Nov. 5	Inland Lot No. 855, Tai Kok Tsui,	9 "	..	10.5	Absent.	Absent.	.070	.576	Present.	
Nov. 5	5, Shaukiwan Road,	12 "	..	1.1	.0056	"	.023	..	Absent.	
Nov. 5	2, Shaukiwan Road,	12 "	..	1.8	Absent.	"	.020	..	"	
Nov. 7	New Club,	16 "	..	3.0	"	"	.017	.921	"	
Nov. 7	15, Shaukiwan Road,	12 "	..	5.6	.0014	"	.027	.823	"	

Hair, vegetable fibre, and animalcula present.

Enclosure VII.

Appendix A.

REPORT ON THE PREVALENCE OF PLAGUE IN THE COLONY OF HONGKONG
DURING THE YEARS 1897 AND 1898.

INTRODUCTORY.

This is a continuation of my report of the history of this disease in Hongkong in 1895 and 1896 and is a brief record of the subsequent progress of the disease.

PREVALENCE OF PLAGUE IN HONGKONG, 1897.

The first three cases were reported on the 21st, 23rd, and 25th May from Heung Lane, no cases having been reported since the previous November.

This is one of the ill-ventilated narrow lanes off Queen's Road West; it was declared an infected area on May 26th and promptly dealt with. From this very lane eight cases were taken in June, 1895. The recrudescence of the disease in houses previously infected shows how tenaciously the bacillus clings to dwellings; it may be that the process of disinfection used, viz., fumigation with Sulphurous Acid Gas, the washing of the floors, woodwork, &c., with Jeyes' Fluid and the lime-washing of the ceilings and walls, is partly accountable for this.

A similar coincidence, viz., the recurrence of plague in houses previously infected has occurred in 1898.

At the instigation of the Medical Officer of Health a new system of disinfection has been established, viz., spraying the walls, floors, &c., with a solution of Perchloride of Mercury of the strength 1 in 1,000.

On the 5th of June one case occurred.

In the month of July there were eleven cases and during the remainder of the year six more cases occurred, the streets, &c., where they came from being given in Appendix A. No less than 8 out of the 21 cases occurred in lanes and houses in which cases had occurred in 1896.

From this it will be seen that:—

- (1.) The total number of cases reported was 21, all being Chinese.
- (2.) The disease commenced at the end of May and cases occurred in each remaining month of the year excepting October.
- (3.) In no month did it assume the proportion of an epidemic.
- (4.) During the month of July the greatest number of cases occurred.

METEOROLOGICAL DATA.

On reference to Appendix B, it will be seen that the rainfall in 1897 was much greater than in 1896 or 1898.

PROCEEDINGS ADOPTED WITH A VIEW TO PREVENTING THE SPREAD OF THE DISEASE IN 1897.

The proceedings adopted were similar to those in 1896, viz.:—

- (a.) *Removal of sick persons.*—The patients after having been declared to be suffering from plague were removed to Kennedy Town Hospital in ambulances which are kept for that purpose at the different hospitals and police stations.
- (b.) *Infected premises.*—Steps were taken to thoroughly disinfect the premises in which cases were found and to cleanse and remove as far as possible all obstructions to light and air existing in these districts.

Heung Lane was declared infected on May 26th.

With regard to sanitary legislation the following regulations came into force:—

- (1.) Regulations in accordance with section 58 of Ordinance 15 of 1889 providing for the preparation of sites and the maintenance in a sanitary condition of matsheds used by contractors for housing coolies employed in building.

- (2.) During 1897 the concreting of the ground surfaces of houses under section 4 of Ordinance 15 of 1894 was extended to the villages of Hunghom, Yaumati, and Tsim-tsuai in the Kowloon Peninsula.
- (3.) On the 1st June the bye-laws which had been passed for the sanitary maintenance of opium divans and for the prevention of overcrowding therein came into force.
- (4.) Bye-laws made under section 13 of Ordinance 15 of 1894 dealing with the following matters were finally approved by the Legislative Council on 18th May :—

BYE-LAWS

Made under section 13 of Ordinance 15 of 1894.

1. The expressions "building," "domestic building," and "street" as used in these bye-laws, or in any bye-law amending, or substituted for, or added to the same, shall, unless inconsistent with the context, have and include the meanings respectively set against them in section 2 of Ordinance 15 of 1894.

The expressions "householder," "occupier," "owner," and "vessel," as used in these bye-laws, or in any bye-law amending, or substituted for, or added to the same, shall, unless inconsistent with the context, have and include the meanings respectively set against them in section 3 of Ordinance 24 of 1887.

2. The material to be used for covering the ground surface of all domestic buildings shall be good lime or cement concrete at least 6 inches thick, finished off smooth to the satisfaction of the Sanitary Board. Provided always that the said Board may in its discretion exempt the owners of existing domestic buildings, the floors of which have a space between the ground floor and the ground surface, from carrying out the requirements of this bye-law.

3. The material to be used for covering the ground surface of every cook-house, latrine, back-yard, court-yard or other space on which slops may be thrown, shall be good lime or cement concrete or other impervious material to the satisfaction of the Sanitary Board at least 6 inches thick and in addition such material shall be finished off smooth with not less than 2 inches of cement concrete of the proportion of one part of cement to four parts of fine broken stone, or with granite slabs bedded and jointed in cement mortar or with hard burnt bricks or tiles bedded and jointed in cement mortar, or with such other material as shall be approved of by the said Board.

4. The ground surface of every cook-house, latrine, back-yard, court-yard, or other space on which slops may be thrown shall have a fall of not less than $\frac{1}{2}$ inch to 1 foot from the walls of the building towards the surface channel or other outlet for the drainage of such surface.

5. No court-yard or back-yard, which appertains to, or is used in connection with any domestic building, and which is at the time of the approval of these bye-laws by the Legislative Council, either wholly or partially open to the sky, shall be obstructed, in a vertical direction, either wholly or partially, or, if already partially so obstructed, be further so obstructed to any extent whatsoever, by the erection or fixture of any structure or object of any kind whatsoever, whether temporary or permanent, without the permission in writing of the Sanitary Board. Provided, nevertheless, that in cases where such back-yards exceed an area of 100 square feet in the case of buildings of two stories in height, and 150 square feet in the case of buildings of three or more stories in height, such back-yards need only be kept clear of obstructions (including bridges and covered ways) and fixtures, and open vertically to the sky throughout, to the extent of 100 and 150 square feet respectively.

One bridge or covered way may, however, when such is necessary for giving access to buildings, be erected on each story, but such bridges or covered ways must be erected one over the other, and any such bridge or covered way shall not exceed 3 feet 6 inches in width unless the Sanitary Board gives permission in writing in any particular case for the erection of bridges or covered ways of greater width.

This bye-law shall apply to all cases in which it is proposed to substitute another court-yard or back-yard for any existing one.

6. The Medical Officer of Health, or such other officer as the Sanitary Board may appoint for this purpose, shall, within such limits as the said Board may from time to time define, cause to be measured the floor area and cubic capacity of all domestic buildings or parts thereof, and shall cause to be calculated the number of occupants that may lawfully pass the night in such buildings or any parts thereof in accordance with the provisions of section 9 of Ordinance 15 of 1894, and shall cause such number in English and Chinese to be fixed to such buildings or parts thereof in such manner as the said Board may from time to time direct.

7. The space required by section 8, sub-section (b), of Ordinance 15 of 1894, to be left above partitions shall not be enclosed except with wire netting, iron bars, lattice work or carved wood work, arranged in such a way as to leave at least two-thirds of such space open and as far as practicable evenly distributed.

8. The Secretary to the Sanitary Board shall, upon the requisition of the Medical Officer of Health, or by direction of the President of the said Board, authorise in writing, in English and Chinese, one or more of the Board's officers to enter any domestic building at any hour between 6 P.M. and midnight, for the purpose of ascertaining whether such building or any part thereof is in an overcrowded condition.

9. No officer of the said Board shall, between the hours of midnight and 8 o'clock the following morning, enter any domestic building for the purpose of ascertaining whether such building or any part thereof is in an overcrowded condition, without the written permission, in English and Chinese, of the Secretary countersigned by the President of the said Board.

10. The Secretary to the Sanitary Board shall furnish the Inspectors of Nuisances with general authority in writing, in English and Chinese, to enter, between the hours of 8 A.M. and 6 P.M., and inspect, upon reasonable notice to the occupiers or owners, any building and curtilage in their respective districts for the purpose of ascertaining the sanitary condition, cleanliness and good order thereof or of any part thereof, and of any partitions, mezzanine floors, stories and cocklofts therein, or of the condition of any drains therein or in connection therewith. If it shall be requisite, for the purpose of ascertaining the sanitary condition of any domestic building or curtilage, to open the ground surface of any part thereof any Inspector of Nuisances in possession of authority in writing signed by the Secretary to the said Board or by the Medical Officer of Health, after giving not less than forty-eight hours' notice in writing signed by either of the aforesaid officers to the occupier or owner of such domestic building or curtilage of his intention to enter the same for the purpose of opening up the ground surface thereof, may so enter, with such assistants as may be necessary, and open the ground surface of any such premises in any place or places he may deem fit, doing as little damage as may be. Should the material which has been used for covering such ground surface and the nature and thickness thereof, be found satisfactory and in accordance with law, such ground surface shall be reinstated and made good by the said Board at the public expense.

11. The occupier of any domestic building shall at all times cause such building to be kept in a cleanly and wholesome condition and see that the drains, traps, gratings, fall-pipes and other sanitary fittings and appliances are kept free from obstruction and in an efficient state of repair; and he shall keep the windows and ventilating openings at all times free from obstruction unless prevented by inclement weather or by the illness of any person occupying such building.

12. Every occupier or householder of a domestic building shall cause all excremental matter to be removed daily from such building, to one of the public conservancy boats, by a duly registered night-soil carrier.

13. Every occupier or householder of a domestic building shall cause all domestic waste, refuse or other objectionable matter other than excremental matter to be removed daily from such building and taken to a public dust-cart or dust-bin.

14. The conditions under which alone it shall be lawful to live in, occupy, or use, or to let or sublet, or to suffer or permit to be used for habitation any cellar, vault, underground room, basement or room, any side of which abuts on or against the earth or soil, shall be that (1) such cellar, vault, underground room, basement or room fronts on a street which is of a clear width of not less than 8 feet free from any vertical obstruction whatever, and (2) that such cellar, vault, underground room, basement or room is provided with one window at least opening into the external air and that the total area of such window or windows clear of window frames shall be at least one-tenth of the floor area of such cellar, vault, underground room, basement or room, and (3) that no side of such cellar, vault, underground room, basement or room abuts against the earth or soil to an average height exceeding four feet above the floor level, and (4) that throughout the remainder of the height of such cellar, vault, underground room, basement or room the ground outside is at least 4 feet distant horizontally from the external wall of such cellar, vault, underground room, basement or room, and (5) that the area formed between such ground outside and such external wall is not obstructed or covered over either wholly or partially by the erection of structures, coverings or fixtures of any kind whatsoever. Provided always that the Sanitary Board may, if it thinks fit, grant permission in writing to obstruct or cover such area in any manner which may be previously approved by the Board.

15. The conditions under which alone it shall be lawful to occupy or use, or to let or sublet, or to suffer or permit to be used for occupation as a shop any cellar, vault, underground room, basement or room any side of which abuts on or against the earth or soil shall be that such cellar, vault, underground room, basement or room complies with the provisions of the preceding bye-law, or that such cellar, vault, underground room, basement or room fronts on a street of a clear width of not less than eight feet free from any vertical obstruction whatever, and that such cellar, vault, underground room, basement or room does not exceed thirty feet in length, as measured from the front wall to the back wall.

Such shop may not be used for habitation except by such a person or by such number of persons as the Sanitary Board may authorize in writing, and in every case in which the Sanitary Board authorizes any person or persons to use for habitation any such shop, sleeping accommodation shall be provided by the erection of a cockloft or bunks, which shall have a clear space of at least four feet between it or them and such side or sides of the cellar, vault, underground room, basement or room as abuts or abut against the earth or soil.

16. The Sanitary Board shall, if satisfied that any domestic building in the Colony is in a dirty condition, give notice to the householder to have such building, in respect of which the notice is given, thoroughly cleansed and lime-washed within a period of one week from the date of receipt of such notice, and such householder shall cleanse and lime-wash such premises in accordance with such notice.

In any case where no householder exists or can be found, the owner of such building shall be served with a notice to the above effect, and upon such service being duly effected, such owner shall cleanse and lime-wash such premises in accordance with such notice.

17. All persons knowing or having reason to believe that any person has been attacked by, or is suffering from, bubonic plague, cholera, small-pox or from such other epidemic, endemic or contagious disease as may be from time to time duly notified in the *Government Gazette*, shall notify the same without delay to any officer on duty at the nearest Police Station, or to some officer of the Sanitary Board, and any such officer receiving any such notification whether verbal or written or discovering any such case, shall notify the same with the least possible delay to the Medical Officer of Health or to the Secretary of the Sanitary Board, and may detain such person or remove him to a public hospital until he can be examined by the Medical Officer of Health or by some legally qualified and registered medical practitioner.

18. The Sanitary Board by its officers may provide for the removal of, and may remove to the *Hygeia*, or other appointed place, any person suffering from any such disease, and no removal shall take place except under the orders of the said Board or of one of its officers or of a legally qualified and registered medical practitioner, and then only in such manner and with such precautions as the said Board shall from time to time direct. No such removal, however, shall take place if the Medical Officer of Health or any legally qualified and registered medical practitioner certifies that such person is being lodged and cared for without danger to the public health.

19. The Sanitary Board may remove or cause to be removed for burial or cremation all bodies found in the Colony of persons who have died from any of such diseases and may bury or cremate or cause the same to be buried or cremated in accordance with the custom of the race to which the deceased belonged in such place and in such manner and with such precautions as the said Board may from time to time direct, and no persons, unless acting under the written sanction or direction of the Secretary of the said Board or of the Medical Officer of Health to bury or cremate, shall remove or bury or cremate any such bodies.

20. If any article of clothing or bedding or any other article which has been in contact with any person or any dead body in any way affected by any such disease can, in the opinion of the Medical Officer of Health or of an Inspector of Nuisances, be preserved without danger to the public health and can be effectively disinfected, then any such article shall be removed from any premises in which it shall be found by coolies hired by any person acting under the instructions of the Sanitary Board, or of one of its duly authorized officers, with such precautions and in such manner as the said Board shall from time to time direct, and shall be effectively disinfected and then returned to the owner or owners thereof. No person, save as aforesaid, shall handle any such article until it has been disinfected.

21. If, however, in the opinion, duly certified in writing, of an Inspector of Nuisances or of any other duly authorized officer of the Board, or of a legally qualified and registered medical practitioner, any bedding, clothing, or other article which has been in contact with any person or any dead body in any way affected by any such disease, or which shall have been found upon any premises recently occupied by such person or body cannot be effectively disinfected or ought, in the interests of the public health, to be destroyed then it shall, if the Medical Officer of Health or other officer of the Sanitary Board duly authorized to act on his behalf, concurs, be destroyed in such manner and in such place and with such precautions as the said Board may from time to time direct.

22. Any building or part of a building in which any person attacked by any such disease or in which the body of any person who has died of any such disease shall have been, or shall be found, shall forthwith, after the removal therefrom of the diseased person or of the dead body, be thoroughly cleansed and disinfected, to the satisfaction of the Medical Officer of Health; and if—in the opinion of the Medical Officer of Health or of any legally qualified and registered medical practitioner—it is necessary, in the interests of the public health, the persons residing in such building or part of a building shall be detained therein or shall be removed to such buildings or vessels as the Board may direct and there isolated and kept under observation until such time as they may, in the opinion of the said Medical Officer of Health or other Medical Officer in charge of such buildings or vessels, be safely released; and it shall not be lawful for any person to re-occupy any such building or part of a building until it has been thoroughly cleansed and disinfected as aforesaid.

BYE-LAWS

To be enforced only during the prevalence of an epidemic, endemic, or contagious disease in the Colony or in any district thereof.

23. During the prevalence in the Colony, or in any district thereof, of bubonic plague, cholera, small-pox or such other epidemic, endemic, or contagious disease as may be from time to time notified in the *Government Gazette*, all receptacles, whether public or private, for excremental matter shall be kept thoroughly disinfected by the owner thereof to the satisfaction of the Medical Officer of Health or other duly authorized officer of the Sanitary Board, by causing to be thrown into every such receptacle after use a sufficient quantity of any such disinfectant as may be approved by the said Board. All floors and channels as well as all partitions, seats and other fittings of every latrine shall be frequently washed and cleansed with water to which some such disinfectant has been added.

24. During the prevalence in the Colony, or in any district thereof, of any of the aforesaid diseases any building or part of any building certified in writing by the Medical Officer of Health or by any legally qualified and registered medical practitioner, to be unfit for human habitation, even although the same may have been cleansed and disinfected, as provided in Bye-law 23, may be closed by order of the Sanitary Board during the prevalence of any of such diseases or for such less period as the Medical Officer of Health or such legally qualified and registered medical practitioner may certify to be necessary, and the occupants of the same may be removed, after 24 hours' notice has been given to the householder or occupier to vacate the premises, by the service of a notice, duly signed by the Secretary of the Sanitary Board, or by the posting of such notice upon any portion of the premises.

In no case shall such premises be re-occupied except under a certificate of the Sanitary Board signed by the Secretary that such premises are fit for human habitation.

The said Board may, when necessary, erect matsheds, or hire buildings or charter vessels and use them for the accommodation of the persons so removed.

25. Any officer of the Sanitary Board may, during the prevalence in the Colony or in any district thereof of any of the aforesaid diseases, and within such limits as may from time to time be defined by the said Board, make a house to house visitation for the purpose of inspecting the sanitary condition of any premises so visited and of all and every part thereof, and of ascertaining whether there is any person in or upon the said premises attacked or affected by any of the said diseases or the body of any person who has died therefrom. If the premises so visited or any part thereof shall be found in a dirty or insanitary condition in the opinion of any such officer he shall report the same to the Medical Officer of Health or to any such other officer as may be appointed for that purpose by the Sanitary Board, with the approval of the Governor, who shall inspect such premises and, if he considers them or any part thereof to be in a dirty or insanitary condition, he may forthwith take steps to have all furniture and goods removed therefrom and to have the said premises thoroughly cleansed and disinfected by persons acting under his instructions; and whenever, in his opinion, it is necessary for the thorough cleansing and disinfection of such premises to do any or all of the following acts, namely, to take down, remove from the premises or destroy any mezzanine floor, cockloft, partition, screen or other similar structure or fitting, or any portion thereof, or when in his opinion any mezzanine floor, cockloft, partition, screen, or other similar structure or fitting prevents the free access of light and air to the said premises, he shall forthwith have the same taken down, and if he considers the removal from the premises or the destruction thereof, or both, necessary in the interests of the public health, he shall forthwith cause the same to be removed from the premises or destroyed or both. Such destruction shall be carried out with such precautions and in such manner and in such place as the said Board may from time to time direct.

Penalties.

26. Any person who shall commit any breach of any of the above Bye-laws shall on conviction thereof be liable to a penalty not exceeding \$25 in every case.

Made by the Sanitary Board this 13th day of May, 1897.

HUGH MCCALLUM,
Secretary.

Approved by the Legislative Council this 17th day of May, 1897.

J. G. T. BUCKLE,
Clerk of Councils.

- (5.) An Ordinance to enable the Government to provide suitable latrine accommodation for the Public (Ordinance No. 8 of 1897).
- (6.) An Ordinance to prevent the spread of Infectious Disease arising from the consumption of contaminated or unwholesome milk (Ordinance 17 of 1897).

EXISTENCE OF PLAGUE IN THE VICINITY OF THE COLONY.

Kwangtung Province.—Information was obtained of its existence in an epidemic form at Tung Kun up the East River, towards the end of January ; undoubted cases of the pneumonic variety then occurred there.

Formosa.—Information was obtained of its existence at Formosa in April.

Swatow.—The disease prevailed in the neighbourhood of Swatow in April.

Macao.—Towards the end of May cases were reported as having occurred at Macao.

Amoy.—The disease prevailed here in June.

The importation and immigration of all Chinese into this Colony from Swatow and the Island of Formosa was prohibited by proclamation on 20th April ; this was revoked on May 1st.

Swatow and the *Island of Formosa* were proclaimed as infected with Plague on 1st May ; this necessitated the medical examination of the passengers and crews of all ships arriving from these places before they were allowed to land in the Colony.

This proclamation was revoked as regards Swatow on the 17th July and as regards Formosa on the 20th August.

DISTRIBUTION OF WORK.

The work in connection with the plague was distributed as follows :—

The Sanitary Board undertook all duties in connection with the removal of plague cases to Hospital, the subsequent isolation of those who had been in immediate contact with the disease and the disinfection of premises.

The Medical Department undertook the care of the sick after the arrival in Hospital ; and

The Public Works Department undertook the erection of the necessary temporary buildings, the preparation of graves, and the interment of the deceased.

PREVALENCE OF PLAGUE IN HONGKONG 1898.

The first case of plague was reported from Cheung Hing Street on the 2nd January ; during this month 9 cases occurred.

In February 67 cases occurred.

The disease became epidemic in March ; during that month 137 cases were reported and on the 25th of that month Health Districts 2, 4, 5 and 6 were declared infected ; the disease rapidly spread to the remaining Health Districts of the Colony as the following table, giving the number of cases reported in each month, will show :—

January,.....	9
February,	67
March,	137
April,.....	468
May,	534
June,	92
July,	7
August,	2
September,.....	1
October,.....	2
November	0
December,	1

Total,1,320

In April the neighbouring peninsula of British Kowloon was declared infected on the 18th April. On the 9th June Aberdeen and Aplichau were similarly declared infected.

METEOROLOGICAL DATA.

- (a.) The rainfall was much below the average.
- (b.) The months of maximum mean temperature were followed by marked diminution in the number of cases
- (c.) Number of hours of sunshine was much less during the months January-May when the disease was most prevalent.

PROCEEDINGS ADOPTED WITH A VIEW TO PREVENTING THE SPREAD OF THE DISEASE IN 1898.

The following procedure was adopted :—

- (a.) House to house Visitation.—A daily visitation of houses in Health Districts Nos. 2, 4, 5, 6, 7, 8 and 9 was made by sections of Police and Military. See Appendix C.

- (b.) A house to house inspection was made in the infected districts by the Medical Officer of Health assisted by the following Officers :—
 Hon. F. H. MAY, C.M.G., Captain Superintendent of Police.
 Mr. FRANK BROWNE, Acting Government Analyst.
 Mr. JOSEPH J. BRYAN, Assistant Sanitary Surveyor.
- (c.) All cases of plague were removed to the Government Isolation Hospital at Kennedy Town, situated at the extreme West of the City and were under the charge of officers of the Medical Department.
 Suspicious cases were placed in observation wards at the Government Civil and the Tung Wah Hospitals.
 This occurred until the opening of the Native Plague Hospital on the 2nd of May after which date Chinese suffering from this disease were allowed the option of being sent to the Branch Hospital of the Tung Wah where they were treated by the so-called Chinese medical methods, or to the Government Isolation Hospital.
- (d.) Removal of sick persons and dead bodies.—Until the 5th May this was undertaken by the Inspectors of Nuisances, after that date this was effected by the Police.
 Dead bodies were all taken direct to the Public Mortuary at West Point and were examined by the Medical Officer in charge. Those who were certified as having died from plague were removed to the Plague Cemetery at Kennedy Town and buried there.
- (e.) Segregation.—Compulsory segregation of those who had been in immediate contact with the disease at the infected houses was not enforced, but the following was done :—
 Those who had been in contact with the sick were supplied with clothing and were detained in their own dwellings whilst their own was being disinfected, the clothing was then returned to the owners who were required to vacate the house whilst it was being disinfected and cleansed, during this time they could go to matsheds which had been erected in different parts of the city and stay there ; they were at liberty to go to their daily work but were examined every morning by a Medical Officer ; after the cleansing and disinfecting was finished they returned to their own houses.
- (f.) Infected premises.—On 24th March the following neighbourhoods were declared to be infected by plague :—
 Health Districts 2, 4, 5 and 6.
 The boundaries of No. 2 Health District are :—
 East—Wanchai Road. North—Harbour. West—Garden Road. South—Taitam conduit.
 The boundaries of Nos. 4, 5 and 6 Health Districts are :—
 East—Wyndham Street and Glenealy. North—Harbour. West—Cleverly Street and Tank Lane. South—Caine Road.
 On the 14th April the villages in British Kowloon were declared areas infected with plague.
 On the 9th June the villages of Aberdeen and Aplichau were declared to be areas infected with plague.
 Steps were taken to thoroughly disinfect all the premises in which cases were found and to cleanse and lime-wash those houses certified by the officers mentioned in section (b) as requiring it.
- (g.) Maintenance of cleanliness throughout the city.
 Special attention was paid to the cleansing and disinfection of all the latrines, chloride of lime being the disinfectant used.
 The flushing of the sewers was effected by the Public Works Department.

With regard to sanitary legislation :—

The Insanitary Properties Commission issued their report this year, and the Sanitary Board were requested by the Government to consider and report on it.

This they did and their recommendations which were more drastic than those of the Commission, are practically embodied in a Bill entitled an Ordinance to make further provision for the sanitation of the Colony and to repeal certain enactments of the closed houses and insanitary dwellings Ordinance, 1894, which was first read in the Legislative Council on 22nd November, 1898.

EXISTENCE OF PLAGUE IN THE VICINITY OF HONGKONG IN 1898.

Macao.—Information of the existence of plague at Macao was obtained towards the end of March.

Canton.—Plague became prevalent in Canton in the month of April, previously cases had occurred in the surrounding districts.

Canton, Whampoa, and Macao—were proclaimed to be infected on the 9th April ; this proclamation was revoked on the 2nd July.

Amoy—was proclaimed to be a port infected with plague on the 4th June ; this proclamation was revoked on the 31st August.

DISTRIBUTION OF WORK.

The Sanitary Board undertook all duties in connection with the removal of sick persons to Hospital and of dead bodies to the Mortuary up to the 5th May, after this date it was found more convenient for these removals to be effected by the Police.

The Inspectors of Nuisances superintended the cleansing and disinfection of the premises and the disinfection of the clothing from the infected premises, the Police seeing to the detention of persons who had been in contact with the sick whilst the clothing was being disinfected.

The Medical Department undertook the care of the sick after the arrival at the Infectious Diseases Hospital Kennedy Town up to the 2nd May after which date all Chinese patients were allowed the option of proceeding either to the Government Hospital or to a Native Plague Hospital erected by the Tung Wah Hospital authorities with the sanction of the Government. Although the patients were treated by the so-called Chinese medical methods the sanitary arrangements were under the supervision of the Visiting Surgeon to the Tung Wah Hospital.

It was thought that if this concession was made to the Chinese it would prevent the deposition of dead plague bodies in the streets. However, as I pointed out to the Government at the time the reason why the Chinese deposited the dead plague bodies in the streets was not their fear of medical treatment in the Government Hospital but their strong objection to the disinfection and cleansing of the premises where plague patients were found.

The Public Works Department undertook the erection of additional matsheds at the Government Hospital at Kennedy Town, the preparation of graves, and the interment of the deceased. There was ample accommodation at the Government Hospital for all the cases that occurred including those that were treated at the Native Hospital.

The Sanitary Board was augmented by the following additional staff:—

- 13 European Police Officers.
- 1 Naval Chief Petty Officer.
- 24 Sappers and Privates.
- 16 Chinese Constables.
- Some 300 coolies.

STATISTICS.

The following table gives the number of cases occurring in the separate Health Districts, the ratio per 1,000 of population, and the percentage mortality:—

District.		No. of Cases among Chinese.	Estimated Population Chinese only.	Rate per 1,000 of population.	Total Cases.	Total Deaths.	Percentage Mortality.
City of Victoria	No. 1 Health District	53	7,885	6.7	59	57	96.6
" " "	No. 2 " "	153	21,626	7.0	169	161	95.2
" " "	No. 3 " "	29	4,294	6.7	44	37	84.0
" " "	No. 4 " "	120	23,794	5.0	135	126	92.5
" " "	No. 5 " "	110	22,244	4.9	112	102	91.0
" " "	No. 6 " "	70	17,072	4.1	72	64	88.8
" " "	No. 7 " "	87	16,380	5.3	87	68	78.1
" " "	No. 8 " "	87	18,993	4.5	91	82	90.1
" " "	No. 9 " "	154	24,435	6.3	154	135	87.6
" " "	No. 10 " "	76	7,527	10.0	76	68	89.4
Hunghom.....	No. 11 " "	32	29,356	4.3	34	30	88.2
Yaumati, Kowloon Pt.	No. 12 " "	96	.....	...	103	84	81.5
Victoria Peak .....	.....	5	1,650	3.0	6	4	66.6
Shaukiwan .....	.....	13	10,938	1.1	13	11	84.6
Aberdeen .....	.....	14	7,446	1.8	14	10	71.4
Stanley .....	.....	1	2,400	0.4	1	1	100.88
Harbour .....	.....	116	23,170	5.0	122	108	88.5
No Address .....	.....	28	.....	...	28	27	96.4
		1,254	239,210	5.2	1,320	1,175	89.0

Appendices.—In Appendix A. is given the cases of Plague reported during 1897.

In Appendix B. is given the meteorological observations registered at the Hongkong Observatory for the last three years.

In Appendix C. is given the report on the House to House Search Party by Honourable F. H. MAY, C.M.G.

In Appendix D. is given the report on Plague Work at Kowloon by Mr. FRANK BROWNE, Acting Government Analyst.

J. M. ATKINSON, M.B. (London), D.P.H. (Camb.), &c.
Principal Civil Medical Officer.

March 7, 1899.

Appendix A.

CASES OF BUBONIC PLAGUE REPORTED DURING 1897.

No. of Cases.	Date of Occurrence.	Residence of Patient previous to discovery. Treatment or Segregation.	Name.	Sex.	Age.	Date of Admission into Kennedy Town Hospital.	Date of Death.
1	21st May,	14, Heung Lane,	Luk Yee,	Male,	37 years,	21st May,	21st May.
2	23rd "	14, Heung Lane,	Lum Kwai,	"	30 "	23rd "	24th "
3	25th "	12, Heung Lane,	Lui Kit,	"	24 "	25th "	26th "
4	5th June,	7, Kau U Fong,	Ming Hang,	"	27 "	5th June,	7th June.
5	12th July,	22, Wing On Street,	Au Yiu Chau,	Female,	30 "	12th July,	12th July.
6	12th "	88, Third Street,	Ip Cheung,	"	12 "	12th "	12th "
7	13th "	9, Sing Hing Alley,	Leung Wing,	Male,	7 "	13th "	...
8	14th "	24, Gough Street,	Tang Fai,	"	11 "	14th "	14th July.
9	14th "	10, Hillier Street,	Wong Shek Cheong,	"	14 "	14th "	14th "
10	14th "	3, Ng Kwai Fong,	Wong Lim,	"	24 "	16th "	16th "
11	21st "	Found at Canton Str. Wharf, ...	Un Tin,	"	32 "	21st "	21st "
12	23rd "	Found at Wing Kut Street,	Mak Iu,	"	36 "	23rd "	23rd "
13	26th "	From Kowloon City,	Chu Yau,	Female,	19 "	26th "	26th "
14	26th "	Praya East,	Ho Tak,	Male,	30 "	26th "	26th "
15	31st "	114, Bonham Strand,	Leong Ping,	"	16 "	31st "	...
16	3rd Aug.,	4, U Lok Lane,	Ip Hau,	Female,	72 "	3rd Aug.,	...
17	26th Sept.,	26, Second Street,		Male,	20 "	26th Sept.,	27th Sept.
18	13th Nov.,	8, Po Yan Street,	Lam Hau,	"	11 "	13th Nov.,	13th Nov.
19	13th "	8, Po Yan Street,	Lam Chung,	"	14 "	13th "	13th "
20	18th Dec.,	13, Queen's Road East,	Shum Heng Fa,	"	17 "	18th Dec.,	18th Dec.
21	19th "	9, Graham Street,	Kwok Fai,	"	23 "	19th "	21st "

Appendix B.

METEOROLOGICAL OBSERVATIONS REGISTERED AT HONGKONG OBSERVATORY, 1896-1898.

Month.	1896.					1897.					1898.				
	Mean Temperature.	Mean Humidity.	Mean Vapour Tension.	Sunshine Total.	Rainfall Total.	Mean Temperature.	Mean Humidity.	Mean Vapour Tension.	Sunshine Total.	Rainfall Total.	Mean Temperature.	Mean Humidity.	Mean Vapour Tension.	Sunshine Total.	Rainfall Total.
	°	%	ins.	hours.	ins.	°	%	ins.	hours.	ins.	°	%	ins.	hours.	ins.
January,	62.0	76	0.424	133.8	1.730	63.1	80	0.476	90.7	2.260	60.1	65	0.354	175.8	1.160
February,	56.0	85	0.387	16.3	7.945	54.2	80	0.346	47.4	1.820	62.7	78	0.464	105.4	2.520
March,	59.3	88	0.451	59.3	1.445	63.3	90	0.532	71.7	0.815	64.3	82	0.504	111.5	0.170
April,	70.8	87	0.664	76.9	2.100	68.4	81	0.569	122.7	3.240	69.2	81	0.586	98.9	3.440
May,	76.0	79	0.714	176.0	1.150	79.1	85	0.842	195.5	14.860	78.4	83	0.810	256.0	5.700
June,	80.7	85	0.886	145.1	18.630	81.5	84	0.908	141.7	23.355	81.6	83	0.894	135.1	14.250
July,	82.9	82	0.924	220.1	12.420	82.1	79	0.866	220.6	5.565	81.7	80	0.870	226.7	7.055
August,	82.4	80	0.888	252.8	5.195	80.8	86	0.899	152.2	25.550	81.5	82	0.880	203.9	9.900
September,	81.5	80	0.854	192.7	9.995	81.2	79	0.838	229.5	8.340	80.9	80	0.844	218.8	5.295
October,	77.9	73	0.794	195.2	7.905	76.8	76	0.701	150.9	6.425	74.9	68	0.586	168.6	6.720
November,	71.7	76	0.591	134.0	2.975	69.8	65	0.511	176.1	7.320	69.4	61	0.449	171.1	0.790
December,	62.2	65	0.386	167.0	1.290	60.6	68	0.363	146.8	0.480	62.1	52	0.279	254.4	0.025
	72.0	80	0.656	1,769.2	72.780	71.7	79	0.654	1,745.8	100.030	72.2	75	0.628	2,126.2	57.025

Appendix C.

Report on House to House Search during epidemic of Plague by Honourable F. H. May, C.M.G.

No. 75.

M

POLICE OFFICE,
HONGKONG, 14th July, 1898.

SIR,—I have the honour to forward, for the information of the Board, the following report on the work carried out during the recent epidemic of Plague in connection with the house to house search for plague patients.

The work, which began on the 19th April and ceased on the 11th June, was organised in the following manner:—

No. 2 Health District was divided into 2 sections and a search party consisting of 2 European Police Sergeants, 3 Soldiers and 3 Chinese Constables visited each section on alternate days.

No. 4 Health District was divided into 3 sections and a search party consisting of 1 European Police Constable, 2 Soldiers and 3 Chinese Constables visited one section a day.

No. 5 Health District was divided into 4 sections and a search party consisting of 1 European Police Sergeant, 1 European Police Constable, 4 Soldiers and 3 Chinese Constables visited one and a half sections a day.

No. 6 Health District was divided into 3 sections and a search party consisting of 1 European Police Constable, 2 Soldiers and 3 Chinese Constables visited two sections a day.

Nos. 7 and 8 Health Districts were divided into 3 sections and a search party consisting of 1 European Police Constable, 2 Soldiers and 3 Chinese Constables visited two of the sections each on alternate days.

No. 9 Health District was divided into 3 sections and a search party consisting of 1 European Police Constable, 1 Soldier and 2 Chinese Constables visited two of the sections each on alternate days.

The remaining section in No. 8 Health District and the remaining section in No. 9 Health District were visited by a search party consisting of 1 European Police Constable, 2 Soldiers and 3 Chinese Constables each on alternate days.

The total number of searchers employed was 45.

There were 62 cases of plague discovered by the search parties; of these 52 were alive and 10 dead. There were also 8 cases of suspected plague removed to Hospital which were pronounced not to be plague. All cases of plague or suspected plague, with the exception of those found in No. 9 Health District up to the 14th of May, were removed, in the first instance, to the Tung Wa Hospital where they were diagnosed by Dr. CHUNG and forwarded, if pronounced plague, to the Plague Hospital. After the 14th May the cases in No. 9 Health District were also forwarded, in the first instance, to the Tung Wa Hospital.

There was only one complaint made by the public against the Police engaged on house to house visitation. On investigation it was found to be without foundation. There were two complaints against the soldiers which were apparently well founded, and the men were removed from this duty, otherwise the soldiers did their work in a very orderly manner.

The search parties worked from 9 a.m. to noon and from 2 to 5 p.m. Each party was allowed half a day off duty once a week, and 24 hours' leave once a month.

The sections into which the Health Districts were divided, with a memo. of the number of houses in each, are filed at the Police Office for reference in the future if desired.

I have the honour to be,

Sir,

Your most obedient Servant,

F. H. MAY,
Captain Superintendent of Police.

The Acting Secretary
SANITARY BOARD.

Appendix D.

Report on Plague work at Kowloon by Mr. Frank Browne, (Acting Government Analyst).

GOVERNMENT CIVIL HOSPITAL,
HONGKONG, 22nd June, 1898.

SIR,—I have the honour to report for the information of the Board that the cleansing work in British Kowloon, for which I was appointed in April last by His Excellency the Acting Governor on the recommendation of the Board, is now concluded.

2. A great deal of cleansing was done particularly in Yaumati. The following table shows the extent of the cleansing carried out at the expense of the Government :—

<i>No. 11 District (Hungghom and Villages).</i>	<i>No. 12 District (Yaumati, &c.).</i>
Floors washed only, 29	36
Cleansed and lime-washed (floors),...202	528
Obstructions removed, 88	68
* Coolies employed—one day each,. 496	875

Where washing only was required in houses, the inmates usually carried out the work of their own accord, which fact will explain the small amount of washing only, that was done by the Government. Although an opportunity was afforded to the tenants to do the lime-washing required, very few availed themselves of it on account of the expense.

3. The obstructions removed consisted of bunks, cocklofts, cubicles, doors, josses, and latrines, which had been erected in such a way as to deprive the rooms of light and air. A great improvement has been effected in most houses by these removals as the removal of a single obstruction has in many cases converted a dark ill-ventilated room into a healthy and cheerful habitation. However, experience has shown that these obstructions are put up again as soon as vigilance is relaxed, so it is earnestly hoped that special attention will be directed so that such structures may be at once demolished if re-erected.

No. 11 District—(Hungghom and Villages).

4. Cleansing in this district was commenced on April 20th, and completed on May 23rd. The houses here are for the most part very good and substantial, but in the event of another epidemic attention should be particularly directed to Shung On Lane and Dock Lane, in which the houses are inferior. Several cases of plague having been traced from Shung On Lane, on May 7th the whole of Hungghom was disinfected with a mixture of salt, manganese di-oxide, and sulphuric acid. It was considered advisable to disinfect the whole of the place as a number of dead bodies had been found on the hill-side, and it was impossible to find out which houses were infected and which were not, so the safest plan was adopted of disinfecting them all.

No case of plague could be found to have occurred in the houses of Hungghom after the disinfection although several bodies (see table of cases of plague attached) were afterwards found on the hill-side, but the number of these bodies being only 11 from May 7th to June 13th, a further disinfection on a wholesale scale was not considered necessary.

No. 12 District—(Yaumati, Tai Kok Tsui, Mong Kok Tsui, &c.).

5. Cleansing operations were commenced on April 20th, and the work was completed on June 2nd. A number of cases of plague having occurred at Tai Kok Tsui a visit was paid to this village on April 24th, when it was seen that a large proportion of the inhabitants were living in insanitary dwelling-huts, boats, and hovels. On April 26th the whole of the district was disinfected with salt, manganese di-oxide, and sulphuric acid. The people in the huts, boats, and hovels were for the most part trespassers on Crown land; they were not agriculturists but apparently merely loafers of no use to the Colony. In an industrial centre like Tai Kok Tsui, such dirty and insanitary hovels are particularly objectionable; fortunately, now, many of them have been destroyed. Since the disinfection on April 26th no further cases of plague have occurred in the houses at Tai Kok Tsui, but several cases have been found in the hovels and on the foreshore. The majority of the houses in Tai Kok Tsui are well constructed and with the hovels removed there should be little fear of plague another year.

6. It was early seen in Yaumati from the number of deserted floors that a number of bodies had been carried out from the houses and placed in the street or in other open places. The whole place was therefore disinfected as in Tai Kok Tsui, on May 7th, and the number of dead bodies found in the street, subsequent to this disinfection, being considerable, chloride of lime was placed on every floor at Yaumati on May 17th.

* Exclusive of lime-washers who were paid by piece-work.

7. It was not at all surprising to find so many dirty houses in Yaumati, considering that with the present arrangement of the kitchen it is absolutely impossible to prevent smoke from penetrating the living rooms. There are but few houses in Yaumati that have proper arrangements for carrying away smoke. In many houses the smoke is continually present in such quantities as to be extremely irritating to the eyes and nostrils of an European. Can people living in such houses be expected to keep either their houses or themselves clean? But, worst of all, in order to keep the smoke out of the living rooms, the inmates block up the window between the kitchen and the living room so that a through current of air is shut off from that direction. This smoke nuisance can easily be abated as suitable clay fire-places can be easily and cheaply put in.

8. Many dark houses would be greatly improved by letting a small square of glass into the roof. Dark houses were nearly always dirty.

9. Houses 1, 2, 3, 4, 5 Fourth Lane are in a dirty and insanitary condition; they are little better than hovels. They have been disinfected three times; some boats on the foreshore above high water mark at Yaumati should be removed.

10. The houses in Fuk Sing Lane will require a lot of attention as a number of cases of plague have occurred there. The drains in several of these houses have had to be unblocked several times; probably they need repair.

11. On May 31st all the sampans in the district were examined. The boats were very clean for Chinese sampans. No sick people were found except two children just recovering from small-pox.

Disinfection and Disinfectants.

12. A large number of houses have been disinfected with chlorine. The process employed for disinfecting simultaneously a large number of houses without removal of the inmates was to place in each room on each floor two ounces of a mixture of one part of salt, and one part of manganese dioxide. On this mixture was poured six ounces of dilute sulphuric acid (1 in 4). This gave off slowly but continuously for about 12 hours a stream of chlorine, which did not greatly interfere with the inmates, who were told to open all their doors and windows if the action of the chlorine became too suffocating. Throughout Kowloon the Chinese gladly receive this disinfectant, and, speaking generally, we found that they were ready to obey any directions in order to be protected from plague, provided that such direction did not mean that they were put to any expense.

13. For disinfection of closed houses in which plague had occurred the following process was employed:—

Close the doors, windows, and all apertures as completely as possible; [a carpenter is required for this]. Then place half a pound of chlorinated lime in a pot and well mix with a quart of water, place in the centre of the floor and pour on a quart of diluted sulphuric acid (1 in 5). Where the floors are large two pots to each should be used. Commence to disinfect on the top floor.

The following quantities of substances for disinfection have been used:—

- 3 cwt. manganese di-oxide.
- 3 cwt. salt.
- 800 pounds of sulphuric acid.
- 3,000 pounds of chlorinated acid.

House to house Visitation.

14. This was carried out by Sergeant CAMERON and P. C. CORMACK after the cleansing of the whole district of Kowloon was completed on June 2nd. All the Chinese houses in British Kowloon were visited. The visitation was considered by me to be unnecessary after June 18th.

Conclusion.

15. C. P. O. LOVELL was in charge of a cleansing party from April 20th to May 13th when his place was taken by P. C. CORMACK who returned to his ordinary duties on June 19th. Sergeant CAMERON was in charge of a cleansing party from April 20th to June 18th, after which he returned to his ordinary duties.

C. P. O. LOVELL, P. C. CORMACK and Sergeant CAMERON carried out extremely satisfactorily the work entrusted to them.

16. Herewith is attached a return showing that in No. 11 district 26 cases of plague were removed from March 16th to June 13th, and that in No. 12 district during the same period 149 cases of plague were removed.

I have the honour to be,

Sir,

Your obedient Servant,

FRANK BROWNE,
Acting Government Analyst.

The Secretary,
THE SANITARY BOARD.

Return showing Number of Cases of Plague sent from Kowloon between 16th March and 13th June, 1898, in No. 11,
Health District, (Hungom).

Date.	Where from	Males.	Females.	Remarks.
March 16th	Matsheds, Hungom,	1	...	Dead.
" 17th	Foreshore " .....	...	1	"
" 20th	" "	1	...	"
" 26th	" " .....	...	1	"
" 30th	Hungom, West,	1	...	"
" 31st	8, Market Street, Ground Floor,	1	...	"
April 9th	Foreshore, Hungom,	1	...	Sick.
" 21st	" "	1	...	Dead.
" 23rd	No. 102, Market Street,	1	...	"
" 23rd	" 13, Hungom, West,	1	...	"
" 23rd	Foreshore, Tokwawan, .....	...	1	"
" 25th	Hok Ün, Village,	1	...	"
May 1st	No. 6, Shung On Lane,	1	...	"
" 5th	" 68, Market Street, .....	...	1	"
" 6th	" 68, "	1	...	Sick.
" 12th	Hok Ün,	1	...	Dead.
" 15th	Foreshore, Hungom, .....	...	1	"
" 16th	Hill-side, Tai Wan,	1	...	"
" 16th	Foreshore, Hungom, .....	...	1	"
" 16th	Hok Ün,	1	...	"
" 18th	Foreshore, Hungom, .....	...	1	"
" 24th	" " .....	...	1	"
" 27th	Hungom, West,	1	...	"
" 29th	Hill-side, Hungom, .....	...	1	"
June 1st	Foreshore, Hungom,	1	...	"
" 3rd	" "	1	...	"
Totals,		17	9	

Return showing Number of Cases of Plague sent from Kowloon between 30th March and 3rd June, 1898, in No. 12,
Health District.

Date.	Where from	Males.	Females.	Remarks.
March 30th	Hongkong Regiment, Kowloon,	1	...	Sick.
" 31st	Rifle Range, .....	...	1	Dead.
" 31st	No. 48, Battery Street, .....	...	1	Sick.
April 7th	No. 46, Temple Street,	1	...	Dead.
" 8th	Yaumati,	1	...	"
" 9th	" "	1	...	Sick.
" 9th	Taikoktsui, .....	...	1	Dead.
" 9th	" "	1	...	"
" 9th	" "	1	...	"
" 10th	Foreshore, Yaumati,	1	...	"
" 16th	" " .....	...	1	"
" 19th	Fuk 'Tsun Heung,	1	...	"
" 20th	Foreshore, Yaumati,	1	...	"
" 23rd	" Taikoktsui,	1	...	"
" 23rd	No. C. M. Dock Launch,	1	...	"
" 24th	Hill-side, Hung Chung, .....	...	1	"
" 24th	No. 16, Fuk Sing Lane,	1	...	"
" 26th	Station Street,	1	...	"
" 29th	Taikoktsui, .....	...	1	"
May 1st	No. 158, Station Street, .....	...	1	Sick.
" 2nd	Indian Barracks, Kowloon,	1	...	"
" 2nd	Taikoktsui,	1	...	Dead.
" 3rd	Foreshore, Yaumati, .....	...	1	"
" 4th	Hung Chung, .....	...	1	"
" 4th	Foreshore, Taikoktsui, .....	...	1	"
" 5th	No. 68, Reclamation Street, .....	...	1	Sick.
" 5th	No. 15, Station Street, .....	...	1	"
" 5th	No. 15, " .....	...	1	Dead.
" 5th	Mati,	1	...	"
" 7th	Station Hospital Kowloon,	1	...	Sick.
" 7th	Yaumati,	1	...	Dead.
" 8th	" "	1	...	"
" 8th	Taikoktsui beach, .....	...	1	"
<i>Carried forward,</i>		19	14	

