

Annual report of the Medical Department / Colony of the Gambia.

Contributors

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COLONY OF THE GAMBIA.

Annual Report
OF THE
MEDICAL DEPARTMENT
FOR THE YEAR 1911.

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1912.



MEDICAL OFFICE,

BATHURST,

GAMBIA,

31st March, 1912.

SIR,

I have the honour to submit, for the information of His Excellency the Governor and for transmission to the Right Honourable the Secretary of State, the Annual Medical Report on the health and sanitary condition of the Gambia for the year 1911, together with the Returns, &c., appended thereto.

This Report was made by my predecessor in office, as I only took over on the 25th January, 1912.

I have the honour to be,

Sir,

Your obedient servant,

E. A. CHARTRES,

Senior Medical Officer.

THE HONOURABLE

THE COLONIAL SECRETARY,

BATHURST, GAMBIA.

Memorandum
to the President
of the United States
from the Secretary
of the Interior
dated 1892

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I have the honor to acknowledge the receipt of your letter of the 17th inst. in relation to the proposed extension of the public lands in the State of California. The Department is now considering the same and will advise you of the result as soon as possible.

Very respectfully,
John D. Smith, Secretary of the Interior

Enclosed for the Secretary of the Interior are two copies of a report of the Surveyor General of California, in relation to the proposed extension of the public lands in the State of California.

The Secretary

Very respectfully,
John D. Smith, Secretary of the Interior

Annual Medical Report

FOR THE

YEAR ENDING 31ST DECEMBER, 1911.

I. ADMINISTRATIVE.

STAFF.

The Medical Staff of the Colony consists of a Senior Medical Officer and four Medical Officers—all members of the West African Staff.

Dr. T. Hood, Senior Medical Officer, proceeded on leave of absence on the 9th of September, and received promotion to the post of Deputy Principal Medical Officer in Southern Nigeria.

Dr. E. H. Read, Senior Medical Officer, Southern Nigeria, was temporarily appointed to the Gambia service owing to the outbreak of Yellow Fever. He arrived on the 15th of September and returned to his station on the 22nd of December.

Dr. E. A. Chartres, Senior Medical Officer, Northern Nigeria, was transferred to the Gambia service, vice Dr. Hood, promoted, on the 25th December; he arrived in January, 1912.

Dr. J. C. Franklin, Medical Officer, acted as Senior Medical Officer, on the departure of Dr. Hood on leave, and on Dr. Read's return to Southern Nigeria.

Dr. E. Hopkinson, D.S.O., Protectorate Medical Officer, was engaged during the year in the office of Travelling Commissioner, South Bank District; that office being vacant during the period 1st January to 31st December, 1911; so that his medical duties could only be performed in this district and then only as opportunity allowed.

Dr. J. A. Harley, Medical Officer, accompanied His Excellency the Governor on his tour through the Protectorate. The tour occupied four months. Report attached.

Dr. A. F. Kennedy, Medical Officer, arrived in Bathurst on the 12th of May, and was posted later to McCarthy Island. Sub-report attached.

FINANCIAL.

Attached is a statement of expenditure incurred by the Medical Department, Table ii., page 17.

The Revenue derived from Hospital Fees during the year was £136 3s. 5d.

The estimated expenditure was £6,458, and the actual £6,434 12s. 5d.

II. PUBLIC HEALTH.

(a) GENERAL REMARKS.

The general health of Bathurst and the Protectorate was satisfactory.

(b) EUROPEAN OFFICIALS.

The number of European Officials on the Sick List during the year was 16, which was three less as compared with the previous year, 1910.

There was only one case of invaliding. Three deaths occurred—two being members of the Royal Engineering Surveying Department on their first tour of service, and the third an Engineer who had been in the Government service for many years.

Mosquito-protection to an extent has been provided for European Officials, and mosquito-proof cages placed in many quarters and offices.

TABLE SHOWING THE SICK, INVALIDING, AND DEATH RATES OF EUROPEAN OFFICIALS.

	1910.	1911.
Total number officials resident	50	57
Average number resident	25	30
Total number on Sick List	19	16
Total number of days on Sick List	112	73
Average daily number on sick list	·31	·20
Percentage of Sick to average number resident	·08	·9
Average number of days on Sick List for each patient	5·89	4·5
Average sick time to each resident	4·5	2·4
Total number invalided	1	1
Percentage of invalidings to total residents	2	1·7
Total deaths	0	3
Percentage of deaths to total residents	0	5·2
Percentage of deaths to average number resident	0	10
Number of cases of sickness contracted away from residence	2	—

(c) NATIVE OFFICIALS.

The Native Officials kept good health, and although 126 names appear on the Sick List, yet their ailments were not of a serious nature; 28 fever cases have been recorded, which is considerably less than the previous year.

I consider that the improvement in this direction is due to the fact that more attention was given to the use of quinine than in the previous year, when there were 74 cases of fever recorded.

TABLE SHOWING THE SICK, INVALIDING, AND DEATH RATES OF NATIVE OFFICIALS.

	1910.	1911.
Total number of Officials resident	112	127
Average number resident	105	106
Total number on sick list	146	126
Total number of days on sick list	467	378
Average daily number on sick list	1·28	·35
Percentage of Sick to average number resident	1·34	·37
Average number of days on sick list for each patient	3·19	3
Average sick time to each resident	4·45	3·06
Total number invalided	1	—
Percentage of invalidings to total residents	·9	—
Total deaths	—	1
Percentage of deaths to total residents	—	·78
Percentage of deaths to average number resident	—	·94
Number of cases of sickness contracted away from residence	1	—

(d) GENERAL EUROPEAN POPULATION.

The European element of Bathurst comprises principally Government Officials and Employees of mercantile firms. These are distributed for work in the town of Bathurst and the Protectorate. They are mostly isolated in factories at their trading ports, which are selected on the banks of the river for shipping facilities rather than sanitary benefits; but these only spend at most eight months in the tropics, the greater portion returning to Europe by the end of June, after the trade season.

Quinine is provided by the firms for their employees, and they are careful in following the advice given as to its use.

TABLE SHOWING THE SICK, INVALIDING, AND DEATHS OF NON-OFFICIAL EUROPEANS.

		1910.	1911.
Total number resident		96	186
Total number on sick list		20	18
Total number invalided		3	3
Total deaths of Residents		0	11
Total deaths from passing ships		2	0

(e) GENERAL NATIVE POPULATION.

COMPARATIVE STATEMENT OF BIRTHS AND DEATHS FOR THE PAST TEN YEARS IN THE COLONY.

Years.	Births.	Deaths.	Births in excess.	Deaths in excess.
1902	403	410	—	7
1903	408	495	—	87
1904	371	408	—	37
1905	331	376	—	45
1906	338	359	—	21
1907	326	386	—	60
1908	351	387	—	36
1909	339	330	9	—
1910	363	385	—	22
1911	306	318	—	12
	3,536	3,854	9	327

NUMBER OF DEATHS AND DEATH RATE PER THOUSAND OF THE POPULATION (CALCULATED ON THE CENSUS OF 1901 AND 1911) FOR THE LAST TEN YEARS IN THE COLONY.

Years.	Estimated Population.	Total Deaths.	Death Rate per 1,000.
1902	13,456	410	30.60
1903	13,456	495	35.78
1904	13,456	408	30.32
1905	13,456	376	27.94
1906	13,456	359	26.67
1907	13,456	386	28.68
1908	13,456	387	28.77
1909	13,456	330	24.52
1910	13,456	385	28.61
1911	13,157	318	24.16

MONTHLY DEATH RATE FOR THE PAST SIX YEARS IN BATHURST.

Years.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Decr.
1906	20	24	27	30	23	39	25	23	42	32	34	40
1907	22	46	43	15	20	28	32	30	45	48	38	19
1908	32	22	33	25	24	33	30	39	35	34	48	32
1909	31	20	24	22	21	30	36	34	28	29	28	27
1910	29	21	20	17	23	20	21	31	35	31	29	25
1911	16	16	19	11	27	12	23	19	32	22	25	36

INFANTILE MORTALITY FOR THE PAST EIGHT YEARS IN THE COLONY.

Years.	Total Births.	Deaths over 1 year and under 5 years.	Deaths over 1 week and under 1 year.	Deaths over 1 day and under 1 week.	Deaths under 24 hours.	Still Births.
1904	371	32	74	21	19	39
1905	331	41	61	20	10	24
1906	338	33	43	12	14	31
1907	326	37	56	22	11	13
1908	351	55	77	23	—	32
1909	339	23	50	11	17	24
1910	363	40	68	34	11	27
1911	306	29	43	15	1	28

III. SANITATION.

(a) GENERAL REVIEW OF WORK DONE, LAWS PASSED, AND PROGRESS MADE.

(i) ADMINISTRATIVE.

The Board of Health directs the sanitation of Bathurst. It is composed of the Senior Medical Officer (Chairman of the Board), the Colonial Engineer and the Superintendent of Police (ex-officio members) and six other members appointed annually.

The Senior Sanitary Officer for Sierra Leone and the Gambia (Dr. Kennan) made two short visits ; his report has been forwarded separately.

A European Town Warden has been appointed to superintend the Sanitary work of Bathurst, and has carried out his duties efficiently, and his services during the outbreak of Yellow Fever were most valuable.

The Sanitary Staff consists of :—

- 1 European Town Warden.
- 1 Inspector of Nuisances.
- 2 Assistant Inspectors do.
- 38 Labourers in Dry Season.
- 32 Labourers in Wet do.
- 5 Cartmen.
- 1 Groom.
- 4 Lamplighters.
- 1 Clerk.

There were three carts and Cartmen in the previous year, but the demand for the removal of rubbish necessitated the addition of two carts, two Cartmen and two horses.

The Yards and Compounds of Bathurst have been inspected frequently during the year.

Quinine was distributed as in former years amongst school children and others who attended the hospital.

EPIDEMIC DISEASE.

Smallpox.

There was a small outbreak of Smallpox during the months of January and April; the infection was traced amongst labourers who came from French territory.

Twelve cases were admitted, and none proved fatal.

The Public Vaccinators continue their work in Bathurst, and the Travelling Commissioners vaccinated in the Protectorate also.

Dr. Tom Bishop, a private medical practitioner, was appointed Public Vaccinator during the course of the outbreak of Smallpox, and he did good work amongst the labourers employed by the merchants.

2,491 cases were vaccinated with success in Bathurst, and 394 cases vaccinated by the Travelling Commissioners and the Protectorate Medical Officer.

The lymph in use is that supplied from the Incorporated Liverpool Institute of Comparative Pathology, and the results continue to be as good as in former years.

Yellow Fever.

There were three outbreaks of this disease in May, July and November—four cases occurred in May, with three deaths; six in July, with five deaths; and one fatal case in November. Reports by Dr. Hood and Dr. Read attached.

COMPARATIVE RETURN OF VACCINATIONS FOR 1910 AND 1911, BATHURST.

Months.				Total Vaccinated, 1910—1911.		Successes, 1910—1911.		Failures, 1910—1911.		Not Seen, 1910—1911.	
January	...	...	...	102	75	102	53	—	4	—	18
February	...	...	...	94	105	94	75	—	2	—	28
March	...	...	...	110	255	100	252	10	3	—	—
April	...	...	...	105	768	81	726	24	9	—	33
May	...	...	...	90	420	86	418	4	2	—	—
June	...	...	...	105	165	105	162	—	3	—	—
July	...	...	...	60	150	60	150	—	—	—	—
August	...	...	...	30	120	30	120	—	—	—	—
September	...	...	...	135	100	92	100	11	—	32	—
October	...	...	...	120	120	40	110	13	10	67	—
November	...	...	...	60	165	7	165	16	—	37	—
December	...	...	...	—	165	—	160	—	5	—	—
TOTAL ...				1,011	2,608	797	2,491	78	38	136	79

PROTECTORATE.

1910	...	...	...	...	...	...	336	Vaccinations Performed.		
1911	...	...	...	...	...	...	394	do.	do.	

V. HOSPITALS AND DISPENSARIES.

THE VICTORIA GENERAL HOSPITAL, BATHURST.

Small repairs were carried out during the year.

During the outbreak of Yellow Fever, the provision made the previous year for mosquito protection was inadequate; all the wards in this institution were not made mosquito-proof. The European Ward, male division, has now been provided with cages for each bed, also a portion of the end room of the hospital only large enough for one bed has been made mosquito-proof. Cages for the other wards are in process of erection.

The Out-Patient Department of this hospital records 7,255 new cases, which is less than the previous year by 185 cases; the total number of new cases for 1910 being 7,440. There were 588 new cases admitted into hospital this year and 669 in the previous; showing a difference of 81 cases less also.

To account for this falling off, I am inclined to think that payments to the Government for medicines at the Out-Patient Department may have had some influence in this result. The charges at this department are very moderate, but this being a new idea the people seem to object to the system. Also, I have no doubt the increased use of quinine, and better sanitation, have been important factors in lessening the number of sick. The payments are not strictly enforced except in cases where the patients are obviously able to pay.

IN-PATIENTS, VICTORIA HOSPITAL, 1911.

	Remaining in Hospital, 31st Dec., 1910.	Admitted during the Year.	Died.	Remaining in Hospital 31st Dec., 1911.
Europeans	Nil	30	10	Nil
Natives	1	334	30	7
Syrians	Nil	21	5	—
W. A. F. F.	—	128	—	1
Civil Police	1	75	—	—
TOTAL	2	588	45	8

RESULT OF TREATMENT

	Male.	Female.	Total.
Patients remaining in Hospital, 1st January, 1911	2	—	2
Patients admitted during 1911 ...	473	115	588
TOTAL... ..	475	115	590
Cured	285	54	339
Relieved	146	37	183
Not Relieved	8	7	15
Died	29	16	45
Remaining in Hospital on the 31st December, 1911	7	1	8
Average stay in days of patients who were discharged	8	9	—
Average stay of patients who died ...	5	3	—

PREVAILING DISEASES OF IN-PATIENTS DURING THE YEAR.

Malarial Fever	...	...	...	...	...	73
Rheumatism	...	...	...	...	...	64
Ulcer	...	...	...	...	...	46
Bronchitis	...	...	...	...	...	37
Abscess	...	...	...	...	...	20
Dyspepsia	...	...	...	...	...	20
Constipation	...	...	...	...	...	24
Bronchial Catarrh	...	...	...	...	...	15
Yellow Fever	...	...	...	...	...	11
Pneumonia	...	...	...	...	...	11

SURGICAL OPERATIONS PERFORMED UNDER CHLOROFORM DURING THE YEAR.

Abscesses, opened	...	...	...	...	...	2
Circumcisions	...	...	...	...	...	4
Cyst (Sebaceous) removed	...	...	...	...	...	1
Enucleation of Eyeball	...	...	...	...	...	1
Elephantiasis Scroti, Amputations	...	...	...	...	...	6
Hernæ, Radical cures	...	...	...	...	...	2
Hernia, Umbilical, Excised	...	...	...	...	...	1
Hydroceles, Radical cures	...	...	...	...	...	4
Trypanosomiasis, Intravenous injection	...	...	...	...	...	1
TOTAL						22

SURGICAL OPERATIONS PERFORMED WITH A LOCAL ANÆSTHETIC DURING THE YEAR.

Abscesses opened	...	...	...	...	...	17
Adenitis, Incisions	...	...	...	...	...	2
Cellulitis, Incisions	...	...	...	...	...	2
TOTAL						21

CAUSES OF DEATHS IN HOSPITAL DURING THE YEAR.

Malarial Fevers	...	...	...	...	...	6
Black-water Fever	...	...	...	...	...	2
Yellow Fever	...	...	...	...	...	9
Pneumonia	...	...	...	...	...	2
Septicæmia	...	...	...	...	...	2
Trypanosomiasis	...	...	...	...	...	2
Tetanus	...	...	...	...	...	2
Tuberculosis	...	...	...	...	...	1
Pernicious Anæmia	...	...	...	...	...	1
Hodgkin's Disease	...	...	...	...	...	1
Meningitis	...	...	...	...	...	2
Morbus Cordis	...	...	...	...	...	2
Bronchitis	...	...	...	...	...	2
Broncho-Pneumonia	...	...	...	...	...	3
Pleurisy	...	...	...	...	...	1
Gastric Hæmorrhage	...	...	...	...	...	1
Enteritis	...	...	...	...	...	1
Acute Hepatitis	...	...	...	...	...	1
Cirrhosis of Liver	...	...	...	...	...	1
Cellulitis	...	...	...	...	...	1
Siriasis	...	...	...	...	...	1
Burn	...	...	...	...	...	1
TOTAL						45

THE HOME FOR THE AFFLICTED AND DESTITUTE.

During the year three men and three women were admitted into the Home, with the five remaining from the previous year making a total of eleven inmates.

The Male and Female Wards have been made mosquito-proof, as have also the quarters of the Attendant.

Sex.	Remained, 1910.	Admitted.	Discharged.	Died.	Remaining, 1911.
Males	2	3	—	2	3
Females	3	3	—	1	5
TOTAL	5	6	—	3	8

CAUSE OF DEATH.

Epilepsy ... ..	...	...	...	...	...	...	1
Senile Decay ... ..	...	...	...	...	...	...	1
Nephritis ... ..	...	...	...	...	...	...	1

THE PRISON.

During the year under review the health of the prisoners has been good. Quinine has been regularly administered to them weekly. No case of fever has been recorded for 1911.

The daily average number of prisoners was 26·24.

The sanitary arrangements of the Prison are satisfactory; the food and water issued to the prisoners are of good quality and sufficient.

THE PROTECTORATE.

During the year Dr. E. Hopkinson, the Protectorate Medical Officer, could not proceed on his usual duties, as he had been temporarily appointed Travelling Commissioner for the South Bank Province, from the 1st January to the 31st December.

E. A. CHARTRES,
Senior Medical Officer.

TO THE SENIOR MEDICAL OFFICER,
BATHURST, GAMBIA.

SIR,

I have the honour to inform you that I was detached from my duties, as Medical Officer at Bathurst, on January the 2nd, 1911, to accompany His Excellency the Governor on a tour through the Protectorate, and that I acted as Protectorate Medical Officer during that tour.

His Excellency's escort consisted of his A.D.C. and suite, two officers, one N.C.O., and one company of the West African Frontier Force.

My duties were primarily to provide medical attention to His Excellency and suite, the officers, the Non-Commissioned Officer, and company of the West African Frontier Force.

The tour commenced at Kerewan, in Baddibu, on the north bank of the river, and the following districts were traversed:—Baddibu, a portion of Sabach, Sanjal, Jah, Bambuk, Sandugu, and Wuli; at the termination of which district the expedition crossed the river to Koina and traversed the following districts on the south bank of the river:—Kantora, Niammina, Jara, Kiang, Fogni, and Kombo; so that it will appear that, with the exception of the tsetse fly infested districts of Numi and Jokadu, the whole Protectorate was visited.

In every district the majority of the most important towns or villages were visited, and the length of time spent in each town or village varied from one to two days, and in exceptional cases three days.

His Excellency remained with the party throughout, with the exception of that portion of the march between Kudang, in Niammina, and Kwinella, on the border of Jarra and Kiang.

During the whole of the tour the Governor kept in excellent health, as did every white official on the tour, with the exception of slight attacks of malarial fever experienced by Captain Kirkpatrick (A.D.C.), and myself.

The health of the Frontier Force, however, was not so satisfactory, and became less so as the march progressed.

The chief complaints were chest complaints, with two cases of pneumonia, malaria, ophthalmia, whitlow, and, by the greatest majority, injuries to the feet. This I attribute to the fact that sandals were worn only in a small percentage of cases, and in those cases in which they were worn, they were of an unsatisfactory kind, consisting as they did, of a plain piece of leather shaped roughly to the feet and bound on by leather thongs. Now these could only protect the soles of the feet, and, marching through the ironstone districts experienced in the Protectorate, it was inevitable that a number of cases of injury to the toes, and other parts of the feet, should be met with. This, I think, could in a large measure be obviated, by the addition of some form of toe-piece to the sandals. With the exception of the numerous cut feet complained of, the health of the majority of the troops was excellent, and the unsatisfactory appearance of the sick report was due to the fact that a percentage—a small percentage, I am glad to say—of the men would seize any occasion on which a boat was going to Bathurst to report themselves sick on the chance of being sent down.

Apart from these primary duties of my position, I was enabled to render medical assistance to the inhabitants of the various districts visited. This I was able to do throughout the tour, with the exception of a few occasions when the supply of drugs ran low and there was a delay in receiving the new stock.

The number of patients treated during the tour of four and a half months was roughly between five and six hundred; the majority of these were, however, trivial cases, consisting of slight wounds, coughs, constipation and ulcers.

Malarial fever, though scattered throughout the Protectorate, was not very prevalent; and the splenic index in children under fifteen years old was low.

A disease which appears to be gaining ground, however, is filariasis. In all I saw thirty-seven cases of elephantiasis of various parts of the body; that of the leg predominating.

I sent three cases of elephantiasis seroti to Bathurst for operation; two of these I have seen recently, both showing most satisfactory results.

Of leprosy, on the other hand, undoubtedly endemic as it is, I saw only two cases, but this may not be due to the fact that it is not really decreasing, but that cases are kept in the background.

Two Europeans were seen by me, one at Kai-ai suffering from a severe attack of malarial fever, and the other at Lamin Koto with a slight attack of appendicitis. The latter I took down to Bathurst, rejoining the expedition at Karantaba three days later.

Venereal disease was not brought much to my notice, with the exception of a small village, Niami Sukoto in Niaminna, in which gonorrhea was rife amongst the inhabitants.

Of other diseases I had one case of hernia at N'Jau, which I sent to Bathurst for operation, a case of Bright's disease at Kau-ur, a large simple tumour of the liver at Boraba, a case of osteomyelitis at Bureng, two cases of sleeping sickness at Jappani, and two cases of tapeworm at Soma.

Speaking generally, the health and physical well being of the people throughout the Protectorate appeared to be exceedingly good and satisfactory.

I have the honour to be,

Sir,

Your obedient servant,

(Signed) JOHN A. HARLEY,

Medical Officer.

RETURNS.

TABLE I.

MEDICAL STAFF.—

Dr. T. Hood	...	...	Senior Medical Officer, transferred to Southern Nigeria.
Dr. E. A. Chartres	...	...	Senior Medical Officer, transferred from Northern Nigeria.
Dr. J. C. Franklin	...	...	Medical Officer.
Dr. E. Hopkinson, D.S.O.	...	...	Protectorate Medical Officer.
Dr. J. A. Harley	...	...	Medical Officer.
Dr. A. F. Kennedy	...	...	Medical Officer, McCarthy Island Station.

PRINCIPAL MEMBERS OF SUBORDINATE STAFF.

Sister Joseph Mary	...	...	Nursing Sister.
Sister Mary Veronica	...	...	do.
Sister Mary Alex	...	...	do.
Sister Mary Herbert	...	...	do.
Mr. W. S. Smart	...	...	Chief Dispenser.
Mr. C. Shaw	...	...	Clerk, Storekeeper, and Steward.
Mr. L. G. Boyle	...	...	Assistant Dispenser.
Mr. J. F. Johnson	...	...	do.
Mr. E. W. Johns	...	...	Assistant Clerk, Storekeeper and Steward.
Mr. J. S. Kennedy	...	...	Assistant Dispenser.
Mr. A. C. Tudor	...	...	Second do. and Dresser.
Mr. T. D. Johnson	...	...	Senior Native Nurse.
Mr. A. C. Briggsman	...	...	Assistant do.
Mr. D. Senghore	...	...	do. do.
Mr. G. A. Saunders	...	...	Attendant Home for Destitutes and Afflicted.
Mr. J. Duncan	...	...	Attendant Infectious Diseases Hospital.
Mr. S. B. Palmer	...	...	Apprentice.
Miss E. Miller	...	...	do.
Miss M. M. Thomas	...	...	do.

PRINCIPAL CHANGES.

APPOINTMENTS.

Date.	Name.	Rank.
29th April ...	A. F. Kennedy ...	Medical Officer.
19th May ...	E. W. Johns ...	Assistant Clerk, Storekeeper and Steward.
2nd June ...	B. H. nDure ...	Messenger and Porter.
2nd September ...	E. H. Read ...	Senior Medical Officer.
1st November ...	J. S. Kennedy ...	Assistant Dispenser and Dresser.
1st November ...	T. Jeng ...	Messenger and Porter.
25th December	E. A. Chartres ...	Senior Medical Officer.

LEAVE OF ABSENCE.

Date.	Name.	Rank.	Leave.
16th May ...	J. A. Harley ...	Medical Officer ...	4 months.
1st June ...	A. C. Tudor ...	2nd Assistant Dispenser ...	14 days.
11th June ...	M. Veronica ...	Nurse ...	6 months.
15th June ...	E. W. Johns ...	Assistant Clerk, Storekeeper and Steward ...	14 days.
1st July ...	L. G. Boyle ...	Assistant Dispenser ...	2 months.
3rd August ...	D. Senghore ...	Apprentice ...	14 days.
18th August ...	G. A. Saunders ...	Attendant Home for Destitute and Afflicted ...	14 days.
9th September ...	T. Hood ...	Senior Medical Officer ...	4 months.
2nd October ...	T. D. Johnson ...	Senior Native Nurse ...	14 days.
3rd October ...	C. Shaw ...	Clerk, Storekeeper and Steward	2 months.

EXTENSION OF LEAVE.

Date.	Name.	Rank.	Leave.
18th March ...	J. C. Franklin ...	Medical Officer ...	13 days.
3rd December ...	C. Shaw ...	Clerk, Storekeeper and Steward	4 days.

RESUMPTION OF DUTY.

Date.	Name.	Rank.
12th May ...	Mary Herbert...	Nurse.
15th June ...	A. C. Tudor ...	2nd Assistant Dresser.
30th June ...	E. W. Johns ...	Assistant Clerk, Storekeeper and Steward.
17th August ...	D. Senghore ...	Apprentice.
2nd September ...	G. A. Saunders ...	Attendant Home for Destitutes.
16th October ...	T. D. Johnson ...	Senior Native Nurse.
30th October ...	J. A. Harley ...	Medical Officer.
7th December ...	C. Shaw ...	Clerk, Storekeeper and Steward.

TRANSFER.

Date.	Name.	Rank.	Remarks.
24th December ...	T. Hood ...	Senior Medical Officer ...	To Southern Nigeria.

PROMOTIONS.

Date.	Name.	Rank.	Remarks.
20th May ...	T. D. Johnson ...	Assistant Native Nurse ...	To Senior Native Nurse.
24th December ...	T. Hood ...	S. M. Officer ...	To Deputy P. M. Officer.

TERMINATION OF APPOINTMENTS.

Date.	Name.	Rank.	Remarks.
1st September...	L. G. Boyle ...	Assistant Dispenser ...	Terminated.
1st November...	B. H. nDure ...	Messenger and Porter ...	Resigned.

TABLE II.
FINANCIAL MEDICAL DEPARTMENT.
EXPENDITURE.

Details.	Estimated.	Actual.
	£ s. d.	£ s. d.
Personal Emoluments	4,137 0 0	4,198 17 11
OTHER CHARGES.		
Maintenance of Sick	650 0 0	606 18 4
Travelling allowance to Medical Officer in the Protectorate	120 0 0	75 0 0
Washing	70 0 0	54 19 10
Fuel	40 0 0	39 5 11
Sundries	100 0 0	114 10 6
Medicines, Dressings and Medical Comforts	300 0 0	267 13 10
Expenses of Burials	20 0 0	6 16 6
Vaccinations	150 0 0	145 2 0
Infectious Diseases Hospital	23 0 0	20 17 0
Maintenance of Lunatics (Sierra Leone) ...	229 0 0	206 19 11
" " (England)	45 0 0	45 12 6
Purchase of, and Repairs to, Instruments	50 0 0	51 5 10
Medical Library	10 0 0	3 19 7
Horse Allowance	112 0 0	93 18 9
Uniforms for Attendants	30 0 0	30 4 1
Equipment for new Hospital at McCarthy Island	150 0 0	168 15 7
Passages for Officers and Sisters	202 0 0	200 19 6
Special Expenditure at the Tropical School of Medicine	20 0 0	97 16 4
Bicycle Allowance	—	4 18 6
TOTAL	£6,458 0 0	£6,434 12 5

RECEIPTS.

Details.	Estimated.	Actual.
	£ s. d.	£ s. d.
Maintenance of Sick and Sale of Medicines	100 0 0	136 3 5

TABLE IIa.
FINANCIAL.
BOARD OF HEALTH DEPARTMENT.

RECEIPTS.			EXPENDITURE.		
Details.	Actual.		Details.	Actual.	
	£	s. d.		£	s. d.
Local Rates	748	8 0	Excess of Payments 31st December, 1910	84	3 11
Slaughter-house Fees	77	3 6	Salaries	430	11 1
Grant-in-Aid	1,405	0 0	Other charges	1,736	11 9
Sale of old stores, etc.	46	14 10			
Adjustments	11	13 6		2,251	6 9
			Balance on 31st December, 1911	37	13 1
Total	£2,288	19 10	Total	£2,288	19 10

TABLE III.

RETURN OF STATISTICS OF POPULATION FOR THE YEAR.

BATHURST, GAMBIA.

	Europeans and Whites.	Africans and other Races.	Mixed and Coloured.
Number of Inhabitants in 1911... ..	230*	7,470	—
„ Births during the year, 1911	1	296†	9
„ Deaths „ „ 1911	14	304	—
„ Immigrants „ „ 1911	—	—	—
„ Emigrants „ „ 1911	—	—	—
Number of Inhabitants in 1901 (Census)	193	8,807†	116
Increase or	37	—	—
Decrease	—	—	—

*40 in ships.

†Africans only.

TABLE IV.

SUMMARY OF ROUTINE SANITARY WORK DONE DURING THE YEAR
IN THE TOWN.

1. NAME OF TOWN.—BATHURST, GAMBIA.

	Approximate area.	Number of proclaimed open spaces.
1910	400 acres.	One—3 acres.
1911	400 „	One—3 „
1912		

2. POPULATION.

	Number of Natives.		Number of Europeans.		Total.
	Males.	Females.	Males.	Females.	
1910					
1911		7,470		230	7,700
1912					

3. HOUSING.

	Number occupied by Europeans.	Number occupied by Natives.
Number of Houses :—		
1910	—	—
1911	22	1,980
1912		
Number of Huts :—		
1910	No	record.
1911	„	„
1912		

4. MOSQUITO PROTECTION OF HOUSES.

—	1910.	1911.	1912.
Number of European houses wholly mosquito-protected ...	—	1	
Number of European houses with mosquito room ...	—	21	
Number rendered during the year wholly mosquito-protected	—	1	
Number rendered during the year partially mosquito-protected	—	14	

5. ERECTION OF NEW BUILDINGS DURING THE YEAR.

—	1910.	1911.	1912.
Number of public buildings erected with sanction as to site, construction, and relation to other buildings ...	No record	No record	
Number of houses erected with sanction as to site, construction, and relation to other buildings ...	"	"	
Number of huts erected with sanction as to site, construction, and relation to other buildings... ..	"	"	
Number of houses built without sanction	"	"	
Number of huts built without sanction	"	"	

ACTION TAKEN.

—	Number of Prosecutions.		Number Demolished.	
	Huts.	Houses.	Huts.	Houses.
1910	Nil.	Nil.	Nil.	Nil.
1911	Nil.	Nil.	Nil.	Nil.
1912				

6. MARKETS.

—	Total number.	Number paved and drained.	Number unpaved.
1910	1	1	Nil.
1911	1	1	Nil.
1912			

7. SLAUGHTER-HOUSES.

—	Total number.	Number paved and drained.	Number unpaved.
1910	2	1	1
1911	2	1	1
1912			

8. LATRINES.

	For Males.		For Females.	
	Number.	Number of Seats.	Number.	Number of seats.
Number of Public Latrines :—				
1910	9	27	9	27
1911	10	40	10	40
1912				
Number of new Public Latrines erected during the year :—				
1910	1	3	1	3
1911	1	3	1	3
1912				
Number of Public Latrines repaired during the year :—				
1910	2	6	2	6
1911	9	37	9	37
1912				
Number of Public Latrines demolished during the year :—				
1910	1	3	1	3
1911	Nil.	Nil.	Nil.	Nil.
1912				

	1910.	1911.	1912.
Number of Private Latrines	500	530*	
Average number of pails of nightsoil removed daily	200	149·3*	
Average number of soiled pails removed and clean pails substituted	106	200*	
Number of nightsoil men employed to clean latrines and remove excreta	5	11	
Number of cesspools	450	{ Schedule being made Nil. unknown 53 Nil.	
Number of cesspools cleansed	25		
Number of new cesspools constructed during the year... ..	20		
Number of old cesspools abolished	20		
Number of cesspools oiled regularly by Department	Nil.	Nil.	

*Approximate.

9. REMOVAL OF REFUSE.

	1910.	1911.	1912.
Number of dustbins	500	500 in yards	
Number of carts at work daily to remove refuse from streets ...	1	1	4 Public
Amount of refuse removed daily	6	5	
Number of carts at work daily to remove refuse from yards and premises	2	6	
Amount of refuse removed daily from yards and premises ...	14	30	
Number of men employed for moving refuse	11	13	

A cartload averages a cubic yard.

10. MODE OF DISPOSAL OF EXCRETA, REFUSE, AND OFFAL.

	Daily average number of pails of excreta.			Daily average number of cartloads of refuse.			Daily average number of cartloads of Slaughter House and Market Offal.		
	1910.	1911.	1912.	1910.	1911.	1912.	1910.	1911.	1912.
Buried or trenched ...	—	—	—	—	6	—	3	—	—
Burnt ...	—	—	—	20	29	—	—	—	—
Thrown into sea ...	120	200*	—	—	—	—	—	1	—
† Otherwise dealt with ...	—	—	—	—	—	—	—	—	—

* Approximate.

† State mode of disposal.

11. AVERAGE DAILY NUMBER OF CARTLOADS OF TIN CANS, BOTTLES, BROKEN CROCKERY, AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES, HUTS, AND COMPOUNDS.

1910.	1911.	1912.
5	6	—

12. WATER SUPPLY.

Nature of Water Supply.	1910.	1911.	1912.
Pipe-borne water :—			
Source (river, lake, or spring) :—	Nil.	Nil.	
Number of linear yards ...			
Number of stand-pipes along roads ...			
Number of stand-pipes in compounds and houses ...			
Wells :—			
Public :—			
Number ...	40	24	
Number with pumps protected against surface water and mosquito-protected ...	20	24*	
Private :—			
Number ...	40	—	
Number protected against surface water and mosquito-protected... ..	21	—	
Tanks :—			
Public :—	Nil.	Nil.	
Number underground ...			
Number mosquito-protected and served by pumps ...			
Number above ground ...			
Number mosquito-protected ...			
Number of 400 gallons capacity or less ...			
Number above 400 gallons ...			

* Mosquito-protected.

Nature of Water Supply.	1911.	1912.
Tanks :—		
Private :—		
Number underground	5	
Number mosquito-protected	5	
Number above ground	Nil.	
Number mosquito-protected	Nil.	
Number of 400 gallons capacity or less	110	
Number above 400 gallons	12	
Nature of tanks :—		
Wood	Nil.	
Iron	117	
Concrete	5	
Barrels :—		
Number	155	
Number mosquito-protected	155	

13. DRAINAGE.

Nature of drainage.	Public.	Private.
Masonry drains :—		
Lineal yards of masonry drains :—		
1910	Nil.	
1911	5,617	
1912		
Lineal yards reconstructed during the year :—		
1910	Nil.	
1911	161	
1912		
Lineal yards repaired during the year :—		
1910	Nil.	
1911	Nil.	
1912		
Lineal yards of new drains constructed during the year :—		
1910	Nil.	
1911	Nil.	
1912		
Earth drains or ditches :—		
Number of linear yards of ditches cleaned :—		
1910	9,433	
1911	9,433	
1912		
Number of linear yards of ditches dug and graded :—		
1910	Nil.	
1911	All earth drains made wider	
1912		
Average frequency of clearing ditches of grass :—		
1910	Weekly during the rains.	
1911	" " "	
1912		

14. CLEARANCE OF UNDERGROWTH, LONG GRASS AND JUNGLE.

	1910.	1911.	1912.
Number of square yards of weeds, grass, and vegetation cut and removed	50,000	200,000*	
Average frequency of clearance of rank vegetation on same area	Twice during the rains		

* Approximately.

15. EXCAVATIONS AND LOW-LYING LAND.

	1910.	1911.	1912.
Number of pools and excavations	large areas in the rains	same as 1910	
Number of excavations filled up	Nil.	88	
Amount of low-lying and marsh land raised and drained ...	1,000 sq. y'ds.	1,800 sq. y'ds.	
Number of pools, marshes, streams, &c., fish stocked	4	all standing water	
Number of cubic yards of material used for filling up pools and excavations	Nil.	500	
Number of persons fined for making new excavations	Nil.	Nil.	
Average number of men daily employed in filling up pools, &c.	11	15	

16. OILING.

	1910.	1911.	1912.
Number of drains oiled	14	all with fish	
Number of pools and excavations oiled	4	320*	
Number of tanks and barrels oiled	emptied frequently	Nil.	
Average number of men daily employed for oiling drains, pools, and watertanks or barrels	—	15	

* Including wells.

17. INSPECTIONS AND PROSECUTIONS.

	1910.	1911.	1912.
Number of inspectors employed	3	3	
Number of houses inspected	500	3,500*	
Number of houses where larvæ were found	44%	50 %	
Number of notices served to remove conditions causing the breeding of larvæ	Nil.	173	
Number of persons fined for having mosquito larvæ on premises	Nil.	25	
Number of notices served to remove insanitary conditions on premises	47	164	
Number of persons fined for not removing insanitary conditions after notice	5	12	
Number of soda and aerated water factories inspected... ..	1	1	

*Approximately.

TABLE V.

METEOROLOGICAL RETURN FOR THE YEAR 1911.—BATHURST.

Months.	Temperatures.					Rainfall.	Winds.
	Mini- mum on grass.	Shade maxi- mum.	Shade mini- mum.	Range.	Mean.	Amount in inches.	
January	45	93	57	36	74.5	—	East.
February	47	100	59	41	76.6	—	North.
March	55	95	61	34	73.5	—	"
April	56	105	63	42	75.9	—	"
May	64	91	66	25	74.7	.71	"
June	65	90	65	25	73.3	1.99	Variable.
July	64	93	68	25	79.2	3.78	"
August	68	89	68	21	79.1	12.76	"
September	64	91	70	21	80.3	7.63	"
October	64	91	70	21	81.8	1.23	"
November	56	94	64	30	80.1	—	East.
December	44	93	61	32	75.9	.04	"
TOTAL	692	1,125	772	353	924.9	28.14	—
AVERAGE	57.6	93.7	64.3	29.4	77.1	—	—

METEOROLOGICAL RETURN FOR THE YEAR 1911.—McCARATHY ISLAND.

Months.	Temperatures.					Rainfall.	Winds.
	Mini- mum on grass.	Shade maxi- mum.	Shade mini- mum.	Range.	Mean.	Amount in inches.	
January	Nil	96	55	41	76.0	—	N.W.
February	—	103	55	48	80.7	—	"
March	—	108	57	51	81.6	—	"
April	—	112	60	52	86.9	—	"
May	—	110	70	40	87.5	1.83	North.
June	—	106	68	38	86.5	3.61	Variable.
July	—	102	60	42	81.5	7.30	North.
August	—	96	68	28	81.1	8.47	"
September	—	95	60	35	78.7	9.42	"
October	—	98	62	36	82.2	1.23	Variable.
November	—	101	57	44	86.2	—	"
December	—	101	51	50	76.6	.08	"
TOTAL	—	1,228	723	505	985.5	31.94	—
AVERAGE	—	102.3	60.2	41.1	82.1	—	—

TABLE VI.

VICTORIA HOSPITAL, BATHURST.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1911.

Diseases.	Remain- ing in Hospital at end of 1910.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	Remarks.
		Ad- missions.	Deaths.			
INFECTIVE DISEASES.						
Beri-Beri	—	—	—	—	—	
Cerebro-Spinal Fever	—	—	—	—	—	
Chicken-Pox	—	—	—	—	—	
Cholera	—	—	—	—	—	
Dengue	—	—	—	—	—	
Diphtheria	—	—	—	—	—	
Dysentery	—	2	—	2	—	
Endocarditis—infective	—	—	—	—	—	
Enteric	—	—	—	—	—	
Erysipelas	—	—	—	—	—	
Gonorrhœa	—	5	—	5	—	
Influenza	—	3	—	3	—	
Kala Azar	—	—	—	—	—	
Leprosy (a) Nodular	—	1	—	1	—	
(b) Anæsthetic	—	—	—	—	—	
Malaria (a) Tertian	—	9	—	9	—	
(b) Quartan	—	1	—	1	—	
(c) Aestivo-autumnal	—	2	—	2	—	
(d) Chronic Malaria... ..	—	7	6	7	—	
(e) Black-water	—	4	2	4	—	
(f) Quotidian	—	50	—	50	—	
Measles	—	—	—	—	—	
Malta Fever	—	—	—	—	—	
Plague	—	—	—	—	—	
Pneumonia	—	11	2	11	1	
Rabies	—	—	—	—	—	
Puerperal Fever	—	1	—	1	—	
Rheumatism	—	64	—	64	—	
Rheumatic Fever	—	—	—	—	—	
Septicæmia	—	2	2	2	—	
Trypanosomiasis (Sleeping Sickness)	—	4	2	4	1	
Small-Pox	—	1	—	1	—	
Syphilis (a) Primary... ..	—	—	—	—	—	
(b) Secondary	—	2	—	2	—	
(c) Inherited	—	—	—	—	—	
Tetanus	—	3	2	3	—	
Tuberculosis	—	4	1	4	—	
Whooping Cough	—	—	—	—	—	
Yaws	—	—	—	—	—	
Yellow Fever	—	11	9	11	—	
Debility... ..	1	9	—	10	—	
INTOXICATIONS.						
Alcoholism	—	—	—	—	—	
Morphinism	—	—	—	—	—	
Others	—	—	—	—	—	
GENERAL DISEASES.						
Anæmia	—	4	—	4	—	
Anæmia—Pernicious	—	2	1	2	—	
Diabetes	—	—	—	—	—	
Exophthalmic Goitre	—	—	—	—	—	
Gout	—	—	—	—	—	
Leucocythæmia	—	—	—	—	—	
Hodgkin's Disease	—	1	1	1	—	
Myxœdema	—	—	—	—	—	
Total	1	203	28	204	2	

VICTORIA HOSPITAL, BATHURST—continued.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1911—continued.

Diseases.	Remain- ing in Hospital at end of 1910.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	Remarks
		Ad- missions	Deaths.			
From Previous Page	1	203	28	204	2	
GENERAL DISEASES—continued.						
Purpura	—	—	—	—	—	
Rickets	—	—	—	—	—	
Scurvy	—	—	—	—	—	
LOCAL DISEASES.						
DISEASES OF THE NERVOUS SYSTEM.						
Sub-section 1.						
Neuritis	—	1	—	1	—	
Meningitis	—	2	2	2	—	
Myelitis	—	—	—	—	—	
Hydrocephalus... ..	—	—	—	—	—	
Encephalitis	—	—	—	—	—	
Abscess of Brain	—	—	—	—	—	
Congestion of Brain	—	—	—	—	—	
Sub-section 2.						
Apoplexy	—	—	—	—	—	
Paralysis	—	2	—	2	—	
Chorea	—	—	—	—	—	
Epilepsy	—	1	—	1	—	
Neuralgia	—	9	—	9	—	
Hysteria	—	1	—	1	—	
Torticollis	—	1	—	1	—	
Mental Diseases—Sub-section 3.						
Idiocy	—	1	—	1	—	
Mania	—	—	—	—	—	
Melancholia	—	—	—	—	—	
Dementia	—	—	—	—	—	
Delusional Insanity	—	—	—	—	—	
Diseases of the Eye—						
Conjunctivitis	—	9	—	9	1	
Keratitis	—	1	—	1	—	
Ulceration of Cornea	—	—	—	—	—	
Iritis	—	—	—	—	—	
Optic Neuritis... ..	—	—	—	—	—	
Cataract	—	—	—	—	—	
Diseases of the Ear—						
Inflammation	—	1	—	1	—	
Other Diseases... ..	—	—	—	—	—	
Diseases of the Nose—						
Catarrh	—	1	—	1	—	
Diseases of the Circulatory System—						
Pericarditis	—	—	—	—	—	
Endocarditis	—	—	—	—	—	
Valvular Mitral	—	3	2	3	—	
Aortic	—	—	—	—	—	
Tricuspid	—	—	—	—	—	
Pulmonary	—	—	—	—	—	
Arterial Sclerosis	—	—	—	—	—	
Aneurism	—	—	—	—	—	
Diseases of the Respiratory System—						
Laryngitis	—	—	—	—	—	
Bronchitis	1	37	2	38	—	
Total	2	273	34	275	3	

VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1911—*continued.*

Diseases.	Remain- ing in Hospital at end of 1910.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	Remarks.
		Ad- missions	Deaths.			
From Previous Page... ..	2	273	34	275	3	
LOCAL DISEASES— <i>continued.</i>						
Diseases of the Respiratory System— <i>cont.</i>						
Broncho-pneumonia	—	3	3	3	—	
Abscess of Lung	—	—	—	—	—	
Gangrene of Lung	—	—	—	—	—	
Emphysema	—	—	—	—	—	
Pleurisy	—	6	1	6	—	
Empyema	—	—	—	—	—	
Asthma	—	3	—	3	—	
Bronchial-Catarrh	—	15	—	15	—	
Diseases of the Digestive System—						
Stomatitis	—	—	—	—	—	
Caries of Teeth... ..	—	1	—	1	—	
Glossitis	—	1	—	1	—	
Sore Throat	—	3	—	3	—	
Inflammation of Tonsils	—	—	—	—	—	
Gastritis	—	3	—	3	—	
Ulceration of Stomach... ..	—	—	—	—	—	
Hæmatemesis	—	1	1	1	—	
Dilatation of Stomach... ..	—	—	—	—	—	
Stricture of Stomach	—	—	—	—	—	
Dyspepsia	—	23	—	23	—	
Enteritis	—	1	1	1	—	
Appendicitis	—	1	—	1	—	
Colitis	—	—	—	—	—	
Ulceration of Intestines	—	—	—	—	—	
Sprue	—	—	—	—	—	
Hernia	—	7	—	7	—	
Diarrhœa	—	8	—	8	—	
Constipation	—	24	—	24	—	
Colic	—	3	—	3	—	
Hæmorrhoids	—	—	—	—	—	
Pancreatitis	—	—	—	—	—	
Hepatitis—Acute	—	8	1	8	—	
Abscess... ..	—	—	—	—	—	
Cirrhosis	—	1	1	1	—	
Jaundice	—	2	—	2	—	
Peritonitis	—	—	—	—	—	
Ascites	—	—	—	—	—	
Osteo-chondroma	—	1	—	1	—	
Diseases of the Lymphatic System—						
Splenitis	—	1	—	1	—	
Inflammation of Lymphatic Gland	—	9	—	9	1	
Suppuration of Lymphatic Gland	—	—	—	—	—	
Lymphangitis	—	—	—	—	—	
Elephantiasis	—	7	—	7	—	
Diseases of the Urinary System—						
Acute Nephritis	—	1	—	1	1	
Bright's Disease	—	6	—	6	—	
Pyelitis	—	—	—	—	—	
Calculus	—	—	—	—	—	
Renal Colic	—	—	—	—	—	
Cystitis	—	1	—	1	—	
Vesical Calculus	—	—	—	—	—	
Suppression	—	—	—	—	—	
Hæmaturia	—	1	—	1	—	
Chyluria	—	—	—	—	—	
Total	2	414	42	416	5	

VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1911—*continued.*

Diseases.	Remain- ing in Hospital at end of 1910.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	Remarks.
		Ad- missions	Deaths.			
From Previous Page	2	414	42	416	5	
LOCAL DISEASES—<i>continued.</i>						
Diseases of the Generative System—						
Male Organs :—						
Urethritis	—	1	—	1	—	
Gleet	—	—	—	—	—	
Stricture	—	1	—	1	—	
Prostatitis	—	—	—	—	—	
Soft Chancre	—	3	—	3	—	
Condyloma	—	—	—	—	—	
Inflammation of Scrotum	—	—	—	—	—	
Hydrocele	—	3	—	3	—	
Orchitis	—	5	—	5	—	
Epididymitis	—	—	—	—	—	
Abscess of Testicle	—	—	—	—	—	
Phimosis	—	2	—	2	—	
Paraphimosis	—	1	—	1	—	
Female Organs :—						
Ovaritis	—	1	—	1	—	
Ovarian Cyst	—	—	—	—	—	
Endometritis	—	3	—	3	—	
Congestion of Uterus	—	1	—	1	—	
Vaginitis	—	—	—	—	—	
Amenorrhœa	—	—	—	—	—	
Dysmenorrhœa	—	—	—	—	—	
Menorrhagia	—	—	—	—	—	
Leucorrhœa	—	—	—	—	—	
Abortion	—	—	—	—	—	
Delayed Labour	—	—	—	—	—	
Postpartum Hæmorrhage	—	—	—	—	—	
Retained Placenta	—	—	—	—	—	
Premature Birth	—	1	—	1	—	
Threatened Miscarriage	—	1	—	1	—	
Mastitis	—	—	—	—	—	
Abscess of Breast	—	—	—	—	—	
Parturition	—	2	—	2	—	
Ruptured Perineum	—	1	—	1	—	
Diseases of Organs of Locomotion—						
Osteitis	—	—	—	—	—	
Arthritis	—	—	—	—	—	
Spondylitis	—	—	—	—	—	
Bursitis	—	—	—	—	—	
Necrosis of Bone	—	1	—	1	—	
Synovitis	—	2	—	2	—	
Diseases of Connective Tissue—						
Cellulitis	—	6	1	6	—	
Abscess	—	20	—	20	—	
Elephantiasis	—	—	—	—	—	
Whitlow	—	1	—	1	—	
Diseases of the Skin—						
Urticaria	—	—	—	—	—	
Eczema	—	7	—	7	—	
Boil	—	3	—	3	1	
Carbuncle	—	—	—	—	—	
Herpes	—	1	—	1	—	
Psoriasis	—	—	—	—	—	
Total	2	481	43	483	6	

VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1911—*continued.*

Diseases.	Remain- ing in Hospital at end of 1910.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	Remarks.
		Ad- missions	Deaths.			
From Previous Page	2	481	43	483	6	
LOCAL DISEASES— <i>continued.</i>						
Diseases of the Skin— <i>continued.</i>						
Oriental Sore	—	—	—	—	—	
Tinea	—	—	—	—	—	
Scabies	—	2	—	2	—	
Acne	—	—	—	—	—	
Prickly Heat	—	—	—	—	—	
Ulcers	—	46	—	46	1	
Injuries—General	—	7	2	7	—	
Local	—	43	—	43	1	
Surgical Operations	—	[43]	—	[43]	—	Recorded under respect- ive diseases.
Tumours	—	2	—	2	—	
Malformations	—	—	—	—	—	
Poisons	—	—	—	—	—	
Parasites—Animal	—	4	—	4	—	
Protozoa	—	—	—	—	—	
Trematoda (Flukes)	—	—	—	—	—	
Cestoda—						
Tænia Solium	—	—	—	—	—	
Tænia Saginata	—	—	—	—	—	
Nematoda—						
Ascaris	—	—	—	—	—	
Tricocephalus Dispar.	—	—	—	—	—	
Trichina	—	—	—	—	—	
Dracunculus	—	—	—	—	—	
Filariasis	—	—	—	—	—	
Strongylus	—	—	—	—	—	
Ankylostomiasis	—	—	—	—	—	
Oxyuris	—	—	—	—	—	
Insecta—						
Myiasis	—	—	—	—	—	
No Appreciable Disease	—	3	—	3	—	
Total	2	588	45	590	8	

TABLE VIA.

THE PRISON INFIRMARY.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1911.

Diseases.	Remain- ing in Hospital at end of 1910.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	Remarks.
		Ad- missions	Deaths.			
Anæmia	—	2	—	2	—	
Debility	—	3	—	3	—	
Rheumatism	—	1	—	1	—	
Diarrhœa	—	2	—	2	—	
Total	—	8	—	8	—	

TABLE VIb.
McCARTHY ISLAND DISPENSARY.
RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1911.

Diseases.	Remain- ing in Hospital at end of 1910.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	Remarks.
		Ad- missions	Deaths.			
Debility	—	2	—	2	—	
Gonorrhœa	—	2	—	2	—	
Intermittent Fever	—	4	—	4	—	
Rheumatism	—	6	—	6	—	
Syphilis	—	2	—	2	—	
Meningitis	—	1	1	1	—	
Bronchitis	—	8	—	8	—	
Pneumonia	—	2	1	2	—	
Dyspepsia	—	5	—	5	—	
Stricture of urethra	—	1	—	1	—	
Synovitis	—	1	—	1	—	
Cellulitis	—	1	—	1	—	
Abscess... ..	—	2	—	2	—	
Ulcer	—	5	—	5	—	
Wounds, Incised	—	2	—	2	—	
Wounds, Contused	—	10	—	10	—	
Total	—	54	2	54	—	

TABLE VII.
VICTORIA HOSPITAL, BATHURST.
RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1911.

Diseases.					Male.	Female.
Malarial Fever					190	104
Measles					2	—
Dysentery					—	1
Gonorrhœa					44	—
Parasitic Disease					263	231
Rheumatism					390	283
Anemia					12	17
Leprosy					4	—
Marasmus					4	1
Debility					28	18
Syphilis					7	3
Diseases of the Nervous System					83	45
" " Eye					208	135
" " Ear					73	28
" " Nose					39	14
" " Circulatory System					4	3
" " Respiratory "					731	502
" " Digestive "					1,287	870
" " Lymphatic "					16	7
" " Urinary "					18	13
" " Generative "					27	21
Affections connected with Pregnancy					—	19
Diseases of the Female Breast					—	9
" " Organs of Locomotion					12	6
" " Connective Tissues... ..					69	109
" " Cellular Tissues					19	10
" " Skin					600	196
Injuries					341	122
No appreciable disease					11	6
Total					4,482	2,773

TABLE VIIA.

THE PRISON DISPENSARY.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1911.

Diseases.	Male.	Female.
Malarial Fever—Intermittent	5	—
Gonorrhœa	4	—
Rheumatism	7	—
Anæmia	1	—
Debility	2	—
Syphilis	1	—
Diseases of the Nervous System	3	—
" " Respiratory System	1	—
" " Digestive "	31	—
" " Urinary "	4	—
" " Generative "	1	—
" " Connective Tissue	1	—
" " Skin	19	—
Injuries	7	—
No appreciable Disease	1	—
Total	88	—

TABLE VII B.

McCARTHY ISLAND DISPENSARY.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1911.

Diseases.	Male.	Female.
Malarial Fever—Intermittent	50	20
Measles... ..	1	—
Dysentery	2	—
Sleeping Sickness	1	—
Gonorrhœa	26	1
Parasitic Disease	10	6
Rheumatism	82	40
Marasmus	—	2
Debility	18	6
Syphilis... ..	20	12
Elephantiasis	1	—
Diseases of the Nervous System	2	—
" " Eye	21	16
" " Ear	17	6
" " Nose	3	1
" " Circulatory System	3	—
" " Respiratory "	68	42
" " Digestive "	232	104
" " Lymphatic "	13	1
" " Urinary "	6	3
" " Generative "	3	3
Affections connected with pregnancy	—	14
" " " parturition	—	3
Diseases of the Connective Tissue	4	—
" " Cellular "	3	—
" " Skin	92	46
Injuries... ..	99	24
Total	777	350

BATHURST,

9th May, 1912.

HON. SENIOR MEDICAL OFFICER.

Sir,

I have the honour to submit a Sub-Report on McCarthy Island Hospital and Dispensary.

During the early months of 1911 there was no Medical Officer at McCarthy, but patients were attended by a Native Dispenser.

Towards the end of May a Medical Officer was sent up, but, owing to the outbreak of yellow fever at Bathurst, was recalled in a week. This week, however, gave opportunity to form an idea of the requirements of the station, as there was no provision for storage of rain-water, no kitchen, inadequate mosquito-proofing and very scanty surgical equipment.

During the rains, for five months, the Hospital was kept open under the Dispenser's charge, who dealt with thirty-four in-patients, sending some of the worst cases to Bathurst. A large rain-tank was erected in August in time to collect the later rains.

The Medical Officer returned on the 23rd October. There being no private quarters he stayed in Government House, which is used as a rest house.

During November and December a Hospital kitchen was erected, but no additional mosquito-proofing was done.

The Local Chiefs and Head-men were, as occasion offered, shown over the Hospital and its advantages were pointed out, and in course of time they sent in many cases from the outlying parts of the Protectorate.

Sanitary conditions in McCarthy leave considerable room for improvement.

The inadequate sum of twenty-five pounds per annum only has been provided for cleaning streets, cutting grass, and cleaning bush along river front.

At least two latrines should be built near the yards of the ground-nut firms as there hundreds of labourers have no sanitary conveniences whatsoever.

The general health of the community was good, there was one imported case of small-pox in May, but there was no epidemic.

I have the honour to be,

Sir,

Your obedient servant,

(Signed) ALEX. F. KENNEDY,

Medical Officer.

REPORT ON THE OUTBREAK OF YELLOW FEVER IN BATHURST, GAMBIA, MAY, 1911.

On the 18th inst. a Corporal and Sapper of the R.E. fell sick rather suddenly, complaining of fever, headache, pains in the legs and biliousness. They were well the previous day, in fact one of them was playing football on the 17th inst. and said he then felt quite well.

They were put to bed and attended to carefully. On the same day a clerk, Mr. B—d—, in the Bathurst Trading Co., who was also playing football the previous day, fell ill, with exactly the same symptoms, and all three were admitted to Hospital on the morning of the 19th inst. with temps. varying between 103 Fah. and 104 Fah.

On the 20th inst. the Governor's valet went down in the evening with a bad headache and high fever, and another clerk in the B. T. Co., Mr. A—n—, also complained of not feeling well and was found with temp. of 104 Fah.

Blood examinations were made, but with negative results except in the case of one of the Engineers whose blood exhibited benign tertian parasites on the 19th inst. Quinine had been administered rather freely, but without any appreciable effect on the temperatures of any of the patients, and on the 21st the vomit of two of the patients became suspiciously dark, and then yellow fever began to suggest itself as the cause of the sudden outbreak.

All the patients had been carefully screened from the moment they began to feel ill and other occupants in the Barracks and B. T. C. had been particularly warned to shield themselves, as it was evident there were infected mosquitoes about.

On the 22nd the Corporal died; a post-mortem examination revealed a very inflamed mucous surface of the stomach, a fatty liver and an enlarged heart. The contents of the stomach and intestines were black and typical of the disease. The following day the Sapper died, and the second post-mortem left no doubt whatever that we were dealing with cases of yellow fever.

As a result of the suspected nature of the disease on the 21st inst., I notified His Excellency, as it was deemed necessary to take precautions in case of an outbreak.

The quarters occupied by the Engineers and the room beneath were carefully closed to prevent all mosquitoes from escaping, with the view of destroying them later, and extra precautions were taken to prevent the two patients outside the Hospital from being bitten. Mosquitoes in the neighbourhood of the latter, and at other places, were searched for and killed.

Europeans living in the neighbourhood were examined twice daily for any suspicious symptoms.

Enquiries were made to trace the origin of the outbreak, and it is interesting to note that all five patients were friends and often together in the Engineers quarters.

Underneath the Engineers quarters on the ground floor is a large room in which soda water is manufactured and in which the Band practises daily.

This of course entails the presence of many natives in the place, and on the 8th of May a Frontier soldier in charge of the soda-water machine was brought to the Hospital complaining of yellow fever; the symptom that suggested such a diagnosis to him was that he urinated blood. He was detained in the mosquito-proof ward and examined. His temp. was 99 Fah. and his tongue was clean—sclerae quite clear. The urine was saved and examined, but beyond being slightly deeper in colour than usual it was normal. The patient was given two ounces of castor oil and put on a diaphoretic mixture. He was detained in Hospital until the 13th—5 days—and discharged for duty. With our present knowledge of natives suffering from mild forms of yellow fever, at only little inconvenience to themselves, it seems probable that this man whilst employed at the soda-water machine infected some stegomyia, which are always to be found in dark ground floor rooms—in fact almost anywhere in Bathurst—and that these in turn found their way to the room above in which the Engineers lived, with the result that two out of the three caught the disease, and that their friends who were often in the building became infected from the same source.

One Engineer Sergeant living on the same floor as the other two, and three European non-commissioned officers living on the floor above, did not contract the disease, and this may partly be accounted for by the fact that none of them associated with the two who fell sick to any great extent and seldom themselves entertained friends. I am inclined to think that

this explains the probable cause of the outbreak, as the dates of incubation fit in so well, but it is a little surprising that out of 55 Syrians in the town all were found to be in good health, as they come in contact with the natives and are by no means protected from mosquitoes.

It is possible that there may be another explanation of the outbreak.

The S.S. Akassa from the Coast was lying off Government wharf on the 13th and 14th of May and four at least of those that had yellow fever went on board and remained on the ship for some hours.

Did the ship bring any infected *stegomyia* from some place down the coast? The ship's surgeon gave a certificate that there was no contagious disease on board, but report says that a man died before the ship reached Dakar. Whether this report has any foundation or not I am unable to say at present.

After the post-mortem examinations had confirmed the diagnosis of yellow fever, I considered it necessary to take all the precautions possible. With the assistance of the Officer in Command of the Frontier Force, I got together four mosquito brigades to catch and kill mosquitoes in and about European quarters.

The Acting Superintendent of Police very kindly made a list of all Syrians and Levantines, so that they could be examined at once and afterwards daily by a Medical Officer. The Town Warden was engaged with a special gang examining European premises and contiguous native compounds for larvæ, and making a clean sweep of all receptacles capable of becoming breeding places for mosquitoes.

The Colonial Engineer examined all mosquito-proof houses and shelters and remedied all defects without delay and erected new ones where required. The Frontier Barracks were vacated—the European non-commissioned officers were isolated at a house at Cape St. Mary and watched.

The quarters occupied by the sick were all sealed carefully and fumigated with sulphur. They are being kept sealed for further attention later on.

His Excellency went to Government House at Cape St. Mary, as his valet contracted the disease and died in a wing of Government House.

The whole of Government House has been sealed from top to bottom and thoroughly fumigated.

The two Medical Officers in the Protectorate have been brought to Bathurst. One is at the Cape looking after His Excellency, who is unwell, and the other is devoting his whole time to sanitary inspection work. I myself visit the European firms daily, and have persuaded the Agents to tell off a European clerk each to maintain their respective premises in a sanitary condition.

Ships anchor 1,000 yards from the shore, and no direct communication is allowed; all cutters and boats going alongside are examined for mosquitoes and fumigated; the labourers and others employed are also examined by a Medical Officer. No cargo or passengers are taken on board.

I have advised his Excellency to send home all officers that can possibly be spared. The Agents of European firms have already carried out my wishes in this respect or are about to do so.

The sealing up of the Barracks and Government House has been a tremendous task, but they have been done under the supervision of the Town Warden and myself, with the aid of 40 Frontier soldiers, kindly lent for the purpose by Captain Dobbin, and the Board of Health staff. Even now, although over two hundred weight of sulphur has been burnt in these buildings within 7 days of the outbreak of yellow fever, I do not recommend that they should be inhabited by Europeans for at least three months.

The closest watch is being kept on all Europeans and Syrians, and at the slightest sign of illness they will be carefully attended to, but so long as Europeans live in quarters close to natives an outbreak of yellow fever is always liable to recur. The enforcement of the new Public Health Ordinance will undoubtedly improve matters, especially if it is amended to make the presence of larvæ a punishable offence, but to eliminate mosquitoes absolutely from a town like Bathurst is quite a hopeless task, and when Europeans are segregated in a proper manner on a suitable site, outbreaks of yellow fever in the Gambia will not recur.

(Signed) T. HOOD,

Senior Medical Officer.

31st May, 1911.

HON. COLONIAL SECRETARY.

In continuation of my report on the 31st May of the outbreak of yellow fever in Bathurst this year, I regret having to record a recrudescence of the disease after an interval of forty-two days of apparent freedom.

Mr. Doig, the Acting Master of Government vessels, reported that he felt unwell on the evening of July 6th, and he was at once removed to the screened European ward; typical symptoms of yellow fever were noticeable the following day, and the patient died on July 13th. Owing to the shortage of European quarters in Bathurst the Government was compelled to hire the only house procurable to accommodate Mr. Doig, and unfortunately this house was next to houses occupied by Syrians and Natives. Although Mr. Doig's quarters were sealed and fumigated at once, a Syrian in the next house developed yellow fever during the following days and was transferred to Hospital on the 10th July and died on the 12th.

The third case of this series occurred in Russell Street, on July 15th, some 500 yards away. A Syrian developed a mild attack and recovered.

The fourth case was that of a European clerk, who lived in a house 100 yards from that occupied by Mr. Doig, but separated by many small houses inhabited by Syrians, Natives and Moroccans. The same precautions were taken as before, but the patient died in Hospital on the fourth day, after exhibiting most marked symptoms of the disease.

The fifth case was that of a Roman Catholic Brother, who lived in the middle of the town. This patient cycled to a Mission Station some ten miles away on the 17th July, not feeling very well. He died, undoubtedly of yellow fever, on July 23rd.

The sixth was a European clerk in the same firm as the fourth case, and was the only patient that was concealed during the outbreak. When discovered, the patient was well screened, but suffering from typical symptoms. The intention was to take this patient on to a steamer before discovery, but unfortunately he died in Hospital the following day, just as the steamer left Bathurst.

The seventh case proved fatal in a Syrian who was taken ill on July 20th. This patient had only arrived in the Colony a few days previously and he had occupied a room in close proximity to case three of this series.

The eighth and last case was the Cashier of the Bank, who lived in Buckle Street. He was taken ill on August 2nd. Although the symptoms were mild, it was undoubtedly a case of yellow fever and the patient recovered.

Thirty-eight days have elapsed since the last case of yellow fever occurred, and I hope this terminates the epidemic.

In looking up the records of the last epidemic of yellow fever in Bathurst that occurred in 1900, I find that there were eleven cases amongst Europeans and Syrians, extending from May 23rd to October 30th, and that the death rate was about the same and that all the cases occurred in the front street, except one, which was at the Catholic Mission.

The similarity of the 1900 and 1911 outbreaks is most marked, and tends to support the view that the disease is probably brought by ships calling at this port. When the disease is once established the wisest course to pursue is for all non-immunes to at once live elsewhere for at least three or four months. The construction of the houses and their close proximity in the commercial parts of the town render efficient fumigation absolutely impracticable.

The greater number of the houses in Wellington Street join up and have no intervening spaces, and most of them possess dark stores or cellars on the ground floor. Building regulations have been a dead letter and vested rights are now so enormous that it is almost hopeless to rectify this evil.

Not only are the houses unsuitable for European dwellings, but the formation of the Island and the close proximity of native dwellings are a danger that is only possible to be overcome by segregation. Government quarters on the Clarkson Street side of McCarthy Square should be abandoned as such, and all those in Portuguese Town should be isolated by expropriating all natives living between Clifton Road and the River. Should a cantonment be built in the direction of Cape St. Mary for Government Officials, many of the present

quarters on the River front in Portuguese Town might be let to the Merchants, who would never be induced to live any great distance from their stores. To deal with the Syrians and other non-immunes is more difficult, as they thrive in direct contact with the Natives and—short of prohibiting their presence in the Town—I am convinced nothing much can be done to prevent them contracting insect-borne disease. At the least, strict immigration laws like those enforced by the French Government on the West Coast should deter them from coming here in such comparatively large numbers.

I attach hereto a plan of Bathurst showing the position of European and Syrian dwellings—also a complete return of the cases of Yellow Fever that have occurred since May 18th, and before closing the report I beg to draw His Excellency's attention to the great assistance I have received from the Medical Officers and the entire Medical and Sanitary Staffs during this trying period. The Sisters and Native Nurses performed their arduous duties, whilst attending to these distressing cases, in a most praiseworthy manner, and the three survivors undoubtedly owe their lives to the careful and watchful nursing they received.

I am also indebted to all the Government Officials for the cheerful way they conducted themselves at a very depressing time, and for the assistance they rendered on various occasions.

(Signed) T. HOOD.

BATHURST,

8th September, 1911.

YELLOW FEVER CASE IN BATHURST.

Mr. Marcelle Huart, of Maurel Freres, Wellington Street, Bathurst, was taken ill on Friday, 10th of November. I saw him on the 11th November, when I was sent for by the Agent of the Company.

His temperature was 103° , no headache, but continuous vomiting. The vomit did not contain any blood or black matter.

As the patient had exposed himself to a very hot sun for an hour and a-half without a helmet, I thought the condition was probably due to sun fever.

During the night he vomited a little pure blood and very suspicious-looking coffee ground like material.

On the morning of the 12th he was admitted into the hospital.

Temperature	102.4°
Pulse	80

Continuous vomiting of coffee ground material and also some large black flakes.

A blue pill was administered and retained, and a dose of White Mixture also retained.

Bowels opened five times.

Case was reported as very suspicious of Yellow Fever.

Vomiting was now continuous, not even a few drops of iced water being retained.

Tr. Iod. m. 3 acid carbolie pur m. 2 Aq. Chlor. oz. 1 was administered and retained.

Urine 30 ozs. passed.

S. G. 1020 alkaline.

Small quantity of albumen.

The vomit, which was like "coffee-ground," was also alkaline.

13th.—The temperature fell to 101° , pulse 60, but rose again to 102° , pulse 72.

Benger's Food and strong chicken broth were administered per rectum and retained.

Saline injections were also administered and they seemed to relieve the patient.

The fæces at first were very black, but changed to a bilious colour.

Nothing abnormal found in the blood.

The vomiting still continued, and sometimes contained a little pure blood, but as a rule was "coffee-ground."

The patient had not slept for three days, so a hypodermic of morphia was given and the patient slept for twelve hours and had no vomiting.

14th.—Vomiting again returned, and the patient could not even retain a small quantity of iced water.

A mixture of Bismuth Carb. gr. x., Sodæ Bicarb. gr. x., acid hydrocyanic dil. M.V. aq. chlor. 1 oz. was tried and the first dose retained, but it seemed to do very little good, as the vomiting soon returned.

During the whole time nutrient enemata were given and retained.

Urine 23 ozs.	Morning—
S. G. 1020.	Temp. 99.8°
Albumen increased.	Pulse 80
Alkaline.	Evening—
	Temp. 101°
	Pulse 88.

15th.—The condition still remained the same, but the vomit became more bilious.

Urine 26 ozs.
S. G. 1020.
Albumen much increased.

16th.—Morning—	15th.—Morning—
Temp. 98·8°	Temp. 98·6°
Pulse 72	Pulse 60
Evening—	Evening—
Temp. 100·4°	Temp. 100·8°
Pulse 88	Pulse 60

Severe vomiting during the night of "coffee-ground," nutrient and saline enemata given.

Urine 20 ozs.
S. G. 1020.
Albuminous.
Alkaline.

17th.—Very severe vomiting in the morning of "coffee-ground," which were still alkaline.

At 9 a.m. hypodermic of morphia given.

The patient slept during the day and retained nutrient enemata.

He did not vomit again until 8 p.m., when his condition became very serious, the pulse being very rapid and compressible.

A hypodermic of strychnine was given, but the patient gradually sank, and died about midnight.

Urine, passed 28 ozs.

Alkaline and albuminous.

Morning—	Evening—
Temp. 97·8°	Temp. 100°
Pulse 96	Pulse 100

This has been a very peculiar case, as though there was continuous vomiting of "coffee-ground," it was always alkaline, as was also the urine, which contained albumen, from the first.

HISTORY.

The patient, a male, age 26 years, returned from France a month ago after leave of absence, having done two years' service in the Colony before. While in France he had stomach trouble. (Nine days before his last illness he had a bad vomiting attack, but was not seen by a medical man. Just before his last illness he was in the powerful sun without a helmet for an hour and a-half.)

POST-MORTEM EXAMINATION.

Liver, weight 3 lbs. Nearly all fatty and light yellow with only small islands of liver tissue remaining.

Stomach contained a large quantity of "coffee-ground."

Kidneys, weight 7 ozs., congested.

Spleen, weight 7 ozs., congested.

Heart, very anæmic and fatty; other organs normal.

A definite diagnosis of yellow fever was only arrived at after the post-mortem.

(Signed) E. H. READ,

Senior Medical Officer.

19th November, 1911.