GOVERNMENT NOTIFICATION.—No. 464.

The following Report of the Principal Civil Medical Officer, for the year 1901, is published.

By Command,

F. H. MAY,
Colonial Secretary.

Colonial Secretary's Office, Hongkong, 25th July, 1902.

MEDICAL DEPARTMENT, GOVERNMENT CIVIL HOSPITAL,
HONGKONG, *15th April*, 1902.

SIR,—I have the honour to submit, for the information of His Excellency the Officer Administering the Government, the following Report on the working of the Medical Department for the year 1901.

I have to acknowledge my indebtedness to Dr. BELL for much of the information contained in this Report.

MEDICAL STAFF.

I returned from leave on August 4th, up to that date Dr. BELL had been acting as Principal Civil Medical Officer.

Dr. J. A. LOWSON returned from leave on the 26th of December last. I regret to say that he had on arrival to be admitted to Hospital, his health not having improved during his absence.

He has since been invalided from the service.

Dr. LOWSON was first appointed to the Medical Department in 1889, from that date until March, 1894, he performed the duties of Assistant Superintendent of the Government Civil Hospital and Lunatic Asylums and took charge of the *Hygeia* when occasion required.

During my first absence from the Colony on leave in 1894 the plague epidemic broke out, at this time he rendered yeoman service, sparing himself no labour or trouble in his efforts to combat this disease; his services at this anxious time will never be forgotten by the Colony, for these he was awarded the Plague Medal and received the thanks of the Government.

When at home on leave in 1896 his services were requisitioned by the India Government as an expert to advise *re* plague administration in that country.

It was during this work in India that his health broke down and he was under treatment in the Madras Hospital.

He returned to the Colony in 1898 and resumed his duties in the Department.

In 1900 he was appointed Acting Principal Civil Medical Officer when I left the Colony for the second time on home leave, and in August of that year his health again gave way and lung trouble developing he was ordered by Prof. KOCH, who happened to be in the Colony, to South Africa, from there he proceeded to Australia.

Since his return in December last he has improved considerably in health and he finally left the Colony for home on April 12th, undoubtedly his plague services here and in India have undermined his health and predisposed to the causation of the disease from which he is now suffering.

I take this opportunity of bearing testimony to the able services rendered by this Officer since his appointment in 1889, his work has always been marked by great ability and his cheery presence will be missed not only at the Hospital but in the Colony generally.

Dr. G. P. JORDAN left for a year's leave on the 15th March, arrangements having been made for Dr. SWAN to perform his duties as Health Officer of the Port, Dr. GIBSON acting as Deputy Health Officer.

Dr. J. C. THOMSON proceeded on three months' leave on the 31st of October.

The services of Lieutenant STEWART of the Indian Medical Service were available until the 27th July, he ably assisted Dr. BELL in the work of the Hospital, and we are much indebted to the Military Authorities for granting us the services of this officer.

We are also indebted to Dr. LAMORT, who was employed from the 1st June to the 31st July whilst Dr. THOMSON was on special duty at Kennedy Town Hospital, he again acted for him from the 1st November to the end of the year.

ANALYTICAL STAFF.

Mr. F. BROWNE, Government Analyst, returned from leave on the 27th March, Mr. T. J. WILD returning to his duties as Assistant Analyst.

NURSING STAFF.

Miss BARKER, Matron, went on home leave on 30th March, Miss BARR acting in her place.

Miss TODD (Nursing Sister) resigned on the 30th March and was succeeded by Miss MILLINGTON (Private Nursing Staff).

Miss ROBINS (Private Nursing Staff) left for England on the termination of her agreement on 30th May.

Miss SHELBOURNE (Nursing Sister) arrived on the 4th June to fill the vacancy occasioned by the resignation of Miss BATCHELOR (Nursing Sister).

Miss MILLINGTON (Nursing Sister) was granted leave from 17th October to the 15th November.

Nurses GLOVER and FORD were employed temporarily during the plague epidemic, from 16th June to 15th September and from the 10th July to the 9th October, respectively.

Miss MAKER (Nursing Sister) proceeded to Japan on two months' leave in July.

Miss WATSON (Nursing Sister) was granted two months' leave from 20th September.

Nurse MANNERS was granted leave from 1st September to 1st October.

Nurse HOGG went to Manila on a month's leave in October.

Miss RENWICK and Miss GOURLEY (Nursing Sisters) arrived on the 9th October to join the Nursing Staff, specially for plague work.

Nurse Mrs. U F KAI was granted leave from 1st September to 1st November.

Mrs. ACKERS, Matron, Women's Hospital, returned from leave on 19th October.

Wardmaster LEE went on home leave on the 1st April

Corporal NEWLING, R.A.M.C., and Private LAKE, R.A.M.C., were employed at Kennedy Town Hospital from the 1st April to the 27th July and from the 21st May to the 24th July, respectively, we are indebted to the Military Authorities for the loan of their services.

Wardmaster O'BRIEN arrived on 27th August.

CLERICAL STAFF.

Mr. CHU SZE YAN (Second Assistant Clerk) was promoted to a clerkship at Victoria Gaol on the 1st May, and Mr. UN SHIN TSEUNG was appointed in his place.

POLICE.

The admissions to the Hospital were slightly in excess of those of last year, the number being 937 as compared with 920, the strength of the Force being somewhat greater, viz., 884 as against 866.

Malarial fever contributed 407 admissions as against 390 in 1900. There has been a marked diminution in the number of malarial fever cases from the Police Stations in the New Territory: on comparing Tables III for the two years we find that the nine Police Stations in the New Territory to the North of the range of hills bounding Kowloon give the following figures:—

Police Station.	*Average Strength.*		*Malarial Fever Admissions.*	
	1900.	1901.	1900.	1901.
† Sha Tau Kok, ...	19	13	33	4
* Ping Shan, ...	23	14	3	9
Sai Kung, ...	6	7	2	2
* San Tin, ...	19	12	2	3
* Tai Po, ...	16	10	30	7
* Sha Tin, ...	14	8	14	2
* Tai O, ...	11	10	12	1
‡ Au Tau, ...	20	14	35	17
† Sheung Shui, ...	25	11	7	7
	153	99	138	52

In other words there was a diminution in the percentage of malarial fever cases from 90 per cent. in 1900 to 52.5 per cent. in 1901.

This was undoubtedly occasioned to a great extent by the active prophylactic treatment which was commenced on May 1st last year and continued up to the 1st of November: this treatment varied at the different Police Stations; at those marked * KOCH's method was used, one gramme of quinine being given daily for two days followed by an interval of five days without any quinine and so on; at those marked † a daily dose of three or five grains of quinine was given; whereas at Au Tau ‡ $\frac{1}{50}$ grain of arsenious acid was given twice daily.

It must also be borne in mind that the Police were housed in permanent buildings in 1901.

The other diseases which occasioned the greatest number of admissions were dysentery 36, beri-beri 10 and enteric fever 4.

The admissions to the Hospital from the various sections of the Force is given in the following Table :—

Year.	*European.*	*Indian.*	*Chinese.*
1892,	152	224	120
1893,	134	255	133
1894,	127	244	134
1895,	90	254	116
1896,	94	370	124
1897,	99	320	107
1898,	87	279	122
1899,	117	421	154
1900,	183	522	215
1901,	202	521	214

There were eight deaths during the year—four Europeans died of endo-carditis, typhoid fever, pneumonia and empyœma, respectively. There were two deaths amongst the Indians from malarial fever, and two Chinamen died—one from beri-beri and the other from plague.

Sixteen were invalided, namely, three Europeans, ten Indians and three Chinese, the causes being dysentery, phthisis (four), asthma, sprue, hemiplegia, dropsy, chronic rheumatism, beri-beri, sciatica, tuberculosis, chronic synovitis and debility (two).

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

Table II shows the rate of sickness and the mortality in the Force during the year.

Table III gives the admissions to the Hospital for malarial fever from each station during the year.

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

Year.	*Admissions.*	*Deaths.*
1892,	496	7
1893,	522	6
1894,	505	15
1995,	466	8
1896,	588	14
1897,	526	7
1898,	488	19
1899,	692	16
1900,	920	4
1901,	937	8

TROOPS.

There was an increase in the number of admissions to the Hospital as compared with 1900.

From Table IV it will be seen that the mortality amongst the European troops was less and that amongst the Indian troops was higher than in the previous year.

The average daily rate of sickness was higher with in European and Indian troops, this being more marked in the latter.

Amongst the deaths in the British troops were two from enteric fever, two from bubonic plague and four from malarial fever, five dying of heat apoplexy.

The following Table gives the sickness and mortality amongst the Troops for the past ten years :—

Year.	*Admissions.*	*Deaths.*
1892,	2,844	31
1893,	2,927	28
1894,	2,905	39
1895,	3,099	28
1896,	4,274	19
1897,	4,455	15
1898,	3,896	21
1899,	4,714	29
1900,	3,938	40
1901,	5,359	67

GAOL STAFF.

Eighty-one members of the Gaol staff were admitted to Hospital during the year out of a total staff of 93.

There were two deaths and four were invalided, the deaths were one European from malarial coma and one Indian from phthisis; the invalidings were three Indians from phthisis and one Chinaman from rheumatism.

SANITARY DEPARTMENT.

There were thirty admissions as against fifteen in 1890. There were no deaths and none were invalided.

GOVERNMENT CIVIL HOSPITAL.

The total number of admissions to the Government Civil Hospital was 2,948 as against 3,030 in 1900, and 2,734 in 1899. The total number of out-patients was 12,663 as against 13,883 in 1899.

Attached to this Report are the following Tables:—

V. Showing the admissions and mortality in the Government Civil Hospital during the year 1901.

VI. List of operations performed during the year 1901.

VII. Showing the rate of mortality in the Government Civil Hospital during the last ten years.

VIII. Showing the admissions into and deaths in the Government Civil Hospital during each month of the year 1901.

IX. Showing the admissions and deaths in the Government Lunatic Asylum during each month of the year 1901.

X. Showing the number of patients in the Asylum and the disease for which they were admitted.

XI. Showing the admissions and deaths in the Government Maternity Hospital during each month of the year 1901.

The following Table gives the number and classification of those admitted to the Government Civil Hospital during the past ten years:—

	1892.	*1893.*	*1894.*	*1895.*	*1896.*	*1897.*	*1898.*	*1899.*	*1900.*	*1901.*
Police,	496	522	505	466	588	529	488	692	920	937
Board of Trade,	157	132	100	129	87	45	65	25	37	28
Paying Patients,	378	467	491	498	632	603	741	761	893	830
Government Servants	168	205	168	203	269	227	186	208	266	339
Police Cases,	232	247	272	319	244	299	306	306	347	348
Free Patients,	284	262	427	668	778	742	785	739	569	466
	1,715	1,835	1,963	2,283	2,598	2,445	2,571	2,734	3,030	2,948

It will be seen that there is a decided increase in the number of Government Servants admitted, a slight increase in the number of Police and a marked diminution in the number of free patients admitted; this was accounted for last year by the fact that it is impossible to admit many cases which attend as out-patients and who should be in-patients owing to the large increase in the number of sick Police and Government Servants admitted, these two classes of patients alone contributing 276 more than in 1899.

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

Year.	*Admissions.*	*Deaths.*
1892,	1,715	68
1893,	1,835	67
1894,	1,967	101
1895,	2,283	114
1896,	2,598	143
1897,	2,445	119
1898,	2,571	138
1899,	2,734	114
1900,	3,030	155
1901,	2,948	153

The rate of mortality for the year was 5.18 per cent.

The average daily number of sick was 111.72 as against 110.95.

Women and Children.—The number admitted was 281 as against 325. It is to be hoped that the Victoria Hospital for Women and Children will be ready for occupation this year, the intention is to treat most of these cases there, one ward only being retained at the Government Civil Hospital for urgent cases and for those who could not be removed so far.

NATIONALITY.

Europeans.—960 were admitted during the year as against 943 in 1900.

Indians.—834 were admitted as compared with 788 in the previous year.

Asiatics.—1,154 were admitted during the year, the figures being 1,154 as against 1,299 in 1890.

DISEASES.

The following diseases caused the greatest number of admissions:—

Fevers:—

Malarial,	803
Enteric,	25
Dengue,	32
Febricula,	9
	869

Venereal Diseases,.....189
Diseases of the Digestive System, ...189
„ „ Respiratory System, ...184
Dysentery,.....101
Injuries,.....442

The following diseases caused the greatest number of deaths:—

Diseases of the Respiratory System,..... 28
Malarial Fever, ... 10
Effects of Malarial Fever,..... 10
Enteric Fever, ... 8
Dysentery,..... 8
Injuries of various kinds caused 29 deaths.

Dengue.—There was an epidemic of this disease in the autumn months, thirty-two cases having been admitted to the Hospital. It was in all likelihood introduced from Singapore—cases at the commencement of the epidemic were mistaken for influenza but the initial and terminal skin eruptions quite distinguish it from this disease.

On examining the peripheral blood a rod shaped bacillus with rounded ends was found, one or two parts of the bacillus staining darker than the rest.

Attempts were made to obtain a growth on blood serum, gelatine agar and glycerine agar, but all failed with one exception.

From this case, with a well marked secondary eruption, a growth was obtained on glycerine agar, this was inoculated into a guinea pig which died in eighteen hours, (probably from the cold weather); but from the spleen and heart of this guinea pig cultures were obtained which contained similar bacilli to those found in the blood.

Many cases were complicated with malaria.

Enteric Fever.—There were 25 cases under treatment with 8 deaths, 11 of these were imported cases and 3 occurred amongst members of the Police Force.

Cholera.—There were no cases suffering from this disease during the year.

Dysentery.—There were 98 cases with 8 deaths.

Diphtheria.—Two cases were admitted, one had been ill for some days before admission and although tracheotomy was performed the patient succumbed, to all appearance she was progressing favourably when she died suddenly of heart failure; the second, who evidently contracted the disease from the first, recovered, he was brought in as soon as the disease appeared. Both were treated with antidiphtheritic serum.

Beri-beri.—There were 41 cases under treatment, as against 29 in the previous year, with 4 deaths.

Malarial Fever.—803 cases have been treated as against 674 last year, all were diagnosed by microscopical examination of the blood, and the results are:—

Malignant (Malignant Tertian) and Œstivo-autumnal, ...86·30%
Tertian Simple, ... 8·21%
Quartan Simple, ... 1·12%
Mixed infection, ... 4·35%

Table XII gives the varieties met with during each month of the year. It will be seen that malaria prevails all the year round, but less in the dry winter months. This is probably due to the fact that we never get any long spell of cold weather, even in the coldest months hot summer-like days intervening.

Also it is rare that the hill streams completely dry up so that the mosquito never dies out.

Cerebral Malaria or Malarial Coma.

Six cases of this nature were admitted with three deaths, in none was the temperature high, in other words this form of malarial infection does not at any rate here produce hyperpyrexia, the highest temperature being met with in those suffering from simple tertian.

Apyrexial Forms of Malaria.

These are difficult to explain on the theory that it is the liberation of the toxins when the spores sporulate which produces fever

We had at least six cases during the year, where malarial parasites were found in the blood, but there was no rise of temperature, three of the six were suffering from the malignant type, one had mixed infection, simple tertian as well as the malignant, and there were also two cases in which quartan parasites were present without any fever, in one of these two the parasites were sporulating.

Malaria seems to complicate most of the diseases met with here. This is not to be wondered at when it is remembered that nearly every one contracts malarial fever and it is an undoubted fact that given one attack of malarial fever any illness or injury which reduces the vitality of the patient predisposes

to a return of the malarial parasites in the blood, *e.g.*, during the year nearly every patient's blood was examined microscopically, and Dr. BELL found the following results:—

Dysentery.—Out of 101 cases 66 showed the presence of malarial parasites.

Phthisis.—Out of 68, parasites were found in 35 cases, in many cases of phthisis the fever is malarial as on the administration of quinine, it frequently subsided.

Enteric Fever.—13 out of 25 gave malarial parasites.

Liver Abscess.—3 out of the 6 cases showed the presence of malarial parasites.

Dr. BELL has fully discussed this subject in a report on malaria written last summer in which he has given the results of the experience of himself and Lieutenant STEWART, I.M.S.

Liver Abscess.—6 cases were treated during the year with no deaths, three were operated on successfully, two burst into the lung and recovered, the diagnosis being made from the history and the presence in the sputum of hepatic cells.

Appendicitis.—There were 7 cases as against 6 last year, one only was operated on, they all recovered.

Tetanus.—2 cases occurred, both proved fatal. Antitetanic serum obtained from the Pasteur Institute at Paris was used in the first case and seemed to modify the spasm. In the second case the man was knocked down by a heavy sea on the voyage between Singapore and Hongkong and sustained a compound fracture of the right thigh. The limb was amputated and it was observed just before the operation that there was some slight trismus, tetanus rapidly developed after the operation, tetanus bacilli were found in the wounds, this case is returned in Table under injuries.

Bullet Wounds.—There were not so many as usual, 9 only being admitted as against 18 in 1900.

Poisoning.—There were only 2 cases during the year, in both opium was the poisonous agent used.

Surgical Operations.—There were not so many as usual during the year, the numbers being 188 as against 225 in 1900. We had to treat many more malarial fever cases in the surgical wards than is generally the case.

Lithotomy.—3 cases, all successful.

Strangulated Hernia.—One case, which recovered.

Anæsthetics.—Chloroform was given 193 times during the year, Junker's Inhaler being generally used.

Fractures and Dislocations:—The following were treated during the year:—

Fracture of the Skull,	.....	14 cases with	8 deaths.
„ „ Jaw,	.....	1 „ „	1 „
„ „ Arm,	.....	5 „	
„ „ Fore-arm,	.....	9 „	
„ „ Clavicle,	.....	1 „	
„ „ Leg,	.....	13 „	
Dislocation of the Elbow,	.....	1 „	
„ „ Hip,	.....	1 „	
„ „ Shoulder,	.....	2 „	

Vaccinations.—644 vaccinations were performed during the year with the following result:—

	Successful.	*Unsuccessful.*	*Total.*
Primary Cases, ...	248	14	262
Re-vaccinations, ...	234	148	382
			644

Fees.—The total fees received during the year in the Medical Depratment was:—

Hospital Fees, ...	$32,443.55
Private Nursing Fees, ...	865.00
Certificates, ...	650.00
	$33,958.55

Buildings.—A scheme for fitting the Hospital with electric light has been drawn up during the year, the necessary expenditure has been sanctioned, and before next summer it is expected that this will be installed.

A new operating theatre is very much required.

LUNATIC ASYLUMS.

Tables IX and X show the admissions and deaths that have occurred during the year and the disease for which the patients were admitted. There were nineteen less admissions than in 1890. A report on the working of the Asylum is attached.

Room for outdoor exercise has been obtained by enclosing the vacant ground to the South of the European Asylum.

Staff.—Wardmaster LEE proceeded home on leave.

MATERNITY HOSPITAL.

Table XI gives the admissions and deaths in the Hospital during each month of the year, there were 54 admissions, the same number as in 1900.

The two fatal cases were Chinese, one came in with retained placerta and died of septicæmia, the other died from malarial coma (see note of the case in the Appendix).

Eleven were wives of Government Servants, 27 private paying, and 16 free.

PRIVATE NURSING INSTITUTE.

The term of engagement of the private nurses having terminated in May the Government decided to discontinue their services.

"*Stowford.*"—Stowford is still rented in order to find accommodation for three of the Sisters and the two probationers. It is to be hoped that the much needed extension of the Nursing Quarters will soon become practicable.

GAOL.

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

	Total No. of Admissions to the Gaol.	*Daily Average No. of Prisoners.*
1892,	5,046	515
1893,	4,010	458
1894,	3,913	455
1895,	5,014	472
1896,	5,582	514
1897,	5,076	462
1898,	5,427	511
1899,	4,789	434
1900,	5,432	486
1901,	5,077	499

Undoubtedly the Gaol is not now large enough for the Colony's requirements.

The new Warders' Quarters is rapidly approaching completion, when finished the new Hospital will be available for patients.

TUNG WAH HOSPITAL.

There were 21 less cases treated than in the previous year.

It will be noticed also that the number of those under so-called Western treatment has not increased but diminished, *e. g.*:—

	Western Treatment.	*Chinese Treatment.*
1900,	32 %	57·7 %
1901,	30·4 %	69·6 %

It must also be remembered that those attending the out-patient department are not seen by the European doctors but by the so-called Native doctors.

PUBLIC MORTUARY.

An interesting report by Dr. BELL on the *post mortem* examinations during the year is attached.

Two thousand two hundred and fifty (2,250) bodies were brought to the Mortuary as against 1,702 in 1900.

In 1,035 of these plague was the cause of death and as is pointed out 36·6% occurred in bodies found in the streets or harbour whose addresses were unknown and I agree with Dr. BELL that some radical measure must be taken to stop this surreptitious deposition of plague bodies in the streets.

KENNEDY TOWN INFECTIOUS HOSPITAL.

The building has been thoroughly painted and colour-washed throughout and the verandahs on the top floor enclosed with iron railings.

Two hundred and sixty-seven (267) patients in all were treated during the year, 42 being cases of small-pox, 15 cholera, which all came in February from Bangkok by the s.s. *Cheung Chau*, and 204 were suffering from plague.

The report of the visiting medical officer is attached.

Evidently the presence of plague bacilli in the blood of those affected must vary in different epidemics as in 1896; in 81% of the cases plague bacilli were found and this by such an experienced bacteriologist as Dr. WILM.

As it appears evident that this Hospital will be required yearly for plague patients, a permanent nursing staff was requisitioned for from home consisting of two Nursing Sisters and two Wardmasters, this is a much better arrangement than being dependent on the Military, and any nurses we can obtain for extra help in epidemic times, the services of these officers are utilised in the other Hospitals of the department when not required at Kennedy Town Hospital.

Another Assistant Surgeon has been obtained from England so that there can, in future, be a resident medical officer at Kennedy Town Hospital during epidemic times—a much needed requirement.

Hospital Hulk "Hygeia."

This ship was improved during the year by fixing more skylights on the floor of the upper deck, by this means the lower deck is better lighted; arrangements were made for improving the ventilation of the lower deck.

Vaccine Institute.

The Vaccine Institute has been satisfactorily maintained, Dr. Clark taking over charge when the Colonial Veterinary Surgeon left on leave.

The lymph has given every satisfaction.

The amount paid into the Bank for the sale of lymph was $263.00.

Vaccinations.

The following vaccinations were performed during the year:—

Government Civil Hospital,		644
Victoria Gaol,		2,880
Alice Memorial Hospital		771
Tung Wah:—		
Victoria,	1,826	
Aberdeen,	46	
Stanley,	24	
Shaukiwan,	25	
Hung Hom,	7	
Yaumati,	24	
		1,952
		6,247

Anti-Malarial Measures.

During the year much has been done in combating mosquitoes.

In February a systematic filling up and draining of the pools in the nullahs at Kennedy Town near the old Tung Wah Mortuary, adjoining Nethersole Hospital and in the neighbourhood of the Upper Richmond Road, was instituted.

A supply of Professor Celli's larvicides was obtained in May, these were extensively used in the ravines in the neighbourhood of the Richmond Estate at West Point during the summer months; the results were not altogether satisfactory as anopheles larvæ were found in pools in which they had been applied; it is just possible that these were not used in sufficiently large quantities.

It was proved that they were not so effective as kerosene in killing the larvæ, the drawback to kerosene is that it destroys the potability of the water to which it is applied whereas Professor Celli's larvicides do not impure the water.

I fear it is a hopeless task to endeavour to keep the untrained nullahs free of pools especially in the rainy season when malarial fever is rife, the nullah beds, owing to the rains and weathering effects of the atmostphere, are continually changing, fresh pools being formed from day to day.

The only effectual remedy is to train the nullahs; this however is a very expensive operation, *e.g.*, it would cost $10 for a lineal foot for the larger nullahs and $8 per foot for the smaller ones, on this basis training the nullahs to the West of the Richmond Estate would cost $15,000.

Much, I understand, has been done in the way of training nullahs in the neighbourhood of the houses within the built area of the City, but to train all the nullahs on the outskirts of the City is a formidable task, and it is for Government to determine whether this extensive operation should be undertaken.

In a flat country it is comparatively easy to get rid of these pests but in a mountainous island like this it is quite another matter.

There are so many fissures and natural excavations along the hillsides where mosquitoes breed in large numbers that I doubt myself whether, even if the nullahs were trained, it would be practicable to exterminate these insects; however it would certainly diminish their numbers.

In October last I carried on some experiments with the help of Inspector Watson, in order to ascertain which oils, etc., were most destructive to the larvæ. We experimented with the following mineral oils:—

Snowflake.
Comet.
300° mineral Colza and Jeye's fluid.

The results were as follows: *Snowflake*.—On adding one teaspoonful to 1½ gallons of water in a circular vessel teeming with larvæ, we found that they were all dead in two hours.

Comet.—Under the same conditions no larvæ were dead in two hours, although they were much less active, in 10 hours they were all dead.

300° Mineral Oil.—A few of the larvæ were dead in two hours, several alive after 24 hours. On adding a tablespoonful instead of a teaspoonful to the water, the following results were obtained:—

Snowflake.—All the larvæ were dead in ten minutes.

Comet.—About same effect as a teaspoonful of Snowflake.

Colza.—A number alive after six hours.

Snowflake is much more destructive than *Comet*, it also spreads more rapidly on the surface of the water; with the *Colza* the oil does not spread so well on the water.

One tablespoonful of *Snowflake* was tried in a water run round a cress bed and all the larvæ sank within 5 minutes.

In stagnant water *Jeye's fluid* is by far the most effectual larvicide, one teaspoonful to 1½ gallons of water with the same surface as was used before killed the larvæ in 2 minutes.

Twenty drops in the same quantity of water killed them all in six hours, it also has this effect that it kills all the larvæ in the water whereas the oils only kill those on the surface, it is useless in running water as it mixes with it and does not float on the surfaces.

To show the difficulty there is in ridding certain neighbourhoods of this Colony of anopheles I would refer to the extensive operations carried on in the spring of last year at the Military sanatorium, Magazine Gap, at the suggestion of Dr. YOUNG, a Civil Medical Officer attached to the China Expeditionary Force, to free this place of malarial fever.

Two hundred men of the Indian Regiment were detailed to carry out the necessary work under Dr. YOUNG's supervision, the hills were cleared for a distance of 300 yards of all brushwood and undergrowth, several bogs were drained and the anopheles pools in the nullah were filled up.

Notwithstanding all these measures, however, fever was so prevalent there in the autumn months that the station had to be vacated by the Troops.

NEW TERRITORY.

Dr. HO NAI HOP has continued to reside at Tai Po and has performed the duties of Resident Medical Officer in the New Territory, the distances he has to travel are very great and it is practically impossible for him to do justice to the large resident population there, the question of appointing another medical officer to reside in the West of the New Territory say somewhere in the Shap-Pat-Heung Valley will soon have to be considered. I attach the annual report on the work of the medical department in the New Territory.

In an Appendix I give a report by Dr. THOMSON regarding the mosquitoes which occur in the Colony of Hongkong, this has entailed an immense amount of labour and has, as was to be expected, confirmed the fact that where malarial fever is rife there anopheles abound.

In Appendix *A* is given the notes of several cases of interest which have occurred in the Hospital during the year.

Appendix *B* contains the report by Dr. THOMSON, already referred to, regarding the mosquitoes that occur in the Colony of Hongkong.

Attached are the reports of:—

1. The Medical Officer to the Lunatic Asylums.
2. The Medical Officer in charge of the Public Mortuary.
3. The Medical Officer in charge of the Infectious Diseases Hospital.
4. The Medical Officer to Victoria Gaol.
5. The Medical Officer to the Tung Wah Hospital.
6. The working of the Medical Department in the New Territory during 1901.
7. The Report of the Government Analyst.

In conclusion my thanks are due to the several members of the staff for their assistance rendered during the past year, and I take this opportunity of thanking all those who in the past year have remembered the patients by forwarding them flowers, books, periodicals, &c.

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

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

The Honourable
THE COLONAL SECRETARY,
&c., *&c.,* *&c.*

POLICE.

Table I.—*Shewing the* ADMISSIONS *into and* DEATHS *in the* GOVERNMENT CIVIL HOSPITAL *during each Month of the Year* 1901.

MONTHS.	EUROPEANS.		INDIANS.		CHINESE.		TOTAL Admissions.	TOTAL Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st Jan., 1901,	6	...	8	3	3	...	17	3
January,	13	...	26	...	10	...	49	...
February,	11	...	26	...	9	...	46	...
March,	15	1	23	...	9	...	47	1
April,	16	...	35	...	11	...	62	...
May,	20	...	41	...	19	...	80	...
June,	23	...	47	...	14	...	84	...
July,	18	...	44	...	17	1	79	1
August,	24	1	47	...	24	...	95	1
September,	15	...	54	...	23	...	92	...
October,	14	2	60	...	24	...	98	2
November,	17	...	72	...	37	...	123	...
December,	10	...	38	...	17	...	65	...
Total,	202	4	521	3	214	1	937	8

J. M. ATKINSON,
Principal Civil Medical Officer.

Table II.—*Shewing the* RATE *of* SICKNESS *and* MORTALITY *in the* POLICE FORCE *during the Year* 1901.

AVERAGE STRENGTH.			TOTAL SICKNESS.			TOTAL DEATHS.			RATE OF SICKNESS.			RATE OF MORTALITY.		
European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.
126	354	404	202	521	214	4	2	2	160.31	147.17	52.97	3.17	0.56	0.49

J. M. ATKINSON,
Principal Civil Medical Officer.

Table III.—*Shewing the* ADMISSIONS *to* HOSPITAL *from the* POLICE *for* MALARIAL FEVER *from each Station, during the Year* 1901.

STATIONS.	Average Strength.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Central,	...	9	7	3	11	13	10	13	21	15	16	29	2	149
No. 2,	...	2	...	2	2	2	3	3	4	4	9	8	3	42
No. 5,	...	...	1	...	...	...	1	...	...	...	...	...	...	2
No. 6,	...	...	...	...	...	...	...	...	...	...	...	...	...	...
No. 7,	...	2	3	...	3	4	1	8	4	7	4	7	2	45
No. 8,	...	1	...	...	...	...	...	...	1	...	...	...	3	5
Tzat Tzs Mui,	...	...	...	...	1	...	2	2	1	...	2	...	...	8
Shaukiwan,	...	1	1	...	...	1	1	...	...	4	...	...	1	9
Aberdeen,	...	...	...	...	1	...	...	3	4	1	3	6	2	20
Stanley,	...	...	1	...	...	...	1	3	3	1	...	1	...	10
Pokfulam,	...	...	...	...	...	...	...	...	1	2	1	1	1	6
Gap,	...	...	...	...	...	...	...	...	...	2	1	...	...	3
Mount Gough,	...	1	...	2	...	1	...	...	2	1	2	...	...	9
Water,	...	2	1	4	1	1	2	4	...	3	3	3	...	24
Yaumati,	...	...	1	1	1	...	...	1	1	...	3	3	...	11
Hunghom,	...	1	...	...	...	3	...	1	...	...	1	...	...	6
Sha Tau Kok,	...	1	1	...	...	1	1	...	1	...	...	...	...	5
Ping Shang,	...	2	...	...	1	...	1	...	1	...	...	2	...	7
Tung Ching,	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sai Kung,	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Sun Tin,	...	1	1	...	...	...	1	...	1	...	1	...	...	5
Kowloon City,	...	1	...	...	...	...	...	...	...	...	...	...	1	2
Tai O,	...	...	...	...	...	...	...	1	...	...	1	...	...	2
Un Long,	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sha Tin,	...	...	...	...	1	...	...	...	...	...	...	1	...	2
Tai Po,	...	1	...	1	...	...	...	...	...	3	1	...	1	7
Au Tau,	...	1	...	...	1	...	1	2	4	2	2	2	2	17
Shek O,	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheung Shui,	...	1	1	...	1	...	...	1	1	1	[illegible]	1	...	7
Kennedy Town,	...	...	...	...	...	...	...	...	...	...	1	2	...	3
Total,	...	28	18	13	24	26	25	42	50	46	51	66	18	407

J. M. ATKINSON,
Principal Civil Medical Officer.

Table IV.—*Shewing the* RATE *of* SICKNESS *and* MORTALITY *of the* TROOPS SERVING *in* HONGKONG *during the Years* 1900 and 1901.

YEAR.	AVERAGE STRENGTH.			ADMISSIONS INTO HOSPITAL.			DEATHS.			AVERAGE DAILY RATE OF SICKNESS			RATE OF MORTALITY PER 1,000 OF THE STRENGTH.		
	White.	Black.	Total.	White.	Black.	Total.	White.	Black.	Total.	White.	Black.	Total.	White.	Black.	Total.
1900,	1,484	1,785	3,269	1,986	1,952	3,938	23	17	40	123.98	78.56	202.54	15.40	9.52	24.92
1901,	1,673	2,677	4,350	2,465	2,894	5,359	16	51	67	139.48	147.33	286.81	9.60	19.05	28.65

G. A. HUGHES, Lt.-Col., R.A.M.C.,
P. M. O., China and Hongkong.

Table V.—*Showing the* ADMISSIONS *and* MORTALITY *in the* GOVERNMENT CIVIL HOSPITAL *during the Year 1901.*

GENERAL DISEASES.	ADMISSIONS.			TOTAL.	DEATHS.			TOTAL.
	Europeans.	Indians & Coloured Persons.	Asiatics, including Japanese.		Europeans.	Indians & Coloured Persons.	Asiatics, including Japanese.	
Small-pox,	...	1	...	1	...	...	...	...
Measles,	5	1	1	7	...	...	...	...
Rubella—Synonyms : Rotheln, German Measles, Epidemic Rose Rash,	1	...	...	1	...	...	...	...
Dengue,	12	3	15	30	...	...	...	...
Plague,	3	5	8	16	1	1	...	2
Influenza,	6	17	9	32	...	...	...	...
Diphtheria,	2	...	...	2	1	...	...	1
Simple continued Fever—Synonym : Febricula,	1	2	7	10	...	...	...	...
Enteric Fever—Synonym : Typhoid Fever,	22	...	2	24	5	...	2	7
Choleraic Diarrhœa—Synonym : Cholera Nostras,	4	...	...	4	...	...	...	...
Dysentery,	54	36	3	93	2	3	1	6
Beri-beri—Synonym : Kakki,	...	6	37	43	...	1	4	5
Malarial Fever,	231	357	199	787	5	1	1	10
PHAGEDŒNA—								
a. Sloughing Phagedœna,	1	...	4	5	...	...	...	...
Erysipelas,	1	...	...	1	1	...	...	1
Pyœmia,	1	1	2	4	2	...	1	3
Tetanus,	1	...	1	2	...	...	1	1
Tubercle,	6	8	8	22	2	5	1	8
Leprosy—Synonym : Elephantiasis Græcorum,	...	...	1	1	...	...	...	...
SYPHILIS—SYNONYM : POX—								
a. Primary, Hard chancre or infecting sore,	29	3	15	47	...	...	...	...
b. Secondary, or Constitutional,	28	8	26	62	...	...	...	...
c. Inherited,	...	...	3	3	...	...	1	1
Gonorrhœa—Synonyms : Clap, Blennorrhagia,	39	14	18	71	...	...	...	...
Diseases dependent on Animal Parasites,	3	8	2	13	...	...	...	...
,, ,, ,, Vegetable ,,	2	2	...	4	...	...	...	...
Effects of Animal Poisons,	1	...	...	1	...	...	...	...
,, ,, Vegetable Poisons,	...	1	...	1	...	...	...	...
,, ,, Heat,	5	...	1	6	2	...	...	2
ALCOHOLISM—								
Delirium Tremens,	53	6	1	60	...	...	...	...
Rheumatic Fever—Synonym : Acute Rheumatism,	5	2	...	7	...	...	...	...
Rheumatism,	27	28	14	69	...	...	...	...
Gout,	...	...	1	1	...	...	...	...
OSTEOARTHRITIS—SYNONYMS : ARTHRITIS NODOSA, ARTHRITIS DEFORMANS, RHEUMATOID ARTHRITIS,	1	...	...	1	...	...	...	...
New Growth, Non-malignant,	1	1	1	6	...	...	...	...
,, Malignant,	2	1	4	7	...	...	2	2
Anœmia,	1	5	2	8	1	2	...	3
IDIOPATHIC ANŒMIA—SYNONYM : PERNICIOUS ANŒMIA,	...	1	...	1	...	1	...	1
Congenital Malformation,	1	...	3	4	...	...	...	...
Debility,	21	20	14	55	...	1	1	2
LOCAL DISEASES—								
Diseases of the—								
Nervous System,	30	24	90	144	3	2	3	8
Eye,	10	14	23	47	...	...	...	...
Ear,	3	8	...	11	...	...	...	...
Circulatory System,	7	3	6	16	1	1	3	5
Respiratory,	64	84	44	192	14	8	7	29
Digestive,	87	51	42	180	6	2	2	10
Lymphatic,	23	7	16	46	...	...	...	...
Urinary System,	27	4	15	46	2	1	5	8
Generative System,	17	5	10	32	...	...	...	...
Male Organs,	24	5	10	39	...	...	...	...
Female Organs,	3	...	4	7	...	...	...	...
Organs of Locomotion,	3	4	2	9	...	...	...	...
Connective Tissue,	22	14	34	70	...	...	...	...
Skin,	23	20	19	62	...	...	...	...
Injuries,	88	39	348	475	4	1	25	30
Under Observation,	12	15	33	60	...	...	...	...
TOTAL,	1,016	884	1,098	2,948	52	33	60	145

J. M. ATKINSON,
Principal Civil Medical Officer.

Table VI.—LIST *of* OPERATIONS *performed during the year 1901.*

SURGICAL OPERATIONS.	OPERATIONS.	DEATHS.
Removal of Tumours,—Buboes, Incision,	32	...
„ Scraping,	20	...
Sebaceous Cyst,	1	...
Fibroma of Face,	1	...
„ „ Palate,	1	...
Angioma of Face,	1	...
Papilloma,	1	...
Condylomata,	1	...
Wounds,—of Foot,	1	...
of Scrotum,	1	...
of Wrist (suturing tendons),	1	...
of Hand,	1	...
Bullet Wounds,	8	...
of Abdomen,	1	1
Eye Operations,—Cataract,	1	...
Hypopyon,	1	...
Entropion,	1	...
Ptosis,	1	...
Operations on Head and Neck,—Harelip,	1	...
Tracheotomy,	1	1
Operations on Respiratory Organs,—Paracentesis Thoracis,	1	...
Empyema,	1	1
Operations on Genito-Urinary Organs,—Hydrocele,	1	...
Circumcisions,	18	...
Lithotomy,	3	...
Urethral Calculus,	1	...
Fungus Testis,	1	...
Operations on Digestive Organs,—Piles,	7	...
Fistula in Ano,	3	...
Hepatic Abscess,	3	...
Appendicitis,	1	...
Strangulated Hernia,	1	...
Abdominal Section,	2	1
Paracentesis Abdominalis,	1	...
Operations on Organs of Locomotion,—Amputation of Thigh,	1	1
„ Leg,	7	...
„ Arm,	3	1
„ Forearm,	2	...
„ Foot,	1	...
„ Toes and Fingers,	8	...
Necrosis,	8	...
Ulcer of Leg,	1	...
Operations on Cellular Tissue,—Whitlows,	3	...
Plantar and Palmar Abscess,	11	...
Abscess,	21	...
Opening Knee Joint,	1	...
Total,	188	6

J. M. ATKINSON,
Principal Civil Medical Officer.

Table VII.—*Shewing the* RATE *of* MORTALITY *in the* GOVERNMENT CIVIL HOSPITAL *during the last* 10 *Years.*

Rate to Total Number of Admissions.		*Rate to Number of Europeans Admitted.*		*Rate to Number of Coloured Persons Admitted.*		*Rate to Number of Asiatics Admitted.*	
	Per cent.		*Per cent.*		*Per cent.*		*Per cent.*
1892,	3.96	1892,	2.92	1892,	3.28	1892,	5.74
1893,	3.65	1893,	1.57	1893,	2.28	1893,	7.34
1894,	5.14	1894,	3.71	1894,	3.51	1894,	7.36
1895,	4.99	1895,	2.47	1895,	1.32	1895,	8.35
1896,	5.50	1896,	3.65	1896,	1.84	1896,	8.88
1897,	4.86	1897,	3.63	1897,	2.61	1897,	6.56
1898,	5.36	1898,	5.07	1898,	2.07	1898,	6.59
1899,	4.16	1899,	4.06	1899,	2.27	1899,	5.22
1900,	5.16	1900,	3.81	1900,	3.93	1900,	6.77
1901,	5.18	1901,	4.58	1901,	4.31	1901,	6.32

J. M. ATKINSON,
Principal Civil Medical Officer.

Table VIII.—*Shewing the* ADMISSIONS *into and* DEATHS *in the* GOVERNMENT CIVIL HOSPITAL *during each Month of the Year* 1901.

MONTHS.	EUROPEANS.		COLOURED.		CHINESE.		Total Admissions.	Total Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st January, 1901,	42	1	15	4	27	2	84	7
January,	71	..	48	6	92	8	211	14
February,	57	..	46	3	54	3	157	6
March,	61	4	46	2	84	1	191	7
April,	82	5	53	1	84	3	219	9
May,	70	5	73	2	92	8	235	15
June,	86	5	75	2	65	8	226	15
July,	94	4	71	6	94	7	259	17
August,	94	6	68	1	93	5	255	12
September,	82	4	83	..	121	5	286	9
October,	78	6	99	4	120	5	297	15
November,	81	3	100	4	141	12	322	19
December,	62	1	57	1	87	6	206	8
Total,	960	44	834	36	1,154	73	2,948	153

J. M. ATKINSON,
Principal Civil Medical Officer.

Table IX.—*Shewing the* ADMISSIONS *into and* DEATHS *in the* GOVERNMENT LUNATIC ASYLUMS *during each Month of the Year* 1901.

MONTHS.	EUROPEANS.		COLOURED.		CHINESE.		Total Admissions.	Total Deaths.
	Admissions.	Deaths	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st January, 1901,	5	..	..	..	8	1	13	1
January,	..	..	..	..	7	1	7	1
February,	..	..	1	..	7	..	8	..
March,	..	..	..	..	6	1	6	1
April,	..	..	1	..	8	..	9	..
May,	..	..	1	..	6	..	7	..
June,	..	..	1	1	2	1	3	2
July,	..	..	..	..	2	..	2	..
August,	1	..	..	..	6	..	7	..
September,	2	..	1	..	6	..	9	..
October,	..	..	1	..	6	1	7	1
November,	..	..	..	..	8	1	8	1
December,	..	..	..	..	4	..	4	..
Total,	8	..	6	1	76	6	90	7

J. BELL,
Medical Officer in charge of Asylums.

Table X.—*Shewing the* NUMBER *of* PATIENTS *in the* ASYLUM *during the year 1901, under the respective Diseases.*

	EUROPEANS.		INDIANS.		CHINESE.		TOTAL.
	Male.	Female.	Male.	Female.	Male.	Female.	
Mania,	...	1	1	...	12	10	24
Delusional Insanity,	3	...	...	...	...	...	3
Dementia,	2	...	5	...	35	14	56
Melancholia,	2	...	...	...	4	1	7
Idiotcy,	...	...	...	...	...	...	...
Total,	7	1	6	...	51	25	90

J. BELL,
Medical Officer in charge of Asylums.

Table XI.—*Shewing the* ADMISSIONS *into and* DEATHS *in the* GOVERNMENT MATERNITY HOSPITAL *during each Month of the Year* 1901.

MONTHS.	EUROPEANS.		JAPANESE.		CHINESE & INDIANS.		Total Admissions.	Total Deaths.
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Remaining on the 1st January, 1901,	1	..	..	..	1	..	2	..
January,	2	..	1	..	3	1	6	1
February,	4	..	..	..	1	..	5	..
March,	..	..	1	..	..	..	1	..
April,	..	..	1	..	1	..	2	..
May,	3	..	..	..	1	..	4	..
June,	1	..	..	..	5	1	6	1
July,	..	..	1	..	2	..	3	..
August,	5	..	1	..	2	..	8	..
September,	2	..	1	..	..	..	3	..
October,	1	..	..	..	1	..	2	..
November,	..	..	2	..	1	..	3	..
December,	3	..	2	..	4	..	9	..
Total,	22	..	10	..	29	2	54	2

J. M. ATKINSON,
Principal Civil Medical Officer.

Table XII. *Shewing Varieties of* MALARIAL FEVER, *uncomplicated and associated with other Diseases, occurring monthly at the* GOVERNMENT CIVIL HOSPITAL *during 1901, and Percentage of Cases to Number of Patients in Hospital.*

MONTHS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Quartan,	1	1	—	—	—	—	—	1	—	3	2	3	11
Simple Tertian,	5	6	5	4	7	3	4	5	10	8	6	4	67
Malignant,	58	33	27	55	64	85	115	199	106	121	114	32	919
Mixed Infection,	6	1	2	1	3	6	4	7	3	1	3	2	39
Total,	70	41	34	60	74	94	123	122	119	133	125	41	1,036
Percentage,	33.17	26.11	17.80	26.02	31.48	41.59	43.62	47.84	41.60	44.77	38.82	19.90	35.14

J. M. ATKINSON,
Principal Civil Medical Officer.

Appendix.

HEPATIC ABSCESS DUE TO MALARIA—OPERATION—RECOVERY.

An officer of the Garrison was admitted to hospital on the 7th December suffering from fever of 3 days' duration. The patient was a strong young man with only 3 months' foreign service, all in this Colony. He had never had dysentery or malaria before and was a very abstemious person. His tongue was furred, temperature 103.4 with enlargement and tenderness of the liver. Blood slide showed numerous malignant quotidian parasites. Under quinine in various forms and doses and saline purgative he improved somewhat, the chart however being very irregular 100 to 101 or 104, occasionally normal all day and parasites being sometimes present (4th, 13th, 22nd February and 8th March) and at other times absent (12th, 18th, 19th and 24th January and 25th February). The liver dulness diminished considerably but still remained enlarged somewhat and tender in one spot. On the 28th Febuary an exploratory puncture showed the presence of pus and the usual operation was performed. After the operation the temperature still kept up in an irregular manner rising to 100.8 or 103 in the evening—a small piece of necrosed rib was removed and on the 1st April the temperature fell to normal and kept so throughout. The patient began to mend and put on weight and left for home on the 1st May with a small sinus still discharging.

Remarks.—The cause of the liver abscess seems to have been the malaria which was very obstinate notwithstanding frequent and large doses of quinine. The presence of parasites in the blood was rather puzzling and took one's attention off the hepatic condition.

PYO NEPHROSIS DUE TO CALCULUS—WITHOUT PAIN OR FEVER.

A German aged 56 was admitted on the 21st of December. Patient looked ill and seemed much older than the age he gave. He stated that he had been suffering from dysentery in Manila and had come over to get stronger. His stools were liquid and bilestained and were about 5 or 6 a day and this diarrhœa throughout was quite unaffected by treatment. His blood showed no malaria and he complained of no pain anywhere throughout the illness. His temperature varied between 96 and 98.4 during his illness. His urine was examined on several occasions and was always normal save on the last occasion, 6 days before death, when "a faint trace of albumin" was reported. He slowly became more and more drowsy but was easily roused for his food and medicine. His lips and mouth were frequently covered with thrush. He passed his motions in bed throughout. Towards the end he became delirious and very irritable. The case was seen by several medical men and the diagnosis of auto-intoxication confirmed, the absorption probably taking place from an old dysenteric ulcer. The treatment consisted in liquid diet, stimulants and various antiseptics. He died on 17th February.

Post mortem.—Intestines much atrophied but no signs of dysentery. Liver cirrhotic. Heart and lungs normal. Right kidney enlarged and lobulated. Left kidney had a small stone firmly blocking the ureter, pelvis dilated and full of pus, the abscess cavity extending into the substance of the kidney.

MALARIAL COLITIS SIMULATING APPENDICITIS—RECOVERY.

A German soldier was brought to hospital by his medical attendant to be operated on for appendicitis on the 2nd April. He had been ill for three days with constipation, fever (102°), furred tongue and offensive breath. The abdomen was very tympanitic and tender more especially over McBurney's point. His bowels had not acted for four days, his temperature was 102.4, pulse 110. On the following day he was still very tympanitic and tender and the least pressure in the neighbourhood of the appendix elicited much pain. There was frequent vomiting and dulness in both flanks. His temperature was 101.4 and a blood slide showed numerous non-pigmented ring-formed parasites (malignant quotidian). After several doses of saturated solution of magnesium sulphate the bowels acted copiously and the stools were full of "jelly like" material. Under quinine grs. 5 every 4 hours and saline purgatives he slowly improved, vomiting ceased, tongue cleaned and the distension and tenderness disappeared and the temperature became intermittent 99° in the morning and 101° in the evening. The quinine was reduced to 5 grains terdie but in 48 hours the symptoms recurred, pain more especially in R. iliac fossa extending to the region of the bladder and the stools were again full of "jelly like" mucus. The quinine was ordered to be given every 3 hours, hot fomentations applied to the abdomen and a quinine enema (30 grains) given every night. In 48 hours the patient was much improved and the temperature fell to normal and remained so. Dulness and a sense of resistance in the R. iliac fossa continued for some few days but eventually cleared up. Patient was discharged quite well on the 1st May.

GENERAL PARALYSIS OF THE INSANE—RECOVERY AFTER THREE YEARS.

A German sailor was admitted to the Asylum from the Gaol on 9th April, 1898. He had been several times in Gaol for petty thefts (kleptomania) and on the last occasion the Medical Officer considering he was "silly" transferred him to the Asylum. For several months he was under observation without any definite symptoms save that he was decidedly silly, laughing constantly and for no apparent reason, &c. He was sent to a general ward in the Civil Hospital where in a day or two complaints were made, by the other patients, of his stealing all and everything he could find and hiding them away, sitting up all night writing (the writing being unconnected and mostly rubbish), putting on several suits of clothes, &c. On re-admission to the Asylum he rapidly became worse, noisy and violent and full of delusions. His ideas were all of an extravagant type. He was at times Emperor of Germany, Queen of England, President U.S.A., &c., owned stores and stores of money, millions of ships, &c. He required a bullock for each meal, barrels of beer and 1,000 of cigars. This stage lasted for a long time and for over two years he was the noisest lunatic we have ever had, incessantly talking and shouting and hardly ever sleeping. He became very dirty in his habits and very troublesome as he had a delusion the walls and floors were covered with arsenic and it was his business to clean them with his head and mouth and it was extremely difficult to prevent him doing this. At times he ceased to be violent and noisy and was extremely liberal to his attendants, giving them gold, silver, jewels and ships, &c. His pupils were unequal and presented the *Argyll-Robertson* phenomenon. No history of syphilis was obtainable though on the chance he occasionally had Iodide of Potassium but as he resented any medicine under the impression they were poison, it was not persisted in. His weight fell from 162 lbs. to 124 lbs. but he slowly regained it towards the end and weighed 172 lbs. when he left. Slowly his violent attacks diminished in frequency, his appetite returned, and his delusions ceased to be marked up to 11th November, 1900, when he had a series of fits of an epileptic nature with a very feeble pulse. After this the cure became more rapid and more marked so that in July he was allowed out daily and went round visiting his friends, the Consul, &c. and returning daily to the Asylum. He left on August 22nd, 1901, for Germany looking well and apparently free from all delusions.

Remarks.—A cure from this disease being very rare, the case is recorded. There was no doubt of the diagnosis as he was seen by several medical men who all agreed as to the nature of the illness.

The improvement was so gradual and so marked that one is justified in looking upon it as a cure and not a remission.

MALIGNANT MALARIA WITH OBSTRUCTIVE JAUNDICE.

A European sailor from a coasting steamer was admitted on 28th June. His temperature was 100, conjunctive jaundiced, left lobe of liver very tender and constant vomiting, a blood slide showed numerous malignant quotidian parasites. The jaundice became rapidly general and the vomiting very persistent, under hypodermics of morphia the latter symptom subsided but the patient became delirious and rapidly sank, dying on the 2nd July. The temperature was normal in the morning and 104 in the evening of 29th, normal all day 30th, 105 in the morning and 102 in the evening of 1st.

Post mortem.—Jaundice deeply marked all over. Gall bladder slighly distended but no obstruction could be made out. Brain congested and excess of fluid. Spleen enlarged and soft. Smear from this organ teemed with malarial parasites.

CHRONIC PANCREATITIS—JAUNDICE—DEATH.

An engineer was admitted from a steamer on the 30th May, 1901, deeply jaundiced and dying. The only history obtainable was that he had had jaundice for over a year but had been doing his duty up to a few days before his admission. He was deeply jaundiced all over, temperature 101, quick almost uncountable pulse and great dyspnœa. He was put to bed and given stimulants but died a few hours after, passing a large tarry stool just before death.

Post mortem.—Gall bladder was much distended and full of bile, intestines full of blood. Pancreas very much enlarged and hard being about double the average size and weighing eight ounces. The head was firmly adherent to the common bile duct and intestines. Section of pancreas was stained and showed a large increase in the connective tissue but no recent hœmorrhages.

MALARIA COMA—PREMATURE BIRTH—DEATH.

A Chinese prisoner in about the 8th month of pregnancy was suddenly seized with a fit at the Gaol on 1st June, 1901. When seen she was quite unconscious, with contracted pupils, deep stertorous breathing, insensitive conjunctivæ and small feeble pulse. Under the idea she was suffering from uræmia she was transferred to the Maternity Hospital. On arrival she was in much the same condition, temperature 100, and passing her urine unconsciously. By means of a catheter a specimen was obtained—1015, acid, trace of albumen—3.3% urea. The following day she was slightly better and could be roused by loud shouting and tried to do what she was told (put out tongue, &c.). The urine contained $\frac{1}{6}$ albumen with blood corpuscles and blood casts. Labour came off naturally, the child, however, being dead. On the 3rd the temperature was 103, urine normal, patient again more unconscious—a blood slide showed large numbers of malignant quotidian parasites. Ten grains of quinine hypodermically were given night and morning but without any drop in the temperature which on the 4th went up to 106.8. As the patient was quite unconscious and evidently sinking, lumbar puncture was performed and the tube left in for 48 hours. Under ice packing the temperature fell to normal at mid-night. The blood next morning was still full of malaria though the patient was much better and more easily roused. The quinine was increased to 15 grains twice daily hypodermically and a mixture of Tinct Ferri mXV and Quinine gr. II given every two hours. The patient, however, slowly became more unconscious, the temperature ranging between 101 and 105 till the 7th when she died, temperature 106. Throughout urine and fæces were passed unconsciously.

Post mortem.—Heart and lungs normal save for some old adhesions at right base. Liver cirrhotic, $2\frac{3}{4}$ lbs., kidneys normal but much congested, spleen 5 oz., brain soft and congested but no increase in the fluid either at base or in ventricles, blood smear from spleen teemed with parasites.

INTESTINAL OBSTRUCTION DUE TO STRICTURE OF RECTUM.

A married European female, aged 31, was admitted to hospital on August 21st. She was quite well up to the 20th, when she was seen by a medical man who prescribed a pill (Pil Hydrarg grs. III. Pil Coloc Co. grs. IV.) for vague abdominal pain and vomiting. On admission her temperature was 102.4, with furred tongue, tympanitis and tenderness all over the abdomen, but more especially in the right iliac region, malignant malarial parasites were found in the blood. Her previous medical history was good though there was a history of an attack of dysentery in 1895 but no abdominal trouble since. The vomiting continued throughout, the rejected matter consisting of green "spinach like" material and never feculent. Bowels did not respond to enemata, salines or small repeated doses of calomel. On 24th she was examined under chloroform but nothing definite could be found to account for the symptoms. There was no dulness in the right iliac fossa and nothing was felt per rectum. On 25th her condition was the same and as the tympanitis was distressing and the vomiting continued a small trocar was inserted into the intestines and a quantity of fœtid gas escaped with a certain amount of relief. On 26th, as her condition was decidely worse laparotomy was performed. The intestines were much congested and distended, there was no appendicitis and no cause was found to account for the distension. She slowly sank and died the same day.

Post mortem.—No peritonitis or appendicitis. Intense enteritis. The whole of the small intestine and the large intestine as far as the sigmoid flexure were distended and at the lower end of the sigmoid flexure a stricture was found, the intestine being contracted to the size of a goose-quill. On cutting through this constriction it was found to be due to the cicatrisation of a dysenteric ulcer with thickened and indurated edges. There was no tubercular disease anywhere.

Remarks.—The case is interesting on account of the obscurity of the cause of all the abdominal symptoms. The temperature was accounted for to a certain extent by the presence of malarial parasites (malignant tertian) in the blood. Although the patient was a delicate woman her condition could hardly be attributed to the aperient she had taken. The puncture of the intestine with the smallest trocar in Potain's aspirating case afforded relief and did not induce the slightest local inflammatory trouble.

HEPATIC ABSCESS—OPERATION FOLLOWED BY GUMMA OF THE LIVER—RECOVERY.

A French sailor, 42 years of age, was admitted on June 7th, having been ill 15 days with fever. His temperature on admission was 101°, liver much enlarged with distinct fluctuation in front. The abscess was opened, the walls stitched to the skin and a tube inserted. It healed rapidly but the temperature still ran an intermittent course, being normal in the morning and 102° or 103° in the evening. On the 13th, malignant parasites were found in the blood and 5 grains of quinine given every four hours. This brought the fever down to normal in a few days and he soon put on weight and was waiting for a passage home when on July 29th the temperature again rose with parasites in his blood (after he had been out on leave for the first time). There was also a distinct tumour of the liver below the ribs which was hard and not tender on pressure. Notwithstanding quinine every 3 or 4 hours the temperature still continued an irregular course, rising to 100° and occasionally to 103° in the evening. On August 11th, he was aspirated but no pus found. A distinct specific history having been obtained he was put on Potass Iodid grs. xv terdie. The temperature almost immediately fell to normal and continued to, and the swelling slowly but markedly disappeared. He left for Europe on 9th September looking and feeling well, his weight having risen from 8st. to 8st. 7½lbs. and without any trace of hepatic enlargement.

INTESTINAL OBSTRUCTION DUE TO PLAGUE—DEATH.

An English boy aged 11 was admitted to hospital on the 9th September. He had been taken ill two days previously with a sharp pain in the abdomen for which a dose of castor oil was prescribed which however only set up vomiting immediately after being taken. On admission his temperature was 102°, foul tongue and pain in abdomen, chiefly in right iliac fossa where there was a distinct sense of resistance on pressure. His temperature continued between 102 and 104 till the 11th, with great abdominal distension and pain. On this day a papular eruption was seen chiefly on forehead and back of ears. In the evening slight delirium was noticed for the first time. On the 12th the condition was much the same with frequent vomiting (bile and blood), very fœtid breath, epistaxis and abdominal distension, and from this onwards no further action of the bowels occurred. There was dulness in both flanks. The stools were liquid and bile-stained. There was distinct tenderness and dulness in the right iliac fossa where a distinct tumour could now be felt. In the evening the enema contained only a trace of fæces. The morning temperature was 100° and a few malignant malarial parasites were found in the blood. The evening temperature was 101.8 and the pulse varied between 88 and 92. The case became slowly worse, pulse 120 to 130, vomiting, constipation and great distension, and a trace ($\frac{1}{20}$) of albumen in the urine till the 14th—8th day of illness—when the temperature rose to 105, and the patient succumbed.

Post mortem.—Small intestine normal. Spleen hard and firm. No appendicitis. Large intestine (cœcum) swollen with hæmorrhagic extravasation into the walls for about 3 inches causing almost complete obstruction. Mesenteric glands swollen and hæmorrhagic. Retroperitoneal extravasation well marked. Slight amount of bloody fluid in abdominal cavity. Spleen and glands full of typical plague bacilli, a culture of which was injected into a guinea pig and produced death with plague bacilli in internal organs.

Remarks.—No idea of plague was ever thought of in diagnosing this case which was looked upon at first as being one of malarial colitis or appendicitis, and the patient was treated accordingly with saline purges and hypodermics of quinine. Fortunately for various reasons no operation was attempted. Authorities on plague mention the possibility of mistaking the disease for appendicitis but such a case as this is worth recording owing to the very definite tumour and complete obstruction produced.

COMPOUND FRACTURE OF FEMUR—AMPUTATION—DEATH FROM TETANUS.

A European sailor was knocked down by a heavy sea on the 10th December and sustained a compound comminuted fracture of the lower end of the right femur. On arrival here, six days after the accident, the man was brought to hospital. The wound was thoroughly cleaned, some jagged ends of bone removed and an endeavour made to save the limb. As the temperature chart pointed to septic infection, amputation was decided upon, and assisted by Staff Surgeon NOLAN, R. N., and Surgeon WALLIS, R. N., at 11 a.m. on the 20th, the limb was removed. Just previous to the operation the patient complained of stiffness in the jaw muscles and inability to open his mouth. To our regret smears taken from three places in the wound showed tetanus bacilli. The patient stood the shock fairy well and at 1 p.m. was conscious, the spasms short and frequent, and the pulse fairly strong. At 4 p.m. he had a severe spasm which almost raised him off the bed, and died suddenly.

Remarks.—The extreme rarity of tetanus following operations here makes this case worth recording. It is extremely difficult to account for his having been infected on board a ship as the bacillus is generally looked upon as an earth germ and the steamer had not been carrying manure, horses or other animals as cargo. Immediately after the injury everything seems to have been done to keep the wound clean and the limb at rest by means of Carbolic lotion and an improvised splint.

REPORT REGARDING THE MOSQUITOES THAT OCCUR IN THE COLONY OF HONGKONG.

HONGKONG, *15th February*, 1902.

SIR,—I have the honour to submit, for purposes of the Annual Medical Report, the results of a systematic examination and classification of the mosquitoes that prevail in Hongkong and its Dependencies, on which I was engaged during the twelve months ending 30th September, 1901. For some months previous to September, 1900, I was working at the subject as I had opportunity, but my field of observation was limited to the Colony itself until in that month the Honourable F. H. MAY, C.M.G., Captain Superintendent of Police, kindly consented to my proposal that I should be supplied with at least one dozen mosquitoes from each of the Police Stations throughout Hongkong itself and the New Territory once a week for a year. As the Police Stations are approximately equally scattered over the whole area, the mosquitoes that were sent to me may be assumed to fairly satisfactorily represent the actual relative prevalence of these insects in this locality.

2. I distributed a number of glass test-tubes to each of the thirty-six Police Stations, with general instructions for the catching and transmitting of the insects in such a way as to avoid injury to them. They were to be caught by means of the glass tubes, killed by a whiff of tobacco-smoke, and sent enclosed in match-boxes to the Central Police Station, from which they would be duly forwarded to me. It was requested that about two-thirds of each consignment should be caught in the evening, or from mosquito-curtains in the early morning, and the remainder from species seen flying about in the day time; and further that no selection of any kind should be made, the first dozen or so caught on any given date being sent.

The arrangements made have been carefully carried out by the officers in charge of the stations, with few exceptions; and I beg to express my thanks to the Captain Superintendent of Police, Chief-Inspector MACKIE, and the officers of the Police Force for their hearty co-operation in this research.

3. During the twelve months, 1st October, 1900, to 30th September, 1901, 32,266 insects were sent to me from the Police Stations. Of these, 31,390 proved to be mosquitoes; the others were chiefly insects belonging to cognate families, such as fungus gnats (Mycetophilidæ), midges (Chironomidæ), sand flies (Simulidæ), &c.

1,169, *i.e.*, 3.7 per cent. were Anopheles, of three species, and 30,221, *i.e.*, 96.3 per cent. were Culex, of twelve species. As is shown in Appendix II, the number of species of Culex is probably considerably larger, some that I describe as varieties being perhaps distinct species.

4. I enclose a Table (Appendix I) showing in detail my observations during the year as regards the various Police Stations. I show for each station the number of specimens received, the number of Anopheles and Culex respectively, and the names of the species of both that have come from the station. I describe the different species by letters corresponding to those used in the Systematic Account of Hongkong Mosquitoes given below (Appendix II). Similar tables showing the same facts, but without the names of species, for each month and each quarter of the year are included in my quarterly reports on this subject, which have appeared in the Government Gazette.

5. The monthly percentage of Anopheles and Culex has been as follows:—

	Mosquitoes examined.	Anopheles.		Culex.	
		Number.	Per cent.	Number.	Per cent.
October, ...	401	106	26.4	295	73.6
November, ...	796	50	6.3	746	93.7
December, ...	2,342	138	5.9	2,204	94.1
January, ...	3,380	143	4.2	3,237	95.8
February, ...	2,524	35	1.4	2,489	98.6
March, ...	1,586	49	3.1	1,537	96.9
April, ...	3,501	115	3.3	3,386	96.7
May, ...	5,476	116	2.1	5,360	97.9
June, ...	3,562	111	3.1	3,451	96.9
July, ...	2,582	138	5.3	2,444	94.7
August, ...	2,296	88	3.8	2,208	96.2
September, ...	2,944	80	2.7	2,864	97.3
Last Quarter, 1900, ...	3,539	294	8.3	3,245	91.7
First Quarter, 1901, ...	7,490	227	3.	7,263	97.
Second Quarter, 1901, ...	12,539	342	2.7	12,197	97.3
Third Quarter, 1901, ...	7,822	306	3.9	7,516	96.1
The Twelve Months, ...	31,390	1,169	3.7	30,221	96.3

6. In considering the percentage of Anopheles in the foregoing table, two modifying circumstances require to be allowed for. The percentage for October, 1900, is too high, owing to the fact that I was then receiving an unduly large number of insects from the more malarial Police Stations, and less in proportion from the more healthy stations. And on the other hand, the percentage of Anopheles shown for August and September, 1901, is probably much below the average for the Colony as a whole during those months, owing to the fact that from the end of June vigorous measures for the destruction of the larvæ and breeding-places of these insects were in operation in the neghibourhood of all my collecting stations. I drew up a series of simple instrutions on this subject, as brief and elementary as possible, and these were embodied in a General Order to officers in charge of Police Stations by the Captain Superintendent of Police (*v.* Appendix III). They were carried into effect more or less thoroughly, and, while the Police reaped the benefit, my statistics were vitiated in the direction I have indicated. Allowing for these modifying circumstances, it will be found that the prevalence of the Anopheles mosquito runs quite parallel with what we already know of the prevalence of malaria in the Colony. Both are at their minimum in February, and at their maximum between the months of July and October.

7. No Anopheles were found among mosquitoes sent to me from the following stations:—

No. 5, No. 6, No. 7, No. 8, Kennedy Town, Mount Gough, Shaukiwan, Tsim Sha Tsui, Stone Cutters' Island, Hung Hom, and Kat O.

8. The following Table shows the stations from which Anopheles were sent to me, and the percentage of Anopheles among the total mosquitoes received from those stations:—

	Mosquitoes examined.	Anopheles.		Culex.	
		Number.	Per cent.	Number.	Per cent.
No. 1 Station, ...	1,261	6	0.5	1,255	99.5
No. 2 Station, ...	575	1	0.2	574	99.8
No. 3 Station, ...	1,178	1	0.1	1,177	99.9
Pokfulam, ...	852	21	2.5	831	97.5
Aberdeen, ...	688	7	1.	681	99.
Stanley, ...	963	15	1.6	948	98.4
Shek O, ...	748	116	15.5	632	84.5
Tsat Tsze Mui, ...	600	47	7.8	553	92.2
Yaumati, ...	1,066	1	0.1	1,065	99.9
Fuk Tsun Heung, ...	558	1	0.2	557	99.8
Kowloon City, ...	1,717	1	0.1	1,716	99.9
Sha Tin, ...	572	43	7.5	529	92.5
Sai Kung, ...	552	8	1.4	544	98.6
Tai Po, ...	809	191	23.6	618	76.4
Sha Tau Kok, ...	4,401	414	9.4	3,987	90.6
Sheung Shui, ...	815	10	1.2	805	98.8
San Tin, ...	837	14	1.7	823	98.3
Au Tau, ...	1,841	113	6.1	1,728	93.9
Ping Shan, ...	245	12	4.9	233	95.1
Tai O, ...	399	38	9.5	361	90.5
Tung Chung, ...	226	78	34.5	148	65.5
Ch'eung Chau, ...	4,704	1	00.2	4,703	99.98
Lamma, ...	604	30	5.	574	95.

9. In Appendix II I describe systematically the mosquitoes that prevail in the Colony, examining in each case the wings, legs, head, appendages, thorax, abdomen, and size. The size I express in millimetres ($\frac{1}{25}$ inch). It will be noted that, so far as Hongkong is concerned, the wings of Anopheles are in all species spotted, and those of all forms of Culex unspotted.

There are three species of Anopheles—a sub-species of Anopheles Sinensis, and two species which have been recognised as new species, not thus far observed elsewhere, by Mr. F. V. THEOBALD, Entomologist at the British Museum, to whom I submitted them. He has named one of them Anopheles Maculatus from its markings, the other Anopheles Minimus from its minute size. The former I at first belived to correspond to Anopheles Costalis of West and South Africa, but there are specific differences. I need not here enter into descriptive details, which I have set forth at length in the Appendix.

Anopheles Sinensis breeds chiefly in the rice-fields and the ditches surrounding or draining them, the other two chiefly in the ravines; but they do not confine themselves exclusively to their usual habitats.

As to the relative prevalence of the three species of Anopheles, I am not able to speak as regards the 294 Anopheles which I received during the last quarter of 1900, but of 875 received during the three quarters of 1901 included in this research, 483 were Anopheles Sinensis, 249 Anopheles Maculatus, and 143 Anopheles Minimus.

10. I have differentiated twelve species of Culex, which I describe at length in the Appendix. There are probably considerable more, as some of the varieties of certain species which I describe may be regarded by entomologists as distinct species. I do not attempt to follow THEOBALD in his new classification of mosquitoes, just published in the Tropical Journal, into twenty-four different genera, breaking up the old genus Culex into some twenty new genera, based on the arrangement of the scales which cover the insects. For instance, he now decribes Culex Scutellaris and Culex Obturbans, two of the most common of the Hongkong mosquitoes, as Stegomyia Scutellaris and Armigeres Obturbans.

Culex Fatigans, Culex Scutellaris, Culex Obturbans, and Culex Concolor have been described before. Culex Anulus, Culex Sericeus, and Culex Reesii are new species, and have been named by Mr. THEOBALD from specimens which I submitted to him. Culex Reesii he has so called from our mutual friend Dr. D. C. REES, lately Superintendent of the London School of Tropical Medicine, who put me in communication with Mr. THEOBALD. The insects which I have indicated by the letters, "n", "o", "p", "r", "r", and "s", I have carefully described, but not named. "p" may be Culex Fuscanus; the others are, I think, new species but this question I shall remit to Mr. THEOBALD at the British Museum.

Culex Scutellaris is the black and white striped mosquito so common all over the Colony during the day time; Culex Fatigans and Culex Reesii are the equally common brown mosquitoes, to be found everywhere and at all seasons in the evening; Culex Obturbans is the very large dark mosquito, also very widely prevalent. The others are less abundant, but for the most part occur pretty generally throughout the Colony.

It may be noted in passing that Culex Fatigans is the most usual intermediate host of the blood parasite, Filaria Nocturna, the cause of Elephantiasis and its kindred diseases, by no means uncommon in this locality.

While Anopheles as a rule only use for breeding purposes clean water in more or less natural collections, the various species of Culex lay their eggs wherever stagnant water exists, in broken dishes, empty tins, flower pots, water tanks or barrels, drain traps, and the like. Nothing is too dirty to have its appropriate mosquito developing in it. Culex Obturbans is the most loathsome of all in its larval state, finding its most favourable conditions in decomposing urine.

11. I do not propose to enter here into details of prophylaxis against these insects, which I have dealt with in special reports: but direct attention to certain observations which I made during the winter.

I found the larvæ of Anopheles in the nullahs throughout the whole winter, in scarcely diminished numbers, though there were few in the pupa stage, and development at that season is evidently very slow or arrested.

I was able to note the effects of severe cold at the beginning of February. On 1st February, I had made a careful examination of the Kennedy Town nullah, and found Anopheles larvæ plentiful. On the 3rd there was a sudden rapid drop in the temperature, and when I examined the stream again on the 5th there were few larvæ to be seen. It seemed as if they had been killed by the cold. But fortunately I had some larvæ under observation at the time in a glass jar in my verandah. Under the influence of the cold these became torpid or sluggish, and most of them seemed dead. On the 7th, however, the sun shone out brightly, and the seemingly dead ones as well as the others became quite lively again. It is probable, therefore, that much of the diminution in numbers of the larvæ in the ravines during the winter is more apparent than real, since they are most easily recognised in ordinary circumstances by their very characteristic movements when disturbed.

I have the honour to be,

Sir,

Your obedient Servant,

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

Dr. J. M. ATKINSON,

Principal Civil Medical Officer,

&c., &c., &c.

APPENDIX I.

PREVALENCE OF MOSQUITOES, DURING THE YEAR ENDING 30TH SEPTEMBER, 1901.

NAME OF STATION.	Specimens received.	ANOPHELES.		CULEX.		Other Genera.
		Number.	Species.	Number.	Species.	
Central Station,	Nil.	—	—	—	—	—
No. 1 Station,	1,360	6	a b	1,255	efhikn	99
No. 2 ,,	576	1	b	574	efhiknr	1
No. 3 ,,	1,334	1	c	1,177	efhiknor	156
No. 5 ,,	107	—	—	107	ehir	—
No. 6 ,,	71	—	—	71	ehino	—
No. 7 ,,	462	—	—	447	efhik	15
No. 8 ,,	63	—	—	62	efhiko	1
Kennedy Town,	764	—	—	716	efhikn	48
Mt. Gough,	63	—	—	61	efhi	2
Pokfulam,	872	21	a b c	831	efhiknmor	20
Aberdeen,	735	7	b	681	efghikmnr	47
Stanley,	980	15	a b c	948	efhiknor	17
Shek O,	750	116	a	632	efhimno	2
Shaukiwan,	1,579	—	—	1,538	efhikmnor	41
Tsat Tsze Mui,	607	47	a b c	553	efhikn	7
Tsim Sha Tsui,	678	—	—	676	efhikn	2
Yaumati,	1,069	1	a	1,065	efghiknrs	3
Fuk Tsun Heung,	572	1	a	557	efhiknor	14
Stone Cutters' Island,	81	—	—	80	ehkon	1
Hung Hom,	729	—	—	725	efhinor	4
Kowloon City,	1,726	1	a	1,716	efhiknor	9
Sha Tin Gap,	Nil.	—	—	—	—	—
Sha Tin,	662	43	a b c	529	efghiknops	90
Sai Kung,	648	8	a b c	544	efghikn	96
Tai Po,	819	191	a b c	618	efhinnopr	10
Sha Tau Kok,	4,428	414	a b c	3,987	efhiknopr	27
Kat O,	709	—	—	696	efhi	13
Sheung Shui,	829	10	a b	805	efhiknmor	14
San Tin,	916	14	a b c	823	efhiknor	79
Au Tau,	1,853	113	a b c	1,728	efhikmnor	12
Ping Shan,	251	12	a b	233	efghikn	6
Tai O,	408	38	a b c	361	efhiko	9
Tung Chung,	233	78	a	148	efhikm	7
Cheung Chau,	4,704	1	b	4,703	efhikn	—
Lamma,	628	30	a b c	574	efhiknor	24
Total,	32,266	1,169	a b c	30,221	efghiknmoprs	876
Less,	876					
Net Total,	31,390					

APPENDIX II.

AN ACCOUNT OF HONGKONG MOSQUITOES.

A.—Anopheles Sinensis (Wiedemann).

Sub-species: *Annularis.*

Wings spotted. Dark brown costa, with two lighter interruptions. Dark brown spots irregularly placed on wing field.
Legs brown. White-banded at joints. White bands at apices of tarsi.
Antennæ and palpi brown. Proboscis darker brown.
Thorax brown. Linear markings of a deeper brown.
Abdomen brown, unbanded.
Length, 5 mm.

B.—Anopheles Maculatus.

A new species.

Wings spotted, transparent. Four linear black spots along costa, with three pale intervals. Also faint linear spots on wing field at points on course of veins.
Legs black, white-banded. White bands at apices of tarsi.
Antennæ grey. Palpi black, white-banded, and white-tipped. Proboscis dark-brown, with pale tip.
Thorax brown, with grey-white tomentum.
Abdomen brown, unbanded.
Length, 4 mm.

C.—Anopheles Minimus.

A new species.

At first sight appears simply a dwarf variety of Anopheles Maculatus. All its markings are less distinct, and it is exceedingly minute.

Wings spotted, transparent. Four linear black spots along costa, with three pale intervals. Also faint linear spots on wing field. The black is not so deep as in the previous species.

Legs black, white-banded. Faint white bands, at apices of tarsi.

Antennæ grey. Palpi black, white-banded, and white-tipped. In some specimens the palpi are brown and unbanded. Proboscis dark brown, with pale tip.

Thorax brown, with linear darker markings.

Abdomen brown, unbanded.

Length, 2½ mm.

E.—Culex Fatigans (Wiedemann).

Wings unspotted. Transparent.

Legs brown. Unbanded.

Antennæ, palpi, and proboscis brown.

Thorax brown, with golden scales, and with a median and two lateral dark bare lines.

Abdomen banded. Segments brown, with white bands at bases.

Length, 4 mm.

F.—Culex Anulus.

A new species.

Wings unspotted. Dark veins.

Legs brown. White-banded at joints. White bands at apices of tarsi.

Antennæ grey. Palpi brown. Proboscis brown, with broad white band at the middle of it.

Thorax brown, with lighter linear markings.

Abdomen brown, with white bands at bases of segments.

Length 3 mm.

G.—Culex Sericeus.

A new species.

Wings unspotted, brown, transparent, with prominent veins.

Legs brown, unbanded.

Antennæ grey. Palpi and proboscis brown.

Thorax brown, with golden-yellow tomentum.

Abdomen speckled, blackish brown, with yellowish white bands at bases of segments.

Length, 5 mm.

H.—Culex Reesii.

A new species.

Wings unspotted. Greyish brown.

Legs yellowish brown. Unbanded.

Antennæ grey. Palpi brown, with black tip in male. Proboscis brown.

Thorax brown, with faint linear marking.

Abdomen speckled, blackish brown, with faint pale bands at bases of segments.

Length, 4 mm.

I.—Culex Scutellaris. (Walker).

(Stegomyia Scutellaris. Theobald.)

There are several varieties of this insect, differing markedly in size. There is also one in which the median white line, while present on the head, is absent from the thorax, which is a very dark brown. Probably some of these would by entomologists be described as different species. The one I describe may be regarded as the type. The different varieties occur in different parts of the Colony.

Wings unspotted. Greyish, with dark scales on veins.

Legs dark, with whitish femur, and with white bands at bases of tarsi.

Antennæ grey. Palpi white-tipped in female, with four white bands in male. Proboscis black.

Head and thorax with median white line, with silvery white spots on sides of thorax.

Abdomen black, with silvery white bands at bases of segments.

Length, 4½ mm.

K.—Culex Obturbans. (Walker.)

(Armigeres Obturbans. Theobald).

Mr. Theobald recognised the specimens of this which I sent him as Culex Obturbans, but many of the specimens agree more closely with the Culex Ventralis of Walker. It may be that sub-varieties of both, approaching each other in characteristics, are present in the Colony. They are both large species. While I adopt the name Culex Obturbans, the following description of the insect, as it is now in large numbers before me, is very like the description of Culex Ventralis in Giles's Handbook of Mosquitoes.

Wings greyish, unspotted. Veins black, with fringe of large scales.

Legs almost black, unbanded. Femur pale underneath.

Antennæ grey. Palpi brown. Proboscis black.

Thorax brownish black, unadorned above, with white spots on sides.

Abdomen black, dorsally unbanded, but with pure white bands on under surface.

Length, 6½ mm.

In some specimens the thorax and abdomen are more brown than black.

M.—Culex Concolor. (R. Desvoidy.)

Wings unspotted, clear, transparent. Veins almost nude.

Legs yellowish, unbanded.

Antennæ pale brown. Palpi brown. Proboscis yellowish.

Thorax reddish brown, with three indistinct brown hairy lines.

Abdomen yellowish brown, with pale yellow bands at apices of segments.

Length, 7 mm.

N.

Probably a new species.

Wings smoky, owing to thick black scales on veins, unspotted.
Legs black, unbanded.
Antennæ, palpi, and proboscis black.
Thorax black.
Abdomen dark brown. Unbanded
Length, 5 mm.

O.

Probably a new species.

Wings unspotted, transparent, with dark scales on veins.
Legs black, with white bands on bases of tarsi.
Antennæ grey. Palpi black, and in the male with white band at middle. Proboscis dark brown.
Thorax brown.
Abdomen brown. Unbanded.
Length 4 mm.
There is a variety of this insect with a darker thorax and abdomen, greenish-black in colour.

Probably Culex Fuscanus (Wiedemann).

Wings unspotted. Dark owing to thick covering of large scales on veins.
Legs brown, unbanded.
Antennæ grey. Palpi and proboscis brown.
Thorax brown, with grey tomentum.
Abdomen black, with faint grey bands at bases of segments.
Length, 4 mm.

R.

Under "r" I have included two small dark species, which to the naked eye look alike, but show marked differences on examination with a lens. I shall describe them as "r" and "r¹."

R.—Probably a new species.

Wings unspotted. Veins thickly covered with dark scales.
Legs dark brown, unbanded.
Antennæ, palpi, and proboscis dark brown.
Thorax very dark brown. Fine linear markings of grey hairs.
Abdomen black. With faint grey bands at bases of segments.
Length, 3½ mm.

*R*¹.

Probably a new species.

Wings unspotted, transparent. Veins almost nude.
Legs dark reddish brown, unbanded.
Antennæ, palpi and proboscis black.
Thorax black. Faint pale linear marking.
Abdomen black, unbanded.
Length, 4 mm.

S.

Probably a new species.

Wings unspotted, greyish, with dark scales on veins.
Legs dark, with whitish femur, and white bands at bases of tarsi.
Antennæ greyish. Palpi white-tipped in female, with white bands in male. Proboscis black.
Thorax dark reddish-brown, with white spots on sides.
Abdomen black, unbanded.
Length, 2½ mm.

APPENDIX III.

Directions for the Destruction of the Larvæ of Mosquitoes, embodied in a General Order to Officers in charge of Police Stations, 22nd June, 1901.

The one great principle to act on is to prevent or abolish all stagnant water.

Careful search should be systematically made in the neighbourhood of all dwellings for any vessels that might contain stagnant water from rain or any other source: and arrangement should be made to keep them empty, or to have them emptied, or the water changed, once a week.

If running streams or ravines be anywhere near a station, efforts should be made to confine the water to a central channel. Side pools should be filled up; rock hollows should be smoothed out by cement or concrete, or a channel should be made from them by means of hammer and chisel: and a ready exit, or drainage under ground, should take the place of all oozings of water from the ground surface.

Where this guiding principle cannot be applied, or until it can be applied, still or stagnant water surfaces should be systematically inspected for the presence of larvæ of mosquitoes, and measures adopted to destroy them. This is most conveniently done in this locality by sprinkling the water surface with kerosene oil. The oil spreads in a very thin layer over the surface, and prevents the larvæ from rising to breathe the air, which results in their speedy death. About one tea-spoonful of oil to each square yard of water surface is sufficient, and, if there is little movement of the water, once a week is often enough.

As the colour of the larva assimilates itself to the colour of the water it inhabits, the larvæ cannot usually be easily seen in the water pool itself. It is necessary to dip up the water with a rapid dip of a large spoon or a saucer.

Enclosures.

GOVERNMENT CIVIL HOSPITAL,
HONGKONG, 1*st January*, 1902.

SIR,—I have the honour to forward the Annual Report on the Government Lunatic Asylum for the year 1901.

Table IX shows the admissions and deaths that have occurred during the year and Table X the diseases for which the patients were admitted.

The total number admitted was 90 as against 109 in 1900.

Europeans.—No females were admitted during the year. The American female admitted in April, 1895, is still in the Asylum and quite incurable mentally. The German Sailor admitted in April, 1898, and the Austrian in 1900 have both recovered and been sent home. The former's case being of great interest has been inserted in the Appendix. No deaths occurred amongst the Europeans.

Indians.—One died as the result of debility in a chronic imbecile.

Chinese.—The admissions this year were 76 as against 97 in 1900. There were 6 deaths, 22 patients were sent to Canton and 43 handed over to their friends.

I am glad to say no accidents occurred during the year.

Wardmaster G. R. LEE proceeded on leave in March and was succeeded by Mr. GRIFFITHS.

The buildings are in a good state of repair but require colour washing and painting outside, as this has not been done for many years. The fireplaces in lieu of gas stoves, suggested in last year's report, have been built and are a great improvement.

The improvements suggested by you, whereby more room for outdoor exercise for the patients, will be available, are being carried out.

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

J. BELL,
Medical Officer in charge of Lunatic Asylum.

THE PRINCIPAL CIVIL MEDICAL OFFICER.

GOVERNMENT CIVIL HOSPITAL.
HONGKONG, 31*st January*, 1902.

SIR,—I have the honour to foward the Annual Report on the work done at the Public Mortuary during 1901.

On May 12th I took over charge from Dr. THOMSON.

Owing to the want of accommodation, especially noticeable in plague epidemics, an improvement was made by adding a few more tables and a better water supply. In view of the fact that even now there is only accommodation for 16 bodies, I trust the extension, sanctioned last year, will soon be carried out, if possible before the next plague epidemic.

The Chinese Caretaker has continued in charge and done his work very satisfactorily, and, I am glad to say, escaped any infection.

Attached Table gives the causes of death as certified.

General Remarks.—Only 15 Europeans were brought to the Mortuary out of 2,250. The rest were Chinese, Indians, Portuguese and Japanese—the Chinese of course predominating. Of the total number 45.5 per cent. were found in the streets or harbour, *i.e.*, without their addresses being known. During the plague epidemic a few rats were examined occasionally with a view to ascertaining whether they had died of plague. The numbers were unfortunately very small, but in May and June those I examined gave a death-rate of 24% due to plague. In September, at the suggestion of Dr. KINYOUN (United States Marine Hospital Service), a large number were examined with his kind assistance and the result showed a plague death-rate of 5.10%. Subsequently I examined 100 every month and it is interesting to note that the subsidence of plague amongst human beings corresponds to that amongst rats, October giving 2%, November 1% and December nil. This investigation will show whether the plague epidemic amongst rats precedes or not the epidemic amongst mankind.

Special Remarks. Plague.—This disease heads the list by a very large number—1,035 out of 2,250. Of this number no less than 36.6% occurred in bodies found in the streets or harbour and consequently without their address being known. This percentage continues high throughout the year and does not seem to be affected in any way by any measures taken or any concessions made. The percentages month by month were :—

January 42.8, February 33.3, March 38.4, April 44.4, May 35.04, June 34.5, July 34.3, August 45.4, September 59.09, October (no cases), November 100. This question has been frequently discussed as militating seriously against checking the disease in the early months of the year, but it is

not easy to suggest a remedy. Cremation is now carried out for this disease all over the world and it is perhaps more needed here as our space, for disposing of bodies dying from epidemic diseases, is extremely limited. I would much like to see a crematorium attached to the Mortuary as it would save much unnecessary handling and carrying about of bodies which, especially in the summer months, is anything but pleasant and an attempt to popularise this method might be made by thus disposing of all unclaimed bodies.

The largest number of cases occurred in May (428). There were 12.18% of non-bubonic cases. At the beginning and during the height of the epidemic by far the largest number of cases were of the bubonic type whilst from July onwards the septicæmic variety prevailed. The percentage of septicæmic cases were month by month:—

January,	Nil.
February,	Nil.
March,	Nil.
April,	11.1 per cent.
May,	5.3 ,,
June,	8.6 ,,
July,	35.8 ,,
August,	72.7 ,,
September,	100 ,,
October,	No cases.
November,	100 per cent.
December,	Nil.

The routine examination of the spleen blood of every case sent in has been extremely useful in detecting cases sent in as one of drowning, accident, &c. and especially amongst the bodies so decomposed as to prevent the cause of death being ascertained.

In the latter cases it is thus possible to exclude plague as a cause of death.

Two cases may be cited as showing the necessity of being careful in this matter. A girl was sent in, found by the Police floating in the harbour, and her mother stated she last saw her alive asleep on the sampan where it was presumed she fell off and was drowned. A spleen smear, however, showed it to have been a case of plague. A boy was sent in who had fallen downstairs and dislocated his neck. His neck was dislocated but his spleen was full of plague bacilli and his house was accordingly disinfected. Another interesting case was that of a Chinaman who had been bitten by a rat a few days previous to his death. The bite on the thumb, the lymphangitis up the arm, and the axillary bubo full of plague bacilli were all well marked.

Enteric Fever.—From these figures (3) it does not seem as if this disease was very prevalent amongst the Chinese though it must be borne in mind that in a long illness of this kind no doubt many cases are removed to their own homes on the mainland.

Malarial Fever.—Exclusive of plague about 5% of the deaths come under this heading. Next year, I am inclined to think, the figures will be higher as the "unknown" cases from the convents will no doubt come in fair numbers under this heading as well as some of the "unknown" cases found in the streets. In connection with this disease I may mention that the parasites, spores and crescents in the spleen rapidly disappear after death being apparently disintegrated by the *post mortem* bacilli and I found this to occur in one case inside of 40 hours. Probably therefore many of the cases under the heading "unknown" may be malarial. I have also found signs of recent malaria (spores, &c.) in smears taken from brain, liver and kidney as well as spleen and this may have a practical use inasmuch as the liver and kidney disintegrate much slower than the spleen so that in some of the "unknown" bodies one may be able in future to ascertain whether or not death was due to malaria for, as I have already stated, 30 or 40 hours after death all traces of recent malaria have disappeared from the spleen.

Septicæmia.—2 cases out of the 9 were puerperal. The cases where death was due to some complication of labour only amount to 8, a small number, though they were all preventable in the sense that proper supervision or skilled aid might have saved the mother's life.

Tetanus.—Four of these cases were reported by my predecessor, two of them being tetanus neanotorum but no note was made as to the presence of the tetanus bacillus in the wounds. The curious and interesting fact about this disease is that the bacilli very like tetanus bacilli may be found in numbers in the spleen in certain decomposed bodies—both rat and human—in which death has not been due to tetanus but the disease itself is extremely difficult if not impossible to diagnose *post mortem*. "The "bacillus in the disease itself does not appear in the internal organs or blood—and lesions in internal "organs both of human beings and animals which have succumbed to tetanus are very trifling."—(Flexner.) Why the bacilli are found after death in other diseases is difficult to explain nor do I think any one has so far noted its occurrence so that possibly it may be a peculiarity of the tropics. So far I have found them chiefly in acute septic diseases (plague, endocarditis, &c.) and in one case of apoplexy in a chronic alcoholic subject. In the only two cases of tetanus reported by myself I found the bacillus easily and in numbers in the unhealed end of the umbilical cord in both cases.

Tuberculosis (*Abdominalis*).—The bulk of cases were amongst infants and chileren, only two cases being over 12 years of age. At the present stage of the Tuberculosis question these cases are of great interest. The Chinese do not feed on milk, butter or beef and therefore there can, in their case, be no question of direct inoculation of the intestines by the ingestion of tubercle bacilli in their food.

DISEASES OF RESPIRATORY SYSTEM.

These account for 17% of the mortality (exclusive of plague) and are very prevalent both amongst adults and children. Most of the "Empyema" cases might have been saved if they had only applied for assistance early.

DISEASES OF DIGESTIVE SYSTEM.

Peritonitis.—4 of these cases were due to appendicitis, the abscess having ruptured into the peritoneal cavity, and 2 were due to perforation of duodenal ulcers. The cause of this latter disease is very obscure. In each case there was only one large ulcer about the size of a twenty-cent piece and neither of the cases had suffered, as far as one could see, from burns.

Jaundice.—In only one of these cases were any gall stones to be found so that the bulk of them were as far as one could judge catarrhal nor were there any evidences of recent malaria.

INJURIES.

Wound of Chest.—This was caused by a stab, the intercostal artery being omit severed and the chest full of blood.

Wound of Wrist.—The radial artery was cut and apparently no aid being at hand the woman bled to death.

Ruptured Spleen (12).—It is a pity these cases do not seek advice early as in most of them surgery might have saved a fatal termination. Some of them, from the history of the case, had survived for hours after the injury. One of them was due to a buffalo accident—rare in Hongkong—but I was not able to ascertain whether the animal tossed the man only or whether he was gored. In connexion with the spleen a curiosity may be recorded here as tropical practitioners are more used to large spleens than otherwise. The smallest spleen I have ever seen, at any rate in an adult, I found in an old man of 52. It weighed $3\frac{1}{2}$ ounces and was 2 inches long. It was not a supplementary organ and no other glands in the body were in any way enlarged.

Ruptured Heart.—One of these, a case of a body aged 12 who, swinging on a gate at the Race Course, brought the structure down on himself. No bones were broken nor was there any external bruising but the auricle was torn and the pericardium was full of blood. He lived about 10 minutes.

Ruptured Liver.—2 cases were in children about 1 month old. There were no bruises or fractured ribs in either case. The abdomen was full of blood. As the children were found in the streets or sent from the Convent no history was obtainable, a regrettable fact as this accident seems to be very rare at this early age.

Worms (reflex action).—This occurred in a boy aged 12, in my predecessor's time, but as there are no notes of the case, it is impossible to explain the exact cause of death. This cause must be very rare, however, though round worms are extremely common amongst the natives here and do the most extraordinary things.

Premature and still birth.—No doubt a good many of these are due to plague in the mother as the bacilli were found in the spleen in several cases late in the epidemic. Unfortunately I did not examine the early ones in this manner. Even with a plague epidemic on, many of these cases must represent difficulties in labour with the mother, perhaps ending fatally, though what becomes of them it is not easy to say as we have only had 8 cases in the mortuary where death was the result of child-birth.

Unknown.—153 seems a large number but the practice of dumping the bodies on to the hillside or into the harbour leads to a delay before they are found and as decomposition sets in so rapidly here it is out of the question in most cases to give any cause of death. All spleens are, however, now examined so as to be sure, if possible, that plague was not the cause of death and in the plague epidemic it has been the practice to bury them as plague so as to be on the safe side. These are cases in which a crematorium would be most useful. I would like to mention one very useful practical hint, for which I am indebted to Dr. KINYOUN, in connection with this work. I refer to the use of the dye—Thionin. It has two advantages over all others owing to its having no time limit and where one has to examine many specimens, especially at the monthly survey of rats, this is very important, and, secondly, owing to its being a differential stain for plague bacilli. These take on a faint blue colour in contrast to the dark blue of the other bacilli. These advantages have been most useful in the work. It, however, does not last, so it is not so good for permanent specimens.

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

J. BELL,
Medical Officer in charge of Post-mortems.

THE PRINCIPAL CIVIL MEDICAL OFFICER.

Table.—RETURN *of* CAUSES *of* DEATH *as certified from the* GOVERNMENT PUBLIC MORTUARY *during 1901.*

GENERAL DISEASES.

Small-pox,	42
Plague,	1,035
Typhoid Fever,	3
Dysentery,	1
Beri-beri,	64
Malarial Fever,	71
Malarial Cachexia,	7
Septicæmia,	9
,, (Puerperal),	2
Tetanus,	2
,, (Neanatorum),	4
Tuberculosis,	19
,, (Abdominalis),	53
Syphilis (Congenital),	7
Alcoholism,	1
Malignant new Growth,	1
Anœmia,	16
Debility,	63

LOCAL DISEASES.

Diseases of Nervous System.

Meningitis,	3
Apoplexy,	3
Epilepsy,	1

Diseases of Circulatory System.

Valvular and Fatty Disease,	45
Pericarditis,	9
Acute Endocarditis,	6
Aortic aneurism,	6

Diseases of Respiratory System.

Phthisis,	40
Pneumonia,	39
Pleurisy,	7
Bronchitis,	26
Broncho-pneumonia,	78
Empyema,	17
Gangrene of Lung,	1

Diseases of Digestive System.

Diarrhœa,	53
Enteritis,	9
Carried forward	1,743

Brought forward	1,743
Peritonitis,	11
Gall Stones,	1
Cirrhosis of Liver,	2
Jaundice,	22
Cystic Disease of Omentum,	1

Diseases of Urinary System.

Chronic Bright's,	4

Diseases of Female Organs.

Extra Uterine Pregnancy,	2
Placenta Previa,	1
Postpartum Hœmorrhage,	2
Ruptured Uterus,	1

Injuries.

Multiple,	58
Fractured Skull,	25
Fractured Spine,	1
Dislocation of Neck,	5
Gunshot Wounds,	4
Wound of Chest (Stab),	1
,, ,, Wrist,	1
,, ,, Brain (Stab),	1
,, ,, Leg,	1
Ruptured Spleen,	12
,, Heart,	2
,, Liver,	3

Effects of Heat.

Heat Stroke,	2
Burns,	14

Poisoning.

Opium Poisoning,	10
Fish ,,	3
Worms (reflex action),	1
Premature Birth,	68
Still birth,	36
Hanging,	4
Drowning,	35
Asphyxia,	20
Unknown,	153
Total	2,250

J. BELL,
Medical Officer in charge of Post-mortems.

INFECTIOUS DISEASES HOSPITAL,
KENNEDY TOWN, HONGKONG, 21*st February*, 1902.

Sir,—I have the honour to report for the information of His Excellency the Officer Administering the Government regarding the Infectious Diseases Hospital at Kennedy Town for the year 1901.

I enclose a Return of Diseases and Deaths in the Hospital during 1901.

Small-pox.—There were 42 cases, with 12 deaths. Many of the fatal cases were Chinese suffering from the confluent form of the disease, and at an advanced stage of the illness at the time of admission.

I find Salol of great value in the treatment of Small-pox, when its use is commenced early. It allays irritation of the skin, aborts the eruption, causing it to die away for the most part without suppuration, usually prevents the secondary fever entirely, and hastens the general course of the disease. It is less useful if not given until after suppuration of the vesicles has become established. I give ten grains every three hours at first, but find it desirable to rapidly diminish and discontinue the drug when the disease is under control, as, if long continued, it tends to produce a warty condition of the skin of the face.

Cholera.—All the cases of Cholera occurred at the end of February, and came from the S.S. "*Cheung Chew*." Most of the fifteen patients were in a state of collapse at the time of arrival, and of the ten fatal cases eight died within a few hours after admission.

Plague.—204 Plague patients were under treatment, and of these 156 died. This gives a mortality of 76.5 per cent., a little less than that of the previous year—77.5 per cent. As in former epidemics, the mortality was very heavy among Chinese and much lower among Europeans. The comparative racial mortality was as follows:—

	Cases.	*Deaths.*	*Mortality.*
Europeans,	24	8	33.3 %
Portuguese,	16	12	75 ,,
Chinese,	136	121	89 ,,
Other races,	28	15	53.6 ,,
	204	156	76.5 %

The following table shows the distribution of the buboes:—

	Cases.	*Deaths.*
Femoral,	95	65
Inguinal,	18	16
Axillary,	24	21
Cervical,	6	5
Parotid,	3	2
Multiple,	20	13
No apparent bubo,	38	34
	204	156

There was only one case of pneumonic plague properly so called, but pneumonic symptoms supervened in three other cases which had also buboes.

After very careful observation of the effects of the administration of Carbolic Acid throughout the whole of last year's epidemic, I am of opinion that it does not in any way modify the course of Plague, and is useless as a method of treatment.

To test the diagnostic value of microscopic examination of the blood in Plague, apart from the question of the exclusion of Malaria, I examined a single stained film from each of 278 consecutive cases, partly from the Plague Branch of the Tung Wah Hospital. Plague bacilli were present in only 30, and were absent in 241. In many of the latter, especially when going on to a fatal issue, bacilli were present in the blood at later stages of the disease; but the figures above given show that the value of blood examination is more important for purposes of prognosis than for diagnosis.

The Staff.—Mr. E. ABBOTT, the Wardmaster in charge at the beginning of the year, died of Phthisis in the Civil Hospital on 21st April. Corporal T. NEWLING, R.A.M.C., lent by the Military Authorities, reported for duty on 1st April, and acted as Wardmaster throughout the Plague epidemic until he was recalled on 27th July. Private B. P. LAKE, R.A.M.C., assisted him from 28th May to 24th July; and Mr. LI YIN SZE, a student of the College of Medicine for Chinese, was also employed as Assistant Wardmaster from 22nd April till the end of August. Mr. C. F. O'BRIEN arrived from England, and assumed duty as Wardmaster on 27th August.

When female patients were under treatment in the European wards, Sisters were detailed from the Civil Hospital staff for duty at Kennedy Town.

The staff of Chinese "boys," amahs, and other employés was increased and diminished as was found necessary to meet the varying conditions that existed in course of the year.

During my absence on leave in November and December, and until my return to the Colony 5th instant, Dr. R. LAMORT acted for me as Medical Officer in charge of this Hospital.

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

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

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

RETURN *of* DISEASES *and* DEATHS *in 1901 at* KENNEDY TOWN HOSPITAL.

DISEASES.	Remaining in Hospital at end of 1900.	YEARLY TOTAL.		Total Cases Treated.	Remaining in Hospital at end of 1901.	Remarks.
		Admissions.	Deaths.			
GENERAL DISEASES.						
Small-pox,	1	42	12	43	1	
Cholera,	—	15	10	15	—	
Plague,	—	204	156	204	—	
Malarial Fever—						
Malignant Quotidian	—	4	1	4	—	Under observation.
Beri-beri,	6	—	—	6	—	
Leprosy,	—	1	—	1	—	
Pneumonia,	—	1	—	1	—	Under observation.
Total,	7	267	179	274	1	

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

Report of the Acting Medical Officer of Victoria Gaol.

VICTORIA GAOL,
HONGKONG, *6th January*, 1902.

Sir,—I have the honour to forward to you for the information of His Excellency the Governor the Annual Medical Report on the condition of Victoria Gaol during the year ending the 31st December, 1901.

The health of the staff has been good in spite of the fact that the new Officers' quarters have not yet been opened to them. The health of the inmates has also been satisfactory.

Six lepers were sent to Canton, one of which, however, returned to the Colony and had to be sent back again.

There were a hundred and fourteen cases in which corporal punishment was inflicted during the year, fourteen by the Prison Authorities and a hundred from the sentence of the Courts; none required any medical after-treatment.

Overcrowding of prisoners is still a serious question. Four and even five men have at times to be put in the same cell, thus reducing the space for each to some 250 cubic feet, whereas the Public Health Ordinance, 13 of 1901, requires that the individual allotted space should be of 400 cubic feet.

The temporary hospital is also at times overcrowded. The Officers' quarters which were altered and fitted up some two years ago for the Gaol Hospital is yet unavailable for the prisoners, being still occupied by the Indian Gaol Staff. The present temporary hospital is most inadequate, offering no proper accommodation or facilities for the treatment of patients.

The daily number of prisoners complaining sick is most variable from time to time, malingering fully accounting for these variations.

In spite of the prevalence of dengue fever in the Colony in November, no case occurred amongst the prisoners.

There were fifteen prisoners discharged on medical grounds during the year.

Permission was obtained from His Excellency the Governor to transfer a pregnant female prisoner to the Government Civil Hospital, as she had suddenly become comatose, she was found to be suffering from malignant malaria and died shortly after, having given birth to a still-born child.

I append the usual Tables.

I have the honour to be,

Sir,

Your obedient Servant,

R. LAMORT,
Acting Medical Officer.

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

Table I.—RETURN *of* DISEASES *and* DEATHS *in 1901 at* VICTORIA GOAL HOSPITAL, *Hongkong.*

DISEASES.	Remaining in Hospital at end of 1900.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1901.	Remarks.
		Admissions.	Deaths.			
GENERAL DISEASES.						
Dysentery,	...	28	...	28	...	
Malarial Fever :—						
Malignant,	1	97	2	98	...	
Beri-beri,	...	5	1	5	...	
Erysipelas,	...	3	...	3	...	
Syphilis, Primary,	...	7	...	7	...	
„ Secondary,	...	7	...	7	...	
Gonorrhœa,	...	1	...	1	...	
Alcoholism,	...	6	...	6	...	
Rheumatism,	...	2	...	2	...	
Anæmia,	...	3	...	3	...	
Debility,	3	27	1	30	...	
LOCAL DISEASES.						
Diseases of the Nervous System.						
Functional Nervous Disorders :—						
Epilepsy,	...	1	...	1	...	
Mental Diseases :—						
Dementia,	1	2	...	3	...	
Diseases of the Eye,	...	3	...	3	...	
„ „ Ear,	...	2	...	2	...	
„ „ Circulatory System,	2	11	1	13	...	
„ „ Respiratory „	...	11	3	11	...	
„ „ Digestive „	...	51	1	51	...	
„ „ Lymphatic „	...	9	...	9	...	
„ „ Urinary „	...	6	...	6	...	
„ Organs of Locomotion,	...	1	...	1	...	
„ Cellular Tissue,	1	42	...	43	...	
„ Skin,	1	5	...	6	...	
Injuries, Local,	1	14	...	15	...	
Under Observation,	...	1	...	1	...	
Parasites,	...	3	...	3	...	
Total,	10	348	* 9	358	...	

* In addition to the nine deaths from natural causes, there were three executions.

R. LAMORT,
Acting Medical Officer.

Table II.—*Showing the* RATE *of* SICKNESS *and* MORTALITY *in* VICTORIA GAOL *during the Year 1901.*

TOTAL NUMBER OF:—				DAILY AVERAGE NUMBER OF:—			RATE PER CENT. OF:—			
Prisoners admitted to Gaol.	Admissions to Hospital.	Cases, including Skin Diseases, treated in the Cells.	Deaths due to Disease.	Prisoners in Gaol.	Sick in Hospital.	Sick not in Hospital.	Admissions to Hospital to Total Admissions to Gaol.	Daily Average Number of Sick in Hospital to Daily Average Number of Prisoners.	Daily Average Number of all Sick in Gaol to Daily Average Number of Prisoners.	Deaths due to Disease to Total Admissions to Gaol.
5,077	348	1,316	9	499	8.59	34.72	6.85	1.72	8.68	0.18

R. LAMORT,
Acting Medical Officer.

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

Year.	Number of Prisoners vaccinated.	Successful.	Unsuccessful.	Not inspected, owing to early Discharge from Gaol.	Number of those vaccinated who showed Marks of previous Vaccination.
1892,	2,625	1,985	640	...	2,618
1893,	1,417	763	654	...	1,325
1894,	747	242	505	...	746
1895,	942	455	487	...	941
1896,	831	631	200	...	831
1897,	2,830	1,678	1,016	136	2,410
1898,	4,507	2,875	1,252	380	4,181
1899,	3,378	2,004	1,063	311	3,069
1900,	2,638	1,765	666	207	1,916
1901,	2,880	2,150	337	393	2,549

R. LAMORT,
Acting Medical Officer.

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

Year.	Admissions to the Gaol.	Daily Average Number of Prisoners.	Number of Cases treated in Hospital.	Number of less serious Cases, including Skin Diseases, treated in the Cells.	Deaths due to Disease.
1892,	5,046	515	312	723	6
1893,	4,010	453	272	523	2
1894,	3,913	455	271	614	5
1895,	5,014	472	231	948	7
1896,	5,582	514	307	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

R. LAMORT,
Acting Medical Officer.

TUNG WAH HOSPITAL,
HONGKONG, *22nd February*, 1902.

SIR,—I have the honour to submit for the information of His Excellency the Officer Administering the Government the Annual Report of the Tung Wah Hospital for the year 1901.

The number of patients in the wards at the beginning of the year was 125; 2,989 were admitted during 1901, making a total of 3,114 cases: 1,899 were discharged: 1,071 died: leaving 144 in the Hospital at the close of the year.

The admissions during the past ten years have been as follows:—

1892,	2,455
1893,	2,255
1894,	2,354
1895,	2,732
1896,	2,041
1897,	2,776
1898,	2,898
1899,	2,542
1900,	2,981
1901,	2,989

Of the 2,989 Admissions, 547 were transferred for treatment to other institutions, as follows:—18 to Government Civil Hospital, 7 to the Lunatic Asylum, 130 to Kennedy Town Infective Diseases Hospital, and 392 to the Tung Wah Plague Branch Hospital at Kennedy Town.

Of the fatal cases, 296 were in a dying condition at the time of admission.

There remains a net total of 2,146 actually treated in the Tung Wah Hospital, of whom 652, *i. e.*, 30.4 per cent. were under European treatment, and 1,494, *i. e.*, 69.6 per cent. under Chinese treatment.

483 dead bodies were brought to the Hospital mortuary to await burial. 84 of these, and also 63 bodies of persons who died within the Hospital itself were sent to the Government Public Mortuary for internal examination.

Free burial was provided by the Hospital for 1,930 persons.

The number of visits to the out-patient Department was 77,842.

449 destitute persons were temporarily housed and fed.

1,952 persons were vaccinated at, and in connection with, the Hospital.

As in previous years, the Tung Wah Hospital was used throughout the Plague epidemic of 1901 as a convenient centre for the diagnosis and observation of Plague cases, a large airy ward close to the Receiving Ward being set apart for this purpose.

The matshed Plague Branch was re-opened for the admission of patients on 4th May, and was in use until 30th July. The number of admissions was 393; of whom 41 were discharged cured, 2 escaped from the Hospital, 1 was transferred to the Government Hospital, and 349 died; this gives a mortality of 88.8 per cent.

A second Branch Hospital was opened near Yaumati, on 1st July, but the epidemic rapidly decreasing there were no admissions and it was closed on 10th July.

The new Hospital buildings to form an extension of the existing Hospital on the opposite side of Po Yan Street are now nearing completion; and on 19th November His Excellency the Governor laid the foundation stone of a permanent Infective Diseases Branch of the Tung Wah Hospital on a site adjoining that of the Government Hospital at Kennedy Town.

A considerable number of surgical instruments were got out from England in course of the year.

Dr. CHUNG was absent on sick leave from 19th August to 17th December; and Mr. HO KO TSUN, a student of the Hongkong College of Medicine for Chinese, who had already been employed from 1st June to assist Dr. CHUNG in the extra work involved by the Plague epidemic, acted for him during his absence. During my own absence from the Colony from the 31st October to the end of the year Dr. LAMORT acted as Inspecting Medical Officer.

I attach the following Tables:—

I. A Return of Diseases and Deaths during the year 1901.

II. Showing the proportion of cases treated by European and Chinese methods respectively.

III. Showing General Statistics relating to the Hospital during 1901.

IV. Showing Vaccinations at, and in connection with, the Tung Wah Hospital during 1901.

I have the honour to be,

Sir,

Your obedient Servant,

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

Dr. J. M. ATKINSON.
Principal Civil Medical Officer.
&c. &c. &c.

Table I.—RETURN *of* DISEASES *and* DEATHS *in 1901 at* TUNG WAH HOSPITAL, *Hongkong.*

DISEASES.	Remaining in Hospital at end of 1900.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1901.	Remarks.
		Admissions.	Deaths.			
GENERAL DISEASES.						
Small-pox,	...	23	...	23	...	Transferred to Kennedy Town.
Dengue,	...	4	...	4	...	
Influenza,	...	9	...	9	...	
Whooping-cough,	...	1	...	1	...	
Enteric Fever,	...	7	6	7	...	
Dysentery,	2	40	22	42	1	
Plague,	...	609	119	609	...	Transferred, unless actually dying, to Kennedy Town.
Malarial Fever:—						
1. Quartan, and 2. Simple Tertian	3	40	1	43	1	
3. Malignant Tertian, and 4. Malignant Quotidian,	5	460	117	465	5	
Malarial Cachexia,	...	7	4	7	1	
Beri-beri,	36	412	219	448	50	
Erysipelas,	.	8	2	8	...	
Pyæmia,	...	1	1	1	...	
Septicæmia,	...	16	16	16	...	
Tetanus,	...	9	9	9	...	
Tubercle,	...	9	5	9	1	
Leprosy, Tubercular,	...	1	...	1	...	
Syphilis, Secondary,	2	42	9	44	3	
Rheumatism,	1	39	...	40	4	
New Growth, non-malignant,	1	2	...	3	...	
„ malignant,	...	10	6	10	...	
Anæmia,	...	20	8	20	2	
Debility,	2	31	22	33	...	
LOCAL DISEASES.						
Diseases of the Nervous System.						
SUB-SECTION 1.						
Diseases of the Nerves,—						
Meningitis,	...	12	10	12	...	
SUB-SECTION 2.						
Functional Nervous Disorders,—						
Apoplexy,	...	17	15	17	...	
Paralysis,	3	34	15	37	5	
Epilepsy,	...	6	1	6	...	
Neuralgia,	...	1	...	1	...	
SUB-SECTION 3.						
Mental Diseases,—						
Mania,	...	4	...	4	...	
Dementia,	...	5	...	5	1	
Delusional Insanity,	...	2	...	2	...	
Diseases of the Eye,	...	8	...	8	1	
„ „ Circulatory System,	2	75	55	77	2	
„ „ Respiratory „	6	441	289	447	23	
„ „ Digestive „	7	161	80	168	3	
„ „ Lymphatic „	3	16	...	19	3	
„ „ Urinary „	7	45	24	52	2	
„ „ Generative „	...	...	...	...	...	
„ „ Male Organs,	...	11	...	11	2	
„ „ Female Organs,	1	2	...	3	1	
„ Organs of Locomotion,	9	15	3	24	8	
„ Cellular Tissue,	6	26	2	32	2	
„ Skin,	15	39	2	54	12	
Injuries, Local,	14	265	17	279	11	
Poisons,	...	2	1	2	...	
Parasites,	...	2	...	2	...	
Total	125	2,989	1,071	3,114	144	

JOHN C. THOMSON,
Inspecting Medical Officer.

Table II.—Showing the **Admissions** and **Mortality** in the TUNG WAH HOSPITAL during the Year 1901, with the proportion of cases treated by European and Chinese methods respectively.

	ADMISSIONS.			DEATHS.		
	European Treatment.	Chinese Treatment.	Total.	European Treatment.	Chinese Treatment.	Total.
General Diseases:—						
* Small-pox,	23	...	23	...	...	...
Dengue,	3	1	4	...	...	...
Influenza,	2	7	9	...	...	...
Whooping-cough,	...	1	1	...	...	...
Enteric Fever,	1	6	7	1	5	6
Dysentery,	3	37	40	2	20	22
* Plague,	609	...	609	110	...	110
Malarial Fever: Benign,	15	25	40	...	1	1
„ „ Malignant,	96	364	460	24	93	117
„ Cachexia,	2	5	7	2	2	4
Beri-beri,	105	307	412	37	182	219
Erysipelas,	6	2	8	1	1	2
Pyæmia,	1	...	1	1	...	1
Septicæmia,	4	12	16	4	12	16
Tetanus,	2	7	9	2	7	9
Tubercle,	3	6	9	...	5	5
Leprosy,	1	...	1	...	...	...
Syphilis, Secondary,	33	9	42	3	6	9
Rheumatism,	17	22	39	...	...	...
New Growth, non-malignant,	2	...	2	...	...	...
„ „ malignant,	3	7	10	2	4	6
Anæmia,	10	10	20	4	4	8
Debility,	10	21	31	7	15	22
Local Diseases:—						
Diseases of the Nervous System,	31	50	81	10	31	41
„ „ Eye,	8	...	8	...	...	...
„ „ Circulatory System,	30	45	75	18	37	55
„ „ Respiratory, „	81	360	441	46	243	289
„ „ Digestive „	57	104	161	22	58	80
„ „ Lymphatic „	9	7	15	...	...	...
„ „ Urinary „	19	26	45	5	19	24
„ „ Generative „ male,	8	3	11	...	...	...
„ „ „ „ female,	1	1	2	...	...	...
„ Organs of Locomotion,	9	6	15	...	3	3
„ Cellular Tissue,	11	15	26	...	2	2
„ Skin,	24	15	39	...	2	2
Injuries, Local,	97	168	265	8	9	17
Poisons,	2	...	2	1	...	1
Parasites,	1	1	2	...	...	...
Total,	1,339	1,650	2,989	310	761	1,071
Less moribund cases,	140	156	296	140	156	296
	1,199	1,494	2,693	170	605	775
Less transferred elsewhere,	547	...	547	...	...	...
Total Treated,	652	1,494	2,146	170	605	775

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

JOHN C. THOMSON,
Inspecting Medical Officer.

Table III. *Showing* GENERAL STATISTICS *relating to the* TUNG WAH HOSPITAL *during the year 1901.*

Patients.	Remaining in Hospital at end of 1900.	Admissions.	Total Cases Treated.	Discharged.	Deaths.	Remaining in Hospital at end of 1901.	Out-Patients.	Vaccinations.	Destitute Persons sheltered.	Dead Bodies brought to Hospital Mortuary for Burial.	Free Burials provided for Poor Persons.
Male,	110	2,458	2,568	1,517	897	124	55,005	1,047	449	327	...
Female,	15	531	546	352	174	20	22,837	905	...	156	...
Total,	125	2,989	3,114	1,899	1,071	144	77,842	1,952	449	483	1,930

JOHN C. THOMSON,
Inspecting Medical Officer.

Table IV. *Showing* VACCINATIONS *at, and in connection with, the* TUNG WAH HOSPITAL *during the year 1901.*

Hongkong.	Shaukiwan.	Aberdeen.	Stanley.	Yaumati.	Hunghom.	Total.
1,826	25	46	24	24	7	1,952.

JOHN C. THOMSON,
Inspecting Medical Officer.

GOVERNMENT CIVIL HOSPITAL,
1*st March*, 1902.

SIR,—In reply to Circular No. 71 of 1901, I have the honour to forward you a report on the working of the Medical Department in the New Territory during last year.

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

J. M. ATKINSON,
Principal Civil Medical Officer.

The Honourable,
THE COLONIAL SECRETARY.

GOVERNMENT CIVIL HOSPITAL,
HONGKONG.

There has been a marked diminution in the number of malarial fever cases from the Police Stations in the New Territory during the year 1901.

On comparing the admissions to the Hospital for this class of diseases for the last two years we find that the nine Police Stations to the North of the range of hills bounding Kowloon give the following figures:—

POLICE STATIONS.	*Average Strength.* 1900.	1901.	*Malarial Fever Admissions.* 1900.	1901.
Sha Tau Kok.	19	13	33	4
Ping Shan,	23	14	3	9
Sai Kung,	6	7	2	2
San Tin,	19	12	2	3
Tai Po,	16	10	30	7
Sha Tin,	14	8	14	2
Tai O,	11	10	12	1
Au Tau,	20	14	35	17
Sheung Shui,	25	11	7	7
	153	99	138	52

In other words the percentage of malarial fever admissions to Hospital from the New Territory dropped from 90% in 1900 to 52.5% in 1901.

This was undoubtedly occasioned to a great extent by the active prophylactic treatment which was commenced on the 1st May, 1901, and continued up to 1st November of that year.

This varied, at those Stations marked *. Prof. KOCH'S method was used, viz., one gramme of quinine being given daily for two days followed by an interval of five days without any quinine and so on; at those marked † a daily dose of three or five grains of quinine was given; whereas at one Station ‡, viz., Au Tau $\frac{1}{50}$ grain of arsenic was given twice daily.

The result of this prophylactic treatment is still further shewn by a Table marked A which I attach showing all the cases of malarial fever at the Police Station in the New Territory from March to December, 1900, and 1901, and the prophylactic treatment adopted.

This return includes the cases treated by the Resident Medical Officer in addition to those sent in to Hospital.

From this it will be seen that quinine is the best prophylactic, and of the two methods, if anything, the daily administration of a small dose has been followed by the best results.

Another important factor in this diminution is that the Police were in 1901 housed in permanent buildings—at Sha Tau Kok in 1900 the Police were under canvas.

Recognised precautions were more fully taken against malaria, the neighbourhood of the Police Stations was kept as free as possible of Anopheles, the Police were instructed how to recognise Anopheles

pools and were shewn the methods of destroying the larvæ, all standing collections of water were as far as possible got rid of and many trees, Eucalyptus and others, were planted.

In August shortly after my return I visited the New Territory accompaned by the Captain Superintendent of Police; we inspected Tai Po and Sha Tau Kok.

I recommended that the numerous paddy fields adjoining the Police Station at Sha Tau Kok should, if possible, be resumed and reclaimed, there is constantly stagnant water on them which forms excellent breeding place for Anopheles.

I also recommended that, to better drain the swampy grounds around the Police Stations, a number of Eucalyptus trees should be planted, what is required is to plant these trees on the damp areas at the base of the hills not on the slopes of the hills.

Again, in October with the Acting Captain Superintendent of Police, I visited Cheung Chau, Tai O, Ping Shan and Au Tau.

As plague has been prevalent at Cheung Chau, I recommended that steps be taken to kill off the rats which are still prevalent there; this has been done.

We arranged for the transfer of the Lepers from the swampy island near Au Tau Police Station to the buildings erected for their habitation on the hillside opposite to their old abode, they have since been transferred and are visited weekly by the Resident Medical Officer.

Attached is a return marked B from Dr. THOMSON's report on the "Examination of Mosquitoes" showing the number of mosquitoes examined by him from the several Police Stations during the year ending 30th Stepember, 1901—this conclusively shows, as was to be expected, that at the station where most malarial fever cases occur the proportion of Anopheles found is also greater.

I also enclose the report of the Resident Chinese Medical Officer. In my opinion there should be at least two resident medical officers—one for the East and another for the West of the New Territory, that one in the West might be stationed at Un Loong or Ping Shan, and the one in the East as at present at Tai Po, the work is much too arduous for one, the distances he has to travel are very great and it is practically impossible for him to do justice to the large resident population; in addition to this he can never get away on leave.

Another important requirement is a registration of births and deaths.

It must be remembered that all the Chinese living in the New Territory are British subjects and several cases of infanticide have already occurred; in order to check the native practice of abandoning their female children, some such measure is necessary.

I would suggest that each Police Station should be a place for registration.

J. M. ATKINSON,
Principal Civil Medical Officer.

Table A.—*Showing Cases of* MALARIAL FEVER *at* POLICE STATIONS *in* NEW TERRITORY *from March to December, 1900 and 1901, and the* PROPHYLACTIC TREATMENT *adopted.*

Stations.	March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Average Strength.		Increase or Decrease after Prophylactic Treatment.
	1900	1901	1900	1901	1900	1901	1900	1901	1900	1901	1900	1901	1900	1901	1900	1901	1900	1901	1900	1901	1900	1901	
Tai Po.*	4	1	4	2	5	2	6	4	16	7	31	2	22	5	17	3	6	2	6	3	16	10	— 81
San Tin,*	1	2	4	...	4	2	3	1	1	1	2	1	3	2	2	2	2	1	2	...	19	12	— 9
Ping Shan,*	1	...	...	1	2	2	2	3	1	...	...	3	2	...	5	1	1	4	...	4	23	14	+ 4
Sha Tin,*	...	...	...	1	1	1	2	1	3	1	8	1	2	...	1	...	2	3	...	...	14	8	— 12
Kowloon City,*	...	...	...	...	...	...	...	...	1	...	2	...	2	...	1	1	2	...	1	1	15	16	— 7
Tai O.*	1	...	...	...	1	...	...	...	1	1	6	...	1	...	1	...	1	...	...	...	11	10	— 10
Sha Tau Kok,†	1	...	3	1	2	2	8	3	11	1	30	3	15	1	18	1	5	3	3	2	19	13	— 76
Sheung Shui,†	...	...	...	2	3	...	2	...	2	2	2	2	...	1	4	...	2	5	1	1	25	11	— 5
Au Tau,‡	1	...	2	1	3	2	6	2	10	8	17	11	10	4	19	7	2	8	12	8	20	14	— 29

Prophylactic treatment was started on May 1st, 1901.
* Quinine 5 grs. thrice daily for 2 days followed by interval without any quinine and so on.
† Quinine 3 or 5 grs. once daily.
‡ Arsenic gr. $\frac{1}{30}$ twice daily.

B.—EXAMINATION OF MOSQUITOES.

	Specimens received.	*Anopheles.*	*Culex.*
Sha Tau Kok,	4,428	14	3,987
Ping Shan,	251	12	233
Sai Kung,	648	8	544
San Tin,	916	14	823
Tai Po,	819	191	618
Sha Tin,	662	43	529
Tai O,	251	12	233
Au Tau,	1,853	113	1,724
Sheung Shui,	829	10	805

GOVERNMENT LABORATORY,
April 9, 1902.

SIR,—I have the honour to submit a statement of the work done in the Government Laboratory during the year 1901.

2. The work was greater in amount than in any previous year. It may be summarized as follows:—

Description of Cases.	No. of Articles examined.
Toxicological (includes 15 stomachs),	108
Articles for blood stains,	60
Waters,	59
Petroleum,	265
Food and Drugs Ordinance,	37
Rice,	10
Coal,	4
Ores,	6
Sugar,	1
Chinese drugs,	71
Opium extract,	2
Dross opium,	1
Leprosy cure,	1
Chloride of lime,	6
White metal,	1
Cement,	3
Mortar,	2
Fumigating candle,	1
Egg preservative,	1
Lime,	3
Milk,	34
Red earth,	2
Articles for fire enquiry,	12
Clothing for nitric acid stains,	7
Tooth powder,	1
Condensed milk,	3
Naphtha,	1
Sheet,	1
Mineral water,	1
Medicinal powders,	3
Total,	707

TOXICOLOGICAL.

3. The toxicological cases investigated comprise 15 cases of suspected human poisoning. The poison found in eight cases was opium; and in one case the active principle of Gelsemium Elegans was isolated. In one case of wholesale poisoning a woman put native arsenic in coarse powder amongst some cooked fish. Violent vomiting and great prostration only were caused to the six persons who ate the food. From the remnants of the fish 27½ grains of arsenic were separated. The coarseness of the powdered arsenic had doubtless greatly interfered with the desired result.

WATERS.

4. The results of the analyses of samples taken each month from the Pokfulum and Tytam Reservoirs, and from the Kowloon service, indicate that these supplies continue to maintain their excellent qualities. Towards the end of the year Yaumati was supplied from a new service—the Cheung Sha Wan supply. The results of the analysis of this source shows the water to be well suited for potable purposes. In an Appendix will be found particulars of the monthly analyses of the public supplies, and of the other waters.

THE DANGEROUS GOODS ORDINANCE, 1873 AND 1892.

5. Of Petroleum and Petroleum Fuel, 265 samples were examined. The quality of the oil imported was sufficiently high to pass the 73° F. limit.

THE FOOD AND DRUGS ORDINANCE.

6. Thirty-seven exhibits were examined. The following table shows the results of the examination of 32 samples taken for the purpose of analysis by the Police and by the Sanitary Board :—

Description.	No. of Samples.	No. found Genuine.	No. found Adulterated.
Beer, ...	10	10	0
Brandy, ...	3	3	0
Tea, ...	2	2	0
Milk, ...	8	5	3
Bread, ...	2	2	0
Coffee, ...	1	1	0
Whisky, ...	6	6	0

7. A number of various kinds of food were examined for the public at the specially low fees laid down in the Ordinance.

8. The result of the systematic method of taking samples by the Police has been that the sale of adulterated liquor has practically ceased in the Colony.

RICE.

9. In connection with the food supply a series of examinations was made of the cheapest kinds of rice to be obtained in the Colony. The amount of albuminoids in Chinese rice is very high. This is of much interest as in calculating out the diets for Chinese engaged on hard labour it had been found that if the percentage of albuminoids in rice be taken at five (the figure hitherto adopted) a much larger ration of more albuminoid substances such as fish was theoretically required by these persons than practically was found to be needed. The figure 7.12 (mean of the percentage of albuminoids of the first 9 specimens) is now used for ascertaining the proportion of rice required by persons engaged in various capacities. The analyses are recorded in the Table. Sample No. 9 was bought as being good rice. It will serve as a standard. Sample No. 10 was sent from the Po Leung Kuk for an examination of its quality.

ANALYSES OF TEN SAMPLES OF CHINESE RICE.

The results are expressed as parts in 100 parts of the sample.

No.	Whence obtained.	Price paid, 1 catty.	Appearance of grain.	Colour of powder.	Moisture.	Ash.	Fat.	Albuminoids or N. × 6.33.	Starch.	Vegetable fibre.
1	34, Nullah Lane, ...	4 cents.	Sprinkling of powder.	White.	13.78	.72	.30	8.64	71.83	4.73
2	56, Jardine's Bazaar,...	3 cents 8 cash.	Sprinkling of powder. Some integument present.	Pale yellow.	13.13	1.09	.56	5.56	71.19	8.47
3	134, Wing Lok Street,	4 cents 1 cash.	As (2).	Do.	13.38	1.10	.21	6.58	73.38	5.35
4	9, Cochrane Street, ...	3 cents 6 cash.	Much integument.	Gray.	12.95	1.77	.38	6.64	72.71	5.55
5	25, Pokfulam Road, ...	4 cents 2 cash.	Sprinkling of powder.	White.	13.15	.64	.35	7.82	75.71	2.33
6	6, Pokfulam Road, ...	2 cents 8 cash.	Do.	Do.	14.13	.73	.50	7.08	75.95	1.61
7	132, Wing Lok Street,	3 cents 7 cash.	Do.	Do.	13.47	.59	.30	7.08	76.93	1.63
8	8, Gough Street, ...	4 cents.	Do.	Do.	13.42	.40	.15	7.51	77.18	1.34
9	288, Queen's Road, W.,	5 cents.	Clean translucent grain.	Do.	13.25	.38	.34	7.21	76.68	2.14
10	Po Leung Kuk, ...	.....	Do.	Do.	11.95	.47	.43	7.40	79.50	.25

BLOOD STAINS.

10. No less than sixty articles consisting of clothing and weapons were examined.

BUILDING MATERIALS.

11. Samples of lime, mortar, cement, and red earth have been sent for analysis. A good sample of Chinese red earth contained the following constituents in 100 parts:—

Silica,	63.8
Alumina,	20.8
Ferric oxide,	4.4
Water,	10.0
	99.0

The analysis showed the material to be derived from granite, of which some of the constituents had been removed in the process of weathering. Viewed under the microscope the earth was seen to be almost entirely in sharp crystals. Such red earth if used instead of sand for mixing with lime would form a strong and durable mortar.

LIME.

12. Although it is not difficult to prepare good lime, it appears that much of that used in Hongkong has been so much exposed to atmospheric conditions as to be greatly impaired for building purposes.

CHINESE DRUGS.

13. Seventy-one were sent to the laboratory for identification, and, in the case of mixed drugs, for the presence therein of noxious constituents.

EXAMINATIONS FOR THE PUBLIC.

14. A considerable number of articles of various kinds have been examined for the public. The list comprises ores, coals, liquor, milk, lime, cement, petroleum, opium, medicine, chloride of lime, and water. For these examinations the public have paid $1,380.50 in fees.

SPECIAL REPORTS.

15. Special reports have been supplied on:—

Disinfection of No. 5 District.
Quicklime.
Phosphorus.
Dross opium.
Condensed milk.
Naphtha.
Mortar from fallen houses.
Sulphuric acid.
Chinese medicines for an abcess.
Aqua fortis.
Classification of certain articles for trade-marks.
Cracker factory.
Analyses for the public.
Gunpowder Bill.
Petroleum fuel.
Asbestos.

16. *Value of the work done.*—The value of the analyses performed as determined from the tariff of charges published in Government Notification No. 664 is $5,282.50. This amount does not include the value of the analyses undertaken in connection with the Special Reports (See para.15); also, there is much other work in connection with the laboratory for which nothing has been set down.

17. *Library.*—A few standard works have been ordered so as to bring the library up to date.

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

FRANK BROWNE, PH. CH., F.C.S.,
(for some time a Demonstrator in the Laboratories of the Pharmaceutical Society,)
Government Analyst.

THE PRINCIPAL CIVIL MEDICAL OFFICER.

HONGKONG PUBLIC WATER SUPPLIES.

Results of the Monthly Analyses.

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

1901. Month.	Supply.	Total Solid Matter dried at 100° C.	Chlorine.	Saline Ammonia.	Albuminoid Ammonia.	Oxygen absorbed in 4 hours at 80° F.	Nitrites.	Nitrogen in Nitrates.	Sugar test for the detection of Sewage.	Poisonous Metals.
January	Pokfulum.....	5.0	.8	Absent.	Absent.	.009	Absent.	Absent.	No trace of Sewage indicated.	Absent.
	Tytam	4.3	.6	„	„	.006	„	„	„	„
	Kowloon	3.3	.6	„	„	.003	„	„	„	„
February...	Pokfulum.....	4.3	.9	„	„	.008	„	„	„	„
	Tytam	3.3	.7	„	„	.007	„	„	„	„
	Kowloon	3.3	.6	„	„	.004	„	.020	„	„
March	Pokfulum.....	4.0	.9	„	„	.012	„	Absent.	„	„
	Tytam	3.6	.7	„	„	.004	„	„	„	„
	Kowloon	2.5	.5	„	„	.002	„	.008	„	„
April	Pokfulum.....	5.1	.85	„	„	.010	„	.016	„	„
	Tytam.....	3.1	.6	„	„	.004	„	Absent.	„	„
	Kowloon	3.8	.6	„	„	.004	„	.008	„	„
May.....	Pokfulum.....	4.8	.65	„	„	.027	„	.008	„	„
	Tytam.....	6.1	.7	„	„	.027	„	.008	„	„
	Kowloon	3.7	.6	„	„	.004	„	.016	„	„
June	Pokfulum.....	4.7	.7	„	„	.017	„	.008	„	„
	Tytam.....	4.7	.7	„	.0014	.010	„	.008	„	„
	Kowloon	3.7	.6	„	.0014	.003	„	.016	„	„
July.....	Pokfulum.....	5.0	.6	„	Absent.	.020	„	.008	„	„
	Tytam.....	4.0	.6	„	„	.020	„	.008	„	„
	Kowloon	3.0	.6	„	„	.015	„	.016	„	„
August.....	Pokfulum.....	5.0	.7	„	„	.013	„	.008	„	„
	Tytam.....	5.0	.6	„	„	.013	„	.008	„	„
	Kowloon	3.7	.6	„	„	.003	„	.016	„	„
September .	Pokfulum.....	5.0	.6	„	„	.010	„	.016	„	„
	Tytam.....	4.7	.65	„	„	.003	„	.008	„	„
	Kowloon	3.3	.6	„	„	.007	„	.016	„	„
October	Pokfulum.....	5.2	.7	„	„	.017	„	.012	„	„
	Tytam.....	3.8	.6	„	„	.013	„	Absent.	„	„
	Kowloon	3.2	.6	„	„	.013	„	.016	„	„
	Cheung Sha Wan	3.7	.6	„	„	.010	„	.008	„	„
November ..	Pokfulum.....	5.0	.6	„	„	.010	„	.008	„	„
	Tytam.....	3.7	.6	„	„	.010	„	.008	„	„
	Kowloon	4.3	.6	„	„	.010	„	.016	„	„
	Cheung Sha Wan	3.7	.6	„	„	.017	„	.008	„	„
December...	Pokfulum.....	4.6	.8	„	„	.006	„	.008	„	„
	Tytam.....	4.3	.6	„	„	.006	„	.012	„	„
	Kowloon	3.3	.6	„	„	.003	„	.016	„	„
	Cheung Sha Wan	4.0	.45	„	„	.003	„	.012	„	„

WATERS.

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.
1901. Jan. 24	Well at Jardine's Gardens (Vermilion Factory,.....	...	18.3	2.4	.010	.010	.003	.030	Absent.	No trace of Sewage indicated.	Absent.	
Feb. 15	Well at Sha Tau Kok between some Chinese vegetable gardens.....	...	2.6	.7	Absent.	Absent.	.019	Absent.	..	..	..	
.. 15	Well at Sha Tau Kok at the bottom of a hill, ...	...	4.8	.5	..	..	.002	..	..	..	..	
April 23	Spring at Li-chi-kok.....	...	5.0	.5	..	.0014	.030	.008	..	..	..	
May 3	Spring at Sai Kung.	4 feet.	6.3	1.4	.0056	.0014	.013	.008	..	..	..	
June 5	Well at No. 14 Des Vœux Road Central, ...	...	...	2.9	.0112	.0147	...	...	Present.	Sewage indicated.	$\frac{1}{20}$ grain of lead per gallon.	Odour, Phosphorous. Animalcula present.
July 17	Well at Hunghom West, ...	18 feet.	9.7	2.0	.0056	.0028	.013	.288	Absent.	No trace of Sewage indicated.	Absent.	
.. 17	Well at Hunghom at the back of the market, ...	37 feet.	15.7	4.2	.0252	.0112	...	.253	..	Sewage indicated.	..	Odour unpleasant.
.. 17	Well in Dock Street, Hunghom,..	21 feet.	9.3	1.8	.0056	.0028	.010	.172	..	No trace of Sewage indicated.	..	
Aug. 7	Well at Sa Mun Station, ...	...	6.0	1.1	Absent.	.0028	.027	Absent.	..	..	..	
Oct. 29	Well at Tai Po,.....	...	5.0	.6	.0014	.0014	...	...	..	..	..	