

No. 389.

REPORTS ON THE HEALTH AND SANITARY CONDITION OF THE COLONY OF HONGKONG, FOR THE YEAR 1905.

*To be laid before the Legislative Council by Command of
His Excellency the Governor.*

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GENERAL REPORT OF THE PRINCIPAL CIVIL MEDICAL OFFICER
AND THE MEDICAL OFFICER OF HEALTH.

AREA.

The Sanitary Board's jurisdiction extends to the Island of Hongkong, which has an area of 29 square miles, and to that portion of territory on the mainland between the shore and the first range of the Kowloon Hills extending from the village of Tseung Kwan O in Junk Bay, on the East, to the village of Kau Pa Hang on the West—with a sea frontage of about thirteen miles and an area of about sixteen square miles. Old Kowloon, with an area of about $2\frac{3}{4}$ square miles, has been in British occupation since 1861, but New Kowloon was leased to this Government in 1898 only, as part of what is known as the New Territory. The remainder of this New Territory is not under the jurisdiction of the Sanitary Board.

The City of Victoria, built on the Northern shore of the Island of Hongkong, has a frontage to the sea of nearly five miles and is separated from the opposite mainland of Kowloon by the Harbour, which is rather less than a mile and a third wide opposite the centre of the City and widens out to somewhat over three miles at its widest part, contracting again at Lyemun Pass on the East to little more than a quarter of a mile in width.

The domestic buildings of the City of Victoria number 9,537 exclusive of Barracks and Police Stations, of which some 966 are non-Chinese dwellings, while there are also some 154 European dwellings in the Hill District. The number of new houses completed during the year was as follows:—City of Victoria 182, Kowloon 44, Outlying districts 33, and Peak 1, making a total of 260.

In addition to the above there were erected miscellaneous buildings such as offices, godowns, etc., to the number of 30.

In the Kau U Fong area of Victoria there were cleared away 37 old buildings, and 3 other houses in different parts of the City were vacated with a view to being cleared away shortly.

GENERAL SANITARY CONDITION.

The effect of the present law in providing increased window area for houses is very marked as far as the appearance of houses from the streets is concerned.

Unfortunately in existing buildings there is the old difficulty of not being able to sub-divide the floors into separately lighted apartments.

Under the former law (anterior to 1894) there were built many houses with very small window area. During 1905 2,512 houses have had their windows enlarged to comply with the present Ordinance.

Open spaces in the rear have been provided to 147 houses.

Cement rendering of walls in kitchens has been carried out in 2,103 cases.

In connection with anti-plague measures to render houses rat-proof if possible, 1,088 ground surfaces in houses have been reconcreted while 967 such have had existing concrete repaired. In addition 4 basements illegally inhabited have been altered so as to be legally habitable and 59 houses have been set back from their original frontage so as to obtain increased air spaces in front.

In addition to the above improvements carried out under the supervision of the Sanitary Department various other permanent improvements have been effected by the Public Works Department.

These include the training of nullahs to the extent of 5,145 feet and the building of public latrines and urinals as follows:—one latrine in Third Street, one urinal on the Praya opposite Douglas Street, and one urinal at the upper terminus of the Peak Tramway.

The resumption of property by the Government to the extent of 18,092 square feet during the year under review, has greatly improved the Kau U Fong area.

A considerable improvement is always taking place in the matter of scavenging lanes but the full effect of the Ordinance in this respect will not be noticeable for a considerable number of years. Nevertheless the total length of lanes obtained for scavenging purposes during the year has been 18,977 feet.

As the re-building of a house necessitates the sacrifice of ground to be devoted to open space, owners will of course always prefer to patch the existing houses rather than re-build. However 48 old houses have been pulled down and re-built during the year.

During the year three wells the water of which was unsatisfactory were closed by order of the Sanitary Board.

METEOROLOGICAL RETURN.

The following Table records the meteorological conditions which prevailed during the year:—

MONTH.	BARO-METER AT M.S.L.	TEMPERATURE.			HUMIDITY.		CLOUDI- NESS.	SUN- SHINE.	RAIN.	WIND.	
		Max.	Mean.	Min.	Rel.	Abs.				Dir.	Vel.
	ins.	°	°	°	p. c.	ins.	p. c.	hours.	ins.	Points.	miles p. h.
January, ...	29.93	69.0	64.3	60.7	79	0.49	69	142.9	1.800	E	11.5
February, ...	30.01	58.9	55.3	51.6	84	0.37	92	26.3	1.100	E by S	11.3
March, ...	29.94	61.8	58.9	56.3	88	0.44	96	31.1	11.485	E by N	17.9
April, ...	29.85	72.0	67.8	63.7	85	0.59	86	100.7	1.235	E	15.1
May, ...	29.80	83.0	78.1	74.3	82	0.78	66	212.0	6.825	ESE	10.1
June, ...	29.62	85.0	81.1	77.4	83	0.87	80	144.3	19.695	ESE	11.4
July, ...	29.61	87.8	82.3	78.1	80	0.88	63	243.5	9.015	SSE	7.8
August, ...	29.65	86.7	81.2	77.3	84	0.89	68	223.4	12.115	SE by E	9.3
September, ...	29.77	84.7	80.1	76.5	81	0.83	65	199.5	3.195	E	14.8
October, ...	29.89	80.4	75.9	72.0	71	0.64	49	201.7	1.830	E by N	12.4
November, ...	30.05	73.6	69.2	65.0	66	0.46	48	209.0	0.280	E by N	12.4
December, ...	30.00	69.6	65.3	62.1	80	0.50	73	117.0	2.370	ENE	12.9

POPULATION.

The following is the estimated population to the middle of 1905:—

Non-Chinese Civil Community, ... 10,452

Chinese:—

City of Victoria including the Peak and Stonecutters
Island, ... 194,950
Villages of Hongkong, ... 16,296
Old Kowloon, ... 73,473
New Kowloon (approximate), ... 21,000
Floating population, ... 54,154

Total Chinese Civil population, ... 359,873
Army, (average strength), ... 4,274
Navy, (average strength), ... 3,251

Total population of the Colony, ... 377,850

The average strength of troops in Garrison during 1905 was 127 British Officers and 1,629 British N. C.O.s and men with 38 Indian Officers and 1,995 Indian N. C.O.s and men, and 69 men of the Chinese Royal Engineers. There were also 342 British women and children, and 74 Indian women and children, making a total of 416.

The average strength of the British fleet was as follows :—Europeans permanently in the Colony 285, Europeans temporarily in the Colony 2,730, Chinese permanently in the Colony 153, Chinese temporarily in the Colony 83—making a total of 3,251.

The Chinese boat population (exclusive of the New Territory) is estimated for 1905 as 54,154 and the number of registered boats belonging to the Port for the year is as follows :—

Fishing and Trading Junks, ...6,771
Cargo Boats, Lighters and Sampans, ...5,171

The registered fishing boats belonging to the New Territory were distributed as follows :—

Registered at Cheung Chau,.....1,867
" " Tai O,..... 900
" " Tai Po, ...1,949
" " Deep Bay, ...1,435
" " Sai Kung, ... 669
" " Long Kit, ... 952

Total,.....7,772

The population of the Colony is primarily divided into Chinese and non-Chinese. The non-Chinese comprise a white population of 10,835 of whom 5,722 are civilians while 5,113 belong to the Navy and Army. The coloured races (non-Chinese) number 6,837 and include East Indians, Asiatic Portuguese, Japanese, Philipinos, Malays, Africans, Persians and a few others.

The Civil population is essentially a male adult one. At the last census (1901) the population of males was 72·6 per cent. of the total civil population.

Of the Chinese population 72·9 per cent. were males, and over half the civil population (50·2 per cent. of the Chinese and 56·4 per cent. of the non-Chinese) were between the ages of 20 and 45 years.

The City of Victoria is divided into ten health districts with a Sanitary Inspector in charge of each district. These ten districts are grouped into five larger districts of two each and a Senior Inspector has general supervision and control of the Sanitary work in each of such groups.

Kowloon has one Senior Inspector with two district Inspectors under his supervision.

With the abatement of plague during the last two years the former five plague Inspectors in Victoria have been reduced to four, two Inspectors dividing the district of the fifth Inspector between them in addition to their former districts.

The supervision of the sanitary work in the villages of Hongkong and in Kowloon City and Sham Shui Po is done by the Police Inspectors in their respective districts.

The following Table shows the number of Chinese houses and floors and their inmates per house and per floor in the City of Victoria :—

City of Victoria Health District.	One storey Dwellings.	Two storey Dwellings.	Three storey Dwellings.	Four storey Dwellings.	Five storey Dwellings.	Total Dwellings.	Total Floors.	Average No. of Floors per Dwelling.	Number of persons per House.	Number of persons per Floor.
1	161	428	206	32	Nil.	827	1,763	2·1	14·7	6·9
2	3	341	580	82	Nil.	1,006	2,753	2·7	24·1	8·7
3	Nil.	6	19	2	Nil.	27	77	2·8	Most of the Chinese of this district lived in quarters attached to offices.	
4	6	57	562	408	6	1,039	3,408	3·2		
5	2	132	502	333	46	1,015	3,334	3·2	25·7	7·8
6	46	52	433	369	25	925	3,050	3·3	24·6	7·5
7	17	36	447	377	24	901	3,058	3·3	23·3	7·0
8	6	83	616	294	3	1,002	3,211	3·2	18·4	5·4
9	23	440	498	103	Nil.	1,064	2,809	2·6	22·7	7·0
10	33	334	363	35	Nil.	765	1,930	2·5	23·6	8·9
Totals and Averages.	297	1,909	4,226	2,035	104	8,571	25,393	2·89	16·9	6·6

The following Table shows the acreage of the City Health Districts with the houses and population in each such district :—

Health Districts.	Total Acreage.	Built-over Areas in Acres.	Chinese Houses.	Non-Chinese Houses.	Chinese Population.	Non-Chinese Population.	Persons per Acre (built-over).
1.....	531	134	827	158	12,230	1,205	100
2.....	234	140	1,006	66	24,220	977 troops. 510	183
3.....	232	137	27	422	5,420		
4.....	56	53	1,039	165	26,760	1,422	531
5.....	29	27	1,015	62	25,060	423	943
6.....	30	27	925	15	21,610	104	804
7.....	36	31	901	5	16,610	66	537
8.....	49	47	1,002	3	22,755	31	484
9.....	44	44	1,064	19	25,135	174	575
10.....	252	106	765	51	12,850	515	126
	1,502	746	8,571	966	192,650	8,577	270

The following Table shows the distribution of the population of Kowloon according to Houses and Floors in the different sub-districts into which Kowloon is divided :—

Kowloon Sub-districts.	One storey Dwell-ings.	Two storey Dwell-ings.	Three storey Dwell-ings.	Four storey Dwell-ings.	Five storey Dwell-ings.	Total Dwellings.	Total Floors.	Average Number of Floors per Dwell-ing.	Number of Persons per House.	Number os Persons per Floor.	Area in Acres.
1.....	5	231	3	...	...	221	438	1.98	9.98	5.04	108
2.....	...	17	70	79	...	166	560	3.37	27.92	8.27	126
3.....	9	324	383	91	...	796	2,137	2.68	20.86	7.77	198
4.....	524	63	326	7	...	920	1,656	1.80	6.78	3.77	163
5.....	20	173	22	...	...	245	542	4.37	27.47	12.51	319
6.....	3	234	292	22	...	551	1,435	2.60	16.73	6.42	323
7.....	592	446	4	...	...	1,042	1,496	1.43	5.13	3.58	2,758
8.....	940	219	...	...	...	1,159	1,598	1.36	5.56	4.03	2,068
9.....	699	46	...	...	...	745	791	1.06	6.28	5.92	732

BIRTHS.

The births registered during the year were as follows :—

	Males.	Females.	Total.
Chinese, ...	676	312	988
Non-Chinese, ...	153	148	301
	829	460	1,289

This gives a general birth-rate of 3.41 per 1,000 as compared with 3.3 per 1,000 in 1904 and 3.2 per 1,000 in 1903.

The birth-rate amongst the Non-Chinese community was 17.03 per 1,000 as compared with 13.9 per 1,000 in 1904 and 15.2 per 1,000 in 1903.

The nationalities of the Non-Chinese parents are as follows :—British 120, Indian 46, German 13, French 3, American 4, Portuguese 77, Philippino 10, Malay 8, Japanese 5, Jewish 5, Dutch 2, Arabian 2, Spanish, Roumanian, Italian, African, Brazilian and Eurasian 1 each.

The number of Chinese births registered does not give an accurate record of the number of births which have occurred. Owing to the custom of the Chinese in not registering births unless the child has survived for a month and often in the case of female children not at all, it is probable that the majority if not all of the infants which are sickly at birth or die before they have lived 1 month have not had their births registered. It is customary, therefore, to assume that all children of 1 month old and under who die in the various convents (being brought there sick by poor people) and all children found dead in the streets, harbour, hillsides, etc., by the police, have been born in the Colony but not registered. By adding the number of such children to the number of the registered births a corrected number of births is obtained and from this is calculated a corrected birth-rate.

The number of such children in 1905 was 282 males and 458 females, total 740, which being added to the registered births equals 1,728. The corrected birth-rate is therefore 4·7 while amongst the Chinese community alone the rate becomes 4·79 instead of 2·7.

The preponderance of male over female registered births is very marked amongst the Chinese there being 216 males to 100 females. Even with 740 above mentioned unregistered births the proportion is 124 males to 100 females. This suggests that even the corrected birth-rate may not be altogether trustworthy.

In the Non-Chinese community the proportion of male births to female births for 1905 is 103 to 100 as compared with 83 males to 100 females in 1904 and 111 males to 100 females in 1903 and 1902.

DEATHS.

The deaths registered during the year numbered 6,594. The death-rate was therefore 17·45 as compared with 16·94 in 1904. These deaths include 287 from Plague.

The following Table gives the death-rates during the past twenty years inclusive and exclusive of deaths from Plague and exclusive in every case of the Naval and Military populations and deaths, as until the last eleven years these latter figures were not recorded :—

1886	31·79	Average 27·78	1896	24·25	Average 22·80
1887	28·59		1897	19·13	
1888	31·72		1898	22·71	
1889	23·64		1899	24·33	
1890	23·19		1900	24·12	
1891	23·80	Average 23·89	1901	24·03	Average 20·28
1892	20·70		1902	22·18	
1893	22·70		1903	19·30	
1894	30·37		1904	18·29	
1895	21·89		1905	17·66	

Excluding Plague :—

1896	19·79	Average 19·31	1901	19·03	Average 17·62
1897	19·05		1902	20·32	
1898	17·98		1903	15·10	
1899	18·65		1904	16·79	
1900	21·10		1905	16·89	

The total number of deaths amongst the Chinese community was 6,292 which gives a death-rate of 17·46 per 1,000 as compared with 17·18 in 1904.

The deaths registered amongst the Non-Chinese community numbered 302 of which 251 were from the Civil population, 36 from the Army and 15 from the Navy.

This gives a death-rate for the Non-Chinese community of 17·08.

The nationalities of the deceased were as follows :—British 89, Indian 77, Portuguese 56, German 16, Japanese 13, American 11, Malay 6, French 6, Philippino 4, Italian 3, Swedish 3, Swiss, Jewish and Austrian 2 each ; Irish, Dutch, Austrian, New-Zealand, Norwegian, Persian, Arabian, Danish, Turkish, Eurasian 1 each, and of unknown nationality 2.

The following Table gives the causes of the 36 deaths among the Troops :—

<i>British.</i>		<i>Indian.</i>	
Fracture of Skull, ...	1	Sprue, ...	2
Heart Disease, ...	1	Pneumonia,.....	9
Dysentery, ...	1	Bronchitis, ...	2
Contusion of Skull, ...	1	Poisoning, ...	1
Abscess of Liver, ...	1	Measles, ...	1
Syphilis, ...	1	Dysentery, ...	1
		Tuberculosis ,.....	1
		Phthisis, ...	2
		Scurvy, ...	4
		Malaria, ...	1
		Anæmia,.....	3
		Debility, ...	1
		Diarrhœa, ...	2
	6		30

These deaths are classified in the Military returns as follows :—

CORPS.	EUROPEANS.				Average Strength.		INDIAN TROOPS.				Average Strength.		CHINESE TROOPS.				Average Strength.
	Officers.	W. O., N. C. Officers & Men.	Women.	Children.	Officers.	W. O., N. C. Officers & Men.	Native Officers.	W. O., N. C. Officers & Men.	Women.	Children.	Native Officers.	W. O., N. C. Officers & Men.	N. C. Officers and Men.	Women.	Children.		
General Staff (Officers only),	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Garrison Staff (W. O., N. C. Officers only),..... }	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Royal Garrison Artillery, ...	...	3	...	...	16	615	...	...	...	...	...	...	...	...	...	...	...
Royal Engineers, ...	...	1	...	...	11	194	...	...	...	...	...	...	...	...	...	...	...
Chinese Submarine Miners, .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	69
2nd Royal West Kent Regt.,	...	1	...	...	11	441	...	...	...	...	...	...	...	...	...	...	...
Army Service Corps,.....	...	...	...	...	4	27	...	...	...	...	...	...	...	...	...	...	...
Royal Army Medical Corps,	...	...	...	...	9	43	...	...	...	...	...	...	...	...	...	...	...
Army Ordnance Dept. and } Corps, ...	...	1	...	...	7	31	...	...	...	...	...	...	...	...	...	...	...
Army Pay Dept. and Corps,	...	...	...	...	3	8	...	...	...	...	...	...	...	...	...	...	...
H. K. & S. Bn. R. G. A.,...	...	...	...	...	9	9	...	...	...	3	7	379	...	...	...	...	...
93rd Burma Infantry, ...	...	...	...	...	4	...	...	...	...	...	5	276	...	...	...	...	...
110th Mahratta Light In- } fantry, ...	...	...	...	...	4	...	...	1	...	...	5	282	...	...	...	...	...
114th Mahrattas, ...	...	...	...	...	1	...	...	...	...	...	2	102	...	...	...	...	...
119th Infantry, ...	...	...	...	...	7	...	...	26	...	...	11	646	...	...	...	...	...
129th (D.C.O.) Baluchis, ...	...	...	...	...	8	...	...	...	...	...	11	535	...	...	...	...	...
Indian Subordinate Medi- } cal Dept., ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL,.....	...	6	...	...	98	1,370	...	27	...	3	41	2,220	...	...	...	...	69

The 15 deaths occurring in the Chinese Squadron which were registered in the Colony were as follows :—

Pneumonia, ...	1
Syphilis, ...	1
Abscess of liver, ...	1
Drowning, ...	2
Heart Disease, ...	1
Compound fracture of leg, ...	1
Measles, ...	1
Typhoid Fever, ...	3
Meningitis, ...	1
Intestinal Obstruction, ...	1
Aneurism, ...	1
Cirrhosis of liver, ...	1

The deaths of persons employed in the Mercantile Marine or in Foreign Navies which were registered in the Colony were 36 and their causes as follows :—

Bullet wound, ...	1	Typhoid Fever, ...	2
Dysentery, ...	3	Tuberculosis, ...	2
Small-pox, ...	5	Beri-beri, ...	1
Heart disease, ...	2	Peritonitis, ...	1
Asphyxia, ...	1	Cholera, ...	1
Cancer, ...	1	Abscess of lung, ...	1
Bright's disease, ...	1	Cut throat, ...	1
Hæmorrhage, ...	1	Burns, ...	1
Fracture of skull, ...	1	Epilepsy, ...	1
Phthisis, ...	6	Unknown, ...	1
Apoplexy, ...	2		

The total number of deaths therefore which occurred amongst the Non-Chinese resident civil population was 215, and allowing 1,100 for the Non-Chinese floating population this gives a death-rate of 22.99 per 1,000 for the resident Non-Chinese civil population.

Three deaths from Plague occurred amongst the Non-Chinese community comprising one Portuguese, one Indian and one Malay.

Table I shows the number and causes of deaths registered during the year.

The following Table of population, births and deaths is given for the purpose of ready comparison with similar tables given in the reports from other Colonies :—

	Europeans and Whites.	Africans.	East Indians.	Chinese and Malays.	Mixed and Coloured.	TOTALS.
Number of Inhabitants in 1905, ...	10,835	20	3,907	360,228	2,860	377,850
„ of Births in „	145	1	46	996	101	1,289
„ of Deaths in „	137	...	80	6,298	79	6,594
„ of Immigrants in „	...	...	...	140,483	...	...
„ of Emigrants in „	...	...	...	64,341	...	...
„ of Inhabitants in 1904, ...	11,532	20	4,351	342,356	2,944	361,206
Increase, ...	...	...	...	17,872	...	16,644
or						
Decrease, ...	697	...	447	...	84	...

Uncertified Deaths.

During the year the bodies of 464 persons who had died without having been attended by a medical man were inspected by the Sanitary staff, and enquiries made from the relatives as to the probable cause of death, the bodies being sent to the mortuary whenever there was any reason to suspect that the deaths were due to infectious disease.

The presumed causes of death in these cases were as follows :—

Phthisis, ...	106	Asthma, ...	13
Old age, ...	131	Premature birth, ...	3
Bronchitis, ...	65	Apoplexy, ...	1
Beri-beri, ...	24	Dysentery, ...	1
Heart Disease, ...	5	Diarrhœa, ...	8
Convulsions, ...	11	Epilepsy, ...	1
Bright's Disease, ...	3	Hæmorrhage, ...	1
Dropsy, ...	5	Pneumonia, ...	14
Paralysis, ...	1	Malaria, ...	23
Debility, ...	30	Marasmus, ...	11
Child-birth, ...	5	Rheumatism, ...	1
Laryngitis, ...	1		

Age Distribution of Deaths.

The number of deaths of infants under one year of age was 1,541 or 23·3 per cent. of the total deaths.

The Infant Mortality amongst the Non-Chinese community during the year was 119 per 1,000 as compared with 76 per 1,000 in 1904.

Among the Chinese population the deaths of infants numbered 1,507, while only 988 Chinese births were registered. Taking the corrected birth figure to be 1,728 this gives an infant mortality of 87·2 per thousand.

DISEASES.

Respiratory Diseases.

The total number of deaths from these diseases for the year was 1,655 of which 70 were from the Non-Chinese community leaving 1,585 among the Chinese population.

Phthisis alone accounts for 725 deaths of which, 691 were Chinese. Pneumonia caused 501 deaths of which 478 were Chinese, and Bronchitis caused 346 deaths, 336 of which were Chinese.

The death-rate among the Chinese from Respiratory diseases was 4·4 per 1,000 and that for Phthisis alone was 1·9 per 1,000.

The deaths from Phthisis amongst the Chinese were 10·9 per cent. of the total deaths amongst the community.

Nervous Diseases.

The number of deaths under this heading for the year 1905 is 716, of which 612 were of Chinese children under 5 years of age. Among these 612 deaths of children, 221 were from meningitis, 44 from convulsions and no less than 343 were ascribed to tetanus. Again, of these deaths of Chinese children 460 were of infants under twelve months of age. 355 of which died from tetanus and infantile convulsions.

Malarial Fever.

The total number of deaths from malarial fever during the year was 287, of which 4 were Non-Chinese, 3 being from the civil population and 1 from the Troops.

In the City the districts in which there has been most malaria are Health Districts 1 and 9 with 23 and 14 deaths respectively. The number for the whole City being 98.

In the whole of Kowloon there were 94 deaths.

In Shaukiwan and Aberdeen there were respectively 49 and 29 deaths from malaria.

The following Table shews the number of deaths from malaria for the last six years:—

	Chinese.	Non-Chinese.
1900,.....	526	29
1901,.....	541	33
1902,.....	393	32
1903,.....	283	18
1904,.....	289	12
1905,.....	283	4

Beri-Beri.

There were 678 deaths from this disease during the year, of which 2 only were among the Non-Chinese community.

Infectious Diseases.

The total number of cases of infectious disease notified during the year was 508, of which 304 were of Plague. The following Table shows the nature and distribution of these diseases :—

	CITY OF VICTORIA HEALTH DISTRICTS.										Peak.	Kowloon.	Harbour.	New Territory.	Villages of Hongkong.	No address.	Imported.
	1	2	3	4	5	6	7	8	9	10							
Plague, ...	4	25	2	18	17	11	20	27	38	18	1	75	13	23	4	2	6
Typhoid, ...	4	12	9	5	3	1	3	2	2	5	1	10	12	...	...	...	21
Cholera, ...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Small-pox, ...	5	8	3	2	1	...	...	...	4	2	1	9	12	1	3	...	24
Diphtheria, ...	...	...	3	1	...	...	...	...	1	1	1	4	...	...	1	...	...
Scarlet Fever, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever, ...	...	2	...	...	2	...	...	...	1	2	...	6	2	1	1	...	...
Relapsing Fever, ...	...	...	...	...	...	...	...	...	...	1	...	...	3	...	...	...	...

Table II shews the number of cases of notifiable diseases recorded in each month of the year.

Typhoid Fever.

The number of cases of this disease during the year was 90 as compared with 129 in 1904.

The European cases numbered 42, of which 16 were imported. The Chinese cases numbered 37 while 11 cases occurred amongst the other races in the Colony.

Typhoid fever being so insidious in its onset and being undoubtedly due to the ingestion of infective common articles of diet it is extremely difficult when cases occur in different localities and at different times to fix upon any one factor as the exciting cause of the disease.

It cannot however be too strongly impressed upon the public in this Colony that to indulge in uncooked vegetables, *e.g.*, salads, is to run a risk of typhoid infection.

By far the greater amount of vegetable food is imported into Hongkong from China. The Chinese as is well known use human excreta as manure.

The danger of this practice is not found in this mere fact itself for provided that all such matter is thoroughly "ripened" in a manure pit before being applied to the soil the probability of contamination of the plants is remote. But there is danger in the practice of watering vegetables with diluted fresh excretal matters.

It is not generally known to the public that the urine of a typhoid patient may contain the typhoid bacillus for weeks and even months after convalescence.

Over such food grown out of the Colony there is no control at all.

Within this Colony the bye-laws require all excretal matters to be removed to the conservancy boats and hence the using of it in gardens is illegal.

Practically the only manure obtainable by gardeners in Hongkong is of human origin and the very existence of market gardens in this Colony must certainly be taken as presumptive evidence that human manure is used.

In spite of the fact that people if caught removing excreta to any place but the conservancy boats are liable to punishment, no one should assume that vegetables grown in this Colony by market gardeners are, or can be grown with profit, without the use of human manure.

The moral is obvious :—To eat no uncooked vegetables unless grown in a garden where to one's own knowledge such manure is not used.

Cholera.

Five cases of cholera were recorded during the year. Two of these cases were of European race, one being imported from Canton, while three cases were Chinese, all coal carrying coolies employed in coaling ships in the harbour.

Small-Pox.

During the year 75 cases of small-pox were certified, of which, 22 were Europeans with 13 imported cases, 46 were Chinese with 9 imported, and 7 were of other races with 1 imported case.

The number of vaccinations for the year was 5,722.

Diphtheria.

Twelve cases of diphtheria were notified throughout the year. Nine of these were European cases, seven of which were in children. Two cases were Chinese and one Portuguese.

One of the Chinese cases died.

Puerperal Fever.

Seventeen cases of this disease were certified throughout the year. One was a European case, one a Eurasian and the remainder Chinese.

During the year the Government inaugurated a scheme for supplying trained Chinese midwives to attend the poor in their own houses, and two of such women were engaged in August and were placed under the control of Dr. ALICE SIBREE who has charge of the Alice Memorial Maternity Hospital. Up to the end of the year they had attended 22 confinements ; three of these cases were abnormal and Dr. SIBREE was called in, one being a breech presentation while the other two were forceps cases. It has been arranged for the midwives to exercise a general supervision over the infants during the first twelve months of life with a view to obtaining further information as to the causes of the high infant death-rate in this Colony.

Relapsing Fever.

Four cases of Relapsing Fever were certified, all among Chinese.

Three cases were imported from Tientsin while the fourth case occurred in the person of a Chinese employed at the Infectious Diseases Hospital at Kennedy Town.

Scarlet Fever.

One case occurred—a European child.

Plague.

Fortunately this year the epidemic is the smallest recorded since 1894 with the exception of the years 1895 and 1897 when the small number of cases—14 and 21 respectively—almost preclude the use of the term epidemic for these two years.

The number of cases and deaths during the year according to nationality and locality is shown in Table III.

INTERMENTS.

The following number of interments in the various cemeteries of the Colony have been recorded during the year :—

<i>Non-Chinese Cemeteries.</i> —Colonial Cemetery	145
Roman Catholic Cemetery, ...	1,243
Mahomedan Cemetery, ...	2
Jewish Cemetery, ...	5
	1,395

<i>Chinese Cemeteries.</i> —Mount Caroline Cemetery, ...	308
Mount Davis „	332
Tung Wa Hospital „	2,222
Infectious Diseases „	342
Protestant „	42
Shaukiwan „	362
Aberdeen „	153
Stanley „	36
Shek O „	8
Ma Tau Wai „	817
Shai Yü Shek „	147
Sham Shui Po „	161
Christian „ (Kowloon City) ...	4
	4,934

There were three cremations of bodies during the year.

DISINFECTING STATIONS.

During the year the two Disinfecting Stations dealt with 36,616 articles of clothing bedding, etc.

These articles were received for disinfection according to the following Table: —

Victoria Station.

Articles from Private Houses, ...	23,637
„ „ Kennedy Town Hospital, ...	1,630
„ „ Tung Wah Hospital, ...	1,744
„ „ Government Civil hospital, ...	1,026
„ „ Police Stations and Gaol, ...	218
Government Clothing lent to Contacts, ...	841
Clothing and Bedding of Staff, ...	3,000
	32,096

Kowloon Station.

Articles from Private Houses, ...	3,910
„ „ Police Stations, ...	27
Government Clothing lent to Contacts, ...	583
	4,520

PROSECUTIONS.

A list of prosecutions undertaken during the year for breaches of the Sanitary Laws and Regulations of the Colony is given in Table IV.

The special report of the Medical Officer of Health on the Plague Epidemic of 1905 and the reports of the Medical Officers in charge of Hospitals and Sub-Departments are printed as Annexes A to K of this report.

FRANCIS CLARK, M.D., D.P.H.,
Acting Principal Civil Medical Officer.

WILFRID W. PEARSE, M.D., D.P.H.,
Acting Medical Officer of Health.

March, 31st 1906.

TABLE I.—RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

CAUSES.	BRITISH AND FOREIGN COMMUNITY.			CHINESE COMMUNITY.													
				VICTORIA.													
				HEALTH DISTRICT.													
	Civil.	Army.	Navy.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour.	
I.—General Diseases.																	
A.—Specific Febrile Diseases.																	
a Zymotic.																	
Small-pox, ...	6	...	...	2	4	2	2	1	...	1	...	1	1	...	...	3	
Measles, ...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	
Whooping Cough, ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	
Diphtheria, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Fever Typhoid, ...	15	...	3	1	6	4	4	1	...	3	2	...	5	...	...	...	
„ Simple Continued, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Cholera, ...	2	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	
Choleraic Diarrhœa, ...	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	1	
Diarrhœa, ...	3	2	...	16	25	31	13	8	18	11	15	28	4	16	...	14	
Dysentery, ...	9	2	...	6	11	1	4	5	...	1	1	6	1	7	...	5	
Plague, ...	3	...	...	7	25	1	15	17	12	13	21	35	35	7	...	7	
Fever, Relapsing, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	
Total, ...	39	5	4	32	74	41	38	32	31	30	39	70	47	30	...	31	
β Malarial.																	
Malarial Fever, ...	3	1	...	23	12	2	8	6	2	3	4	14	8	5	1	10	
Total, ...	3	1	...	23	12	2	8	6	2	3	4	14	8	5	1	10	
γ Septic.																	
Erysipelas, ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	
Septicæmia, ...	1	...	...	2	1	1	2	4	...	1	2	3	...	2	...	4	
Puerperal Fever, ...	1	...	...	...	1	1	1	1	...	...	1	2	...	...	...	...	
Total, ...	2	...	...	2	3	2	3	5	...	1	3	5	...	2	...	4	
δ Venereal.																	
Syphilis (Acquired), ...	...	1	1	1	...	...	1	1	...	...	1	...	1	1	...	...	
„ (Congenital), ...	1	...	...	...	77	2	1	...	...	...	1	...	...	...	...	...	
Total, ...	1	1	1	1	77	2	2	1	...	...	2	...	1	1	...	...	
Total Group A., ...	45	7	5	58	166	47	51	44	33	34	48	89	56	38	1	45	
B.—Diseases dependent on Specific External Agents.																	
a Parasites.																	
Worms, ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	
Total, ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	
β Poisons.																	
Opium Poisoning, ...	1	...	...	...	...	1	...	1	...	1	1	...	...	...	...	...	
Poisoning by Alkaloid, ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total, ...	1	1	...	...	...	1	...	1	...	1	1	...	...	...	...	...	
Carried forward, Group A., ...	45	7	5	58	166	47	51	44	33	34	48	89	56	38	1	45	
„ Group B., ...	1	1	...	...	...	1	...	2	...	1	1	...	...	...	...	...	

DURING THE YEAR ENDED THE 31st DAY OF DECEMBER, 1905:

CHINESE COMMUNITY.								TOTAL AT THE DIFFERENT AGE PERIODS.																GRAND TOTAL.		
KOW- LOON Dis- TRICT.		SHÁUKI- WÁN Dis- TRICT.		ABER- DEEN Dis- TRICT.		STANLEY Dis- TRICT.		Under 1 month.		1 month and under 12 months.		1 year and under 5 years.		5 years and under 15 years.		15 years and under 25 years.		25 years and under 45 years.		45 years and under 60 years.		60 years and over.			Age Unknown.	
Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.		Non-Chinese.	Chinese.
5	1	...	...	2	...	...	...	...	1	...	2	1	8	...	9	...	2	4	3	1	...	...	...	...	31	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
4	...	...	...	...	...	...	...	...	...	1	3	...	22	1	4	5	...	11	1	...	...	...	...	...	48	
...	...	1	...	...	...	1	1	...	...	...	...	...	1	...	...	1	...	...	2	...	...	...	...	...	4	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	3	...	...	...	...	5	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	1	...	...	...	...	4	
31	4	43	30	1	...	2	...	...	8	1	47	2	74	...	34	1	26	1	61	...	38	...	21	...	315	
20	...	6	...	...	...	1	...	...	...	...	...	1	6	...	4	4	7	4	32	1	20	1	6	...	86	
80	8	...	...	...	...	1	...	...	2	...	3	1	11	...	58	...	68	1	110	...	22	1	10	...	287	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	2	
140	13	50	30	4	...	5	1	...	11	2	55	5	122	1	110	12	105	24	213	2	84	2	37	...	786	
94	8	30	19	15	14	5	...	...	...	1	13	...	24	...	25	1	62	2	112	...	30	...	16	...	287	
94	8	30	19	15	14	5	...	...	...	1	13	...	24	...	25	1	62	2	112	...	30	...	16	...	287	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	
6	...	...	...	1	...	...	...	...	...	...	1	...	1	...	4	...	6	1	14	...	2	...	1	...	30	
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	6	...	...	...	...	...	10	
8	...	...	...	1	...	...	...	...	...	...	1	...	1	...	4	1	9	1	21	...	2	...	1	...	41	
3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	1	6	...	1	...	...	...	12	
...	...	...	...	...	...	...	...	...	3	1	78	...	...	...	...	...	...	...	...	...	...	...	...	...	82	
3	...	1	...	...	...	...	...	...	3	1	78	...	...	...	...	1	3	1	6	...	1	...	...	...	94	
245	21	81	49	20	14	10	1	...	14	4	147	5	147	1	139	15	179	28	352	2	117	2	54	...	1,208	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	1	1	...	...	...	...	...	5	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1	1	...	...	...	...	...	6	
245	21	81	49	20	14	10	1	...	14	4	147	5	147	1	139	15	179	28	352	2	117	2	54	...	1,208	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1	1	...	...	...	...	...	7	

RETURN SHIEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

CAUSES.	BRITISH AND FOREIGN COMMUNITY.			CHINESE COMMUNITY.												
				VICTORIA.												
				HEALTH DISTRICT.												
				No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour.
<i>Brought forward, Group A.,...</i>	45	7	5	58	166	47	51	44	33	34	48	89	56	38	1	45
<i>„ Group B.,...</i>	1	1	...	...	...	1	...	2	...	1	1	...	...	...	...	...
I.—General Diseases,— <i>Continued.</i>																
γ <i>Effects of Injuries.</i>																
Asphyxia,.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shock, (Burn),.....	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Rupture of Liver, ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
„ of Spleen,.....	...	...	...	...	1	1	2	...	...	...	1	1	2	1	...	1
„ of Intestines,.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ of Lung, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fracture of Leg, ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
„ of Pelvis, ...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...
„ of Skull, ...	3	1	...	3	6	3	6	1	3	3	1	...	3	...	...	2
„ of Ribs,.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Contusion of Skull,.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ of Brain, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Concussion of Brain, ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Burns, ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Hæmorrhage, ...	3	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...
Heat Apoplexy, ...	3	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Suicide by Poison, (Datura Alba), ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shot Wound, ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Stab Wound, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Hæmorrhage, (Laceration of Lung),.....	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Multiple Injuries, ...	1	...	...	1	2	...	...	...	...	...	3	1	...	...	...	...
Drowning, ...	2	...	2	3	2	...	...	...	...	...	2	...	1	1	...	7
Suffocation, (in a burning house),.....	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...
Starvation, ...	...	...	...	2	2	3	...	1	...	...	...	...	...	...	...	...
Hanging, (Execution), ...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ (Suicide), ...	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...
Throat Cutting, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Wound of Liver, ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Scalds, ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Dislocation of Neck, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Shock, ...	1	...	...	...	1	1	2	...	...	...	2	...	...	...	...	1
Suffocation, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total,.....	22	2	3	10	19	9	12	4	6	13	12	4	7	2	...	15
δ <i>Errors of Diet.</i>																
Alcoholism (Chronic),.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ (Acute), ...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Scurvy,.....	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total,.....	2	4	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Total Group B.,.....	25	7	3	10	19	10	12	6	6	15	13	4	7	2	...	15
C.— <i>Developmental Diseases.</i>																
Immaturity at Birth, ...	9	...	...	...	1	3	2	2	3	2	2	4	2	...	...	...
Debility, ...	7	1	...	1	1	2	1	2	...	1	5	2	...	...	...	5
Old Age, ...	9	...	...	12	17	...	2	5	3	3	2	1	...	...	...	25
Marasmus and Atrophy,.....	2	...	...	5	230	187	3	5	4	7	10	10	9	2	...	6
Tabes Mesenterica, ...	...	...	...	...	1	2	...	1	...	...	...	...	1	...	...	...
Spina Bifida, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Inanition, ...	...	...	...	...	...	8	1	2	...	1	1	1	...	...	...	...
Total Group C.,.....	28	1	...	18	250	202	9	17	10	14	20	18	12	2	...	36
<i>Carried forward, Groups A. to C., ...</i>	98	15	8	86	435	259	72	67	49	63	81	111	75	42	1	96

RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

CAUSES.	BRITISH AND FOREIGN COMMUNITY.			CHINESE COMMUNITY.												
				VICTORIA.												
				HEALTH DISTRICT.												
	Civil.	Army.	Navy.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour.
<i>Brought forward, (Groups A to C),.....</i>	98	15	8	86	435	259	72	67	49	63	81	111	75	42	1	96
<i>General Diseases,—Continued.</i>																
<i>D.—Miscellaneous Diseases.</i>																
Articular Rheumatism, ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Cellulitis of Neck, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant New Growths:—	...	...	...	...	...	...	1	1	...	2	1	3	...	...	...	6
Cancer, ...	8	...	...	...	...	...	...	2	...	...	1	...	...	...	...	...
Sarcoma, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
General Tuberculosis, ...	12	1	...	4	130	47	5	3	6	2	5	7	1	1	...	8
Rickets, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anæmia, ...	8	3	...	...	...	2	...	2	...	...	1	...	...	...	...	...
Leprosy, ...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
Beri-beri, ...	2	...	...	45	80	9	25	35	36	29	47	60	24	50	1	73
Gangrene of Scrotum, ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Caries of Spine, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Group D,.....	31	4	...	49	210	59	31	43	43	33	56	71	25	51	1	87
<i>II.—Local Diseases.</i>																
<i>E.—The Nervous System.</i>																
Meningitis, ...	5	...	1	...	191	34	3	2	...	...	2	2	...	...	...	1
Melancholia, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalomalacia, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Apoplexy, ...	7	...	...	1	4	1	5	4	1	3	...	3	...	2	...	...
Paralysis (Undefined):—	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...
Hemiplegia, ...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...
Paraplegia, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Peripheral Neuritis, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dementia, ...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Encephalitis, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Infantile Convulsions, ...	5	...	...	1	10	3	2	1	...	5	...	1	...	...	...	1
Tetanus, ...	1	...	...	...	288	44	2	2	...	...	1	2	...	...	...	...
Trismus, ...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...
Hydrocephalus, ...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...
Epilepsy, ...	1	...	...	...	1	...	1	1	...	...	...	...	2	...	...	1
Mania, ...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Multiple Neuritis, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Group E,.....	25	...	1	2	494	91	13	13	2	8	5	10	2	2	...	4
<i>F.—The Circulatory System.</i>																
Heart Disease, ...	12	1	1	5	16	7	10	15	4	5	5	6	4	2	1	17
Aneurysm, ...	1	...	1	...	...	...	...	...	1	1	...	...	1	1	...	3
Pericarditis, ...	1	...	...	1	1	3	...	...	...	...	...	1	1	...	...	...
Endocarditis, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Atheroma, ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Total Group F,.....	15	1	2	6	17	10	11	15	5	6	5	7	6	3	1	21
<i>Carried forward, (Groups A to F), ...</i>	169	20	11	143	1,155	419	127	138	99	110	147	199	108	98	3	208

DURING THE YEAR ENDED THE 31ST DAY OF DECEMBER, 1905,—Continued.

CHINESE COMMUNITY.								TOTAL AT THE DIFFERENT AGE PERIODS.																GRAND TOTAL.		
KOW- LOON Dis- TRICT.		SHAUKI- WÁN Dis- TRICT.		ABER- DEEN Dis- TRICT.		STANLEY Dis- TRICT.		Under 1 month.		1 month and under 12 months.		1 year and under 5 years.		5 years and under 15 years.		15 years and under 25 years.		25 years and under 45 years.		45 years and under 60 years.		60 years and over.			Age Unknown.	
Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.		Non-Chinese.	Chinese.
421	52	129	109	42	56	23	6	13	144	7	521	5	228	1	159	26	206	47	432	7	148	14	424	1	13	2,396
6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	4	...	...	7
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
2	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3	9	2	5	3	2	...	...	25
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	3
117	35	...	...	...	...	...	...	...	3	...	41	...	13	1	35	4	20	5	79	1	36	2	26	...	...	384
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	6	2	5	2	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1
103	8	41	...	6	1	3	...	...	...	...	...	...	1	...	6	1	153	1	385	...	108	...	22	...	1	678
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
229	44	42	...	6	1	3	...	...	3	...	41	1	135	1	42	11	176	14	479	3	153	5	54	...	1	1,119
3	...	...	...	...	...	...	...	1	2	1	93	2	126	...	15	1	2	1	...	...	...	...	...	...	...	244
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
5	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	3	8	1	9	3	9	...	1	37
...	...	3	7	...	1	...	...	...	...	...	...	...	1	...	1	...	2	...	4	...	3	...	2	...	...	13
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
10	...	3	4	5	...	...	...	1	8	1	16	3	20	...	1	...	...	...	...	...	...	...	...	...	...	51
...	...	...	...	...	...	...	...	1	320	...	11	...	3	...	...	...	3	...	1	...	1	...	...	...	...	340
...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	3
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	1	3	...	...	...	1	...	...	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
20	...	7	11	5	1	...	...	3	338	2	122	5	152	1	19	1	11	9	19	2	14	3	14	...	1	716
31	4	2	...	...	...	...	...	1	1	...	...	...	1	...	2	1	5	9	52	2	34	1	38	...	1	148
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	...	3	...	...	1	...	10
7	2	...	...	...	...	...	...	...	...	...	3	...	1	...	1	...	2	1	6	...	2	...	1	...	...	17
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
38	7	2	...	...	...	...	...	1	1	...	3	...	3	...	3	1	7	12	63	2	39	1	40	1	1	178
708	103	180	120	53	58	26	6	17	486	9	687	11	518	3	223	39	403	82	993	14	354	23	532	2	16	4,409

RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

CAUSES.	BRITISH AND FOREIGN COMMUNITY.			CHINESE COMMUNITY.												
				VICTORIA.												
				HEALTH DISTRICT.												
				No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour.
<i>Brought forward, (Groups A to F),</i>	169	20	11	143	1,156	419	127	138	99	110	147	199	108	98	3	208
<i>Local Diseases.—Continued.</i>																
<i>G.—The Respiratory System.</i>																
Bronchitis, ...	8	2	...	10	54	25	14	12	8	13	14	31	10	6	...	16
Pneumonia, ...	13	9	1	24	34	62	24	17	24	31	27	43	18	12	...	24
Phthisis, ...	32	2	...	35	46	6	46	36	23	35	38	68	13	23	...	88
Pleurisy, ...	...	...	...	...	...	2	...	...	...	1	2	...	...	1	...	1
Emphysema, ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Empyema, ...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...
Atelectasia, ...	...	...	...	1	1	20	2	...	1	1	...	2	1	...	...	...
Gallapse of Lung, ...	...	...	...	...	2	2	...	2	3	...	1	1	...	...	...	...
Abscess of Lung, ...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Gangrene of Lung, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Laryngitis, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Asthma, ...	...	...	...	...	...	1	1	...	...	...	...	1	1	...	...	...
Hydrothorax, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Group G, ...	56	13	1	71	137	118	89	68	59	81	83	146	43	42	...	131
<i>H.—The Digestive System.</i>																
Intussusception, (Operation), ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Distomiasis, ...	...	...	...	...	...	...	1	1	...	...	...	2	...	...	...	2
Gangrenous Stomatitis, ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Enteritis, ...	2	...	...	...	4	2	1	1	...	...	...	3	...	...	...	...
Appendicitis, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Rupture of Stomach, ...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...
Hepatic Abscess, ...	2	1	1	...	...	...	...	1	1	...	...	1	1	...	...	2
Acute Yellow Atrophy of Liver, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver, ...	4	...	1	...	1	1	2	1	...	...	1	...	...	...	...	1
Intestinal Obstruction, ...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Peritonitis, ...	2	...	...	...	1	...	1	2	...	...	3	2	...	...	...	3
Gangrene of Mouth, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atresia ani, (Operation), ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Ulcerative Stomatitis, ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Thrombosis of Portal Vein, ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Sprue, ...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jaundice, ...	...	...	...	1	2	2	1	...	...	1	2	...	...	...	...	...
Tonsillitis, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Hernia, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Group H, ...	12	3	3	1	10	9	7	6	1	1	7	10	2	...	...	9
<i>J.—The Urinary System.</i>																
Nephritis, ...	1	...	...	...	3	1	3	2	3	2	...	3	3	...	...	1
Nephritis, (Tubercular), ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peri-Nephritic Abscess, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bright's Disease, ...	6	...	...	2	1	1	...	...	...	1	2	1	...	1	...	2
Calculus, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Vesical Calculus, ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Extravasation of Urine, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Pyonephrosis, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Group J, ...	7	...	...	2	4	2	3	3	3	3	3	4	3	1	...	4
<i>L.—The Generative System.</i>																
Gangrene of Penis, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ovarian Tumour, ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Total Group L, ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
<i>Carried forward, (Groups A to L),</i>	245	36	15	217	1,307	549	226	215	162	195	240	359	156	141	3	352

DURING THE YEAR ENDED THE 31ST DAY OF DECEMBER, 1905,—Continued.

CHINESE COMMUNITY.								TOTAL AT THE DIFFERENT AGE PERIODS.																		GRAND TOTAL.	
KOW- LOON Dis- TRICT.		SHAUKI- WAN Dis- TRICT.		ABER- DEEN Dis- TRICT.		STANLEY Dis- TRICT.		Under 1 month.		1 month and under 12 months.		1 year and under 5 years.		5 years and under 15 years.		15 years and under 25 years.		25 years and under 45 years.		45 years and under 60 years.		60 years and over.		Age Unknown.			
Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.		Non-Chinese.
708	103	180	120	53	58	26	6	17	486	9	687	11	518	3	223	39	400	82	993	14	354	23	532	2	16	4,409	
51	17	9	4	10	23	7	2	2	2	1	66	1	25	...	15	...	7	1	60	2	55	3	105	...	1	346	
88	28	9	...	5	8	...	...	...	12	4	122	3	180	1	35	4	32	9	55	...	30	1	7	1	5	501	
86	18	65	39	8	12	6	...	...	...	...	...	1	4	1	8	9	83	15	369	5	170	3	57	...	...	725	
4	...	1	...	...	...	...	...	...	...	...	1	...	2	...	1	...	2	...	5	...	1	...	...	...	...	12	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	3	
1	...	...	...	...	...	...	...	...	26	...	2	...	1	...	...	...	...	...	...	...	...	...	...	1	...	30	
...	...	...	...	...	...	...	...	...	10	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	
1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	1	...	...	4	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2	
1	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	
11	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	5	...	3	...	5	...	...	16	
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	
244	65	84	43	23	43	13	2	2	50	5	192	5	216	2	61	13	128	25	495	8	260	9	176	1	7	1,655	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	2	...	...	...	...	7	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	
3	...	...	...	...	...	...	...	...	1	...	4	...	2	...	2	...	2	...	2	1	1	1	...	...	...	16	
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	3	
...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	1	1	3	...	...	...	...	10	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
2	...	1	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	4	3	...	3	1	1	...	...	15	
1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
6	1	1	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	5	...	10	1	2	...	1	...	22	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
1	...	15	8	...	...	...	...	...	2	...	...	...	1	...	...	...	5	...	15	...	7	...	3	...	...	33	
...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2	
17	2	18	8	...	...	...	...	...	8	...	9	...	4	1	5	3	15	7	41	4	21	3	5	...	...	126	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
11	2	2	...	...	...	...	...	...	...	...	...	...	1	...	2	...	4	1	18	...	4	...	7	...	...	37	
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	4	4	3	2	2	...	...	19	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
14	4	2	...	...	...	...	...	...	...	...	1	...	1	...	5	...	5	1	26	4	7	2	10	...	...	62	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	
983	174	284	171	76	101	39	8	20	544	14	889	16	739	6	294	55	548	115	1,556	30	642	37	723	3	23	6,254	

RETURN SHEWING THE NUMBER AND CAUSES OF DEATHS REGISTERED

CAUSES.	BRITISH AND FOREIGN COMMUNITY.			CHINESE COMMUNITY.												
				VICTORIA.												
				HEALTH DISTRICT.												
				No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	Unknown.	Peak.	Harbour.
<i>Brought forward, (Groups A to L), ...</i>	245	36	15	217	1,307	549	226	215	162	195	240	359	156	141	3	352
<i>Local Diseases,—Continued.</i>																
<i>M.—Affections connected with Pregnancy.</i>																
Ruptured Tubal Pregnancy, ...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
Abortion, ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Hysterio-emesis, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Internal Hæmorrhage, ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Placenta Prævia, ...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...
Total Group M,.....	1	...	...	1	...	...	...	2	...	...	2	2	...	...	...	...
<i>N.—Affections connected with Parturition.</i>																
Post Partum Hæmorrhage, ...	1	...	...	...	2	...	...	...	1	1	2	1	...	...	...	...
Child Birth, ...	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2
Total Group N,.....	2	...	...	1	3	...	...	...	1	1	2	1	...	...	...	2
<i>O.—Diseases of Organs of Locomotion.</i>																
Gangrene of Arm, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Suppurative Synovitis, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Spondylitis, ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Gangrene of Leg, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Group O,.....	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...
<i>III.—Undefined.</i>																
Dropsy, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscess, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Undiagnosed, ...	3	...	...	30	11	3	2	3	6	4	4	12	6	4	...	35
Tumour, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Group III,...	3	...	...	30	11	3	2	3	6	4	4	12	6	4	...	35
TOTAL, ALL CAUSES,.....	251	36	15	249	1,321	553	228	220	169	200	250	374	162	145	3	389
SUMMARY.																
<i>I.—General Diseases.</i>																
<i>A.—Specific Febrile Diseases, ...A,</i>	45	7	5	58	166	47	51	44	33	34	48	89	56	38	1	45
<i>B.—Diseases dependent on Specific External Agents, ...B,</i>	25	7	3	10	19	10	12	6	6	15	13	4	7	2	...	15
<i>C.—Developmental Diseases, ...C,</i>	28	1	...	18	250	202	9	17	10	14	20	18	12	2	...	36
<i>D.—Miscellaneous Diseases,.....D,</i>	31	4	...	49	210	59	31	43	43	33	56	71	25	51	1	87
<i>II.—Local Diseases.</i>																
<i>E.—The Nervous System, ...E,</i>	25	...	1	2	494	91	13	13	2	8	5	10	2	2	...	4
<i>F.—The Circulatory System, ...F,</i>	15	1	2	6	17	10	11	15	5	6	5	7	6	3	1	21
<i>G.—The Respiratory System, ...G,</i>	56	13	1	71	137	118	89	68	59	81	83	146	43	42	...	131
<i>H.—The Digestive System,.....H,</i>	12	3	3	1	10	9	7	6	1	1	7	10	2	...	...	9
<i>J.—The Urinary System, ...J,</i>	7	...	...	2	4	2	3	3	3	3	3	4	3	1	...	4
<i>L.—The Generative System, ...L,</i>	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
<i>M.—Affections connected with Pregnancy, ...M,</i>	1	...	...	1	...	...	...	2	...	...	2	2	...	...	...	...
<i>N.—Affections connected with Parturition, ...N,</i>	2	...	...	1	3	...	...	...	1	1	2	1	...	...	...	2
<i>O.—Diseases of Organs of Locomotion, ...O,</i>	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...
III.—Undefined & Undiagnosed,.....	3	...	...	30	11	3	2	3	6	4	4	12	6	4	...	35
TOTAL, ALL CAUSES,.....	251	36	15	249	1,321	553	228	220	169	200	250	374	162	145	3	389

DURING THE YEAR ENDED THE 31ST DAY OF DECEMBER, 1905,—Continued.

CHINESE COMMUNITY.								TOTAL AT THE DIFFERENT AGE PERIODS.																			
KOW- LOON Dis- TRICT.		SHAUKI- WÁN Dis- TRICT.		ABER- DEEN Dis- TRICT.		STANLEY Dis- TRICT.		Under 1 month.		1 month and under 12 months.		1 year and under 5 years.		5 years and under 15 years.		15 years and under 25 years.		25 years and under 45 years.		45 years and under 60 years.		60 years and over.		Age Unknown.		GRAND TOTAL.	
Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Land Population.	Boat Population.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.	Non-Chinese.	Chinese.		
983	174	284	171	76	101	39	8	20	545	14	887	16	739	6	294	55	548	115	1,556	30	642	37	723	3	23	6,254	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	1	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	6	...	...	...	...	...	...	9	
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	8	...	...	...	...	...	...	11	
1	...	2	12	...	3	...	...	...	...	...	...	...	...	...	...	...	5	1	15	...	2	...	...	...	...	23	
4	...	2	12	...	3	...	...	...	...	...	...	...	...	...	...	1	7	1	23	...	2	...	...	...	...	34	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2	...	...	...	...	4	
3	2	2	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	3	...	3	...	1	...	...	...	8	
6	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	1	...	2	...	...	...	6	
103	31	15	...	4	1	1	...	...	25	...	49	...	91	...	22	1	8	1	48	1	7	...	10	...	15	278	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	
113	33	17	...	4	1	2	...	...	25	...	49	...	92	...	23	1	9	1	52	1	12	...	13	...	15	293	
1,101	208	303	183	80	105	41	8	20	569	14	938	16	832	6	317	57	566	118	1,638	31	658	37	736	3	38	6,594	
245	21	81	49	20	14	10	1	...	14	4	147	5	147	1	139	15	179	28	352	2	117	2	54	...	2	1,208	
23	7	13	1	...	1	...	2	...	7	...	1	...	9	...	19	9	25	19	72	5	18	1	7	1	8	201	
153	24	35	59	22	41	13	3	13	123	3	373	...	72	...	1	2	2	...	8	...	13	11	363	...	3	987	
229	44	42	...	6	1	3	...	...	3	...	41	1	135	1	42	11	176	14	479	3	153	5	54	...	1	1,119	
20	...	7	11	5	1	...	...	3	338	2	122	5	152	1	19	1	11	9	19	2	14	3	14	...	1	716	
38	7	2	...	...	...	...	...	1	1	...	3	...	3	...	3	1	7	12	63	2	39	1	40	1	1	178	
224	65	84	43	23	43	13	2	2	50	5	192	5	216	2	61	13	128	25	495	8	260	9	176	1	7	1,655	
17	2	18	8	...	...	...	...	...	8	...	9	...	4	1	5	3	15	7	41	4	21	3	5	...	...	126	
14	4	2	...	...	...	...	...	...	...	...	1	...	1	...	5	...	5	1	26	4	7	2	10	...	...	62	
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	6	...	...	...	...	...	...	9	
4	...	2	12	...	3	...	...	...	...	...	...	...	...	...	...	1	7	1	23	...	2	...	...	...	...	34	
...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	2	...	...	...	...	...	4	
113	33	17	...	4	1	2	...	...	25	...	49	...	92	...	23	1	9	1	52	1	12	...	13	...	15	293	
1,101	280	303	183	80	105	41	8	20	569	14	938	16	832	6	317	57	566	118	1,638	31	658	37	736	3	38	6,594	

Table II.—Number of cases of notifiable Disease recorded in each month of the year.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Total.
Plague, ...	12	9	3	7	77	85	75	17	2	4	3	6	Nil.	304
Chinese, ...	...	...	...	...	1	2	1	...	...	...	...	...	300	
Others, ...	8	7	1	3	1	1	4	...	6	5	3	2	4	
Typhoid, ...	6	3	1	1	2	8	...	6	1	5	1	3	42	90
Chinese, ...	...	2	...	...	3	1	...	2	...	2	...	...	37	
Others, ...	...	...	...	...	...	...	1	1	...	...	...	...	11	
Cholera, ...	...	...	...	...	...	...	...	3	...	...	...	...	2	5
European, ...	...	...	...	...	...	...	...	...	...	...	...	...	3	
Chinese, ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.	
Others, ...	7	8	...	7	...	...	...	...	...	...	...	...	22	75
European, ...	10	2	9	13	4	2	...	1	...	1	...	4	46	
Chinese, ...	1	1	1	2	...	...	1	1	1	...	...	...	7	
Others, ...	...	4	2	1	...	...	...	...	...	...	...	1	9	12
Diphtheria, ...	...	1	...	...	...	...	...	...	...	...	...	1	2	
Chinese, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Others, ...	...	1	...	...	...	...	...	...	...	...	...	...	Nil.	1
Scarlet Fever, ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.	
European, ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.	
Chinese, ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.	
Others, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	17
Puerperal Fever, .	...	...	...	...	4	3	1	3	1	...	3	...	15	
Chinese, ...	...	...	...	1	...	...	...	...	...	...	...	...	1	
Others, ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.	4
Relapsing Fever, .	3	1	...	...	...	...	...	...	...	...	...	...	4	
Chinese, ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.	
Others, ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.	
	47	39	17	35	92	102	83	35	12	17	11	18	Total, ...	508

Table III.—Plague Return for the year.

[illegible]

Table IV.—*List of Prosecutions during the year.*

Offence.	Sum- mons.	Con- victions.	Penalties.	Remarks.
Breaches of Bye-laws :—			\$	
Bake-houses, ...	50	49	1,095	1 absconded.
Dairies,.....	6	6	50	.....
Latrines, ...	1	1	20	.....
Laundries, ...	48	44	554	2 absconded, 2 dismissed.
Matsheds, ...	6	5	170	1 ordered to do work.
Choked waste-pipes, ...	5	3	15	2 dismissed.
Conservancy Boats alongside Praya during pro- hibited hours, ...	2	2	60	.....
Defective waste-pipes, ...	9	7	31	1 cautioned, 1 withdrawn.
Depositing nightsoil,.....	3	3	7	.....
Dirty Premises, ...	21	20	203	1 dismissed.
Lumping rubbish in harbour, ...	14	14	185	.....
Failing to cement rendered kitchen walls, ...	9	8	55	1 cautioned.
„ cleanse and limewash,.....	295	270	1,282	1 dismissed, 22 ordered to remove, and 2 withdrawn.
„ cleanse open spaces, ...	2	2	10	.....
„ remove ceilings, ...	1	1	25	.....
„ remove building nuisances, ...	1	1	10	.....
„ repair concrete, ...	13	9	60	3 dismissed, 1 withdrawn.
„ re-lay kitchen floor surfaces, ...	2	...	...	2 ordered to do work.
„ provide fire-places, ...	4	4	90	.....
„ „ hoods and flues, ...	4	4	160	.....
„ „ yards, ...	39	39	160	.....
„ notify Infectious Diseases, ...	1	1	10	.....
Illegal cubicles, ...	278	252	2,951	6 absconded, 4 dismissed, 6 cautioned, 7 ordered to remove, 3 withdrawn.
„ occupation of premises, ...	19	14	130	1 dismissed, 4 cautioned.
„ partitions, ...	1	...	...	1 dismissed.
Insufficient window areas, ...	55	33	305	10 Magistrate's orders to cease using for human habitation, 3 ordered to do work, and 9 withdrawn.
Keeping swine without licences, ...	11	11	75	.....
Nuisances in public streets, ...	5	5	31	.....
Obstructing lanes at rear, ...	9	9	75	.....
„ opium divan, ...	1	1	15	.....
„ verandahs,.....	14	10	75	2 dismissed, 2 withdrawn.
„ windows, ...	18	18	86	.....
„ yards, ...	5	4	55	1 withdrawn.
Overcrowding boarding houses, ...	2	2	14	.....
„ common lodging houses, ...	43	38	320	5 absconded.
„ opium divans, ...	25	24	940	1 absconded.
„ tenement houses, ...	506	414	1,871.50	77 absconded, 7 dismissed, 8 withdrawn.
Unregistered Common Lodging houses, ...	8	6	170	2 absconded.
Using basements for human habitations, ...	6	5	22	1 dismissed.
„ preparation of foods with- out permission, ...	11	9	180	1 ordered to remove, 1 withdrawn.
Selling adulterated milk, ...	5	4	210	1 dismissed.
„ fruit without licence, ...	1	1	10	.....
„ pork without licence, ...	1	1	10	.....
Smoke nuisances, ...	6	5	145	1 dismissed.
Total, ...	1,566	1,359	11,942.50	

Annexe A.

REPORT OF THE MEDICAL OFFICER OF HEALTH ON PLAGUE IN 1905.

In my 1904 Report on Plague I went somewhat fully into the questions of the channels of infection and the relation of rat plague to human plague. Experience of the 1905 epidemic does not suggest any alteration in my previously expressed opinions and I therefore present merely statistics in my Report herewith appended.

It is well known that a new Commission has lately been working in India on Plague and it is to be hoped that when the Report of the Commission is published much light may be thrown on the problems which the study of this disease presents.

The total number of cases of plague in 1905 was 304. The monthly distribution of the cases is shewn by the following Table which also similarly distributes the cases of previous epidemics since 1895.

MONTH.	YEAR.										
	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
January, ...	...	49	...	9	1	8	7	1	4	...	12
February, ...	...	125	...	67	2	8	14	1	29	3	9
March, ...	...	168	...	137	25	5	54	2	115	4	3
April, ...	3	316	...	468	101	94	160	27	272	40	7
May, ...	2	344	3	534	421	326	701	157	515	135	78
June, ...	13	113	1	92	514	325	551	194	343	194	87
July, ...	2	52	11	7	263	209	109	131	85	96	76
August, ...	4	25	1	2	86	80	27	50	32	19	17
September, ...	3	9	1	1	57	16	24	2	9	9	2
October, ...	...	2	...	2	4	12	1	2	5	...	4
November, ...	5	1	2	...	1	2	1	1	4	5	3
December, ...	12	...	2	2	11	2	2	4	2	5	6
	44	1,204	21	1,320	1,486	1,087	1,651	572	1,415	510	304

My previous Reports on Plague Epidemics in the Colony have been written on the number of cases occurring from January to July inclusive. In order, therefore, to make figures in this report comparable with those for previous epidemics I have taken a similar period here for the basis of the following statistics.

The total number of cases from January to July was 272 as compared with 472 during the corresponding period of 1904.

NATIONALITY AND SEX.

These 272 cases were made up as follows:—

No. of Cases.	Nationality.	Sex.	% for Sex.	Total.
181	Chinese,	Males,	67·53	268
87	„	Females,	32·47	
2	Indian,	Males,	100·0	2
0	„	Females,	...	
1	Malay,	Males,	100·0	1
0	„	Females,	...	
1	Portuguese,	Males,	100·0	1
0	„	Females,	...	
272				272

In 1904 out of the total British and Foreign population, two Indians only were attacked. The above Table is therefore very similar to its corresponding one for the 1904 epidemic.

In 1904 the Chinese cases gave a case percentage for males of 65·3 and for females of 34·7.

DEATH-RATES.

The total death-rate for the epidemic is 94·1 per cent., as compared with 96·8 per cent. for 1904.

The following are the percentage death-rates recorded for each epidemic since 1894.

Year, ...	1894	1896	1898	1899	1900	1901	1902	1903	1904	1905
Death-rate per cent.,	92·7	89·5	89·0	96·1	95·5	95·2	97·5	88·4	96·8	94·1

Distributed according to nationality and sex the death rates for 1905 are as follows:—

Chinese, ...	{ 268 cases	with	254 deaths	= 94·1 %	(1904 96·8%)
	{ 181 males	„	171 „	= 94·47%	(„ 97·3%)
	{ 87 females	„	83 „	= 95·4 %	(„ 95·7%)
Indian, ...	{ 2 cases	„	1 death	= 50 %	(„ 100·0%)
	{ 2 males	„	1 „	= 50 %	(„ 100·0%)
	{ 0 female		nil		(nil)
Malay, ...	{ 1 case	„	1 „	= 100 %	(nil)
	{ 1 male	„	1 „	= 100 %	(nil)
	{ 0 female		nil		(nil)
Portuguese, .	{ 1 case	„	1 „	= 100 %	(nil)
	{ 1 male	„	1 „	= 100 %	(nil)
	{ 0 female		nil		(nil)

The small number of cases amongst nationalities other than Chinese affords no room for comment.

For the Chinese it will be noticed that the rates for both sexes are somewhat lower than they were in 1904. The female death-rate does not vary so much as that for males.

In the years 1903, 1904, 1905 the female death-rates have been 95·7 per cent., 95·7 per cent., and 95·4 per cent. respectively, and for the males 91·9 per cent., 97·3 per cent., and 94·47 per cent., respectively.

TYPES OF THE DISEASE.

Since the beginning of last year all cases of Plague notified to the Medical Officer of Health have been described as either bubonic, septic or pneumonic according to the view which the clinician or the pathologist has seen fit to take of each case.

No doubt such a classification is not strictly logical. There must be overlapping. But if this be borne in mind such a classification may be useful especially if several epidemics be compared with each other in this respect.

The following are the figures for 1905 :—

	Bubonic.	Septic.	Pneumonic.	Total.
Males, ...	137	44	4	185
Females, ...	62	24	1	87
Total, ...	199	68	5	472

In 1904 the figures were:—

	Bubonic.	Septic.	Pneumonic.	Total.
Males, ...	195	101	13	309
Females, ...	108	47	8	163
Total, ...	303	148	21	472

Expressed as percentages of the total cases for each sex these figures yield the following results:—

	1905.	
Bubonic.	Septic.	Pneumonic.
Males, ...74·05	23·78	2·17
Females, ...71·28	27·58	1·14
Total, ...73·16	25·0	1·84

	1904.	
Bubonic.	Septic.	Pneumonic.
Males, ...63·1	32·6	4·2
Females, ...66·2	28·8	4·9
Total, ...64·2	31·3	4·4

In the year 1903 only the cases in which a post-mortem examination was made were thus classified. The figures for these which correspond with the above two Tables are:—

	1903.	
Bubonic.	Septic.	Pneumonic.
Males, ...59·1	35·9	4·8
Females, ...64·9	30·9	4·1
Total, ...61·3	34·0	4·5

By further analysis of the cases in 1905 by dividing them into certain age groups the following result is obtained :—

AGE PERIOD.	BUBONIC.				SEPTIC.				PNEUMONIC.			
	CASES.		PER CENT. OF CASES IN EACH AGE PERIOD.		CASES.		PER CENT. OF CASES IN EACH AGE PERIOD.		CASES.		PER CENT. OF CASES IN EACH AGE PERIOD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Under 1 year.	1	0	33.3	0	0	2	0	66.6	2	1	66.6	33.3
1 to 5 years.	1	3	25.0	60.0	3	2	75.0	40.0	0	0	0	0
5 to 15 "	18	23	75.0	76.6	6	7	25.0	23.4	0	0	0	0
15 to 25 "	39	12	75.0	70.5	13	5	25.0	29.5	0	0	0	0
25 to 45 "	63	15	77.7	75.0	17	5	20.9	25.0	1	0	1.2	0
45 to 60 "	11	7	63.7	100.0	4	0	25.0	0	1	0	6.25	0
Over 60 "	4	2	80.0	40.0	1	3	20.0	60.0	0	0	0	0
Totals,.....	137	62			44	24			4	1		

Total male cases :—137 Bubonic.
44 Septic.
4 Pneumonic.

Total female cases :—62 Bubonic.
24 Septic.
1 Pneumonic.

87

The following examples shew how the above Table is to be read. Of all the female cases in the age group 5 to 15 years 76·6 per cent. were returned as of bubonic type and 23·4 per cent. as of septic type.

Again, of all male cases in the age group 25 to 45 years 77·7 per cent. were returned as of bubonic type, 20·9 per cent. as of septic type, and 1·2 per cent. as of pneumonic type.

AGE AND SEX DISTRIBUTION OF PLAGUE.

The following Table shews the number of cases recorded during the year grouped into age periods for males and females, also the number of deaths and the death-rates for each such group:—

AGE PERIOD.	TOTAL CASES.	%.	SEX.	CASES.	%.	DEATHS.	DEATH- RATE.
Under 1 year, ...	6	2·2	m.	3	50·0	3	100·00 %
			f.	3	50·0	3	100·00 %
1 year to 5 years, ...	9	3·3	m.	4	44·4	4	100·00 %
			f.	5	55·6	5	100·00 %
5 years to 15 years, ...	54	19·8	m.	24	44·4	24	100·00 %
			f.	30	65·6	30	100·00 %
15 years to 25 years, ...	69	25·3	m.	52	75·3	46	88·46 %
			f.	17	24·7	15	88·29 %
25 years to 45 years, ...	101	37·1	m.	81	80·2	75	92·59 %
			f.	20	19·8	19	95·00 %
45 years to 60 years, ...	23	8·4	m.	16	69·5	16	100·00 %
			f.	7	30·5	7	100·00 %
Over 60 years, ...	10	3·6	m.	5	50·0	5	100·00 %
			f.	5	50·0	5	100·00 %
Total, ...	272		m.	185	68·0	173	93·51 %
			f.	87	32·0	84	96·55 %
						257	

METEOROLOGICAL PHENOMENA AND PLAGUE.—JANUARY TO JULY, 1905.

<i>Week.</i>	<i>Mean Temperature. ° F.</i>	<i>Relative Humidity. %</i>	<i>Sunshine. Hours.</i>	<i>Rainfall. Inches.</i>	<i>Plague Cases.</i>
1, ...	63·9	73·3	5·5	Nil.	1
2, ...	63·3	79·3	6·2	"	3
3, ...	68·0	83·7	3·8	"	3
4, ...	67·3	78·4	4·8	0·204	3
5, ...	52·4	86·8	Nil.	0·055	4
6, ...	50·8	85·1	0·014	0·012	3
7, ...	53·2	75·3	2·9	0·007	2
8, ...	61·3	93·5	0·53	0·069	2
9, ...	54·8	79·0	0·24	0·098	Nil.
10, ...	55·4	79·1	0·67	0·028	"
11, ...	62·5	90·8	2·90	0·474	"
12, ...	59·1	92·7	0·28	0·882	1
13, ...	62·3	93·7	0·60	0·225	2
14, ...	59·3	71·7	0·95	0·014	3
15, ...	67·6	92·3	0·84	0·101	1
16, ...	70·9	85·1	3·51	0·043	1
17, ...	72·2	87·5	7·68	0·003	2
18, ...	75·4	84·3	6·35	0·013	8
19, ...	76·8	82·1	10·84	0·001	18
20, ...	79·6	81·7	5·04	0·002	19
21, ...	80·5	76·0	7·7	0·170	19
22, ...	78·4	88·1	2·7	1·93	21
23, ...	81·3	85·6	2·3	0·818	21
24, ...	82·3	75·1	6·5	0·057	26
25, ...	79·4	83·7	2·5	0·783	16
26, ...	82·3	82·3	9·27	0·017	26
27, ...	81·4	77·5	7·6	0·488	19
28, ...	82·5	77·5	9·7	0·012	15
29, ...	83·0	78·8	9·0	0·094	19
30, ...	82·1	85·3	4·5	0·672	10
31, ...	79·8	87·0	7·5	0·734	5

The figures in the first four columns are weekly means, those in the fifth column shew the total Plague cases recorded each week.

RATS AND PLAGUE.

The systematic examination of rats caught or found dead in the Colony has been continued through the period following that covered by my last Report on Plague.

For the purpose of the following charts* and tables I have taken the whole of twelve months extending from July 31st, 1904, to August 5th, 1905.

The charts and tables therefore shew the rise and fall of plague in human beings and rats from the end of the 1904 Epidemic through the non-plague season to the end of the 1905 Epidemic.

In this respect these charts and tables are comparable with those published in my 1904 Plague Report. Moreover the division of the Colony into different districts for the purpose of these statistics is the same in those charts and tables as in those for 1904.

An examination of these charts and a comparison of them with those for 1904 will shew of course some differences.

Broadly speaking, however, the behaviour of the curves is very similar in the two years and would again point to the conclusion that the connection between rat plague and human plague is not a direct one but through some as yet undecided factor.

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* Not printed.

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
City of Victoria. Population=188,659.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	270	19	7.04	8
32	315	18	5.7	2
33	269	10	3.7	1
34	328	13	3.9	0
35	267	8	3.0	2
36	276	10	3.6	3
37	272	12	4.4	4
38	353	14	3.9	0
39	307	8	2.6	0
40	400	15	3.7	0
41	341	6	1.7	0
42	401	5	1.2	0
43	346	3	0.8	0
44	389	5	1.2	0
45	417	5	1.2	0
46	438	11	2.5	2
47	515	6	1.1	0
48	551	9	1.6	0
49	449	10	2.2	1
50	486	7	1.4	1
51	447	10	2.2	0
52	387	9	2.3	0
1905.				
1	413	9	2.1	1
2	426	6	1.4	0
3	462	10	2.1	1
4	500	12	3.4	2
5	345	7	2.2	1
6	215	9	4.1	2
7	361	14	3.8	2
8	404	15	3.7	1
9	431	19	4.4	0
10	457	17	3.7	0
11	466	19	4.0	0
12	528	17	3.2	1
13	460	23	5.0	0
14	473	18	3.8	2
15	424	16	3.7	0
16	414	16	3.8	1
17	435	17	3.9	1
18	440	23	5.2	7
19	487	25	5.1	8
20	404	31	7.6	11
21	390	32	8.2	11
22	445	29	6.5	14
23	436	34	7.7	13
24	466	36	7.7	15
25	401	35	8.7	6
26	367	24	6.5	17
27	431	22	5.1	16
28	386	15	3.8	9
29	420	24	5.7	11
30	442	30	6.7	5
31	441	25	5.6	2

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.**Health District I. Population=13,478.*

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	45	3	6.6	1
32	35	1	2.8	0
33	22	0	...	0
34	44	3	6.8	0
35	19	1	5.2	1
36	29	2	6.9	1
37	25	3	12.0	0
38	41	3	7.3	0
39	44	0	...	0
40	50	4	8.0	0
41	41	1	2.4	0
42	32	0	...	0
43	27	0	...	0
44	45	0	...	0
45	39	0	...	0
46	40	1	2.5	0
47	43	1	2.3	0
48	34	0	...	0
49	50	2	4.0	0
50	55	2	3.6	0
51	29	0	...	0
52	40	1	2.5	0
1905.				
1	49	1	2.0	Nil.
2	39	0	...	0
3	47	3	6.3	0
4	53	0	...	0
5	50	0	...	0
6	30	1	3.3	0
7	41	1	2.4	0
8	37	0	...	0
9	42	0	...	0
10	44	2	4.5	0
11	47	2	4.2	0
12	48	2	4.1	0
13	54	4	7.4	0
14	47	1	2.1	0
15	43	1	2.4	0
16	37	2	5.4	0
17	40	2	5.0	0
18	38	1	2.6	0
19	33	2	6.0	0
20	37	4	10.8	0
21	37	3	8.1	1
22	38	3	7.8	1
23	50	3	6.0	1
24	29	3	10.3	0
25	43	4	9.3	0
26	31	0	...	0
27	51	4	7.8	0
28	32	2	6.6	1
29	59	2	3.4	0
30	53	1	1.8	0
31	45	1	2.2	0

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *August 31st, 1904, to August 5th, 1905.*
Health District II. Population=25,207.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	21	1	4·7	0
32	40	3	7·5	1
33	46	4	8·7	0
34	61	2	3·2	0
35	41	0	...	1
36	35	3	8·5	0
37	39	2	5·1	0
38	71	6	8·4	0
39	38	2	5·2	0
40	69	4	5·9	0
41	60	2	3·3	0
42	73	0	...	0
43	47	0	...	0
44	63	2	3·1	0
45	61	0	...	0
46	71	0	...	1
47	75	1	4·3	0
48	88	0	...	0
49	40	2	5·0	0
50	54	0	...	0
51	46	2	4·3	0
52	41	2	4·9	0
1905.				
1	39	1	2·5	1
2	48	0	...	0
3	46	2	4·3	0
4	53	2	3·7	0
5	34	3	8·8	0
6	48	2	4·1	0
7	47	3	6·3	2
8	45	4	8·8	0
9	40	3	7·5	0
10	47	3	6·3	0
11	47	3	6·3	0
12	39	1	2·5	0
13	45	2	4·4	0
14	44	7	15·8	0
15	36	4	11·1	0
16	35	4	11·4	1
17	42	1	2·3	0
18	53	3	5·6	0
19	62	4	6·4	0
20	41	5	12·2	2
21	36	0	...	1
22	50	3	6·0	4
23	62	5	8·0	3
24	50	6	12·0	5
25	28	2	7·0	2
26	21	1	4·8	2
27	34	3	8·8	0
28	30	1	3·3	0
29	46	6	13·0	0
30	63	4	6·3	1
31	42	0	...	0

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.**Health District III, Population=6,592.*

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	20	...	...	...
32	20	1	5	...
33	34	1	2.9	...
34	16	1	6.2	...
35	17	1	5.8	...
36	18	...	...	1
37	15	...	...	...
38	19	1	5.2	...
39	22	2	9.0	...
40	15	...	6.6	...
41	25	...	...	...
42	27	2	7.4	...
43	16	...	...	...
44	17	...	...	...
45	24	...	...	...
46	19	...	...	...
47	24	...	...	...
48	34	1	2.9	...
49	27	...	...	...
50	21	...	...	1
51	42	...	...	...
52	23	1	4.3	...
1905.				
1	26	2	7.6	...
2	17	...	...	...
3	30	...	...	...
4	17	...	...	...
5	19	...	...	...
6	14	...	...	...
7	15	1	6.6	...
8	30	1	3.3	...
9	25	2	8.0	...
10	21	1	4.8	...
11	17	...	...	...
12	31	1	3.2	...
13	29	...	...	...
14	21	1	4.8	...
15	33	...	...	...
16	34	1	2.9	...
17	28	1	3.5	...
18	31	...	...	...
19	27	...	...	...
20	18	1	5.5	...
21	12	1	8.3	...
22	23	2	8.7	...
23	19	...	...	2
24	26	3	11.5	...
25	29	1	3.4	...
26	26	...	...	...
27	31	...	...	...
28	36	1	2.7	...
29	39	1	2.5	...
30	40	2	5.0	...
31	41	7	17.0	...

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.**Health Districts IV to VIII Inclusive. Population=104,014.*

Week.	Rats Caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	138	8	5.8	2
32	164	6	3.6	...
33	124	2	1.6	...
34	155	6	3.8	...
35	149	4	2.7	...
36	154	2	1.3	...
37	151	5	3.3	1
38	174	2	1.1	...
39	156	4	2.5	...
40	207	7	3.3	...
41	159	2	1.2	...
42	210	3	1.4	...
43	191	1	0.5	...
44	180	3	1.6	...
45	217	4	1.8	...
46	202	5	2.4	...
47	255	3	1.17	...
48	285	5	1.7	...
49	248	3	1.2	1
50	261	5	1.9	...
51	233	4	1.7	...
52	200	3	1.5	...
1905.				
1	200	4	2.0	...
2	223	5	2.2	...
3	234	2	0.8	...
4	262	4	1.5	2
5	155	4	2.5	1
6	95	2	2.1	1
7	183	6	3.2	...
8	212	5	2.3	...
9	228	11	4.8	...
10	235	8	3.4	...
11	227	10	4.4	...
12	286	9	3.1	1
13	221	6	2.7	...
14	229	5	2.1	1
15	201	10	4.9	...
16	205	5	2.4	...
17	229	10	4.2	1
18	212	15	7.0	3
19	251	14	5.1	7
20	216	14	6.4	6
21	229	22	9.6	6
22	250	17	6.8	5
23	209	15	7.1	5
24	280	13	4.6	4
25	227	23	10.1	4
26	195	12	6.1	12
27	218	10	4.5	9
28	209	6	2.8	4
29	191	7	3.6	7
30	198	17	8.6	2
31	241	12	4.9	1

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.**Health District IX. Population=25,683.*

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	34	7	20.6	5
32	35	5	14.3	1
33	31	1	3.2	1
34	36	1	2.7	0
35	33	1	3.0	0
36	29	2	6.9	1
37	24	2	8.3	1
38	32	0	...	0
39	33	0	...	0
40	38	0	...	0
41	37	0	...	0
42	42	0	...	0
43	46	0	...	0
44	63	0	...	0
45	52	0	...	0
46	72	2	2.7	0
47	78	1	1.2	0
48	75	1	1.3	0
49	55	2	3.6	0
50	61	0	...	0
51	62	1	1.6	0
52	49	0	...	0
1905.				
1	44	0	...	0
2	67	1	1.5	0
3	63	2	2.9	1
4	72	4	5.5	0
5	49	0	...	0
6	16	3	1.8	0
7	44	2	4.5	0
8	49	4	8.1	1
9	61	1	1.6	0
10	71	3	4.2	0
11	83	3	3.6	0
12	77	2	2.6	0
13	67	5	7.4	0
14	84	2	2.3	1
15	70	1	1.4	0
16	66	3	4.5	0
17	56	0	...	0
18	64	3	4.7	2
19	63	3	4.7	1
20	63	4	6.3	3
21	44	4	9.0	3
22	50	0	...	0
23	52	6	11.5	2
24	44	4	9.0	5
25	39	1	3.3	0
26	55	6	10.9	0
27	59	1	1.7	6
28	42	3	7.1	2
29	46	4	8.7	3
30	50	4	8.0	1
31	40	4	1.0	0

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.**Health District X. Population=14,285.*

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	12	0	12.2	1
32	11	2	18.1	0
33	12	2	16.6	0
34	16	0	...	0
35	9	1	11.1	0
36	11	1	9.0	0
37	8	0	...	2
38	16	2	12.5	0
39	14	0	...	0
40	21	0	...	0
41	19	1	5.2	0
42	17	0	...	0
43	19	2	10.4	0
44	21	0	...	0
45	24	1	4.1	0
46	34	3	8.8	1
47	40	0	...	0
48	35	2	5.7	0
49	29	1	3.4	0
50	34	0	...	0
51	35	3	8.5	0
52	34	2	5.8	0
1905.				
1	32	1	3.1	0
2	32	0	...	0
3	37	1	2.7	0
4	43	2	4.6	0
5	38	0	...	0
6	12	1	8.3	0
7	31	1	3.2	0
8	31	1	3.2	0
9	35	2	5.7	0
10	39	0	...	0
11	45	1	2.2	0
12	47	2	2.1	0
13	44	6	13.5	0
14	48	2	4.1	0
15	41	0	...	0
16	37	1	2.7	0
17	40	3	7.5	0
18	42	1	2.4	2
19	48	2	4.1	0
20	29	3	10.3	0
21	32	2	6.2	0
22	34	4	11.7	4
23	44	5	11.3	2
24	37	7	18.9	1
25	44	4	9.0	0
26	39	5	12.8	3
27	38	4	10.5	1
28	37	2	5.4	2
29	39	4	10.2	1
30	38	2	5.2	1
31	32	1	3.1	0

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
All Kowloon exclusive of Kowloon City and Sam-shui-po. Population=62,500.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	69	5	7.2	1
32	92	6	6.5	1
33	39	6	8.7	...
34	88	1	1.1	1
35	106	2	1.8	1
36	88	4	4.5	...
37	81	5	6.1	...
38	105	11	10.4	...
39	85	6	7.06	...
40	103	1	0.9	...
41	134	3	2.2	1
42	114	2	1.7	1
43	69	4	5.8	...
44	142	2	1.4	...
45	120	1	0.8	...
46	174	2	1.1	...
47	300	...	...	...
48	280	5	1.8	...
49	234	...	...	1
50	219	7	3.2	...
51	184	6	3.2	...
52	159	4	2.5	...
1905.				
1	128	6	4.7	...
2	115	8	6.9	3
3	128	8	6.2	2
4	139	4	2.9	1
5	106	4	3.7	1
6	75	7	9.3	...
7	145	11	7.6	...
8	198	9	4.5	...
9	236	16	6.7	...
10	269	15	5.6	...
11	232	14	6.0	...
12	207	12	5.8	...
13	214	19	8.8	...
14	176	15	8.5	...
15	178	11	6.2	...
16	155	11	7.1	...
17	156	9	5.8	...
18	172	12	6.9	...
19	221	12	5.4	6
20	163	14	8.5	3
21	157	11	7.0	5
22	206	18	8.7	8
23	158	14	8.8	4
24	169	13	7.7	5
25	193	16	8.2	6
26	186	14	7.7	6
27	152	13	8.5	3
28	130	13	10.0	7
29	108	9	8.3	3
30	127	8	6.3	5
31	121	13	10.7	3

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.**Kowloon District I.—Tsim-sha-tsui.—European Point. Population=2,000.*

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	Nil.	Nil.	Nil.	...
32	...	...	...	...
33	1	...	...	...
34	1	...	...	...
35	11	...	...	...
36	16	1	5.5	...
37	8	...	...	...
38	6	1	16.6	...
39	7	...	...	...
40	14	...	...	...
41	19	...	...	...
42	9	...	...	...
43	10	...	...	...
44	4	...	...	...
45	5	...	...	...
46	14	...	...	...
47	35	...	...	...
48	3	...	...	...
49	5	...	...	...
50	2	...	...	...
51	10	...	...	...
52	8	...	...	...
1905.				
1	2	...	...	...
2	4	...	...	...
3	2	...	...	...
4	7	...	...	...
5	2	...	...	...
6	1	...	...	...
7	3	...	...	...
8	15	1	6.6	...
9	28	2	7.1	...
10	36	1	2.8	...
11	21	...	...	...
12	15	1	6.6	...
13	25	2	8.0	...
14	10	1	10.0	...
15	10	...	...	...
16	1	...	...	...
17	7	...	...	...
18	10	...	...	...
19	4	...	...	...
20	2	1	50.0	...
21	10	...	...	...
22	10	2	20.0	...
23	16	2	12.5	...
24	12	...	...	...
25	21	...	...	...
26	18	1	5.5	...
27	6	...	...	...
28	2	...	...	...
29	5	...	...	...
30	7	1	14.3	...
31	5	1	20.0	...

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
Kowloon District II.—Tsim-sha-tsui. Chinese Point. Population=4,760.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	25	2	8.0	Nil.
32	42	4	9.2	1
33	21	...	...	...
34	38	...	...	...
35	25	1	4.0	...
36	15	1	6.6	...
37	12	1	6.3	...
38	15	3	20.0	...
39	8	...	...	...
40	14	...	...	...
41	33	1	3.03	...
42	27	...	...	1
43	10	...	...	...
44	24	...	...	...
45	22	...	...	...
46	34	...	...	...
47	34	...	...	...
48	53	...	...	...
49	45	...	...	...
50	54	...	...	...
51	35	...	...	...
52	19	1	5.2	...
1905.				
1	29	2	6.9	...
2	22	4	18.1	1
3	25	1	4.0	...
4	24	...	...	...
5	17	...	...	...
6	16	2	12.5	...
7	31	3	9.7	...
8	29	1	3.4	...
9	37	4	10.8	...
10	39	3	7.7	...
11	44	2	4.5	...
12	40	...	...	...
13	33	2	6.06	...
14	31	3	9.6	...
15	29	3	10.3	...
16	33	2	6.06	...
17	33	2	6.06	...
18	33	3	9.09	...
19	40	3	6.5	1
20	47	3	6.4	1
21	25	1	4.0	1
22	35	3	8.6	1
23	27	3	11.1	...
24	28	2	7.7	...
25	33	...	...	1
26	22	2	9.09	...
27	35	3	8.5	...
28	32	4	12.5	...
29	23	4	17.4	...
30	22	2	9.09	...
31	26	1	3.8	...

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
Kowloon District III.—Yaumati. Population=20,000.

Week.	Rats Caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	19	1	5.2	1
32	19	2	10.5	...
33	18	...	...	...
34	20	...	...	...
35	30	1	9.9	...
36	25	1	4.0	...
37	25	2	8.0	...
38	32	3	9.3	...
39	25	3	12.0	...
40	25	...	...	...
41	26	...	...	1
42	37	1	2.7	...
43	31	...	...	...
44	42	...	...	...
45	30	...	...	...
46	45	...	...	...
47	80	...	...	...
48	68	...	...	...
49	70	...	...	...
50	56	3	5.3	...
51	43	2	4.6	...
52	38	...	...	...
1905.				
1	27	...	...	...
2	23	1	4.3	...
3	28	2	7.1	2
4	37	2	5.4	1
5	26	3	11.5	1
6	14	1	7.1	...
7	39	3	7.6	...
8	54	3	5.6	...
9	65	7	10.7	...
10	74	1	1.3	...
11	53	3	5.6	...
12	60	4	6.6	...
13	55	3	5.4	...
14	38	6	15.8	...
15	39	6	15.4	...
16	39	4	12.6	...
17	42	3	7.1	...
18	44	3	6.8	...
19	63	2	3.1	4
20	39	5	12.8	...
21	31	3	9.7	4
22	51	4	9.8	4
23	33	2	6.06	2
24	35	4	11.4	3
25	49	12	24.0	5
26	48	1	2.1	3
27	39	...	...	2
28	31	3	9.6	5
29	23	...	...	2
30	36	4	11.1	4
31	31	3	9.6	3

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
Kowloon District IV.—Mongkok. Population=8,333.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	2	...	...	...
32	8	...	...	...
33	9	...	...	...
34	6	...	...	...
35	6	...	...	...
36	5	...	...	...
37	6	...	...	...
38	4	1	25	...
39	4	...	...	...
40	8	...	...	...
41	4	...	...	...
42	5	...	...	...
43	...	...	...	...
44	3	...	...	...
45	3	...	...	...
46	20	...	...	...
47	21	...	...	...
48	17	...	...	...
49	13	...	...	1
50	12	...	...	...
51	5	...	...	...
52	7	...	...	...
1905.				
1	3	...	...	...
2	2	...	...	2
3	3	1	33·3	...
4	4	...	...	...
5	2	...	...	...
6	3	...	...	...
7	6	...	...	...
8	6	...	...	...
9	8	...	...	...
10	8	1	12·5	...
11	8	...	...	...
12	5	1	20	...
13	5	2	40	...
14	10	1	10	1
15	5	1	20	...
16	4	...	...	...
17	3	...	...	...
18	10	1	10	...
19	5	...	...	...
20	6	...	...	...
21	8	...	...	...
22	8	2	25	2
23	7	...	...	2
24	8	...	...	1
25	4	...	...	...
26	5	1	20	1
27	7	...	...	...
28	5	...	...	1
29	6	...	...	1
30	6	1	16·6	1
31	5	1	20	...

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
Kowloon District VI.—Hung Hom. Population=9,090.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	9	...	...	...
32	13	...	...	...
33	8	3	37.5	...
34	13	1	7.6	1
35	14	...	...	1
36	13	1	7.7	...
37	11	1	9.0	...
38	26	2	7.7	...
39	21	2	9.5	...
40	19	...	...	...
41	23	...	...	...
42	8	...	...	...
43	22	4	1.7	...
44	29	...	...	...
45	23	...	...	...
46	47	...	...	...
47	63	...	...	...
48	77	...	...	...
49	42	...	...	...
50	51	...	...	...
51	39	1	2.5	...
52	35	2	5.7	...
1905.				
1	28	2	7.1	...
2	30	...	...	...
3	33	1	3.0	...
4	32	...	...	...
5	19	1	5.3	...
6	16	1	6.25	...
7	24	1	4.1	...
8	31	2	6.4	...
9	33	2	6.06	...
10	41	1	2.4	...
11	40	3	7.5	...
12	40	2	5.0	...
13	39	4	10.2	...
14	43	3	6.9	...
15	36	...	...	...
16	36	2	5.5	...
17	33	2	6.06	...
18	41	3	7.3	...
19	47	4	8.5	1
20	31	3	9.6	2
21	41	4	9.7	...
22	51	2	3.9	1
23	42	4	9.5	...
24	42	4	9.5	1
25	52	2	3.8	...
26	40	5	12.5	...
27	35	3	8.5	1
28	29	1	3.4	1
29	22	4	18.3	...
30	20	...	...	...
31	24	4	16.6	...

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
Kowloon District VII.—Kowloon City. Population=5,263.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	1	1	100	...
32	10	...	...	...
33	6	2	3·33	...
34	...	...	...	...
35	6	...	...	...
36	5	...	...	...
37	13	1	7·7	...
38	14	1	7·1	...
39	9	1	11·1	...
40	14	...	...	...
41	15	...	...	...
42	15	...	...	...
43	13	...	...	...
44	17	1	5·9	...
45	12	...	...	...
46	21	1	4·7	...
47	30	...	...	...
48	34	2	5·9	...
49	12	...	...	...
50	19	1	5·3	...
51	22	...	...	...
52	19	...	...	...
1905.				
1	10	...	...	...
2	11	1	9·09	...
3	11	2	18·1	...
4	13	...	...	...
5	12	...	...	...
6	8	...	...	...
7	12	...	...	...
8	14	...	...	...
9	21	...	...	...
10	26	2	3·8	...
11	20	1	5	...
12	15	...	...	...
13	15	1	6·6	1
14	14	...	...	...
15	12	1	8·3	...
16	12	...	...	...
17	10	1	10·0	...
18	17	...	...	...
19	14	...	...	1
20	10	1	10·0	1
21	9	...	...	...
22	15	1	6·6	...
23	14	...	...	...
24	13	...	...	1
25	18	1	5·5	1
26	18	...	...	...
27	30	6	20·0	...
28	12	2	16·6	...
29	9	...	...	...
30	14	...	...	...
31	11	2	18·1	...

TABLE I.—CASES OF RAT AND HUMAN PLAGUE. *July 31st, 1904, to August 5th, 1905.*
Kowloon Districts V and VIII.—Tai-kok-tsui, Fuk-tsan-heng,
and Sham-shui-po. Population=10,000.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	9	1	11.0	...
32	6	...	...	2
33	7	...	...	...
34	9	...	...	...
35	12	...	...	...
36	8	...	...	...
37	6	...	...	...
38	8	...	...	...
39	11	...	...	...
40	9	1	11.0	...
41	14	...	...	...
42	13	1	7.7	...
43	14	...	...	...
44	23	1	3.8	...
45	24	1	4.1	...
46	32	1	3.1	...
47	36	...	...	...
48	28	3	10.7	...
49	37	...	...	...
50	34	3	8.8	...
51	30	3	10.0	...
52	33	1	3.03	...
1905.				
1	29	2	6.9	...
2	23	2	8.7	...
3	26	1	3.8	...
4	22	2	9.09	...
5	18	...	...	1
6	17	3	18.0	1
7	30	4	13.3	...
8	38	2	5.2	...
9	42	1	2.3	...
10	44	7	15.9	...
11	40	4	10.0	...
12	37	4	10.8	...
13	41	4	8.7	1
14	28	1	3.6	...
15	47	...	...	...
16	30	2	6.6	...
17	26	1	3.8	2
18	26	2	7.7	...
19	30	1	3.3	1
20	31	1	3.2	3
21	33	3	9.09	3
22	36	4	11.1	...
23	29	3	10.3	2
24	31	3	9.6	1
25	18	1	5.5	3
26	14	4	28.5	...
27	21	3	14.3	1
28	19	3	15.8	...
29	20	1	5.0	...
30	22	...	...	1
31	19	1	5.2	...

TABLE I.—CASES OF RAT AND HUMAN PLAGUE.—*July 31st, 1904, to August 5th, 1905.*
Kowloon District IX.—Scattered Villages. Population=10,000.

Week.	Rats caught.	Rats infected.	Per cent.	Plague cases.
1904.				
31	4	...	...	...
32	...	...	...	...
33	1	1	100	...
34	1	...	...	...
35	2	...	...	...
36	1	...	...	...
37	...	...	...	...
38	...	...	...	...
39	...	...	...	...
40	...	...	...	...
41	...	...	...	...
42	...	...	...	...
43	...	...	...	...
44	...	...	...	...
45	1	...	...	...
46	1	...	...	...
47	1	...	...	...
48	...	...	...	...
49	1	...	...	...
50	...	...	...	...
51	...	...	...	...
52	...	...	...	...
1905.				
1	...	...	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	2	...	...	...
6	...	...	...	...
7	...	...	...	...
8	1	...	...	...
9	2	...	...	...
10	1	...	...	...
11	6	1	16·6	...
12	1	...	...	...
13	1	...	...	...
14	2	...	...	...
15	...	...	...	...
16	...	...	...	...
17	2	...	...	...
18	1	...	...	...
19	2	...	...	...
20	...	...	...	...
21	...	...	...	...
22	...	...	...	...
23	...	...	...	...
24	...	...	...	...
25	...	...	...	...
26	1	...	...	2
27	6	...	...	...
28	...	...	...	...
29	...	...	...	...
30	1	...	...	...
31	...	...	...	...

Table II.—REGISTER OF PLAGUE CASES.

(i).—In Victoria City.

<i>Date.</i>	<i>Address.</i>	<i>Date.</i>	<i>Address.</i>
8th July,	A CHUNG'S LANE. Found opposite No. 4.	3rd July,	CONNAUGHT ROAD CENTRAL. "Loi Yau Ki" matshed in.
27th "	AMOY LANE. No. 2.	23rd June,	DES VŒUX ROAD CENTRAL. No. 182.
1st May,	ARBUTHNOT ROAD. Victoria Gaol.	26th "	Found opposite No. 178.
17th April,	ARSENAL STREET. No. 3.	26th "	No. 182.
26th June,	Found opposite No. 5.	12th July,	"Sam Yik" matshed in.
29th May,	BELCHER'S STREET. Found near No. 25.	2nd May,	DES VŒUX ROAD WEST. Found opposite No. 312.
10th June,	CAINE ROAD. No. 28.	8th "	No. 305.
10th July,	CAROLINE ROAD. Cotton Mill.	15th "	" 305.
22nd May,	CENTRE STREET. Found opposite No. 38.	10th June,	" 280.
10th June,	No. 29.	27th "	" 170.
12th "	Found opposite No. 48.		EAST STREET.
16th "	No. 21.	17th July,	No. 35.
17th "	" 17.		ELGIN STREET.
	CHEUNG HING STREET.	17th July,	No. 29.
7th February,	Found in.		FIRST STREET.
3rd July,	CHUNG CHING STREET. No. 1.	20th January,	No. 10.
17th July,	CHUNG WO LANE. No. 15.	3rd July,	" 87.
19th May,	CIRCULAR PATHWAY. Found opposite No. 15.	25th "	" 27.
29th "	No. 24.		GOUGH STREET.
1st May,	COCHRANE STREET. No. 16.	23rd June,	No. 17.
25th "	" 25.		GRAHAM STREET.
5th June,	" 29.		No. 11.
	CONNAUGHT ROAD WEST.		Found opposite No. 20.
27th January,	No. 90.		HEUNG LANE.
19th May,	Found on "Wing Chai" wharf in.		No. 6.
24th "	No. 63.		HILL ROAD.
5th June,	Found opposite No. 170.		Found opposite Public Mortuary.
5th "	" " " 25.		HING LUNG STREET.
28th "	No. 65.		No. 44.
1st July,	Found opposite No. 59.		HING LUNG LANE WEST.
4th "	" " " 149.		Watchmen's Quarters in.
5th "	No. 67.		HOLLYWOOD ROAD.
5th "	" 120.		No. 199.
11th "	" 65.		" 153.
			" 200.
			" 9.
			" 151.
			" 13.
			" 149.
			KAT ON STREET.
			No. 10.
			KAU U FONG SOUTH.
			No. 6.

Table II.—REGISTER OF PLAGUE CASAS.

(i).—In Victoria City,—(Continued.)

<i>Date.</i>	<i>Address.</i>	<i>Date.</i>	<i>Address.</i>
	KENNEDY ROAD.		QUEEN'S ROAD CENTRAL.
19th June,	Matshed near.	1st July,	No. 275.
	KESWICK STREET.		QUEEN'S ROAD EAST.
28th June,	No. 30.	14th February,	No. 148.
	KO SHING STREET.	16th May,	" 117.
29th April,	No. 24.	18th "	" 243.
30th June,	" 70.	3rd June,	" 177.
		12th "	" 200.
	LOWER LASCAR ROW.		QUEEN'S ROAD WEST.
9th June,	No. 46	8th May,	No. 64.
	LEUNG I FONG.	18th "	" 115.
20th July,	No. 1.	22nd "	" 62.
	LI SING STREET.	25th "	" 58.
2nd May,	Found opposite No. 1.	27th "	Found opposite No. 35.
	MOSQUE JUNCTION.	10th June,	No. 265.
10th June,	No. 41.	14th "	" 506.
	NG FUK LANE.	28th "	" 385.
24th May,	No. 2.	30th "	" 477.
24th "	" 2.	7th July,	" 250.
	NEW STREET.	17th "	" 313.
9th May,	No. 19.	27th "	" 371.
	NULLAH LANE.		QUEEN VICTORIA STREET.
14th February,	No. 51.	30th May,	No. 6.
3rd June,	" 78.		RIENAECKER STREET.
9th "	" 41.	3rd April,	No. 4.
20th "	Matshed near.		RUTTER STREET UPPER.
	PEEL STREET.	13th May,	No. 2.
17th May,	No. 35.		SAI WOO LANE.
3rd June,	" 24.	2nd June,	No. 26.
19th July,	" 10.	13th "	" 5.
	POTTINGER STREET.		SAM TO LANE.
8th June,	No. 39.	26th June,	No. 5.
	POTTINGER LANE.	4th July,	" 7.
10th July,	No. 1.	11th "	" 11.
31st "	" 1.		SECOND STREET.
	POUND LANE.	5th July,	No. 49.
1st July,	Found opposite No. 6.	10th "	Found near No. 96.
	PRAYA EAST.	10th "	Found opposite No. 20.
12th June,	No. 63.	19th "	No. 124.
13th "	" 61.		SHEK KAI LANE.
15th "	Found opposite No. 6.	24th May,	No. 4.
			SHEUNG FUNG LANE.
	PRAYA KENNEDY TOWN.	15th June,	No. 14.
1st May,	No. 48.	10th July,	" 1.
			SHING WONG STREET.
		12th June,	No. 6.
			SQUARE STREET.
		15th June,	No. 33.
		29th "	" 28.

Table II.—REGISTER OF PLAGUE CASES.

(i).—In Victoria City,—(Continued.)

<i>Date.</i>	<i>Address.</i>	<i>Date.</i>	<i>Address.</i>
	SQUARE STREET,—(Continued.)		TUNG TAK LANE.
14th July,	No. 47.	20th July,	Found near.
19th „	„ 32.		TUNG WO LANE EAST.
	STAUNTON STREET.	31st May,	No. 3.
8th May,	No. 37.	31st „	„ 3.
15th „	„ 35.		WANCHAI ROAD.
	SUTHERLAND STREET.	24th May,	No. 73.
3rd April,	No. 8.	29th „	„ 63.
	SWATOW LANE.		WELLINGTON STREET.
2nd January,	No. 8.	26th May,	No. 95.
	TAI WO STREET.	2nd June,	„ 89.
5th June,	No. 14.	28th „	„ 113.
	TAI WONG LANE.	3rd July,	„ 172.
5th June,	No. 6.	5th „	„ 194.
	THIRD STREET.	31st January,	WEST STREET.
5th June,	No. 3.	22nd July,	Found opposite No. 42.
15th „	„ 58.		No. 39.
19th July,	„ 53.	9th February,	WING LOK STREET.
	TRIANGLE STREET.	11th May,	Found opposite No. 31.
30th May,	No. 9.		No. 233.
30th „	„ 9.	17th June,	WING KUT STREET.
	TORSIEN STREET.	28th July,	No. 12.
23rd February,	Found opposite No. 23.		„ 28.
4th May,	No. 17.	1st July,	WING ON STREET.
13th „	„ 16.		No. 39.
15th „	„ 20.	20th May,	WING WO STREET.
7th July,	„ 6.		No. 30.
7th July,	TSUNG SAU LANE EAST.	5th June,	WONG NEI CHUNG ROAD.
	No. 8.		Found in.

(ii).—In Harbour.

<i>Date.</i>	<i>Address.</i>	<i>Date.</i>	<i>Address.</i>
19th May,	Fd. Breakwater. Causeway Bay.		BOATS,—Continued.
15th June,	„ „ „ „	8th June,	Unlicensed boat.
21st February,	Found on buoy in.	8th „	„ „
	BOATS.	13th „	Cargo boat No. 997.
26th May,	Rowing boat No. 4160.	23rd „	Boat No. 3554.
16th July,	„ „ 4906.	1st July,	Fishing boat No. 19147.
		13th „	„ „ „ 7189.

Table II.—REGISTER OF PLAGUE CASES.

(iii).—In Tsim Sha Tsui District.

TSIM SHA TSUI DISTRICT.			
Date.	Address.	Date.	Address.
	AUSTIN ROAD.		HILLSIDE.
9th May,	No. 18.	19th January,	Found near Fo Pang.
14th „	„ 19.		
26th „	„ 10.		MACDONNELL ROAD.
30th „	Found opposite No. 7.		
13th June,	No. 4.	8th January,	Found at the rear of.
19th „	Found in.	3rd July,	Found in.

(iv).—In Yaumati District.

Date.	Address.	Date.	Address.
	BATTERY STREET.		STATION STREET NORTH.
31st January,	Found near Gas Works.	23rd June,	No. 53.
27th June,	Found at the end of.	12th July,	„ 32.
5th July,	No. 57.	31st „	Found near Pumping Station.
	KENNEDY STREET.		STATION STREET SOUTH.
13th June,	No. 47.	10th April,	Found at the South end of.
20th July,	„ 16.	29th May,	No. 143.
31st „	„ 14.	6th June,	„ 124.
	KOWLOON ROAD.	19th „	„ 149.
		21st „	„ 69.
10th January,	Found in a drain.	1st July,	Found near No. 91.
	KUN CHUNG.	11th „	No. 89.
		13th „	Found opposite No. 123.
13th June,	No. 151.	24th „	No. 87.
	PRAYA.	24th „	„ 97.
		25th „	„ 114.
9th May,	Found at.	31st „	„ 79.
10th „	No. 59.		TEMPLE STREET NORTH.
	RECLAMATION STREET.	26th May,	No. 30.
10th May,	No. 7.	13th July,	„ 34.
25th „	„ 72.	18th „	Kowloon Public Mortuary.
3rd June,	„ 69.		TEMPLE STREET SOUTH.
1st July,	„ 184.	21st May,	Found near.
13th „	„ 115.	24th June,	„ in.
18th „	„ 176.		UN CHOW VILLAGE.
25th „	„ 208.	10th June,	No. 27.

(v).—In Mong Kok Tsui District.

Date.	Address.	Date.	Address.
	MACDONNELL ROAD.		STATION STREET.
7th April,	Found at the rear of.	11th January,	No. 47.
25th July,	No. 153.	29th May,	„ 171.
	PORTLAND STREET.	29th „	„ 205.
		9th June,	„ 211.
20th January,	No. 40.	13th „	„ 167.
	RECLAMATION STREET.	30th „	„ 227.
26th January,	Found in.		
19th June,	No. 202.		

Table II.—REGISTER OF PLAGUE CASES.

<i>(vi).—In Tai Kok Tsui District.</i>		<i>In New Territory,—Continued.</i>	
<i>Date.</i>	<i>Address.</i>	<i>Date.</i>	<i>Address.</i>
7th June, 14th "	FORESHORE. Found on. " " KRAMER STREET.	2nd February, 10th " 18th May, 8th "	SHAM SHUI PO. No. 128. " 136. " 51. Matshed in.
22nd May,	No. 24.	20th May,	SAI KOK. No. 63. WANG STREET.
<i>(vii).—In Hung Hom District.</i>		22nd May, 7th July,	No. 37. " 7.
<i>Date.</i>	<i>Address.</i>	<i>(ix).—In Kowloon City District.</i>	
3rd July,	COOKE STREET. No. 33. DES VŒUX ROAD.	<i>Date.</i>	<i>Address.</i>
8th May, 19th "	Matshed in. " " FORESHORE.	31st March, 1st May, 11th "	CHEUNG SHA WAN. Found foreshore at. Boat-building yard. " " "
26th June,	Found near Tai Wan.	28th March,	HOK LO TSÜN. No. 123.
30th May,	HUNG HOM. Found on vacant ground in.	26th July,	KOWLOON CHAI. No. 44.
14th June,	KOWLOON CITY ROAD. Matshed in.	15th May,	KOWLOON CITY. Found on Launch wharf in.
26th June,	TO KWA WAN. No. 139.	11th June,	SAI KUNG ROAD. Found in Road.
<i>(viii).—In New Territory.</i>		20th June,	SHEK KU LING. No. 5.
<i>Date.</i>	<i>Address.</i>	13th May,	WALLED CITY. No. 12.
17th May, 22nd "	<i>Sham Shui Po District.</i> BLACKSMITH LANE. Found in. No. 40.	<i>(x).—In Shaukwan District.</i>	
30th May,	CHING STREET. No. 11. FUK TSUN HEUNG.	<i>Date.</i>	<i>Address.</i>
26th April,	No. 13. SHEUNG WAI.	20th July.	SHAUKIWAN. Matshed in.
19th June, 20th " 20th "	No. 89. " 77. " 77.	20th May,	SHAUKIWAN WEST. Found opposite No. 9.

Table II.—REGISTER OF PLAGUE CASES.

<i>(xi).—In Stanley District.</i>		<i>(xiii).—In Peak District.</i>	
<i>Date.</i>	<i>Address.</i>	<i>Date.</i>	<i>Address.</i>
18th May,	TAI TAM TUK. "I Wo"matshed in.	4th February,	PEAK ROAD. "Coolies Quarters." Mount Austin Barracks.
<i>(xii).—In Aberdeen District.</i>		<i>(xiv).—Cases With no Fixed Abode.</i>	
<i>Date.</i>	<i>Address.</i>	Two cases found on May 12th, & July 1st.	
12th June,	STANLEY ROAD. Found in Road.		

Annexe B.**REPORT OF THE SUPERINTENDENT OF THE GOVERNMENT
CIVIL HOSPITAL.****GOVERNMENT CIVIL HOSPITAL.***Staff.*

Several changes have occurred in the Staff during the past year.

Dr. E. A. R. LAING, Assistant Superindendent, left the service in July and was succeeded in the Hospital by Dr. W. KOCH, who took up the duties of Assistant Superintendent in October, the Superintendent being in sole charge during the interval.

Sister STOLLARD left on home leave in April and Sister GORHAM returned from England in October. Sisters FRANKLIN and DEWAR resigned the service and were succeeded by Sister BARROW and RICHARDS in April and December.

The Matron, Miss BARKER, proceeded to Japan on two months' vacation leave in August.

Probationer Nurses GEARY, ROBERTS and PAGE resigned and Nurse POOLE joined during the year, the other two vacancies being still unfilled.

Mr. FRANKLIN, Apothecary and Assistant Analyst, was granted short leave.

Wardmaster COOMBS was transferred to the Sanitary Department and was succeeded by Wardmaster EGERTON in June.

Buildings.

Besides the usual minor repairs the whole of A Block was overhauled in the early part of the year, the wards being painted and colour-washed and the lavatories, in part, tiled. This necessitated closing the upper floor for some time. The cleansing stopped short of the exterior of the building which, I believe, is to be done this year. B Block was painted in 1904.

General Statistics.

The total number of admissions was 2,704 as against 2,585 last year; the increase would have been more but for the fact that owing to repairs it was necessary to close two general and two private wards for some time.

The total number of out-patients was 14,976 as against 13,706.

Attached are the following tables:—

- Table I.—Showing admissions and deaths during each month.
 „ II.—Showing operations performed.
 „ III.—Showing admissions and deaths under respective diseases.
 „ IV.—Showing admissions and deaths in the Maternity Hospital.
 „ V.—Showing varieties of malaria met with in each month.

The following Table gives the number and class of patients admitted during the last ten years as well as the total number of the deaths:—

YEAR.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
Police, ...	588	529	488	692	920	937	938	759	707	726
Paying Patients, ...	632	603	741	764	891	830	931	777	772	807
Government Servants, .	269	227	186	208	266	339	460	319	267	271
Police Cases, ...	244	299	306	306	347	348	300	276	262	329
Free, ...	778	742	785	739	569	466	454	646	555	512
Board of Trade, ...	87	45	65	25	37	28	25	17	22	59
Total, ...	2,598	2,445	2,571	2,734	3,030	2,948	3,108	2,794	2,585	2,704
Total Deaths, ...	143	119	138	114	155	153	140	142	128	150

This shows as compared with last year an increase under all headings but "Free".

There were 150 deaths during the year which gives a mortality rate of 5.5 per cent. Of these deaths 51 cases were moribund on admission and died within twenty-four hours.

The average daily number of sick was 90.01 as against 93.94 last year.

The number of women and children admitted was 272 as against 238. The death-rate was the same, viz. :—9.2 per cent.

The nationalities of persons admitted were as follows:—

Europeans—848 as against 784.

Indians and Coloured—737 as against 644.

Asiatics (Chinese and Japanese)—1,119 as against 1,157.

Diseases.

The following more important diseases were responsible for the greatest number of admissions:—

Fevers:—

Malarial, ...	267
Febricula, ...	120
Typhoid, ...	30
Venereal Diseases, ...	153
Diseases of Respiratory System, ...	247
Diseases of Digestive System, ...	233
Dysentery, ...	110
Beri-beri, ...	43
Rheumatism, ...	87
Alcoholism, ...	65
Injuries, ...	544

The following diseases caused the greatest number of deaths:—

Diseases of Respiratory System, ...	25
Diseases of Digestive System, ...	11
Diseases of Urinary System, ...	7
Beri-beri, ...	8
Injuries and burns, ...	50

Malarial Fever.—277 cases against 234 in 1904. Of this number, 267 were in for the disease itself and 10 others developed the illness whilst under treatment for other ailments (dysentery 5, wounds 3, beri-beri 1, anaemia 1). According to nationalities 66 cases were in Europeans, 137 in Indians, 60 in Chinese and 14 in Japanese. There is an increase this year though the increase is slight, the malarial cases as compared with the number of patients in hospital being 10.2 per cent. as against 9.05, a marked contrast to 1901 when they were 26.6 per cent. There can be no question that the war waged by the authorities against the mosquito has given as good results here as anywhere else, more marked in some localities than in others. The western end of Bonham Road, which used to supply us with very bad cases both in Europeans and their servants has not supplied a single admission this year which is another proof, if any is now needed, of the possibility of doing away with this tropical ailment. Only 3 deaths occurred—one in a child of 6 months and the others in adults already much debilitated by previous illness. As will be seen by Table VIII the malignant variety here as elsewhere is much the most common variety and the disease is more prevalent in the latter half of the year.

Febricula.—120 cases, as against 128 in 1904, appear under this heading with one death. A few of these cases no doubt are malarial fever in patients well under the influence of quinine before coming to hospital so that no parasites are found in their blood after repeated examinations but the bulk of them are cases in which fever is the only symptom and for which no cause can be assigned. The fatal case resembled typhoid fever clinically but the Widal reaction was negative and the bacteriological tests undertaken after death by Dr. HUNTER were also negative.

Typhoid.—30 cases with 6 deaths. Two of these cases are doubtful. They both resembled the disease clinically but the Widal reaction was negative and the post-mortem signs nil, including a bacteriological examination of the spleen in one case. We held, however, to the clinical side of the cases. Of the cases 12 were imported. The nationalities were Europeans 19, Indians 3, Chinese 3 and Japanese 5. If we exclude the two doubtful cases the death-rate of 14.3 per cent. is a decided improvement on what generally prevails in the tropics. Only one case had a relapse—a German. This nationality take the disease very severely in their own country and this peculiarity they bring with them to the tropics as they are generally the worst cases we have. One death was due to perforation and the others to toxæmia. Widal's test was employed in all the cases but one and I am much indebted to Dr. HUNTER for carrying out the test for us.

Dysentery.—110 cases with 3 deaths as compared with 106 and 6 deaths in 1904. Of this number, 53 were Europeans, 37 Indians, 15 Chinese and 5 Japanese. All the fatal cases were of the amœbic variety. Cases occurred all through the year being however more frequent in June, July and August. Though the cause, or causes, of tropical dysentery is still to a certain extent an unsettled question the matter is I think nearing a solution. Personally I am of opinion that there are but two forms, amœbic and bacillary. Since 1903 I have examined microscopically a large number of stools, over 500, and I have never found amœbæ in any but those showing dysenteric symptoms. In a few cases eggs of *Ascaris Lumbricoides*, *Ankylostoma Duodenale*, *Distoma Sinense*, *Tricocephalus Dispar* and the *Cercomonas Intestinale* have also been found but they are mere coincidences and invariably persist after the dysentery is cured and require, where possible, separate treatment.

As to the prevalence of one form more than the other since July, 1903, 245 cases have been examined of which 166 were bacillary and 79 amœbic so that as found by ROGERS in India the former is more prevalent. This is fortunate as it is far less serious a complaint in the great majority of cases. It is obviously impossible for us here to isolate the bacillus in each case so that I cannot say what special bacillus or group of bacilli produce the bacillary form. In a very few cases the disease is of a virulent type and the patient rapidly succumbs to the toxæmia but as a rule this form is much milder, answers readily to saline or other treatment and does not relapse. Probably like most bacillary diseases one attack confers an immunity, much the same as typhoid. Of the Police whose history we are able to follow 29 cases were admitted to hospital of which 18 were of the bacillary type and none of these had a relapse though one came in in January and again in October with amœbic dysentery showing that one form affords no protection against the other, as one would imagine.

The *amœbic* variety is the less prevalent form and fortunately so as it is a much more serious complaint, more difficult and more tedious to treat—in some cases I doubt whether they are ever cured by anything short of removal out of the tropics—and attended by a complication in the shape of liver abscess which may, I think, be looked upon as one of the most serious tropical ailments we have to deal with. The post-mortem appearances explain how unamenable these cases may be to treatment for the amœbæ are found to burrow deeply through all the coats of the intestine ending in some cases in perforation, and to attack the cæcum first. Any rectal injections in these cases never get near the seat of the mischief and this accounts for their failure in most cases to do any good. The only chance of a cure lies in some drug through the blood stream poisoning the parasite, and this drug has yet to be found. I tried several cases with a daily rectal injection of quinine and 5 grains in pill form every 4 hours by the mouth in an endeavour to saturate the system with the drug for some time. In most cases this treatment was not of marked benefit though in others a certain amount of success resulted. The best results were obtained with the Indian Police who come in early. It is not always easy to say when a case is cured for we have had patients leave us with normal stools without any trace of amœbæ to return in a very short time with the trouble as bad as ever—in one case 3 times. It is important to differentiate the two kinds of dysentery though it is perhaps difficult to do so, except in hospital, as it will generally be found that a relapse of amœbic dysentery should mean an immediate removal from the tropics as far as Europeans are concerned. Sooner or later other attacks occur with the consequent anæmia if not the more formidable complication of liver abscess. To send a case

of amœbic dysentery from one part of the tropics to another for a change is bad treatment as most of the cases sent to us in this way, when it was just as easy to send them home, have certainly had their change but it has been to a country where "nothing matters". The question as to what percentage relapses form is not easy to say as so many of the hospital cases disappear from notice. The Police figures are small but they give 10 per cent. Liver abscess due to amœbæ is a much more frequent complication than is generally supposed judging from the records of this hospital. We have had 11 cases against 73 of amœbic dysentery since June, 1903, *i.e.*, 15 per cent., and the number is probably greater as it is difficult to get statistics relating to Chinese in this Colony. I was in hopes that a differential blood count might be of use in distinguishing the two forms theorising that there might be an increase of Eosinophiles due to the amœbæ as a parasite but practically this was not borne out. The latent form mentioned by ROGERS rarely occurs here but we had one case which was interesting. An Indian was admitted with fever and vague pains in the abdomen. The blood was negative for malaria and there were no physical signs. For several days (4) the fever continued and noticing there was a slight increase in the number of stools (3 daily) though the patient made no complaint of diarrhœa the stools were examined microscopically when blood and mucus cells were found together with numerous amœbæ both mobile and encysted forms. The patient went through an attack of dysentery and recovered. But for an examination of the stools the case would have been overlooked.

We are still in the dark as to how dysentery spreads and I have not even a theory to put forward. Neither variety assumes an epidemic form here and the cases occur all over the Colony throughout the year though there are more cases in June, July and August. These facts exclude the water as a carrier of the infection so that as with typhoid in this Colony one is inclined to fall back on the "raw vegetable" theory. The Chinese suffer much less from both forms, according to our figures, than the Europeans and Indians. The mobile form of the amœbæ die rapidly in the stool but the encysted form are much hardier and must be the means of spreading the disease. The question for the future to solve is whether they do not undergo some change in a suctorial insect and so get passed on to man, in a similar manner to malaria. In these days of theories I put forward this one for what it is worth as it seems to me to fit in with the etiology of amœbic dysentery better than any other one.

Malignant New Growths.—14 cases have been under treatment. As so much interest is now being taken in this subject and the question of native races suffering from the disease being in dispute I append a list of all our cases with particulars, the diagnosis in all but two having been settled microscopically by Dr. HUNTER:—

European	male,	aged 42—	Dis. of omentum, etc.
"	female,	" 36—	Chorion epithelioma.
Portuguese	female,	" 41—	Sarcoma of neck.
"	male,	" 38—	Sarcoma duodenum and liver.
Chinese	male,	" 33—	Epithelioma of penis.
"	"	" 32—	Colloid cancer of mesentery.
"	"	" 39—	Carcinoma of liver.
"	"	" 53—	Epithelioma of tongue.
"	"	" 40—	Carcinoma of liver.
"	"	" 28—	Sarcoma of leg.
"	"	" 50—	Epithelioma of penis.
"	female,	" 35—	Schirrus of breast.
"	"	" 39—	Sarcoma hard palate, etc.
"	"	" 22—	Sarcoma of arm.

The last case was one of recurrence after an operation done here in 1904. This Table shows that Chinese at any rate do not enjoy any immunity over other races.

Pernicious Anæmia.—9 cases with 5 deaths. Though we have cases diagnosed under this heading before not much attention has been paid to them. This year, however, they have all been carefully studied in view of the possibility that they might be due to Leishman-Donovan bodies or human piroplasmiasis as suggested by Dr. HUNTER. Nothing of the kind, however, was found either by ordinary blood examination or by spleen puncture before death or at the post-mortem. All

cases were Indian adults. It is safe to infer that the disease does not occur here in Europeans as we should undoubtedly meet with or hear of them. As to whether it occurs in Chinese I cannot say but none have come under our notice. Every case was typical of the disease as described by ADDISON as far back as 1851 and more recently by HUNTER of the London Fever Hospital. In none of them was there any previous illness to account for the disease. The ages varied between 20 and 30 and they were all males. The blood in each case was carefully examined and the results correspond with those found at home. The hæmoglobin varied from 40 to 15 per cent. and the color index from 1.8 to 0.9, being above 1 in all cases but one. The red cells varied between 2,000,000 and 500,000, and the leucocytes from 2,000 to 1,000 with a large increase in the lymphocytes (68 to 45 per cent.). In all there were poikilocytosis, granular and polychromatophilic degeneration, with numerous megalocytes and megaloblasts. The post-mortem signs were practically nil either macroscopically or microscopically but in several cases the liver gave the iron reaction. In three of them there was marked stomatitis and ulceration of the mucous membrane of the mouth but unlike HUNTER's cases these were secondary and only occurred after the disease was well marked.

Heart Disease (Valvular).—25 cases were under treatment of which 10 were Chinese, 6 Indians and 9 Europeans. The ordinary causes which obtain at home, rheumatic fever and the exanthemata, being out of the question here one falls back on one of other causes, viz., Syphilis, which I suppose must be credited with giving rise to the bulk of valvular mischief in Chinese. We had one case of malignant endocarditis in a European in which the patient died suddenly of cerebral embolism. Post-mortem the mitral valve was found extensively affected and a smear taken from this resembled a pure culture of pneumococcus.

Aneurism.—Three cases were under treatment. The aortic case died suddenly from rupture into the pleural cavity, the femoral recovered after ligature of the external iliac and the brachial was cured, under Dr. KOCH, by dissecting out the complete sac.

Phthisis.—47 cases of this serious malady have come under treatment—11 Europeans, 15 Indians, 15 Chinese and 6 Japanese.

Appendicitis.—4 cases of which a European and a Chinese died from peritonitis and the other two recovered without operation.

Liver Abscess.—4 cases with three deaths compared with one case last year. The causation of this disease is still *sub judice* in some minds, but I think enough evidence has now been adduced both here and elsewhere to show that it is entirely and solely due to the amœbæ dysenteriae and forms one of the worst and most serious complications of intestinal amœbiasis. I have under dysentery alluded to this already and given our figures. There is little doubt that most medical men treating these cases would be of the same opinion but for the fact that some of them probably are not familiar with the appearance of the parasite and are possibly also unaware that the amœbæ may not be found in the pus when the abscess is first incised but are easily detected in a day or two especially if a scraping from the wall is taken. In all of our cases they were present and in 2 of the cases were also found in the stool the patients being the subject of dysentery at the time. Liver abscess is with us a very fatal disease but many cases are brought here in the last stage of the disease. Since 1900 we have had 27 cases with 12 deaths, i.e., 44.4 per cent.—a high rate. Two of the cases were interesting inasmuch as the pus showed large numbers of amœbæ but there were no traces of old or recent dysentery in the large or small intestine. COUNCILMAN and LAFLEUR proved the power of the amœbæ to work its way through the bowel wall into the peritoneal cavity and be carried along towards the lymphatics of the under surface of the diaphragm and so to the upper surface of the liver suggesting indirect infection from the bowel across peritoneal cavity with or without adhesions previously forming and this no doubt happened in the two cases above mentioned. All the abscesses were in the substance of the liver. In one, a Chinaman, the main abscess consisted practically of solid pus, a very rare occurrence, so that aspiration failed to detect the condition and it would have been an impossible one to treat. Most of these cases are fairly easily diagnosed but in a certain number the question is a difficult one to decide. One naturally turns to a blood count as a help and in most cases it is of great assistance taking the relative count of white to red and taking the normal as being between 1 to 1,000 and 1 to 715, i.e., 5,000 to 7,000 white corpuscles. In 3 cases in which the count was made the relation was 1 to 269, 1 to 520 and 1

to 413 respectively. The neutrophilic leucocytes are always in excess as well, so that possibly assistance may be derived from this method which will help, taken of course in conjunction with the clinical history of the case. Unfortunately none of these "blood tests" are to my mind sufficiently positive to enable one to rely on them in doubtful cases—the only time a clinician wants help—as one of our dysenteric cases developed symptoms pointing to liver abscess and the blood count gave 16,000 white cells. The patient, however, recovered without any abscess and is now well. As with the Widal reaction for typhoid so with these blood counts it is to be wished they were "positivus aut nihil."

Fractures.—The following were treated during the year :—

Thigh, ...	10
Leg, ...	11
Arm, ...	5
Forearm, ...	6
Skull, ...	15, with 12, deaths.
Ribs, ...	3
Clavicle, ...	3
Patella, ...	1
Scapula, ...	1
Jaw, ...	1
Finger, ...	1

Dislocations.—The following were under treatment :—

Shoulder, ...	6
Elbow, ...	2
Jaw, ...	1
Thumb, ...	1

Injuries.—544 cases with 41 deaths. They were many and various, some very trivial and others serious. There were 7 cases of bullet wounds of which two were fatal, both patients being shot through the abdominal cavity. Dynamite explosion accounted for 4, one of which was fatal. They were all in fishermen.

Parasites.—The two of interest which came under our notice were the *Distoma Ringeri* and *Rhizoglyphus parasiticus*. The former occurred in a Japanese from Formosa who is still in the Colony and still the subject of the disease. The latter was found by myself for the first time in this Colony which adds to its interest as far as we are concerned. It is a somewhat unknown parasite and not mentioned in any of the standard works on Tropical Disease and is known as the "water itch." It occurred in 3 cases here all on the feet where it gave rise to superficial ulceration with a tendency to formation of burrow. The parasite is not very easily found as they are not numerous. An illustration appears in MAX BRAUN'S work "*Die Thierischen Parasiten des Menschen*" and an account of one of our cases was illustrated in the "*British Medical Journal*" of November 11th, 1905.

Operations.

216 were performed during the year. Amongst the more important were :—

Liver Abscess.—3 cases, with 2 deaths.

Amputation of the Thigh.—3 cases, all recovered. They were done for severe compound fractures in which every endeavour was made to save the limb but as the patients were all sinking from septicaemia the operation was done by Dr. KOCH, Assistant Superintendent, with, I am glad to say, a successful result in each case as far as life was concerned.

Lithotomy.—Two cases with one death. Both were in Chinese.

Strangulated Hernia.—One case, successful.

Abdominal Section.—Two cases for bullet wounds, both fatal, and one exploratory, which case recovered.

Ligature of the External Iliac Artery.—This was successfully done for femoral aneurism.

Anæsthetics.—Chloroform was administered 158 times all by the open method and without any fatal result. Local anæsthesia was also frequently employed for minor operations.

Vaccinations.

The following were performed during the year :—

Primary cases.....181	Successful, 45	Unsuccessful,—Total 226.
Re-Vaccinations 138	„ 88	„

Radiography.

The new apparatus duly arrived from home and has been installed. We are now able to work the machine from the electric mains, and so far it has worked uniformly well and is a great improvement on the former method with accumulating batteries.

I desire to thank all the members of the staff who have so ably assisted me during the year as well as those members of the community who have kindly presented books, papers, flowers, etc., to the patients.

The usual Appendix of interesting cases is attached.

MATERNITY HOSPITAL.

67 cases were under treatment with 2 deaths. Of this number 37 were paying patients, 20 free and 11 the wives of Government servants. Of the children born alive 30 were boys and 28 girls. The two fatal cases were both Chinese and death was due in each case to placenta prævia. This class of patient unfortunately never realises the gravity of this complication and almost invariably apply too late for relief.

SICKNESS IN POLICE.

There were 726 admissions as against 707 in 1904, or 74.84 per cent. of the Force were under treatment as against 75.61.

There were 9 Europeans less, 74 Indians more and 46 Chinese less admitted. The average stay in hospital was 7.4 days per man.

Table VI gives the admissions and deaths from the various sections of the Force.

Table VII gives the sick and mortality rate in percentage of strength for the last ten years.

Table VIII gives the admissions into and deaths in the Government Civil Hospital during each month of the year.

There were 10 deaths as compared with 4 last year. Of these, 3 occurred in the European Section, 3 in the Indian and 4 in the Chinese. The causes of death were Heart Disease (2 Europeans), Heat stroke (European), Phthisis and Tuberculosis (3 Indians), Beri-beri (2 Chinese), Cancer (Chinese), after operation for stone in the bladder (Chinese).

There were 18 cases of invaliding—2 European, 9 Indian and 7 Chinese. The reasons for invaliding were:—Retinitis (1), Delusional Insanity (1), Phthisis (5), Bronchitis (3), Beri-beri (5), Heart Disease (1), Chronic Diarrhœa (1), Senile Debility (1).

Malaria.—125 admissions as against 107 in 1904 or 12.8 per cent of the Force were in hospital for this disease as against 11.55. The European Section suffered to the extent of 4.5 per cent., the Indian 25.9 per cent. and the Chinese 5.5 per cent. These figures show a slight increase over those of last year (11.55 per cent.). The percentages for the last five years are:—

1901=44.69; 1902=19.97; 1903=18.13; 1904=11.55; 1905=12.8.

None of the Europeans were in more than once for this illness, a fact worth noting by the writers on that theoretical subject "Immunity to Disease," as the idea that native races are comparatively insusceptible to malaria is not our experience here. Of the Indians 1.9 per cent. were in twice, 0.9 per cent. three times and 0.4 per cent. four times. Of the Chinese Section 1.4 per cent. had two attacks, and 0.9 per cent. four. There has, therefore, been a slight increase in malaria during the year as well as a slight increase in the repeat cases (1.9 per cent. as against 1.8 per cent. in 1904). The study of repeat cases is interesting but it adds considerably to one's difficulty in placing each case admitted to its right station. For instance an Indian policeman was in with *quartan* malaria in January, April and May. In January he came from Stanley, was transferred from there to Central on 8th April and returned to hospital on the 24th April. This entry was credited to Stanley though 16 days is a fairly long incubation period. In May, 30 days afterwards, he was in again from Central with same form of malaria. Were these attacks all one and the same infection? No resting form has yet been described for either *Quartan* or *Simple Tertian* malaria and in this case the 3rd entry was considered a fresh infection and duly credited to Central but I am still doubtful if this is correct as *Quartan* malaria is a very rare form indeed and it is very improbable that he would contract both a rare form and the same form as before. There are a few other cases somewhat equally dubious. Six cases had crescents in their blood on admission but of this number only one returned to hospital with the same illness.

Table IX gives the admissions compared to strength for the most important stations in the New Territory for the past five years and Table X the monthly admissions for malarial fever from each Police Station during the year.

The former Table shows an increase in Sha Tau Kok, Au Tau and Ping-shan. The amount of malaria prevalent in the New Territory, or parts of it, is very high—higher than these figures would give the impression—Sha Tin, San Tin, Tai O, and Sheung Shui have had no admissions to hospital for malaria so that the remaining five stations are responsible for an admission rate of over 40 per cent. as compared with the strength, a very high figure. Owing to the conditions prevalent malarial prevention must be a question of individual prophylaxis, always a difficult matter to carry out especially with the native sections, and from these figures it would not appear to be a success. Of the number admitted from these five stations the European section suffered to the extent of 50 per cent., the Indians 40.5 per cent., and the Chinese 38.8 per cent.

The average number of days spent by each man in hospital for this disease was 5.1 against 5.7 last year.

Phthisis.—6 cases were under treatment as against 4 last year. Of this number 2 died and the others were invalided.

Dysentery.—29 cases were under treatment as against 28 last year. Of these, 2 were Europeans, 19 Indians and 8 Chinese.

Beri-beri.—16 cases all as usual amongst the Chinese section. The outstations again had a clean bill of health, the cases coming from the Central (10 cases) and Yaumati (6 cases). I have no further light to throw on this disease and not even a theory to put forward. It seems to me that, if any further scientific investigation is to be undertaken towards solving the cause of this disease it should be done in the case of the police as the numbers are few and the men are all under the same circumstances as regards housing, work, food, etc.

Typhoid Fever.—Only one case occurred in a Chinaman. He went through a very severe attack but eventually recovered.

Other ailments.—These call for no special mention.

SICKNESS IN GAOL STAFF.

There were 82 admissions out of a staff of 119, or 68.9 per cent. against 58.4 per cent. last year. One death from tuberculosis occurred in an Indian guard. Three Indians were invalided for phthisis and one for chronic rheumatism and one European for heart disease.

SICKNESS IN SANITARY STAFF.

There were 35 admissions as against 29 in 1904. No deaths occurred and no invaliding was done amongst the more important members of the department. One or two Chinese on temporary engagement were not kept on owing to their being attacked with beri-beri, heart disease, etc.

J. BELL,
Superintendent,

Table. I.—Admissions into and Deaths in the Government Civil Hospital during each month of the year.

MONTH.	EUROPEANS.		INDIANS &c.		ASIATICS.		TOTAL ADMISSIONS.	TOTAL DEATHS.
	A.	D.	A.	D.	A.	D.		
Remaning 31st Decem- ber, 1904, ...	33	1	14	1	42	2	89	4
January, ...	66	5	49	2	73	7	188	14
February, ...	58	1	33	4	62	7	153	12
March, ...	58	1	62	3	61	5	181	9
April, ...	58	2	60	3	83	9	201	14
May, ...	84	3	47	2	111	7	242	12
June, ...	84	4	56	2	105	5	245	11
July, ...	107	6	70	2	108	14	285	22
August, ...	66	3	60	1	85	10	211	14
September, ...	70	...	66	4	106	3	242	7
October, ...	60	...	74	1	100	9	234	10
November, ...	60	5	81	...	100	8	241	13
December, ...	44	4	65	1	83	3	192	1
Total, ...	848	35	737	26	1,119	89	2,704	150

Table II.—Operations performed in the Government Civil Hospital.

SURGICAL OPERATIONS.	NUMBER	DEATHS.
OPERATIONS ON ORGANS OF LOCOMOTION :—		
Amputation of Thigh, ...	3	...
" " Leg, ...	1	...
" " Toes, ...	4	...
" " Forearm, ...	8	1
" " Hand, ...	1	...
" " Fingers, ...	10	...
Opening knee joint, ...	1	...
Warty tumour of foot, ...	2	...
" " " hand, ...	1	...
REMOVAL OF TUMOURS :—		
Buboes, Incised, ...	14	...
" Removed or Scraped, ...	14	...
Sarcoma of arm, ...	2	...
Cysts, ...	5	...
Carbuncle, ...	1	...
Epithelioma of lip, ...	1	...
Schirrus of Breast, ...	1	...
Polypus (Nasal), ...	1	...
" (Uterine), ...	1	...
Fibromata, ...	3	...
EYE OPERATIONS :—		
Cataract, ...	1	...
Pterygium, ...	1	...
Trachoma, ...	1	...
Entropion, ...	1	...
OPERATIONS ON GENITO-URINARY ORGANS :—		
Lithotomy, ...	2	1
Hydrocele (Tapped), ...	5	...
Hydrocele (Radical cure), ...	2	...
Circumcision, ...	18	...
Ruptured urethra, ...	2	...
Stricture of urethra, ...	6	...
Bladder tapped, ...	1	...
Amputation of penis, ...	2	...
OPERATIONS ON DIGESTIVE ORGANS :—		
Hernia strangulated, ...	1	...
Hepatic abscess, ...	3	2
Hæmorrhoids, ...	2	...
Fistula in ano, ...	3	...
Paracenteses abdominalis, ...	4	...
Abdominal Section (Bullet wound), ...	2	2
" " (Exploratory), ...	1	...
OPERATIONS ON CIRCULATORY SYSTEM :—		
Ligature of ulnar artery, ...	1	...
" " external iliac artery, ...	1	...
Removal of brachial aneurism, ...	1	...
Wounds of chest, ...	1	...
" " scrotum, ...	2	...
GENERAL ABSCESSSES :—		
Abscess of thoracic wall, ...	1	...
" " thigh, ...	3	...
" " leg, ...	2	...
" " scrotum, ...	1	...
" " neck, ...	2	...
" " perineum, ...	2	...
" " arm, ...	1	...
" " scalp, ...	1	...
" " foot, ...	2	...
" " hand, ...	11	...
" " buttock, ...	3	...
" " axilla, ...	3	...
" " iliac, ...	1	...
Ischeo-rectal abscess, ...	4	...
GENERAL OPERATIONS :—		
Necrosis, ...	13	...
Sloughing Phagedena, ...	2	...
Sinus, ...	11	...
Needle (Removal of), ...	3	...
Paracentesis Thoracis, ...	4	...
Harelip, ...	2	...
PARTURITION :—		
Placenta Previa, ...	2	2
Forceps, ...	4	...
Total, ...	216	8

Table III.—*Diseases and Deaths in the Government Civil Hospital.*

Diseases.	Remaining in Hospital at end of 1904.	YEARLY TOTAL.		Total Cases Treated.	Remaining in Hospital at end of 1905.
		Admissions.	Deaths.		
GENERAL DISEASES.					
Small-pox, ...	...	2	...	2	...
Measles, ...	...	2	...	2	...
Whooping Cough, ...	2	...	...	2	...
Dengue, ...	...	32	...	32	...
Diphtheria, ...	...	1	...	1	...
Febricula, ...	...	120	1	120	2
Enteric Fever, ...	6	24	6	30	1
Cholera, ...	...	2	2	2	...
Dysentery, ...	2	108	3	110	5
Plague, ...	...	5	3	5	...
Malarial Fever, ...	...	...	...	...	...
1. Quartan,.....	...	13	...	13	...
2. Simple Tertian,.....	...	49	...	49	2
3. Malignant,.....	1	196	3	197	4
4. Mixed infection,.....	...	8	...	8	...
Malaria Cachexia, ...	...	...	...	...	...
Beri-beri, ...	2	41	8	43	...
Erysipelas, ...	1	3	...	4	...
Pyæmia, ...	1	...	...	1	...
Septicæmia, ...	...	1	...	1	...
Tubercle, ...	1	5	5	6	...
Sloughing Phagedæna,.....	...	6	...	6	...
Syphilis, ...	...	...	...	...	...
(a) Primary, ...	2	15	...	17	...
(b) Secondary,.....	1	46	...	47	3
Gonorrhœa,.....	3	86	...	89	2
Alcoholism,.....	2	63	...	65	...
Delirium Tremens, ...	...	1	...	1	...
Rheumatism	4	83	...	87	1
Rheumatic Fever, ...	...	4	...	4	...
Cyst, ...	...	4	...	4	1
New Growth, non-malignant, ...	...	9	...	9	2
New Growth, malignant, ...	1	13	4	14	...
Anæmia, ...	1	4	1	5	...
Pernicious Anæmia, ...	...	9	5	9	1
Debility,.....	2	103	2	105	2
LOCAL DISEASES.					
Diseases of the Nervous System.					
SUB-SECTION 1.					
Diseases of the Nerves,—					
Neuritis, ...	1	8	2	9	...
Meningitis, ...	...	2	1	2	...
Abscess of Brain,.....	...	1	1	1	...
SUB-SECTION 2.					
Functional Nervous Disorders.—					
Apoplexy, ...	...	2	2	2	...
Paralysis, ...	3	4	...	7	2
Epilepsy,.....	...	4	...	4	...
Neuralgia, ...	...	6	...	6	...
Hysteria,.....	...	1	...	1	...
SUB-SECTION 3.					
Mental Diseases.—					
Mania, ...	1	1	...	1	...
Dementia, ...	...	3	1	2	...
Delusional Insanity, ...	...	2	...	3	...
Diseases of the Eye, ...	1	49	...	50	3
" " Ear, ...	...	11	...	11	...
" " Nose, ...	...	2	...	2	...
" " Circulatory System, ...	2	36	5	38	2
" " Respiratory System	9	238	25	247	4
" " Digestive System,..	7	226	11	233	3
" " Lymphatic System, ...	3	50	...	53	3
" " Urinary System, ...	1	28	7	29	...
" " Generative System, ...	...	...	...	...	...
Male Organs, ...	...	79	...	79	3
Female Organs, ..	...	9	...	9	...
" Organs of Locomotion,.....	6	73	2	79	2
" Cellular Tissue, ...	...	60	...	60	...
" Skin,.....	...	34	...	34	1
Injuries, ...	22	522	41	544	18
Effects of heat, ...	1	29	9	30	1
Malformations, ...	...	3	...	3	...
Poisons, ...	...	2	...	2	...
Parasites, ...	...	56	...	16	...
Under observation,.....	1	16	...	57	...
Total,.....	89	2,615	150	2,704	68

Table IV.—*Monthly Admissions into and Deaths in the Government Maternity Hospital.*

	EUROPEANS.		JAPANESE.		CHINESE.		Total Admis- sions.	Total Deaths.
	A.	D.	A.	D.	A.	D.		
Remaining Decem- ber 31st, 1904,...	2	...	1	...	...	...	3	...
January,.....	3	...	...	...	3	...	6	...
February, ...	...	...	...	...	3	...	3	...
March, ...	3	...	1	...	...	...	4	...
April, ...	3	...	1	...	2	...	6	...
May, ...	2	...	...	...	4	...	6	...
June, ...	1	...	1	...	3	...	5	...
July, ...	1	...	1	...	1	...	3	...
August, ...	1	...	1	...	2	...	4	...
September,.....	1	...	1	...	4	1	6	1
October, ...	7	...	1	...	...	...	8	...
November, ...	3	...	...	...	5	1	8	1
December, ...	2	...	...	...	3	...	5	...
Total,.....	29	...	8	...	30	2	67	2

Table V.—*Varieties of Malarial Fever met with monthly in the Government Civil Hospital.*

Month.	Quartan.	Simple Tertian.	Malignant.	Mixed Infection.	Total.	Percentage to Patients in Hospital
January, ...	4	1	7	...	12	4.33
February, ...	...	4	3	...	7	4.60
March, ...	2	4	2	...	8	4.41
April, ...	2	1	2	2	7	3.49
May, ...	2	2	2	...	6	2.47
June, ...	1	4	18	...	23	9.38
July, ...	1	7	29	1	38	13.33
August, ...	2	7	23	1	33	10.9
September, ...	1	2	22	1	26	10.7
October, ...	...	9	30	...	39	16.6
November, ...	...	6	45	1	52	21.6
December, ...	...	5	19	2	26	13.5
Total, ...	15	52	202	8	277	10.2

Table VI.—*Admissions into and deaths in the Government Civil Hospital from the Police for the last ten years.*

YEAR.	EUROPEANS.	INDIANS.	CHINESE.	TOTAL ADMISSIONS.	TOTAL DEATHS.
1896	94	370	124	588	14
1897	99	320	107	526	7
1898	87	279	122	488	19
1899	117	421	154	692	16
1900	183	522	215	920	4
1901	202	521	214	937	8
1902	150	479	307	936	2
1903	130	431	198	759	5
1904	118	342	247	707	4
1905	109	416	201	726	10

Table VII.—*Sick Rate and Mortality Rate in the different Sections of the Police for the last ten years.*

Year.	EUROPEANS.		INDIANS.		CHINESE.	
	Sick Rate.	Mortality Rate.	Sick Rate.	Mortality Rate.	Sick Rate.	Mortality Rate.
1896...	89.52	0.95	172.89	1.40	40.52	3.26
1897..	94.28	0.95	146.11	1.37	35.54	0.99
1898...	77.67	3.57	123.45	1.32	41.78	4.10
1899...	104.46	3.57	151.98	1.08	47.09	2.75
1900...	135.50	...	147.40	0.57	57.02	0.40
1901...	160.31	3.17	147.17	0.56	52.97	0.49
1902...	123.00	0.84	131.90	0.80	76.90	...
1903...	115.04	...	124.56	0.57	54.69	0.82
1904...	92.91	1.57	96.33	0.28	54.52	0.22
1905...	81.96	2.26	117.51	0.84	41.61	0.81

Table VIII.—*Admissions into and Deaths in the Government Civil Hospital from the Police during each month of the year.*

	EUROPEANS.		INDIANS.		CHINESE.		Total Admis- sions.	Total Deaths.
	A.	D.	A.	D.	A.	D.		
Remaining on 31st December, 1904,	...	...	3	...	1	...	4	...
January, ...	11	1	27	...	5	...	43	1
February, ...	13	...	17	1	11	...	41	1
March, ...	2	...	35	...	11	...	48	...
April, ...	6	...	35	...	18	...	59	...
May, ...	13	...	22	1	18	...	53	1
June, ...	11	1	25	...	22	...	58	1
July, ...	12	1	40	...	19	2	71	3
August, ...	11	...	26	...	13	2	50	2
September, ...	7	...	37	1	25	...	69	1
October, ...	10	...	60	...	19	...	89	...
November, ...	8	...	55	...	23	...	86	...
December, ...	5	...	34	...	16	...	55	...
Total, ...	109	3	416	3	201	4	726	10

Table IX.—*Admissions for Malarial Fever from the most important Police Stations in the New Territory compared with strength.*

<i>Stations.</i>	<i>1901.</i>	<i>1902.</i>	<i>1903.</i>	<i>1904.</i>	<i>1905.</i>
Sha Tau Kok, ...	30.7	...	15.38	13.3	57.1
Ping Shan, ...	64.2	7.1	45.45	13.3	20.0
Sai Kung, ...	28.2	16.6	16.6	50.0	42.8
San Tin, ...	25.0	...	...	10.0	...
Tai Po, ...	70.0	50.0	33.3	27.2	16.6
Tai O, ...	10.0	10.0	11.1	10.0	...
Sha Tin, ...	25.0	...	12.5	33.3	...
Au Tau, ...	121.4	7.6	61.5	50.0	71.4
Sheung Shui, ...	63.6	20.0	9.0	...	...

Table X.—*Admissions for Malarial Fever from each Police Station during each month of the year.*

<i>Station.</i>	<i>Strength.</i>	<i>January.</i>	<i>February.</i>	<i>March.</i>	<i>April.</i>	<i>May.</i>	<i>June.</i>	<i>July.</i>	<i>August.</i>	<i>September.</i>	<i>October.</i>	<i>November.</i>	<i>December.</i>	<i>Total.</i>	<i>Percentage to Strength.</i>
Central	327	1	1	1	1	2	2	2	5	3	7	3	7	35	10.7
No. 1	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" 2	36	...	...	...	...	...	1	...	2	1	...	...	1	5	13.7
" 5	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" 6 (Peak) ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" 7	62	...	...	1	...	...	...	...	...	...	...	1	...	2	3.2
" 8	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mt. Gough	20	...	...	...	...	...	...	...	1	...	1	1	...	3	15.0
Bay View	10	...	...	...	...	...	...	...	...	1	2	1	...	4	40.0
Tsat Tze Mui	7	...	...	...	...	...	1	4	...	...	...	2	...	7	100.0
Quarry Bay	...	...	...	...	...	1	...	1	...	...	...	...	...	2	...
Shaukuivan	11	...	...	...	...	...	...	...	1	1	1	...	...	3	27.2
Shek O	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stanley	11	2	1	...	1	...	1	1	...	1	4	2	...	13	118.1
Aberdeen	16	...	...	1	...	...	1	3	2	1	3	4	...	15	93.7
Pokfulum	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kennedy Town ...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tsim Tsat Tsoi ...	189	...	...	...	...	...	...	...	...	...	...	...	1	1	0.52
Yaumati	33	...	...	...	...	...	...	...	...	...	1	...	...	1	3.09
Hunghom	17	1	...	...	...	...	...	...	...	...	...	...	1	2	11.7
Sam Shui Po	14	...	...	...	...	...	...	...	...	...	...	...	1	1	7.1
Kowloon City	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ping Shan	15	...	1	...	...	...	1	1	...	...	...	...	...	3	20
Au Tau	14	...	...	...	...	...	...	1	2	1	2	4	...	10	71.4
Sau Tiu	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheung Shui	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tai Po	12	...	...	...	...	...	...	...	...	...	2	...	...	2	16.6
Sha Ta Kok	14	...	...	...	...	...	...	...	...	...	3	4	1	8	57.1
Tai O	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tung Chung	7	...	...	...	...	...	...	...	...	...	2	2	...	4	57.1
Sha Tin	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sha Tin Gap	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sai Kung	7	...	...	...	...	...	...	...	...	...	...	1	2	3	42.8
Ta Kee Leung	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lamma Island	5	...	...	...	...	...	...	...	...	...	...	1	...	1	20
Cheung Chau	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Junk Bay	2	...	...	...	...	...	...	...	1	...	...	2	...	3	150
Total	...	4	3	3	2	3	7	13	14	9	28	28	14	127	13.09

Appendix.

NOTES ON CASES.

Abscess of Lung.—Death.

A Mercantile Marine Engineer, aged 48, was admitted to Hospital suffering from pleurisy of the left base. The signs were well marked and the disease ran the usual course during the next few days the effusion reaching up to the level of the angle of the scapula.

In about ten days' time this was all re-absorbed, and on examination the friction rub was still present along the base associated with patches of dulness, tubular breathing and coarse crepitations. The sputum was muco-purulent without any traces of blood at any time.

On the 15th day the sputum became most offensive and continued so up to the end. The lung signs cleared up except in one patch about the size of the palm of the hand where coarse sounds were present with dulness on percussion.

Shortly after the stools became frequent with much tenesmus, the stools consisting almost entirely of bloody mucus. Neither amœbæ nor tubercle bacilli were found.

From this onwards the disease fluctuated considerably, most of the symptoms disappearing for a spell and the patient was able to get up and lie in the verandah. On the 46th day, however, a bad turn occurred and the patient took to his bed and died on the 51st day.

No tubercle bacilli were at any time found in the sputum.

The temperature chart was always above normal but ran no particular course, being at times of a remittent and at others of an intermittent type, the highest registered being 103°.

Post-mortem.—Left lung affected. No fluid in pleural cavity. Base of left lung showed a localised pleuritic thickening. The lower lobe contains two cavities about the size of a marble communicating with one another full of most foetid puriform material, the cavities being lined with a thick pyogenic membrane. Patches of grey hepatisation were scattered over the lung round about the abscess cavity. Smears from the pus showed no pneumo-cocci nor tubercle bacilli but were full of ordinary micro-organisms. The other organs were healthy.

Remarks.—Non-pyæmic lung abscess is so extremely rare that this case is worth recording. The patient was in no special way unhealthy and it is very difficult to account for so serious a complication to an ordinary attack of pleurisy. The absence of tubercle bacilli and pneumo-coccus is also worth noting.

*Case of Chorion Epithelioma.**

The patient was a Russian, aged 36 years, a multipara, who was admitted to hospital on March 1st. She had had a normal labour three months previously at Port Arthur, the child being alive and well. 14 days after the confinement metrorrhagia and fever began and continued up to the time of her admission to the Government Civil Hospital. On examination the uterus was found to be fixed but was not much enlarged. The patient was very cachectic and had lost flesh. A soft mass protruded from the os which was patulous. The growth bled easily and the vagina had to be plugged for some hours after the examination. A piece was removed and examined by Dr. WILLIAM HUNTER, Government Bacteriologist, whose report is attached. During the patient's stay in hospital the temperature was of a continued type, ranging between 100° and 102° F. but occasionally rising above this. The bowels were freely opened and the stench around the patient was very offensive. Operation being considered to be out of the question the patient left the hospital a month after and eventually departed for Europe.

Report by Dr. HUNTER.—Microscopically the piece of tissue submitted to me for examination was not unlike placental tissue. It was soft and spongy and full of blood. Histologically the tissue was found to be made up of areas of free hæmorrhage, blood sinuses, and a peculiar parenchyma. No definite stroma was found. The greater portion of the mass was composed of extravasated blood and

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as a result of this copious masses of blood pigment were found in certain areas of the tissue, particularly in the areas of free hæmorrhage but also in the parenchyma. The blood sinuses were abundant. They varied in size, possessed delicate endothelial tunics, and were packed full of the formed elements of the blood. The parenchyma possessed a characteristic histogenesis and led me at once to the diagnosis. At first sight certain parts resembled a small round-celled and rapidly growing sarcoma, but this, on more careful examination, proved to be leucocytic accumulations in which were found phagocytes, polyhedral cells, large epithelioid cells, and diffuse plasmodium-like structures. The polyhedral cells arranged themselves into alveoli. The large epithelioid cells—some resembling giant cells—were scattered throughout the parenchyma arranged sometimes singly, sometimes in small groups. They contained nuclei varying in number and endowment with chromatin. The diffuse plasmodial masses were few in number but contained many nuclei. The most typical forms arranged themselves into a network containing the polyhedral cells and leucocytic accumulations already referred to. In certain sections evidence of hyaline metamorphosis was noted. From the histological appearance I am of opinion that the tissue is a rapidly growing chorion epithelioma. The various contained tissue elements, especially the parenchyma, and their arrangement are characteristic. The plasmodial masses are of the type of a well-defined syncytium. These were few in number but this is probably due to the subdivision of the syncytial masses into immense epithelioid cells with large nuclei. Such a metamorphosis is not infrequent in certain forms of chorion epithelioma.

Remarks.—The case seems worth recording as this form of malignant disease is not very common and certainly not common immediately following a normal labour. The diagnosis of malignant disease was easy enough for us but it is not easy to say when it became so, as presumably the fever and metrorrhagia were possibly put down to endometritis following the labour, though, on the other hand, the case may have been overlooked owing to the fall of the celebrated fortress and to the incoming medical men having their hands full of war casualties.

Case of Liver Abscess,—Death.

A Chinese male, aged 40, was admitted on August 26th. Patient looked very wasted and ill and stated that he had been ill for over a month with fever on and off but no very definite account of his illness could be obtained. All the internal organs seemed healthy save that the liver dulness was slightly increased downwards. There were a number of purpuric spots on his body of various sizes. Tongue very furred and dry; urine normal. A blood count taken by Lieut. RANKIN, R.A.M.C., was normal. The patient continued in much the same condition for a few days but getting weaker all the time and on the 4th day his temperature rose from subnormal to 104° . The purpuric spots increased in number and size and slight diarrhoea supervened, the stools being acholic but no amœbæ or tubercle bacilli were found microscopically. The tongue continued to become more furred and drier. On August 31st (6th day) he had a rigor with a rise of temperature to 104° . The liver was found to be increased in size downwards but not tender. A distinct swelling extended on the right side from the middle line to the mid-axillary line. This swelling had a peculiar emphysematous feel, heard as loud friction sounds by the stethoscope. The swelling was aspirated over the dull and resonant areas giving exit to air and a little blood. Blood count gave 14,000 white cells. Temperature was normal on the 1st September all day but rose on the 2nd to 102° in the evening. Jaundice now came on and the liver dulness was aspirated but without any pus being found. Jaundice rapidly increased and the patient died on the 5th September.

Post-mortem.—All the organs, except the liver, were healthy. This organ was increased in size, extending two fingers' breadth below the ribs. In the right lobe was a large well defined mass about the size of a large orange extending to within $\frac{1}{2}$ inch of surface, the mass being composed of thick cheesy material. Below and behind this mass and continuous with it was a small abscess cavity about the size of a coffee cup. The lining membrane of the abscess and the cut surface of the mass teemed with living amœbæ. The large intestine was quite normal and showed no signs of old or recent dysentery. No signs were found to account for the emphysematous condition.

Remarks.—This was a most puzzling case. The absence of amœbæ in the stool or of any history of dysentery negatived a liver abscess, more especially as the liver dulness was not much increased and there was no tenderness present at

any time. The advent of the ill-defined swelling in the abdomen with emphysema suggested the possibility of an abscess due to ruptured duodenal ulcer, the abscess cavity being shut off by adhesions. Nothing was found post-mortem to account for this peculiar crackling which I have never seen or heard of before. The inspissation of such a large abscess is most unusual, if not unique and would have made it impossible to treat the case, if it had been diagnosed, as the pus was quite solid. Presumably the amœbæ reached the liver without first attacking the large intestine—a most interesting fact.

*Femoral Aneurism. Intraperitoneal Ligature of External Iliac.
Incision of Sac. Recovery.*

A Chinese coolie from South Africa, aged 56, was admitted on August 6th with a very large swelling over the right femoral artery. The skin over the tumour was very red and thin threatening at any moment to rupture. Expansile pulsation was easily made out and a soft blowing murmur was heard all over the tumour.

The following day under chloroform, as it was found difficult if not dangerous to tie the artery above Poupart's ligament, an incision was made in the right semilunar line, the intestines held out of the way and the external iliac easily tied with silk when the pulsation at once ceased. The abdominal incision was closed with six silk sutures.

Owing to the constant pain complained of over the sac 3 days after the patient was again placed under chloroform the sac freely incised and the recent blood clot herned out. Part of the sac only was dissected out and the hole plugged with glutol.

On the 5th day as the incision had healed the stitches were removed but next day the patient sat up in bed and a violent fit of coughing opened up the wounds. Under chloroform the intestines were at once returned and the incision closed again with silk sutures.

The after progress of the case was most satisfactory the incision healing well and firmly and the sac shelling out under glutol dressings. The patient left in due course for his home in North China.

Remarks.—This was an extraordinary large aneurism being about double the size of an orange. No history was obtainable as to injury and the patient stated that he first noticed it six months previously.

Short Notes on Cases of Liver Abscess.

As these cases are of great interest I think it as well to append short notes of each case.

1. European male, aged 49, from Philippine Islands. Ill for two months. No previous dysentery or bowel complaint. Liver much enlarged and painful. Rigors and high fever. Stool examined but showed no amœbæ or other abnormality. Blood count gave red cells 3,400,000, white cells 13,000, *i.e.*, 1 to 269. Large abscess cavity opened 48 hours after admission. Fatal. Post-mortem, only a single large abscess found teeming with amœbæ, no signs of old or recent ulceration in the intestines.

2. Chinese male aged 40. Ill for a month. Liver increased in size. Blood count red cells 4,160,000, white cells 8,000, *i.e.*, 1 to 520. Liver aspirated with negative results. Fatal. Post-mortem, large abscess full of inspissated pus with small cavity behind containing liquid purulent contents. Both abscesses teeming with amœbæ. No signs of old or recent dysentery.

3. European male, aged 36, resident in the Colony. Ill for 2 years on and off with dysentery. Patient very ill on admission with enormously enlarged liver and dysentery stools full of amœbæ. Abscess at once opened but case ended fatally. Post-mortem, a large abscess found on liver, smears from which showed numerous amœbæ. Large intestine much thickened and covered with small superficial ulcers smears from which also showed numerous motile amœbæ. No blood count made.

4. European aged 39, resident in the Colony. Admitted with dysentery and amœbæ in the stools. No malaria, signs of hepatitis supervened. Blood count gave red cells 3,861,000, white cells 9,333, *i.e.*, 1 to 413. Abscess located and opened. Pus full of amœbæ. Patient still in hospital.

Annexe C.

REPORT OF THE MEDICAL OFFICER IN CHARGE OF THE VICTORIA HOSPITAL FOR WOMEN AND CHILDREN.

ADMISSIONS, DISEASES AND DEATHS.

The total number of admissions to the Victoria Hospital for Women and Children during 1905 was 212, including 9 carried forward from 1904. In 1904 the total number was 133.

Table I shows in detail the diseases and causes of death during the year.

The 212 persons admitted may be classified thus :—

(1) According to Age :—	
Under 3 years, ...	57
Between 3 and 12 years, ...	33
Over 12 years, ...	122
	90
(2) According to Nationality :—	
Europeans, ...	182
Asiatics, ...	30
(3) For purposes of payment :—	
Government Servants, ...	6
Wives of Government Servants, ...	34
Private Paying Patients, ...	99
Free Patients (chiefly young children), ...	72
Police Case, ...	1

All the cases of Malaria were from outlying parts. The 2 Tertian cases came from Stanley; the Quartan case from Macao; and the 10 Malignant cases from Morrison Hill Road (3 cases), Leighton Hill Road, Bay View, Shaukiwan, Kowloon Water-works, Kowloon City (2 cases), and the mainland. All made good recovery.

Nine deaths occurred, giving a mortality rate of 4.25 per cent. Four of the nine fatal cases were moribund at admission, and died within 24 hours.

OPERATIONS.

The following operations were performed :—

Circumcision, ...	3
Cervical Glands, ...	1
Curetting, ...	1
Dilatation of Cervix Uteri, ...	1
For Adherent Prepuce, ...	1
For Inguinal Hernia (radical), ...	2
Tonsillotomy, ...	1
Tracheotomy, ...	1
Vaccination, ...	5

Besides the above, there were many cases requiring incision of boils and abscesses, especially among children, and in several of the parturition cases operative measures were necessary.

Table II shows the average daily number of inmates of the Hospital during monthly periods throughout 1904 and 1905. It seems probable from the experience of the first two years that the Victoria Hospital will be increasingly appreciated during the hot months, but that during the colder season the classes who chiefly avail themselves of it will continue to prefer treatment at the Government Civil Hospital, where they can more conveniently be visited by relatives and friends.

STAFF.

The Honourable Dr. J. M. ATRINSON was in charge of the Hospital until 15th March, when he left the Colony on leave.

Sister MILLINGTON and Sister LEE have been on duty throughout the year, except that Sister MILLINGTON was warded from 8th June to 12th June, and from 16th June to 7th July, suffering from the effects of a snake-bite.

The Probationers have been changed periodically, doing duty alternately at the Victoria Hospital and the Government Civil Hospital. From 10th June to 30th November it was found necessary to have three, instead of two, probationer nurses on duty.

BUILDINGS.

The Hospital buildings are in good repair, and in good sanitary condition.

FEES.

The total Fees received during 1905 was \$4,394.34.

J. C. THOMSON, M.D., D.T.M., D.P.H.

Table I.

DISEASES *and* DEATHS AT THE VICTORIA HOSPITAL *in* 1905.

DISEASES.	Remain- ing in Hospital at end of 1904.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1905.	Remarks.
		Admissions.	Deaths.			
GENERAL DISEASES.						
Whooping Cough, ...	...	1	...	1	...	
Diphtheria, ...	...	2	...	2	...	
Febricula, ...	...	1	...	1	...	
Dysentery, ...	...	9	1	9	2	
Malarial Fever :—						
1. Quartan, ...	...	1	...	1	...	
2. Simple Tertian, ...	...	2	...	2	...	
3. Malignant, ...	...	10	...	10	...	
Septicæmia, ...	...	1	1	1	...	
Tubercle, ...	...	4	1	4	...	
Syphilis :—						
(a.) Secondary, ...	...	1	...	1	...	
(b.) Inherited, ...	...	2	...	2	...	
Gonorrhœa, ...	1	...	...	1	...	
Rickets, ...	...	1	...	1	...	
Scurvy, ...	...	1	...	1	...	
Alcoholism, ...	...	2	...	2	...	
Rheumatism, ...	...	3	...	3	...	
New Growth, malignant, ...	...	1	1	1	...	
Anæmia, ...	...	13	...	13	1	
Debility, ...	...	5	...	5	...	
LOCAL DISEASES.						
Diseases of Nervous System.						
SUB-SECTION 1.						
Diseases of the Nerves :—						
Neuritis, ...	...	2	...	2	...	
Meningitis, ...	...	1	1	1	...	
SUB-SECTION 2.						
Functional Nervous Disorders :—						
Apoplexy, ...	1	...	...	1	1	
Paralysis, ...	...	1	...	1	...	
Neuralgia, ...	...	1	...	1	...	
Hysteria, ...	...	1	...	1	1	
SUB-SECTION 3.						
Mental Diseases :—						
Melancholia, ...	...	1	...	1	...	
Diseases of the Eye, ...	1	...	...	1	...	
" " Circulatory System, ...	...	2	1	2	...	
" " Respiratory System, ...	...	11	1	11	...	
" " Digestive System, ...	...	21	...	21	...	
" " Lymphatic System, ...	...	2	...	2	...	
" " Urinary System, ...	...	1	...	1	...	
" " Generative System :—						
Female Organs, ...	1	6	...	7	...	
" " Organs of Locomotion, ...	...	2	...	2	...	
" " Cellular Tissue, ...	...	8	...	8	...	
" " Skin, ...	...	4	...	4	...	
Injuries :—						
Local, ...	...	1	...	1	...	*
Poisons, ...	...	2	...	2	...	†
Parturition, ...	2	13	1	15	1	‡
In Attendance and under Observation, ...	3	63	1	66	1	§
Total, ...	9	203	9	212	7	

* Scald.

† 1 Snake-Bite. 1 Paint Poisoning.

‡ Fatal case due to Shock, consequent on extreme General Debility.

§ Includes infants born in the Hospital, persons attending on small children, and cases admitted for quarantine observation. Fatal case was a prematurely born infant.

Table II.

Average daily number of Inmates of the Victoria Hospital during each month of the years 1904 and 1905.

Period.	Average daily number in Hospital.	Period.	Average daily number in Hospital.
<i>1904.</i>		<i>1905.</i>	
January, ...	3.39	January, ...	8.39
February, ...	6.65	February, ...	9.32
March, ...	3.74	March, ...	4.84
April, ...	5.63	April, ...	2.33
May, ...	6.48	May, ...	6.58
June, ...	4.90	June, ...	13.87
July, ...	6.87	July, ...	18.03
August, ...	10.13	August, ...	26.03
September, ...	8.53	September, ...	17.30
October, ...	6.13	October, ...	15.55
November, ...	9.10	November, ...	11.43
December, ...	5.13	December, ...	6.67

Annexe D.

REPORT OF THE MEDICAL OFFICER IN CHARGE OF THE
GOVERNMENT LUNATIC ASYLUMS.

ADMISSIONS.

On reference to Table I it will be seen that the admissions numbered 160—118 being males and 42 females. This number is very slightly below that of the previous year—166, and practically the number has been constant for the past three years.

The following are the admissions for the past 7 years :—

1899, ...	78
1900, ...	109
1901, ...	90
1902, ...	120
1903, ...	155
1904, ...	166
1905, ...	160

The total number of cases under treatment during the year amounted to 177, of whom 148 were discharged on recovery or repatriated, and 7 died, leaving a total of 22 cases under treatment on the last day of the year.

Owing to the system of repatriation in force it is extremely difficult to calculate the recovery-rate in figures, as we unfortunately are unable to keep the native patients under observation for any length of time. It is, however, as well as one can make out, somewhat low.

NATURE OF DISEASES.

These were of the usual nature. The more acute diseases, namely, those which usually give greater hopes of recovery, such as acute mania and acute melancholia are few in number. The cases of acute mania, with the exception of one, singularly enough, occurred among the Chinese, whose mentality is equilibrated on a very stable and stolid basis. This variety of mental disease is generally caused by, or at any rate, accompanies the rush and turmoil of existence when the senses have to be keen and the emotions are highly strung and the intellectuality is sharpened. Evidence of this is seen in the admission returns of the mental institutions in Western countries. With the well-known mental characteristics of the average Chinese, however, especially their strong will-power and self control, we do not expect these acute mental disorders. Rather, they drift, when the mind becomes affected and unhinged into chronic conditions of alienation, such as chronic mania and melancholia and dementia—such states as seem scarcely ever to readjust themselves or even to approach the normal.

Fourteen cases were admitted suffering from delusional insanity a condition, that is to say, where the patient retains strong active and fixed delusions but is free from manifestations of mania or melancholia. Sometimes, as in one case here, this may pass into a condition of acute delirious mania, but on the other hand, and perhaps more usually, it terminates in a condition of dementia.

Epilepsy does not seem common among the Chinese, only one case occurring among them to two among Europeans.

Cases of alcoholic insanity bulk largely among the admissions; these I will refer to in the next paragraph.

On reference to Table II it will be seen that 33 males and 1 female were admitted suffering from alcoholism, that is, from the direct result of the abuse of alcohol—a percentage of 28 among the males on the number of mental cases admitted. Apart from these cases I was able to trace clearly, in many of the cases of chronic mania, melancholia

and delusional insanity among the women as well as among the men, the effect of alcohol as a causative factor. Altogether the misuse and abuse of alcohol may be considered the principal, and perhaps the leading, factor in the production of mental derangements, especially among the outlanders in this Colony. The type of disease produced varies from cases of delirium tremens too severe to be fit for treatment in the wards of a general hospital, to typical cases of alcoholic insanity. It will be noticed that England, Scotland and China contribute each a fifth of the cases, and Ireland and India about a tenth. The reason for this excessive indulgence in alcohol which so often leads to such disastrous results in persons of unstable mental equilibrium is perhaps not very difficult to seek: for it is an undisputed fact that the abuse of alcohol is common in this Colony especially among the wage-earning classes and a certain section of sea-faring folk. I may mention incidentally that I have seen more cases of alcoholic insanity and more cases of excessive alcoholic indulgence during my short period of service in this Colony than I have seen in a longer period of service in another Colony. The reason then most generally assigned is that the climate here is enervating and that in consequence the system requires bracing up. This idea combined with the well-known camaraderie among a set of men earning a precarious livelihood, often out of work, always isolated and bereft of home ties, must lead to excessive alcoholic indulgence and this in its turn surely leads to mental derangement. It cannot be too strongly insisted upon that if the climate is bad the means adopted to counteract its effects are worse and but augment its injurious effects, if any. Total abstainers and moderate drinkers, that is, those that drink with discretion, come off best.

DEATHS.

These amounted to 7—of whom 6 were males and one female, giving a percentage on cases treated among the males just under 4 per cent. and among the women just over 2 per cent.

The immediate cause of death was as follows. Two males succumbed to exhaustion supervening on chronic mania. The patient who suffered from melancholia attempted suicide before she was admitted into the Asylum by inflicting wounds on her neck with a pair of scissors. These wounds apparently superficial set up extensive and deep seated cellulitis which proved fatal. One male suffering from dementia died of acute pleuritis, and one suffering from idiocy contracted pulmonary tuberculosis prior to admission which carried him off. One patient suffering from acute alcoholism suddenly and without warning developed extravasation of urine. He made no previous complaint nor were we led to suspect that such a condition might supervene. He succumbed in spite of the most active treatment. One male patient under observation with reference to his mental condition was suffering from pericarditis which proved fatal.

OCCUPATION OF PATIENTS.

The occupation of those under treatment during the year is stated in Table III as far as ascertainable.

It is a great pity that the patients, both Europeans and Chinese, display a strong disinclination to work or to keep themselves occupied in some way that would distract their thoughts and take them out of themselves. Work and occupation as a means of treatment are well recognised in all English Asylums and have been found effective in ameliorating the mental condition of such as are able to undertake the one or the other. Our resources in this respect are limited, but we find European patients are particularly intractable. It is all we can do to induce the native patients to undertake a little gardening from time to time.

BUILDINGS.

New water-closets were put in both Asylums.

New hardwood flooring was put down in Receiving Room and Wardmaster's Quarters.

STAFF.

I took over charge on June 16th, 1905, *vice* Dr. LAING.

Wardmaster MCKAY was sent from Kennedy Town Hospital in June and was transferred to the Harbour Department in December.

Several minor changes occurred among the junior staff.

W. V. M. KOCH, M.D.

Table I.—DISEASES and DEATHS.

DISEASES.	Remain- ing in Hospital at end of 1904.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1905.	Remarks.
		Admissions	Deaths.			
GENERAL DISEASES.						
Malarial Fever :—						
Simple Tertian, ...	...	1	...	1	...	
Malignant, ...	...	1	...	1	...	
Alcoholism, ...	1	34	1	35	2	
LOCAL DISEASES.						
Diseases of Nervous System.						
SUB-SECTION 2.						
Functional Nervous Disorders :—						
Epilepsy, ...	...	2	...	2	...	
SUB-SECTION 3.						
Mental Diseases :—						
Idiocy, ...	1	...	1	1	...	
Mania, ...	7	46	2	53	12	
Melancholia, ...	...	10	1	10	...	
Dementia, ...	8	44	1	52	6	
Delusional Insanity, ...	...	12	...	12	1	
Diseases of the Circulatory System, ...	...	1	1	1	...	
Injuries, ...						
Under Observation, ...	...	7	...	7	1	
Total, ...	17	160	7	177	22	

Table II.—Birth-places and Diseases of those under Treatment.

NATIVE OF	MANIA ACUTE.		MANIA CHRONIC.		MELAN-CHOLIA.		DELUSIONAL INSANITY.		DEMENTIA.		EPILEPSY.		IDIOCY.		ALCOHOLISM.		OBSERVATION.		TOTAL.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
England, ...	..	..	2	..	1	..	4	..	..	1	1	..	..	..	7	..	1	..	16	..
Scotland, ...	..	..	..	..	..	1	..	..	..	..	..	..	..	..	7	..	..	..	8	1
Ireland, ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	3	..
France, ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Russia, ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Germany, ...	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	..
Austria, ...	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
Netherlands, ...	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
Wales, ...	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
U. S. A.	1	..	..	1	..	..	..	1	..	..	..	..	..	..	2	..	..	..	3	2
China, ...	6	7	19	11	2	3	3	1	30	15	1	..	..	..	7	4	..	..	75	42
India, ...	..	..	..	..	..	..	..	..	2	..	..	..	..	..	3	..	..	..	7	..
Japan, ...	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Hongkong, ...	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2	..
Straits Settlements, ...	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Macao, ...	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	3	1
Manila, ...	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..
Chili, ...	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
New Zealand, ...	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..
S. America, ...	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..
	7	7	25	12	3	5	12	2	37	15	3	..	1	..	33	1	10	4	131	46

Table III.—*Occupations of those under Treatment.*

MALES.		FEMALES.	
Actor, ...	1	Boatwoman,.....	1
Barber, ...	2	Coolie, ...	4
Beachcomber, ...	1	Housewife, ...	5
Boatman, ...	1	Unclassified (for the most part coolies, housewives, &c.),.....	36
Boy (Servant), ...	1		
Catechist, ...	2		
Chemist, ...	2	Total,.....	46
Clerk,.....	6		
Commercial Traveller, ...	1		
Constable, Police, E. & I., ...	2		
Cook, ...	1		
Coolie, ...	62		
Draughtsman, ...	3		
Engineer, ...	5		
Foreman, ...	1		
Hawker,.....	1		
Interpreter, ...	1		
Laundryman, ...	1		
Mason, ...	1		
Medical Practitioner,.....	1		
Overseer, ...	2		
Seamen,.....	14		
Sanitary Inspector, ...	1		
School Boy, ...	1		
Shop Clerk, ...	1		
Stone Mason,.....	1		
Stenographer, ...	1		
Telegraphist,.....	1		
Tidewaiter, ...	1		
Toymaker, ...	1		
Watchman, ...	2		
Wardmaster,*	1		
Unclassified, ...	8		
Total,.....	131		

* This patient was under treatment for digestive trouble, and was classified as being under observation.

Annexe E.

REPORT OF THE MEDICAL OFFICER IN CHARGE OF THE
HOSPITALS FOR INFECTIOUS DISEASES.

During the year 1905 a total of 43 cases were under treatment for various infectious diseases.

A list of these diseases is shewn in Table II. A large majority of the patients suffered from Plague—27 males and 6 females. Four patients were admitted with Relapsing Fever, remarks on which cases will be found later on in this report. Two cases of Diphtheria were admitted. These were of an extremely mild nature and but for a bacteriological nature would have been pronounced cases of mild sore throat; they did well and recovered completely without any sequelæ. Two cases were admitted reported to be suffering from Plague, these were diagnosed to be suffering from Tubercular Adenitis, and Suppurative Adenitis. The case of Acute General Miliary Tuberculosis was sent to the Hulk "Hygeia" in a very early stage, suspected to be a case of incipient Small-pox: this disease, however, not developing the patient was transferred to Kennedy Town Hospital where he succumbed.

PLAGUE.

The outbreak during the year was not so extensive and widespread as in former years, but the type of disease was more severe and the mortality high. The cases notified officially amounted to 304—and of these only 33 came under treatment in this hospital—26 males and 7 females; and 45 cases in the Tung Wah Plague Branch.

Varieties of the Disease.

Only two varieties occurred among the cases admitted—the Bubonic and the Septic—28 cases of the former being 85%, and 5 cases of the latter being 15%. No cases of Pneumonic or intestinal Plague were admitted. The Bubonic variety seems to have been especially prevalent in the Colony, for I find on examining the figures supplied me by Dr. PEARSE, the Medical Officer of Health, that 226 of the 304 notified cases were of this variety.

Incidence on Males and Females.

Males as usual were affected in a greater proportion than females, 26 males having been admitted as against 7 females—78% and 22% respectively.

Incidence as regards Age Period.

The numbers are too small to be dealt with effectively, or to draw conclusions from. Table VII shews the age period in each variety. It will be seen (1) that most of the cases occurred between the ages of 11 and 35, (2) that Septic Plague occurs at earlier age periods than Bubonic.

Variety of the Disease in relation to Sex.

Among the males 23 suffered from Bubonic Plague and 3 from Septic Plague: among the females, 5 had Bubonic Plague and 2 Septic:—

Males—Bubonic Plague,	.....	70.0	per cent.
Septic	„	9.0	„
Females—Bubonic	„	15.0	„
Septic	„	6.0	„

Mortality.

The disease was of great severity, as shewn (1) by the apparently rapid onset, (2) by the very short duration of the illness, (3) and by the extensive pathological changes found after death. These changes were especially in the direction of hæmorrhagic extravasations

into the tissues and around the lymphatic glands and also under the serous membranes, retroperitoneal, sub-epicardial, &c. In the females there was intense congestion of the endometrium and of the mucous membrane of the Fallopian Tubes.

The mortality rate was for males 80 per cent., for females 85 per cent., with a total percentage of deaths about 82 per cent.

Mortality with reference to Variety.

Of the Bubonic variety 85 per cent. died, of Septic cases 60 per cent. It will be noticed that the Bubonic variety was more fatal.

Mortality with reference to Age Period.

The disease is equally fatal at all age periods.

Presence of Bacilli in the Blood as a means of Diagnosis.

Last year I drew attention to the fact that the presence of the Plague bacilli in the peripheral blood was somewhat capricious and that their absence could not be held to negative a diagnosis of Plague in the presence of symptoms. I have again this year made an investigation into this subject and have carefully examined the peripheral blood in 28 cases. I found that in the Bubonic variety the bacillus pestis was absent from the peripheral circulation in 15 cases, and present in 8 cases, and in the Septic variety the bacillus was absent in 3 cases and present in 2.

It is also noticeable that the bacillus pestis cannot always be found in the peripheral blood immediately preceding death. I paid special attention to the examination of the blood of the cases that die. I was able to find the bacillus in 8 cases, and was satisfied that they were absent in 19 cases. These were all typical cases of Plague, for an anatomical examination was made in each case and diagnosis confirmed.

Spleen Puncture as an aid to Diagnosis.

The presence of the bacillus pestis in the peripheral blood thus not being always to be counted upon and consequently not being always available as a means of diagnosis, I have in a certain number of cases which were doubtful employed spleen puncture. The bacilli are not, however, always present in the spleen. Thus in an examination of 25 cases very shortly after death the bacillus pestis was present in the spleen in 16 cases, and could not be found in 9 cases. In spite of this, however, I consider that a combination of the two methods of examination enable a satisfactory opinion to be formed.

Focus of Infection.

In the very large majority of cases we are unable to point with clear evidence to a focus of infection, but knowing Plague to be an infectious disease we are driven to conceal our ignorance by the term cryptogenous infection. In the following four cases I was able to trace what I considered to be a focus of infection:—

- (1.) Male.—Right Femoral Bubo. Patient has two or three small pustules on shin which on examination were found to be crowded with Plague bacilli. This patient died.
- (2.) Male.—Right Axillary Bubo. There was a small necrotic patch about the size of a shilling a little outside and in a line with right nipple. This was caused by an injury, plague bacilli were found in it, and the bubo developed two days after. Patient recovered.
- (3.) Female.—Right Femoral Bubo. A large vesicle was found in 2nd right toe, in which Plague bacilli were found. Death.
- (4.) Male.—Right Femoral Bubo. Vesicles were found over right shin and plague bacilli were found. Patient died.

Significance of the Maturation of the Bubo.

As far as I have had an opportunity of observing, maturation of the bubo and early incision and evacuation is a favourable element in prognosis, should Plague bacilli be absent from the discharge. In five cases of Bubonic Plague the bubo matured, in two of these there were no Plague bacilli in the pus—they recovered: in two Plague bacilli were present—they died.

Resolution of the Bubo.

This occurred in one case—a male with a left axillary bubo. The bubo resolved and the patient ultimately recovered. The import of such resolution of a bubo seems favourable.

Treatment of Plague.

It must be confessed with regret that no advance has up to now been made in the treatment of Plague. No drug has yet been put forward which could act as a specific, no serum has been elaborated which can act as a preventive or a curative agent. We are driven back to allowing Nature to initiate her own defences and can only assist her by measures tending to keep up the strength of the patient. How weak are these measures the heavy mortality shews. Judging from analogy a serum would seem to afford the most rational means of combating the disease, and for this we have to look to the Laboratory worker. During the year I have been able to put Yersin's serum again to the test. A fresh supply was obtained and used extensively. Twenty-two cases were treated, and three recovered. Auxiliary means of treatment were also employed in order to enhance the chances of recovery and they must share in the credit of the recoveries. Through the kindness of Dr. WOOLLEY, Director of the Serum Laboratory in Manila, Dr. RUEDIGER of that institution sent me some serum prepared by himself. I used it in four cases at the end of the season. The cases were in a desperate condition and did not recover. The utility of the serum, therefore, has not had a fair test. Appended is a list of the cases treated by Yersin's serum, number of doses injected and the result:—

Male.—R.F.B. 1 injection, 20 c.c. 14 hours before death—Died.
 Male.—Septic. 1 injection, 20 c.c. 2 hours before death—Died.
 Male.—R.F.B. 2 injection, 10 c.c. each time, 5 hours and 2 hours before death—Died.
 Female.—L.F.B. 1 injection, 20 c.c. 5 hours before death—Died.
 Male.—Rs and L.F.B. 3 injections, three successive days. 20, 20, 25 c.c.—Died.
 Male.—Septic. 4 injections on successive days, 20, 25, 20, 20 c.c.—Recovered.
 Male.—R.A.B. 4 injections on successive days, 20, 25, 20, 20 c.c.—Recovered.
 Male.—L.F.B. 1 injection, 20 c.c. 9 hours before death—Died.
 Male.—Septic 4 injection, on successive days 20 c.c. each time—Recovered.
 Male.—L.F.B. 2 injections on successive days 20 c.c. each—Died.
 Male.—Septic. 4 injections on successive days, 20 c.c. each time—Died.
 Male.—R. and L.F.B. 1 injection, 20 c.c. the day before death—Died.
 Female.—Septic. 1 injection, 20 c.c. 24 hours before death—Died.
 Female.—L.F.B. 1 injection, 20 c.c. 11 hours before death—Died.
 Male.—R.F.B. 1 injection, 20 c.c. 18 hours before death—Died.
 Male.—R.F.B. 2 injections, 20 c.c. each time on successive days—Died.
 Male.—R.A.B. 3 injections, in two days, 20 c.c. each time—Died.
 Male.—L.F.B. 7 injections, 20 c.c. each time, first and last day, 40 c.c.—Died.
 Female.—R.F.B. 3 injections. 20 c.c. each time within 36 hours—Died.
 Female.—Septic. 2 injections, 20 c.c. each time—Died.
 Male.—L.F.B. 3 injections, 20 c.c. each time—Died.
 Male.—R.F.B. 1 injection, 20 c.c.—Died.

In all 52 injections were given.

Bubonic cases—Recovered,	Male	1	;	Female	0
Died,	„	12	„	„	3
Septic cases—Recovered,	„	2	„	„	0
Died,	„	2	„	„	2

It will be seen that the results this year confirm those of last year as regards the use of serum (Yersin's), and that an efficient and effective curative serum remains to be discovered.

SMALL-POX.

Forty-eight cases were admitted for treatment—of these, 43 were males and 5 females. According to nationality there were :—

European	Males	21 ;	Females	1.
Chinese	„	18	„	4
Indian	„	3	„	0
Filipino	„	1	„	0
		<u>43</u>		<u>5</u>

Variety of Small-Pox.

The usual varieties were prevalent in the following proportion :—

	<i>Discrete.</i>	<i>Confluent.</i>	<i>Hæmorrhagic.</i>
Males—European, ...	15	5	1
Chinese, ...	13	5	0
Indian, ...	3	0	0
Filipino, ...	1	0	0
	<u>32</u>	<u>10</u>	<u>1</u>
Females—European, ...	0	1	0
Chinese, ...	3	1	0
	<u>3</u>	<u>2</u>	<u>0</u>
Total, ...	<u>35</u>	<u>12</u>	<u>1</u>

Deaths.

The deaths numbered eight and were :—

Europeans :—Males,	{ Confluent	4
	{ Hæmorrhagic	1
Female,	Confluent	1
Chinese :—Male,	Do.	1
Female,	Do.	1
		<u>8</u>

Vaccination and Small-Pox.

The days when the efficacy of vaccination as affording a means of protection against small-pox was questioned are practically past. It is universally conceded that vaccination is in the great majority of cases protective—should, however, the vaccinated person be attacked by small-pox it has been proved (1) that the attack is comparatively mild, and (2) that mortality is much reduced. It must be remembered that sometimes an attack of small-pox may supervene on recent successful vaccination, but careful enquiry reveals that the disease was incubating when the vaccination was performed. In such a case both run through their regular course, but the attack of small-pox is generally mild and modified, and there is no tendency to a fatal issue. Should, however, the attack of small-pox be well established vaccination in the course of the disease, as well as after it, proves unsuccessful. This fact is used as a means of differential diagnosis when there is any doubt as to the case; if vaccination is successful the case is probably not small-pox. Some doubt has been recently thrown on this method of diagnosis in the medical papers, and cases have been brought forward shewing that vaccination may be successful after small-pox has begun. These exceptional cases were very few in number, and can scarcely be accepted as sufficient to overturn our own experience here, which is, that when small-pox is established vaccination proves unsuccessful.

Table I shows the condition as regards vaccination in relation to variety.

Number of Vaccination Marks in Patients who died.

European Males.....	Confluent Small-Pox.	No. of Marks, 1	.....	Death, 1
	Do.	2	.....	2
	Do.	0	.....	1
	Haemorrhagic Small-Pox.	0	.....	1
European Female ...	Confluent Small-Pox.	0	.....	1
Chinese Male	Do.	0	.....	1
Chinese Female	Do.	0	.....	1
				8

Treatment.

All severe cases are kept under the influence of red light, and large doses of carbolic acid have been used. By this means pustulation seems to be modified, and pitting is not so severe. In addition, symptomatic treatment is resorted to.

RELAPSING FEVER.

Notes on Cases.

On the 10th January, 1905, eight patients were sent to the Hospital Hulk "Hygeia" from the emigrant steamer "Cranley" which was *en route* to South Africa with coolies from Chin-Wan-Tao for the Gold Fields. Five of these cases were suffering from small-pox unmistakably. The other three had a high temperature, a quick pulse, intense back-ache, headache and general aching over the bones and joints. The respiration was quickened, the tongue was dirty. It was thought that these cases were cases of incipient small-pox, and this opinion gained strength from the occurrence of undoubted cases of that disease. As however the illness had lasted seven days and there was no definite evidence of the existence or onset of small-pox I thought it advisable to examine the blood microscopically. Numerous spirilla were found, and there was no evidence of any malarial infection. These cases ran a characteristic course and the spirilla were found every day in the blood during the persistence of the high temperature.

Course of the Cases:—

First Case—Fever 7 days, Remission 5 days, Fever 4 days,—Recovery.

Second Case—Fever 12 days, No remission,—Recovery.

Third Case—Fever 12 days, Remission 3 days,—Sudden death.

I am unable to state exactly that the duration of the primary attack of fever was in each case accurate, because no information was supplied me by the ship's authorities, and I had to rely upon the statements of the patients.

The temperature in no case rose above 105° F. It was steady, was practically uninfluenced by antipyretics and quinine, and was only slightly modified by cold sponging and that but temporarily.

The treatment adopted was the administration of ordinary diaphoretics: antipyretics and quinine were tried, but without effect and digitalis and strychnine were given whenever the heart shewed signs of flagging.

The case that succumbed suffered slightly from chronic bronchitis. He had passed through 12 days of fever, and was in the third day of his remission. He seemed to be doing well, was quite cheerful and lively. He ate a hearty breakfast and fell back dead in his bed. Owing to the interesting nature of the case I detail the record of the post-mortem examination which was made about 6 hours after death.

Post-mortem examination.—Body well nourished. Vaccination positive. No post-mortem rigidity and very little lividity. Small chronic ulcer over Right Trochanter about the size of a twenty-cent piece, with a necrotic base and a slightly inflamed area around it. A small quantity—one drachm—of clear straw coloured serum in pericardial sac. Blood very fluid and watery—straw coloured except in mass. *Heart*—no epicardial petechiae, slight amount of epicardial fat. Weight 10 oz. Heart muscle pale. Aortic valves normal, also mitral valves. No atheroma. Dilatation of right ventricle—walls thin—valves normal. Left ventricle, walls thin. Pulmonary valves normal. *Lungs*—Left Lung, 12 oz.—some chronic bronchitis, no consolidation, no pleurisy. Right Lung

in similar condition, weight 10 oz. *Spleen* enlarged, weighs 22 oz. Very small scattered circular areas, pale with red centre, shining through capsule, about the size of a split pea. On section these extend into the spleen substance $\frac{1}{16}$ inch, and are pale in colour and soft. They are produced by the blocking up of the final ramifications of the terminal arteries. *Liver* weighs 76 oz., is the subject of fine cirrhosis, and of a certain amount of congestion. Otherwise no abnormality. *Kidneys. Right*, 8 oz., slight cyanotic induration, otherwise normal. *Left*, in same condition. *Stomach and Intestines* normal. *Mesenteric glands* not enlarged. No enlargement of *superficial lymphatic glands*. *Brain* weighs 47 oz., is normal. *Bone marrow* normal. No spirilla were found in the blood or smears from organs. Cause of death—Heart Failure.

General Symptoms.—The high temperature maintained for some days and accompanied by severe backache and headache and pains in the limbs and joints, were most noticeable. The *Tongue* became coated with a brownish fur, thick and moist at first, but becoming blackish and dry before the approach of the crisis, soon after which it began to get moist and to clear. The *Pulse* was quick, with a tendency to dicrotism. About 20 hours before the crisis the *respiration* became affected—it was oppressed, and the patient had an anxious expression, pointed to his chest and indicated that he found it difficult to draw his breath. As soon as the crisis passed, however, all this quickly subsided, and the breathing became easy and normal. The *Spleen* was found to be enlarged and tender, and there was also some tenderness over the region of the *Liver*. The *Skin*, even in the Chinese, was noticeably yellow, as were also the *conjunctivæ*. The *urine* was not increased in amount, it shewed a slight increase in urates, but no blood or albumin was present. Apart from these symptoms and signs, none presented themselves that called for particular comment, and were such as usually accompany elevation of temperature—except in one instance which will be detailed further on.

An important note in connection with these three cases is to be made. Two cases remitted on January 14th, the third on January 24th: the Office-boy of the hospital who saw the patients frequently, and helped to coax mosquitoes to feed on them, but who had nothing to do with the nursing, was taken suddenly ill on January 30th. He was a known malarial subject and I had no reason to suspect that this attack was other than a malarial attack. On examination, however, of his blood numerous spirilla were discovered, and he passed through a typical attack of relapsing fever of a very severe nature. His fever fell on the 6th day, the remission lasted 5 days; the first relapse then set in and lasted 10 days, then a remission of 9 days was followed by a second relapse which lasted 5 days and he took about 21 days more to convalesce. He complained of severe pain, backache and headache. His tongue was very foul and flabby. Just before the crisis of the first relapse he suffered from great distress of breathing and had a lively fear of impending death. Then the crisis occurred and he got better again, to have another relapse later on. During the first relapse his condition was very serious. His tongue was foul, and the backache was especially severe, and he was constipated. On the fourth day he developed a peculiar mental state. He was at first apathetic and then remained in a state of deep unconsciousness from which he could, however, be aroused for a few moments at long intervals. Then he lost control of his sphincters, diarrhœa supervened, and the condition of unconsciousness deepened to such a degree that nothing could arouse him. This continued for three days, and during this time examination of the blood shewed that spirilla were absent, nor were they to be found in the centrifugalsed urine. After a somewhat prolonged convalescence he recovered fairly well, a moderate degree of deafness however having set in which may possibly have been due to some injections (hypodermic) of quinine.

These cases are interesting, not only because Relapsing Fever is rare in Hongkong, but also because the fourth case shews how easily and rapidly it is transmissible and perhaps may point to a possible mode of transmission. The Office-boy used to assist in procuring films of blood for examination, and also in catching mosquitoes for me and coaxing them to feed. He never went near the patients at any other time, nor did he lend a helping hand in nursing them. Yet the disease suddenly develops in him, the typical spirochetæ are found in his blood, and he passes through a very severe and a characteristic attack. How did he contract it?

The *Spirillum Obermeieri*, the organism which is present in the disease and which causes it, is of varying length. In this series of cases it reached a length of from 24 to 30 microns they are said however to sometimes reach a length of 42 microns. It is wavy and spirally curled on staining, and when seen alive is very active, the principal movement being of a corkscrewy nature and sometimes of a lashing nature. It is very transparent and to be seen when living requires a darkened stage of the microscope. Its ends are pointed and its substance stains uniformly. It is stated by one observer that fine transverse striae are to be

noticed on high magnification. This striation, however, I was not able to make out, nor do I think it has been confirmed. There are generally four or more spirals, sometimes as many as twelve, in each organism. It is said to have cilia, and its mobility outside the body may be preserved for from 30 to 130 days: though with my specimens I was able to keep them alive for 11 days. No method is known by which it can be cultivated. As to its nature SCHAUDIN shews that the *Spirocheta Ziemmani* is a phase of a trypanosome, that it has a large nucleus and a micro-nucleus or blepharoplast—neither of which is present in a bacterial spirillum—and further, that it alters its shape: and he judges from analogy that the *Spirillum Obermeiris* is a protozoan parasite and a phase of a trypanosome. Its presence in the blood is noticeable when the temperature rises and during the time it remains elevated, but its variation in numbers does not bear any relation to the elevation of temperature though there is a progressive increase till about 20 hours before the crisis. As soon however as the temperature falls no more spirilla can be found in the peripheral blood. What happens to them? METCHNIKOFF has shewn that they are gathered in the spleen where they are destroyed by the microphages and the macrophages; and this has been confirmed by the fact that monkeys into whom Relapsing Fever blood was injected and in whom the spirilla were found in the peripheral blood shewed none after the crisis if the spleen was present, but abundance when the spleen was extirpated. It would thus seem that the spleen was chiefly concerned in their destruction. GABRICHEVSKY states that bactericidal substances appear at certain determinate periods in the blood, and that thus the spirilla are got rid of. The following experiments led him to this conclusion:—

(1.) To blood containing the spirochetæ he added blood taken from a case of Relapsing Fever immediately after the paroxysm, and the result was that the spirochetæ became immobile, changed form and died.

(2.) To blood containing spirochetæ he added normal serum, and the spirochetæ lived from 2 to 4 days.

(3.) Preventive inoculation with serum of a convalescent case was effective to a certain extent.

Then also it is known that temperature influences the mobility and the life of the spirochetæ. They live longest, outside the body, at the room temperature. As the temperature is raised they become immobile and then die: and contrary to what we may expect, a very low temperature may suspend life, or at any rate does not cause rapid death.

Thus there are three factors which assist in the disappearance of the spirochetæ, at all events temporarily, namely, the elevation of the temperature, the formation and development of the natural immunising power of the blood of the patient, and, lastly, the peculiar particular action of the spleen.

Their Absence after Death.—The spirochetæ are not found in the blood of a patient who dies of Relapsing fever, whether death takes place during the febrile period or during the afebrile period. This is the general rule. Exceptions very exceptionally occur. In my case I could find nothing whatever in the blood, the bone marrow, or any of the organs. What happens when they disappear, and where do they disappear? I grew them for 11 days in a solution of normal saline. They did not apparently increase in numbers, but they lived and were active. On the 12th day hæmolysis set in, and on the 13th day only granular debris could be found on examination. Hence I conclude that a bactericidal action of the blood is produced as a result of the secretion of some toxin by these spirilla, and that when this becomes powerful enough it causes a disintegration of them—without, however, the accompaniment of hæmolysis in the living body.

Methods of Transmission.—What is the method by which these spirochetæ are conveyed from an infected to a non-infected person? It is known of course that Relapsing Fever is a very infectious malady (and it is one of the notifiable diseases in Hongkong), and that widespread epidemics arise and are propagated from small foci.

Various experiments have been conducted with the object of demonstrating how this transmission of the disease is effected, and what animals are susceptible to it. I carried out a few experiments with this view and summarise the results:—

Transmission—A. By injection of blood of patient removed during life from the median vein :—

- (a.) During the febrile period when spirilla were present.
 - (1.) Into *Monkeys*—after an incubation period of four days pyrexia set in spirilla were found in the peripheral blood, and an attack of relapsing fever was passed through.
 - (2.) Into *Rabbits*—these shewed no reaction and spirilla were not found in the blood at any time.
- (b.) During the apyrexial period when spirilla were absent from the blood stream into a *Monkey*. The animal continued well, no rise of temperature took place, and spirilla could not be found in the blood on several examinations. It died unexpectedly on the 17th day after injection and all the organs were found to be crowded with spirilla.

B. By Suctorial Insects :—

- (a.) Mosquitoes.—I induced mosquitoes of the ordinary variety met with here—the *Culex*—to feed on the patients during the pyrexial periods, and within twenty-four hours after they had gorged themselves I could find no trace of any spirilla—mosquitoes were scarce at that time, and I was able to get only a few, and I think further investigation regarding this means of conveyance should be undertaken whenever practicable, for from the well known fact that malaria is conveyed by mosquitoes it is quite within reason to regard them as carriers of Relapsing Fever.
- (b.) Bed Bugs and Ticks.—There are recognised as carriers. I was unsuccessful with the former, and had no opportunity of experimenting with the latter. It has been found that bed bugs are capable of conveying the organisms to monkeys which have thereupon shewn a rise of temperature, accompanied by the presence of spirilla in the peripheral blood. It should be noted, however, that the infected blood was squeezed out of the bugs, and was then injected into the monkeys—the point being that the bug did not introduce the blood and its organisms. Ticks have been recently proved by R. Koch to convey the disease by experiments which he performed in German East Africa.

C. By Vaccination—that is, by smearing freshly scarified surfaces with the freshly cut surfaces of organs which contained an abundance of the organisms.

- (1) Monkeys—results negative.
- (2) Rabbits—results negative.

D. By Feeding :—

- (1) A monkey,
- (2) A pig,

were fed with organs containing spirilla—Result in both cases negative.

From all these facts we may conclude :—

- (1.) That Relapsing Fever is communicated by the bite of suctorial insects.
- (2.) That an intermediate host probably exists, the tick being one such.
- (3.) That the organism is only present in the peripheral blood at certain definite times, namely, during the pyrexial periods.
- (4.) That when they are absent from the peripheral blood they congregate in the spleen.
- (5.) That the blood during the whole course of the disease remains infectious, whether the organisms be present or not.
- (6.) That treatment is not specific as in malaria but is in the main confined to dealing with symptoms and that the attacks of pyrexia cannot be shortened or terminated.

W. V. M. KOCH, M.D.

Table I.
Small-pox :—condition as regards vaccination in relation to variety.

NATIONALITY.	NUMBER OF VACCINATION MARKS.	MALES.			FEMALES.	
		VARIETY OF THE DISEASE.			VARIETY OF THE DISEASE.	
		Discrete.	Confluent.	Hæmorrhagic.	Discrete.	Confluent.
European, ...	1	3	1	...	...	...
	2	7	2	...	...	...
	3	3	...	...	...	...
	4	1	...	...	...	...
	8	1	...	...	...	...
	0	...	1	1	...	1
	Faint single.	...	1	...	...	...
		15	5	1	...	1
Chinese, ...	1	...	...	...	1	...
	2	2	1	...	...	...
	3	2	1	...	...	...
	4	1	...	...	...	...
	6	1	...	...	...	...
	0	7	3	...	1	1
	No note.	1	...	...	...	...
		14	5	...	2	1
Indian,.....	2	1	...	...	...	...
	4	1	...	...	...	...
	0	1	...	...	...	...
		3	...	...	...	...
Filipino, ...	3	1	...	...	...	...

Table II.
Diseases treated in Kennedy Town Hospital.

Diseases.	Admitted.		Discharged.		Died.		Remarks.
	M.	F.	M.	F.	M.	F.	
Plague, ...	26	7	5	1	21	6	
Relapsing Fever, ...	4	...	3	...	1	...	
Diphtheria, ...	1	1	1	1	...	...	
Tubercular Adenitis, ...	...	1	...	1	...	...	
Acute Gen. Milary Tuberculosis,...	1	...	...	...	1	...	
Suppurative Adenitis, ...	...	1	...	1	...	...	
In Attendance, ...	2	2	2	2	...	...	
Small-pox, ...	...	1	...	1	...	...	Hulk "Hygeia" under Re-pairs.
Total, ...	34	13	11	7	23	6	

Table III.
Diseases treated on board the Hulk Hygeia.

Diseases.	Admitted.		Discharged.		Died.		Remarks.
	M.	F.	M.	F.	M.	F.	
Small-pox, ...	43	5	38	2	6	2	
Febricula, ...	1	...	1	...	...	...	Suspected Small-pox.
Influenza, ...	1	...	1	...	...	...	" "
Measels, ...	1	...	1	...	...	...	" "
M. A. D., ...	1	...	1	...	...	...	
Uunder Observation, ...	3	...	3	...	...	...	Relapsing Fever transmitted to Kenndy Town Hospital.
In Attendance, ...	1	2	1	2	...	...	
Total, ...	51	7	46	4	6	2	

Table IV.
Cases of Plague.

Month.	Bubonic.		Septic.		Total.		Remarks.
	Males.	Females.	Males.	Females.	Males.	Females.	
January,.....	...	...	...	...	...	...	
February, ...	...	...	...	...	...	...	
March, ...	...	...	...	...	...	...	
April,.....	1	...	...	...	1	...	
May, ...	19	4	3	2	22	6	
June, ...	1	...	...	...	1	...	
July, ...	...	...	...	...	...	...	
August, ...	...	...	...	...	...	...	
September,.....	...	...	...	...	...	...	
October,.....	1	...	...	...	1	...	
November,.....	1	1	...	...	1	1	
December, ...	...	...	...	...	...	...	
Total,.....	23	5	3	2	26	7	

Table V.
Deaths from Plague.

Months.	Bubonic.		Septic.		Total.		Remarks.
	Males.	Females.	Males.	Females.	Males.	Females.	
January,.....	...	...	...	...	...	...	
February, ...	...	...	...	...	...	...	
March, ...	...	...	...	...	...	...	
April,.....	1	...	...	...	1	...	
May, ...	16	4	1	2	17	6	
June, ...	1	...	...	...	1	...	
July, ...	...	...	...	...	...	...	
August, ...	...	...	...	...	...	...	
September,.....	...	...	...	...	...	...	
October,.....	1	...	...	...	1	...	
November, ...	1	...	...	...	1	...	
December, ...	...	...	...	...	...	...	
Total, ...	20	4	1	2	21	6	

Table VI.
Analysis of Plague Deaths.

Died.	Bubonic.		Septic.		Total.		Remarks.
	Males.	Females.	Males.	Females.	Males.	Females.	
Within 6 hours, ...	2	2	...	...	2	2	
„ 12 „	4	...	...	1	4	1	
„ 18 „	4	1	...	...	4	1	
„ 24 „	1	...	...	...	1	...	
„ 2 days, ...	4	1	...	1	4	2	
„ 3 „	3	...	1	...	4	...	
Long Periods, ...	2	...	...	...	2	...	
Total,.....	20	4	1	2	21	6	

Table VII.
Distribution of Plague Buboos.

Situation of Buboos.	Recovered.			Died.			Admitted.			Remarks.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	
Femoral Left, ...	1	...	1	5	2	7	6	2	8	
„ Right, ...	...	...	...	9	2	11	9	2	11	
„ Right and Left,.....	...	...	...	2	...	2	2	...	2	
Inguinal Left, ...	...	...	...	1	...	1	1	...	1	
„ and Femoral Left, ...	...	...	...	1	...	1	1	...	1	
Axillary Left, ...	1	1	2	...	...	...	1	1	2	
„ Right, ...	1	...	1	2	...	2	3	...	3	
Total,.....	3	1	4	20	4	24	23	5	23	

Table VIII.
Age Incidence of Plague Cases.

Age.	Bubonic.			Septic.			Grand Total.	Remarks.
	Males.	Females.	Total.	Males.	Females.	Total.		
6-10 years, ...	...	...	...	...	1	1	1	
11-15 „	3	3	6	...	1	1	7	
16-20 „	4	...	4	1	...	1	5	
21-25 „	6	...	6	...	...	...	6	
26-30 „	4	1	5	...	...	...	5	
31-35 „	4	...	4	2	...	2	6	
36-40 „	1	1	2	...	...	...	2	
50-55 „	1	...	1	...	...	...	1	
Total,.....	23	5	28	3	2	5	33	

Table IX.
Age Incidence of Plague Deaths.

Age.	Bubonic.			Septic.			Grand Total.	Remarks.
	Males.	Females.	Total.	Males.	Females.	Total.		
6-10 years, ...	...	...	...	...	1	1	1	
11-15 „	3	3	6	...	1	1	7	
16-20 „	3	...	3	...	...	...	3	
21-25 „	5	...	5	...	...	...	5	
26-30 „	4	1	5	...	...	...	5	
31-35 „	3	...	3	1	...	1	4	
36-40 „	1	...	1	...	...	...	1	
50-55 „	1	...	1	...	...	...	1	
Total, ...	20	4	24	1	2	3	27	

Annexe F.

REPORT OF THE MEDICAL OFFICER IN CHARGE OF VICTORIA GAOL.

The post of Medical Officer was held, in succession, by Dr. J. C. THOMSON and Dr. W. V. M. KOCH, for three and five months, respectively. My appointment dated from September 1st.

The general health of the Gaol Staff has been good.

The sanitary condition of the Gaol is satisfactory, though overcrowding still obtains.

The daily average number of prisoners was 697. The Belilios Reformatory, on account of its more healthy surroundings, has been used for the accommodation of 100, short sentence prisoners, which leaves a daily average population of 597 in the Gaol itself, which properly provides accommodation for only slightly over 500 inmates. However, the general health of the prisoners has been good.

The admissions to Hospital numbered 441, as compared with 893 last year. This reduction, however, is due to the small number (179) being taken into the wards for purposes of observation, as compared with 624 last year. As the majority of these cases are found to be malingering this diminution is very satisfactory. There is a slight increase in the percentage of out-patients, that is, trivial cases, including parasitic skin conditions, treated in the cells. The rate of total sickness was 4.39 % of the average daily population of the Gaol, as compared with 3.86 % in 1904, 5.77 % in 1903 and 7.25 % in 1902.

One case of Plague and two of Enteric Fever occurred. There were only 29 cases of Dysentery, which is below the average for previous years.

There were 52 cases of Malarial Fever, the figures for recent years being :—

1900,.....	163
1901,.....	98
1902,.....	63
1903,.....	93
1904,.....	59
1905,.....	52

Newly admitted prisoners are carefully examined for parasitic and venereal disease, and, if necessary, put under treatment forthwith; there were treated as out-patients 62 cases of Scabies, 303 Pediculosis, 97 Ringworm, 40 Syphilis (23 Primary, 17 Secondary) and 24 Gonorrhœa. The total number of out-patients, including the foregoing, was 1,020.

Two thousand nine hundred and eighty-four prisoners were vaccinated.

Two births occurred in the Female Prison. Mother and child did well in both cases.

Seven prisoners were discharged on medical grounds (beri-beri, lung diseases, &c.) as compared with twenty-two last year.

There were 13 deaths from natural causes. Three Europeans were executed.

No case of corporal punishment required any after-treatment.

I append the following Tables :—

- I. Diseases and Deaths in 1905.
- II. Rate of Sickness and Mortality in 1905.
- III. Vaccinations in the Gaol during the past ten years.
- IV. General Statistics of the Gaol during the past ten years.

WILLIAM B. A. MOORE.

Table I.—DISEASES and DEATHS in VICTORIA GAOL HOSPITAL.

DISEASES.	Remain- ing in Hospital at end of 1904.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1905.	Remarks.
		Admissions.	Deaths.			
GENERAL DISEASES.						
Plague, ...	...	1	...	1	...	
Influenza, ...	...	10	...	10	...	
Enteric Fever, ...	...	2	...	2	...	
Dysentery, ...	...	29	2	29	...	
Beri-beri, ...	...	2	...	2	...	
Malarial Fever :—						
(a) Intermittent, ...	...	3	...	3	...	
(b) Remittent, ...	1	48	1	49	...	
Erysipelas, ...	...	1	...	1	...	
Syphilis :—						
Secondary, ...	...	2	...	2	...	
Scurvy, ...	...	1	...	1	...	
Alcoholism, ...	...	4	...	4	...	
Rheumatism, ...	...	1	...	1	...	
Debility, ...	1	29	1	30	...	
LOCAL DISEASES.						
Diseases of the Nervous System—						
Functional Nervous Disorders—						
Apoplexy, ...	...	1	1	1	...	
Epilepsy, ...	...	2	...	2	...	
Mental Diseases—						
Idiocy, ...	...	1	...	1	...	
Mania, ...	...	3	...	3	...	
Melancholia, ...	...	1	...	1	...	
Dementia, ...	...	4	...	4	...	
Diseases of the Circulatory System, ...	2	9	1	11	...	
" " " Respiratory "	...	39	6	39	...	
" " " Digestive "	2	49	1	51	...	
" " " Lymphatic "	...	1	...	1	...	
" " " Urinary "	...	6	...	6	...	
" " " Cellular "	2	9	...	11	...	
Injuries, Local, ...						
Poisons, ...	...	3	...	3	...	
Under Observation, ...	...	1	...	1	...	
	...	179	...	179	...	
Total, ...	8	441	13	449	...	

Table II.—RATE of SICKNESS and MORTALITY in VICTORIA GAOL.

Total Number of :—				Daily Average Number of :—			Rate per cent. of :—			
Prisoners admitted to Gaol.	Admis- sions to Hos- pital.	Cases treated as Out-patients.	Deaths due to Disease.	Prison- ers in Gaol.	Sick in Hospital.	Hospital Out- patients.	Admissions to Hospital to Total Admissions to Gaol.	Daily Average of Sick in Hospital to Daily Average of Prisoners.	Daily Average of All Sick in Gaol to Daily Average of Prisoners.	Deaths due to Disease to Total Admissions to Gaol.
6,323	441	1,020	13	697.41	7.33	23.33	6.97	1.05	4.39	0.2

Table III.—NUMBER *and* RESULTS of VACCINATIONS in VICTORIA
GAOL during the past ten years.

Years.	Number of Prisoners Vaccinated.	Successful.	Unsuccessful.	Not inspected, owing to early discharge from Gaol.
1896, ...	831	631	200	...
1897, ...	2,830	1,678	1,016	136
1898, ...	4,507	2,875	1,252	380
1899, ...	3,378	2,004	1,063	311
1900, ...	2,638	1,765	666	207
1901, ...	2,880	2,150	337	393
1902, ...	3,973	2,552	872	549
1903, ...	2,887	1,781	611	495
1904, ...	2,578	1,667	357	554
1905, ...	2,984	2,106	288	590

Table IV.—GENERAL STATISTICS *connected with* VICTORIA GAOL *and the*
GAOL HOSPITAL during the past ten years.

Years.	Admissions to the Gaol.	Daily Average Number of Prisoners.	Number of Cases treated in Hospital.	Number of Out-patients.	Deaths due to Disease.
1896, ...	5,582	514	507	740	10
1897, ...	5,076	462	342	455	4
1898, ...	5,427	511	298	1,033	6
1899, ...	4,789	434	503	1,778	5
1900, ...	5,432	486	495	1,523	6
1901, ...	5,077	499	348	1,316	9
1902, ...	5,988	576	516	1,760	6
1903, ...	7,273	653	568	1,715	16
1904, ...	7,464	726	893	1,173	17
1905, ...	6,323	697.41	441	1,020	13

Annexe G.

REPORT OF THE MEDICAL OFFICER IN THE NEW TERRITORIES.

The total register of new patients was 2,002, as against 2,464 in 1904; 2,196 in 1903; and 1,749 in 1902.

The number of old patients was 686, as against 1,005 in 1904; and 855 in 1903.

There have been 105 regular professional visits to the various outstations in the Territory.

Vaccinations performed free of cost: 75. There was no case of small-pox reported to me during the year.

Lepers, now 13 in number, have been regularly seen and treated. Ten of them are supplied with rice by the Government every day.

There was one birth of a leper girl on September. The baby was born with macules on her body. She was sent in to the Tung Wa Hospital by the order of the local Magistrate.

The number of malarial fever cases was 635, as against 552 in 1904; 525 in 1903; and 275 in 1902.

Table I shows the diseases treated at the Dispensary.

LAU LAI.

Table I.

Diseases treated at Dispensary.

	No. of Cases.
Disease of the Organs of Respiration, ...	145
" Circulation, ...	59
" Digestion, ...	313
Disease of the lymphatic system, ...	21
" urinary system, ...	8
" blood, ...	5
" muscles, ...	103
" skin, ...	166
" eye, ...	183
" ear, ...	6
General diseases :—	
Beri-beri, ...	15
Malarial Fever, ...	635
Syphilis, ...	75
Injuries, ...	268
Total, ...	2,002

Annexe H.

REPORT OF THE INSPECTING MEDICAL OFFICER TO
THE TUNG WAH HOSPITAL.

The Admissions to the Tung Wah Hospital during the past ten years have been as follows :—

1896, ...	2,041
1897, ...	2,776
1898, ...	2,898
1899, ...	2,542
1900, ...	2,981
1901, ...	2,989
1902, ...	2,576
1903, ...	2,457
1904, ...	2,667
1905, ...	2,833

At the beginning of the year 1905 there were 161 patients remaining in the wards from the previous year ; 2,833 were admitted during 1905, making a total of 2,994 cases ; 1,710 were discharged ; 1,114 died ; leaving 170 in the Hospital at the close of the year.

Of the 2,833 admissions, 120 were transferred for treatment to other institutions, as follows: 13 to Government Civil Hospital, 31 to Kennedy Town Hospital, 44 to the Tung Wah Plague Branch Hospital at Kennedy Town, 1 to the Italian Convent, and 31 cases of Beri-beri to the care of a Charitable Society in Canton.

Of the fatal cases, 267 were in a dying condition at the time of admission, and died within 24 hours.

There remains a net total of 2,446 patients actually treated in the Tung Wah Hospital, of whom 1,237, *i.e.*, 50.6 per cent., were under treatment by European methods, and 1,209, *i.e.*, 49.4 per cent., under Chinese native treatment.

The number of visits to the Out-Patient Department was 66,773.

2,004 persons were vaccinated at, and in connection with, the Hospital.

856 destitute persons were temporarily sheltered and fed, until they could be sent on to their native villages or otherwise provided for.

551 dead bodies were brought to the Hospital mortuary to await burial. In the case of as many as possible a diagnosis of the cause of death is made from the general appearance combined with the results of cross-questioning of relatives for purposes of registration. While this is unscientific and not entirely satisfactory, it is a necessary concession to Chinese feeling on the subject of interference with the dead body ; and the result of this is, that whenever it seems desirable for medico-legal or public health reasons, or because of contradictory evidence regarding the illness preceding death, to require an internal post-mortem examination, no objection is ever now made by the Hospital authorities. 128 of the bodies brought in dead, and also 124 bodies of persons who died in the Hospital, chiefly of persons moribund at admission, *i.e.*, 252 bodies in all, were sent to the Government Public Mortuary for internal examination.

Free burial was provided by the Hospital for the bodies of 2,291 poor people.

As in previous years, the Tung Wah Hospital was used as a convenient centre for the observation and diagnosis of cases believed or suspected to be Plague, and while Plague was prevalent two large airy wards near the ordinary Receiving Ward were set apart for this purpose.

The Plague Branch Hospital at Kennedy Town was opened on 1st June, and remained in use till 16th September. There were 45 admissions, 33 males and 12 females, of whom 37 died, *i.e.*, 82.2 per cent., and 8 recovered. Of the 45 cases, 31 were bubonic, and 14 septicæmic. No employee of the Hospital or of its Plague branch contracted Plague.

Not much operative work is as yet undertaken at the Tung Wah Hospital, on account of the unfavourable conditions as to nursing available. As often as possible serious surgical cases are persuaded to permit themselves to be transferred to the Civil Hospital. A considerable number of minor operations were performed, however, and a few of greater importance, including 2 Lithotomies, Amputation of Arm, and removal of Tumours (Epithelioma of Penis, Sarcoma of Neck, Fibroids, etc.).

The Western-treating staff has been augmented by the addition of another student of the Hongkong College of Medicine for Chinese, so that Dr. JEU HAUk has now three students as resident assistants, one of them doing the vaccinations, and the other two acting as dispensers and surgical dressers.

An Eye Clinique for out-patients was commenced in December, and is now being carried on regularly. With the cordial consent of the Directors an arrangement was made with Dr. G. M. HARSTON to attend on Fridays at 5 p.m. to treat cases of eye disease, and Dr. HARSTON expresses himself willing to come twice a week if the number of patients should render it desirable. This is an important forward movement in the work of the Hospital, both from the point of view of the need existing among the Chinese for such a provision for the treatment of ophthalmic disease, and on account of the introduction with the hearty concurrence of the Directorate of an English ophthalmic surgeon into the Hospital.

Here may suitably be acknowledged the unfailing courtesy and consideration of the Directors in all their relations with the Inspecting Medical Officers, whose suggestions have been most carefully carried into effect.

Dr. KOCH acted as Inspecting Medical Officer from the beginning of the year till 15th March.

The following Tables are attached:—

- I. Return of Diseases and Deaths during the year 1905.
- II. Proportion of cases treated by European and Chinese methods respectively.
- III. General Statistics relating to the Hospital during 1905.
- IV. Vaccinations at, and in connection with, the Tung Wah Hospital during 1905.

Attention may be directed to the number of cases of Beri-beri and of Malaria admitted during the year. In the former there is a steady increase, in the latter a satisfactory diminution, year by year.

Reviewing the past nine years (the figures for 1896 to complete the decade are unfortunately not available), the figures are as follows:—

<i>Beri-beri.</i>		<i>Malaria.</i>	
<i>Admissions.</i>	<i>Deaths.</i>	<i>Admissions.</i>	<i>Deaths.</i>
1897,.....173.....	102.....	571.....	191
1898,.....168.....	84.....	521.....	122
1899,.....279.....	123.....	305.....	58
1900,.....361.....	214.....	541.....	159
1901,.....412.....	219.....	507.....	122
1902,.....414.....	217.....	403.....	119
1903,.....277.....	170.....	221.....	61
1904,.....742.....	329.....	212.....	56
1905,.....731.....	334.....	153.....	48

There is manifestly a serious increase of the prevalence of Beri-beri in the Colony. The mortality in the Tung Wah Hospital during the past two years has been 45%: in former years it was even higher. The malignancy of the disease varies widely in different countries. SCHEUBE giving 3.7% as the rate of mortality in Japan, and DA SILVA LIMA giving 50.8% to 74.5% as the rate of mortality in Brazil. Probably the mortality noted in the Tung Wah Hospital is the rate of mortality among the severe cases, and the real mortality is much lower, as there are many mild cases that do not require to enter hospital. But at the best Beri-beri is a most deadly disease, and is now alarmingly prevalent in this Colony.

It is satisfactory to turn from the subject of Beri-beri to consider the figures given for Malaria. The marked diminution in the number of cases is coincident with the anti-malarial measures adopted in recent years by the Government. The great majority of the cases have come from outlying districts. The high case-mortality is due to the circumstance that the Chinese regard ordinary fever with comparative indifference, and that consequently most of the cases coming into hospital are of the most severe types, many arriving in a comatose state. Under the vigorous use of quinine hypodermically not a few of the apparently most hopeless cases recover, but treatment fails in many.

While the diminished figures relating to Malaria must be regarded with much satisfaction, it is probable that the drop will not continue to the same extent that may reasonably be looked for in statistics relating to Europeans in the Colony, as many of the patients come directly from the country districts for treatment, and many more come indirectly from the country through the daily large influx of Chinese to the Colony by the river steamers. Such persons will continue to develop in Hongkong Malaria contracted elsewhere, perhaps months, even years, previously.

The Hospital has been regularly inspected by Visiting Justices twice monthly, and on all occasions has been certified by them to have been found clean and in good order.

J. C. THOMSON, M.D., D.T.M., D.P.H.

Table I.

DISEASES and DEATHS in the TUNG WAI HOSPITAL, during the year.

DISEASES.	Remain- ing in Hospital at end of 1904.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1905.	Remarks.
		Admissions	Deaths.			
GENERAL DISEASES.						
Small-pox, *	...	4	1	4	...	
Diphtheria, ...	...	1	1	1	...	
Cholera, ...	...	1	1	1	...	
Dysentery, ...	...	87	50	87	...	
Plague, *	...	111	34	111	...	
Malarial Fever :—						
1. Quartan, ...	...	11	...	11	...	
2. Simple Tertian, ...	...	36	...	36	5	
3. Malignant, ...	1	96	42	97	1	
Malarial Cachexia, ...	...	10	6	10	...	
Beri-beri, ...	56	731	334	787	50	
Erysipelas, ...	2	10	1	12	5	
Septicæmia, ...	...	27	22	27	...	
Tetanus, ...	...	6	4	6	1	
Tubercle, ...	5	21	10	26	3	
Leprosy :—						
Tubercular, ...	...	7	2	7	...	
Syphilis :—						
(a) Primary, ...	...	6	...	6	...	
(b) Secondary, ...	4	60	6	64	6	
Rheumatism, ...	2	32	...	34	3	
New Growth, non-malignant, ...	...	1	...	1	...	
New Growth, malignant, ...	1	23	10	24	2	
Anæmia, ...	...	1	...	1	1	
Debility, ...	7	50	15	57	3	
LOCAL DISEASES.						
Diseases of Nervous System.						
SUB-SECTION 1.						
Diseases of the Nerves :—						
Neuritis, ...	...	2	...	2	...	
Meningitis, ...	...	6	5	6	...	
Abscess of Brain, ...	1	...	1	1	...	
SUB-SECTION 2.						
Functional Nervous Disorders :—						
Apoplexy, ...	1	11	10	12	...	
Paralysis, ...	3	22	5	25	6	
Epilepsy, ...	3	7	1	10	1	
Hysteria, ...	...	1	...	1	...	
SUB-SECTION 3.						
Mental Diseases :—						
Idiocy, ...	...	3	...	3	...	
Mania, ...	...	2	...	2	...	
Melancholia, ...	...	2	...	2	...	
Dementia, ...	...	2	...	2	...	
Diseases of the Eye, ...	4	18	...	22	3	
" " Circulatory System, ...	...	107	44	107	6	
" " Respiratory System, ...	33	615	377	648	28	
" " Digestive System, ...	6	262	116	268	4	
" " Lymphatic System, ...	...	20	...	20	4	
" " Urinary System, ...	2	30	8	32	...	
" " Generative System, :—						
Male Organs, ...	...	13	...	13	...	
Female Organs, ...	...	1	...	1	...	
" " Organs of Locomotion, ...	...	2	...	2	...	
" " Cellular Tissue, ...	6	72	...	78	8	
" " Skin, ...	13	106	...	119	18	
Injuries :—						
Local, ...	11	183	6	194	12	
Poisons, ...	...	1	...	1	...	
Parturition, ...	...	13	2	13	...	
Total, ...	161	2,833	1,114	2,994	170	

* Transferred at once, unless moribund, to Kennedy Town.

Table II.

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

General Diseases :—	ADMISSIONS.			DEATHS.		
	European Treatment.	Chinese Treatment.	Total.	European Treatment.	Chinese Treatment.	Total.
Small-pox *	4	...	4	1	...	1
Diphtheria,	1	...	1	1	...	1
Cholera,	1	...	1	1	...	1
Dysentery,	35	52	87	19	31	50
Plague,*	111	...	111	34	...	34
Malarial Fever :—						
1. Quartan,	6	5	11	...	...	...
2. Simple Tertian,	10	26	36	...	...	...
3. Malignant,	48	48	96	20	22	42
Malarial Cachexia,	6	4	10	3	3	6
Beri-beri,	373	358	731	147	187	334
Erysipelas,	10	...	10	1	...	1
Septicæmia,	14	13	27	11	11	22
Tetanus,	2	4	6	1	3	4
Tubercle,	12	9	21	3	7	10
Leprosy, Tubercular,	7	...	7	2	...	2
Syphilis :—						
(a) Primary,	6	...	6	...	...	...
(b) Secondary,	49	11	60	6	...	6
Rheumatism,	14	18	32	...	...	...
New Growth :—						
(a) Non-malignant,	1	...	1	...	...	...
(b) Malignant,	21	2	23	9	1	10
Anæmia,	1	...	1	...	...	...
Debility,	30	20	50	7	8	15
Local Diseases :—						
Diseases of the—						
Nervous System,	36	22	58	14	8	22
Eye,	18	...	18	...	...	...
Circulatory System,	60	47	107	21	23	44
Respiratory System,	258	357	615	159	218	377
Digestive System,	105	157	262	38	78	116
Lymphatic System,	17	3	20	...	...	...
Urinary System,	17	13	30	4	4	8
Generative System :—						
(a) Male Organs,	9	4	13	...	...	...
(b) Female Organs,	...	1	1	...	...	...
Organs of Locomotion,	1	1	2	...	...	...
Cellular Tissue,	38	34	72	...	...	...
Skin,	61	45	106	...	...	...
Injuries, Local,	75	108	183	1	5	6
Poison, Opium,	1	...	1	...	...	...
Parturition,	13	...	13	2	...	2
	1,471	1,362	2,833	505	609	1,114
Less moribund cases,	135	132	267	135	132	267
	1,336	1,230	2,566	370	477	847
Less transferred elsewhere,	99	21	120	...	...	...
Net Total treated,	1,237	1,209	2,446	370	477	847

* Transferred at once, unless moribund, to Kennedy Town.

Table III.—GENERAL STATISTICS relating to the TUNG WAH HOSPITAL during the year.

Patients.	Remaining in Hospital at end of 1904.	Admissions.	Total Cases Treated.	Discharged.	Died.	Remaining in Hospital at end of 1905.	Out-patients.	Vaccinations.	Destitute Persons Sheltered.	Dead Bodies brought to Hospital Mortuary for Burial.	Free Burials provided for Poor Persons.
Males, ...	111	2,409	2,520	1,471	921	128	49,689	858	856	395	...
Females, ...	50	424	474	239	193	42	17,084	1,146	...	156	...
Total, ...	161	2,833	2,994	1,710	1,114	170	66,773	2,004	856	551	2,291

Table IV.—VACCINATIONS at, and in connection with, the TUNG WAH HOSPITAL, during the year.

Victoria.	Shaukiwan.	Aberdeen.	Stanley.	Shek O.	Yaumati.	Hunghom.	Samshui-po.	Kowloon City.	Total.
1,680	22	39	15	23	119	50	44	12	2,004

Annexe I.

REPORT OF THE MEDICAL SUPERINTENDENT OF THE ALICE MEMORIAL AND NETHERSOLE HOSPITALS.

Table I.
ALICE MEMORIAL HOSPITAL.
RETURN of DISEASES and DEATHS.

DISEASES.	Remain- ing in Hospital at end of 1904.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1905.	Remarks.
		Admissions	Deaths.			
GENERAL DISEASES.						
Febricula, ...	1	3	...	4	...	
Enteric Fever, ...	...	2	...	1	...	
Dysentery, ...	...	1	1	2	...	
Malarial Fever, ...	...	11	...	11	...	
Beri-beri, ...	...	4	2	4	...	
Tubercle, ...	2	8	..	10	...	
Syphilis, Tertiary, ...	1	5	...	6	...	
Opium Habit, ...	...	6	1	6	1	
Rheumatism, ...	1	5	...	6	...	
New Growth, non-malignant, ...	...	10	1	10	1	
New Growth, malignant, ...	..	12	...	12	2	
Anæmia, ...	...	2	2	2	...	
Debility, ...	1	...	...	1	...	
LOCAL DISEASES.						
Diseases of Nervous System.						
Functional Nervous Disorders :—						
Apoplexy, ...	...	1	1	1	...	
Paralysis, ...	...	5	...	5	4	
Diseases of the Eye, ...	9	100	...	109	4	
" " Nose, ...	...	6	...	6	...	
" " Circulatory System, ...	...	3	...	3	...	
" " Respiratory System, ...	...	11	3	11	...	
" " Digestive System, ...	...	32	4	32	1	
" " Urinary System, ...	2	21	1	23	4	
" " Male Organs, ...	...	8	...	8	...	
" " Organs of Locomotion, .	3	5	...	8	...	
" " Cellular Tissue, ...	3	34	...	37	3	
" " Skin	2	28	1	30	1	
Injuries, Local, ...	2	26	1	28	3	
Malformations, ...	1	2	...	3	...	
Total, ...	28	351	18	379	24	

Table II.
ALICE MEMORIAL MATERNITY HOSPITAL.
RETURN of DISEASES and DEATHS.

DISEASES.	Remain- ing in Hospital at end of 1904.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1905.	Remarks.
		Admissions	Deaths.			
Labour, ...	1	45	1	46	4	
LOCAL DISEASES.						
Diseases of Digestive System, ...	...	2	...	2	...	
" " Urinary System, ...	...	2	...	2	...	
" " Female Organs, ...	...	5	...	5	...	
" " Organs of Locomotion, ...	...	1	...	1	...	

Out-patients attended at their houses by Dr. SIBREE :—Labour cases, 22.
Out-patients attended at their houses by Government Midwives (Chinese) under the superintendence of Dr. SIBREE :—
Labour cases, 23.

TABLE III.—NETHERSOLE HOSPITAL.

RETURN of DISEASES and DEATHS.

DISEASES.	Remain- ing in Hospital at end of 1904.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1905.	Remarks.
		Admissions	Deaths.			
GENERAL DISEASES.						
Fabricula, ...	...	2	...	2	...	
Dysentery, ...	...	3	2	3	...	
Malarial Fever, ...	2	6	...	8	...	
Beri-beri, ...	1	10	2	11	...	
Septicæmia, ...	...	2	2	2	...	
Tetanus, ...	...	2	1	2	...	
Tubercle, ...	5	18	2	23	5	
Syphilis, Tertiary, ...	...	2	...	2	1	
Rheumatism, ...	...	2	...	2	...	
Rheumatic Fever, ...	1	1	...	2	...	
New Growth, non-malignant, ...	...	9	1	9	1	
New Growth, malignant, ...	1	3	...	4	...	
Anæmia, ...	...	3	1	3	...	
LOCAL DISEASES.						
Diseases of Nervous System.						
SUB-SECTION 1.						
Diseases of the Nerves :—						
Meningitis, ...	...	1	1	1	...	
SUB-SECTION 2.						
Functional Nervous Disorders :—						
Epilepsy, ...	...	2	1	2	...	
Diseases of the Eye, ...	7	96	...	103	4	
„ „ Ear, ...	...	2	...	2	...	
„ „ Circulatory System, ...	4	9	1	13	...	
„ „ Respiratory System, ...	1	31	6	32	...	
„ „ Digestive System, ...	...	19	4	19	2	
„ „ Urinary System, ...	...	5	1	5	...	
„ „ Generative System, ...	1	...	...	1	...	
„ „ Female Organs, ...	...	4	...	4	...	
„ „ Organs of Locomotion, .	1	6	...	7	1	
„ „ Cellular Tissue, ...	...	22	...	22	1	
„ „ Skin, ...	4	16	...	20	1	
Injuries, General	...	1	...	1	...	
„ Local, ...	...	9	1	9	...	
Malformations, ...	...	6	1	6	...	
Parasites, ...	...	3	...	3	...	
Effects of Heat, ...	1	5	1	6	...	
Total, ...	29	300	28	329	16	

I. E. MITCHELL, M.D.

Annexe J.

REPORT OF THE GOVERNMENT BACTERIOLOGIST.

The new Public Mortuary has given great satisfaction. Post-mortem examinations can now be conducted under the most favourable circumstances, even during the hottest seasons of the year. The construction of the buildings, according to modern principles, has reduced to a minimum the dangers attached to this particular work. The whole compound has been regularly cleansed daily throughout the year. The laboratory accommodation is also so constructed as to allow of the most varied naked eye and microscopic pathology being undertaken.

The Bacteriological Institute was completed towards the end of the year. The internal fittings being somewhat complicated, require considerable care and time. Systematic research, therefore, has not yet commenced. In my next year's Report, I hope to be able to give a full account of this Institution and its special qualifications for carrying out bacteriological research under the best of conditions. In my opinion, the building and its equipment will be difficult to beat East of Suez.

During the past year, the routine examination of rats has been carried out by my Laboratory Assistant, Dr. LEE YIN SZE. This officer has performed his duties to my satisfaction. On the termination of Dr. LEE's agreement with the Government, it was considered advisable to recommend the appointment of a qualified Assistant from England. I am glad to say that such an appointment has now been sanctioned and Dr. C. M. HEANLEY, the newly appointed Assistant Bacteriologist, is on his way to Hongkong.

No case of sickness occurred amongst the members of my staff during the year. All those engaged with me at the Public Mortuary are vaccinated annually, as they frequently come into close contact with cases of Small-pox, during the prevalence of this disease in the early part of each year.

The question of "dumping" is specially dealt with in the Report. It would not appear that this practice is more prevalent during plague seasons than at other times. The majority of plague cases is not dumped.

Since I assumed the duties of Medical Officer in charge of the Public Mortuary, I have often come across cases in which a post-mortem examination revealed but little evidence of the cause of death. Such a statement may, on first thought, appear somewhat extravagant to many people, yet its truths are only too apparent in Hongkong, where, in the majority of cases, no reliable previous history of the individual is obtainable. The conditions, under which autopsies have to be performed in the Hongkong Morgue, are very different from those obtained at home. In Europe, apart from a few isolated cases, the pathologist obtains some history of the illness, or other factors, which guide him in arriving at a diagnosis. In Hongkong, however, the diagnosis has to be made from a pure pathological standpoint.

This has an important medico-legal bearing. Many cases of concealed murder cannot be detected by an autopsy alone, or at least, they are not likely to be discovered except, either by a happy chance or preternatural ingenuity on the part of the medical man. In many diseases, it is absolutely impossible to determine the cause of death by a post-mortem examination. One has only to think of some acute zymotics, *e.g.*, whooping cough or a disease like epilepsy, in order to be convinced of the hopelessness of the pathological task in the absence of clinical or other data. In a large number of cases, I return the cause of death in children, as marasmus. I arrive at this diagnosis from the condition of atrophy, wasting, and diarrhoea, yet my post-mortem examination shows nothing in any internal organ to which death could be ascribed. The autopsy does not show why the thread of life has been snapped. Again, in cases of prematurity, where is the post-mortem evidence of the exact cause of death? In olden times, such cases would have been described as death from the visitation of God. In the great majority of cases of all causes of death, the heart, lungs, liver, kidneys, etc., each or all of them may be diseased. What is the condition in any one or all of them, which is incompatible with life? It is in such cases that the absence of a definite clinical or previous history becomes of so great moment. From pure pathological appearances alone, one must, from a medico-legal standpoint, conclude, that the presence of extensive disease of such and such an organ, would be sufficient to account for death, and may have caused it now. When we come to the forensic side of

the question, the final determination of the cause of death is a matter of the greatest importance. Apart from the presence of injuries, wounds, etc., which may be sufficiently clear in themselves as causes of death, the arrival at a diagnosis of the cause of death in other cases, in a coroner's court, *on the evidence of the pathologist alone*, is a farce. Expert pathological evidence is extremely valuable, but it would appear to be insufficient for the requirements of justice, and the safety of the public, in the absence at any particular inquest of some other person, and preferably a medical man, who has seen the deceased alive, even if it be only during the death agony.

Tuberculosis, in its many different manifestations, still accounts for the lives of a large number of Chinese of all ages. KOCH's theory still holds sway, and in continuation of my researches into the subject, my observations lead to the conclusion, that two distinct types of tubercle exist, namely, the *typus humanus* and the *typus bovinus*. Widespread tuberculosis in cattle is propagated almost entirely by the tubercle bacillus of the *typus bovinus*. Tuberculosis in man, although reproducible by the *typus bovinus*, is readily induced by direct infection from man to man, and the role played by the consumptive individual is of much greater moment in spreading tubercle bacilli amongst us, than the presence of widespread bovine tuberculosis. In Hongkong bovine tuberculosis is practically unknown amongst Chinese cattle. Therefore our energies in abating this disease—a more insidious and deadly malady than our plague—must be directed to the prevention of its spread from man to man.

The incidence of Small-pox was small during the year. Its aerial spread necessitates rigid isolation during epidemics, and floating hospitals far removed from the limits of large towns would appear to give the best results in dealing with an outbreak.

Bacillary as well as Amœbic Dysentery exists in Hongkong. The latter is the more chronic form of the disease, more likely to recur, and occasionally sets up, as a sequela, tropical abscess of the liver. I am of the opinion that true tropical liver abscess is always due to the presence of amœbæ.

Typhoid fever would not appear to be an uncommon disease amongst the Chinese.

The results of a research into the etiology of Beri-beri by Dr. KOCH and myself, show that the disease is not of an acute specific infectious nature. Its etiology is probably non-micro-organismal.

The question of Rupture of the Spleen as a cause of death in Hongkong is dealt with more or less fully.

Several interesting pathological conditions are described in detail in the Report.

A considerable number of tumours has also been examined. Tumours (malignant and benign) are by no means uncommon amongst the Chinese.

136 cases of Plague were examined during the year. Pathologically the cases bore out the conclusions drawn by me in my Special Report on Plague for the year 1904.

The relation, existing between rat and human plague, show the same characteristics as found in previous years.

The amount of rat plague would appear to be increasing in the Colony. During the past year, nearly 5% of the total number of rats examined were found to be plague infected. It is difficult to account for this gradual spread in the amount of epidemic plague. Stronger measures than ever against rats would appear to be indicated if success in dealing with plague epidemics is to be obtained.

Arguing from the dictum "no rat plague, no human plague" our chances of freeing the Colony from this exotic are but small for some years to come.

Apart from rats, no other animal has been found suffering from plague during the past year. Birds would not appear to be very susceptible to the disease.

My researches in regard to the role played by the rat in spreading plague are gradually gaining general recognition, and, further, my assertion that ordinary bubonic plague is not highly infectious has received confirmation in several recent Reports.

DANYSZ's virus as an agent for the wholesale destruction of rats has been a complete failure.

So far as my bacteriological investigations are concerned, there is no evidence at present of locally contracted Malta fever in Hongkong. Such cases as do occur are always imported. Relapsing fever, although prevalent in North China, is not met with in Hongkong. Diphtheria is rare in the Colony. On the other hand, croupous, non-specific tonsillitis and pharyngitis is far from uncommon.

My experiments on Formaldehyde as a gaseous disinfectant have led me to the conclusion that this chemical preparation, although fashionable at present, has no special recommendations. It is a meagre bactericidal agent and possesses no penetrating powers.

During the year, a number of chemical disinfectants were tested as regards their carbolic acid co-efficiency. This test would appear to give extremely constant results, and is a valuable addition to our methods of estimating the efficiency of the numerous chemical preparations put upon the market to sell as perfect germicides, and guarantees against infectious disease. Considering the results which are obtained after a liberal use of such fluids, it is, at present, a question of doubt, how far one is justified in recommending the general employment of chemical disinfectants. At any rate, their use, apart from expense, can do no harm.

The vaccine used during the year has been extremely potent and given satisfactory results to all who have employed it for vaccination. With the opening of the Bacteriological Institute the lymph for sale in the Colony will be manufactured in the same way as that used in the Government Laboratories in London.

A brief resumé is given in the Report of the most important publications issued by the Bacteriologist during the past year.

WILLIAM HUNTER.

The Public Mortuary.

1,381 post-mortem examinations were held during the year 1905.

The total number of post-mortem examinations held has diminished by 170, compared with the return of 1904. This decrease is due, in a great measure, to the absence of severe epidemic disease during the year. The number of post-mortem examinations held upon male cadavers greatly exceeds that of females. This preponderance of males over females examined, is maintained year by year.

The number of <i>male cadavers</i> examined, ...	858
Do. <i>female cadavers</i> examined, ...	523
Total, ...	<u>1,381</u>

Stated in percentages these figures mean :—

Males, ...	62%
Females, ...	38%

Another point of interest in connection with these figures, is the statement, frequently made, that female children are more often “dumped” than male children. Year by year, I have gone into this question more or less thoroughly, and from the figures obtained, this belief would not appear to be true. The results which have been obtained for the year 1905, are in perfect accord with those given in my Annual Report for the year 1904. In my opinion, male and female children are found “dumped” and examined at the Public Mortuary in equal frequency. The following percentages based upon the figures obtained for 1905, are illustrative of this fact :—

<i>Males “dumped”</i> under 1 year, ...	47%
<i>Females “dumped”</i> under 1 year, ...	53%

Since I assumed the duties of Medical Officer in charge of the Public Mortuary in the year 1902, over 8,000 cadavers have passed through my hands. This represents an almost unequalled wealth of pathological material, from which one ought to be able to draw many important conclusions. In the present report, it is proposed to deal with the question of the incidence of disease amongst the Chinese, resident in Hongkong. It is of importance, from many points of view, to be able to form some idea of this subject, and help to contribute to that engrossing question, namely, the geographical distribution of disease.

The practice of "dumping" of bodies in the street, harbour, hillsides, etc., has always been a question of considerable importance in the Colony.

The efforts made, in order to restrict this pernicious custom, would not appear to be crowned with such signal success as desired. In the Annual Sanitary Report for 1904, the Medical Officer in charge of the Mortuary in Kowloon, gave us a valuable Table, indicating the prevalence of this practice in Kowloon. In my present Report, therefore, I propose to include a similar Table showing the extent of the custom in Hongkong. Such a Table ought to be of considerable interest, as the figures contained are drawn from a much wider area :—

Table I.—SOURCE OF BODIES.

1905.	No. of Bodies.	Found in House, Matshed or Boat.	Found in Street.	Found on Hill-side, vacant ground, &c.	Found in Harbour.	Total % Dumped.
January, ...	101	56	35	9	1	44%
February, ...	70	33	32	4	1	52%
March, ...	96	46	34	13	3	52%
April, ...	118	48	60	7	3	59%
May, ...	162	94	60	8	...	42%
June, ...	202	118	72	9	3	42%
July, ...	158	84	62	12	...	47%
August, ...	127	76	45	6	...	40%
September, ...	90	43	37	10	...	52%
October, ...	77	40	32	4	1	48%
November, ...	93	43	44	6	...	54%
December, ...	87	33	50	4	...	62%

On comparing this Table with that already drawn up by the Medical Officer of the Kowloon Mortuary, it is seen that the results are practically identical. The practice of "dumping" is as prevalent in Hongkong as in Kowloon. From such Tables, however, it would not appear that this practice is more prevalent during plague seasons. Further, it is of interest to note the incidence of "dumping" in regard to plague cases. During the past year, 136 cases of plague were examined at the Public Mortuary, and these cases, if arranged according to the foregoing Table, give the following interesting result :—

Table II.—SOURCE OF PLAGUE BODIES.

	NO. OF CASES.	FOUND IN HOUSE, &c.	FOUND DUMPED.	% IN HOUSE.	% DUMPED.
Bubonic Type, ...	94	78	16	72 %	28 %
Septic Type, ...	37	30	7	81 %	19 %
Pneumonic Type, ...	5	1	4	20 %	80 %

From this Table, even although the numbers are small, it is seen that by far the largest number of plague cases has been found in houses, matsheds or boats. In regard to the pneumonic type of the disease, no conclusions can be drawn, owing to the small number of cases examined.

Table III.—RETURN OF CAUSES OF DEATH DURING THE YEAR.

I. Total General Diseases, ...	756
II. Local Diseases :—	
(a) Of the Nervous System, ...	5
(b) „ „ Circulatory System, ...	33
(c) „ „ Respiratory System, ...	334
(d) „ „ Digestive System, ...	39
(e) „ „ Urinary System, ...	21
(f) „ „ Generative System, ...	10
	442
III. Total Injuries, ...	91
IV. Total Decomposed Bodies, ...	92
	Total, ...1,381

Table IV.—GENERAL DISEASES.

Small-pox, ...	15
Plague :—	
Bubonic Type, ...	94
Septicæmic Type, ...	37
Pneumonic Type, ...	5
	136
Enteric Fever, ...	27
Cholera, ...	3
Diarrhœa, ...	60
Dysentery (amœbic), ...	4
Beri-beri, ...	150
Malaria, ...	56
Septicæmia, ...	5
Syphilis, ...	3
Acute General Tuberculosis, ...	46
Premature Birth, ...	17
Still-birth, ...	65
Marasmatic conditions, ...	154
Opium Poisoning, ...	2
Prussic Acid Poisoning, ...	1
Distomiasis, ...	2
Diffuse Cellulitis, ...	1
Epilepsy, ...	2
Leprosy, ...	2
Purpura Hæmorrhagica, ...	1
Relapsing Fever, ...	1
Old Age, ...	1
	Total,..... 754
Skeletons, ...	2
	756

Table V.—LOCAL DISEASES.

I.—Of the Nervous System.

Acute Meningitis, ...	1
Tubercular Meningitis, ...	2
Cerebral Hæmorrhage, ...	2
	Total,..... 5

II.—Of the Circulatory System.

Acute Fibrinous Pericarditis, ...	5
Tubercular Pericarditis, ...	1
Aneurism of Heart, ...	2
Aneurism of Aorta, ...	2
Aneurism of Pulmonary Artery, ...	1
Fatty Degeneration of Heart, ...	2
Aortic Valvular Disease, ...	6
Mitral Valvular Disease, ...	7
Cardiac Syncope, ...	5
Acute Endocarditis, ...	2
Total, ...	33

III.—Of the Respiratory System.

Acute Bronchitis, ...	32
Chronic Bronchitis, ...	6
Pneumatoses, ...	30
Gangrene of Lung, ...	2
Abscess of Lung, ...	1
Acute Catarrhal Pneumonia, ...	136
Acute Fibrinous Pneumonia, ...	56
Phthisis, ...	52
Acute Pleurisy, ...	7
Empyema, ...	2
Pyopneumothorax, ...	1
Oedema of the Glottis, ...	2
Bronchiectasis, ...	3
Cancer of Lung, ...	2
Acute Congestion, ...	2
Total, ...	334

IV.—Of the Digestive System.

Intestinal Obstruction, ...	1
Intussusception, ...	2
Appendicitis, ...	1
Primary Intestinal Tuberculosis, ...	2
Strangulated Femoral Hernia, ...	1
Acute Peritonitis, ...	9
Tubercular Peritonitis, ...	1
Acute Ulcerative Colitis, ...	1
Cancer of the Pylorus, ...	2
Collloid Cancer of Stomach, ...	1
Primary Cancer of Liver, ...	3
Abscess of Liver, ...	3
Tabes Mesenterica, ...	2
Obstructive Jaundice :—	
Extrahepatic, ...	3
Intrahepatic, ...	1
Suppurative Cholecystitis, ...	1
Gangrenous Stomatitis, ...	1
Acute Yellow Atrophy, ...	1
Cirrhosis of Liver, ...	3
Total, ...	39

V.—Of the Urinary System.

Acute Parenchymatous Nephritis, ...	5
Acute Glom-erulo-Nephritis, ...	3
Chronic Nephritis (Large White), ...	6
Primary Interstitial Nephritis, ...	4
Genito-Urinary Phthisis, ...	1
Perinephritic Abscess, ...	1
Ulcerative Cystitis, ...	1
Total, ...	21

VI.—Of the Generative System.

Abortion, ...	2
Post-partum Hæmorrhage,.....	2
Extra-Uterine Pregnancy, ...	4
Puerperal Septicæmia, ...	2
Total,.....	10

Table VI.—INJURIES.

I.—General.

Burning, ...	10
Multiple Injuries, ...	1
Suffocation :—	
(a.) From Submersion,.....	14
(b.) From Strangulation,.....	5
Privation, ...	22

II.—Local.

(a.) Of the Head :—	
Fracture of Vault of Skull, ...	12
Fracture of Base of Skull, ...	8
(b.) Of the Neck :—	
Dislocation of Neck, ...	1
Cut Throat,.....	1
(c.) Of the Abdomen :—	
Stab Wound, ...	1
Rupture of Spleen,.....	9
Rupture of Liver, ...	1
Rupture of Spleen and Liver, ...	1
Rupture of Stomach, ...	2
Fracture of Pelvis,.....	2
Fracture of Lumbar Spine, ...	1
Total,.....	91

Table VII.—NATIONALITY OF BODIES BROUGHT TO THE PUBLIC MORTUARY DURING THE YEAR.

Chinese, ...	1,367
European, ...	8
American, ...	1
Japanese, ...	1
Indian, ...	1
Philipino, ...	1
Asiatic Portuguese, ...	1
Eurasian, ...	1
Total,.....	1,381

Table VIII.—RETURN OF CAUSES OF DEATH OF BODIES OF NATIONALITIES OTHER THAN CHINESE.

Europeans :—

Drowning, ...	3
Hanging, ...	1
Pneumonia, ...	1
Cardiac Failure, ...	1
Prussic Acid Poisoning, ...	1
Total,.....	8

1 American, ...	Cut Throat.
1 Japanese,.....	Beri-beri.
1 Indian,.....	Malaria.
1 Philipino, ...	Stab wound in abdomen.
1 Asiatic Portuguese, ...	Plague, Bubonic.
1 Eurasian, ...	Typhoid Fever.

Pathological Investigations.

1. *Small-pox*.—The incidence of Small-pox during the past year has been small as compared with former years. Most of the cases were found during the cool season. All types of the disease were examined, and, in the majority of instances, infants and children were the sufferers. So far the etiological factor at work in the production of this terrible scourge, has escaped detection. Small-pox has been known amongst the Chinese from time immemorial, and the practice of inoculating for small-pox is said to have been first practised in China at least 1,000 B.C. Ancient Chinese literature reveal to us that small-pox was placed under the special patronage of a god-less. Temples were dedicated to her, and further, elaborate sacrifices were carried out.

Small-pox is an ubiquitous disease. It has no regard for lines of longitude or latitude. There would appear, however, to exist no doubt that the disease is influenced by changes in temperature. This is well shown in Hongkong and indeed throughout China where the disease is endemic. Its period of greatest activity is during the cooler portion of the year. This seasonal variation of small-pox is not limited to any particular country, but is uniform throughout the whole extent of both hemispheres of the globe.

Small-pox would appear to be mainly spread by the movements of people. A considerable amount of importance must be attached to *air* as a mode of conveyance of the infection. From the investigations of POWER, of the Local Government Board, there would appear to exist little doubt that the virus of the disease is frequently carried by the air. In fact, there is good reason to believe that the causal agent of the disease may be carried through the air over a distance of a mile, and still retains its virulence. This theory of the aerial convection of small-pox, although opposed by some observers, is receiving general acceptance, and has led to certain modifications of the methods hitherto adopted in order to efficiently isolate cases of the disease. Floating hospitals, right outside the limits of large towns, would appear to give one the best chance of preventing a spread of the disease. This, however, in order to be successful, must be supplemented by general vaccination and re-vaccination.

2. *Plague*.—The number of cases examined is small, owing to the prevalence of a mild epidemic. Considerable interest would appear to be evinced locally as to the prognosis of the incidence of plague for each year. Are we to have a mild or a severe epidemic during the coming year? Such a question is difficult to answer, notwithstanding the variability in climate, epizootic and epimic disease. In my opinion, we have but little control over the incidence of a disease like plague, and any prognosis, as to the incidence of the exotic, if given correctly, can only be due to good luck, and scarcely founded upon an irrefutable scientific basis.

3. *Cholera*.—Only 3 cases of this exotic were examined during the past year. Each case was pathologically and bacteriologically typical. Notwithstanding the fact that the disease is endemic in Southern China, it rarely becomes of serious importance in Hongkong. Any outbreak of Cholera in the Colony must certainly be attributed to the introduction of the infection from Canton and the surrounding country.

4. *Dysentery*.—Four fatal cases of the disease were found during the past year. In each case the type was amœbic. This is the most frequent variety of the disease met with in the Public Mortuary.

Although the disease is rife in China, it would appear to figure somewhat rarely as a cause of death, at least in Hongkong. Evidence of its presence in Chinese cadavers is abundant. This consists of irregular thickenings of the colon, cicatrices, and occasionally superficial ulcerations. Such changes are to be found in an extremely large number of the bodies examined the cause of death being, however, some entirely different disease. Bacillary, as well as amœbic, Dysentery, is also prevalent in Hongkong. My experience of this form of the disease in the Mortuary is very limited.

The statement made by CLEMOW, in his recent book on the "Geography of Disease" that "in the Government Civil Hospital in Hongkong, the disease is one of the commonest that comes under treatment" is much exaggerated. Dysentery is rife in China, and prevails in Hongkong, but its incidence in the Colony can hardly be said to be greater than many other disorders locally met with.

5. *Diarrhœa*.—This figures largely as a cause of death amongst the Chinese, especially amongst infants and children. During the year 1905, this, as a cause of death, was returned in 60 cases.

The causal agent at work in the production of these diarrhœas has not been determined. It is proposed, however, to investigate this question more thoroughly, especially from the point of view of the possible part played by a form of the *B. dysenteriae* in giving rise to many cases of this malady.

6. *Enteric Fever*.—This was returned as the cause of death in 27 cases. The following tabular statement is interesting as regards the age incidence of these cases :—

1 year, ...	9
1—2 years, ...	8
2—3 years, ...	6
3—4 years, ...	1
4—5 years, ...	2
8 years, ...	1
	27

These figures are in accordance with the results obtained during previous years.

In my Annual Report for the year 1904, the question of the incidence of typhoid fever amongst the Chinese was fully discussed. Evidence was brought forward in support of the contention that the Chinese—children and adults—frequently contract the disease. The theory, that the Chinese race, like the natives of India, are immune to typhoid fever, owing to their suffering from unrecognised attacks of the disease in childhood would not appear to have any scientific support. Professor OSLER (personal communication), CLEMOW, and other eminent authorities on typhoid fever, have come to the same conclusion as myself, namely, that the Chinese suffer from enteric fever as frequently during adult as during infantile life, and were the conditions of the people, and the conditions of life regulated in a manner similar to that obtained in the Occident, the incidence of the disease would differ but little from that found in Western countries.

7. *Beri-beri*.—The incidence of this disease would not appear to be diminishing in Hongkong. During the past year 150 cases were examined at the Public Mortuary. Both varieties of the disease, namely, the dropsical and atrophic forms, were present in about equal numbers. The majority of cases occurred in adult males. Examples of the disease were also found in females but the incidence was much rarer. *Beri-beri* would appear to be most prevalent during the working or wage-earning period of life.

The question of the etiology of *Beri-beri* is still involved in obscurity. Of theories as to its causation, there are no end. Deficiency in certain elements of a normal standard diet, bad food, bacteria, protozoa, etc., have been brought forward by different observers at different times as the cause of the disease. The most recent theory of the causation of *Beri-beri* is that brought forward by Dr. HAMILTON WRIGHT, late Director of the Institute for Medical Research, in the Federated Malay Settlements. WRIGHT is of the opinion that the disease is to be classed as an acute specific and infectious disorder, that it is due to a bacterium, the biological characteristics of which probably resemble the *B. diphtheria*; that there exists a primary lesion or focus of the disease, namely, a gastro-duodenitis, and lastly, that by multiplication of the bacteria in this primary focus, a toxin is secreted which is absorbed into the general circulation of the individual affected, and occasions the various changes which are found in the peripheral nervous system. This theory, published a year or two ago, has been well brought forward by WRIGHT and received considerable attention from those interested in the disease. In Hongkong it was considered desirable, in the presence of a wealth of material, to start a research into this subject from as wide a standpoint as possible, and to put to the test, the various theories, including that of WRIGHT, by the use of all the pathological and bacteriological methods at one's disposal. With the co-operation of the Government the research was commenced towards the end of 1904, and has been prosecuted more or less continuously until the latter end of the past year, when a Special Report on the results of the investigation was submitted to the Government by Dr. KOCH and myself. It is expected that this Report will be published in a few days. During the course of our investigations, the clinical, pathological, bacteriological, and experimental sides of the question were studied as thoroughly as possible. Briefly, the conclusions which Dr. KOCH and I have been able to draw are the following :—

- (1.) There is no evidence that *Beri-beri* is an acute specific infectious disease.
- (2.) No micro-organism, of the hitherto described forms, has been found in any organ or tissue of a *Beri-beri* patient, or a liver, which could be brought into causal relationship with the disease.

- (3.) Experimentally, it has been found impossible, by any method, to call forth the disease in any animal.
- (4.) In our experience, true Beri-beri does not exist in monkeys infected either naturally or experimentally.
- (5.) Beri-beri, as the result of our investigations, would appear to be non-microbial in nature. We are inclined to bring some chemical poison into causal relationship with the disease.
- (6.) Our results are in direct opposition to those obtained by Dr. HAMILTON WRIGHT.

8. *Rupture of the Spleen.*—Rupture of the spleen, as a cause of death, figures conspicuously, in coroner's enquiries and in the Supreme Court of Hongkong. Such cases frequently excite a considerable amount of local interest, and much speculation would appear to exist as to the amount of violence required to occasion such an injury which usually results in the death of the individual. Ruptures of the abdominal organs, and in particular, of the spleen, liver, and kidneys, may be due to violence or disease. Upon the degree of such ruptures depends the length of time of survivorship of the individual affected, and such cases, varying in causation, length of survivorship, etc., may have an important bearing in a charge of murder.

Rupture of the spleen is an ever-recurring cause of death at the Public Mortuary, and the opportunities afforded for a study of the condition are many. About 12 cases occur annually, and the exact circumstances under which the individual cases occur have always been noted. In a malarial country, like our own Colony, the spleen is usually found enlarged and brittle, (malaria), and the violence required to effect a rupture of such a diseased organ may be *very* slight, compared with that requisite to call forth a similar condition in a healthy spleen. This fact is one of importance, and the question as to the existence of a healthy or unhealthy spleen must always be taken into account from a medico-legal standpoint, as this circumstance may in certain cases mitigate the act of an assailant. In the majority of the cases which have come under my notice, such an ague spleen has been present. However, notwithstanding the presence of disease, it has always been a matter of great difficulty to form an accurate estimation of the amount of violence necessary in each individual case, to occasion a fracture of the organ.

From my own experience of cases of rupture of the spleen, I venture to put forward the following remarks in regard to the question of violence in such cases :—

1. Extreme violence may be used over the splenic area of the abdominal wall if the organ is healthy. Although the spleen, like the liver, is much exposed to rupture, yet it will not yield to a sudden shock so readily as the stomach and intestines. Cases of this nature have come under my notice. On two occasions I had an opportunity of examining the dead bodies of healthy individuals who had been run over by rapidly driven, and heavily laden dray carts. The wheels passed over the abdomen in the hypogastric and upper lumbar regions. In each case there was rupture of the stomach and fracture of the lower ribs. The spleen was unaffected.

Occasionally the question, as to the presence or absence of distension of the stomach, due to food, exercising a favourable influence on the possibility of rupture of the spleen, is raised.

Experiments, in regard to this factor, have been made upon cadavers and show that a "full stomach" has practically no significance in favouring the fracture. My own experience would appear to support the experimental side of the question. I know of no case, during the past four years in Hongkong, which could be said to have a distended stomach as a predisposing factor of the rupture.

2. Slight violence may be used over the splenic area and cause a rupture of the organ, *but only if the spleen is hard and brittle.* Slight pokes with the fingers or fists may cause the injury. Two Chinamen were "larking"; one happened to poke the other below the left ribs. The "tap" could in no sense of the word be called a "blow", yet the individual died in one hour and the post-mortem examination showed a well-marked rupture of an enlarged and brittle spleen.

3. The violence may be of the nature of compression of the waist by the arms. In a case which came under my notice, two Chinamen were wrestling, each gripping the other tightly round the waist. One of the two suddenly became faint and died soon after of rupture of an enlarged spleen. The spleen in this case was over 3 pounds in weight, *i.e.*, about 8 times its normal size.

4. The violence may be a fall. I have examined cases of this nature, and similar instances have been reported by other observers in different tropical countries. A false step taken by a Chinese pedestrian who has an enlarged spleen, may lead to a severe fracture of the organ.

5. The violence may be severe, yet no indication of such may be found in the splenic area of the abdominal wall. Cases of this nature have frequently been seen at the Public Mortuary.

6. Conversely, subcutaneous hæmorrhages in the abdominal wall, and over the spleen, may be found in cases where the violence is extremely slight. This is found in individuals suffering from Bright's disease, syphilis, typhoid fever, plague, purpura, hæmophilia, etc.

7. Spontaneous rupture of the spleen may take place. This may occur in individuals who have a large spleen, *e.g.*, weighing 3 to 5 lbs. Spleens weighing 3 lbs. are not uncommon in Hongkong. Excitement, coupled with sudden contraction of the abdominal muscles, may be sufficient to rupture the organ. In support of my contention, a good example of this mode of fracture of the spleen was published in 1902 in the Indian Medical Gazette. A native barrister of middle age was pleading in one of the Indian Courts when owing to some altercation with the Judge, he became greatly excited. A few minutes afterwards, feeling faint, he left the court room and died in half an hour from a severe laceration of the spleen. The organ was greatly enlarged and brittle. The deceased had suffered much from malaria during his life.

In this case the size of the rupture was large, so that it is obvious that no deductions may be drawn between the size of the rupture and the force of the blow which causes the injury. Severe laceration may be found in cases of spontaneous rupture; small tears may be present in cases due to severe violence.

8. Ruptures of the spleen due to stabs, heavy prods with bamboo poles, etc., are sufficiently clear in themselves and leave no doubt as to the degree of violence exercised.

In all cases of rupture of the spleen, it is a matter of great difficulty to estimate the *period of survival* after the infliction of the injury. In uncomplicated cases, we have no data to stand by regarding the quantity of blood effused before death. The rapidity with which the blood will flow from the spleen in each individual case cannot be estimated. A person may walk over some considerable distance after the receipt of the injury. This, undoubtedly will aggravate the hæmorrhage, but it must also be borne in mind that the bleeding will continue after death so long as the blood remains warm and fluid. Such questions of refined speculation, although often leading to different opinions by medical experts, would not appear to assist one in gathering together a concise and correct statement of each case.

9. *Amœbic Dysentery and its relation to Liver Abscess.*—Amœbic Dysentery is a common disease in Hongkong not only amongst Europeans but also amongst the Chinese. Its incidence amongst the Chinese is very evident in the Public Mortuary where an examination of the large gut of every case brought to autopsy, shows the great frequency of the disease. In at least 50-60 per cent. of the autopsies held by me annually, traces of dysentery can be demonstrated in the large intestine. In the majority of cases the inflammation is due to the presence of the amœba. In contradistinction to bacillary dysentery, the amœbic form would appear to be extremely chronic in its course. Indeed concluding from the post-mortem appearances met with in such cases, it would be difficult clinically to prognosticate when a perfect cure has taken place.

The presence of amœbæ in the large bowel must, in the light of recent research, be regarded as pathological. Diarrhœa or dysentery may not supervene as the result of their advent, yet other affections, *e.g.*, abscess of the liver may be set up.

The question of the relation existing between the presence of amœbæ in the bowel and the occurrence of so-called tropical abscess of the liver has been one of great interest to me for some considerable time. At the present moment, I am engaged upon a special enquiry into the subject. I propose to deal with my results, when completed, in a special monograph.

So far as one can gather from a consideration of the literature on this subject, a great deal of doubt would appear to exist as to the exact etiology of liver abscess as met with in the tropics. All sorts of causes *e.g.*, worms, bacteria, amœbæ, etc., have been advanced in order to explain the occurrence of tropical abscess in single individual cases. My own results, as yet incomplete, would lead me to conclude that tropical abscess of the liver is always due to amœbæ. In the vast majority of cases a history of dysentery is to be obtained—

at least of diarrhoea—and in this connection it must be borne in mind that the presence of amœbæ in the fœces is not synonymous with dysentery. They may only occasion an irregular diarrhoea. In fact, they may exist abnormally in the fœces for some considerable time without the advent of any untoward symptom. Again all cases of typical tropical hepatic abscess show the presence of amœbæ in the pus. Indeed the further I prosecute my researches into this etiological question, the more I become convinced that, in the absence of amœbic dysentery or of these protozoa in the intestine, tropical abscess of the liver will not occur. However, as soon as my investigations are complete, I hope to be able to submit a special Report upon the question.

Interesting Pathological Conditions.

1. *Anencephalia*.—One monster of this variety was found during the past year. The child was still-born, and the sex female. The condition was present without retro-flexion, and the vertebral canal was open only in the upper cervical region. There were no other malformations.

2. *A Case of Sloughing Inragination*.—A specimen of this interesting condition was examined by me, during the past year, for Dr. LAYNG of Swatow. The history of the case is as follows:—A Chinese male adult, aged about 35, was suddenly attacked with acute paroxysms of pain about the region of the umbelicus. There was slight vomiting and diarrhoea. The stools were fluid, brown in colour, and mixed with blood and mucus. There was no appreciable rise in temperature. At first the examination of the abdomen was negative, beyond marked contraction of the recti muscles. Subsequently there was tympanites, pain on pressure over the abdominal wall, and the presence of a sausage-shaped tumour in the region of the ascending colon. This condition of affairs remained practically the same for several weeks. During the eighth week of the illness, the patient suddenly became collapsed, and passed, *per rectum*, the specimen sent to me for examination and diagnosis. Subsequently the individual never rallied. Death took place in about 30 hours after the passage of the specimen. As is usual in Chinese cities, no post-mortem examination was permitted.

Result of Examination.—The specimen was a coil of intestine about 12 inches in length. It was a portion of the ileum, inclusive of the ileo-coecal valve, the internuneeption being of the ileo-coecal or colic variety. The walls of the gut were greatly thickened and in a gangrenous condition.

The condition is extremely interesting, and owing to its rarity, the pathological specimen has been preserved by me as a curiosity.

3. *Aneurism of the Heart*.—Two examples of this interesting and comparatively rare pathological condition were met with during the year. Both cases occurred in Chinese males over 40 years of age. In one instance marked evidences of syphilis were present throughout the body. Death in each case was sudden, the aneurisms bursting into the pericardial sac. Both dilatations were saccular in form, and had approximately been about the size of an orange. The aneurisms involved the entire walls of the heart, one being situated at the apex of the organ, the other involving the anterior wall of the left ventricle near the apex. The orifices communicating with the cavity of the ventricle were large, notwithstanding the saccular nature of the lesions. The walls of both sacs were much thickened owing to the deposition of a large amount of fibrin which had been laid down over in the inner surface in the lamellar form. On the other hand, at the point of junction of the sac with ventricle, the wall of the aneurism was extremely thin and in a degenerated condition. At this point, the rupture of the sac took place in both cases. Both the cases are of considerable value pathologically. Amongst Europeans the condition is of the rarest occurrence. The Chinese, however, frequently die as the result of aneurismal dilatations, and, as I have pointed out in my previous Annual Reports, arterio-sclerosis and the syphilisation of the coolie class of Chinese would appear to have some causal relationship with its occurrence. Large hypertrophied, but otherwise healthy, hearts are common amongst the Chinese, due obviously to violent muscular exertion. This must also be regarded as a predisposing factor in the production of aneurism.

4. *Distomiasis*.—This was returned as the cause of death in two cases. The pathological changes found in such cadavers, are mainly confined to the liver. In fatal cases, this organ is usually diminished in size and shows the presence of intense cirrhosis. On section, the cut surface of the liver shows numeous dilated, thickened biliary channels of an opaque-white colour. By using gentle pressure on the surface of the liver, one can express the *D. sinense* from the dilated bile channels either singly or in tangled masses. The series of changes which would appear to take place after infection of the organ with *Distoma* is as follows:—A subacute catarrhah inflammation of the epithelium of the bile ducts is set up accompanied by an increased mucous secretion.

This is followed by an hypertrophy of the epithelium of these ducts, and, in addition, by a great increase in the amount of the peri-connective tissue. New capillaries are formed in the hypertrophic connective tissue leaving to a narrowing of the lumina of the biliary channels, and also to degeneration of the surrounding liver parenchyma. Disturbances in the normal functions of the liver, interference with the portal circulation, ascites, etc., are gradually set up, and by degrees become so aggravated as to lead to actual disease and disorganisation of function quite incompatible with life. The extent and the intensity of the pathological changes found depend upon the number of parasites present. They may be present in hundreds or in thousands. It is only in instances of the latter condition that the disease would appear to endanger life. To those who practise extensively amongst the Chinese, I repeat what I have advocated in previous Reports, that in all cases of obscure hepatic disease, the examination of the fœces for the characteristic eggs of the parasite, should never be neglected.

5. *Aneurism of the Pulmonary Artery*.—One case was found during the year. It is one of the rarest pathological conditions of the human body. In many books on the subject of aneurism, the condition is not even mentioned. This aneurism occurred in an adult Chinese male, aged about 50. There was marked evidence of syphilis and generalised atheromatous changes in the vessels. These were most marked in the aorta, the wall of which was greatly thickened and puckered. The intima was studded with masses of calcareous atheroma. The pulmonary artery was also markedly atheromatous. The aneurism on the vessel was situated just inside the pericardial sac. It was saccular and communicated with the vessel by means of a small opening. Fibrin had been abundantly deposited in the sac. The rupture took place at the point of junction of the sac with the vessel wall, hæmorrhage into the pericardial sac resulting.

6. *Extra-Uterine Pregnancy*.—Four cases were examined during the year. All were in Chinese females under 30 years of age. In 3 of the cases ampullar pregnancy had occurred. The other was an instance of isthmal pregnancy. In each case rupture of the sac took place, resulting in hæmoperitoneum.

7. *A Case of Suppurative Cholangitis, Cholecystitis and Intra-hepatic and Cholelithiasis*.—This case is somewhat similar in many respects to that published by Dr. HARSTON and the Government Bacteriologist in the *British Medical Journal*, of November, 1905. The case was that of a Chinese adult female, aged about 35. No previous history was obtainable, the condition being discovered post-mortem. The liver was greatly enlarged. Its weight was about 4 lbs. The surface was rough and showed the presence of cirrhosis. The capsule was greatly thickened. On section, suppurative cholangitis was found present. The biliary channels were enormously dilated and their walls in some places were at least $\frac{1}{8}$ to $\frac{1}{4}$ inch in thickness. On gentle pressure, thick, tenacious pus, deeply bile stained, welled out from the bile ducts. In many places saccular dilatations of the biliary canals were found, and many of these contained one or more cholesterol bile pigment calculi. Many of these stones were as big as a walnut. Over a hundred calculi were found in the biliary canals throughout the liver substance. The pus contained *B. coli commune*. Cholecystitis was also present and over a hundred gall stones of varying size and shape were extracted. These were mostly of the nature of bile pigment and calcium salts.

The presence of numerous calculi scattered throughout the substance of the liver is an exceedingly rare pathological condition.

Tumours.

During the past year, a number of new growths have been examined. Most of these have been sent to me for diagnosis by medical men in Hongkong, and along the coast of China. The following is a list of the tumours which have been examined :—

I.—Malignant New Growths.

1. Primary Cancer of the Liver, (3 cases.)
2. Diffuse Colloid Cancer of Stomach.
3. Scirrhous Cancer of the Pylorus, (2 cases.)
4. Cancer of the Lungs, (2 cases.)
5. Cancer of Prepuce, (3 cases.)
6. Glandular Cancer of Cæcum.
7. Epithelioma of Penis, (2 cases.)
8. Cancerous Metastasis in Cervical Glands.
9. Spindle-celled Sarcoma of arm.
10. Chorion-epithelioma of Uterus.

II.—Non-Malignant New Growths.

1. Chronic inflammatory fibrous nodule of Breast.
2. Ditto of Labium Majus.
3. Papilloma of Lip, (2 cases.)
4. Fibro-adenoma of Breast.
5. Warty growth on prepuce, (non-malignant.)
6. Myoma, (uterus.)

Information regarding the prevalence of new growths in China is scanty, it is difficult to obtain, from the Chinese, accurate statistics in regard to the question. So far as one can gather, however, there is no reason to doubt the frequent incidence of malignant disease amongst the natives of China. Indeed my own experience would lead me to conclude, that cancer is as frequently met with amongst the Chinese as the European. The prevalence of malignant disease in China does not fall far short of that found in other countries. At the same time, it must constantly be borne in mind, that Chinese suffering from new growths rarely enter hospital.

Plague.

The number of cases of plague examined post-mortem during the past year was 136. Compared with previous years, this number is exceedingly small, being even considerably less than during the previous year. The past year is conspicuous in the plague history of the Colony in that an extremely mild epidemic of the disease occurred. The condition of affairs was very similar to that obtained during 1904. In both years, therefore, a mild epidemic of plague has broken out in the Colony. What this demonstrates would be indeed difficult to show. Whether it means a temporary lull in the incidence of the disease, or a gradual and natural death of the pest, or as we might expect, the result of a successful combat with the disease from a sanitary point of view, is quite impossible to state. This, however, may be stated, that the history of ancient and modern epidemics of the disease show the futility of the preventive measures adopted from time to time to cope with the outbreak.

The following types of the disease were met with during 1905 :—

I.—Pestis Bubonica—

Left Femoral Bubo, ...	34
Right „ „	28
Right Axillary Bubo, ...	9
Left „ „	7
Right Cervical Bubo, ...	5
Left „ „	4
Left Inguinal Bubo, ...	4
Right „ „	3
	94

<i>II.—Pestis Septicæmica, ...</i>	27
<i>III.—Pestis Pneumonica, ...</i>	5

Total,..... 136

The frequency of the different types of the disease, during the epidemic, may be expressed as follows :—

Pestis Bubonica, ...	69%
„ Septicæmica, ...	27%
„ Pneumonica, ...	4%

So far as the prevalence of the different types of the disease are concerned, the experience gained from the epidemic of 1905 is practically identical with that found during previous years. The bubonic type of the disease is prevalent throughout the epidemic.

The start and finish of the outbreak are marked by the continuance of uncomplicated septicæmic cases of the disease. My continued experience of plague, more and more, convinces me, that the exotic is, *ab initio*, a disease of a septicæmic nature.

Epizootic Plague.

With special reference to Epimuic Plague.

Throughout the past year, *the examination of rats*, found dead, or caught alive, has been systematically carried out.

(a.)	Total No. of Victoria rats examined, ...	22,449
	„ Kowloon „ „	8,439
	Total No. of Hongkong rats examined, ...	30,888
(b.)	Total No. of Victoria rats found infected, ...	942
	„ Kowloon „ „	508
	Total No. of Hongkong rates found infected, ...	1,450

Comparing these results with those of the year 1904, one finds that there is an *increase in the number of rats caught by 8,981*. This figure, notwithstanding the presence of a mild outbreak of plague, is very satisfactory. It shows that "rat catching" is receiving more and more support from the general public. Although a mild epidemic of plague occurred during the past year, the amount of the epizootic was considerable, the epimic being represented by 1,450 cases, compared with 993 cases during the year 1904.

From the results obtained during the past four years, it would appear that *the amount of Rat Plague*, instead of diminishing, is *gradually increasing*. The following figures are interesting :—

Year.	No. of Rats Examined.	No. of Rats found infected.	Percentage found infected.
1902, ...	117,839	2,015	1.7 %
1903, ...	101,056	3,744	3.7 %
1904, ...	21,907	993	4.5 %
1905, ...	30,888	1,450	4.7 %

In addition to rats a number of other animals, sick or found dead, have been examined for the presence or absence of plague.

11 Fowls, ...	All Negative.
3 Cats,.....	„ „
2 Ducks,.....	„ „
2 Geese, ...	„ „
1 Monkey, ...	„ „

The role played by the rat in the dissemination of plague infection would appear to be gaining gradually more recognition. The continuous observations of the epimuric during the past four years, and its relation to the epidemic, has led me to believe, that, in the rat we have the *fons et origo* of plague infection. In 1905, although the amount of available material is small, the epizootic preceded the first cases of plague which occurred in man. Judging from my experience of former years, such a preliminary epimuric must be looked for in every endemic plague centre previous to the appearance of widespread human plague.

Again, the experience gained in Hongkong is, that the area of the epimuic is practically co-extensive with that of the epidemic, and a diminution of the former is co-incident with a fall of the latter.

The publication of my Report on Epidemic and Epizootic Plague in 1904, setting forth the important role played by rats in disseminating plague, has evoked considerable discussion both locally and elsewhere. The criticism offered has, in my opinion, been fair, and I have anxiously awaited the results of investigators in other parts of the world, who have had ample opportunities of verifying or refuting the Rat Theory of Plague Epidemics.

The recent report, on the 4th outbreak of Plague in Sydney, by Dr. ASHBURTON THOMPSON, is of great interest in this respect. Since this observer commenced his studies of plague epidemiology, he has been deeply impressed by the rat theory of the disease, the last report on Plague in Sydney [1904] is of importance in that, the views put forward are in perfect accord with my own. The conclusions adduced by THOMPSON are, that plague is dependent on plague rats, that there is a close relationship between the epimic and the epidemic, and that an extermination of the rat means a staying of plague. In a city like Sydney, with a population composed mainly of whites, these results are of great value, confirming the observations made in Hongkong, under adverse circumstances, owing to the dense Chinese population and general insanitary condition of the City.

Further, my results have received confirmation in the hands of Dr. PAKES, who, in a recent exhaustive report on Plague in Witwatersrand in 1904 has demonstrated clearly the close connection between the outbreak of rat plague, and the occurrence of the epidemic. Human plague in Peru has also been traced to the occurrence of widespread epimic plague. In a report in the Bull. de l'Inst. Pasteur. No. 21, on the prevalence of plague in Callao, special attention is directed to the role played by the rat in plague dissemination, and it is insisted that plague is not to be regarded as a very contagious or infectious disease. I have already dwelt upon this question in my special report on Plague, and drawn attention to the fact that, apart from cases of primary pneumonic plague, cases of plague may be treated successfully in the wards of a general hospital. Indeed plague patients have been treated successfully in well ventilated rooms of their own residences, without any extension of the disease to the other inmates of the house. The reports of the various Commissions, and in particular the Indian Plague Commission, express themselves strongly upon this point. It has even been said, that the wards of a plague hospital are the safest places during a severe epidemic.

During the past year Professor MARTIN, Director of the Lister Institute, London, a Member of the recent Commission, sent to India to investigate Plague, communicated with me *re* the Rat Theory of Plague Epidemics. I furnished him with all the details at my disposal, and from what I have heard, that Commission is devoting a considerable part of its time to the question of the rat in spreading plague, and the importance of this rodent in plague epidemiology. Their results will be awaited with considerable interest.

So far as one can gather, this theory of plague epidemics would appear to be steadily gaining ground, and it is to be hoped that with the establishment of such a theory on a firm basis, and the knowledge of the methods of communication of the infection from rats to man, our sanitary and prophylactic measures against the disease will be simplified and reduced to sound scientific principles, in a manner, similar to the present-day methods of dealing with a disease like Malaria.

The results of the investigations in Witwatersrand show clearly that rats are susceptible to plague through the ingestion of infected food. That such obtains in Hongkong has been shown by me in my Report on Plague for 1904. In this Report, I noted the discovery of the *B. pestis* in rice, and the communication of the disease to rats by such infected food.

It is difficult to get away from the possibility that food has something to do with the spread of the disease. Ingestion is a common mode of conveyance of the infection in rats, and other animals. It remains to be proved, if such a method of infection obtains in man. Plague infected rats, through their secretions and excretions, may disseminate the *B. pestis* broadcast amongst articles of food used by the native. Indeed, paragraph 29 of ASHBURTON THOMPSON'S recent Report is significant in that there existed a possibility of the infection of workmen's food by plague infected rats in plague infected places. These points, and other recently added facts in regard to the mode of infection in plague, show us, how hypothetical yet is the view that plague prevalence in epidemic form is built up of cases of direct cutaneous inoculation. In the light of many recent researches, the skin inoculation theory of plague would appear to lose much of its significance.

Domestic pets, *e.g.*, cats, may also occasionally be of importance from the point of view of spreading plague. These animals are known to suffer from the disease, and it is most probable that they contract plague, through the ingestion of plague rats. Minor epizootics of cat plague have occurred from time to time in several endemic plague centres, including Hongkong. Recently its occurrence has also been noted in South Africa. My contention that ectozoa have little significance in the spread of plague is gradually receiving general confirmation. We possess no data at present to support the view, that micro-organisms of the bacillary form, *e.g.*, the *B. pestis*, pass through a definite cycle of development in the body of an insect and that such an intermediate host is essential for the transference of the

disease to man. Indeed all the evidence at present is against the spread of plague by insects by inoculation, and that the mode of conveyance of protozoal diseases, *e.g.*, malaria, is quite different from those due to micro-organisms of the well recognised types.

In regard to the question of the communication of the disease, direct from person to person, I have already pointed out in my Report on Plague, that instances of such cases—apart from pneumonic plague—must be rare indeed. In his recent Report on Plague, ASHBURTON THOMPSON deals with this point, more or less thoroughly, and the conclusions which he has formulated are practically the same as those of my own. Therefore, it would appear that plague is not “so catching” as previously insisted upon, and that during the course of different epidemics, the diffusion of the disease was not direct—from person to person—but “incidental to conditions which obtained independently of man.” (THOMPSON).

The use of the Virus of DANYSZ to exterminate rats is to be regarded as signal failure in Hongkong. Our local results are in agreement with those obtained in Sydney, South Africa, and elsewhere. The majority of reliable reports pronounce this virus to be of no use.

Bacteriological Investigations.

During the past year a considerable amount of pure bacteriological work has been done. So far, no attempt has been made to prepare the more complicated vaccines and sera, *e.g.*, the plague prophylactic, and various plague sera. It was felt that until the completion of the Bacteriological Institute, the preparation of such would be attended by considerable risk.

The amount of clinical bacteriology done during the year is greatly in excess of previous years. This applies, not only to the number of examinations carried out for various Government Medical and Sanitary Institutions of the Colony, but, also, I am glad to say, to those which have been forwarded to me by medical men in Hongkong, and neighbouring ports. It is to be hoped that, with the establishment of the Bacteriological Institute in Hongkong, as a thoroughly equipped and working institution, considerable progress will be made in regard to our knowledge of the diseases existent amongst the Chinese. Indeed, I feel convinced, that, given the co-operation of our medical and sanitary authorities in Hongkong much can be accomplished along many different lines of investigation.

1. *Relapsing Fever*.—One case of this disease was examined pathologically and bacteriologically. It was not naturally acquired in the Colony but imported from a Northern port of China. This disease does not, at present, exist in the Colony. Nothing characteristic could be made out of the autopsy, but microscopically numerous examples of the specific spirochaete were found. Attempts were made by Dr. Kocu and myself to cultivate these organisms outside the body. So far the results obtained have been unsatisfactory. This spirillum would appear to be allied to the genus *Trypanosoma*. Its exact phase has so far been undetermined. There is every reason to believe that this disease is spread by a special species of *Culex* Mosquito, examples of which are, in all probability, well represented in the Colony. Should further cases of the disease come before my notice, I propose to carry out investigations as to the exact position of the spirillum in protozoology and its probable insectivorous spread from man to man.

2. *Malta Fever*.—Throughout the past year, an outlook has been kept for cases of this disease. The malady has a wide geographical distribution and cases have been reported from Hongkong. The majority of the latter belong to the Naval Authorities who have imported cases from countries further West. Cases of continued and intermittent fever have been repeatedly tested for the specific serum reaction but with negative results. So far as my own personal experience is concerned, I have no knowledge of any case of Malta Fever originating in the Colony.

3. *Typhoid Fever*.—Over 50 cases of suspected Typhoid Fever have been examined by Widal's test during the past year. In the majority of instances, the test has been performed with blood serum obtained from in-patients of the Government Civil Hospital. In the majority of cases, a satisfactory result has been obtained. The test, like all others, is not infallible, yet remains as a valuable adjunct to the diagnosis of doubtful cases of the disease.

4. *Diphtheria*.—A few cases of the disease were found during the year. The usual tests were made, namely, cultivation of a swab smear on blood serum with subsequent microscopic examination of the growth after applying various tests, *e.g.*, Gram's method, Neisser's stain, etc. This disease would not appear to be common in Hongkong. On the

other hand, cases of acute pharyngitis, follicular and non-specific tonsillitis, are among the common diseases of the Colony. I have repeatedly been asked to decide as to the presence or absence of the *B. diphtheriæ* in such cases—an important result from the point of view of treatment.

5. *Experiments with Formalin as a Gaseous Disinfectant.*—In the past gaseous disinfection was in great favour and deemed to be the most radical method of dealing with outbreak of epidemic disease. Such an idea was firmly clung to, owing to the prevalence at that time, of the theories of contagion and miasma. Now-a-days with the change in our conception of the spread of infectious disease, it becomes obvious that gaseous disinfection is not so reliable as formerly believed. Indeed there is good reason to believe that it is not of much value.

During the past year, Dr. PEARSE, the Medical Officer of Health, carried out several experiments in regard to the efficiency of formalin gas as a reliable germicide. Within recent years this gas has come into general favour as a gaseous disinfectant. The micro-organisms used by Dr. PEARSE for his experiments were supplied by me and the different tests arranged for in the following way. Sterile Petri's plates were smeared with different micro-organisms. These were exposed for varying lengths of time to the action of the gas. Thereafter the plates were forwarded to me, and the necessary bacteriological test applied. In the majority of instances the plates were found to be sterile, thus showing that Formalin gas, when used in the laboratory, was efficient as a germicide.

In addition to these experiments several other tests were made by myself, in order to show whether we possess, in Formalin, a disinfectant of great value. The results of my enquiry into the question show that, although the general results of experimentation prove Formalin to be an excellent germicide when tested in the laboratory, much doubt exists as to the efficiency of the gas when used for general house disinfection. The condition of affairs obtainable in the laboratory is by no means comparable to that found in actual practice. The factors which bring about such a failure in the efficiency of gaseous disinfection in general practice, would appear to be the following :—

- (1.) In a room to be disinfected, about 60-80 per cent. of the disinfecting gas is lost.
- (2.) An important factor is the difference between the specific gravity of the gas and the air in the room.
- (3.) It is almost impossible to obtain an equal distribution of the gas.
- (4.) Micro-organisms, in the dry condition can scarcely be killed by a gaseous disinfectant. Moisture must be present. Formalin, although the fashionable gaseous disinfectant of the present day, fails in a good many ways as a disinfectant.

It is one of the best inhibitors of the multiplication of germ life, even in albuminous solutions. Unfortunately, however, it is but a meagre bactericidal agent. Again, it has an advantage over many gaseous disinfectants in that its specific gravity is approximately that of the air, thus ensuring an intimate admixture of gas and air. However, such valuable property as this is completely counterbalanced by the fact, that Formalin gas has practically no power of penetration; thus it can be used for surface disinfection only.

With these remarks it is evident that Formalin, although highly commended as the result of laboratory experiments must yield us unsatisfactory results when used for general house disinfection owing to its limited bactericidal powers and its failure to penetrate beyond the surface of any article requiring thorough disinfection.

6. *The Strength of Disinfectants.*—During the past year, a considerable amount of attention has been given to the question of disinfectants (chemical). Quite a number of these fluids have been examined bacteriologically in order to estimate their carbolic acid co-efficiency, with the hope of arriving at some conclusion as to the most efficient disinfectant which may be used in conjunction with general cleansing.

Up to the present time, great confusion has constantly arisen as to the warranty of the efficacy of a chemical disinfectant. It may be said that there exists no proper official control over the sale of such disinfectants, a condition of affairs likely, at some time, to lead to a false sense of security on the part of the general public, who only too readily fortify themselves against plague and other infectious diseases, by the liberal use of some disinfectant in their immediate surroundings. Disinfectants, as sold by different manufacturers, have no proper guarantee of their potency. They all vary in their germicidal power, and different samples of the same disinfectant are known to give very varying bacteriological results. During the past three years, an entirely new test for the bacterial determination of the

efficiency of a disinfectant has become widely adopted. The principle of this method is that the strength of a particular disinfectant is expressed in multiples of pure phenol, performing the same work. In this way a ratio is obtained which is now well known as the "Carbolic Acid Co-efficiency of the Disinfectant."

The following disinfecting fluids were submitted to me by the Secretary of the Sanitary Board for examination as to their co-efficiency :—

1. Carbolated Creasote.
2. Jeye's Fluid.
3. Cyllin [2 samples].
3. Blackhead's Disinfecting Fluid, [2 samples].

Rideal and Walker's method of estimating the co-efficiency was used. The micro-organisms used for the different tests were :—

1. B. Typhosus.
2. B. Coli Commune.
3. B. Pestis.

These organisms were grown in broth culture for at least 24 hours at a temperature of 37° C. and then mixed with varying proportions of the particular disinfectant, a standard solution of carbolic acid being used in addition. After the culture had been exposed to the action of the disinfectant for a definite time, sub-cultivation was made from the mixture in order to determine whether the particular strength of the disinfectant had been efficient as a germicide. It is quite unnecessary in the present Report to give in detail a number of tables indicating the method by which the carbolic acid co-efficient of each disinfectant towards each particular micro-organism was obtained. One example will suffice in order to demonstrate my method.

Carbolated Creasote.

Table I.

B. Typhosus, 24 Hours Broth Culture at 37° C.

Sample.	Dilution.	Time limit of Exposure.				Sub-cultures.	
		Minutes.				Period of Incubation.	Temperature
		2	5	7	10		
Carbolated Creasote, ...	1 in 100.	×	×	...	...	48 hours.	37°C.
	1 in 200.	×	×	...	...	"	"
	1 in 300.	×	×	×	...	"	"
	1 in 500.	×	×	×	×	"	"
Carbolic Acid, ...	1 in 100.	×	×	×	...	"	"

∴ Carbolic Acid Co-efficient=3.

Table II.

B. Coli, 24 Hours Broth Culture, at 37°C.

Sample.	Dilution.	Time limit of Exposure.				Sub-cultures.	
		Minutes.				Period of Incubation.	Temperature.
		2	5	7	10		
Carbolated Creasote, ...	1 in 100.	×	...	...	...	48 hours.	37°C.
	1 in 200.	×	×	...	...	"	"
	1 in 400.	×	×	×	...	"	"
Carbolic Acid, ...	1 in 100.	×	×	...	...	"	"

∴ Carbolic Acid Co-efficient=2.

Table III.
B. Pestis, 24 Hours Broth Culture, at 37°C.

Sample.	Dilution.	Time limit of Exposure.				Sub-cultures.	
		Minutes.				Period of Incubation.	Temperature.
		2	5	8	10		
Carbolated Creasote, ...	1 in 100.	×	...	...	...	48 hours.	37°C.
	1 in 200.	×	...	...	...	"	"
	1 in 400.	×	×	...	...	"	"
	1 in 800.	×	×	×	...	"	"
	1 in 1000.	×	×	×	×	"	"
Carbolic Acid, ...	1 in 100.	×	×	×	...	"	"

∴ Carbolic Acid Co-efficient=8.

In regard to the other disinfectants, the same method was employed. It will be necessary therefore to give the tables in full. The following Carbolic Acid Co-efficients were obtained :—

Jeyes' Fluid.

<i>Micro-organism.</i>	<i>C. A. Co-efficient.</i>
B. Typhosus, ...	2
B. Coli, ...	2
B. Pestis,.....	7 or 8 (?)

Cyllin, [2 samples].

<i>Micro-organism.</i>	<i>C. A. Co-efficient.</i>	
	<i>No. 1.</i>	<i>No. 2.</i>
B. Typhosus, ...	8	9
B. Coli, ...	8	8
B. Pestis,.....	15	20

Blackhead's Fluid, [2 samples].

<i>Micro-organism.</i>	<i>C. A. Co-efficient.</i>	
	<i>No. 1.</i>	<i>No. 2.</i>
B. Typhosus, ...	2	2
B. Coli, ...	2	2
B. Pestis,.....	6	6

In conclusion, it is difficult, indeed well nigh impossible to obtain a means of disinfection likely to be effectual in removing the germs of disease from our surroundings. The results, which have been obtained locally, and elsewhere, founded upon years of thorough application of the different means at our disposal for the eradication of plague and other infectious diseases, are not encouraging, and it is a matter of speculation at present, whether, apart from general cleansing, the employment of expensive chemical mixtures offers us a better chance of stamping out bacterial diseases. Of chemical disinfectants, their number is legion, and when tested in the laboratory against the germs of disease, prove very effectual in their action. Some are more so than others, but no greater mistake can be made to expect such chemical preparations to exert the same efficiency in general house-to-house cleansing and disinfection. It is upon these and other grounds that one is rendered very sceptical as to encouraging wholesale expenditure upon expensive preparations.

7. *Trachoma amongst the Chinese.*—This disease is well worthy of a special enquiry in Hongkong. Its ravages amongst the Chinese are well known. Trachoma, which in the past has wrought such havoc amongst large collections of human beings, *e.g.*, in 1499, when Louis VIII entered Naples and in 1798 when Napoleon Bonaparte won the battle of

the Pyramids, and other notable instances, still baffles the expert pathologist and bacteriologist. All that is known is that the disease is an infectious, chronic, granulomatous affection of the conjunctiva. Its bacteriology is still in a state of chaos. Several cases have been examined by me but so far nothing definite has been obtained. Cocci of various kinds, Koch-Weeks bacillus, Gonococci, etc., have been found present in trachomatous eyes, but none of these micro-organisms, can, in my opinion, be brought into causal relationship with the disease. The idea, that trachoma is a chronic inflammatory process to be traced to acute gonorrhœal blenorrhœa has but little to support it. Indeed, in the light of our modern knowledge of the *M. gonorrhœae*, such a pathological condition would appear to be out of the question. The causal significance of Raehlmann's bacteria is still a matter of considerable dispute. It has often been my intention to avail myself of the excellent opportunities afforded for a thorough study of the disease which is so prevalent in Hongkong, but up to the present, circumstances have prevented me from investigating the subject thoroughly. I trust, however, to have better chances of examining the disease after the starting of the Bacteriological Institute.

The Vaccine Institute.

During the year 1905, the preparation and distribution of small-pox vaccine was efficiently maintained. Apart from the regular supply of vaccine lymph to Government Medical Departments and Chinese Hospitals and Public Vaccinators, a very considerable number of tubes has been sold to the outside public. Indeed the number of such tubes sold to the general public during the past year, amounts to 4,393, a figure exceeding by thousands the number of tubes issued during any previous year since the establishment of the Institute. Such a result speaks well for the popularity of the lymph, and with the future as assuredness of a constant and potent supply of vaccine in Hongkong, a considerable revenue ought to be forthcoming. During the past year, nearly \$1,500 were paid into the Bank.

It is anticipated that in the near future, with the establishment of the Bacteriological Institute, this figure will duplicate on triplicate itself.

The following figures show the extent of the work done during the past year:—

1.—Number of Calves inoculated, ...	21
2.—Expenditure in Calves, ...	\$150.00
3.—Number of Tubes prepared, ...	6,703
4.—Value of 1905 Lymph, ...	\$3,351.50
5.—Number of Tubes issued, ...	7,638
6.—Value of Tubes issued, ...	\$2,708.00
7.—Tubes issued free of charge, ...	3,245
8.—Value of Tubes issued free of charge, ...	\$1,223.00
9.—Tubes paid for, ...	4,393
10.—Value of Tubes paid for, ...	\$1,485.00

These figures show the following increase in the value of the work done during the year 1905:—

(1.) An increase in the number of Tubes prepared by	1,419
(2.) An increase in the value of the Lymph by	\$709.00
(3.) An increase in the number of Tubes issued by	750
(4.) An enormous increase in the number of Tubes paid for by	2,209
(5.) An increase of Revenue paid into the Bank by	\$711.50

Out of 21 calves inoculated, two died, and three failed to react. The cause of death of the two calves was a form of septicæmia, which developed within twenty-four hours after the admission of the animals to the Institute.

Up to the present time, it has always been the custom to manufacture the lymph during the colder seasons of the year. Such a practice was necessitated owing to the difficulties experienced in the production of the vaccine during the warm weather. It is hoped, however, that with the establishment of the Bacteriological Institute, that it will be possible to maintain an efficient supply of potent lymph throughout the whole year, a state of preparedness which will enable us to deal at once with any unforeseen outbreak of small-pox. During the last quarter of the past year, considerable difficulty was experienced in maintaining the supply of buffalo calves for inoculation purposes. On investigation, this was found to be due, not to a dearth of animals within the bounds of the Colony, but to the reluctance on the part of the Chinese owner to part with his animal until he was paid

"cash". This system of cash payment for calves has now been adopted and so far as one can gather will do away with the ever-recurring difficulties of the past, namely, the apparent scarcity of calves for inoculation. The animals are bought outright from the owner, an average sum of \$25 being paid for each calf. They are inoculated, the vaccine collected, and the animals are re-sold after their recovery for an average of \$10 each. It is estimated that about \$120 clear profit is to be made out of each calf if purchased and re-sold according to the present method.

Issues of Vaccine during 1905.

Vaccine paid for, ...	4,393
The Victoria Gaol	1,075
The Tung Wah Hospital, ...	950
The Civil Hospital, ...	550
The Alice Hospital, ...	424
The New Territory, ...	100
The Public Vaccinators, ...	90
The Sanitary Board, ...	56
Total, ...	<u>7,638</u>

As is well known, the lymph, as obtained from the calf, contains numerous extraneous micro-organisms. As the latter are capable of occasioning untoward symptoms in the individual vaccinated, and at the same time vitiating an otherwise completely successful vaccination, many methods have been advocated, and even adopted, by different manufacturers, in order to supply the general public with a reliable and germ-free vaccine virus. The method which has been most widely adopted, is the intimate mixture of glycerine with the freshly drawn lymph and pulp. This process has obtained general acceptance, and glycerinated calf lymph is known to give good and more or less uniform results. It would appear, however, that the use of glycerine as a germicide in the production of pure calf lymph, has several disadvantages, especially in tropical countries. This may be summarised as follows :—

- (1.) Considerable care has to be taken in order to keep up the efficiency of the vaccine. As is well known the specific action of the virus of the vaccine is weakened by the use of glycerine. Further, in tropical countries, this action of the glycerine would appear to be exerted more strongly. As has already been noted in my previous Reports, glycerinated vaccine lymph as prepared in Hongkong, only retains its virulence for a month or six weeks.
- (2.) Vaccine lymph which has been glycerinated cannot be used for the general purposes of human vaccination until it has been kept in reserve for at least a month or six weeks. It has been estimated that this period or even longer must elapse before the majority of the extraneous micro-organisms has been destroyed.
- (3.) The use of glycerine as a purifier of the vaccine virus is applicable only to organisms of a non-sporing nature. Resisting spore-bearing germs would not appear to be materially restrained in the multiplication in glycerinated lymph, and might become a fruitful source of danger to those vaccinated. Tetanus, and other diseases, have been known to occur after vaccination, the causal agent having been simultaneously introduced subcutaneously with the vaccine lymph.

These, and indeed other objections are applicable to the general employment of glycerinated calf lymph. In the tropics, such disadvantages become even more real. Vaccine is often requisitioned for urgently. It will not keep during the hot weather. If mixed with glycerine it has to mature for at least six weeks. Glycerinated calf lymph—so far as past experience in Hongkong teaches us—does not guarantee a constant and reliable source of protection. It would appear to be of great importance to have at our disposal a rapid method of obtaining a germ free lymph.

Up to the present time, many methods of preparing vaccine lymph have been advocated.

The majority have as their object the manufacture of a good strain of vaccine in the shortest time possible.

The biological method of CALMETTE and GUÉRIN, namely, the rapid destruction of all extraneous germs in glycerinated calf lymph by the incubation of the latter at the body temperature for a varying period of time has now been shown to give too untrustworthy results for its adoption in general practice.

The potassium cyanide method of GAYLORD and WHEELER would appear to have been almost entirely disregarded, owing to the weakening action which this salt exerts upon the vaccine virus itself.

The chloroform method of GREEN has lately received a considerable amount of attention. It is claimed that this process is capable of rendering a vaccine lymph germ free, so far as non-sporing micro-organisms are concerned—within an exceedingly short time.

In the hands of competent authorities, calf lymph so prepared gives exceedingly constant results, and insures us of obtaining a potent supply of vaccine within a day or two. Indeed so favourable are the reports upon this modification of the preparation of the virus, that it is proposed during the following year, to conduct experiments, with a view to obtaining an efficient supply of lymph on the shortest notice.

It may be incidentally noted, that the behaviour of vaccine lymph towards the action of glycerine, heat, chloroform, potassium cyanide, etc., is a strong point in favour of the view that the causal agent of vaccinia is not of a bacterial nature.

Scientific Publications prepared during the Year.

1. *A case of acute Endocarditis due to the Micro-coccus Gonorrhæal.*—Published in the *British Medical Journal*— March, 1905.

In this paper particular attention was directed to the infectious nature of the Gonococcus. Within recent years, many proofs have been forthcoming to establish the fact that this micro-organism, in addition to being the usual exciting agent of infective urethritis, may reach the general blood stream and set up metastatic disease. The Gonococcus may be regarded as an occasional exciting agent of Septicæmia.

2. *Plague in Cats.*—Published in the *Lancet*.—April, 1905.

In this publication, the followings facts were established :—

- (a.) Cats may suffer from plague.
- (b.) Cat plague may be acute or chronic.
- (c.) The type of disease is septicæmic.
- (d.) Cats may occasionally play a part in the dissemination of plague infection.
- (e.) In plague infected districts, possible plague infection in cats is of great importance from a domestic point of view.
- (f.) In plague infected areas, cats probably become infected through plague rats and mice, which they devour as food.

3. *The Incidence of Disease in Hongkong.*—Published in the *Journal of Tropical Medicine.*—May, 1905.

In this paper, my attention was directed to the prevalence of different forms of disease in the Colony. The incidence of exotics, like plague and cholera, was summarised as briefly as possible, and conclusions, based upon my experience of these diseases in Hongkong, were drawn as to the best means of their eradication.

4. *The Spread of Plague Infection by Insects.*—Published in the *Centralblatt für Bakteriologie.*—November, 1905.

In this paper, the following conclusions were drawn :—

- (a.) Insects may harbour the *B. pestis*.
- (b.) Insects, containing plague bacilli, may be the means of disseminating these germs over indefinite areas.
- (c.) The part played by suctorial insects, *e.g.*, fleas, bugs, etc., in the spread of plague, is similar, in all respects, to that of non-suctorial insects, namely, the mechanical conveyance of the infection from place to place.
- (d.) The dangers attributed to the bites of suctorial insects, in the spread of infectious disease, *e.g.*, plague, would appear to be exaggerated.
- (e.) In all probability, the spread of all infectious diseases, *e.g.*, plague, cholera, typhoid fever, etc., by insects is accomplished only indirectly.
- (f.) The deposition of the *B. pestis* by insects on foods, clothing, household utensils, etc., is bound to occur in plague infected areas, and this factor is one of no mean epidemiological importance.

5. *The Prophylaxis and Prevention of Plague*.—Published in *The Journal of Preventive Medicine*.—November, 1905.

In this paper, the following measures were considered necessary in order to deal effectively with the disease.

A.—General Prophylaxis.

- (a.) The limitation of actual quarantine.
- (b.) The avoidance of dogmatic rules and standing orders for health officers.
- (c.) The individual treatment of each case according to its merits.
- (d.) The employment of competent ship doctors.
- (e.) The employment of skilled port health officers, well versed in quarantine matters. These officers, in order to overcome the many duties of their office, should devote the whole of their time to this work.
- (f.) The medical examination of passengers and crews of ships in plague infected ports.
- (g.) The medical control over cargo and merchandise from plague infected ports.
- (h.) The destruction of rats on board ship.

B.—Special Prophylaxis.

- (a.) The sanitary control of areas supposed to be infected.
- (b.) An early recognition of the disease, which is attained through :—
 - (1.) Compulsory post-mortem examinations.
 - (2.) Immediate notification of all cases to the sanitary authorities.
 - (3.) Systematic search in infected districts and neighbourhood for other cases of the disease and sources of infection.
 - (4.) The bacteriological examination of rats.
 - (5.) The provision of opportunities for the study of the disease from all points of view.
- (c.) The isolation of infected persons.
- (d.) The medical supervision of relations and contacts.
- (e.) The provision of segregation camps.
- (f.) Wholesale measures for the destruction of rats and other vermin.
- (g.) The education of the people, especially in regard to cleanliness, cooking of food, boiling of water, etc.
- (h.) Skilled veterinarian supervision of all food supplies.
- (i.) The thorough disinfection of all infected foci.
- (k.) The thorough cleansing of non-infected districts.

Much more research would appear to be required before one could safely include, and recommend in the above list, protective inoculation and the employment of the various plague sera advocated.

6. *A Case of Chorion Epithelioma*.—(Jointly with Dr. BELL, Superintendent of the Government Civil Hospital, Hongkong) published in the *Lancet*.—October, 1905.

A piece of the growth was removed and examined microscopically. The following is my Report:—Microscopically the piece of tissue submitted for examination was not unlike placental tissue. It was soft and spongy and full of blood. Histologically the tissue was found to be made up of areas of free hæmorrhage, blood sinuses, and a peculiar parenchyma. No definite stroma was found. The greater portion of the mass was composed of extravasated blood, and as a result of this, copious masses of blood pigment were found in certain areas of the tissue, particularly in the areas of free hæmorrhage, but also in the parenchyma. The blood sinuses were abundant. They varied in size, possessed delicate endothelial tunics, and were packed full of the formed elements of the blood. The parenchyma possessed a characteristic histogenesis and led me to the diagnosis. At first sight certain parts resembled a small round celled and rapidly growing sarcoma, but this, on more careful examination proved to be largely composed of leucocytic accumulations, in which were found phagocytes, polyhedral cells, large epithelioid cells, and diffuse plasmodium-like structures. The polyhedral cells arranged themselves into alveoli. The large epithelioid cells—some resembling giant cells—were scattered throughout the parenchyma, arranged sometimes singly, sometime in small groups. They contained nuclei, varying in number, and endowment with chromatin. The diffuse plasmodial masses were few in number, but contained many nuclei. The most typical forms arranged themselves into a network containing the polyhedral cells and leucocytic accumulations already referred to. In certain sections of the tissue, evidence of a hyaline metamorphosis was noted. From the histological appearance, I am of opinion that the tissue is a rapidly growing chorion-epithelioma. The various contained tissue elements, especially the parenchyma, and their arrangement, are characteristic. The plasmodial masses are of the type of a well defined syncytium. These were few in number, but this is probably due to the sub-division of the syncytial masses into immense epithelioid cells with large nuclei. Such a metamorphosis is not infrequent in certain forms of chorion-epithelioma.

7. *A Case of Suppurative Cholangitis*.—(Jointly with Dr. HARSTON, Hongkong.) published in the *British Medical Journal*.—November, 1905.

The clinical course of this case was carefully described by Dr. HARSTON. After death, a post-mortem examination was held and the liver forwarded to me for a special report. This was done as thoroughly as possible owing to the rarity of the disease, and the interest attached to the pathological changes found in the liver, and the features which distinguish these appearances from multiple abscesses of the liver. The following is my Report:—The post-mortem examination of this case was conducted by Dr. HARSTON. I have no knowledge of the condition of the other organs and tissues of the body. On receipt of the liver, I found that the gall bladder had been opened and washed, the organ sectioned, and not completely intact. It was, therefore, impossible to obtain accurately the weight of the organ.

The liver was generally enlarged. It was increased in specific gravity. Its consistence was tough and leathery. It was jaundiced. It did not appear to be much congested. The general contour of the organ was maintained. On section of the liver, a remarkable appearance was found. Studded throughout the entire right lobe, were rounded areas of a yellow colour. These varied in size, from a millet seed to a pea. Many had a deeply pigmented centre. Surrounding these areas, there was a narrow zone of a deep brownish colour. The remaining cut surface of the organ was that of a jaundiced liver with commencing interlobular cirrhosis. An examination of the yellow areas, more in detail, showed that they were not equally distributed throughout the right lobe. They were most abundant in the neighbourhood of the main portal, hepatic, and biliary channels. In the intervening hepatic parenchyma, they were few and scattered. These areas were further examined as to their relation to the parenchyma of the liver, to their consistency, and their microscopic appearance and bacterial composition.

They bore no direct relation to the actual hepatic parenchyma. They could be picked out *en masse*, leaving a hollow or space with roughened but hard and fibrous walls. The consistence of that masses varied. Some were pultaceous; others were hard and gritty. To touch, the harder masses were like small peas, and could be thrown about without much

damage to their form. Microscopically, the softer masses were composed of fibrin, hepatic duct epithelium, pus corpuscles and a variable amount of bilirubin pigment.

The harder masses were made up of a hyalin looking material, in which traces of fibrin, pus corpuscles, etc., could be seen. In the meshes of this material, appreciable quantities of bilirubin calcium were found. Bacteriologically nothing definite could be obtained, owing to the fact that an examination of the body could not be made until about twenty-four hours after death. *B. coli commune* was found in large numbers. With this organism, however, numerous other extraneous bacteria were present.

The zones of a deep brown colour, immediately surrounding the yellow areas, presented the following microscopic appearance. The areas of tissue nearest to the yellow masses were composed of young proliferating connective tissue and hepatic duct epithelium. The changes found were typical as regards a chronic inflammation of the walls of the hepatic duct and its ramifications.

Immediately outside this zone of newly-formed tissue, a narrow band of degenerated hepatic parenchyma was found. Large quantities of bile pigment were deposited in this narrow band of newly-formed tissue and in and around the degenerated liver cells. Apart from these changes, the microscopic examination of the liver substance showed marked interlobular increase of connective tissue, and the presence of pronounced paracholia. The case is clearly one of infective cholangitis. The causal agent, in this particular case, would be difficult to prove. Usually the *B. coli commune* is found to be the root of the evil, but, as FRAENKEL and KRAUSE have recently pointed out, Streptococci, Pneumococci, and even the Typhoid bacillus, may be agents at work in the production of different pathological conditions in the liver.

Cholangitis usually runs the course of a septic infection. Clinically, it behaves like a case of multiple abscess of the liver. Pathologically, however, the lesions would appear to be distinct. The following are points of agreement and difference :—

They agree in the following points—

1. There is general congestion of the liver in the early stages.
2. There is general enlargement of the liver.
3. There is the presence of pus.

They differ, however, as follows :—

Multiple Abscess of the Liver.

1. A hepatic parenchyma change.
2. There is initial necrosis.
3. Necrosis is followed by pus.
4. Areas of necrosis are ill defined.
5. Walls of abscesses are rugged and rotten in appearance.
6. The pus is usually amœbic.

Infective Cholangitis.

1. A hepatic duct change.
2. There is inflammation.
3. Inflammation is followed by pus.
4. Areas of pus confined in hepatic ducts.
5. The walls are well defined and not necrotic.
6. The pus is usually bacteriological.

Appendix.

REPORT OF THE MEDICAL OFFICER IN CHARGE OF THE
PUBLIC MORTUARY, KOWLOON.

During the year 802 post-mortems were made.

These were divided as follows :—

January, = 50	May, = 106	September, = 47
February, = 50	June, = 106	October, = 62
March, = 56	July, = 119	November, = 46
April, = 57	August, = 46	December, = 47

It will be noticed that the totals are almost doubled during May, June and July, and as 73·17% of the total plague cases diagnosed in the mortuary, occurred, evenly distributed through these months, it seems probable that this disease is mainly responsible for the increase, and that many of the cases escape recognition owing to decomposition being advanced. During these months 80 cases were returned as too decomposed for diagnosis. It is, of course, practically impossible to find the *Bacillus Pestis*, once decomposition sets in.

A similar increase took place in May, 1904.

The following figures may be of interest :—

Autopsies on Males,	=489=61%.
Autopsies on Females,	=288=36%.
Sex unknown,	= 25= 3%.

It has been stated that female children are more frequently found “dumped” than males. The figures obtained during the past year do not show any marked preponderance of females, the difference being probably due to natural causes only.

Males under 1 year,	= 85=43·36%.
Females under 1 year,	=111=56·64%.

The following Table shows the number and percentage of bodies found “dumped” during the past two years :—

Year.	Number of Bodies Examined.	Found on Street, Hill Side or Vacant Ground.	In Harbour or on the Foreshore.	Total per cent. Dumped.
1904,	675	252	155	60·29
1905,	802	267	182	55·71

Of the 82 cases of Plague returned, 27 or 33·75 per cent. were found dumped.

The following is the return of the causes of death :—

1. Total General Diseases, ...	304
2. Total Local Diseases, ...	281
(a.) of the Nervous System, ...	1
(b.) „ Circulatory „	39
(c.) „ Respiratory „	205
(d.) „ Digestive „	11
(e.) „ Urinary „	16
(f.) „ Generative „	8
(g.) „ Ductless Glands, ...	1
3. Total Injuries, ...	30
4. Decomposed bodies, ...	187
Total, ...	802

Table I.—GENERAL DISEASES.

Small-pox, ...	28
Plague :—	
Bubonic, ...	73
Septicæmic, ...	9
Total Plague, ...	82

Enteric, ...	4
Diarrhœa (cause unknown), ...	11
Dysentery, ...	2
Beri-beri, ...	22
Malaria, ...	74
Septicæmia, ...	1
Peurperal fever, ...	4
Syphilis, ...	1
Acute General Tuberculosis, ...	14
Still-birth, ...	16
Marasmus, ...	64
Distomiasis, ...	1

Table II.—LOCAL DISEASES.

(a.) <i>Of the Nervous System :—</i>	
Meningitis, ...	1
(b.) <i>Of the Circulatory System :—</i>	
Acute Fibrinous Pericarditis, ...	9
Aneurism of Aorta, ...	2
Acute Endocarditis, ...	1
Valvular disease of the Heart, ...	20
Fatty Degeneration of the Heart, ...	6
Thrombosis of Portal vein, ...	1
(c.) <i>Of the Respiratory System :—</i>	
Acute Bronchitis, ...	2
Chronic Bronchitis, ...	2
Congenital Atelectasis, ...	1
Gangrene of Lung, ...	1
Abscess of Lung, ...	2
Acute Lobar Pneumonia, ...	62
Broncho-pneumonia, ...	63
Phthisis, ...	64
Acute Pleurisy, ...	5
Empyema, ...	1
Emphysema, ...	1
Cancer of Lung, ...	1
(d.) <i>Of the Digestive System :—</i>	
Intestinal Ob-truction, ...	1
Intussusception, ...	1
Appendicitis (Septic), ...	1
Strangulated Inguinal Hernia, ...	2
Acute Peritonitis, ...	2
Acute Yellow Atrophy of Liver, ...	1
Abscess of Liver, ...	2
Cirrhosis of Liver, ...	1
(e.) <i>Of the Urinary System :—</i>	
Acute Parenchymatous Nephritis, ...	8
Chronic Interstitial Nephritis, ...	5
Tubercular Kidney, ...	1
Pyonephrosis, ...	1
Peri-nephritic Abscess, ...	1

(f.) Of the Generative System :—

Accidental Hæmorrhage,.....	1
Post-Partum Hæmorrhage,.....	4
Salpingo-Oöphoritis, ...	3

(g.) Of the Ductless Glands :—

Peri-Splenic Abscess, ...	1
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Table III.—INJURIES.

1. *General :—*Multiple,..... 3

Suffocation :—

(a.) From Submersion,.....	11
(b.) From Strangulation, ...	2
(c.) From Gaseous Poisons, ...	1

2. *Local :—*

Of the Head :—

Fracture of Skull, ...	6
Gunshot wound of Skull, ...	1

Of the Chest :—

Stab wounded of Heart, ...	1
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Of the Abdomen :—

Rupture of Spleen, ...	1
Rupture of Intestine, ...	1

Of the Limbs :—

Wound of Femoral Artery, ...	1
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Table IV.—NATIONALITY OF BODIES BROUGHT TO THE PUBLIC MORTUARY,
KOWLOON, DURING THE YEAR.

Chinese, ...	793
Europeans, ...	5
Indians,.....	3
Eurasian, ...	1
	802

WILLIAM B. A. MOORE.

Annexe K.
REPORT OF THE GOVERNMENT ANALYST.

CLASSIFICATION OF ANALYSES.

The number of analyses performed was 618.

The following classification shows the nature of the work done:—

I.—Chemico-legal.

	No. of Articles examined.
Toxicological, (including 12 stomachs),.....	42
Articles for stains, ...	64

II.—Potable Waters.

Public Supplies, ...	48
Wells, etc., ...	42

III.—Dangerous Goods Ordinance.

Petroleum Oil, ...	168
Liquid fuel, ...	15
Rackarock, ...	1
Matches, ...	15

IV.—Food and Drugs Ordinance.

Chartreuse, ...	1
Brandy, ...	7
Flour, ...	2
Lemonade, ...	2
Milk, ...	62
Whisky, ...	7
Rum, ...	4
Soda Water, ...	3
Beer, ...	12
Butter, ...	9

V.—Building Materials.

Cement, ...	18
Mortars, ...	3
Paint, ...	5

VI.—Prepared Opium Ordinance.

Opium covering, ...	1
Opium Pills, ...	7

VII.—Mineralogical, etc.

Metals, ...	3
Ores, ...	35

VIII.—Miscellaneous.

Coal-tar disinfectants, ...	6
Oils, ...	3
Medicines, ...	3
Soft Soap, ...	5
Candles, ...	2
Wall Coverings, ...	2
Paper, ...	8
Liquid, Blanket, Turpentine, Blood, Guttapercha, Cable, Mud,— one each, ...	7
One meter, two meter-waters, three powders, ...	6
	618

2. Among the chemico-legal investigations conducted during the year were 18 cases of suspected human poisoning, in six of which opium was detected. In another case the poison found was prussic acid.

WATERS.

3. The results of the analyses of samples taken each month from the Pokfulam and Tytam Reservoirs, from the Kowloon service, and Cheung Sha Wan supply, indicate that these supplies continue to maintain their excellent qualities. From

time to time waters from places in China have been sent for examination. Whenever such have been proved to be unwholesome, a recommendation has been made (when no good source has been available), that the polluted water should not be used for potable purposes until after boiling, and in time of epidemic should be rendered still more safe by conversion after boiling into lemon water. For doubtful water another purifier has recently been receiving attention. This agent is copper, a minute quantity of which has been shown by several observers to be efficacious in destroying cholera and typhoid bacilli in water. At the same time the quantity of copper used is so small as to be quite tasteless and in no way deleterious to the system. KRAEMER, writing in the "Chemical News" of August 4th, 1905, states that to obtain sterilised water he places a strip of clean sheet copper, nine inches square in three to four quarts of water and allows it to remain from four to eight hours, and then pours off the water. He mentions that such coppered water has been consumed by himself and by several families for more than six months with no injurious effect whatever. KRAEMER's paper also mentions that when copper foil is allowed to remain in distilled water from one to five minutes, it has been shown that sufficient copper is dissolved to kill typhoid organisms within two hours. Some experiments have been made in this laboratory so as to see whether this simple process can be recommended to those who by stress of circumstance or situation are in doubt about their water supply.

The following results expressed in grains per gallon, were obtained with water of various qualities using sheet copper in the proportion of 80 square inches to one gallon :—

Distilled water after five minutes' treatment was found to contain $\frac{1}{100}$ th of a grain of copper. Four waters of undoubted purity after four hours' treatment each contained $\frac{1}{100}$ th of a grain, and after 20 hours $\frac{1}{11}$ th of a grain of copper. Two bad waters contained $\frac{1}{50}$ th and $\frac{1}{12}$ th of a grain, respectively, after eight hours and $\frac{1}{7}$ th and $\frac{1}{5}$ th of a grain after 24 hours. It will therefore be seen that if copper be used in the proportion above stated, and allowed to remain in any water from four to eight hours, there is no fear of the presence of a poisonous amount of copper. The copper sheet must be bought from a European house as pure copper. Chinese yellow metal should not be used.

Copper should be very useful in this Colony for vegetables. KRAEMER places the lettuce, celery, or other vegetables to be eaten raw, in a vessel of water containing a strip of copper, for two to four hours with occasional agitation.

A good deal has been written by many observers on the effect of copper on man, and those interested should read the paper mentioned above, but it may be said that it has been shown conclusively, that no ill effects have been noticed or are likely to be noticed from the consumption of water or vegetables treated as directed by copper. A personal use of such water for about a fortnight was undertaken to see whether there were any effects that might be worthy of notice. But the treated and untreated water were indistinguishable in taste, appearance, and palatability, and in all other essential properties.

4. Enquiries have been made as to the suitability for boiler purposes of certain waters in the Colony. Such waters although extremely soft contain a small quantity of silica, and it was desirable to ascertain what effect, if any, was produced on iron. Generally speaking, it may be said that all fresh water here, other than some well-waters, are very suitable for boilers.

In one particular boiler, filtered Tytam water had been used for more than 10 years, and so little had the iron of the boiler been affected, that in some places it had retained its original bloom.

In Tables I and II will be found particulars of the monthly analyses of the public supplies, and of other waters.

DANGEROUS GOODS ORDINANCE.

5. Of Petroleum Oil, 168 samples were tested during the year. All the samples of liquid fuel flashed at temperatures exceeding 150° F.

FOOD AND DRUGS ORDINANCE.

6. The following Table gives the results of 76 analyses made at the instance of the Police and the Sanitary Board :—

Description.	No. of Samples.	No. found Genuine.	No. found Adulterated.
Beer, ...	12	12	...
Brandy, ...	1	1	...
Milk, ...	53	46	7
Rum, ...	4	4	...
Whisky, ...	6	6	...

Many other samples were examined for the public, at the low fee prescribed by the Ordinance.

EXAMINATIONS FOR THE PUBLIC.

7. The public continue to take advantage of the Laboratory being open to undertake non-official analyses, and have forwarded a great variety of samples for examination. The fees paid into the Treasury during the year amounted to \$3,118 50.

SPECIAL REPORTS.

8. Special Reports have been supplied on :—

Disinfectants.

Soft soap.

Rice.

Registration of Chemists.

Disinfection of blood.

Dangerous goods :—Naphtha, Rackarock, Detonators, Calcium carbide, Picric acid and others.

The Prepared Opium Ordinance.

Viavi remedies.

Smoke.

Sale of Poisons.

9. The value of the year's work as determined from the tariff of fees (Government Notification No 664 of 1901) is \$7,912.50. This amount does not include anything for the special reports mentioned above, and there is much beside for which nothing has been set down.

LIBRARY.

10. A few standard works of reference have been added.

FRANK BROWNE, PH. CH., F.C.S.

Table I.—Result of the Monthly Analyses of Hongkong Public Water Supplies.

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

1905. Month.	Supply.	Total Solid Matter dried at 100° C.	Chlorine.	Saline Ammonia.	Albumenoid Ammonia.	Oxygen absorbed in 4 hours at 80° F.	Nitrites.	Nitrogen in Nitrates.	Sugar Test for the detection of Sewage.	Poisonous Metals.
January...	Pokfulum.	6.5	.6	Absent.	Absent.	.010	Absent.	.008	No trace of Sewage indicated.	Absent.
	Tytam	2.4	.5	"	"	.004	"	Absent.	"	"
	Kowloon .	2.9	.5	"	"	.002	"	.012	"	"
	Cheung Sha Wan.	4.0	.5	"	"	.002	"	.008	"	"
February .	Pokfulum.	7.3	.6	"	.0014	.014	"	Absent.	"	"
	Tytam ...	3.3	.5	"	Absent.	.010	"	"	"	"
	Kowloon .	3.0	.5	"	"	.003	"	.012	"	"
	Cheung Sha Wan.	4.7	.4	"	"	.003	"	Absent.	"	"
March	Pokfulum.	5.3	.6	"	.0014	.012	"	.008	"	"
	Tytam	3.2	.6	"	Absent.	.003	"	.008	"	"
	Kowloon .	4.2	.5	"	"	.003	"	.024	"	"
	Cheung Sha Wan.	6.7	.4	"	.0028	.008	"	.016	"	"
April	Pokfulum.	4.7	.6	"	Absent.	.023	"	.016	"	"
	Tytam	3.3	.6	"	"	.013	"	.008	"	"
	Kowloon .	3.3	.5	"	"	.003	"	.024	"	"
	Cheung Sha Wan.	4.2	.4	"	"	.013	"	.016	"	"
May	Pokfulum.	4.2	.6	"	"	.014	"	.016	"	"
	Tytam	2.8	.6	"	"	.010	"	.008	"	"
	Kowloon .	3.0	.6	"	"	.003	"	.016	"	"
	Cheung Sha Wan.	4.0	.4	"	"	.007	"	.016	"	"
June	Pokfulum.	4.7	.6	"	"	.019	"	.016	"	"
	Tytam	3.3	.6	"	"	.007	"	.008	"	"
	Kowloon .	3.7	.6	"	"	.003	"	.016	"	"
	Cheung Sha Wan.	4.0	.4	"	"	.010	"	.008	"	"
July	Pokfulum.	4.2	.7	"	"	.012	"	.012	"	"
	Tytam	4.3	.6	"	"	.008	"	Absent.	"	"
	Kowloon .	3.8	.5	"	"	.003	"	.004	"	"
	Cheung Sha Wan.	3.8	.5	"	"	.003	"	.004	"	"
August ...	Pokfulum.	4.7	.7	"	.0014	.012	"	.024	"	"
	Tytam	3.0	.6	"	Absent.	.005	"	.016	"	"
	Kowloon .	3.7	.6	"	"	.003	"	.016	"	"
	Cheung Sha Wan.	4.3	.5	"	"	.005	"	.016	"	"
September	Pokfulum.	4.8	.7	"	"	.007	"	.016	"	"
	Tytam	3.8	.6	"	"	.002	"	.008	"	"
	Kowloon .	3.7	.5	"	"	.002	"	.012	"	"
	Cheung Sha Wan.	4.0	.4	"	"	.005	"	.016	"	"
October ...	Pokfulum.	4.8	.7	"	"	.011	"	.004	"	"
	Tytam	3.8	.6	"	"	.006	"	Absent.	"	"
	Kowloon .	3.7	.5	"	"	.003	"	.012	"	"
	Cheung Sha Wan.	4.2	.4	"	"	.006	"	Absent.	"	"
November	Pokfulum.	3.5	.7	"	"	.006	"	.012	"	"
	Tytam	3.5	.6	"	.0014	.009	"	.008	"	"
	Kowloon .	3.8	.5	"	Absent.	.006	"	.012	"	"
	Cheung Sha Wan.	3.7	.5	"	"	.003	"	.008	"	"
December	Pokfulum.	3.3	.6	"	"	.003	"	.008	"	"
	Tytam	3.7	.6	"	"	.018	"	.008	"	"
	Kowloon .	3.3	.6	.0014	.0014	.008	"	.016	"	"
	Cheung Sha Wan.	4.3	.5	"	.0028	.011	"	.008	"	"

Table II.—Result of analyses of waters from various sources.

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

Date.	Situation.	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.	Sugar Test for the Detection of Sewage.	Poisonous Metals.	General Remarks.
1905.												
Jan. 10	Stream at Tai Ping Tong, (1).....	...	3.8	.6	Absent.	.0042	.008	.012	Absent.	No Sewage indicated.	Absent.	
" 10	Do. (2).....	...	3.7	.6	"	.0014	.006	.012	"	"	"	
" 10	Do. (3).....	...	3.7	.7	"	.0014	.005	.016	"	"	"	
" 19	Stream at Swatow, (1).....	...	119.0	69.3	.0070	.0042	.484	.016	"	.....	"	
" 19	Do. (2).....	...	6.8	1.4	Absent.	.0014	.176	Absent.	"	.....	"	
" 19	Do. (3).....	...	5.5	.2	"	.0028	.144	"	"	.....	"	
" 19	Do. (4).....	...	11.0	2.8	.0028	.0014	.214	.004	"	.....	"	
April 1	Well at Caroline Hill Road, ...	14 feet.	18.5	4.2	.0028	.0056	.022	.444	"	No Sewage indicated.	"	
June 21	Well at 62A, Queen's Road Central, ..	13 "	28.0	7.0	.0028	.0014	.013	1.036	"	.....	"	
July 13	Stream at Tai Hang, ...	...	4.0	.8	Absent.	.0056	.023	.032	"	No Sewage indicated.	"	
" 22	Well situated at No. 4, Castle Road, ..	51 feet.	6.5	1.5	.0028	.0056	.009	.329	"	"	"	Deposit of iron oxide.
" 31	Water from a house at West Point, ..	...	5.7	.6	Absent.	"	.012	Absent.	"	"	"	
Sept. 27	Well at Taku Ling Police Station, ..	25 feet.	16.0	6.3	"	"	.013	.350	"	"	"	
Oct. 23	Well at Green Island, (1)	3 "	10.0	.5	"	.0084	.009	Absent.	"	"	"	
" 23	Do. (2)	5 "	9.5	.5	.0042	.0056	.041	.024	"	"	"	
" 30	Well at Ma Tau Wai, (A)	10 "	9.7	1.7	.0028	.0056	.017	.144	"	"	"	
" 30	Do. (B)	10 "	8.0	1.4	.0042	.0042	.015	.230	"	"	"	
Dec. 7	Water from the Pearl River, (A).....	...	5.0	.4	.0028	.0042	.013	.008	"	"	"	Vegetable debris and water [animalcula.
" 7	Do. (B).....	...	5.5	.6	.0042	.0042	.040	.008	"	"	"	
" 7	Do. (C).....	...	7.0	.8	.0042	.0070	.017	.008	"	"	"	
" 29	Do. (D).....	...	5.0	.6	.0056	.0028	.040	Absent.	"	"	"	

Annexe L.

REPORT OF THE COLONIAL VETERINARY SURGEON.

GENERAL STATISTICS.

Cattle and sheep were scarcer than in 1904. This is attributed by importers to a scarcity of animals in the interior and to restrictions and duties imposed by the Chinese Government or local authorities. The stall-feeding of cattle appears to be gradually increasing in the neighbourhood of Canton but it is to be regretted that Manila by the inducement of higher prices still gets the best of the animals.

The total number of the cattle dealt with at Kennedy Town was 49,412, a decrease on 1904 of 8,993. Hunghom admitted 5,046, a decrease on 1904 of 565. This gives a total decrease over all of 9,558 cattle, as compared with 1904. The rejections as unfit for slaughter amounted at Kennedy Town to 672, against 499 in 1904. At Hung Hom 219 were rejected, against 34 in 1904, and 406 in 1903. The chief cause of rejection is simply emaciation.

DISEASES.

The following are the most noteworthy diseases met with during the year in the Depôt and Slaughter Houses.

Anthrax.—Four cases occurred, one each in January, April, May and July. In all cases but one the animals (cattle) were imported suffering from the disease, and died within twenty-four hours after landing. In the remaining case the animal, a bullock, had been in the Depôt for ten days. Infection is supposed to have been conveyed in the fodder though direct proof is wanting.

Hæmorrhagic Septicæmia.—There was only one outbreak when thirteen cattle in all were attacked. Of these, five died and eight recovered. The disease was of a milder type than that met with in former years and did not extend beyond the lot first attacked.

Foot-and-Mouth Disease.—This disease is practically always present in the Depôts and is freshly imported with almost every lot of cattle. It is always of a mild type and causes, except in very young calves, little or no constitutional disturbance.

Tuberculosis.—There were no cases seen in Chinese cattle. Only one case was met with in a European cow at the Slaughter House and the chief interest in this case lies in the fact that apart from the commoner lesions seen in the viscera, the meninges of the brain round the base, under part of the cerebellum, and medulla, were sprinkled over with small tubercular nodules about the size of a mustard seed. The animal had shown brain symptoms before slaughter but was otherwise in good condition.

PARASITES.

Parasites are daily met with and often in considerable numbers. In addition to those mentioned in former reports the following have been noted :—

Distomum Pancreaticum.—This distome is found in the pancreatic ducts of Chinese cattle and water buffaloes. It appears to cause little alteration in the substance of the gland. The ducts became dilated and are at times so packed full of the parasite as to appear like dilated and tortuous veins running through the substance of the gland. The presence of the parasite even in large numbers appears to have very little effect on the general health of the animal infested. This parasite closely resembles in size and appearance the *Distomum Lanceolatum* of the liver of the ox and sheep.

Distomum Crassum.—This distome was found in the intestine and stomach of the pig but seldom in large numbers. Three to ten or twelve were usually seen.

Echinorynchus Gigas.—This is a round worm found in the intestine of the pig. Its anterior end is furnished with powerful spines by means of which it fixes itself to the wall of the intestine producing a deep ulcer which often extends into the muscular coat of the bowel. It seems to attain an especially large size in Hongkong frequently measuring nineteen inches in length and as thick as a common lead-pencil.

Balbiania Gigantea.—The most common habitat of this parasite in Hongkong is the red muscle tissue of the œsophagus of the Chinese water buffalo. In two cases in water buffaloes the infection had extended beyond this. In one the invasion extended to the muscles of the shoulder, neck and tongue, and in the other case the entire carcase was infested so badly that an incision made into any part of the muscle tissue showed one or more parasites. The carcasses were destroyed.

Trichinosis.—A search for the *trichina spiralis* has been kept up during the year. Portions of muscle tissue from 560 pigs have been examined microscopically, but so far no case has been discovered.

BUILDINGS.

There are no new buildings or alterations to record.

CATTLE CREMATORIUM.

The following is a statement of the working of the cattle crematorium for the year:—

Carcases cremated.

Cattle including calves, ...	100
Sheep and goats, ...	120
Swine, ...	474
	694

Miscellaneous cremated.

Beef injured and diseased, ...	9,006 lbs.
Mutton „ „	94 lbs.
Tins unwholesome preserved meats, ...	474
Biscuits, ...	17,920 lbs.

Refuse cell.

Street rubbish, experimental burning, ...	3 tons.
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Coal used.

	Tons. cwt. lbs.
Cattle crematorium, ...	30. 0. 0
Refuse cell, ...	1.15.40
Total, ...	31.15.40

Reckoning the condemned beef, 9,006 lbs., as equivalent to 14 bullocks of 650 lbs. each. this gives a total of 708 carcasses cremated by 30 tons of coal or about 847 cwts. per carcase. Coal during 1905 cost \$11 per ton which gives a cost of 46 odd cents per carcase cremated. In 1904 the total amount per head was 826 cwts. per carcase and the cost per head with coal at \$11.50 per ton was 47 odd cents per carcase. Towards the end of the year the firebrick lining of the cremating furnace began to get burnt out and this more or less interfered with economical stoking.

SLAUGHTER HOUSES.

Kennedy Town —The revenue for the year which shows a decrease on last year's working of \$4,998.80 is made up as follows:—

21,266 Cattle slaughtered	@ 40 cents each, \$	8,506.40
16,764 Sheep slaughtered	„ 20 „	3,352.80
148,216 Swine slaughtered	„ 30 „	44,464.80
27,433 Cattle exported	„ 50 „	13,716.50
10,796 Sheep exported	„ 10 „	1,079.60
13,250 Swine exported	„ 10 „	1,325.00
1 Duplicate order	„ 25 „	.25
Total, ...		\$72,445.35

Hung Hom.—The Board collects revenue directly from the Dépôt only. The Slaughter House is leased to a contractor. The total fees collected from the Dépôt were \$511.98.

Shaikiwan and Aberdeen.—The collection of fees is leased to a contractor.

The total revenue derived from the Slaughter Houses and Animals Depôts was \$90,093.33 and was made up as follows :—

Kennedy Town fees collected, ...	\$72,445.35
Hung Hom ,, ,, ...	511.98
Contract for the privilege of removing blood and hair at Kennedy Town, ...	6,744.00
Contract for the privilege of slaughtering at Hung Hom, Shaukiwan and Aberdeen, ...	10,392.00
	\$90,093.33

The number of animals slaughtered in the Colony were:—

	<i>Cattle.</i>	<i>Sheep and Goats.</i>	<i>Swine.</i>
Kennedy Town, ...	21,266	16,764	148,216
Hung Hom,.....	5,492	3,010	25,816
Shaukiwan, ...	...	...	8,310
Aberdeen,.....	...	...	3,717
Totals,.....	26,758	19,774	186,059

Grand Total of all animals,.....232,591

The figures given for Shaukiwan and Aberdeen are got from the contractors' books and are given with only his statement for their accuracy.

The following Table shows the numbers of animals slaughtered during the past ten years :—

YEAR.	<i>Cattle.</i>	<i>Sheep & Goats.</i>	<i>Swine.</i>
1896	19,546	14,693	129,103
1897	20,094	14,226	137,748
1898	21,541	15,956	153,485
1899	23,582	17,353	156,292
1900	23,939	18,364	165,760
1901	24,938	18,544	172,205
1902	25,669	20,780	202,495
1903	28,335	22,918	187,265
1904	30,829	23,736	181,046
1905	26,758	19,774	186,059

The decrease in cattle and sheep and goats took place at Kennedy Town and Hung Hom. Kennedy Town shows a decrease in pigs but this is more than made up by increases in Hung Hom, Shaukiwan and Aberdeen.

DAIRIES AND CATTLE SHEDS.

During the year 572 visits have been made to dairies and cowsheds. No case of infectious disease occurred and the general condition of the sheds, with few exceptions, was good. One dairy was prosecuted for selling watered milk and was fined \$100. The remainder of the milk prosecutions were undertaken by the Medical Officer of Health.

MARKETS AND FOOD SHOPS.

3,120 visits were paid to food shops, that is, premises licensed for the sale of articles of food usually sold in a public market. These shops while they seldom actually infringe the law take more than their fair share of supervision.

There is little that is worthy of note regarding the markets.

Des Vœux Road Temporary Market.—There has been a little improvement in the business done here but the improvement that was expected from the closing in 1903 of the licensed food shops in the central districts of the town has hardly been realized.

Western Market.—There has been no improvement in the sanitary condition of this market nor can much be expected. At the close of the year the new market was nearing completion.

Mong-kok-tsui Market.—A new market has been erected here to keep pace with the growth of the district. It was finished and handed over to the Board at the close of the year.

Dead fowls found in the market during the year were sent to the Government Bacteriologist for examination for plague, but none were returned as infected.

Altogether 14 plague infected rats were found in the markets and were distributed as follows:—12 in the Western Market, 1 in the Sai Ying Pun Market and 1 in the Shek-tong-tsui Market.

Frozen meat to the extent of 618,162 lbs. has been imported from Australia by the Dairy Farm Company, Limited during the year. There can be little doubt that this has had a considerable effect on the amount of meat killed in Hongkong and explains to some extent the decrease in the numbers of cattle and sheep slaughtered.

ORDINANCE NO. 15 OF 1903.

Under this Ordinance 155 visits of inspection have been made to ships exporting more than 10 head of cattle from the Colony, and certificates have been granted as to the fitness of these ships to carry cattle. In the great majority of instances the visit is a purely formal one since these ships are nearly all permanently fitted to carry cattle and it is to the interest of the shipowner as well as the cattle shipper to see that these fittings are maintained. The shipping companies have been uniformly kind enough to put a launch at my disposal when going to and from their ships.

NEW TERRITORY.

There were no outbreaks of infectious disease among cattle in the New Territory. At Sheong Sui an epidemic of fowl cholera occurred but on adopting the same procedure, viz., stopping all the traffic in fowls in and out of the village, as in a similar outbreak in the same village in 1904, the disease did not extend further.

STAFF.

Kennedy Town.—The Animals Depôts and Slaughter House have been in charge of Senior Inspector WATSON and Inspector COTTON.

Mr. WONG KIN TSOI resigned his appointment as shroff and was succeeded by Mr. YUNG KAI Ü.

Inspector of Markets, Kowloon.—Inspector ROGERS returned from leave in March and took over the work which was then being done by Inspector BRETT.

Inspector of Markets, Hongkong.—Inspector BRETT went on leave in March and his duties were distributed between Inspector ROGERS and Mr. JOHANSEN, Overseer of the Central Market. At the end of the year, Inspector BRETT was still on leave.

ADAM GIBSON, M.R.C.V.S.

Annexe M.

REPORT OF THE SANITARY SURVEYOR.

NEW HOUSE DRAINS.

1. Plans have been deposited and passed by me during the year for the drainage of 152 houses. The plans of 281 were carried forward from 1904, making a total of 433 in hand during the year.

2. The drainage of 189 houses has been completed and the plans for 25 have been cancelled, leaving 219 to carry forward to 1906.

RE-DRAINAGE AND ADDITIONS.

3. In addition to the above, plans for redrainage of or additions to the drainage of 90 houses were carried forward from 1904 and new plans have been received for 252 houses making a total of 342 for the year. Of these, 193 have been completed and 13 cancelled, leaving 136 to be carried forward to 1906.

4. A summary of the above is appended in Tables I, II and III.

INSPECTION OF PRIVATE HOUSE DRAINS.

5. The drains of 131 houses have been tested and reported on, in consequence of complaints having been received regarding them. Of this number, 129 required re-constructing, and 2 amending.

Notices were served on the owners of the above 131 houses calling upon them to execute the necessary work.

All of these have been complied with. 18,628 houses have been visited by the Drainage Inspectors with the result that 1,900 drainage nuisances have been discovered. 572 houses were found to have inadequate provision for carrying off rain water from the roofs.

Notices have been served in each case, on the owner or occupier, calling upon them to abate the nuisance.

All of these have been complied with. 38 nuisances have been referred to the Medical Officer of Health and 240 to the Hon. Director of Public Works to be dealt with by them.

582 choked drain traps on private property have been cleansed by the Drainage Foremen.

WATER-CLOSETS AND URINALS.

6. During the past year, water-closets and urinals have been erected in the following buildings, by permission of the Board, and have been connected to the public sewers:—

	<i>Water-closets.</i>	<i>Urinals.</i>
Hotel Mansion, ...	24	7
Royal Building, ...	15	2
Gas Works New Premises, ...	4	1
Blackhead's Factory, Shaukiwan, ...	0	1
2 Pedder Street, ...	6	3
Kowloon Dock, Hunghom, ...	2	0
	<u>51</u>	<u>14</u>

NEW BUILDINGS.

7. Certificates have been granted during the year under Section 84 of Ordinance 13 of 1901, for 20 houses, certifying that they have been built in accordance with the entire provisions of that Ordinance.

CEMETERIES.

8. A small portion of the space reserved in Kennedy Town Cemetery has had to be used. There is only room for about 20 more bodies, and I intend to address a separate letter to the Board on this matter. The larger number of bodies dead of plague, have been buried in Cheung Sha Wan Cemetery, and at the end of the year, ground had been laid out for the reception of about 100 bodies. 5 new terraces have been formed in Sec. C. of Mount Davies Cemetery.

18 terraces have been formed in Sec. A., 12 in Sec. B, and 2 in Sec. C. of Mount Caroline Cemetery.

PROSECUTIONS.

9. The following is a return of the prosecutions instituted by me during the year :—

Offence.	Summons.	Conviction.	Penalties.	Remarks.
Drainage Nuisance on private property, ...	16	15	\$110	1 dismissed.
Contravention of Sec. 132,.....	1	1	20	...
Failure to comply with No. 1 of the Domestic, { Cleanliness and Ventilation Bye-laws, ... }	6	6	80	...
Total, ...	23	22	\$210	1 dismissed.

J. J. BRYAN.

Table I.
DRAINAGE AND RE-DRAINAGE.

Year.	No. of Houses received.	No. of Houses passed.	No. of Houses cancelled.	Total.	No. in hand.
Carried forward from { 1904 and dealt with in 1905, { Quarter. 1st, ... 2nd, ... 3rd, ... 4th, ...	 281	45 74 7 18 144	 4 4	 148	 133
Received and dealt with in 1905, { 1st, ... 2nd, ... 3rd, ... 4th, ...	42 58 14 38 152	3 34 3 5 45	... 20 ... 1 21	 66	 86
Total, ...	433	189	25	214	219

Table II.
REPAIRS OR ADDITIONS.

<i>Year.</i>	<i>No. of Houses received.</i>	<i>No. of Houses passed.</i>	<i>No. of Houses cancelled.</i>	<i>Total.</i>	<i>No. in hand.</i>
Carried forward from 1904 and dealt with in 1905,					
Quarter. 1st, ...	...	21	...	...	...
2nd, ...	...	22	...	...	...
3rd, ...	...	7	3	...	...
4th, ...	...	5	4	...	...
	90	55	7	62	28
Received and dealt with in 1905.					
1st, ...	61	3	...	...	...
2nd, ...	72	28	...	...	...
3rd, ...	54	53	...	...	...
4th, ...	65	54	6	...	...
	252	138	6	144	108
Total, ...	342	193	13	206	136

Table III.
PLANS RECEIVED.

<i>Year.</i>	<i>Plans received.</i>	<i>Houses drained.</i>	<i>Plans cancelled.</i>	<i>Houses car- ried forward.</i>	<i>Certificates granted under Sec. 84 of Ord. 13 of 1901.</i>
1889, ...	799	573	...	226	175
1890, ...	500	529	7	190	409
1891, ...	681	643	30	198	475
1892, ...	693	577	106	208	228
1893, ...	847	699	104	252	219
1894, ...	878	555	8	267	46
1895, ...	2,815	1,889	44	1,449	131
1896, ...	1,786	2,128	84	1,023	425
1897, ...	803	1,201	35	590	400
1898, ...	738	768	97	463	367
1899, ...	416	395	20	464	310
1900, ...	643	323	43	741	320
1901, ...	1,051	715	56	1,021	796
1902, ...	432	726	14	713	898
1903, ...	263	415	350	211	407
1904, ...	296	197	29	281	137
1905, ...	152	189	25	219	20
Total, ...	13,793	12,522	1,052	...	5,763