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ZANZIBAR

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Foreign

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Name

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10485Report on Zanzibar
1909 & 1910Send copy. also attached to page 276
of Mallopa epidemicS. Horn to see memorial volume of
Report - a part by

to see

S. V. R.

9/11

See 10/11

In any further communication
to this office, please quote

20964/11.

and address:
The Under-Secretary of State,
Foreign Office,
London.

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Foreign Office
June 8 . 1911.

Sir:-

I am directed by Secretary Sir E. Grey to transmit to you, herewith, to be laid before the Secretary of State for the Colonies, a copy of an annual report on Sanitar for the years 1909 and 1910.

I am to draw your attention with reference to your letter 38215 of December 30th last to page 274 of this document which contains information regarding the outbreak of smallpox in the Protectorate.

I am,

Sir,

Your most obedient,

Humble Servant,

W. Langley

Under Secretary of State,
Colonial Office.

Confidential



360



ZANZIBAR GOVERNMENT.

ANNUAL REPORTS

FOR

1909 & 1910.

[Enclosure in Mr. Clarke's despatch No. 69, Confidential, of February 18, 1911.]

ANNUAL REPORTS FOR 1909.

ANNUAL REPORTS FOR 1900.

(3)

Report from the Treasurer.

The estimates provided for are—

Revenue of	100,000
and appropriation of	100,000
by a deficit of	45,700

which it was proposed to meet by the sale of invested funds to the extent of 15,000, and the balance 30,700, out of the surplus carried forward from the previous year.

The actual results have been—

Revenue	90,000
Expenditure	100,000
Leaving a surplus of	10,000

The actual revenue was therefore 10,000 better than the estimate, and the expenditure 10,000 less. It was not found necessary to realize any invested funds to the extent of 15,000 as the work for which the money was specially authorized—the extension of the water works—was not carried out. The result of the year's operations, however, was a surplus of 10,000, which added to the surplus brought forward from the previous year 45,700, makes a sum of 55,700 available for 1901. The balance would have been reduced by 15,700 had certain public works in course of execution, and costing 2,000, been completed before the close of the year, and had the balance of the sum of 5,000 not made for the settlement of the late Sir J. Mansel's estate been realized. These payments have been reported for the current year.

Included in the balance carried forward to 1901 is the sum of 17,000, 400,000 paid for the liquidation of His Highness's debts, which will be repaid from capital account, and also a sum of 20,000, set out as above page 48 interest which is not available for expenditure.

The corresponding figures for 1900 were—

Revenue	100,000
Expenditure	100,000

The revenue for 1900 was therefore 20,000 in excess of that of 1904, and the expenditure 20,000 less.

The increased revenue was earned principally in the Agricultural Department and the Customs House, and was entirely due to the increase of the 1900 duty on opium, the larger portion of which did not come into the market until the early part of 1900.

The revenue from the sale of duty grown and opium, grown on Government plantations, amounted together to 22,000, or 45 per cent. of the total revenue. The fact that such a large proportion of the revenue being derived from one source, and that source absolutely dependent on climatic influences, renders it imperative that a substantial balance be always carried forward from year to year to be readily available in case of emergency.

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Increases of actual, as compared with estimated revenue, occurred in Agricultural Customs (clove duty), Gazette, Post Office, and Water Supply Departments, and decreases are recorded in Customs (import duties), Fees of Court, Ground Rents, Island Revenue, Interest, Miscellaneous, Port Service, Registration, Rents of Crown Property, Sanitary, Shipping, and Veterinary Departments. A close examination of these returns shows that the decreases are so general, and are spread over such a large number of sub-heads, as to point to the indication that the population of the Protectorate is in the decline. Apart from the yield of the clove duties, which must necessarily always be an uncertain one, I see no prospect of any expansion in other heads of revenue, and it is therefore only in the direction of rigid economy that we can hope to find the necessary funds to carry out the many desirable public works now awaiting execution.

Agricultural Department.—The actual receipts from this department were £1,641 and the expenditure 8,841L, leaving a realised surplus of £7,200. As compared with the estimates, the actual receipts were 4,146L more, and the expenditure less 3,777L. The increased revenue was due, chiefly to the better sales of cloves, and amounted to 3,777L of the total accounts showed an increase of 900L based on the 1908 rubber sales, 2,231L; and Yandi's decrease of 142L, the cultivation of the one mentioned product being practically discontinued, owing to the difficulty and expense of obtaining the necessary skilled labour for its production.

Customs Department.—The revenue from this source showed an increase of 117,500L. The actual receipts being 127,968L, against an estimated amount of 117,500L. The increased revenue was entirely due to the increase of the clove duty, which was forwarded in the early part of 1909. The estimated receipts from the sale of clove duty were 60,000L, the actual receipts were 79,876L, a surplus of 17,876L.

The receipts from import duties were over-estimated, and again show a further decline. It was estimated we should receive from this source the sum of 1,410L, whilst the actual receipts have been 38,265L, a deficiency of 1,268L.

The comparative figures of actual receipts for the last three years are

Year	Actual Receipts
1907	1,130,000
1908	1,247,500
1909	1,365,000

The duties were raised from 1 per cent to 1 1/2 per cent, on the 1st January, 1909. The yield is now only a little more than it was before the above-mentioned increase of force and the probabilities are that during the current year it will be less.

Fees of Court, Fines &c.—The returns from this department show a decrease of 318L, of which 266L is due to the retention of the Registrar's Majesty's court of the late year in that court, and 190L to a reduced yield from transportation and other duties.

The former item is not one of any importance, as it has been decided by His Majesty's Government to charge the Zanzibar Government for the cost of the actual expenditure of the previous year, instead of being the contribution to the estimated cost of salaries and wages as previously. The receipts from court fees and fines show a small increase due to the appointment of additional magistrates in Zanzibar and Pemba.

Ground Rents.—The net receipts from this source, formerly known as the land tax, are 815L only, against an estimated net revenue of 1,071L. The sum of 256L was allowed in the estimates for refunds to clove growers, the actual payments amounted to 916L. The gross takings in both islands were 1,230L only, the following comparative figures will show how the collections have decreased during the past four years:

Year	Net Receipts
1906	1,230
1907	1,231
1908	1,232
1909	1,233

Inland Revenue Department.—The actual receipts from all sources were 4,811L, against an estimated revenue of 5,573L, a decrease of 762L, the chief contributors in Zanzibar Island to this decrease being: Markets, 215L; Town Ngoma fees, 100L; Tembo and Ngoma fees from country districts, 500L; and in Pemba, Town fees, 70L and Ngoma fees, 66L, whilst small increases are shown in slaughter house fees and liquor licences. For comparative purposes I give you the actual receipts for 1909 under each sub-head, and the actual receipts for 1908. The market dues in the country districts were abolished as from the 1st January, 1909.

	Actual Receipts 1908	Actual Receipts 1909
Markets	215	5
Tembo fees	500	572
Ngoma fees	66	147
Other receipts	204	73
Ngoma fees	140	27
Liquor licences	200	90
Transportation	100	100
Market dues and ground rents	1	0
Total	1,230	1,233

Interest on Investments.—The receipts from this source show a slight increase, owing to the retention of our floating business in London, which is a benefit to the local market and to the State.

Shipping Department.—Under this heading the receipts were 1,000L, against an estimated one of 1,000L, the receipts being 1,000L, owing to the inability to find a purchaser for steam ship "Kilwa," which was purchased for 1,000L.

Post Office Department.—The estimated receipts for the date of 1909 were 2,114L, and the actual receipts were 2,114L, the actual decrease of 164L, owing to the miscellaneous receipts from light and harbour dues.

As compared with 1908, the light and harbour dues show a decrease of 164L, due to an increased number of steamers visiting the port.

Public Works Department.—The receipts from this department show a decrease of 1,000L, owing to the actual receipts being 1,000L, against an estimated one of 2,000L, the actual receipts being 1,000L, owing to the decrease in the number of steamers visiting the port.

Engineering Department.—The receipts from this department were 2,114L, the actual receipts being 2,114L, being a decrease of 430L. The principal items during the year are: Zanzibar dues, 173L; and Pemba dues, 173L; and other receipts, 168L. For comparative purposes I append the actual receipts for 1908 under each sub-head.

	Actual Receipts 1908	Actual Receipts 1909
Zanzibar		
Engineering	173	173
Navigation	1,141	1,012
Administration of Harbours	100	100
Light	100	100
Other receipts	100	100
Pemba		
Engineering	173	173

General.—I have on previous occasions directed your attention to the recurring expenditure of this Protectorate, which grows larger every year, and to the dangers lying ahead of us if it is allowed to continue. I wish to again emphasize this point, as a comparison of last year's returns with those of the preceding one, show, that in almost every Department there is a further increase with a Revenue that is either stationary, and in some respects actually on the decline, the burden must in course of time become a greater one than our resources can bear.

A comprehensive statement showing the actual Revenue and Expenditure for the past 5 years is appended, together with a statement of Assets and Liabilities as at 31st December, 1909, a Ledger Balance sheet as at the same date, I enclose showing the amount of the loan due to the Protectorate by the Government of British E. A. P., a statement showing the amount of the loan due by the Protectorate, a statement showing the amounts yet raised and credited as a Saving Fund for the ultimate extinction of the loan, and a statement of the Assets and Liabilities and Balance Sheet of the Company-Debenture at the 31st December, 1909.

The balance in hand consists of—

Cash in Zanzibar and Pemba	26,248
Ditto in London with Crown and London Agents	1,734
Loans on Mortgages, Miscellaneous Advances and Deposits	11,867
Total	40,849

JAS. CUMBERT BATES, Treasurer.

Statement of the Revenue and Expenditure for the Year 1910

Particulars	Amount Estimated	Actual	Excess	Deficiency	Balance
Balance of 31st January 1910	£ 1,183 7 6				
Administration	12,075	12,075			
Education	117,280	117,280			
Public Works	6,100	6,100			
Police	4,000	4,000			
Public Health	1,000	1,000			
Sanitation	1,000	1,000			
Water Supply	1,000	1,000			
Other Miscellaneous Expenditure	1,000	1,000			
Land Revenue	1,000	1,000			
Income Tax	1,000	1,000			
Income from Government Property	1,000	1,000			
Income from Crown Property	1,000	1,000			
Income from British E. A. P.	1,000	1,000			
Income from Mortgages	1,000	1,000			
Income from Telegraph	1,000	1,000			
Income from Water Supply	1,000	1,000			
Total Revenue	150,587	204,807 12 3	54,220 40 6	6,982 10 9	

Particulars	Amount Estimated	Actual	Excess	Deficiency
Administration	12,075	12,075		
Education	117,280	117,280		
Public Works	6,100	6,100		
Police	4,000	4,000		
Public Health	1,000	1,000		
Sanitation	1,000	1,000		
Water Supply	1,000	1,000		
Other Miscellaneous Expenditure	1,000	1,000		
Land Revenue	1,000	1,000		
Income Tax	1,000	1,000		
Income from Government Property	1,000	1,000		
Income from Crown Property	1,000	1,000		
Income from British E. A. P.	1,000	1,000		
Income from Mortgages	1,000	1,000		
Income from Telegraph	1,000	1,000		
Income from Water Supply	1,000	1,000		
Total Expenditure	241,065	185,014 23 6	56,050 42 0	

A SUMMARY of the Revenue and Expenditure for the Year 1909—continued

Receipts	Amount Estimated	Actual Receipts	More than Estimated	Less than Estimated	Payments	Amount Estimated	Actual Payments	More than Estimated	Less than Estimated
Dividends	3,745 17 4	3,745 17 4			Money Orders	688 4 0	688 4 0		
Deposits	86,818 17 10	7,200 5 4			Deposits repaid	2,707 13 7	2,707 13 7		
Loans on Mortgage repaid	1,200 0 0	62,306 5 5			Loans on Mortgage	6 11 3	6 11 3		
Manufacturers Advances	500 0 0	1,504 13 0		100 0 0	Manufacturers Advances	60,766 14 4	60,766 14 4		
Quarterly Station	2,207 0 0	10,870 9 8		862 0 0	Quarterly Station	1,130 2 3	1,130 2 3		
Wages	1,000 0 0	10,870 9 8		980 0 0	Wages	4,235 0 0	4,235 0 0		
General Post Office, London	100 0 0	130,081 14 10			General Post Office, London	180,760 0 4	180,760 0 4		
Trade and Miscellaneous	100 0 0	130,081 14 10			Trade and Miscellaneous	496,853 3 11	496,853 3 11		
Unwarranted Funds retained	100 0 0	130,081 14 10			Unwarranted Funds retained	71,320 8 8	71,320 8 8		
Total Receipts	114,121 17 4	477,490 5 4			Total Payments	841,077 13 1	841,077 13 1		
Grants from the Government	100 0 0	100 0 0			Grants from the Government	100 0 0	100 0 0		
British Savings	100 0 0	100 0 0			British Savings	100 0 0	100 0 0		
					Actual Expenditure	100 0 0	100 0 0		

JAS. CORBETT DAVIS, Treasurer

Ledger Balance Sheet as at 31st December, 1909.

	£	s	d		£	s	d
Revenue Account	74,263	12	3	Expensary Account	198,014	12	4
Deposits	4,873	21	4	Loans on Mortgage	4,572	18	10
General Post Office, London	60	11	0	Advances	27,480	21	1
				Quarterly Station	3,131	6	5
				Arrears at close	236,901	19	9
Total	84,806	54	7	Total	494,904	13	6

London, 29th April, 1910

JAS. CORBETT DAVIS, Treasurer

STATEMENT of Assets and Liabilities as at 31st December, 1909

Liabilities	£	s	d	Assets	£	s	d
Deposits	4,873	21	4	Loans on Mortgage	4,572	18	10
Account from Office, London	60	11	0	Advances	27,480	21	1
				Quarterly Station	3,131	6	5
				Arrears at close (Balance sheet)	236,901	19	9
				Grants	22,630	12	10
				Profits	4,806	11	10
Balance of Assets	80,804	1	1	Grants Agency	73	10	11
Liabilities	80,804	1	1	London Agency	70	7	1
				Total	494,904	13	6

STATEMENT of Losses due by the British East Africa Protectorate

to the B.S.A.F.

1909

London, 29th April, 1910

JAS. CORBETT DAVIS, Treasurer

Statement of Investments on 31st December, 1909

Security Funds

Investments of Stock	£	s	d	Balance at Close	£	s	d
Investment by per cent	80,000	0	0	80,000	0	0	0
Monthly Contributions by per cent	200,000	0	0	200,000	0	0	0
Monthly Receipts by per cent	10,000	0	0	10,000	0	0	0
Monthly Receipts by per cent	1,000	0	0	1,000	0	0	0
Capital Contributions by per cent	10,000	0	0	10,000	0	0	0
				Total	494,904	13	6

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STATEMENT of Loan from H.B.M.'s Government.

	£	s.	d.		£	s.	d.
Loan from H.B.M.'s Govern- ments.....	100,000	0	0	Invested in Sinking Fund (Statement attached)	21,212	12	0
				Balance outstanding	78,787	8	0
Total	100,000	0	0	Total	100,000	0	0

JAS. CORRETT DAVIS, Treasurer.

Zanzibar, 29th April, 1910.

ACCOUNT Sinking Fund for the redemption of the Loan of £100,000.

Description of Stock	Amount of Stock	Interest	Value
Gold Coast 3 per cent	100,000	3,000	100,000
Trinidad 4 per cent	100,000	4,000	100,000
Sierra Leone 3 1/2 per cent	100,000	3,750	100,000
South Nigeria 3 1/2 per cent	100,000	3,750	100,000
Straits Settlements 3 per cent	100,000	3,000	100,000
Total	500,000	17,500	500,000

Current Account

Description of Stock	Amount of Stock	Interest	Value
Transvaal 3 per cent Government Stock	100,000	3,000	100,000
India Government 7 1/2 per cent Paper Loans	100,000	7,500	100,000
Total	200,000	10,500	200,000

Balance Sheet of the Currency Board at the close of 1909 and 1910

To	£	s.	d.	By	£	s.	d.
Depreciation Fund acc- ruing for 1909	24	4	0	Balance forward	24	4	0
Depreciation Fund acc- ruing for 1910	24	4	0	General Expenses	24	4	0
Profit transferred to Gov- ernment Revenue	21	6	0	Profit transferred to Gov- ernment Revenue	21	6	0
Total	70	14	0	Total	70	14	0

JAS. CORRETT DAVIS, Treasurer.

Zanzibar 29th April, 1910.

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STATEMENT of Assets and Liabilities of the Currency Board as at the 31st December

Liabilities	£	s.	d.	Assets	£	s.	d.
Reserve in Circulation	10,000	12	0	Silver Coin Reserve	30,000	0	0
Depreciation Fund	200	14	0	Invested Portion of Depreciation Fund (Depreciation Fund)	1,000	0	0
Total	10,200	26	0	Total	31,000	0	0

Zanzibar 29th April, 1910.

JAS. CORRETT DAVIS, Treasurer.

Report from the Attorney General

I have the honor to acknowledge the receipt of your letter of the 21st inst. and in reply to inform you that the same has been forwarded to the relevant authorities for their consideration.

I have also the honor to acknowledge the receipt of your letter of the 21st inst. and in reply to inform you that the same has been forwarded to the relevant authorities for their consideration.

I have also the honor to acknowledge the receipt of your letter of the 21st inst. and in reply to inform you that the same has been forwarded to the relevant authorities for their consideration.

Loans and Agreements.—The Government have been advised by the number of loans and agreements which have been entered into in the past few years. It is noted that the Government have been advised by the number of loans and agreements which have been entered into in the past few years.

In these cases the Government have been advised by the number of loans and agreements which have been entered into in the past few years.

Large Expenditure.—There has been a considerable amount of work in dealing with the expenditure of the Government. It is noted that the Government have been advised by the number of loans and agreements which have been entered into in the past few years.

Expenditure by Statute.—The number of statutes which have been passed in the past few years has been considerable. It is noted that the Government have been advised by the number of loans and agreements which have been entered into in the past few years.

It is noted that the Government have been advised by the number of loans and agreements which have been entered into in the past few years.

In some cases they have a real cause for complaint which would never be heard unless they were allowed to come before the Government.

P. W. D. American Case.—In October last some serious charges of receiving bribes were brought against a subordinate official in the Public Works Department. The evidence that was placed before me showed a serious state of affairs. In my opinion, the evidence at the time was not sufficient to obtain a conviction in a Court of law. But it having been reported that the official against whom the charges were brought was about to leave the country, I con-

sented to a warrant being issued on condition that it was not to be executed unless the individual was actually discovered leaving the country.

By a mistake the warrant was executed without the accused having made any attempt to leave the country.

The case came on in due course and after the evidence on behalf of the prosecution had been heard, the Magistrate considered that there was sufficient evidence to frame a charge, under Section 161 of the Indian Penal Code, of receiving bribes.

On hearing the evidence for the defence, the Magistrate came to the conclusion that there was not sufficient corroboration of the chief witness for the prosecution, and therefore he must acquit the accused; but added "the case having one of grave suspicion and properly brought into Court, that the case having been brought to the notice of the Government, it was their duty to have it investigated publicly."

Electric Light Co.—Payment of Duty.—I have also been requested to advise in the case of the Zanabzar Government versus the Electric Light Company with respect to the payment of duty on materials, plant, machinery, &c. imported by the Company into these Dominions.

I advised that according to their Agreement, the Company was only exempt from duty on the plant, &c. imported for the Government.

Agreement, viz., supplying electric light to the Government.

The Electric Light Company took the matter into Court and a special case was submitted under Order XXXVI of the Criminal Procedure Code, which is a sagged statement of facts.

This case came before Judge Marjono sitting in the District Court, and the Judge found, that upon the true construction of the Agreement, the Company were entitled to import free of Customs duty such goods as only as required and used in constructing or supplying electricity to the Zanabzar Government.

There was also another case against the Electric Light Company for burning fire-wood on the quay in a way as to cause obstructions, and that case did not pass through this Department.

Gulistan Fire.—In November I sat with the Town Collector in an Adalat respecting a fire in the neighbourhood of Gulistan.

The fire burnt down about fifty houses and the property damaged was estimated to be Rs. 1,00,000.

The Town Collector and myself went with the Police to inspect the scene of the fire at the time the houses were being burnt, and to see if any further other falling from the houses or scattered from the burning houses.

We were both unanimous in our opinion that there was not sufficient evidence to show that the fire was caused by the Electric Light Company, and therefore we were compelled to find against the Company.

There was no doubt that the fire was an accidental one, and caused immense among a great number of natives whose loss was estimated to be Rs. 1,00,000. I prepared to advocate that the Government should give these natives some relief if it can be done.

Seyid Hamoud's Estate.—Of the twenty-two claims against the Estate of the late Sultan Seyid Hamoud, twenty have now been completed.

In a few of these claims there has been no difficulty in arriving at a conclusion, but the majority have been of a very complex nature owing to the lack of evidence or accounts of the length of time that has elapsed since the alleged claims originated.

The amount claimed on those cases that have been completed was Rs. 4,23,880. 94 cents (added to this there was a claim by one Hiss Basha in the residue of the estate of Mahomed bin Abd. deceased, whose estate had been administered by the late Sultan Seyid Hamoud, but this claim was dismissed, and the amount that has been paid over in satisfaction of those claims is Rs. 18,788 rupees 94 cents.

Some of the claims were in respect of the estate of which Seyid Hamoud had been Trustee, having taken over the Trusteeship from the original Trustee. These were particularly difficult owing to the fact that neither Seyid Hamoud nor the original Trustee had kept any accounts whatsoever but merely deposited the money of the Estate, which collected with their own.

In dealing with these claims I have to thank Mr. Tomlinson, who has rendered me some valuable assistance from time to time.

Messages.—The number of messages passing through this Department has increased largely in 1900, and the average for the year was about 710 different sets of papers to be mislaid. From July to the end of December there were exactly 800 different sets of papers and of which many passed through the Department several times.

I have also to thank my clerk, Mr. Albuquerque for the assistance he has rendered me in many ways, but more especially for the methodical and business-like way in which he has arranged the records and other papers of this Department.

PETER GRAY, Legal Member of Council and Attorney-General.

Report from the Judicial Department.

Report by Town Magistrate.—I attach a report on the Department of Mr. Tomlinson, and Town Magistrate and desire to thank him for the very great assistance he has been in organizing the Probate and Administration (Department) and Administration. When the Courts took over the work in June the country Probate and Administration was not in a satisfactory state and accumulated a great amount of hard work to settle matters in a state of order.

As regards the Probate and Administration of the Town of Zanabzar that was found to be in excellent order and the Vice and Council had been very well led by Mr. Dunstun being the Acting Magistrate.

The system that has been pursued, since the taking over of the Administration, and conducted by the Courts, has been as follows:

The small estates of under 200 rupees in the country districts are administered by the Assistant Collector, who at the end of each month send their files to the Courts for the purpose of being checked by the Probate and Administration Magistrate.

The Department of the Courts administers the small estates of the year of Rs. 200 rupees and all the estates over that sum in the Town and Country.

The number of estates of under 200 rupees administered in the Town since June were 100, and of those having been handed over to the Assistant Collector in the country districts, 100, and 100,000 rupees in private estates.

The value of the estates administered in the Town was Rs. 44,000, and of those in the country Rs. 1,00,000.

The value of the estates in the Town was Rs. 1,00,000 and a sum of Rs. 1,00,000 rupees has been paid as estate duty and Probate and Administration fees.

The estimated total of the estates now pending in the Courts for settlement is Rs. 2,00,000 rupees.

I also attach herewith statements of the Probate and Administration Department of Ponda (Chhatrapati and West).

Kathi.—I desire to report very favourably on the work of the Kathis. They are now regular in their attendance at work and are rapidly becoming more methodical in their procedure.

Kathi of West.—Kathi Subhan bin Mahomed of Ponda was reported to us favourably, and, before the end of the year, I had enquiries made and found that his work was not satisfactory. I had no direct or reliable evidence of any dishonesty or corruption, but I had plenty of evidence that he was lethargic and dilatory in his work. As an instance, at the end of the year he had on his list 200 cases just heard without judgment, his only excuse being, that he could not get the parties and witnesses to attend.

I gave to the Magistrate, under my best course was to refer him, which I did at the end of the year. This course, from petitions that were sent to me

after, appears to have given great satisfaction to the people of Pemba. I gave his cases to another Kathi who finished them all within the first two months of 1910.

Mr. Sills, the Magistrate, now at Pemba, reports favourably on the work of the Kathis there.

Monthly Returns by Kathis.—The Kathis in the Zanibar Courts now forward to me a monthly return of cases tried and finished, and those that remain unfinished.

By these monthly returns it appears that they now seldom leave a case unfinished as was the custom in the past, for months and sometimes for years, but give judgment at once.

The only cases that usually appear in the monthly returns as unfinished are those where the parties or witnesses have not put in an appearance, but these are now almost invariably finished before the next monthly returns are sent in.

Town Asst. Kathi.—I have retired at the end of the year the Assistant Kathi Nador bin Said, as it was found that his services were no longer necessary in view of the fact that the Kathis' Courts have now been put on a more business-like footing. His duties were practically limited to drawing up deeds and hearing small cases. A gratuity of 600 rupees has now been given him.

Pemba Magistracy.—Since the Magistrate has been appointed for Pemba, I have sent Mr. Wood thence from December to the beginning of February 1910, when he returned, and I then sent Mr. Sills, who will remain there for three or four months.

The policy of changing the Magistrate at Pemba at frequent intervals, which I have started, I propose continuing, as it is acceptable to the Magistrate, and also for the following reasons:—

Firstly, that at present the quarters there are bad, and that together with the climate makes it advisable that the Magistrate for the sake of health, should not remain there longer than possible, and

Secondly, which perhaps ought to have come first, a frequent change will prevent the Magistrate from falling into a groove and make him equally conversant with the work and people of Zanibar, as well as of Pemba.

Assistant Collectors.—The Assistant Collectors are not altogether satisfactory in their judicial capacity, except Mr. Farre who does his work well, but it must be remembered that they are new to the work and have not yet had much training.

In one case I have been compelled to take the judicial work away from the Assistant Collector and give it to the Kathi.

Kathi of Mueca.—The Kathi of Mueca, Nador bin Said, is now getting old almost too old for his work as failing sight makes him somewhat blind. I should advise that he should be retained in office for the present, as he is much respected in the neighbourhood and has always had a reputation for honesty and justice, and it is not advisable to make too many changes at once as the people get unsettled and uneasy.

A great number of natives go to seek Nador bin Said for advice in general matters and his position as Kathi gives a certain amount of authority to his advice which has the effect of preventing a considerable amount of litigation.

District Kathis. I hear nothing but favourable reports of the Kathis Mkokotoni, Chwaka and Makudochi.

STATEMENT of Probates etc. of Estates under Rs. 500 for the year 1909 at Pemba

Deaths registered
Cases over Rs. 500 sent to Chak Chak
Cases under Rs. 500
Cases carried forward to 1910
Net of Mal cases

Value of dutiable property
Fees paid
Value of Net of Mal

14,700 00
600 00
15,300 00

STATEMENT of Probates etc. of Estates over Rs. 500 and under Rs. 500 for the year 1909 at Chak Chak and Mueca

Deaths registered
Cases over Rs. 500
Cases under Rs. 500
Cases carried forward to 1910
Net of Mal cases

Value of dutiable property
Fees paid
Value of Net of Mal

Report from the Magistrate.

During the year two additional Magistrates have been appointed and the substantial re-organization of the courts in Pemba shows signs of great value to the administration of justice and the improvement of the

The work which had formerly been done by the Comptroller and Registration Departments, and at the beginning of the year the Kathis in the country did much work and great amount of litigation.

Arrangements have been made whereby the Town Magistrate sitting at Mueca and the District Magistrate sitting at Chwaka will be able to deal with the cases of the courts of the district of Mueca and Chwaka respectively.

Several matters relating to the progress of litigation which I refer to in an early report of 1909 are still under discussion, and further reference to them would be unnecessary.

The number of cases brought to trial during the year 1909 was 1,120 and the value of the cases collected amounted to Rs. 1,120 and the value of the cases collected amounted to Rs. 1,120.

The delay in the hearing of cases will probably be a serious matter but it is not yet decided.

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Civil Matters.—The number of cases both in the Court for Zanzibar and Pemba and before the Kathis, is by a curious coincidence exactly the same as last year. But the number of appeals from the Kathis to the Court for Zanzibar and Pemba has fallen from 18 to 9.

I am glad to be able to report that the work in the Court for Zanzibar and Pemba is now proceeding more satisfactorily. Most of the very old cases have been finished off, and the public, including the vakyls, have become more accustomed to the new regime.

Several sittings of the Court for Zanzibar and Pemba have been held at Chaki-Chaki.

I have extended to the District Courts the improved system of issue of summons and collection of fees, and I feel that their closer connection with judicial authorities has tended to make them more careful in their work.

I have at intervals during the year visited the various Courts.

The Kathi at Mwera is now old and infirm and the time cannot be far distant when the question of replacement will have to be considered. A large and the more important part of this district is as easily accessible to Zanzibar Town as it is to Mwera, and I venture to suggest the practicability of sending a Kathi from town on two days a week to sit at Mwera and giving the people living in the district the option of having their cases tried in the town. In this way it will be possible to discover whether there is any real need of a District Court at Mwera at all.

I append to this report a tabular statement showing the distribution of the work of the Courts so far as statistics are available.

During the year I have, with your authority, instituted a bankruptcy practice. I have adopted as the basis of these proceedings the Indian Provincial Insolvency Act, but it is only right to point out that there is at present no legislative enactment applying this procedure to the Court. It is, of course, desirable that the practice of this Court and the British Court should be assimilated and I believe there is at present some doubt as to which bankruptcy procedure is applicable to the British Court, i.e., the English or Indian. I venture to suggest that when this question is settled the same procedure be prescribed for H. H. Court.

Probate and Administration.—About the middle of the year the Court took over the work of granting Probate and Administration of the Estates of the deceased persons under the Probate and Administration Decree.

The larger part of this work had previously been done by the Collectorate and owing to the way in which the accounts had been kept and the methods adopted by some of the native agents some difficulty was experienced at first. However, in the course of time, matters were put on a more satisfactory basis, and I see no reason why it should not continue so. What is absolutely necessary is an honest Probate Agent with an intimate knowledge of the native and their methods; such a man is not easy to obtain, and I have to record with regret the transfer of Mr. Sukhia to the British Court.

It is necessary in this report to refer in detail to the difficulties encountered and the methods adopted, but with the active co-operation of the Assistant Collectors I see no reason why the new method of having all the work centralized in one office should not turn out to be an improvement on the old divided system. I have unfortunately been able to do very little in respect to Pemba, but, now that the Magistrate is stationed on the spot, I hope this branch will be better organized.

T. S. TOMLINSON, Magistrate.

Table showing the Number of Cases heard in H. H. the Sultan's Courts.

Courts	1908.		1909.	
	No. of Cases.	Fees.	No. of Cases.	Fees.
Supreme	4	36 00	3	100 00
Zanzibar and Pemba	66	1,300 00	66	1,773 00
Zanzibar and Pemba Appeals	18	64 00	9	39 00
Sheikh Burhan	177	350 00	95	144 00
Sheikh Ahmed bin Sogat's	102	178 50	79	302 50
Sheikh Taha	354	566 50	159	302 50

Table showing the Number of Cases heard in H. H. the Sultan's Courts.

	1908.		1909.	
	No. of Cases.	Fees.	No. of Cases.	Fees.
Sheikh Ahmed bin Sogat's	102	178 50	79	302 50
Sheikh Burhan	177	350 00	95	144 00
Mwera	103	184 00	57	100 00
Makdotom	20	30 00	10	15 00
Makdotom (1)	10	15 00	5	7 50
Bankruptcy	4	36 00	3	100 00
Administrative law	4	36 00	3	100 00
Total	524	2,429 50	267	843 50

Report from the Registration Department

Retention of Fees.—In the last year the Registrar has endeavored to refer to the reduction of fees and stated that he had no power to do so, but whether the retention of the fees was or was not referred to the Commission as the Estimates were drawn up, he is not sure, and that the retention of fees on account of registration being discontinued in some cases would be a great benefit to the public, and he has endeavored to register these documents.

This year he has endeavored to refer to the Commission to have an order for such a reduction.

Agreements.—Agreements in 1909 had amounted to the sum of Rs. 1,000, being 300 papers, which is a decrease of Rs. 1,000 compared with 1908.

Mortgages.—Mortgages were paid under the Estimates for 1909, being estimated 16,000 papers and the amount received was Rs. 1,175, which is a decrease of Rs. 1,175 compared with 1908.

Sales.—Sales were conducted under the Estimates for 1909, being 1,000 papers and the amount received was Rs. 1,000, which is a decrease of Rs. 1,000 compared with 1908.

Revenue.—The Estimate of the Registrar for 1909 was Rs. 1,175, which is a decrease of Rs. 1,175 compared with 1908.

The Estimate for 1909 was Rs. 1,175, which is a decrease of Rs. 1,175 compared with 1908.

Expenditure.—The Expenditure on the Registrar's Department for 1909 was Rs. 1,175, which is a decrease of Rs. 1,175 compared with 1908.

The Expenditure for the Registrar's Department is estimated to be Rs. 1,175, which is a decrease of Rs. 1,175 compared with 1908.

I attach herewith statements detailing the various departments registered, the quantity of such documents and the value of the mortgages and sales registered in Zanzibar, Makdotom, Chaki-Chaki and Mwera.

There appears to be a general tendency to register all documents, which is done by the number of documents registered of which the quantity is four estimated to be 1,175 papers, which was not compulsory.

Although I have endeavored to refer to the Commission to have an order for such a reduction, I have had no compliance from the Adh. Comptroller, but I have had a statement from the Adh. Comptroller that he has endeavored to refer to the Commission to have an order for such a reduction.

If it is considered that there is a just cause of complaint, with regard to the charges of this Department, a further reduction might be made. Because of the charges from the Registrar's Department of this Department that a reduction could be made, and the Department still carried on at a considerable profit.

PETER CHAIN

Registration Department

STATEMENT showing the Total Number and Nature of Documents Registered during the Year 1902.

	Mortgages	Wills	Gifts	Adoption	Partitions	Deeds	Power of Attorney	Wakfs	Other	Total
January	39	25	10	11	2	2	2	2	1	100
February	104	34	20	4	2	2	2	2	1	163
March	120	130	27	3	2	2	2	2	1	288
April	121	95	37	3	2	2	2	2	1	307
May	115	126	35	2	2	2	2	2	1	320
June	117	128	33	2	2	2	2	2	1	325
July	116	120	33	2	2	2	2	2	1	320
August	100	100	30	2	2	2	2	2	1	267
September	55	56	20	1	2	2	2	2	1	150
October	87	97	29	5	1	1	1	1	1	224
November	56	77	9	1	4	2	2	2	1	179
December	56	77	9	1	4	2	2	2	1	179
Total	1,180	1,320	300	27	20	20	20	20	11	3,800

MEMORANDA

	Mortgages	Wills	Gifts	Adoption	Partitions	Deeds	Power of Attorney	Wakfs	Other	Total
March	10	30	7	7	2	2	2	2	1	65
April	4	4	1	1	1	1	1	1	1	15
May	3	4	1	1	1	1	1	1	1	20
June	4	10	2	2	2	2	2	2	1	31
July	4	7	2	2	2	2	2	2	1	28
August	4	7	2	2	2	2	2	2	1	28
September	3	3	1	1	1	1	1	1	1	15
October	3	3	1	1	1	1	1	1	1	15
November	3	3	1	1	1	1	1	1	1	15
December	3	3	1	1	1	1	1	1	1	15
Total	52	104	17	17	17	17	17	17	11	320

CHIEF CLERK

	Mortgages	Wills	Gifts	Adoption	Partitions	Deeds	Power of Attorney	Wakfs	Other	Total
March	10	30	7	7	2	2	2	2	1	65
April	4	4	1	1	1	1	1	1	1	15
May	3	4	1	1	1	1	1	1	1	20
June	4	10	2	2	2	2	2	2	1	31
July	4	7	2	2	2	2	2	2	1	28
August	4	7	2	2	2	2	2	2	1	28
September	3	3	1	1	1	1	1	1	1	15
October	3	3	1	1	1	1	1	1	1	15
November	3	3	1	1	1	1	1	1	1	15
December	3	3	1	1	1	1	1	1	1	15
Total	52	104	17	17	17	17	17	17	11	320

WAKF.

	Mortgages	Wills	Gifts	Adoption	Partitions	Deeds	Power of Attorney	Wakfs	Other	Total
March	7	27	5	2	2	2	2	2	1	41
April	40	59	11	4	2	2	2	2	1	97
May	30	15	6	2	2	2	2	2	1	86
June	30	42	13	4	2	2	2	2	1	107
July	15	24	6	2	2	2	2	2	1	57
August	20	24	6	2	2	2	2	2	1	62
September	11	17	4	2	2	2	2	2	1	37
October	10	10	3	2	2	2	2	2	1	38
November	10	17	3	1	2	2	2	2	1	51
December	14	15	4	1	2	2	2	2	1	59
Total	207	314	71	16	14	14	14	14	11	785

(6.)

Report from the Wakf Department.

Receipts.—The receipts for this Department up to the end of the year are 20,441 rupees 31 cents, and since December 31st (some of the rents are not due till December 31st) 1,460 rupees 87 cents has been received, bringing the total up to 21,902 rupees 18 cents. There remains a further sum of 5,789 rupees 19 cents to be collected (which is certain to be received) which will bring the total receipts to 27,691 rupees.

Some shambles, the rent of which would amount to about 666 rupees, are still unpaid and no tenants have been found.

A further sum amounting to about 1,828 rupees is still owing and it is doubtful how much of this amount will be able to be collected.

It is very difficult with the small tenants to collect the rents, as a great number of persons who inhabit the Wakf houses and Wakf lands lead a very hard to mouth existence and can only pay when they happen to have been able to earn a little money. Consequently the Commissioners have to repeatedly give them time to pay.

It would be useless to sue in many cases, because the Department would not gain as in many cases the debtors have got nothing but the land they live on (in the cases of those only paying ground rent) which would be quite useless to the Commissioners to seize. When they are given time they usually pay directly they have any money.

It would be a desirable policy for the Commissioners to sue as soon as a month's rent was due, so they would soon find themselves without tenants at all.

Expenditure.—The expenditure of the Department amounted to 14,582 rupees 4 cents, which if deducted from Revenue received up to the present time, leaves a surplus of 7,320 rupees 14 cents, to which will be added the amount of 1,657 rupees which was subscribed by some of the Arabs for the purpose of repairing Mosques and placed on deposit for use if necessary. This year the Commissioners have been enabled to carry out repairs without drawing upon this sum. This brings the surplus to 8,977 rupees 14 cents (983) and including the outstanding amount (5,789 rupees 19 cents) to 14,766 rupees (983).

Pat-el-Mal Receipts.—The total receipts from Pat-el-Mal were 4,514 rupees 6 cents.

The surplus Wakf Revenue I have deposited in the Treasury to be placed out at interest for the purpose of starting a fund for the rebuilding of Mosques which will undoubtedly be necessary in the future.

Wakf Indebtedness.—The debt owed by this Department to the Government, viz., 2066 rupees 6 cents, has been deducted from Bet-el-Mal and the surplus has been deposited in the Treasury under Section 20 of the Probate and Administration Decree, No. 10 of 1909.

This debt, when I took over the Department in 1907, was 8,928 rupees 6 cents, and has been reduced year by year by the surplus of the Wakf Revenue, and in 1908 the whole surplus, 5,000 rupees, was set towards the reduction.

Jadwaj Premji's Debt to Wakf.—The debt owed to the Wakf Department by the late collector of Wakf rights, Jadwaj Premji, has been reduced by 500 rupees during the year 1909, and the balance due on December 31st, was 953 rupees 66 cents. He continues to pay monthly instalments of 50 rupees and has further reduced the debt this year by 100 rupees, leaving the balance now due to 853 rupees 66 cents.

It will be remembered that when I first took over this Department, this man owed the Wakf Commissioners 2,528 rupees 57 cents, and it is most satisfactory that it was allowed to adopt the course that I have pursued, viz., to bring constant pressure on the man, instead of prosecuting him criminally; if the latter course had been adopted it would have meant a loss of a large sum to the Government.

Repairs to Houses and Mosques.—During the year 44 Wakf houses have been repaired at the cost of 3,337 rupees 96 cents, and 15 Mosques at the cost of 2,473 rupees 72 cents.

New Wakfs.—Six new Wakfs have been vested in the Wakf Department during the year, which are as follows:—

1. A small plot of land at the back of H. H. Sultan's Courts, which is quite useless to the Commissioners, and was dedicated for the purpose of building a Mosque, but it is quite impossible to carry out the dedicator's wishes, and if the Commissioners could find a purchaser they would be willing to sell it.

2. A shamba at Kundani. The Commissioners received information that one of the freed slaves to whom it had been dedicated was about to sell the Wakf and the Commissioners immediately took steps to have it vested in themselves in order that they might protect the interests of the other freed slaves who had equal rights.

3. A house at Baghani. This is a house in the main street at Zanzibar and in a dilapidated condition, and before it can be leased, requires a sum of four or five thousand rupees being spent on it.

These premises were discovered to be Wakf in the course of an action in H. H. M's Courts between Suleman bin Ahmed and Salim bin Abdulla el Wardi.

It appeared that there was a dispute about the ownership. Salim bin Abdulla had sold the house to one Adamji Mahomedbhai Luckmanji and Suleman bin Ahmed claimed it was his.

The Court found that it belonged to neither of them but to Wakf, and proceeded to vest it in the Wakf Commissioners. The man who has bought it, Adamji Mahomedbhai, has made an offer to the Commissioners which is being considered. He offers to exchange this house for another which belongs to him, viz., the house now occupied by Messrs. Arnold Cheney & Co., as offices and apartments, and being in a rent of 240 rupees a year.

If the Wakf Commissioners retain the house vested in them by the Court, they will receive no income from it for years, because the repairs necessary to be carried out, viz., to the extent of 5,000 rupees, are far beyond the means of the Commissioners at the present moment. If, on the other hand, the Commissioners accept the terms offered, they at once increase their revenue by 240 rupees a year.

I am having the two premises valued by an independent valuer before I put the matter before the meeting of the Commissioners.

4. A shamba at Jangombe. This was a shamba left as Wakf by one Musa bin Kalafu bin Mahomed for the benefit of his freed slaves and their descendants. Some of the freed slaves came and complained to me that two of their number, two young men named Kidura and Kitimbo, took all the produce of the shamba and sold it for their own benefit, leaving the other freed slaves without any livelihood.

I called the Trustee before me, one named Musa bin Kalafu bin Mahomed and he stated, and afterwards swore an affidavit, that he could not manage these two young men.

I therefore had the shamba vested in the Commissioners.

5. One, based this shamba on a man, named Said bin Mahomed, for 170 rupees a year, who pays the rent to the Commissioners, who afterwards divide it equally among the freed slaves living on the shamba.

6. Land situated at Vuga district, behind the Victoria Gardens. This was a piece of land which had been dedicated as Wakf for burial by Seyyid Abdulla bin Abdurhaman el Abubakar bin Salim.

It was chosen by the Government as a site for new Sanitary buildings. When these buildings were about to be built and excavations were being made for the purpose of the foundations, some of the tribe came and complained to me. They stated that the new buildings were blocking up the entrance to the Mosque, that the w.c.s. were placed in a position where they would drain into the wall of the Mosque, and that part of the building was being built on a grave.

The Commissioners being unable to assist, unless the property was vested in themselves, brought the matter before the Court and the Court duly vested the property as Wakf property in the Commissioners.

The Commissioners then approached the Government and got the grievance remedied and have now leased the property to the Government for a rent of 240 rupees a year.

6. A shamba in the neighbourhood of Mka, the shamba has been managed for the beneficiaries for some years by the Trustee who is named Awad bin Hadid.

The Commissioners having doubts as to whether he restricted the price, or whether he took it all himself, asked him under the Decree to show the shamba. He was asked and written to repeatedly but failed to produce any accounts.

The Commissioners applied to have the property vested in themselves and the matter was placed before the Court, which has now vested the property in the Commissioners subject to a tenancy, which expires on September 30th.

Registration of Private Wakfs.—There have been six new Wakfs registered during the year 1909.

Bububu Wakf.—On the Wakf property at Babubu the Rail Road Company have slightly extended their Station and are now paying the Wakf Commissioners 18 rupees a year extra for the rent.

Gulomi Wakf Ground Rent.—The Commissioners have had considerable trouble in collecting the ground rent on the Wakf property at Gulomi. The rent has been fixed from time to time by the Commissioners but the tenants refuse to agree to them.

There was a difficulty in suing them because they had been allowed to build their houses in the past without any agreement as to the rent, consequently the Commissioners could not sue because the Court would require the Commissioners to prove their contract with these persons, which the Commissioners were unable to do.

The Commissioners have now agreed with the tenants to have the rents fixed by the Court, and this has now been done.

The Court having appointed Mr. Ashraf and Mr. Yusuf Ali to value the property and fix the rent.

They fixed much lower ones than I had proposed, but the Commissioners are perfectly satisfied to have the rents fixed.

Abashed Wakf Decree.—The present Wakf Decree has been amended for the purpose of vesting the Wakf property in Pemba under the Zanzibar Wakf Commissioners. It was considered that a better course would be kept of the Pemba Wakf under this arrangement.

Pemba Wakf.—After a visit to Pemba in January of this year, it was found that there was no registration of Wakf in that island as there ought to have been under Section 6 of the Wakf Decree.

The Collector of Pemba and the Assistant Collector of Woa having been appointed Sub-Commissioners, and also the Assistant Collector of Mwanza, I instructed them as to carrying out of the Decree and also requested them to enquire into the way Wakfs were being administered by the Trustees. I also sent them notices printed in Arabic calling attention to Wakf Decree, Section 6, and informing the public that unless that Section was complied with, viz., the registration of all Wakfs, the penalty under the Decree would be enforced.

The Wakfs in Pemba are now being registered and the Register is kept by the Sub-Commissioners.

There is no Wakf property vested in the Commissioners in Pemba. But what

the Sub-Commissioners have enquired into the administration of some of the Wakfs in that Island, it may become necessary to have some of the properties vested in the Commissioners.

I hope to be able to go to Pemba again shortly, in order that I may see that the Wakf Department there is continuing to carry out the Decree.

Repairs to Wakf Property.—Owing to the pressure of work in the P. W. Department, I have adopted the following plan with regard to repairs.

On receiving notice of repairs needed, I instruct the Imnam (the caretaker) of the Mosque to which the property belongs, to draw up an estimate—the estimate is then placed before the Director of Public Works for his approval.

If he approves, the work is placed in the hands of the Imnam to be carried out.

When he has completed the work, he gives me notice and an official of the P. W. Department and myself go and inspect the work, and if it is satisfactory it is passed by the Director of Public Works.

The work as a whole has been very well done and at a very cheap rate. It is very rare for the P. W. Department to find that they cannot pass it; occasionally the whitewashing or painting has not been quite up to the standard required, but has been remedied by the Imnam doing it again without charging anything extra.

The reason for the work being done so well and so cheaply is that the Imnams, as a rule, are a religious set of men who take a particular interest in any work done to a Mosque or property left as Wakf.

The satisfactory surplus this year is due to a considerable extent to having been able to employ this cheap means of executing the many repairs needed.

Most of the Wakf property is now in a satisfactory state of repair, but on account of the climate it is necessary to have a constant inspection of the house property and Mosques because if decay once sets in the progress is very rapid, consequently repairs have to be executed promptly.

I am pleased to report that the Department generally is in a very satisfactory condition; as may be gathered from the fact that when the affairs of this Department were taken over in 1907 by the present Commissioners, the property was very much out of repair and in debt to the amount of 8,929 rupees; at the present time the property is in good repair and there is a surplus of 14,759 rupees.

PETER GRAIN

(7.)

Report from the Collector of Zanzibar.

With regard to the work of the Collectorate in the Town itself, I have but few observations to make, since I am happy to be able to say that every thing in this section of my Department is proceeding smoothly and satisfactorily. With regard to the Collectorate outside the actual Town limits, I am not called upon, as a matter of fact, to make any report, since I only took over the section in December last. I wish, however, to make some observations and suggestions concerning it with a view to its rearrangement for the year 1911.

Inland Revenue Department.

The slight decrease in the income as compared with the amount estimated is, in most cases, due to the restrictions of the various Decrees put in force during the year. I beg to attach a full statement of receipts and expenditure for the year, from which you will see, the decrease of 745l. is entirely due to "Market, Ngoma and Tembo fees" from the Districts. The amount estimated by the late Collector of Zanzibar was nearly 4,000l., whilst the income paid into this Department was less than 400l. Although I am not answerable for this deficit the causes are obvious. The decrease is due to (a) the abolition of the country markets, (b) the rigorous enforcement of the Ngoma and Tembo Decrees.

I am glad to see that the suggestions made in my last year's report regarding the markets have been adopted. The work of building the new markets is well in hand; the market dues have been raised from 5 to 10 per cent, without altering the prices of food stuffs or burdening the natives, and I hope that the revenue for this year will be almost doubled.

Urban Properties Department.

This department is working as satisfactorily as could be expected under the present circumstances. All the rents have, so far as possible, been either settled or date. There are no arrears of rent for Government buildings and very little indeed of the ground rents are outstanding. We are adopting the system I suggested in my report last year of setting all the Government properties, whenever they become vacant on long leases, with all the repairs, changes, additions and alterations on the lessee. This will, I doubt not, save some money which have hitherto been used on constant repairs.

1,011 rupees 92 cents to be written off. There are several small pieces of ground at Malindi claimed by the Government, on which several natives and natives had their houses when the Crown Lands were taken over by the Government in 1902. These people had made arrangements with the Government for the ground rent in the late Sultan's and when the Government took over was cancelled. In 1902, they refused to pay rent to the Government and the Government has wisely never started to insist on their claim as the Government has no claim upon them. Although these people have to till their own ground and are not having their houses on the plots and having been allowed to live on them as undisturbed possession for the last twenty years is sufficient to give them a right in the meantime the rents of these plots have been accumulating at the rate of 10 per cent for the last 7 years and there now amount to 1,011 rupees 92 cents. The auditors are strongly of opinion and rightly agree with me that this sum should be written off, and I therefore request that sanction be obtained from the Foreign Office to write off from the books of the Urban Lands Department the sum of 1,011 rupees 92 cents and to discharge from the books the last attached market (B).

Depreciation of Property.—I am sure that you are fully aware of the serious depreciation that has taken place in the value of land and especially of house property in Zanzibar. Although the Government has not out the real cause of the depreciation, it is obvious that the cause is due to the fact that the Government has already taken place or as an efficient measure to prevent further depreciation. I hope, however, to be able, in the course of the following report, to make suggestions that may prove at least a help in dealing with that most difficult question.

Abolition of Labour.—The first and chief cause for the decline in value of all land and properties in Zanzibar is, without doubt, the abolition of the Decree for the abolition of the system of labour which was one of the most important blows to the Arabs. It had always been a source of the Arab's wealth, deprived of their labour on their plantations, which had hitherto been the great source of their wealth and consequently the cause of the decline of the free labour, they were, and are still, called upon to pay the Government a duty which had been imposed during the time of Sultan Bargash. The Arabs could easily afford to pay this duty up to the time of the abolition of labour, since their labour then cost them nothing, but as continuous pressure in the output for the upkeep of the plantations gradually increased when they were called upon to pay for the work done on them, furthermore the abolition of the system of free labour naturally brought about a decreased demand for paid labour, the cost of which gradually commenced to rise. This rise has gone on ever since and in my opinion is likely to continue.

As a result of the increased expenditure, which was met upon the Arabs, by the necessity of paying for labour, which was formerly at their disposal, they speedily found themselves in the state of penury and embarrassment. Having been for years accustomed to live in a luxurious and even extravagant manner they were, unfortunately, unable to adapt their expenditure to the change that took place in their incomes. Understanding little about business and of the same time

attaching great importance to the maintenance of their former style and luxury, they were forced to seek for money wherewith to increase their now inadequate incomes, and the wily Indian was there ready at hand to lend money to them on house properties at an enormous rate of interest. The Arabs availed themselves of this means for temporarily staying off their difficulties, with the inevitable result that when the time came for payment they were unable to meet their creditors and an immense amount of property has come and still continues to come into the market, thus bringing about a very heavy decrease in values.

Bayakiar Mortgage.—The form of Arabic mortgage the *Bayakiar Mortgage* is by reason of its terms particularly calculated to bring about this fall in value. By its terms the house or property is sold for cash for a period as a rule varying from 3 to 5 years. During that time the seller occupies the house or property paying to the mortgagee a yearly rental which usually works out at about 12 to 15 per cent. or more per annum on the sum advanced. At the end of 3 or 5 years, should the seller be unable to pay back the sum advanced, the property belongs absolutely to the person to whom it is sold. Since a house or property is usually sold by an Arab to an Indian under *Bayakiar Mortgage* for about half or even less of its real value, and in addition the latter has been receiving a large interest for several years, he can well afford to dispose of it at a price very much below its real value and yet make a very big profit on the transaction.

I have no hesitation in saying that, at the present time, the number of wealthy Arabs in the Island of Zanzibar can be counted on the fingers of one hand, whilst the value of house property which has been on the decline, has fallen in the last six years from fifty to seventy per cent. in value.

Opening of Coast Ports. The next and not less important cause of the great fall in the value of properties, is the *decline of trade* existing at existing ports, and consequent decreased purchasing power of the community. It is a melancholy fact, that Zanzibar, once the Emporium of East Africa is now no longer in that position. Goods formerly brought here from all parts of the world, and hence forwarded to their destination, now go direct to the mainland ports, which are rivalling each other and rapidly outstripping Zanzibar in the matter of commercial supremacy.

Exodus of Indian Merchants. As the Arabs, who by reason of their heavy household and personal expenditure brought about a large circulation of money among the merchants and traders of Zanzibar have rapidly become poorer and poorer, their wealth has been transferred to the Indian who, living in a more parsimonious manner, uses his money for money-lending purposes of transfer of a large sum to India and is thus of little benefit to the local traders. These large sums have consequently been compelled to seek new fields for their capital and to have consequently emigrated to the mainland ports, which being in the process of development afford them greater opportunities of making money. The houses formerly occupied by these emigrants either lay vacant or have come up for sale, thus placing an additional burden upon the already overcrowded market.

I have, Sir, as far as I could, attempted in the foregoing to explain the fact of the Arabs having become poverty-stricken and of the opening of Coast ports being the two chief causes of the decline in the prosperity of this rich island. Pessimistic as my view may seem Zanzibar must and will always enjoy a considerable amount of trade by reason of the advantageous position which it occupies and the richness of its soil. Furthermore, I am fully convinced that an increase in the prosperity of the Arabs and especially of the Wahadimas and more attention paid to agriculture will bring about an opposite result.

Young Arabs. It is to the younger Arabs that we must look. The fall of ten degrees in the older generation, they will not repeat, if we only make a serious effort on the part of the younger Arabs to overcome the difficulties by which we are confronted.

It would be a cause for satisfaction if I found myself able to report that the young Arabs were showing hopeful signs of progress. It is, however, much to regret that I have to record the fact that the very opposite is the case.

Drink Habit. A habit has sprung up among them which, if not speedily and sternly checked, must lead to their complete moral and social downfall and cause them to become a burden instead of a benefit to the community. This is the *drink habit*. My long residence in Zanzibar and the nature of my duties

not only brought me into contact with, but caused me to become personally acquainted with, the habits of Zanzibar. They are a very fine of the younger Arabs with whom I have been acquainted for some years. They not only drink but they are very generous as they give away a good deal of their money to the Arabs and we have many a real authority of the Government must consequently be put in force which will firmly punish any person convicted of drunkenness, and still more important, it should be made a criminal offence for any one to sell alcohol to an Arab. By this means, and this means alone, can the total ruin of the younger generation of Arabs of Zanzibar be averted.

Agriculture. As we are connected with the subject of my foregoing observations, in the question of Agriculture. The future of the island depends upon Agriculture. There are hundreds of acres of good arable land about the island which are suitable for the cultivation of cereals and other products that the Government should encourage. The Government has the Agricultural Department and through it, the Government should encourage the cultivation of rice, vanilla, manioc, rubber, and all other crops which have proved failures. It should also have been by some means, either through direct attempts to follow the example set them by the Government.

If the Agricultural Department could be made to do something generally endeavoured to provide the facilities of the Government, a considerable sum of public money would have been expended in the country in order to increase the production of cereals.

These experiments in agriculture should have now happily ceased, and the Agricultural Department should be reorganised so that it has been in a state to do so.

At present the only thing which is being done as far as I am aware is the superintending the planting of rubber trees. If the British Government is to be successful in its attempt.

The first step to be taken is to have the Government to send out a commission for plantation amongst the Wahadimas, who are the only ones who are interested. They will have the result that the Government will have a few years of experience in the growth of the rubber tree and the Government will then be in a position to have a more systematic and successful plantation of rubber trees in the island.

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Veterinary Hospital Department.

This which forms a part and parcel of the Stable Department, is not only working satisfactorily, but has proved to be one of the most useful institutions. The total number of animals treated during the year was 360, of which 174 were sent by the Police, and I must admit have been most energetic and of the greatest assistance to this Department. The number of real cases of cruelty is present are very few, as both the Arabs and natives are gradually getting to understand what cruelty to animals means.

The Districts.

As I have already mentioned, four months have passed since I took over this portion of my work from Mr. Last on his retirement.

There is no need to recapitulate the successive difficulties I have met with, which I do not hesitate to say have somewhat discouraged me.

Mkokotoni is the only District working satisfactorily.

Chwaka with its peaceful and law abiding people is the easiest district to work, but requires to be better administered.

Mwera, the most troublesome, has been without an Assistant Collector for months together.

Mwera to be worked from Town.—On account of the very unhealthy nature of Mwera and its surroundings, difficult to control at certain seasons of the year, I would suggest that this District be worked from Town. Its comparative proximity to the Town will facilitate this. The idea of removing the seat of the Assistant Collector to Dunga has no doubt some very great points in its favour, but it is hardly practicable, and it would be very expensive in order to work this District from the Town it would be necessary to slightly alter the present divisions of the Districts.

Future Division of Districts.—I beg to suggest that a good bit of the Northern part of the Mwera District, almost in a straight line from Chuni in the West to Usua on the East, be given to the Mkokotoni District, and that the whole of the Southern part of it, almost in a line from Chukwani, be added to the Chwaka District. With the Wally at Mwera and an Assistant Collector going out thrice a week, there is every reason to hope that the work will be carried out satisfactorily. In adopting this plan the Kwanj House would no more be required and the suggestion of removing the seat of the Assistant Collector of the Chwaka District from Chwaka to Kizimkazi might be reconsidered.

There are three points of the greatest importance in connection with the Collectorate in the Districts.

New Quarters at Chwaka.—The first is the urgent necessity of new quarters for the Assistant Collector and Clerk, a new gaol and a Kathi's Court being at once built at Chwaka in case the seat of the Assistant Collector is to remain there. The present bungalow of the Assistant Collector is unfit for a European to live in; the clerk lives in a native hut, and the Kathi holds the Court in the baraza of his house.

Secondly, I would beg to suggest that Assistant Collectors be supplied with furnished quarters. This would not only save large sums of money which the Government are constantly paying for transport, when an Assistant Collector is moved from one District to another, but would save the poor Assistant Collector's furniture from rain in transit.

Inadequate Subordinate Staff.—Lastly, I beg to call your attention to the inadequacy of the subordinate staff in the Districts. With all the new Decrees and Regulations the work has increased tremendously, and one clerk is not able to cope with all the work. The amount of Court work at Mwera and Mkokotoni is incredible. The messengers are constantly out solely occupied in serving summonses and attachments from H. B. M's and H. H's Courts in Town. It is not so easy to serve a summons or an attachment in the Districts and it sometimes takes a whole day before one summons can be served. There is besides an enormous increase of work in connection with the police, gaols, &c. All this apart from the clerical work of the Collectorate itself. The Collectorate is not only saddled with the whole of these expenses but the Assistant Collector is expected to do the work satisfactorily. Unless the staff in each of the Districts is increased by an extra clerk and two more messengers, it will be impossible for the Collectorate to carry out the work satisfactorily.

Madness.—On the whole the madmen are performing their duties well. It must be borne in mind when judgment is passed upon the Madmen system that the madmen are not and cannot be expected from those men who are uneducated, ignorant, and superstitious and who are surrounded by people even more ignorant of those laws than themselves.

Considering that they are labouring under such difficulties the work which they have performed and are performing reflects credit upon them. The Madmen are the only institution by which we can get any idea of the mad people, and it is through their official communication that we must hope eventually to make a rational and sane system of lunacy and other acts which are the curse of the country.

Education.—In connection with this, allow me to mention that the institution of an Educational Department through very similar is far too premature and must wait in a later future. The people are at present almost uneducated and even the rudiments of education are not getting half understood. It is not until the rudiments of education are understood that any attempt can be made to gradually understand and eventually develop their present beliefs. We can only do better instruments than the madmen and the people we must rely on a large scale to get through their minds an entirely new method of always appearing satisfactory in the future.

It is also to be noted that the Government should be very careful in everything they do in the matter of education. The work of the present already being established by the Madmen and the Government should be very carefully established by helping those who are working in the same way as the present system.

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increasing in the Chwaka and Mkokotoni Districts. This fall was solely due to the very unwise system of refunding the hut tax to clove pickers.

The injustice and the evil of the hut tax is that it falls almost solely on the wahadimus; the very people who are most useful to us. The natives squatting on the Government shambas, practically living on the fat of the land, are exempt from hut tax. As soon as Government ground, he cultivates it and is exempt from hut tax. He lives on Government ground, he cultivates it and is exempt from hut tax. He enjoys the fruits of the land and he does not do a stroke of work without being paid for it. During the clove picking season he is paid as much as the unfortuniate wahadimu who has to abandon his home, his crops and his family. Thus it comes about that two classes of natives, both occupying Government land, the one is taxed and the other is exempt. "Ndimu" is the word for a lemon and the wahadimus are in the habit of saying that they are the lemons and the Government the squeezer and I must say they are not very far from the truth.

The fact that we are taxing the most useful portion of our population whilst we are exempting the rest, is a matter for the gravest reflection and consideration. Even Indians who have their shops on Government plantations are, I understand, not called upon to pay ground rent. I am quite at a loss to understand the reason.

I would therefore beg to suggest that for the present the Government should continue to collect the hut tax as far as they are able to do, without putting any undue pressure on the natives. No further attempts should be made to collect ground rent and except in flagrant cases of land grabbing, the wahadimus should be left in undisturbed possession of the properties they now occupy on condition that they are properly cultivated and planted up with coconuts, until the time when we are in a position to impose a general poll tax and then indirectly make them pay for their lands.

Births and Deaths.—Notwithstanding the opinions of more competent men to the contrary, I am fully convinced that a gradual decline is taking place in the birth rate of the natives in the Island.

The late Collector was of opinion that the returns of deaths are accurate, owing to the fact that the natives must apply for probate to the Government before they can get the money of a deceased person. Mr. Last, however, whilst admitting that returns show a decline in the number of births does not believe in the accuracy of these returns, because the natives are supposed to conceal births owing to the fear that if reported to the Government the child will be subject to witchcraft. I have gone thoroughly into the question, having enquired of the chief sheas on the subject and am inclined to disagree with Mr. Last. No doubt it is true that the natives do their best to conceal births, but the accuracy of the returns is not very much affected thereby since the masheas know every one in their little villages and are well informed when a birth is expected and when it actually takes place. They then in the majority of cases do not approach the parents but report directly to the Government so that the father and mother are very often ignorant that the birth has been registered. These must naturally be some cases which are overlooked, but an impression that what the masheas say is correct, namely, that they are able to obtain information in regard to practically every birth that takes place in their villages.

Mr. Last further contends that no change can have taken place in the birth rate of the country districts, basing his opinion on the supposition that for a real change to occur in the birth rate of a country it must be preceded by a change in the habits of life of the people and that there has been no alteration in the habits and customs of the people for the last 10 to 20 years. I must again disagree with Mr. Last, whose opinion seems to have overlooked a very important fact. There has been a great change in the habits of the people and especially of the wahadimus, brought about by the abolition of slavery. Formerly the concubines and even the wives of the wahadimus were their slaves purchased for the most part on the mainland and brought hence to Zanzibar. The man exercised over the women complete power and severely punished any departure from propriety of conduct.

With the abolition of slavery this absolute power could no longer be exercised and her infidelity punished by him. The obvious results have been that the moral habits of the people have deteriorated. There has been a growth of prostitution and of venereal diseases among them, and these two evils have been accompanied as usual by their natural outcome, namely, decrease in birth rate.

Malaria.—In addition to the decline in the birth rate, there is and has always been a certain amount of mortality amongst infants and young children due to malarial fever and its complications. Here, fortunately we have ready to hand a potent remedy, if it is the distribution of quinine amongst the natives. This distribution has been rendered easy in some places by the creation of Shamba Dispensaries which are already proving a great blessing to the country. There need be little fear of the natives refusing to take European medicines, as they are already showing a remarkable confidence in them. The India Government, some years since, alarmed at the enormous death rate due to Malaria in certain Districts, ordered that the drug be put up in small paper packets and be of sale at every post office and at other convenient places so that the remedy might be within the easy reach of all, even the poorest. The results were wonderful. The sooner this system is adopted here, at least in the most malarious parts of the country, the better. Quinine is grown and quinine manufactured to a very large extent in many parts of India by the Government and I feel sure that if the India Government is approached they may be able to help us with the stock we require at cost price.

Roads. There is no doubt that the opening of roads as a general rule means the opening of a country and the opening of the new road to Mwanika as proved the truth.

It is however inadvisable for the Government to open roads from Town to the distant places on the coast where the produce is not carried by dhows and small craft.

Further, I think it is inadvisable to continue to open roads connecting the tails of our shambas that would probably be too remote though they may eventually reach a cultivated part of the country, but to pass through unoccupied waste land and swamps. The roads would only be expensive. I think perhaps I would strongly recommend that the Road from Mwanika to Mwanika be completed first.

Before I conclude this paper I would like to make a few remarks and suggestions on several points of some importance.

Telegraph. There is much to be said in our present system of telegraph. The whole system is wrong, the messages are not sent and they are seldom in working order. This must be remedied at once.

Money to Mwanika. The statement at present only call at Mwanika is a hindrance and should be removed. It should be a weekly service that port.

Country Mailings. The regular mailings to the country districts were a good one two years ago and the absence of goods have been diminishing.

Thanks to the power that in the last few weeks has nearly been restored and the new market at Mwanika is being opened up, it would not be a great boon to the people but a source of annoyance if the Government of all the country markets were stopped.

Finally, the Government I am advised to stop all their meddling in business which would simply be to add to business confusion and I have possibly been criticised in my remarks on the subject. There is one and only one branch which has impeded us to take this liberty. It is the Mwanika market and I personally take in this Island in which all my energies and the best of my life have been spent. My close connection with the various Departments of the Government, my intimate acquaintance with the different authorities and my constant attendance at the market has given me an insight into the real state of our Departments. This I hope will be particularly well understood and perhaps will be of some use to you.

L. A. ANDERSON, Collector of Zanzibar

(A.)

Inland Revenue.

REVENUE and Expenditure for the year 1909.

REVENUE.

Details	Estimated.	Income.	Difference 1909.		Income 1909.	Difference 1908-1909.	
			More.	Less.		More.	Less.
Zanzibar—	Ra.	Ra.	Ra.	Ra.	Ra.	Ra.	Ra.
Markets	34,000	30,768	...	3,232	34,313	...	3,500
Brokersage	4,500	5,927	...	1,427	4,730	...	800
Slaughter House	4,600	5,211	611	...	4,932	609	...
Town Tembo	1,300	1,048	...	207	1,370	...	271
Cattle Examination	8,300	7,801	...	399	8,348	...	447
Town Ngoma	3,000	1,401	...	1,599	2,101	...	799
Equine Licenses	7,000	8,750	1,750	...	8,700	...	...
Boatmen's Licenses	1,600	2,400	800	...	2,050	...	...
Market, Tembo and Ngoma from Mwera, Chwaka & Mikokotoni	13,806	3,480	...	8,325	17,175	...	15,300
Total	78,105	66,926	3,161	14,240	83,989	1,009	44,077

Net Decrease between estimated and actual receipts, 11,179 Ra. (745L.)

Net Decrease between actual receipts in 1908 and 1909, 17,063 Ra. (1,134L.)

EXPENDITURE.

Sub-head	Estimated.	Expenditure.	Difference 1909.		Expenditure 1909.	Difference 1908-1909.	
			More.	Less.		More.	Less.
Zanzibar—	Ra.	Ra.	Ra.	Ra.	Ra.	Ra.	Ra.
Personal Emoluments	30,456	29,234	...	1,222	28,304	...	1,152
Other charges	...	...	...	...	...	...	...
Clothing	1,000	648	...	352	999	...	101
Travelling	1,900	1,414	...	486	895	619	...
Stationery	100	73	...	27	79	...	...
Lighting	528	452	...	76	527	...	...
Coffee Furniture	...	...	...	...	397	...	...
Contingencies and Petties	1,000	733	...	267	785	...	...
Opportunity to Clerks	600	600	...	...	600	...	...
Subsistence	500	232	...	268	149	...	...
Double Bookings for Collectors	...	...	...	...	405	...	...
Total	36,284	33,586	...	2,698	34,170	602	1,180

Net Decrease, 2,496 Ra. (167L.)

Net Decrease, 564 Ra. (39L.)

Crown Lands

REVENUE and Expenditure for the year 1909

REVENUE.

Details	Estimated.	Revenue	Difference 1909.		Revenue 1909	Difference 1908-1909.	
			More.	Less.		More.	Less.
Rent of Government and Crown Buildings	25,000	22,224	...	2,776	22,224	...	1,008
Rent of Lands	2,500	2,384	...	1,116	...	...	...
Rent of Wharves and other	...	...	...	...	...	...	...
Total	27,500	24,608	...	2,892	22,224	...	1,008

Net Decrease, 2,892 Ra. (207L.)

Net Decrease, 1,008 Ra. (70L.)

EXPENDITURE.

Sub-head	Estimated.	Expenditure.	Difference 1909.		Expenditure 1909	Difference 1908-1909.	
			More.	Less.		More.	Less.
Salaries and Emoluments	1,700	1,500	...	200	1,500	...	...
Other charges	...	...	...	...	...	...	...
Travelling	200	100	...	100	...	...	...
Rent of Government and Crown Buildings	400	100	...	300	...	...	...
Lighting	50	50	...	...	50	...	...
Stationery	...	...	...	...	...	...	...
Contingencies and Petties	200	200	...	...	200	...	...
Opportunity to Clerks	...	...	...	...	...	...	...
Subsistence	...	...	...	...	...	...	...
Double Bookings for Collectors	...	...	...	...	...	...	...
Total	3,000	2,000	...	1,000	2,000	...	1,000

Net Decrease, 1,000 Ra. (70L.)

Net Decrease, 1,000 Ra. (70L.)

REVENUE.

Sub-head	Estimated.	Revenue	Difference 1909.		Revenue 1909	Difference 1908-1909.	
			More.	Less.		More.	Less.
Rent of Wharves and other
Total

EXPENDITURE

Details	Estimated	Expenditure	Difference	
			More	Less
	Rs.	Rs.	Rs.	Rs.
Personal Emoluments	360	355	...	5
Other charges—				
Petties	60	60	...	209
Repairs	305	96	...	15
Sikuru	15	...	...	...
Total	740	511	...	229

Net Decrease, 229 Rs. (15%).

Veterinary Hospital.

STATEMENT of Animals Treated during the year 1909.

Caught by	Horses	Donkeys	Mules	Bullocks	Goats	Sheep	Camels	Dogs	Cows	Total
Government Inspector	2	72		6	91	20		9	3	89
Police		47	1	6				2		174
Z. S. P. C. A.	3	83	3	7				1		97
Total	5	202	4	21	91	20		12	3	360

NOTE.—Out of 360 cases 8 (1 donkey, 4 goats, 2 sheep and 1 dog) died and 1 dog ran away.

STATEMENT of Slaughter House.

Kind of Animals	Slaughtered		Months	Slaughtered	
	1908	1909		1908	1909
Oxen			January	515	683
			February	537	1,081
			March	1,146	1,317
			April	928	1,212
			May	1,031	1,232
			June	996	1,141
			July	1,044	1,129
			August	1,128	1,063
			September	1,135	1,200
			October	1,248	1,089
			November	1,000	1,198
			December	967	1,195
Total	12,275	14,029	Total	12,275	14,029

REVENUE and Expenditure for the year 1909.

Details	Estimated	Actual	Difference		Difference	
			1909	1908	1909-1908	1908-1907
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Revenue	...	...	...	...	...	...
Expenditure	...	...	...	...	...	...
Total	...	...	...	...	...	...

Net Decrease 250 Rs.

EXPENDITURE

Sub-head	Estimated	Actual	Difference		Difference	
			1909	1908	1909-1908	1908-1907
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Personal Emoluments	5,417	7,200	1,783	1,200	583	600
Other charges						
Feeding of animals	1,500	1,500	...	...	...	...
Medicine	1,000	1,000	...	...	...	...
Contingencies and Petties	500	500	...	...	...	...
Clothing	100	100	...	...	...	...
Passage	500	500	...	...	...	...
Sikuru	...	...	...	...	...	...
Total	11,000	11,000	...	...	...	...

Net Decrease 200 Rs. (18%)

EXPENDITURE

Sub-head	Estimated	Actual	Difference		Difference	
			1909	1908	1909-1908	1908-1907
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Personal Emoluments	5,417	7,200	1,783	1,200	583	600
Other charges						
Food for live stock	11,000	11,000	...	...	...	...
Workshop expenses	1,000	1,000	...	...	...	...
Material for carpentry and blacksmith repairs	1,000	1,000	...	...	...	...
Lights and heating of building	500	500	...	...	...	...
Coal	500	500	...	...	...	...
Passage	1,000	1,000	...	...	...	...
Food money to street and other vendors	1,000	1,000	...	...	...	...
Sikuru	...	...	...	...	...	...
Salary of staff	2,000	2,000	...	...	...	...
Purchase of horses and other animals	1,000	1,000	...	...	...	...
Contingencies and Petties	100	100	...	...	...	...
Total	14,000	14,000	...	...	...	...

Net Decrease 200 Rs. (14%)

EXPENDITURE

STATEMENT OF Cattle Import and Export

Particulars.	Import.		Export.		Particulars	Import				Export.
	1908.	1909.	1908.	1909.		1908	1909	1908	1909	
Bullocks	2,803	2,888	155	381	January	1,263	1,220	27	180	
Sheep	2,479	2,187	381	167	February	2,195	2,567	313	299	
Cows	235	245	88	70	March	3,322	1,911	204	230	
Goats	13,284	9,873	1,916	898	April	1,163	1,849	183	181	
Donkeys	386	186	29	32	May	712	700	104	89	
Camels	91	67	24	45	June	1,378	765	105	61	
Horses	34	56	16	34	July	1,687	1,260	79	30	
Mules	15	5	1	6	August	1,248	1,275	133	131	
Calves	5	1	5	6	September	1,361	1,014	120	171	
Kid					October	1,671	1,223	119	158	
Bullocks			2		November	1,547	789	54	158	
Mare					December	1,307	1,451	310	458	
Total	19,276	17,156	1,881	1,780	Total	19,276	17,156	1,881	1,780	

(B) Grown Lands

No	District	Name	Area	
Indians				
846	Malindi	Khoja Ah Khaki	12 3/4	
852		Aharaka Khaki	1 1/2	
854		Dhalia Dhalla	12 3/4	
855			12 3/4	
856		Kemba Wana	12 3/4	
857		Ah Khata	12 3/4	
852		Aharaka Khaki	12 3/4	
870			12 3/4	
Total				
Arabs				
Kidutu				
1,949	Kidutu	Mkanga	1 1/2	
295		Mdakahe bin Bad	1 1/2	
1,985			3 1/2	
Malindi				
487	Malindi	Mao-tig Ah	1 1/2	
615		Miam Shauri	1 1/2	
440		Fatima binti Swaha	1 1/2	
685		Mahomed bin Yusuf	1 1/2	
613		Abdullah bin Musa	1 1/2	
720		Yusuf bin Swaha	1 1/2	
721		Abdullah bin Swaha	1 1/2	
488		Amir bin Swaha	1 1/2	
577		Fazl bin Swaha	1 1/2	
563		Yusuf bin Swaha	1 1/2	
432	Abdullah bin Swaha	1 1/2		
513	Yusuf bin Swaha	1 1/2		
544	Abdullah bin Swaha	1 1/2		
541	Yusuf bin Swaha	1 1/2		
1,500			15 1/2	
Kilwa				
1,601	Miyana	Miyana bin Yusuf	1 1/2	
2,400		Miyana bin Yusuf	1 1/2	
2,345		Miyana bin Yusuf	1 1/2	
2,400		Miyana bin Yusuf	1 1/2	
2,534		Miyana bin Yusuf	1 1/2	
2,500		Miyana bin Yusuf	1 1/2	
2,500		Miyana bin Yusuf	1 1/2	
2,500		Miyana bin Yusuf	1 1/2	
2,500		Miyana bin Yusuf	1 1/2	
2,500		Miyana bin Yusuf	1 1/2	
Total				

Illahad 810 Ra. 90 etc. Total 1,011 Ra. 90 etc.
Nauver, 201 Ra. 12 etc.

Report from the Assistant Collector of Mkokotoni.

General. The district has been generally quiet during the year and crimes have appreciably decreased. The public manager of a murdered man made a big impression on natives. The Deccan have been strictly applied but there has been some difficulties about agrarian which I hope will be easily settled.

All the Collectorate District staff—Judicial, Registration, Medical has been working well. The Cadi has been working exceptionally well. Mr. Fernandez the Head Clerk has been transferred to Mwanza and replaced by Mr. D'Mello, but of them proved to be very reliable men. It general I can only thank the subordinates for the help they have given me.

Post Office. The Post Office has been only at Mwanza this year, few letters have been sent from here, but many have been received from Mwanza. It has been of course working a few months. If the service were weekly it would be a great improvement as letters are more and more being sent to Mwanza.

Navigation. During the year the navigation has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

Produce and Commerce. The produce of the district has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

Revenue. The revenue of the district has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

Police. The police of the district has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

Health and Sanitation. The health of the district has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

Number of births 111
Number of deaths 70

General. The general state of the district has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

Number of persons 100
Number of families 10

The work done by them has been very important. All the ground had to be cleared and the jungle cut down. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

Police. The police of the district has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

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General. The general state of the district has been very quiet. The Mwanza and Lamu have been the only boats running. The Mwanza has been the only boat running.

District Court.—This Court has been working very well and I must say that the people took a real confidence in the Cadi's justice.

	1900	1901
Chief Cases	300	27
Common Cases		
Assault	31	60
Vagabond	11	21
Breach of Peace	40	30
Adultery	19	5
Theft	21	2
Drunkenness	1	1
Contempt of Court	1	1
False Evidence	1	1
Housebreaking	1	
Agg. Assault	1	
Murder	1	

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than if no sufficient result is obtained the shamba to be sold in Town by auction. Another difficulty is that all the summonses, orders of attachment, and warrants of arrest are only written in English and cannot be understood by the defendants, besides the tribe and residence are generally omitted; it is the source of much delay which could be avoided.

Shamba.—The control of shombas is still very difficult here having only a bad that at my disposal; it has improved a little but a good deal still remains to be done, a quick way of moving is required.

I must say that boys much too young are allowed to embark as cooks and it might lead to complications because, as a rule, even when the dhow is anchored a long distance at sea owing to shallow water, the boys are left alone on board. The two cases of piracy occurred that way.

Steamer.—I should ask for the steamer to call here weekly, I mean to say on every trip to Pemba. We have here no means of supplying fresh food; it is true that the road will be soon finished but supplies brought even on bicycle, in full sun, are generally spoiled when they reach here. The steamer will always get passengers who will I think cover the expenses.

The average number of passengers per trip during the year was 25.

Agricultural Produce.—Since the new Decree has been in force predial larceny has certainly decreased but there is still room for improvement. The greatest troubles come from tembo especially with Wadigo, German subjects, who cannot be brought before the District Court and the difference between the judgments for H. H's. subjects and foreigners might be the source of more troubles. P. ex. four men have been arrested lately under the Tembo Decree, two of them were H. H's. subjects and have been sentenced to one month's imprisonment each and their licenses cancelled by the District Court; the two others were German subjects and had to be sent to Town although they could not produce any license they have been only fined 1 rupee.

The clove picking in the district has been very slow owing to the unusual rains and a good quantity has been lost.

As far as copra is concerned people are more and more inclined to dry it by fire in order to get money quicker. This way of drying spoils the copra to a great extent. For some markets making simply oil, it does not much matter, but for some others requiring clean copra for special purposes they cannot use such a stuff and these markets are practically lost for us. I would suggest to have strong regulations about drying copra by fire. Tembo making also interferes very much with the copra business; for the present the license for tembo does not limit the number of trees to be tapped, the result is that Wadigo make a kind of association, having sometimes 20 trees for one license only. I should suggest to charge 2 rupees per tree per mensem. A tree for tembo is rented as a rule for 8 annas per month and brings in a revenue of 4 annas to 5 annas per day according to the tree.

A. FABRE, Assistant Collector.

MARRIAGES AND DIVORCES

COUNTRY	
Name of Husband	.....
Name of Wife	.....
Date of Marriage	.....
Place	.....
Amount	.....
Part paid	.....
Part due	.....
Name of Husband	.....
Name of Wife	.....
Date of Divorce	.....
Remarks	.....

(Duplicate for husband) (Duplicate for wife)

Report from the Assistant Collector of Chwaka.

Though my own charge has not extended beyond nine months, I am glad to say that the district has been in a satisfactory state during the year, and the Masheha have, with one or two exceptions, behaved well and done their work well.

Junna Haj of Manguni has been one of the most unsatisfactory, partly perhaps owing to illness and so getting past his work, but in the case of the murder of Silima Kimmeta, he was grossly careless in the way in which he wrote out a false death certificate.

Muyuni of Mayuni also has put himself in serious risk by the tembo kali work, and though direct proof was wanting to prove him of full complicity, he was certainly indirectly responsible that such work should have been going on for six weeks and had a word from him to the Assistant Collector in spite of enquiry. He has, however, now had a warning, and I fully expect that Muyuni will be extra quiet in 1910. The third is a case still under enquiry, that of Kimmata bin Abdulla bin Mtende, a hardworking sheha who has unfortunately had to suffer from unskilful making, in the opinion of Hija bin Hassan and ourselves, but this will be reported on fully as soon as we are able to enquire into the matter of the spot.

The Masheha, as usual, have been rather slow in getting in the ground rents but we have got in now to date some 7,726 rupees clear of the 1909 rents. I think we should do better in time if we got the new books earlier and took account of the clove harvest, when many leave and do not return till after the end of the year.

The Masheha and people did some very good road clearing and we were greatly helped in urging them on to this by the expected tour of the Consul General. This year, I have been able to learn from the people themselves, was well appreciated and I think it has had a very good effect with all the Masheha.

We have ourselves been through the district several times and both in their own places and at Chwaka we have had ample intercourse with all the Masheha and many of the people.

We have not been able to get all the statistics of judicial work, but I can say that we have not had much crime during the year and though we have some 7 to 10 prisoners they are all for minor offences and the prisoners themselves are of a very peaceable character and we have had only one escape, and that was of a jailer who had misbehaved himself.

I regret to say that the deaths have exceeded the births during the year by 54, the difference being greatest among the women, of this I enclose the returns for the year.

All the public works done here during the year are mostly out of our province consisting of the repairs and alterations at the Sultan's bungalow, but some repairs are still badly needed to the kitchen premises, notably the spoutings both there and at the lower bungalow. These can only be done from Town, but some other repairs to kitchen and doors we can probably do more cheaply locally.

Of repairs we have done locally with a grant of 50 rupees we were able to arrange some patching to roofs and do sufficient to carry us past the rains at the better part of the year.

There is a general outcry for a reinstatement of the local markets so I hope we shall soon be able to start some of them again, while we can repair market places as quickly as possible.

All the behaviour of the police has been satisfactory during the year with perhaps the one exception of the corporal at Muyuni and that of the jailer who afterwards escaped. With these exceptions I am glad to be able to report favourably of them but their uniforms in this rough district get very worn and ragged and they now badly need fresh ones.

If I am to select one who has distinguished himself by good behaviour, I think it would be No 152 who proved himself very useful indeed in the murder case near Manguni, and was largely the means of exposing the tembo work at Mayuni. The jailors have improved much in their behaviour during the year and now attend to their duties much better than formerly.

Of police work proper, except ordinary patrol duty, we have not had very much, the number of police cases being small, the only really serious case here being that of the murder of Silima Kimmeta which was settled in town.

IV. We have not yet been able to get the judicial records from the kathi but can say generally under this head that the work has not been excessive and could all be easily done by one kathi. We expect to be able to forward the records in a day or two.

V. The dispenser has proved very popular and the people have been going to him in increasing numbers, though I expect that these will be considerably reduced as soon as the people find they have to pay, still most of them are quite able to pay small fees to cover the cost of medicines, which in the great majority of cases need not be expensive drugs.

VI. I do not think quite so much land has been cultivated this year as some years, but it depends largely on the rainfall, the natives being guided by what are called the small rains and appearances early in the year.

We have ready for planting out some 180 coconut seedlings and hope to plant these next month when the ground is moist enough.

We propose also to plant out many more casuarinas in accordance with the personal instructions of the Consul General, this also as well as there is a prospect of their taking good root.

In conclusion I may say that things are working smoothly all through the district, and I look with confidence to a prosperous year in 1910.

THOMAS F. SHAW, Assistant Collector.

Chwaka District

STATEMENT of Revenue Collected during 1909.

	Rs.	Annas
Heads of Revenue—	278	86
Royalty wood	25	00
Uzio	172	50
Ngoma	303	00
Ferries	1	944
Port dues	000	00
Tembo	10	00
Miscellaneous	00	00
Probate		
Total	2,941	387

Register of Births and Deaths in 1909.

Months	Births		Deaths	
	Male	Female	Male	Female
January	3	5	10	11
February	11	9	6	8
March	14	8	7	12
April	19	16	10	17
May	15	14	10	10
June	16	12	11	17
July	9	6	11	11
August	12	16	11	11
September	17	18	11	11
October	15	9	11	14
November	12	14	11	14
December	11	11	11	14
Total	150	130	162	211
Grand Total		300		399

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We propose also to plant out many more Casuarinas in accordance with the personal instructions of the Consul General, this also as soon as there is a prospect of their taking good root.

In conclusion I may say that things are working smoothly all through the district, and I look with confidence to a prosperous year in 1910.

THOS P. SHAW Assistant Collector

Chwaka District

STATEMENT of Revenue Collected during 1909

Heads of Revenue—	Rs.	As.
Royalty wood	1,708	00
Uzib	53	00
Ngoma	171	30
Ferries	37	00
Port dues	1	84
Tembo	58	00
Miscellaneous	11	00
Probate	62	10
Total	2,102	24

Registrar of Births and Deaths in 1909

Months	Births		Deaths	
	Male	Female	Male	Female
January	11	10	10	11
February	14	10	10	11
March	19	11	10	10
April	17	10	10	11
May	15	10	10	11
June	10	10	10	11
July	10	10	10	11
August	8	10	10	11
September	10	10	10	11
October	17	10	10	11
November	15	10	10	11
December	12	10	10	11
Total	155	128	182	217
Grand Total	283			

46

Civil and Criminal Cases tried during 1909.

Months.	Civil.	Criminal.
February	23	7
March	14	9
April	16	14
May	31	7
June	5	7
July	22	41
August	17	4
September	42	6
October	16	10
November	13	7
December	7	7
Total	216	89

(10.)

Report from the Medical Officer.

European. The general health of the European community has been remarkably good during the year 1909, the incidence of all illnesses having been much lower than in previous years. Two European children were born during the year, English and Greek, both in Zanzibar.

Amongst adult residents proper of Zanzibar and Pemba there occurred two deaths both of Government lighthouse keepers and both employed at Kigomacha lighthouse in the North of Pemba. Francis H. de Legh died in Chaki Chaki Hospital of Blackwater Fever on 14th August after some 10 days illness, and W. Barnes died at the age of 70 years in the Zanzibar Government Hospital on 5th December of Hepatic Cirrhosis. In addition the death of a 7 months-Greek child from Marasmus and Syphilitic Periostitis is recorded.

While in 1908 the only death that occurred was of an infant Portuguese child, in 1906 and 1907 deaths amongst Europeans numbered six and eight respectively.

Commoner Ailments.—Digestive disorders and slight febrile attacks predominated as is always the case. There was a very marked and most satisfactory diminution in the number of cases of malaria though in the absence of Dr. Friedrichsen we cannot give any exact figures. We believe that this marked decrease in malaria is due to more stringent supervision of potential breeding places for mosquitoes in private and other properties.

Attendance of Officers.—No officials were invalidated home during the year.

Notices—Registration of Deaths.—We have previously referred to the inadequacy of this registration but hope that it is gradually becoming more reliable. The lack of a trustworthy census of population also makes it impossible to draw up any form of birth and death rate statistics.

During the year the number of deaths registered was 1,154 (599 males, 555 females) being 95 fewer than the total for 1908, and 50 fewer than in 1907.

Government Hospital.—It is with great regret that we have to record a marked falling off in the number of patients attending hospital during the year particularly as the numbers have each year until now increased by hundreds.

The number of out-patients treated was 6,496. This is a decrease of 981 from the year 1908, and only exceeds the total for 1907 by 345.

The total number of in-patients was 1,930, a decrease of 249 from the total for 1908 and in excess of the number of in-patients in 1907 only by 45.

Since the apparent increasing popularity of our hospital year by year, the high mortality in 1908 to our astonishment, and the occupation of the new wards for each subordinate at the beginning of this year, such marked decrease

in the number of patients is very disappointing. It is possible that the mortality of a thorough medical examination of those recruited for police, sepoys, etc. may have resulted in those bodies of men being less likely to fall sick than in past years, but such cannot account altogether for the diminution in patients. We fear that the present widespread discontent amongst natives and their dislike for anything connected with "Zirka" (Government) is a much more potent factor. It is also the rule brought into force in the middle of the year by which Government employees are fined so long as they are off duty for special reasons. With the former we cannot deal, we are strongly opposed to the latter. As a result of this rule the number of cases reported diminished. It is also the rule brought into force in the middle of the year by which patients coming with serious complications of venereal diseases which they have altogether concealed or for the treatment of which they have applied to their own native doctors. We are not aware who recommended this rule, it was never referred to us. In special reports we have drawn attention to the amount of venereal diseases in the Islands we fear that we cannot hope that any diminution in such diseases has been the cause of fewer patients requiring hospital treatment, the resulting sterility arising from the spread of such diseases by casual prostitution, the vast number of cases which are left untreated, and the impossibility of getting hold of the remainder of those who do come for treatment. We pointed out how the native community would interpose and does not believe that so to procure an entire decrease of such factors which should abate the present prevalence of venereal diseases. We urged the institution of hospital dispensaries in the principal villages and families in military lines, the necessity for the Government to be in touch with our Government Hospital for the purpose of the treatment of such cases, effort should be made to overcome the prejudice which exists against such hospitals, etc. and to encourage the natives to seek medical aid. The last rule we would advocate is the removal of all patients suffering from scabies, gonorrhoeal discharges, etc. from the hospital and to confine them from hydrocele and so on to some other place where they can be treated on a harmless rule be immediately removed.

Deaths amongst in-patients numbered 13, a decrease of 10 from the year 1908. The corresponding mortality amongst out-patients numbered 12, a decrease of 10 from the year 1907.

This mortality is unduly high but is accounted for by the number of the number of patients with a stationary or even increased number of cases brought by the police in a dying condition and by the large number of cases from the King's African Rifles admitted with Puerperal, Peritonitis, etc. at an age-period when mortality is always high.

The nurses moved into their newly built quarters in March and the stores of the *Sabardani's* Block free for patients of the out-patient department were treated as in-patients during the year.

In previous reports we have drawn attention to the want of a separate building for Female Malicious Patients and of limited means for infectious or doubtful cases. We pointed out that the buildings now used for these buildings by utilizing ground which was now piled. We have also previously stated that the building for the out-patient resident here should be completed to take steps to prevent and provide medical aid for Sick Proper Patients who can have no other means of Government Hospital or to staff though we cannot see their way with other proposals made for them.

Staff.—Dr. MacDonald, Principal Medical Officer, returned from leave in March when Dr. Green succeeded in leaving the latter returning in December. Hospital Assistant Mathias was appointed to the charge of the Staff Dispensary in Pemba in July.

The work of our nurses, Mrs. Gardner and Miss Taylor is excellent. Miss Kinlay was appointed as third nurse for our Government Hospital and arrived in March, but was compelled to resign in November. We hope to have a nurse for the Chaki Chaki Hospital, Pemba, next year.

The work of dispensers and staff has been very good and we would again urge that their long hours without any relaxation on Saturdays, Sundays and holidays are deserving of some consideration.

40
 CIVIL and Criminal Cases tried during 1909.

Months.	Civil.	Criminal.
January	33	7
February	14	9
March	16	14
April	31	7
May	5	11
June	22	4
July	17	6
August	42	10
September	16	
October	13	
November	7	
December	216	80
Total		30

(10)
 Report from the Medical Officer

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While in 1908 the only death that occurred was of an infant Portuguese child, in 1906 and 1907 deaths amongst Europeans numbered six and eight respectively.

Commoner Ailments.—Digestive disorders and slight febrile attacks predominated as is always the case. There was a very marked and most satisfactory diminution in the number of cases of malaria though in the absence of Dr. Frederickson we cannot give any exact figures. We believe that the marked decrease in malaria is due to more stringent supervision of potential breeding places for mosquitoes in private and other properties.

Invaliding of Officials.—No officials were invalided home during the year.

Natives.—Registration of Deaths.—We have previously referred to the inadequacy of this registration but hope that it is gradually becoming more trustworthy. The lack of a trustworthy census of population also makes it impossible to set up any form of birth and death rate statistics.

During the year the number of deaths registered was 1,154 (590 males, 564 females) being the fewer than the total for 1908 and 50 fewer than in 1907. Government Hospital.—It is with great regret that we have to record a marked falling off in the number of patients attending hospital during the year, particularly as the numbers have each year until now increased by hundreds.

The number of out-patients treated was 6,108. This is a decrease of 17 from the year 1908, and only exceeds the total for 1907 by 565.

The total number of in-patients was 209, a decrease of 249 from the total for 1908 and in excess of the number of in-patients for 1907 only by 45.

After the apparent increasing popularity of our Hospital year by year, the big additions in 1908 to our accommodations, and the occupation of the new rooms for sick subordinates at the beginning of this year, such marked decrease

in the number of patients is very disappointing. It is possible that the institution of a thorough medical examination of those recruited for police, services, etc., may have resulted in those bodies of men being less likely to fall sick than in past years, but such cannot account altogether for the diminution in patients. We fear that the present widespread discontent amongst natives and their dislike for anything connected with "Zirka" (Government) is a much more potent factor as also the rule brought into force in the middle of the year by which Government employees are fined so long as they are off duty from venereal diseases. With the former we cannot deal, we are strongly opposed to the latter. As a result of this rule the number of cases of venereal disease admitted to hospital has fallen off most extraordinarily, and we have now had several affluents coming with serious complications of venereal troubles which they have altogether concealed or for the treatment of which they have applied to their own native doctors. We are not aware who recommended this rule if it was ever referred to us. In special reports we have drawn attention to the amount venereal diseases in the Islands we fear that we cannot hope that any diminution in such diseases has been the cause of fewer patients applying for hospital treatment. The resulting sterility, abortion, etc., the spread of such diseases by venereal prostitution, the vast number of cases which must drag on untreated and the impossibility of getting hold of the womenfolk of those who come for treatment. We pointed out how the native in "Zirka" as regards venereal disease had long not believed that such venereal can cure diseases. As a result when advised about the present prevalence of venereal diseases we have urged the institution of absolute supervision for the issuing of passes with their families in military lines, the retention of a separate building in connection with our Government Hospital for the treatment of venereal patients, and that every effort should be made to prevent the native disease of the venereal treatment venereal etc., and to persuade them to apply for proper treatment. The very low rate we would estimate at the imposition of these regulations, treatment remains duty from venereal diseases. The nature venereal, discharges from venereal, etc., when of venereal, gonorrhoeal discharge from venereal, etc., would the wearing of suitable and venereal, etc., still common as of those. We would urge that this careful rule be immediately revoked.

Thought amongst in patients considered in, a venereal of 1 per cent. of patients admitted, the corresponding mortality was 31 for 1908 and 50 for 1907.

This mortality is indeed high, but is accounted for by the small total number of patients with a stationary or even increased number of patients brought by the police in a strong condition and by the large number of patients from the King's African Station admitted with pulmonary tuberculosis, fever, etc., at an age-period when mortality is always high.

The average number of cases occurring during the year, having both groups of the Government's stock from the beginning of the substantially staff of was accepted as important during the year.

In previous reports we have drawn attention to the need of a separate building for wards for Zanzibar, Malindi, Pemba and of Zanzibar, etc., patients of venereal, etc., we believe that the marked decrease in malaria is due to more stringent supervision of potential breeding places for mosquitoes in private and other properties.

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The total number of in-patients was 209, a decrease of 249 from the total for 1908 and in excess of the number of in-patients for 1907 only by 45.

After the apparent increasing popularity of our Hospital year by year, the big additions in 1908 to our accommodations, and the occupation of the new rooms for sick subordinates at the beginning of this year, such marked decrease

The ages were:-

Under 1 year	20
1 to 5 years	23
5 to 10	26
10 to 20	27
20 to 30	27
30 to 40	27
40 to 50	27
50 to 60	27
60 to 70	27
70 to 80	27
80 to 90	27
90 to 100 and above	27
Unknown	27

Total

This shows a lamentable loss of infant and child life, decreasing from 2 children of a year old to the age of 10, after which the mortality rises again to adolescence. A very high mortality is noted in the infant class of life, and 30. From the age of 50 it steadily declines until the natural close of life.

In the absence of a full and accurate census it is uncertain whether the latter mortality is absolute or relative, as the number of people of different ages has not been ascertained.

The causes of these high mortalities at certain ages are to be found in the list of causes of deaths. The principal ones are here given

Cause of Death	Males	Females	Total
Tuberculosis	80	70	150
Malarial fever	60	64	124
Diarrhoea	20	7	27
Dysentery	27	27	54
Debility and decay	62	62	124
Bronchitis	27	27	54
Rheumatism	27	27	54
Insanity	27	27	54
Syphilis	27	27	54
Parasitism	27	27	54
Asthma	27	27	54
Heart	27	27	54
Other	27	27	54

The above account for 50% of the deaths. Insanity, Syphilis, Paralysis may be accounted as variations of Syphilis - probably some of the deaths from Paralysis should be debited to Beriberi. The leading disease which carries off the people in early adult life is Tuberculosis. One hundred and eighty-three people died of this disease in 1909, against 127 in 1908, and 116 in 1907, showing apparent actual decrease but really a higher relative mortality as the total deaths were fewer. It is probable too that many of the deaths ascribed to Chronic Diarrhoea and Asthma were really due to Tuberculosis.

The figures show that every other day someone dies of Tuberculosis in Zanibar town.

Malarial fever caused half in the number of deaths. The deaths from Malarial Fever were 124 in 1909 against 127 in 1908, and 231 in 1907. Here there is a very satisfactory decrease and the death rate from Malaria is as nearly halved as that from Tuberculosis is rising.

- (a) Of the 124 deaths from Malaria 63 were of Swahilis, more than 1/2.
- (b) Of the 124 deaths from Tuberculosis 66 were of Swahilis, more than 1/2.
- (c) Of the 27 deaths from Diarrhoea 20 were of Swahilis, more than 3/4.
- (d) Of the 54 deaths from Dysentery 20 were of Swahilis, more than 1/2.

showing that Tuberculosis is working lower amongst the Swahilis. The infantile and child deaths in the past three years were: 270 deaths in 1909, 231 deaths in 1908, and 220 deaths in 1907, showing a steady rise

infant and child deaths. The variations in the healthiness of the different districts month by month is shown in the death maps (attached) - the deaths being marked by black spots.

It would appear from these that the healthiest districts are Shangani, Baghami, Kifutani, and Kibungwe, and the unhealthiest are Kikoni, Barajani, Meme-Tanga and Mzimba.

Practically all the Swahilis die without having ever been seen while alive by a qualified medical man. If they could be induced to come under rational and effective treatment for such maladies as malaria, dysentery and allied diarrhoeas a large proportion of lives could be saved. There are indications that the natives brought into contact with Europeans they trust, are beginning to realize the value of quinine - fever, even very severe cases of diarrhoea and dysentery which have come in good time under competent treatment have yielded quite easily so that the greater part of the deaths due to these diseases may be prevented as they slip away.

The Tuberculosis cases might also be much ameliorated and life prolonged, even if the disease is not stopped by suitable treatment, but for this a special time is necessary. The present serious position indicates the need of some extra measures to delay the progress of the disease. Tuberculosis must certainly be made a notifiable disease here, and precautionary and disinfecting measures adopted (perhaps the day will come when in the Capital of the Swahilis there will be Swahilis left).

Births registered in Zanibar only from 1st July 1907 to 31st December 1909

(a) Number of births registered	Total
(1) Males	124
(2) Females	111
(3) Unknown	1
Total	236

(b) Natality at the towns	Total
Shangani	10
Baghami	20
Kifutani	20
Kibungwe	20
Mzimba	20
Barajani	20
Kikoni	20
Other	20
Unknown	20
Total	236

A Government is very slow in recording registration of births, the Government being suspected of some hidden motive in its unwillingness to put out what it has no occasion. Constant enquiries are made as to whether there is any danger, danger in registering a birth. Which is feared, and all the Government population against numbering the people is brought to light in the village.

In Calcutta it has been found necessary to pay heavily for information to "wings, barbers, known groups and persons."

Here the engaging of a town eyes to register the registration of registration only brought ridicule on his head, and an increase in births recorded. It was thought unlikely that the police on both in the native quarter would get to hear of births but such is said not to be the case. In the country villages the Vudaha is likely to know and probably always does know.

It is even more difficult to still further regulate these women because of the presence of syphilis and other venereal diseases. It is very important. Once the Zanibar milk supply is established, it will be necessary to see that the mother derange the mother's milk supply. This gives the opportunity for the introduction into the child's mouth of anything that may be harmful. It is also necessary to see that the milk kept should not have from adults' food of decomposition, and that the milk kept as Zanibar, cow's milk in all stages of decomposition and being complained of for days together, is given to a baby convulsions and bowel complaints. The infant has to pass through before reaching the comparative heaven of a native child's life. Bounties and prizes at Baby Shows are given both at Poona and Rangoon to coax the mothers to persevere in keeping the child alive until its first year is passed; and something of the kind seems needed here. Where parental management is feeble the State should take charge and really mother the child.

The State is now standing by and looking to purchase the milk to attain this end in Calcutta it has been decided to purchase the milk from the Sub-Registrar of Births with that of Vaccinator, this could very well be done here when we get our Vaccinators.

Before dealing with the question of a pure milk supply which follows from the care and proper feeding of infants and children, a return must be made of the prevalent causes of death and diseases indicated. These can be best summarised as follows:

Tubercular Cause.—Dark damp houses the spitting habit—contaminated milk from tubercular cows abolition of the fat trade in the Indian and Arab houses in the narrow bazaars.

Remedy. Improved flooring to native houses allowing of their being better scrubbed out without leaving them damp; the provision of a damp course; increased attention paid to the milk cows in the bazaar. The Tubercular cause. It has now been proved that more inspection does not suffice to prevent infection. Moreover direct results from contamination of milk are slow to produce. Discouragement of the spitting habit—efforts on the part of the Government make the building of that roofs again easy and lasting. Formerly all buildings and wearing apparel could be removed to the roof for airing and sunning and at night in fine and hot weather people slept on the roofs and enjoyed open air treatment.

Malarial Fever Cause.—Except within and near the town limits, the factors at work are untrained hand, open water and with it anopheline mosquitoes. Neglect to take quinine or to use protective measures against mosquitoes. Neglect to deal with high temperatures, by the absence of means of getting the temperature down, and by people lying in the sun.

Remedy. More teaching for the subject in the schools—amongst the head men of the villages and the upper classes; provision for quinine being at hand or obtainable at all times—the carrying out of rough pits or gutters drainage—the cessation of water-bugs; ditches alongside the roads whereby long lengths of water are left breeding mosquitoes and spreading malaria fever to large villages (unless the water can be carried away completely, the water are only made worse where the water stagnates by capillary attraction drawing the water up and keeping the sub-concrete surface of the road always moist. Closing anopheline and thus pushing back the barrier by mosquitoes near the villages. It is said to say now that a great proportion of the malarial fever cases are to be ascribed to infection acquired in the country.

Dysentery and Diarrhoea. **Toxic Diseases Cause.**—Drinking bad water from old wells and from houses in the ground dug out after they by which an Indian is spreading disease on the ground by excretion purposes. Fine cooking articles of food, dals, rice, sweetmeats, dried fish and bread and sugar.

Remedy. More pure water for all drinking the wells and getting up public mandapies. Stopping the digging of other holes in wells places. More washing the mandapies of possible, and taking more attention to wash and keep clean the places of use. All the return to the west and Nizam to be done on the relief of the wells.

Pure milk, condensed and pure water should cut down a good deal of this yearly mortality.

Pure Milk Supply. One hundred and fifty-seven wells of inspection have been paid to in the bazaar during the year and eight actions have been served for increased light and ventilation. No radical improvement can take place if

the dairies built a Dairies Decree is passed and has been at work sometime. The cows are kept in the buildings are bad, the management is unskilled, the cows themselves sometimes are not above suspicion—the milk man is a repulsive character—the method of cleaning vessels is unimproved.

The dairies should be in the suburbs if having been proved first that cows are healthy. If not healthy for any remaining reason at night or indicated. The present custom of to drive the cows out at three every morning and to drive them back to town in the afternoon. One such cow can be extracted from the bazaar of the bazaar in this manner daily a milking shed might be established outside the town where the milking could be under supervision and at any rate some pure milk be secured for use in the town.

The cows either outside or inside the town should live by themselves and not be kept under dwelling houses and sometimes even in back rooms, as is now frequently the case, especially when a single cow is kept for private purposes. The milk utensils must be properly cleaned and for this a pure water supply must be had on to each dairy. The milkman should be clean in his dress and clean in habits. The milk should be protected from contamination and kept up to a certain standard.

Pure Food and Good Cheap Meat.—The regular inspection by the Government Veterinary Officer of cattle to be slaughtered should provide against tuberculosis meat being supplied to the public. From the point of view of improving the health of the people it is very desirable that good food should be a good cheap. The native diet is essentially with starchy matter prone to ferment the native to fermentative stomach troubles upon which is grafted a fatal dysentery and dysentery. At the present prices to give him good meat which has not been lying about exposed to flies and coated with dust would be out of the question. Pay by providing and dust laying out money especially the Government but they will have to be done. Good bread is because metal wire containing a little ironing a good deal at the cost is very lasting. In India there has been long preparation called *Dumro* is used with success around and in the bazaarings which it is desirable to keep free from dust.

Tuberculosis infection is acquired from food so long as food is kept in the which are used also as sleeping places. To remedy this is more difficult. Supervision has been commenced over the neighbourhood and must be continued to study the food but the process of making good meat available.

The following premiums connected with the sale of food have been regularly awarded during the year:

Butter	3
Pure milk	20
Condensed milk	100
Five gallons	45
Milk	5
Long milk	25

The under-mentioned food has been distributed and developed:

Wheat	80
Flour	25
Chop	7
	41

The fish supply cannot be said to be as good and cheap as is needed in a town of this size and owing to the dearth of fresh fish the people are driven back on buying old and rancid fish so-called dried fish.

The whole dietary of the natives in the town calls for much improvement and change. It is not the ordinary dietary of the African, and it is nothing so varied as that of people living in the country districts. There is room for the introduction of more than the fish of the town; from the flour of maize all sorts of things can be made. There is the use made of the wheat and of the wheat, though wheat which is now proved to produce malnutrition and is the worst of all food.

But on every occasion when I have had occasion to speak to natives about food, complaints are at once made of the general high prices of food in the town. These complaints were whenever caloric are discussed, and rice applied for and although arising but indirectly from the Public Health point of view.

if high prices are keeping the natives to a limited and unwholesome diet. I would ask that certain points be determined by those competent to pronounce on the matter. I beg to submit the following questions. Similar points are being investigated as regards food in India.

- Food Prices.**—1. What has been the actual rise in prices during the last 10 years—whether the rise has affected all commodities alike or whether it is especially marked in the case of grain foods.
2. Whether there are marked differences in respect to the rise of prices in different areas—town and country.
3. To what extent the rise in prices is due to world factors and how far it may be ascribed to local conditions.
4. Whether the prices are up permanently or there is hope of their falling.
5. If more or less permanent can a remedy be found and life be saved? In that a native can keep himself, his wife and children, in a house kept in proper repair, and dress himself and all decently. I am inclined to believe them when they assure me at present they cannot.

Pure Water.—Though it is most important to bring about as soon as possible the closing of all the wells in town for drinking purposes, it has not been possible to fill in more than 2 wells during the year and to open out and properly cover another. So long as the cholera prevails in Bombay, and as long as the steady and large immigration of Indians continues, there is the danger of some convalescent starting an outbreak of cholera in Zanzibar. There is, however, a rapid increase in the hook worm disease *Ankylostomiasis* various Tropical species and much sickness here conveyed not only by infected drinking water but by the larvae penetrating the skin of the feet and thus infecting those standing around a well.

Until a further supply of pipe water is obtainable no more wells can be closed for fear of fire arising in the bazars.

The localities where the wells most need closing and where hydrants are required are shown in the special map prepared brought fully up to date.

Twenty-five wells have been cleaned and treated with permanganate of potash during the year.

Water for Flushing Drains.—Such drains as exist here, called "Man Drains," have been flushed every week during the year. More water will be welcomed for this purpose as at present water has to be carried by hand buckets to various parts of the town to flush the drains in places where the present system does not reach.

When a further supply is available provision must be made for taking the waste into these drains. It is an easy thing to lay on water to houses but much more difficult to dispose of the waste where there are no drains. Covered floor taps and plugs for fire hose should meet the real needs and be kept in working order.

Housing.—Seven hundred and eighty-two visits of inspection have been paid to Indian lodging houses, *Gurjas, Ghassis* during the year. With the immigration these lodging houses are apt to be overcrowded after each steamer ship's arrival until the new comers have found their particular resting place.

Thirty-two Indian hotels and boarding houses were also inspected and four Indian Schools.

On 293 occasions disinfection had to be carried out, as spraying and washing out with dilute disinfectants. Minor repairs are always wanted such as stoppage of rat holes, broken floors and rotten balconies. The remedy for the greater the delay in getting it done. It would greatly help the sanitation of the town and be a convenience and saving to the people if the Public Health Department possessed its own jobbing masons who could do repairs at once, the cost being charged to the house owner, with a small covering margin. There is enough work to keep a man constantly employed and unless landing places of rats would be promptly stopped.

The smaller Indian houses in the bazars are becoming increasingly unhealthy from the rapid abandonment of the flat roof which though perfectly water-tight, when the work was done in the old manner with good material and plenty of labour, now seems beyond the ability of the modern builder to build.

The loss to the Indians and to the Public Health is very great. By the all bedding and apparel, carpets and matting, were taken up to be stored and cleaned on the flat roof and the contents of the rooms below when what

corresponds here to "Spring cleaning" took place. Now there is no overflow space for those not having a back yard and with the streets so narrow nothing can be got out of the houses or cleaned in the light of day.

The flat roof from its capability of being scolded around to secure purdah is not the proper roof for the Eastern people. Moreover, there is no danger from fire. Nothing is more certain than that before very long there will be a very great and disastrous fire on the basis of Zanzibar and a large conflagration will pass uncheckd through the streets where the houses are crowded with goods, clothing and furniture, iron pots, smooth lined with high dried wood.

It is a great deal of money is needed for the native huts when built close together. They are highly dangerous to the native. He loses by fire and by the contents of those around when his things are being out in hot haste from the burning hut.

But the roofing must not be galvanized iron. Both the Missions from long experience have come to the conclusion that nothing is more unhealthy for the ordinary native cooking air passed in and out through every chink. Iron is undesirable but by day unless lined with oil gives harbour to rats. At night it presents a large, cold surface from which condensed vapour drops and the native has to step up every chink to the water dripping out of air.

A solution of the best roofing has been found in Uganda where asbestos and cement plaques or tiles are used. With these there is still ventilation provided. Further good points in native houses are that every time the roof is mended the mud is gone in and every time walls are repaired new earth is used and the old things out. The one thing wanting in a dry floor and a "damp course."

The absence of windows is to be deplored, but they favour thieves and so are always closed. Windows in the West are made to be open; in the East they are locked upon as intended to be closed.

House Construction.—Four hundred and two house plans have been compiled and inspected, 105 complete disinfected, and 7 complete condemned and filled in, during the year. A vacuum cleaner sucking apparatus would save much time and annoyance. Owing to the streets being so extremely narrow any systematic cleanup at working the bucket system would be very troublesome, costly, and an obstructive nuisance.

How long the highly charged point of the bill or point on which Zanzibar is built can endure that being added to it is a debatable point. It is often surprising to find how little matter is compacted in long one contains. It would seem that the mosquito became septic when everything disintegrates and disperses.

One bad feature of the compound at the residence with which mosquitoes breed out from it. Exposure is especially required to be thrown into the cesspool, a promising material was quickly burnt by the sun.

Public Cesspools. A real and immediate need is the provision of public latrines to sustain places. These need not necessarily be on the sea front where they would be inconveniently prominent but in such situations as, for example, a short drain could be laid through the back to the edge of the dirty water. The latrine should be supplied with automatic flush apparatus. Until these latrines are built there should be no rigid interference with the natives using water's edge so that to be far preferable to the committal of nuisances on the narrow streets, already saturated by the worst kind of excrement affecting the public nuisance.

Rubbish Refuse. Forty-eight thousand tons, including ash, heavy earth, loads of refuse have been removed from the town during the year, at an average of 1300 tons a week, from 900 to 950 tons. It is hoped that amount will be able to be consumed in the new refuse destructor to the very great improvement of the town along the banks of which, on the native town side, the refuse is now dumped. Though absent over periodically in order to check the nuisance of the dumping, the refuse from these vast heaps of refuse pollute the beach, wharf the decomposing mass gives off unpleasant and noxious odours, especially noticeable at night.

Next, are, are attracted there and the health of the dwellers by cannot be improved, only those native keeping poultry are ignorant of this nuisance close to their doors. Complaints from others are frequent; silenced by promise that the destructor once going will end it all.

Streets and Roads.—The whole of the streets in the town have been swept twice daily on ordinary days and once on Sundays and Public Holidays.

if high prices are keeping the natives to a limited and unsuitable diet, would ask that certain points be determined by those competent to pronounce on the matter. I beg to submit the following questions. Similar points are being investigated as regards food in India.

- Food Prices.**—1. What has been the actual rise in prices during the last 10 years—whether the rise has affected all commodities and or whether it is especially marked in the case of grain foods.
2. Whether there are marked differences in respect to the rise of prices in different areas—town and country.
3. To what extent the rise in prices is due to world factors and how far it may be ascribed to local conditions.
4. Whether the prices are up permanently or there is hope of their falling.
5. If more or less permanent can a remedy be found and life be saved.
6. If more or less permanent can a remedy be found and life be saved.
7. If more or less permanent can a remedy be found and life be saved.
8. If more or less permanent can a remedy be found and life be saved.
9. If more or less permanent can a remedy be found and life be saved.
10. If more or less permanent can a remedy be found and life be saved.

Pure Water.—Though it is most important to bring about as much as possible the closing of all the wells in town for drinking purposes it has not been possible to fill in more than 2 wells during the year and to clean out and properly cover another. So long as the cholera prevails in Bombay, and so long as the steady and large immigration of Indians continues, there is the danger of some convalescent starting an outbreak of cholera in Zanzibar. There is, however, a rapid increase in the hook worm disease Ankylostomiasis causing Tropical anaemia and much sickness here conveyed not only by infected drinking water but by the larvae penetrating the skin of the feet and thus infecting those standing around a well.

Until a further supply of pipe water is obtainable no more wells can be closed for fear of fire arising in the basars.

The localities where the wells most need cleaning and where hydrants are required are shown in the special map prepared brought fully up to date.

Twenty-five wells have been cleaned and treated with potassiumate of potash during the year.

Water for Flushing Drains.—Such drains as exist here, called "Main Drains," have been flushed every week during the year. More water will be welcomed for this purpose as at present water has to be carried dry hand buckets to various parts of the town to flush the drains in places where the present system does not reach.

When a further supply is available provision must be made for taking the waste into these drains. It is an easy thing to lay on water to houses but much more difficult to dispose of the waste where there are no drains. Covered floor taps and plugs for fire hose should meet the real needs and be kept in working order.

Housing.—Seven hundred and eighty-two visits of inspection have been paid to Indian lodging houses, *Gurhis*, *Chalis* during the year. With the immigration these lodging houses are apt to be overcrowded after each British ship's arrival until the new quarters have found their particular roofing place.

Thirty-two Indian hotels and boarding houses were also inspected and four Indian Schools.

On 293 occasions disinfection had to be carried out, by spraying and washing out with dilute disinfectants. Minor repairs are always wanted such as stoppage of rat holes, broken floors and remove barages. The earlier the repair the greater the delay in getting it done. It would greatly help the sanitation of the town and be a convenience and saving to the people if the Public Health Department possessed its own jobbing mason who could do repairs at once, the cost being charged to the house owner, with a small covering margin. There is enough work to keep a man constantly employed and no less breeding places of rats would be promptly stopped.

The smaller Indian houses in the basars are becoming increasingly unhealthy from the rapid abandonment of the flat roof which through perfectly water-tight when the work was done in the old manner with good material and plenty of labour, now seems beyond the ability of the modern builder to build.

The loss to the Indians and to the Public Health is very great. By doing all bedding and apparel, carpets and matting, were taken up to be aired and cleaned on the flat roof and the contents of the rooms below when wind

corresponds here to "Spring cleaning" took place. Now there is no overflow space for those not having a back yard and with the streets so narrow nothing can be got out of the basars or cleaned in the light of day.

The flat roof from its capability of being exposed ground to secure purdah protection is the proper roof for the Eastern people. Moreover, there is no danger from fire. Nothing is more certain than that before very long there will be a very great and dangerous fire in the basars of Zanzibar and a large congregation will pass unobstructed through the streets where the houses are crowded with rag warehouses and piled high from roof to smoothly lined with high dried wood. A large kind of mosquito net is needed for the native hut when built close together. These are usually dangerous to the native. He loses by fire and by the contents of those around when his things are flung out in hot haste from the burning hut.

But the roofing work may be generalized from. Both the Missions from long experience have come to the conclusion that nothing is more unhealthy for the natives than an overcrowded hut unless the roof is double ridged. With the ordinary structure cooling air passes in and out through every chink. It is unhealthy not by day unless lined when it gives harbour to rats. At night it presents a large, cold surface from which condensed vapour drops and the native attempts to step up every chink to the utter shutting out of air.

A sketch of the best roofing has been found in Uganda where asbestos and cement plaques or tiles are used. With these there is still ventilation provided further good points in native houses are that overhanging the roof is avoided the sunlight given in and every time walls are repaired new earth is used and the old changed out. The one thing wanting is a dry floor and a "damp course".

The absence of windows is to be deplored, but they favour thieves and are always closed. Windows in the West are made to be open in the East they are locked upon as intended to be closed.

House Sanitation.—Four hundred and two houses cleaned and disinfected, 100 cesspits disinfected and 2 cesspits condemned and filled in during the year. A vacuum cesspit emptying apparatus would save much time and sanitation. Owing to the streets being so extremely narrow any mechanical attempt at working the truck system would be very troublesome, costly and an obstacle to business.

How long the highly charged sand of the ball of point on which Zanzibar is built can endure light being added to it is a debatable point. It is often surprising to find how little material is composed in long one contains. It would seem that the epidemic become rapid when every thing disintegrates and disperses.

One bad feature of the cesspits in the basars is with which mosquitoes breed out from it. Kerosene is regularly provided to be thrown into the cesspits, a proceeding regarded with great horror by the natives.

Public Latrines.—A vast and immediate need is the provision of public latrines in certain places. These need not necessarily be on the sea front where they would be inconveniently prominent but in such situations that a short distance could be laid through the back to the edge of the dirty water. The latrine should be supplied with automatic flush apparatus. Care these latrines are built there should be no rigid interference with the natives using water's edge as that is far preferable to the communal latrines in the narrow streets whereby parasites of the worst kind are disseminated affecting the public health.

Rat Refuse.—Forty-eight thousand nine hundred and sixty-one loads of refuse have been removed from the basars during the year. A monthly average of 1250 loads, or from 500 to 600 loads, is so large that amount will be able to be compressed in the new refuse destructor by the very great improvement of the plant along the banks of which, on the native town side, the refuse is now dumped. Though burnt over periodically in order to check the nuisance of fire breathing, the fumes from these vast banks of refuse pollute the street whilst the decomposing mass gives off apparatus and without doors, especially noticeable at night.

Flies, too, are attracted there and the health of the dwellers by cannot be improved only those natives keeping poultry are victims of this nuisance owing to their doors. Complaints from flies are frequent, silenced by promises that the destructor once going will end it all.

Streets and Roads.—The whole of the streets in the town have been swept twice daily on ordinary days and once on Sundays and Public Holidays.

The broken roads with their ruts and hollows make the working of the scavenging carts very difficult, and cause much extra labour in sweeping.

The roads leading out of town are swept to a mile out and along the circle road towards the main roads. What is left of the swamps lying alongside these roads has attracted attention as described below in anti-malarial measures.

Some of the most serious spots in certain parts of the town when for the taking of the water, there is a great quantity of water.

The protection of the streets in the town against heavy downpours of rain remains a problem not easy to solve in the absence of good road material.

For the very narrow roads, when there is not wheel tracks, the best system is to slope the road from each side towards the middle which should be paved with as good stone as can be got, or to pipe the road that is best into the road surface lime, sand and a binding earth.

Should the refuse destructor produce any chink, it will come in for the party. Undoubtedly a lot of destruction is caused by the rust of water on the galvanised iron roofs imperfectly provided with gutterings.

Until the services of a competent plumber can be secured for Zambar, there can be no permanent improvement in the gutterings. The work is charged for at an expensive rate, but tumbles to pieces in but a month or two's time.

This subject would appear to be lying more within the scope of the Public Works Department, but it directly affects the economy and efficiency of the scavenging of the town, the streets cannot be properly and quickly swept with all these holes and ruts in the roads. The gutterings put up without proper fall and with inadequate down-take-pipes are quickly choked and breed mosquitoes. It is impossible to discover such breeding places except from the upstairs windows of the houses, a proceeding beset with difficulties when the house contains parda women.

The sandy debris caused by the great wear of the roads often blocks the main drains and this may not be discovered until during the use of the Clayton Gas on the drains, the gas is found not to be passing freely.

When not in flood with rains the streets become in the dry weather very dusty and watering them is beset with difficulties. To the complaints about road succeed complaints about dust, for in this dust burr teams, rickshaws and horse-drawn carts are a nuisance at places of crowded resorts such as the Courts, the Markets front, and the Darajani Bridge that some means of abating it must be found.

The *Indian Public Health and Municipal Journal* recommends strongly a preparation named *Dusmo* which being hygroscopic can be used over again and in this moisture laden air may prove of great value. I recommend making a trial of some at the spots named.

For street rubbish many capacious and covered dust bins have been placed about the town and have helped to keep the streets cleaner between the times of passing of the dust carts. It is hoped by time that the refuse from each house will be put out in covered refuse bags for removal.

The co-operation of the Police has been sought in this matter. The Commandant of Police has also issued a general order that the Police have to report at once—leaking water taps at the Public Hydrants, standing pools of water; blocked drains; obstructions in streets; encroachments on streets and open spaces; suspected leper cases. The Police are ordered to prevent communal nuisances; overloading of trucks and carts; deposits of refuse around the creek edges; burials without burial permits. They are also ordered to remove to hospital the homeless sick and the apparent insane, and the pauper dead to the mortuary.

Notifications.—Notices with view to prosecution if not complied with have been issued as under:

Repairs of drain pipes and cesspits	1
General repair of premises	1
Whitewashing of interiors	1
Monthly nuisances	1
Repairs of gutters, lights and ventilators	1
Construction	1
Wells to be filled in or properly covered	1
Abatement of general nuisances	1
Total	10

Special circumstances and inveterate obstinacy have impeded prosecutions in 3 cases resulting in convictions of the offending parties.

Nuisance Industries.—Hides and skins still continue to be exposed for drying, and in small quantities for curing, within the town limits, an unpleasant and at times possibly dangerous process. The question of eventually removing this industry to a reasonably accessible place outside the town is very desirable. The curing is by the more modern process.

Plague.—The protective law might with advantage be amended to the substance of the drug bearing to "kill" the pest in a substance sold at utility prices.

Special Vigilance Cases of Plague.—Cases of plague occurred in the months of July, October and November of the year being Parayana, 1st and Panabari Khola and the last a Gama. With the exception of the last they may all be considered to have been in one connected block of premises. The origin could not be traced. None of the trapped rats caught in the premises showed signs of plague.

Insulation with Haffkine's preventive was at once proposed on and 3,451 people were inoculated as under:

Inoculations.—Number of persons inoculated during the year with anti-Plague Serum—

Localities.	
Khaja Bimala and bussons	1,070
Bahawa (Haidari)	1,024
Bahawa	413
Beahala	413
Ganga	1,117
Chyitana	65
Musona	12
Bahawa	7
Parayana	1
Jaipore	4
Beahala	2
Total	8,883

The destruction of rats by trapping and poisoning has been vigorously pursued with daily microscopic examination of droppings from their infested organs. The process by which the source of origin of each rat can be traced right back to the white under the microscope is still carefully followed out, has been of great value, and has been thoroughly approved by all those of the German experts who have at intervals inspected our work here.

(a) Number of rats removed at the various following periods during the year 1920—

At the Sanitary Office, Victoria Gardens	24,803
At the Sanitary Office, Victoria Gardens	29,304
At the Sanitary Office, Victoria Gardens	7,011
At the Sanitary Office, Victoria Gardens	4,913
At the Sanitary Office, Victoria Gardens	9,839
At the Sanitary Office, Victoria Gardens	2,907
Total	80,287

(b) Description of rats—

Black rats	11,930
Black rats	17,363
S. Gray rats	4,780
Black rats	3,050
White rats	11
White rats	2
Downy rats	1
Total	37,137

(c) Number of premises rats with latrines—

Preparatory	2,800
Finished	18,348
Total	21,148

(d) Number of rats examined for plague—

Number of rats examined for plague	37,501
Result of microscopic examination	Negative

Anti-Malarial Work.—The following swamps and other places found breeding anopheles larvæ were regularly inspected and kerosened when required during the year:—

- The Ziwani Swamp.
- The Sebeleni Swamp.
- The Kivungani Swamp.
- The further Kivungani Swamp by the side of Mr. Bhami's shamba.
- The mangrove ground owned by Essajee Jeewanjee at Kivungani.
- The Kasrawani quarry ground at Mtendeni, low ground at Mtendeni on the side of the Indian Soap Factory.
- The hollow ditches at Mwasembe Lado.
- The swamp by the side of Lady Janbal's road.
- The low ground leading to the Gulioni Hospital and other places where rain water remained stagnant.

The following work had to be done by the Public Health Department to drain off the surface water following heavy rains:—

- A ditch of about 1,400 feet long with many cross drains was constructed by the side of Lady Janbal's road at Mwasembe Lado.
- Two ditches of 1,020 feet and 748 feet in length were ditched out at Gulioni and 400 feet length surface drain was made at the dhoob tanks, Gulioni.
- In addition to the drainage of the Ziwani Swamp by the Public Works Department, a ditch of 220 feet was constructed at the Ziwanu dhoob tanks to the sea-beach by the Public Health Department.
- A ditch, 390 feet long, was made from the further end of the Naval Canteen ground to the sea-beach, and hollow places filled in.
- On 3 occasions anopheles mosquitoes larvæ were found in water lying in stone boats and dugouts drawn up on the beach.

At the beginning of the year a Mosquito Inspector was appointed for regular inspection of water in houses and lying on undrained ground about and around the town. The Inspector has been most diligent and has done most excellent work. It has been found, however, necessary to provide him with an assistant to carry a ladder, tin of kerosene and bottles. He is now able to get through his work more quickly. The improvement in the town in the matter of mosquitoes is a matter of general comment.

Mosquito Inspection Work.—Number of premises including ruins, grave yards and other places visited during the months of:—

January	340
February	330
March	348
April	327
May	318
June	318
July	304
August	340
September	311
October	300
November	300
December	300
Total	3,972

Statement showing the number of premises, etc., where anopheles breeding places were found during the year ending 1909:—

European quarters	423
Indian and other Asiatic quarters	40
Arab quarters	40
Swahilis and other African quarters	40
Ruins, grave yards, cowsheds, stables, &c.	40
Total	543

Zymotic Diseases.—Measles in a mild form was very prevalent in the early part of the year. One case in the prison was removed to the Prison Island Sanitary Station.

Chicken-pox was also prevalent. Four cases amongst prisoners and 3 amongst natives were removed to Prison Island.

There is a belief that an outbreak of chicken-pox is often followed by small-pox. Vaccination has been pursued so far as was practicable with the desire to avert it. Though beset with vexations and delays, the results are not a very disappointing.

Vaccination.—The number of persons vaccinated against small-pox during the year was 2,156:—

Natives	1,807
Swahilis	877
Indians	121
Arabs	20
Europeans	20
Other races	39
Total	2,156

For the treatment of cases of infectious diseases, unable to be isolated effectively in their own homes, there is provided at the Infectious Hospital, although for a long time past it will be difficult to compel the higher class and more educated Indians to make use of Government Hospital accommodation and treatment for either themselves or their families, it will be found that these same people are only too willing to allow their servants who fall sick to be taken of their premises. These servants are generally sleep on the ground, and are ignorant about the value of good quarantine premises and so are more often found falling victims to contagious diseases than the rest of the members of any household who live in the better equipped quarters.

In order to bring these people into the wards, it will be further necessary to have a block of Hospital land to the westward of the Infectious Hospital. Many of these find their way to the Wallace Pass House (the first Anglican and Poor House buildings are abandoned for their present purposes) and use it as their abode, and it is possible that some of the buildings.

Several of the premises on the Island have been seriously affected with cholera in the past year. Treatment cases were removed to Prison Island, and the premises were found to be a good recovery.

The Prison was disinfected thoroughly and brought into such a condition that, notwithstanding the circumstances of the building, its cells could not have been occupied again. Everything throughout was kept in a most sanitary condition, but unfortunately the incidence of cases until an absolute change of the use of the prison was decided upon, improvement did not seem that

it was possible to obtain a better result. It was decided to stop the use of the prison for a period of six months, and to erect a high wall on it. It was found that the cost of erecting a wall, including a few more buildings, including a hospital, is very high, and that the cost of the present system, which consists in merely putting the prisoners in a cell, which has been partitioned into cells, by this process the valuable layer immediately beneath the floor is left in the open state and is not carried away with the floor. This layer contains a considerable amount of organically combined phosphorus, which is the principal nutrient of the larvae. If it is found there is no maintenance, or starvation of the larvae system and the larvae starve. It is somewhat clear that the year 1909 is known as a failure at Tokoro. It is somewhat clear that the year 1909 was a very successful year, hence there is a great amount to be done in the future.

It would be desirable to reduce the number of prisoners in the Jail and to carry the rest by the introduction of a better system of punishment.

Any outbreak of cholera in the Prison is prevented by new cases being removed to the first Sunday after the outbreak, when they have already been vaccinated, and eventually have already had cholera.

Leprosy.—There were 21 cases in the Wallace Leper Asylum at the beginning of the year and at the close the same number. Two died.

Returns have been made by the Assistant Collector from the information

supplied by the Masha which show that there are lepers isolated in the different villages and distributed as follows:-

Mkokotoni District	25
Chwaka District	24
Mwera District	24

There are also 129 lepers in Pemba. This will give 216 more known lepers to become inmates of the new general Lepers Asylum when built, making, with the 91 already in the present Lepers Asylum, 307.

Cemeteries.—A list of burial grounds in use in the Town and suburbs has been compiled. A beginning has been made in putting up fencing around the grave-yards.

A piece of ground just outside the native quarter of the town has been recommended as a site for general burying in the future for those who are not entitled to be buried in existing family or tribal burial grounds.

Pratique to Ships.—Ships have been given pratique during the year 24-dhows from the Arabian and Indian coast ports and North were inspected on arrival.

In arranging the payment of the Light Dues it was arranged that ships would be given pratique at once on arrival at any hour of the day or night. As this instant granting of pratique secures the payment of the dues and the work is done by the Health Officer it would seem only fitting that a certain part of this Revenue should be credited to the Public Health Department.

Quarantine.—No ship was placed in quarantine during the year. The Prison Island, Sanitary Station, was made full use of for the treatment of outbreaks of Chicken-pox and Beri-beri amongst the police, prisoners and King's African Rifles and for cases under observation during the period in which the Plague cases occurred in Zanzibar. Forty-three cases were taken there.

These cases were:-

Beri-beri	17
Chicken-pox	1
Messias	1
Small-pox	1
Ethusias	1
Mumps	1
Total	22

New Offices and Laboratory.—The new block of Offices and Laboratory is nearing completion. It is hoped that besides the routine work of examination of rats and material from clinical cases in the Hospitals, all cattle diseases, and parasites and affections of the economic products of the Island with the various analysis required will be able to be undertaken by Mr. Parkins, the bacteriologist.

Public Health Decree.—The year has seen an attempt to lay a sanitary code and the publication of the Public Health Decree which has been facilitated by dealing with nuisances but which only gradually enters its full benefits.

This habits of Eastern peoples which mostly seem to be from a Western point of view are but slowly changed despite Decrees.

Weather Report.—The total rainfall for the year was 58.17 inches of which

January	4.55
February	1.52
March	26.80
April	4.04
May	0.15
June	2.15
July	8.31
August	2.51
September	4.50
October	10.25
November	17.78
December	10.14
Total	86.14

It remains for me to call attention to the diligence and activity which the members of the staff have shown in their work throughout the year, begotten

confidence on the part of the public and myself that things important and necessary will be done with thoroughness and reliability. What I am always insisting upon has, I believe, been grasped by all, even by the humblest member, and that is that on the reputation of the Public Health of the town of Zanzibar depends the whole prosperity of the Island. For if this Port be closed there is no longer a way in or out for the business of the place. With the town so old and with everything gone into dilapidation from neglect so drained to keep things going as they are.

The energy and zeal which is common to all the whole staff, especially from Mr. F. S. ... the Secretary, ... who by his tact and unflinching effort overcame successive difficulties of difficulties, and who by his power of persuasion overcame opposition on the spot, thus preventing many troubles growing into serious situations.

For his work he requires all the support the Government can give him. I cannot consider the status of the Sanitary Inspector at Zanzibar as sufficiently outwardly recognized by the Government and I beg to plead for consideration of some further way in which it can be more marked.

Mr. Soma's predecessor was Mr. ... who was an officer of the Government, and now though the work with its responsibility has increased tenfold, the Sanitary Inspector's status has been lowered.

Though Mr. Soma has a staff of over 200 people and has to carry through a great deal in the Bazaar by the force of verbal administration as is without uniform, and though his work brings him constantly into contact with the whole public yet the anomaly exists that the Sanitary Inspector of Zanzibar is never on the spot for consultation on any public gathering.

There is, too, the question of the Sub-Inspectors who are men of distinct capability and have to hold their own at times in their different districts.

Their salary is distinctly small but they are further unfortunate in that they can never advance as they find all avenues of promotion closed to them though able to do all ordinary clerical work and a great many other things and their names do not stand out as being up to the mark. Heads of Departments always get men appointed who have been clerks pure and simple. However I would point out that their work begins at six o'clock in the morning and that they work on Sundays and public holidays.

I would point out that the Sub-Inspectors are given far charges of promotion which the Government has not and that their salaries and prospects as they stand are unimpaired. Also that if by great diligence and show of capability a man comes down from the top to the bottom of the list of promotion the Sub-Inspector that he is given the beginning salary of a Sub-Inspector otherwise all the heart is taken out of the promotion. The granting of these advantages would certainly be a feeling of injustice which I do not hesitate to say I should be glad to see.

For the sake of the work of the Department which is being up to the best interests of Government it is imperative that all such considerations should be taken into account.

ALFRED HENRY SPURRIER, Medical Officer of Health.

Report from the Chief of Customs

Receipts. The net receipts of this Department amounted to 19,18,242 rupees 25 cents as compared with 14,67,273 rupees 50 cents in 1925, an increase of 4,50,969 rupees 75 cents. This satisfactory result was due entirely to Cloves and Gums which alone show an increase of 3,11,330 rupees 10 cents. Other subclasses of Revenue showing increase were Consolidated Taxes 8,033 rupees, Customs 1,672 rupees, Levy (including 582 rupees), Dutiable Exports 864 rupees. These showing decreases were Imports from Foreign Countries 66,620 rupees, Karamani Road 7,549 rupees, Miscellaneous, etc. 2,152 rupees, Declarations 317 rupees, and Scale fees 273 rupees.

The decrease in duty on Imports from Foreign Countries was principally from Rice 39,272 rupees, Grains 11,410 rupees, and Piece-goods 11,949 rupees. The decrease from Rice was owing to the value having been so high in 1908, the quantity imported and consumed in 1909 having been very little less, as will be seen from the following figures of quantities imported during the last three years.

	1907.	1908.	1909.
Quantity	3,96,666	2,99,215	2,81,760
Value	29,65,883	39,58,356	25,37,500

The decrease on grains was presumably due to the fact that 1909 was a good year for local produce such as mohogo, potatoes and grains.

In the case of piece-goods there was really no falling off as compared with ordinary years, the quantity on which duty was paid having only been exceeded twice, in 1905 and 1908, both years following on record Clove crops, 1904-05 and 1907-08, the results having been that the people had more money to spend on dress.

Imports.—The value of Imports into Zanzibar exclusive of those H. H. Island Dominions amounted to 1,49,15,530 rupees, as compared with 1,45,47,618 rupees in 1908, an increase of 3,67,912 rupees. The principal items showing increases were Coins 12,89,280 rupees, Ivory 4,04,501 rupees, Coprah 78,267 rupees, Rubber 77,967 rupees, Jewellery 49,477 rupees, Sim Sim 41,527 rupees, and Empty Gunny bags 29,958 rupees, while those showing decreases were Rice and Grains 6,84,161 rupees, Piece-goods 2,02,233 rupees, Petroleum 1,71,845 rupees, Coal 1,26,595 rupees, Crocker 93,956 rupees, Grubber 53,938 rupees, Cement 47,784 rupees, Beads 40,850 rupees, Iron Sheets 33,040 rupees, Firewood 20,431 rupees, Vegetables 19,779 rupees, Carriages 13,092 rupees, and Miscellaneous 68,037 rupees.

The following comparison of figures shows the relative value of goods imported from the various continents during 1908 and 1909.

Continents.	1908.		1909.		Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.		
Europe	48,08,304	39,25,703	6,22,782	8,82,607		
Asia	58,07,915	64,30,679	1,96,726			
America	4,90,350	6,86,678	4,31,603			
Africa	31,41,049	38,72,452				

A large proportion of such articles as piece-goods, hardware, beads, etc. which formerly were brought to Zanzibar for distribution along the coast by dhows, are now taken direct by steamer. It was only to be expected that as the Coast ports were opened up and communication with the interior facilitated the transhipment trade of Zanzibar would decrease to a certain extent, but not so rapidly as it has done. This is, I think, due to a large extent to the manner in which this Department has been neglected. Before the Coast ports were opened up and we had no competition to contend with the Customs as it might answered its purpose well enough. It might, however, have been expected that directly we had to enter into competition with the Coast, efforts would have been made to retain our position as the principal centre of East Africa trade by effecting as many improvements as possible, instead of which practically nothing has been done in that direction. It is, however, satisfactory to know that the question is now under consideration, and it is to be hoped that the long deferred wharf improvements will be put in hand, otherwise what trade we now possess will in a short time be almost entirely diverted. The following figures of Imports (exclusive of the produce, etc., from H. H. Island Dominions) and Exports (exclusive of the produce of, and exports to, H. H. Island Dominions) for the last 14 years will give some idea as to the extent of the falling off of our trade.

Year.	Imports		Exports	
	Rs.	Rs.	Rs.	Rs.
1899	2,00,00,000	1,00,00,000	1,00,00,000	1,00,00,000
1900	1,87,40,531	1,41,00,000	1,41,00,000	1,41,00,000
1901	79,32,400	1,00,00,000	1,00,00,000	1,00,00,000
1902	1,40,00,000	1,00,00,000	1,00,00,000	1,00,00,000
1903	1,44,31,000	1,00,00,000	1,00,00,000	1,00,00,000
1904	1,40,00,000	1,00,00,000	1,00,00,000	1,00,00,000
1905	1,40,00,000	1,00,00,000	1,00,00,000	1,00,00,000
1906	1,40,00,000	1,00,00,000	1,00,00,000	1,00,00,000
1907	1,40,00,000	1,00,00,000	1,00,00,000	1,00,00,000
1908	1,45,47,618	1,45,47,618	1,45,47,618	1,45,47,618
1909	1,49,15,530	1,49,15,530	1,49,15,530	1,49,15,530

Exports.—The value of Exports exclusive of those H. H. Island Dominions during 1909 amounted to 1,51,70,164 rupees, as compared with 1,46,64,477 rupees during the previous year, an increase of 5,05,687 rupees. The principal items showing increases were Rubber 2,07,124 rupees, Ivory 1,65,900 rupees, Piece-goods 1,47,483 rupees, Machinery 70,500 rupees, Coprah 67,000 rupees, Beads 19,810 rupees, Sim Sim 15,000 rupees, Jewellery 100 rupees, Petroleum 28,747 rupees, Gunny-bags 20,304 rupees, Hollow Glass 10,000 rupees. Those showing decreases were Coins 10,48,129 rupees, Iron and Steel 20,310 rupees, Coprah 1,72,219 rupees, and Copal 27,700 rupees.

Cloves.—The total quantity of Cloves sent on during 1909 amounted to 27,725 francs, as compared with 24,092 francs during the previous year. Of the total France purchased 135,000 francs.

The average price during the year was 100/6-9 rupees per ton, as compared with 100/0-0 rupees and 100/0-0 rupees during 1908. The 1909 crop, for June to June, amounted to 815,410 francs. The condition at which the cloves have been sent down from Pemba during the last 18 months or so has been very satisfactory and I think some improvement is likely to be effected during the next year's crop, to dry them before putting them on the market.

W. B. SWINERD, Chief of Customs.

Customs Department.

STATEMENT OF INCOME for the year 1909 compared with 1908.

Particulars.	1908.		1909.		Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.		
Import Duty	6,12,000.00	6,12,000.00	6,12,000.00	6,12,000.00		
Excise Duty	2,00,000.00	2,00,000.00	2,00,000.00	2,00,000.00		
Stamp Duty	1,00,000.00	1,00,000.00	1,00,000.00	1,00,000.00		
Other Duties	1,00,000.00	1,00,000.00	1,00,000.00	1,00,000.00		
Income from Licences	1,00,000.00	1,00,000.00	1,00,000.00	1,00,000.00		
Income from Surtax	1,00,000.00	1,00,000.00	1,00,000.00	1,00,000.00		
Income from Stamp	1,00,000.00	1,00,000.00	1,00,000.00	1,00,000.00		
Income from Other	1,00,000.00	1,00,000.00	1,00,000.00	1,00,000.00		
Total	10,00,000.00	10,00,000.00	10,00,000.00	10,00,000.00		

W. B. SWINERD, Chief of Customs.

Report from the Director of Agriculture.

The Plantations.—The gross revenue from the plantations in 1909 was 2,52,462 rupees (16,839l.), 4,16l. more than was estimated, made up as follows:—

Receipts shown in our books	Rs.	2,51,462
Value of duty cloves from leased plantations as per Customs House entries	Rs.	317
Add for the beginning of the year, before entries were kept	Rs.	683
Gross revenue	Rs.	2,52,462
		16,831.

Gross expenditure	Rs.	1,32,622	Rs.	8,941l.
Deduct one third of personal Emoluments		10,218		
Plantations Expenditure			Rs.	1,22,409
Net revenue from plantations			Rs.	1,30,053
			Rs.	8,670.

In 1906, the most prosperous year, the gross revenue was 2,54,470 rupees but had the price of cloves been the same in 1909 as in 1906, our gross receipts for 1909 would have been 3,02,687 rupees (20,179l.).

The plantation accounts are subject to another correction. If the plantations were carried on by a commercial body, improvements such as planting and the building of drying floors would be charged to capital account. In past years such improvements have been charged up to revenue to the prejudice of the amount the plantations actually return, i.e., the balance of receipts over expenditure incurred to secure those receipts.

In 1909 our capital expenditure amounted to 16,198 rupees. Deducting this sum from ordinary expenditure our net returns from the plantations are 1,46,251 rupees (9,750l.).

Most of the cloves picked in the season 1908-9 were sold in or credited to 1909. The staff of the Department is occupied in duties other than those connected with the management of the plantations. It is not, therefore, fair on the shambas for the whole of the expenditure of the Department to be debited to them.

In Schedule I, details of revenue and expenditure, as well as other information is shown against each plantation. Marseilles (net balance 18,212 rupees), Basra (6,114 rupees), Selem (13,644 rupees), and Kitope (9,660 rupees) have done the best.

The deficit of Miwani is due to the plantation being almost all waste land, the receipts being insufficient to provide for the cultivation of the young trees planted. Kinuni Mushi is chiefly an experimental station (pine apples, rubber, nutmegs). At Mgongwangama, the overseers' wages and cleaning of the plantations has absorbed all the receipts.

Cloves.—In Schedule II, will be found the yield of cloves from Government plantations during the last 7 years, together with the average price obtained per fransia. This has been an indifferent season. Prices during the year ruled low. To the depression in trade which prevailed through 1909 must be attributed the low price of cloves and the small crop.

Cocoanuts.—Though a number of young trees have come into bearing there has been a decrease in the yield of nuts, the effect of the 1908 drought. The figures are as follows:—

Number of nuts gathered	1,321,998
Add number (calculated) for losing plantations	129,207
Total	1,451,205
Compared with 1908	1,509,998
4.3 per cent. decrease	58,793

The average price of nuts for 1909 was 2554 rupees per 1,000, but the average price at the close of the year was 3040 rupees, a sharp rise having taken place in the month of October.

It is believed by manufacturers and brokers that the copra market is in a very firm condition and that good prices may be looked for in the coming year. Trees have begun again to yield well and we may expect a prosperous season.

Rubber.—The yield from the Pemba rubber forests has been 96 fransias, 244 lbs. which sold for 7,561.70 rupees. The yield is 14 per cent. over the previous highest total (86,191 in 1906). This rise may be attributed in part to the Pemba clove trees which being both late and light, enabled tappers to continue till the end of the year and in part to an increase in of an ounce a lb. in the price paid to tappers. The stimulating influence of this cause is illustrated by the fact that 25 fransias of rubber was collected in the last quarter of the year compared with 77 fransias in the last quarter of 1909.

The Copra rubber trees in both islands have grown fairly well. The trees outside the country; trees at Dunga have been produced by tappers longer than anything to be seen in German East Africa. Dunga is a rich bank but the soil of Chwaka and Kinuni Mushi where the bulk of the copra has been planted is of very different character. With the exception of the trees at Dunga which were planted for experimental purposes, we have not planted our rubber on the good clove soils reserving them for our more certain staple clove and cocoanuts.

In February 1909 a new species of rubber latex was discovered in Pemba. It is known locally as Mushi. Miss Maudslowi in British East Africa the tree is called Mgwa. In March 1909 seeds were sent to the Laboratory of the Imperial Institute and were identified at Kew as *Mangrovea glabra*. Samples of rubber were sent also, and the following report received.

The results of the examination show that this rubber is of very low quality and consequently would be scarcely saleable in competition with specimens from Pemba. It is suggestive of a native of the same rubber from the East Africa Provinces previously examined at the Imperial Institute as it contains much less stannic property.

I send a sample of the rubber to Messrs. Smith, Messers. & Co. who forwarded the tappers' report as follows:

I am greatly obliged for specimens of rubber to test. We would therefore recommend greater care in the preparation, in the present circumstances, of the samples. The difference in price a correct value given. It is to be considered that the price of the rubber is a safe basis for the value of the rubber.

The use of fairly widely distributed in Pemba, but has not yet been discovered in Zanzibar. It has been recommended for native plantations but a further study from the sample. We have not yet been induced to export it. It is to be considered that the price of the rubber is a safe basis for the value of the rubber. We are endeavouring to examine the samples of course, trees growing in private property belong to the owner. The Government take 15 per cent. export duty hence we have a substantial interest in the trees.

Specimens are being sent to the people here to test their own trees, and there being no other we have arranged to sell their rubber for them. The small consignment from the Wani of Wani has been accepted, well and well-qualified and I hope when the good knows that others will be prepared to export their trees.

Specimens the forests of Ngwa, North Pemba, in which the Landshiper creper trees Government plants some 50,000. Copra rubber trees in Zanzibar and Pemba and 4,000 Para trees in Zanzibar. A section Copra rubber such was contained in Pemba in 1909.

These plants are brought from the tappers for 1.50 rupees per lb. (11. 6d.) the plantation rubber at 2 rupees (16. 0d.) but I think this figure will have to be raised to 20 of 1909 to stimulate the output. The local price of Copra rubber at this present time is 34.0 rupees (11. 6d.) per lb.

Cocoa.—A demand for cocoa seed has arisen in R. E. A. so an giving increased attention to our cocoa trees again of which now bear profusely.

The 1910 crop of seed we have sold to the B. E. A. Government for 25 rupees per 100 pods at Dunga, charges extra.

Nutmegs.—The young plantation at Kinuni Moshi has done badly and I am inclined to the opinion that this product is not very well suited to our circumstances in Zanzibar. The soil of this plantation, it is true, is not good, but we have in previous years tried the plant in a variety of soils. Nutmegs must be shaded for at least three years, and watered in the dry weather. We have 3,000 plants in the nursery which I propose to put out on part of the old tea and cocoa clearings of Dunga where good tape shade has grown up.

Cinnamon.—The young cinnamon plantation laid out in 1908 on Chukwani shamba was destroyed by grass hoppers. I do not propose any further trials with this product at present.

Pineapples.—The 10,000 young plants at Kinuni Moshi are in excellent condition and have begun to bear. It is worth recording that one pineapple from a small plantation 3 years old weighed 17 lbs. and measured 15 inches in length. It has been neither watered nor manured; I believe this to be a record. Our investigations into the practicability of canning pines have shown that it would not be a profitable undertaking. We shall have to rely principally on the Aden market for the disposal of the fruit.

Marseilles Plantation.—This shamba deserves a special word of reference because it provides a useful object lesson of the policy of planting up the waste places of our plantations. Dunga and Marseilles (and Kitumba) are the only two large shambas in which the Government have carried out this policy, both were fully planted up with coconut trees, Dunga in 1899 (4,000) and 1901 (9,000) and Marseilles in 1899. In that year 10,000 coconut trees were planted in Marseilles. This young plantation has cost us very little to rear. We could profitably have spent upon it much more than we have done, but that is another question; I only wish to describe here what has taken place at Marseilles. The trees have for the most part been kept clean by the people of the plantation cultivating their gardens among them. Some of them came into bearing last year, practically for the first time, and we gathered 3,000 nuts from them; this year we shall gather 15,000, worth, at current prices, 900 rupees; next year we shall gather double that quantity and in a few years time we shall be deriving a net profit from them of some 8,000 rupees per annum.

Marseilles is also instructive as the first experience we have had in Zanzibar of the time it takes a coconut plantation to come into bearing. Individual trees can be forced on to bear in 3-4 years, but with a plantation receiving the treatment customary to the country, that is to say the scantiest, 10 years must elapse before the first fruits are reaped.

Planting.—The decision arrived at not to extend our clove plantations, though we replaced trees that confine ourselves for some years to planting coconuts, is, I think, a wise one. The coconut industry is in a very prosperous condition and is likely to remain so for some time; and although coconuts are not so profitable per acre as cloves they provide a more steady revenue and on that account as well as for other reasons are more suitable than cloves for leasing to small proprietors.

I may state here that the risks these islands are believed to run in being almost entirely dependent on one product for its welfare are not of the alarming character they are usually thought to be. Such at least is my view. Unlike such products as vanilla, which is used solely for confectionary, cloves are employed in many industries and for many purposes. If it were discovered that some other substance served to prepare specimens for the microscope equally as well as clove oil that would not affect the consumption of cloves in the saloons of America, and while again it is always possible that some other drug might be made to fill the place of clove oil in the pharmacopoeia, the bazaar of India would not on that account discontinue using cloves as a hasty remedy. Or turn again to another danger—a hurricane. If a hurricane were to strike these islands—an improbable event as we are not within the hurricane zone—it is unlikely that it would sweep through both of them, because the track in which a cyclone travels is as a rule a narrow one. The price of cloves would rise enormously and though many private people would be ruined yet if one island were spared the country itself would not be ruined. In the plantations that were destroyed, young trees have grown at the base of the present trees would survive and we should have young plantations 2 or 3 years old ready

planted, and which could, if the effort were put forth, be brought into bearing in 4 or 5 years time.

The most serious risk to which we are exposed is that of other countries taking up the industry and entering the field as our competitors. German East Africa has tried very hard to grow cloves and is still trying. Hitherto, so far as I am aware, the results have not been satisfactory. But if the price of cloves were to rise say to 15 rupees per francs reduced efforts would probably be made in German East Africa and in other countries as well. Again, if any rival arose to threaten our position in the clove market we could best deal with him by increasing our output and reducing the price. We could, I think, increase our output of cloves 50 per cent. without planting another tree. I mean by this that we do not get the nuts of our trees by cultivating them as at present we only weed and keeping the soil well covered especially in dry weather we could make them rear much better than they do at present in another respect; that of labour, we have already effected much but after an unpromising average 1907-8. We could do still better than in those years.

But there is this point to bear in mind. The clove plantations of Zanzibar were watered in the dry weather during the first few years of their existence. In the hot season all weeding was stopped and clove were turned on a quarter each tree receiving one pot of water every other day. We could not do this now, even on Zanzibar labour is too expensive. The trees by the time they came into bearing would have cut with them they would be worth. We can fill up our equipment we could increase our clove bearing area but we could not create a clove industry such if we had to begin all over again.

Following are the trees that were planted in 1909

Clove trees	10,000
Coconut trees	10,000
Nutmeg trees	100
Cocoa rubber 2-1/2 acres	100
Pava rubber	100
Average trees	20,200

In Schedule III will be found the number of nuts reaped from the clove plantations. Two trials regarding the best method of drying the clove were made at Marseilles. The results of the whole were pronounced satisfactory by all who witnessed them. The defects were:

1. Drying too small and too slow in revolution these being an qualification of speed. (Only a small quantity of cloves could be put through and a great deal of really labour saving.)

2. Motion of rotary screen too slow. The ring seems to be too narrow to pass through unless they were accidentally expanded because of protruding ring not suitable.

We stalked and screened several fractions of cloves which were accepted in the market without any comment. The most serious objection was the loss of cloves from the large proportion which found their way in among the stems and which only fetched the price of stems.

The second machine by Pollock proved after working was over. No plantation trial has been possible. The machine differed from the first in having a much larger drum which revolved at a high speed. It seemed from the trial experiment we have been able to make to do the staking much better than the first. The screens were of the oscillating type. This type manifested a serious defect at once, the clove sticks often between the meshes up to their necks and choked up the lower screen. This defect might be obviated by running the wire of the meshes horizontally instead of usually as they are now, and by having the screens more steep and a horizontal wire as a direct shock. The screens are of wire, a great improvement on the galvanized iron screens of the Dell machine.

A machine with a large and rapidly revolving drum with a slowly revolving smaller rotary screen, rectangular in shape, under long and narrow, the best results of both the Dell and the Pollock and should prove to be the best of the three. I have not what we have so far accomplished. Pollock machine has been fitted with a such a screen to ready for experiments for clove screening.

From trial experiments I have made, the specific gravity of cloves appear to be less than that of stems—in the green state. If a satisfactory apparatus of

the cloves from the stems by screening proves to be impracticable, separation might be accomplished by blast or by water. I will do no more than just refer to this idea here; but in the coming season I hope to be able to make some experiments to test its value.

Central Drying Floors.—The subject of central drying floors has engaged much of our attention this year and I propose to summarize the position as far as we have gone. The system of hot air drying is not suitable, it has been decided, because the high temperature would expose the cloves to loss of oil. In the Vacuum dryer loss of oil would also probably take place, but this system and that of portable trays are both too expensive for the work they accomplish. Central drying, if it is to take place must, it would appear, be done on concrete floors, such as we have built on many of our Government-plantations, reviving the old custom of the Arabs.

For the purpose of forming an idea of the outlay necessary for establishing central drying floors we may take it that one square foot of floor space is required for each clove tree, or say 10 square feet for one frasila of cloves. Floors should not be more than 200 feet wide, the cloves being carried out 100 feet from the flanking go-downs on either side. A floor 5,000 feet long—say 1 mile, and 200 feet wide would suffice for a million trees; five such floors would accommodate the crop of the two islands.

A floor of these dimensions (1 mile and 200 feet) would cost 400,000 rupees to build, with the flanking go-downs 600,000 rupees (40,000L). Arabs would not patronize a central floor unless the cloves were bought from them outright. To buy 100,000 frasilas of cloves, 1,00,00,000 rupees (66,000L) are required. The clove-buy would be unattractive; a battery of staking machines, driven by engine power would be a necessary part of the equipment and cost say 5,000L. add 10,000L for housing, the staff, 3,000L. contingencies, 10,000L for purchase of land, and 14,000L for labour.

Floor and go-down	40,000
Clove buying	66,000
Staking machine	5,000
Staff	10,000
Land	10,000
Contingencies	5,000
Labour	14,000
Total	150,000

Roughly we may say that a capital of 15,000L would be required for a fully equipped central dry floor in West, but operations would not be begun on this scale. In Zanzibar one can never tell whether a new scheme will go down with the people. They have a habit of coming forward with an insuperable and unforeseen difficulty at the last moment. In Pemba they have been clamouring, one may almost say, for somebody to come and relieve them of the expense and trouble of drying. A small floor of say one tenth the above dimensions would no doubt get plenty of custom. Roads and perhaps high railways feeding the floors would in the course of time follow with the total result I think when the system came to be properly established, of lifting the clove industry and placing it upon a completely new level of prosperity. Such an enterprise would be speculative to a certain extent. Profits would be derived from the sale of the dried cloves and a margin of at least a rupee a frasila would be necessary to cover the cost of drying and interest on capital. Cloves would be bought at market price but with a falling market this margin of 1 rupee would soon disappear. Markets could be controlled if the quantity of cloves held were sufficiently large to force a movement and the corporation would be compelled to aim at acquiring this advantageous position. But this would not altogether suit the Government who would be in want of their duty cloves for revenue.

The subject it will be seen is an involved one. It possesses great possibilities for Zanzibar and for a capitalist.

Clove Leaf Oil.—I submitted to you in July the report of the Imperial Institute on our clove leaf oil.

The oil analysed much better than that from Seychelles which was pronounced worthless. The Director asked for a larger quantity of oil for the purpose of obtaining a commercial valuation and this I hope to be able to distil for him

in the clove season. Our main object I should point out is experimental whether we find a market for our clove leaf oil if the economy arose, e.g. if Seychelles began forwarding on a commercial scale at present there is no market for either Seychelles or Zanzibar clove leaf oil and it better for that could certain to be none.

Local Plantations.—During the year we leased 21 plantations, being the total now leased including those at Mombasa, up to 42. The total income derived from the rentals is 25,000 rupees per annum, an increase of 5,000 rupees per annum over our average annual net returns from the plantations. The high price of copra will enable the tenants to realize reasonable profit. We are treating for the leasing of several more. It is an extremely difficult matter to fix upon the rental value of a clove plantation because of the uncertain prices of copra and the fact that the average output of cloves from the Government plantations is increasing. A clove plantation brings us in one year say 1,000L, not another year nothing at all. If we accepted a contract at say 500L on the eve of a good crop and the next year with nothing coming in he found himself unable to continue, we would be losers by 500L. Then again the rise of 1 rupee per frasila is equivalent to an increased return of clove 10,000 rupees from the Government these plantations.

The position is further complicated by the fact that we undoubtedly make more out of our clove trees than people realize is out of them. We pick more thoroughly and at deeper rates. With reference to the small occupier like the advantage of us because he is not troubled by the extent we are. He can squat on his land and not after the present. What we do do is we do not robbed us so far as that goes we are off several times with the small proprietor. With reference to the subject of advantage is 500L or and we have been unable yet to accept any contract for a clove plantation.

The Arabs. I have submitted to you a summary of the results of our various discussions with the Arabs. The Arab custom and culture have all been criticised during the course of our discussions. The Arabs as being ignorant and uneducated and the evidence is being also the Indians as being ignorant and uneducated very high goes to the country. I don't agree with this statement. The statements of the Arabs which concern the population, their habits of life and of work and their ideas differ from ours and we must judge them, if we are to judge them at all, not by European but by Eastern standards. To condemn is to judge them and we must judge them by Eastern standards. To produce more work more revenue for the Government as a result of that leads us to various suggestions.

The figures supplied in Whistler's large plantation are the average per hectare of clove and five neighbouring countries, given in these figures to those of which Zanzibar is provided 200 of the value of trade per hectare. The figures show the contribution from each individual towards the Government of the island. The trade is a measure of his industry. The figures in Whistler are not shown in detail but the calculations though only approximate show the figures would amount to have taken the population of Zanzibar (and Pemba) to be 220,000 the revenue 2,000,000 and the cost 1,000,000. Expense 1,000,000 rupees 1,000,000L.

(Average per hectare of plantation)

Revenue	1000
Expenses	1000
Trade	2000
Yield	1000
Whistler	1000

Value of trade per head of population in

Revenue	1000
Expenses	1000
Trade	2000
Yield	1000
Whistler	1000
India	1000

If the ratio proved to be correct, then Zanzibar stands out quite more favourably than other countries.

SCHEDULE III.
List of Columns and for Road during 1900.

...	1,000
...	4,000
...	15,000
...	3,500
...	5,500
...	5,000
...	250
...	3,000
...	1,000
...	3,000
...	7,000
...	500
...	11,000
...	500
...	1,000
...	4,000
...	1,000
...	1,000
...	5,000
...	6,000
...	2,000
...	500
...	5,000
...	500
...	4,000
...	3,000
...	700
...	500
...	500
...	500
...	5,000
...	1,200
...	3,000
...	1,000
...	800
...	800
...	200
...	2,300
Total Earths	106,150
...	1,832
...	302
...	2,900
...	1,080
...	3,550
...	8,994
Total Fences	104,150
Total Earths	115,134

SCHEDULE IV.
METEOROLOGICAL OBSERVATIONS for Zanzibar Town, 1900.

Month	Barom.	Dry bulb.	Wet bulb.	Max. temp.	Min. temp.	Range.	Highest.	Lowest.	Range.	Number of days.	Rainfall inches.
							Recorded.				
January	30.020	81.1	74.9	87.2	74.9	12.3	87.2	74.9	12.3	8	4.94
February	30.045	82.8	76.3	88.2	76.3	11.9	88.2	76.3	11.9	3	1.32
March	30.066	82.6	77.4	88.9	77.4	11.5	88.9	77.4	11.5	9	9.20
April	30.126	78.6	73.3	84.3	73.3	11.0	84.3	73.3	11.0	25	29.30
May	30.176	75.7	71.4	84.3	71.4	12.9	84.3	71.4	12.9	12	4.36
June	30.226	75.8	70.1	82.4	70.1	12.3	82.4	70.1	12.3	3	0.19
July	30.250	75.0	70.3	82.0	70.3	11.7	82.0	70.3	11.7	3	0.12
August	30.261	75.0	70.3	82.0	70.3	11.7	82.0	70.3	11.7	3	0.12
September	30.261	75.0	70.3	82.0	70.3	11.7	82.0	70.3	11.7	3	0.12
October	30.261	75.0	70.3	82.0	70.3	11.7	82.0	70.3	11.7	3	0.12
November	30.261	75.0	70.3	82.0	70.3	11.7	82.0	70.3	11.7	3	0.12
December	30.062	80.8	74.9	85.3	74.9	10.4	85.3	74.9	10.4	19	13.10
Mean	30.123	78.9	74.1	84.7	73.9	10.8	84.7	73.9	10.8	149	85.14

SCHEDULE V.
Summary of Meteorological Observations
Taken at Banani, Pemba, East Africa, for 1900.

	Max. Min.	Mean Min.	Abs. Max.	Abs. Min.	Rainfall.	Rainy Days.
January	85.08	72.80	88.0	70.0	5.53	12
February	84.59	71.61	88.0	70.0	4.62	5
March	85.00	72.55	91.0	70.0	7.14	18
April	80.17	69.85	86.5	65.0	3.23	20
May	80.30	70.42	85.5	65.5	3.25	17
June	78.50	68.15	81.5	63.0	4.07	11
July	77.42	67.11	79.5	62.0	1.56	15
August	78.21	65.55	82.0	66.0	1.98	12
September	79.80	67.58	83.0	66.0	2.75	13
October	80.66	68.76	84.5	69.0	5.47	15
November	81.58	70.01	84.5	67.0	10.21	19
December	82.19	71.05	86.0	67.0	7.08	18
Total for the year	81.21	69.62	91.0	63.0	79.08	189

Extreme range of temperature for 1900, 20 degrees (91-63).
Extreme range of temperature during the past 11 years, 30 degrees.
Average rainfall for the past 11 years, 84.83.
Average number of rainy days during the past 11 years, 158.

SCHEDULE VI.

Meteorological Observations.

RAINFALL Registered at West for the year 1910.

	Inches.	Number of Rainy Days.
January	0.02	1
February	0.36	2
March	4.42	8
April	17.71	24
May	4.49	12
June	3.20	12
July	3.25	15
August	2.79	10
September	2.18	9
October	4.54	13
November	3.28	12
December	3.82	10
Total	66.97	163

(14.)

Report from the Port Officer.

Port Survey.

General Shipping.—The past year has been a record year in shipping in Zanzibar. The total number of ocean-going ships entering the port being 262, exclusive of the coasting steamers (which also show a record in tonnage) and of dhows. The total tonnage of ocean-going steamers entering the port was 836,167 tons, or 496,879 nett. The next highest number recorded was in the year 1907.

where 231 ocean-going vessels called. The cause of the increase is that the Bombay and Persia Steam Navigation Company have started running a regular service here also Messrs. Cowan, Dinshaw & Bros. run a regular service between Zanzibar and Benadir Coast. They also run occasionally a steamer between Zanzibar and Pemba. The Messageries Maritimes also run a monthly steamer between Zanzibar and Madagascar via Comoro, in competition with their main line service as their large boats have ceased calling at Comoro. The number of coasting steamers shows a decrease, but the actual tonnage shows an increase, the reason being that the very small German steamers do not call here as often as they used to. The largest number of ocean-going steamers calling here were under the German flag, and numbered 131. Next to these came British, with a total of 94 for the year. The German tonnage was more than three times the British.

Receipts.—The gross receipts for the Port Service Department for the year are 85,599 rupees, this being the highest ever recorded, and is principally owing to extra light and harbour dues collected, extra bills of health issued, and sand ballast. The remainder of the revenue is derived from licenses issued for dhows, canoes, boats, hawkers and traders on ships, also for manifests issued for passengers and crews of dhows, pilotage, hire of buoys, &c., &c.

Expenditure.—The Port Service expenditure shows an increase of 5,543 rupees owing to the cost of a new buoy, but the whole of this amount is recovered from light and harbour dues collected.

The number of passengers written on at the Port Office during the year was 36,652, and the number of crews 15,836, giving a total of 51,488 people written on in the Port and Shipping Offices during the year.

Licensed Beach Boats.—The number of licensed beach boats is limited to 75, this being sufficient for the number of steamers that call. The charge for a license is 4 rupees per month each. The hotels also run one licensed boat each, but they are only allowed to carry passengers for their own hotels, and are not allowed to compete with the ordinary licensed beach boats. In return for this we allow them to wear the hotel uniforms in the boats, fly their own flag, and they do not require a number on their boat. In all other matters they have to comply with the regulations for licensed beach boats, and pay the ordinary fee for a license. All the licensed beach boats are inspected weekly to see that they are in a fit condition to ply for hire, and that they comply with the regulations by having the necessary number of oars, signal lamp, spare gear, &c., in accordance with the regulations. Some enamel plaques, showing the legal tariff, have been ordered from Europe, and when they arrive one will be affixed to the back board of every licensed boat.

Somali Water Police.—There are now 16 Somali water police and one Somali officer. They keep watch night and day in the harbour, eight being on duty at a time with two boats, three or four men in each boat. They board every licensed boat that enters, and get a declaration form filled in. This form is filed in the Port Office. The water police boat remains at the ship's gangway to regulate the traffic of boats to and from the ships. Owing to the frequent robberies that occurred in the harbour, an extra eight water policemen were engaged from the 1st February and an extra boat was built. For police purposes the harbour is divided into two districts, and each district is patrolled by a police boat at night. Since this extra boat was employed the robberies have become much less frequent.

Harbour Police.—There are 22 native police to keep watch night and day, 11 being on watch at a time. They are in the charge of two officers, two corporals and one sergeant. Their duties are to keep order on the landing stages and piers at the following places:—Bank steps, landing stage at the new Customs House, Bender Abbas steps, and Malindi beach. They also watch the landing stages, and see that their licenses are renewed and that they do not infringe any of the Port Regulations. They have carried out their duties very satisfactorily during the past year. The police are inspected weekly to see that their kits are in order, and the Chief Inspector reports daily to the Port Officer.

Quarantine Regulations.—Every dhow arriving from north during the north monsoon from December to May is boarded by an Indian Medical Officer, who examines the crew and passengers. If everything is correct he issues them a certificate, which they bring to the Port Office with all the passengers and crew. They are counted and identified at the Port Office by the description of the

crew list and passenger manifests. We also a small schooner anchored off Malindi spilt from December to May for the convenience of the Indian Medical Officer. This schooner is laid up during the south west monsoon, when the Indian and Arabian dhows have ceased to arrive. There are certain parts of the harbour (as laid down on the chart) reserved for ships that have to remain here any length of time in quarantine, and certain rules to be observed as laid down in the Port Regulations.

Clayton Disinfecter.—We have a large size Clayton disinfecting engine without on board of a hulk in the harbour, and she is used for disinfecting any ship that arrives with any infectious disease on board. We did not have to use the Clayton machine much during the past year, but used her every day during the plague, as we had to disinfect every dhow that left here. We were not able to lay up the hulk for repairs in 1905 as she was frequently required, but in the last year in September we laid her up and thoroughly repaired the hull. She is built of wood and is very old, but will probably last several years longer if built after. We have given the bottom and sides of her, inside a thick coating of cement; this will help to preserve the iron frame and woodwork. The Clayton machine was used on the "Barawa" to kill the rats and cockroaches. A very small charge of only 3 per cent. of gas was required for this purpose. A charge of 5 per cent. gas will extinguish flies, but for killing vermin of disease we use a much stronger charge of 15 per cent. The cost for the use of Clayton machine is made as low as possible as (boats) carry the actual cost of coal, sulphur, &c., used. Nothing is charged towards the recovery of engine, hull, or crew's wages. The German authorities at Dar-es-Salaam have just obtained a similar machine to ours. The British East Africa Protectorate also got one out for Mombasa.

Boat Shed.—A great many repairs have been carried out in the boat shed during the year. Most of the steam launch engines in Port Service boats, Police, Collectorate, Government steamers &c. boats have been repaired. There are always at least one or two boats under repair and the shed is full that it is difficult to find room to work. It is hoped that the new shed for H.H. the Sultan's boats will soon be ready after which we shall be able to remove H.H.'s state barges. This will give us a great deal more space for working. Every Government boat should be laid up and overhauled at least once a year. If this is not done, and the hull is neglected for long a great deal of work is required continually hauling up, drying, and painting otherwise they rot and get bored worms. Teak wood boats rot nearly twice as much as iron, but last four times as long, and do not cost so much for repairs.

Workshop and Buoy Shed.—A sliding door has been fitted to the workshop, and has proved very useful, as we have not had any boats in port during which it was built. The buoy shed is too small for our present requirements, we have over 70 buoys now, and there are generally about 20 of them under repair at a time. Most of these have to be kept outside the shed on the beach, and unless they are constantly painted they deteriorate very fast. They were in use, and much work has been done this year on the workshop of the Port Service and Shipping Departments. Several new buoys have been made, using galvanneal sheets, funnels, &c. for the launch and buoying machines, which were broken and repaired. We have also repaired and painted machines which were sent from Europe. They have saved much time and expense in India. It is hoped that this work will be done by hand before we get them. A large quantity of buoys have been rigged up under H.H.'s orders in the harbour, and has been very useful for lifting heavy anchors and other things from the launch and boats under these sheds in the past year, and it is nearly always in use, and it is nearly always in repair.

Fairway Buoys.—We have 111 fairway buoys in the harbour, 11 in the channels and harbours in Zanzibar and Pemba when the Government steamers call are now well marked by them. A large buoy was placed in the English pass on January 1st, 1905, and the two old buoys removed. These old buoys will be useful for another six or seven years as said before. Two new large buoys have also been placed in Pemba, one at the north end of Chaga Channel and one off Chaka's back entrance. All buoys are changed and painted verified twice a year, and at least once a year all buoy markings are checked and cleaned, and if necessary repainted a stock of new chains is ordered and

from home every year. This year we are ordering a new sort of iron chain instead of steel, which should not corrode so quickly in these waters. Nearly all the buoys are now moored with properly constructed iron sinkers. These new pieces of scrap iron that were formerly used for sinkers. These new buoys will not require replacing for at least 20 years. We still require about a half a dozen more, and these are now being ordered out from Europe. The position of all the buoys is verified as often as possible, and during the past year not one of the buoys has dragged or shifted its position at all. Two new iron beacons are being constructed in the buoy shed to be placed on two submerged rocks off Chaki-Chaki, as it is difficult to buy these very dangerous rocks on account of the deep water alongside of them and the very strong tidal current. These will probably be erected in February or March. A large new buoy is being got out from Europe to mark the turning point for ships coming into Zanzibar from the southward. This buoy will carry a red light which will be visible five miles at night time. This will cause a small expense for oil, but the cost will soon be made up for, because the steam launch will not have to go out to put a lamp on the buoy, as they do at present, whenever a steamer wishes to come in at night time.

Light and Harbour Dues.—Light and harbour dues are charged on every vessel entering Zanzibar, at the rate of 2 annas per ton net register, and any ship calling twice within seven days only pays light and harbour dues once, provided that she only works cargo on one of such two calls. Dhows do not pay any light and harbour dues, and they are allowed to take water free if they fetch themselves from stand pipes. The only charges made to dhows are for crew lists, passenger manifest, and, if they require them, bills of health. The fees collected from light and harbour dues are used to pay for the upkeep of lighthouses and of fairway buoys, and are charged as follows:—25 per cent. of the salaries of Port Office staff; 25 per cent. of Port Service sundries and contingencies, and 4 per cent. interest on capital expended on erecting the lighthouses. 100l. per annum towards the upkeep of steam launches. Actual cost of launches and steamers whenever used for lighthouse or buoy work (wages of crew, stores and coal consumed). Salaries of lighthouse staff, lighthouse stores, lighthouse repairs, cost of buoys, sinkers, chains, &c., and repairs to same. Repairs and improvements to lighthouses. By agreement the balance of money collected from light and harbour dues has to be refunded at the end of every year to the steamship companies that run a regular service to Zanzibar. To constitute a "regular service" not less than six calls must be made. By an agreement drawn up by H.B.M.'s Agent and Consul General, it has been arranged to pay a rebate of 15 per cent. of the light and harbour dues collected, instead of refunding the balance. This has proved a loss to the Government for the past few years, as the surplus for 1908 was only 337 rupees, and the rebate paid amounted to 7,419 rupees. This deficit of 7,082 rupees had to be debited to last year's account, causing a deficit at the end of the year of 6,658 rupees, and although the amount collected for the year 1909 in light and harbour dues is larger than it has ever been before, there will be a large deficit to be charged to the account for 1910. The amount collected reached the total of 61,268 rupees for the year, and the expenditure 60,844 rupees. A sum of 8,660 rupees will be required to pay a rebate of 15 per cent. on this, and together with the deficit of 6,658 rupees caused by previous rebate amounts to 15,318 rupees, to be debited to the year 1910. New living quarters for the keepers at Kigomali Lighthouse will have to be built at a cost of over 6,000 rupees, and although the light and harbour dues collected in 1910 will probably be higher than they have ever been before, we may expect a large deficit at the end of the year if a 15 per cent. rebate is paid. A statement of light and harbour dues is attached to the report, giving details of the expenditure.

Lighthouses.—Repairs have been carried out during the year to the living quarters or store-rooms at every lighthouse, and they are now in better condition than they have ever been before. As most of the wood and corrugated iron has now been replaced by stone and cement, the cost of upkeep in future will probably be less than it has been hitherto. All the lighthouses are limewashed and painted annually.

Chumbo.—This flash-light has worked satisfactorily during the whole of the year, and never once stopped revolving from sunset to sunrise. The headman has kept the lighthouse and store-rooms, &c., in most excellent condition, and he is a thoroughly reliable and hardworking man. He has built two extra rooms

himself at a very small cost to the Government, and completed a large cement reservoir which he built without any outside assistance. Prisoners were employed for two months of the island clearing away bushes and scrub, and cutting a path to the lighthouse from the north. This path is not yet finished. Some of the clockwork wheels of the revolving apparatus showed signs of wear, and have been replaced by new ones ordered out from Europe. The new water-tanks were supplied and fixed in position by the headman.

Mogonyoni.—This light has lighted satisfactorily during the whole year. The new living quarters have been completed, and the tower staircase has been thoroughly repaired. This lighthouse should not require any more extensive repairs for many years. Being a fixed light, nothing is likely to go wrong with it.

Rus Nyungu.—The new living quarters at this lighthouse had to be re-erected by the contractor at his own expense, as they had not been properly done. They are now in very good condition. This is a fixed light, and has burnt satisfactorily for the whole year. Being comparatively new, only two years old, it should not require repairs for many years.

Munya Munya.—Revolving light has worked satisfactorily during the year and never stopped revolving from sunset to sunrise. Some new rollers have been got out for the clockwork, and the patent cases show signs of wear. These can easily be fitted when required. The lantern does not heat in any way, so that no fans are required. A new landing platform has been erected at the edge of the cliff, and an iron ladder down to the sea. It is very difficult to land and to get stores up to this lighthouse in the north monsoon, as the sea breaks heavily near the ladder. All the lighthouses have a three months' supply of oil in stock.

Kigomali.—This is the largest and most important lighthouse on Zanzibar or Pemba, as it is the first light seen by vessels approaching from the north, and as it is over 80 miles from the Port Office it cannot be visited so often as the other lighthouses. For this reason it is in charge of an English keeper. There has been a great deal of sickness amongst the keepers during the past five years; four of the European keepers having died and two English keepers during the past six months. For this reason the Health Officer has recommended the new sleeping quarters, raised above the level of the ground, to be built. The present sleeping quarters are very damp. The heat is always wet even in dry weather. The new sleeping quarters will be built shortly, and it is hoped that this will improve the health of the crew. Three beds have just been completed for the native boys to live in. These good stores sent for the lighthouse, and is more satisfactory in every way. A second European keeper for this light is very much needed, but we have not yet been able to obtain the services of a suitable man. A letter has been sent to the Port Captain at Cape Town asking if he can send us a man, but up to now no reply has come by hand. The present headman has only been about three months at the lighthouse, but he seems to be getting on all right, and all his repairs are quite satisfactory. His new spare clockwork apparatus has arrived and has been fitted, but will not be used until the present one breaks down. The reason for ordering the new clock was that the present one breaks down too often. It was, however, repaired by Mr. Barnes, the late keeper, and has worked satisfactorily ever since. Five months' stock of oil and spare articles at the lighthouse amount to the grand total of 100,000 rupees. The tower is painted once a year.

Leading marks.—There are six leading marks shown into the harbour, five into the anchorage at Zanzibar. Each mark carries a light at night. The lights have burnt satisfactorily for the past year.

Antares, St. Ignace.—The lower lantern of Antares is the only lantern with a 15-day light, and is situated on the 17th of every month. It has never given any trouble, and never goes out for the past four months. It is reported every night by the men on watch at the signal tower at the Palace Square. The foundations of this tower were never completed when it was built, and this should be done as soon as possible. The lower lantern very much in a rough sea. The Public Works Department have estimated the cost of this to be done in 1910.

The sea is still encroaching on the lower pillar at Marbuli, and it is being completely in the sea at high water. The foundations which were being washed away have again been strengthened by driving in piles, and filling them up with rocks and cement, and the pillar seems quite safe now. I do not think

the sea will encroach much more here; but if it does, we shall be obliged to build an iron pillar, similar to the one in the sea off Kiumani, as the present one would easily be knocked down if a sea struck it.

Lighthouse Oil.—Our three years' contract with the D.O.A.C. for the supply of lighthouse oil expired on March 30th, 1909, but we have sufficient oil in stock to carry on to the end of the year 1910. Tenders have been asked for a supply of 150 best quality paraffin oil for 1911. We shall require about 600 cases.

Pilotage.—There is very little pilotage required now in Zanzibar, as the entrances are so well buoyed and lighted. The total receipts for the year only amounted to 480 ruppees. The pilot is always employed looking after the outside labour and work going on in the workshop and boat shed. He also assists in changing the buoys, &c., supervises steam launches, steamers, signal tower, leading lights, boat buoys, &c., and relieves the captains of the Government steamers when they are ill or on leave. He is a most useful man for all outside work which they are ill or on leave.

Canoe Registration.—Until September, 1909, all canoe taxes in Zanzibar were collected by the Port Service staff at a very small cost, as the men collecting them are on the permanent staff of the Port Service. Two men used to go round Zanzibar in a boat two or three times every year. When not collecting canoe licenses they are employed as follows:—The canoe marker is employed as an assistant carpenter (assisting the shipping carpenter in his work, as he is a fairly good carpenter). The other man, canoe tax collector, is employed in the Port Office go-down, marking the number on dhow sails and on canoes in the harbour district. The numbers for dhow sails are painted on drill, and then sewn on to the sails. When these men went round the island in the boat they used to get three annas per day food money and two pice for each license they collected. The total expenditure on canoe tax collecting, including marking the canoes, came to about 15 per cent. of the total earnings. This year the Port Service Department are to collect canoe taxes in the harbour district only, and the Assistant Collector will collect canoe taxes in the other districts, but I think it would pay to send the canoe tax collector round as usual.

Mkokotoni Station.—The Port Office clerk at Mkokotoni is a native, and since there has been a European in charge of the district the clerk's office has been moved to the collectorate office, making it easier for the Assistant Collector to supervise this clerk's work, and all fees collected are now paid into the collectorate safe daily. The clerk's duties are to board all dhows leaving, to check the crews and passengers and cargo. To issue crew and passenger lists, tickets for Government steamers, and collect canoe licenses in his district when possible, and to see that all the dhows comply with the regulations. During the clove season dhows are obliged to anchor at Shangani, north of Mkokotoni, as they cannot bring the cargo by road to Mkokotoni. The clerk therefore has to go and live at Shangani for the season, as it is too far from Mkokotoni for him to be able to keep a proper watch on them. This is not convenient, as the clerk is required at Mkokotoni when the Government steamers come in.

Mwanda.—There is a native clerk stationed here as well as at Mkokotoni, to check the dhow traffic, &c. He is now under the supervision of the Assistant Collector at Mkokotoni, and it is hoped that soon it will be possible to place Mwanda to dhow traffic and make them all go to Mkokotoni, thus rendering it easier for the Assistant Collector to supervise them, and save the expense of an extra clerk.

Pemba.—Mkoini, Chaki Chaki, and Wei. No changes have been made in any of these places since my last annual report, and I beg to endorse what I then said, more especially with regard to the awkward landing of cargo and passengers at Chaki Chaki and the delay caused thereby to the steamers. Badava, in Port Chakani, is one of the finest ports in Pemba, and is right in the centre of the island. It is the only steamer has never been into it yet. It appears from the soundings marked on the chart that the steamer would be able to approach close to the shore at Badava. However, the channel would have to be buoyed with five buoys before it would be safe for the steamer to go in. It would take about ten days to survey and buoy this harbour to make it safe for the steamer to enter.

In conclusion, I should like once more to call attention to the wrecked steamer caused to the anchorage by the wreck of the Glasgow. This wreck is sunk in the best position of the harbour, and causes much inconvenience to the shipping, and is also a source of great danger. On several occasions I have seen steamers

just missing running on to it, and once a steamer passed right over it but luckily she was light at the time and it happened to be high water. A few months ago a steamer dragged her anchor and drifted on to the wreck, but did not damage herself—she carried away the foremost of the wreck, and there is now only one mast left standing. Should this mast be carried away she would become a great danger to shipping, as the mast is a good mark for the wreck, and we have to exhibit two red lights from it at night time. It is impossible to keep these lights burning in a strong wind, and if a steamer should run on to the wreck in a stormy night when the lights had blown out, I believe the Government would be held responsible. I cannot too strongly urge the necessity of removing the wreck from the anchorage before any serious damage is done. A very favourable opportunity offers of the present winter, there is a sailing steamer now working on a wreck at Madagascar. I should certainly not lose than if we had to get a salvage steamer, especially to do the work, and sooner or later this wreck will have to be removed.

Shipping Department

The total receipts from the Government Shipping Department during a period on the previous years as the receipts have been comparatively small, the only service, i.e., trading between Zanzibar and Pemba. No regular trading has now been done, as a weekly service is maintained by the steamers between Zanzibar and Pemba. The loss of any one of these would appear to be because the expenditure on them is very much more than when the steamers are employed trading by the coast. The principal decrease in earnings is from "Freight," as the steamers previously got a good cargo between Zanzibar and Pemba, most of the cargo carried being for the Government, Missions, and Contractors. The steamers cannot compete with local dhow but the dhow trade, as we have the extra cost of loading and discharging by means of lighters. The money collected from passages shows an increase on the previous year, and if all the passengers had been charged the amount would have been the highest on record for passages and would have reached the sum of 50,644 ruppees. The actual paid passages amounted to 36,626 ruppees.

Minor losses, Zanzibar. A large loss has been incurred during the year at Pemba in connection with the Government steamers, charging half a rupee less on each fare, and taking off and leaving passengers free of charge. This has not only reduced the total passenger receipts, but also reduced the amount of cargo carried. The total unpaid earnings to the end of the financial year, and when employed on Government work, of charges for the local steamers amounted to 210,417 ruppees, added to the actual receipts of 36,626 ruppees, amount to 247,043 ruppees of steam receipts.

The total paid earnings of the shipping department for the year amount to 32,020 ruppees, and the total unpaid earnings to 21,607 ruppees, and including steam launches earnings to 53,627 ruppees. The following is a list of five steamers owned by the Government steamers during the year, some special trips being run entirely for the service of the port, and others for Government expenses. The actual extra cost of running 5 steamers by loading and back of coal and stores amounted to 455 ruppees for "Coco," and 275 ruppees for "Barawa." No allowance is made in this for wear and tear, repairs, capacity, wages, docking, or painting, &c. &c.

The Revenue

Coal duties

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

Government property

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Government property

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Government property

1,000

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300

150

100

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50

50

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50

50

50

50

50

Total number of free passengers carried

Total number of free passengers carried

Total number of free passengers carried

Total number of free passengers carried

Total number of free passengers carried

Total number of free passengers carried

Total number of free passengers carried

Total number of free passengers carried

The total number of trips made to Pemba during the year by Government steamers was 62 trips, and 9 trips were made to other ports, Dar-es-Salam and Mombasa.

The steamers are dry-docked for repairs at Dar-es-Salam once a year. The "Cupid" being a steel-built vessel, should go on the ship at least every six months to have the bottom cleaned and painted otherwise she will soon deteriorate. This work is arranged, as the actual expense of docking on the floating dock at Dar-es-Salam is very low, only amounting to about 15 rupees per day. The cost of the steaming could soon be saved in cost of coal expended as she goes much faster after being docked and painted. She will not from this to three days to dock, be and paint the bottom. She will not require any extensive repairs for a few years if she is docked regularly, and being new, everything on board of her is in very good condition. The greatest expense will be for paint, as she will require several coats all over inside and outside during the next year, and it takes twice as much paint to go for as it does for the "Barawa" or "Kilwa." The "Cupid" has proved quite a success for trade she is required in. She can carry as much cargo as she is ever likely to get in the Pemba trade, and can take 600 passengers, or nearly twice as many as the "Barawa", and is much more comfortable for the native passengers, and also for the first-class passengers.

"Barawa."—The "Barawa" was dry-docked and thoroughly examined and repaired. Considering her age she is in a very good condition. The engine and boiler will probably last many years. The outside plating of the hull is bad in places but with occasional repairs will last many years. The frame of the hull is the worst part about her. Several of the intercostals were renewed this year, and the remainder will require renewing within the next year or two. A few of these will be renewed every time she goes into dry dock. Her outside plating being of iron has lasted wonderfully well, except at the bottom, which to be removed many years when she was new. Several of the bottom plates had to be removed and replaced by new steel plates, as it was impossible to obtain iron ones. These steel plates require careful watching, or they begin to get very quickly.

"Kilwa."—The "Kilwa" is still laid up for sale, and as soon as possible, we shall on board of her. She should be dry-docked and being her up, otherwise she will deteriorate considerably, and we shall not be able to sell her. The engine will be in a very favourable report. She was examined her and sent in a very favourable report. She is in a very bad condition, because she was built at the same time as the "Barawa" and of the same materials, and has been in the same trade ever since. I consider that she has many years' work left in her still, and suggest that if no reasonable offer is made for her, it would pay the Government to put a crew on board of her in 1911 and use her for trading to the Somali Coast. Before doing so she would require some minor repairs, but I feel sure that if she was used exclusively for trading, or letting out to charter, she would return a profit at the end of the first year. We cannot spare either the "Cupid" or "Barawa" for trading if a weekly service is to be maintained with Pemba in addition to the ordinary Government work that is required to be done by the two steamers. I have frequently to refuse to let them out to charter because they have been required at the time for Government business.

Steam Launches.—The actual paid earnings of the launches for the year amount to 7,094 rupees. They have been principally employed in Government service taking Government officials about, and also on heavy work, lighthouse inspection, and pilotage, &c. As the official charge for the use of launches is made as low as possible (in most cases being only the cost of coal consumed), it is impossible for the launches to show any profit, or even to pay the cost of upkeep. No allowance is made in the charges for wages of crew repairs or inspection of launches, except in the case of lighthouses. A part of 1911 a crew is charged to light and harbour dues account towards the upkeep of launches, and whenever a lighthouse is visited the full actual cost of the launch is charged, i.e., share of wages of crew, stores and coal consumed, &c. When used for Government official purposes only the actual cost of coal consumed is charged for. The actual expenditure on launches for the year including repairs, stores, coal, and wages amounts to 16,988 rupees.

"Doulstain."—This launch was hauled up on Messrs Smith, Mackenzie and Company's slip-way at Malindi in November to be surveyed and repaired. The result of the survey was that the boiler had to be condemned. A new boiler

has been ordered out from the makers by telegraph and is expected to arrive by the middle of February. The hull of the launch has been thoroughly done up and re-coppered. The engines have been overhauled and repaired, and she is now in very good condition.

"Al Zamburath."—This launch, being only two years old, is in good condition, but will be hauled up on the slip-way and thoroughly examined as well as the "Doulstain" is in commission again. She has been much improved to adapt her to local requirements since the case out.

"Alor."—This launch was put up for sale when the "Al Zamburath" came out, but the "Kilwa" was not sold, and a reasonable offer for her. Before the "Al Zamburath" arrived we had several very good offers, but could not spare her then. During the past year she has been thoroughly done up, and is now nearly as good as new, and ought to last many years. The boiler has been re-fitted, all pipes have been refastened, she has been re-coppered, and had new coal bunkers, water tanks, and funnel. The engines have been overhauled and repaired, and are now in excellent condition. She would be a most useful launch for the Assistant Collector at Mkokotoni, or as a relief launch in Pemba, when the "Al Khathara" is laid up for repairs. At present we have no crew for her, but she is kept in order by the engine driver of the launch "Mkokotoni" and the engineer of the "Cupid."

"Al Zamburath."—This launch has not required any large repairs during the year. She has been very useful by taking passengers over to the islands. She could be taken one quarter the expenditure of a steam launch for upkeep, and will last the same or a longer time in use. She has also the advantage of being able to start off almost at once if she is required. It takes from two to three hours to get up steam in a steam launch.

"Mkokotoni."—This launch which is the private property of H.H. the Sultan, has been laid up for two years and is written off the Shipping Department books at the end of this year, as she can never be fit for service again. The only expenditure on her for the past year has been 182 rupees, wages paid to the engineer in charge of her. He has been employed looking after the engine of the "Alert", and she is extra steamer on board the "Al Zamburath" or "Doulstain" whenever they go a long distance, such as taking the northern lighthouses, a distance of 12 miles there and back.

"Al Khathara."—This launch, which is stationed at Pemba, is only under the Shipping Department Zanzibar, for the purpose of repairs. All machinery and stores carried there but are credited to Pemba authorities. She is at present undergoing repairs, and her boiler is being refitted. It is now proposed for the Post Office to Zanzibar to purchase the engine and boiler of this launch, which is at Pemba, and I think the work should be done under the supervision of the Public Works Department at Pemba, and that they should be held responsible for the proper working of the engine and the safety of the launch. Any extra repairs required to be done to the launch should be done by the Post Office Department at Pemba if necessary.

"The Boat."—The water supplied to the Government water boats shows an increase over the previous year owing to the extra amount of shipping, although she was out on her repairs during the last two months of the year. The expenditure on her has slightly exceeded the estimate for two reasons: (1) Because she is so small, and because she is so old, and constantly requires repairs. Taking an average of revenue and expenditure for the past ten years, the "Boat" shows a profit in the Government. Apart from this she is very useful for carrying the Government stores, lighthouse light-burners, and lighthouse water, which is required. This has also been a great saving to the Government, as she is also used for carrying passengers to the islands which no other launch is available, and for towing lights when required.

The Eastern Telegraph Company, which take a considerable quantity of water have stopped taking it from the "Boat" because she is so small and only holds 20 tons. They get their water from Messrs. Smith Mackenzie & Co. who use large water boats. The Government launches take considerably less than they used to since the new waterworks were opened in Dar-es-Salaam, but as the water there is not fit for drinking, Zanzibar still supplies them with drinking water only, and they get the water for other purposes, such as boilers, and bath water, from Dar-es-Salaam.

The "Boat's" boiler has been surveyed, patched, and re-tubed, and she is now in working order again. Her hull has been thoroughly surveyed and repaired.

and several patches have been put on. She should last about another two years, after which I do not think it would pay to repair her any more. But as I think it very necessary that the Government should own a water boat, I would suggest that a new one having a larger capacity should be built within the next few years. I think this would bring a profit to the Government, especially as the shipping is increasing annually. I would suggest building a boat having a capacity of not less than 25 tons of water and about 100 feet in length fitted for towing and for using as a fire launch. This would mean very little extra expense, as her own pumps would do the work. Her speed should be 9 1/2 knots, and she should be capable of steaming 60 miles without coaling. She could then be used for taking stores to the lightships, as the present launches are rather small. I estimate that a launch of this description would cost about 2,400l, and her upkeep would probably be less than that of the "Binti," and her earnings would certainly be more. In any case, the Government ought to have a new water boat within the next two years. Part of the cost could be charged to light and harbour dues if she is to be used for taking stores to lightships.

The general water supply shows a very large increase in revenue for the year, because the price was increased to the original charge of 1 1/2 rupees per ton, because the price was increased to the original charge of 1 1/2 rupees per ton, because the price was increased to the original charge of 1 1/2 rupees per ton. The revenue derived from sale of water to shipping in 1906 was 11,795 rupees, and in 1909 37,765 rupees. The amount of water sold in 1908 at the lower rate was 20,415 tons, after increasing the rate, actual quantity of water sold increased to 24,162 tons. At the time the price of water was reduced to 8 annas per ton I expressed the opinion, speaking from experience, that it was exceedingly unlikely to increase the demand or the revenue derived from that sale of water, as I was of the opinion that steamers always take as much water as they require, neither more nor less, regardless of the cost. The price of 1 1/2 rupees per ton compares very favourably with other ports charge for water, and is much lower than most places charge. Besides this, Zanzibar is the only port from Suez to Durban at which a steamer can get good water at anything like a reasonable charge. As a matter of fact, when we reduced the price to 8 annas a ton the demand actually decreased, and the amount of water supplied that year was less than it had ever been before, thus proving that what I said was correct.

The dhobi tanks and drying sheds and grounds, which have been many years in charge of the Port Service Department, were handed over to the Collector's Department on January 1st.

Wireless Telegraph

The Wireless Telegraph which was erected in 1907 has at last been got into proper working order, and has worked very satisfactorily since the new alternators were fitted up in October last.

From the time the Wireless Telegraph was first erected until the middle of last year we had great trouble to get it to work reliably, for several reasons—

- (1) It had never been tried before in this part of the world, and we found that at certain seasons of the year (from January to April) the electrical atmosphere disturbances were usually so bad that it was impossible to work as they interfered so much with the signals.
- (2) The heat of the sun was so great that it melted the aerial insulators, and we had to send to Europe for a new type of insulators specially constructed to withstand the heat.
- (3) We had not sufficient spare parts, and whenever anything broke down that could not be repaired locally we had to send home for a new one, and close the stations until it arrived.
- (4) The operators, who had not been used to reading by sound had to be trained, and it took some time to get them used to reading anything except the most perfect signals.
- (5) The operators did not know anything at all about Wireless Telegraph work, and if the slightest thing got out of adjustment they had to close down until I had been up to adjust the instruments myself.
- (6) The European Superintendents were quite unsuitable to be left in charge of the stations. They were both lazy and neglected their work, and the first was also incompetent as he did not understand this particular system.

All these difficulties have now been overcome, and the Wireless is at present in very good working order, although the present time is quite the worst season of the year for working. It is (1) very seldom that a message is delayed by atmospheric disturbances. This result has been arrived at by adjusting the instruments to finer tuning, and cutting out most of the atmospheric (2) A new type of porcelain insulators has been supplied by the makers. These were theoretically tested under double the ordinary working electrical pressure with a stream of boiling water being played on them at the time of the test, and they proved to be very satisfactory. These insulators have been substituted for the original "Porcelain" ones, and the signals have been much improved thereby. (3) Spare parts for anything that is likely to break down have been obtained. The greatest trouble was caused by the armature of the alternator, which was constantly fusing, and, although we had two spare ones, they all fused, and we had to close the stations, so we could not repair them locally. We now have two new armatures of a newer and better type, with two spare armatures. As they are much better made than the original ones they are not likely to break down, and even if they do they can be repaired locally, as the only one made to clip in, and we have several spare coils. The makers have been very obliging, and have taken a lot of trouble to make everything go all right, and I believe they have allowed us the full value of the original armatures which were not successful. The cause of the old armatures failure was partly the heat and dampness of the climate, which helped to melt the insulators in the area and caused them to fuse. Other troubles were caused by (1) constant breakage of the weather-driving belt, (2) breakage of the clockwork spring driving the engine wheel, (3) breakage of the valve of oil engine (partly through want of experience of oil engine on the part of the operators), (4) stations being struck by lightning (this is now being guarded against by a special kind of lightning conductor), (5) dry cells running down on account of the dampness of climate.

All these difficulties have now been overcome by obtaining spare parts which can easily be fitted in a few minutes, also because the operators through experience can now replace any part themselves. The signals of the present time are almost perfect and are better than they have ever been since we instituted the Wireless. The credit for most of this is due to the very excellent way in which the new Superintendent, Mr. Cawston has carried out his work. He has on three occasions repaired the old armature himself, reworking them by hand in a very difficult operation, and said to be impossible by his predecessors, and has thus been able to keep the stations working until the new alternators arrived. Mr. Cawston arrived here on the 28th of April, whilst I was away to Europe, and at once began thoroughly to overhaul the entire plant and make several alterations and improvements. He soon found that the stations could never be made reliable until we had a different type of alternator. These alternators were at once ordered out from home, and were installed in October last, since when we have had no further trouble with the Wireless. But the constant interruptions and delays in important telegrams had made the public (particularly the Indian community) somewhat dissatisfied with the Wireless Telegraph service, and the receipts from messages sent dropped off considerably. During the two years or three months the public are regarding confidence, and the number of paid messages sent is increasing weekly. At present the average number sent is about 15 per day. In my own experience of the Wireless, we should expect about 30 per day, and I am confident that we shall soon reach that number, as we are not likely to have any more serious breakdowns. If we ever close the communication with Ombay or Malindi by Wireless, I am sure that the Wireless Telegraph will be a source of income to the Government apart from its great use for Government purposes. Many telegrams are exchanged with Pemba on Government and Court business, including Her Majesty's telegrams which run some daily and for which no charge whatever is made. If Her Majesty were charged for the ordinary rate the Wireless would not be paying its expenses.

The Wireless stations were closed for 15 days during the year owing to breakdowns at various times before the new alternators arrived, and many delays were caused. Messages had to be repeated three or four times, even under favourable conditions of weather, but for the last few months nobody a letter has ever to be repeated, and every message is received at the first sending. The message book kept is kept running now all day, and if the operator misses a word on the telegraph he can read it off afterwards from the linked tape.

quite distinctly. I have some specimens of inked mouse tape which I obtained the other day during working hours, and they are so clear that there could be no possibility of a mistake.

The number of paid messages sent during the year was 1,745, an average of 6 to 7 for every working day, in addition to Reuter's and other messages. The number sent have been considerably greater if there had been no breakdown and the public had not lost confidence. As I said before, the daily number of telegrams sent is increasing lately, since the Wireless has been working reliably. On Sundays and holidays the stations open from 8.30 a.m. and close up to see if there are any important messages. On ordinary days the hours are from 7 a.m. to 5 p.m., with an interval at mid-day for meals.

I take this opportunity of saying that I think it would be to our mutual advantage to try and exchange signals with the new Wireless station at Majotta in Comoro. I do not suppose they could read our signals unless we increase our sending power, but they might be able to. And as I believe they are using more power than we, it is possible that we might be able to read their signals without making any changes. Signals were exchanged with H.M.S. "Porto" recently and telegrams were despatched to her when she was at sea.

The actual earnings for the year from paid messages were 7,762 rupees, and the actual expenditure 14,060 rupees, including the cost of certain spare parts stores, etc. from Europe, wages, coal, &c. In addition to this a sum of 2,000 rupees was expended on the new alternators after Mr. Canwarden's arrival. The actual cost of running the Wireless should amount to about 11,000 rupees per year, including wages and allowances, stores, &c. The charge for sending a message to Pemba is 1 rupee for the first ten words, including the address. Taking the average amount paid for a telegram as 1 1/2 rupees it would require about 23 messages a day to pay the upkeep of Wireless, and we should be able to obtain that average number in the coming year, as there is not much likelihood of another prolonged breakdown. By an agreement made with the Eastern Telegraph Company telegrams may now be sent and paid for direct between Zanzibar and other ports and Pemba.

The Zanzibar Government have not yet joined the Radio Telegraph Convention. The matter was discussed at the beginning of the year but in view of the fact that it was then practically in an experimental stage it was decided to postpone the matter until March, 1910. As it is now in a perfect working order, and as there is a possibility of other stations being connected within radius of the installation, I should advise that the Government join the Convention as soon as possible, but that the clauses I took objection to should be struck out or altered to suit our requirements.

The housing of the operators in Pemba has been difficult on account of the limited accommodation available. The small wood and iron house built by the Government near the wireless telegraph station has been condemned by the Health Officer as being unhealthy because it is built on the ground level.

The small house is comparatively new, and it cost a considerable sum to build, and I think it would be quite worth the expense of raising it up about two feet above the ground on concrete pillars, if this would meet with the requirements of the Health Officer. We are paying a house allowance of 25 rupees per month each to the operators, and this money could be saved if they were provided with accommodation on the Government estate.

In conclusion, I should like to point out that it would be to our mutual advantage to have the Wireless operators interchangeable with the operators on the Railway and Post Office lines in British East Africa. This can easily be arranged if the same conditions of pay are maintained. Our operators pay about 25 rupees per month, and there is nothing laid down as to annual increments. Our operators also get an allowance of 25 rupees per month when at Pemba and a house allowance of 25 rupees per month in Pemba or a free house. The B.E.A. staff get a starting wage of 80 rupees per month, rising by annual increments of 5 rupees per month to a maximum of 120 rupees and a house allowance when they leave Mombasa; they then get either a free house or an allowance of 25 rupees per month. This is really less than our staff are getting, except for the annual increment, yet they do not care to come here, as they think the pay is less than they get in British East Africa.

F. STANLEY BARDON, Post Office.

STATEMENT showing Total Receipts and Expenditure for the year ending 31st December, 1909.

Description	Receipts, 1909.		Receipts, 1908.		Increase.		Decrease.	
	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.
Postage	8,417	00	3,666	20			249	25
Telegraph messages	2,034	42	2,345	22			210	80
Govt. posts	1,321	00	1,506	00			36	00
Other telegrams	1,421	00	1,509	16			138	16
Bank deposits	50	00	41	00	9	00		
Bank balance	2,444	00	3,814	00	1,370	00		
Gifts	1,000	00	1,000	00				
Gifts of property	3,300	00	2,800	00	500	00		
Postage	430	00	3,000	00				
Bank loans	237	40	114	83			80	00
Bank loans	96	08	11	50	122	77		
Govt. loans	20	20	5	00	87	16		
Unpaid	183	00	19	50	32	50	7	00
F. S. messages	1,708	71	1,54	63	154	8		
Gifts of property	130	00	240	00			120	00
Light and telephone lines	61,308	12	50,319	19	5,988	63		
Postage messages	608	72	611	79	54	73		
Govt. loans	25	00	26	00			1	00
Govt. loans	2,779	30	2,621	00	159	30		
Total	80,390	00	77,868	39	2,521	61		

EXPENDITURE

Description	Expenditure, 1909.		Expenditure, 1908.		Increase.		Decrease.	
	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.
Postage	4,254	00	4,459	20	2,444	77		
Telegrams	2,067	32	2,324	63			1,917	11
Govt. posts	1,321	00	1,379	47			1,493	56
Other telegrams	1,421	00	1,439	36			172	58
Bank deposits	50	00	41	00	9	00		
Bank balance	2,444	00	3,814	00	71	23		
Gifts	1,000	00	1,000	00	68	75		
Gifts of property	3,300	00	2,800	00			1	00
F. S. messages	1,708	71	1,54	63			7	15
Govt. loans	20	20	5	00			1,55	20
Unpaid	183	00	19	50	118	7		
F. S. messages	1,708	71	1,54	63			83	41
Govt. loans	25	00	26	00			1,364	0
Govt. loans	2,779	30	2,621	00	1,011	60		
Expenses and salaries of operators at Pemba Island	280	1	321	45	60	46		
Salaries during leave	47	09	76	31			18	20
New house at Pemba Island	5,726	41			5,726	41		
Light and telephone lines	608	72	611	79			858	24
Postage	613	24	611	79			513	24
Cost of new Blackboard			450	00			450	00
Office loan for their working	628	12			628	12		
Total	1,00,448	12	97,868	79	2,580	33		

F. S. BARDON, Post Office.

RETURN of all Ocean-going Vessels that have Entered and Cleared the Port of Zanzibar during the years 1907-09.

WITH CARGOES (1909)

Nationality	Sailing		Home	
	Vessels	Tonnage	Vessels	Tonnage
British			34	102,830
Austro-Hungarian			31	90,014
French			131	327,830
German		3,823	6	2,938
Norwegian				
Other nationalities				
Total		3,823	308	623,612

TOTALS

Nationality	1907		1908		1909		Gross Tonnage
	Vessels	Tonnage	Vessels	Tonnage	Vessels	Tonnage	
British	71	122,320	55	62,537	94	108,830	333,687
Austro-Hungarian	3	5,230			21	27,714	38,174
French	122	327,830	131	327,830	131	327,830	1,013,490
German	1	3,823			1	2,938	6,764
Norwegian					6	2,938	5,876
Other nationalities							
Total	197	463,203	186	418,197	262	572,240	1,453,397

RETURN of all Ocean-going Vessels that have Entered and Cleared the Port of Zanzibar during the years 1907-09.

Nationality	1907		1908		1909	
	Vessels	Tonnage	Vessels	Tonnage	Vessels	Tonnage
British	71	122,320	55	62,537	94	108,830
Austro-Hungarian	3	5,230			21	27,714
French	122	327,830	131	327,830	131	327,830
German	1	3,823			1	2,938
Norwegian					6	2,938
Other nationalities						
Total	197	463,203	186	418,197	262	572,240

RETURN of all Ocean-going Vessels that have Entered and Cleared the Port of Zanzibar during the years 1907-09.

ENTERED.

Nationality	1907		1908		1909	
	Vessels	Tonnage	Vessels	Tonnage	Vessels	Tonnage
Zanzibar British	2,631	37,560	2,535	35,070	4,237	57,612
Zanzibar	2,919	30,430	1,945	19,000	1,636	16,154
British East Africa	131	5,530	107	4,011	130	5,207
Indian	178	2,754	274	17,003	459	8,580
Arab	100	3,330	344	10,305	208	9,969
Total	5,959	79,604	5,145	65,378	6,670	97,522
German	111	1,818	1,120	9,300	1,090	8,903
French	65	751	29	1,860	35	1,435
Italian	28	134	23	802	24	815
Portuguese	3	34	4	107	2	78
Grand total	5,957	83,967	6,391	96,558	8,781	120,133

CLEARED.

Nationality	1907		1908		1909	
	Vessels	Tonnage	Vessels	Tonnage	Vessels	Tonnage
Zanzibar British	2,664	36,119	2,562	34,012	2,348	31,916
Zanzibar	2,913	31,240	1,907	18,532	1,682	17,040
British East Africa	130	5,302	111	4,419	137	5,567
Indian	182	3,178	350	10,804	144	8,321
Arab	110	4,033	217	12,368	215	11,781
Total	5,999	79,872	5,947	69,135	5,736	74,625
German	106	1,818	1,106	9,068	1,016	8,909
French	17	800	27	1,339	29	1,600
Italian	24	134	29	832	29	810
Portuguese	3	34	2	107	2	78
Grand total	5,988	83,924	6,388	96,568	8,781	120,133

RETURN of all Ocean-going Vessels that have Entered the Port of Zanzibar during the Year 1909.

Nationality	Number of Men-of-War	
	Entered	Cleared
British	1	1
French	1	1
Italian	1	1
Portuguese	1	1
Total	4	4

F. S. BARDU, Port Officer.

RETURN of Dhows Registered, Numbered, and Licensed during the Year ending 31st December, 1906.

Table with 5 columns: Name, No. of Dhows, No. of Crew employed, Tonnage, Amount Received. Includes sub-totals for 1906 and 1905.

TOTAL Register of Passengers Departing from Zanzibar by the following Ports during the Year ending 31st December, 1906.

Table with 4 columns: Port, No. of Passengers, Port, No. of Passengers. Lists various ports like Moshi, Chani-Chani, Witu, etc.

E. S. BAIRD, Port Officer.

STATEMENT showing the Total Receipts and Expenditure of Shipping Department for the Year ending 31st December, 1906.

Table with 6 columns: On Account of, Total (Rs. Cts.), Corresponding year 1908 (Rs. Cts.), Increase (Rs. Cts.), Decrease (Rs. Cts.). Includes Freight, Passages, Landing charges, etc.

STATEMENT showing the Total Receipts and Expenditure of Water Boat "Binti" Fisheries and Waterworks Department for the Year ending 31st December, 1906.

Table with 6 columns: On Account of, Total (Rs. Cts.), Corresponding year 1908 (Rs. Cts.), Increase (Rs. Cts.), Decrease (Rs. Cts.). Includes Receipts from various sources and Expenditure on water works, etc.

Statement showing the Total Receipts and Expenditure of s.s. "Birawa" for the Year ending 31st December, 1909.

On Account of	Total	Corresponding year 1908.		Increase.	Decrease.
		Rs. Cts.	Rs. Cts.		
Receipts					
Freight	1,059 45	5,879 46		4,820 01	
Passages	17,130 08	11,400 08	5,730 00		
Landing Charges	588 92	653 50		65 58	
Earnings of Steamer	800 15	2,187 40		1,387 25	
Total	19,540 11	20,520 50	5,810 50	6,496 7	
Expenditure					
Personal Emoluments	19,339 26	16,571 95	667 33		
Deck Stores	2,718 16	2,918 97		200 70	
Engine Stores	1,470 64	1,692 34		220 70	
Coal	6,652 60	7,812 50		1,160 50	
Repairs	5,127 37	6,620 44	1,106 93		
Salaries	772 73	1,479 28		716 55	
Shipping Charges		70 00		70 00	
Landing Charges	397 74	596 65		199 49	
Substitute during leave	179 27	645 45		466 18	
Passages to India	90 00	520 70		430 70	
Decking Steamer "Beehive"	741 30	1,499 41		758 11	
Port and Light dues	70 42	41 23		29 19	
Printing	30 00	31 37		1 37	
Waxes	50 91	20 15		30 76	
Overtime	133 10	45 45		87 65	
Total	22,527 27	28,736 92	19,626 86	4,133 61	

Statement showing the Total Receipts and Expenditure of s.s. "Kilwa" for the Year ending 31st December, 1909.

On Account of	Total	Corresponding year 1908.		Increase.	Decrease.
		Rs. Cts.	Rs. Cts.		
Receipts					
Freight	1,712 14	5,670 50		3,958 36	
Passages	11,540 20	6,700 00	4,840 20		
Landing Charges	40 54	20 27		20 27	
Earnings of Steamer	380 27	450 00		69 73	
Total	13,673 15	12,840 77	4,860 46	11,471 31	
Expenditure					
Personal Emoluments	9,981 25	7,710 00	2,271 25		
Deck Stores	1,570 16	1,700 00		129 84	
Engine Stores	800 00	1,000 00		200 00	
Coal	4,000 00	4,500 00		500 00	
Repairs	2,000 00	2,500 00		500 00	
Salaries	4,000 00	5,000 00		1,000 00	
Shipping Charges	20 00	20 00			
Landing Charges	412 27	375 00	37 27		
Substitute during leave	22 28	679 00		656 72	
Passages to India	142 12	1,100 00		957 88	
Decking Steamer "Beehive"	741 30	1,499 41		758 11	
Port and Light Dues	70 42	41 23		29 19	
Printing	30 00	31 37		1 37	
Waxes	50 91	20 15		30 76	
Passages to India	114 42	120 00		5 58	
Overtime					
Total	14,620 22	28,191 62	13,711 16	24,520 99	

F. S. BARDO, Port Officer.

STATEMENT showing the Total Receipts and Expenditure of s.s. "Cupid" for the Year ending 31st December, 1909.

On account of—	Rs. Cts.
Receipts	
Freight	31 8
Passages	7,889 95
Landing Charges	94 39
Earnings of Steamer	1,189 00
Total	9,234 32
Expenditure	
Personal Emoluments	12,500 30
Deck Stores	1,502 26
Engine Stores	746 45
Coal	10,778 00
Repairs	241 57
Sundries	679 14
Shipping Charges	
Landing Charges	43 3
Substitute during leave	95 85
Passages to India	25 00
Decking steamer	1,062 49
Port and Light Dues	
Clothing	11 87
Sikulas	14 76
Overtime	42 26
Purchase of steamer	2,09,616 23
Total	2,37,383 87

Wireless Telegraph Stations.

STATEMENT showing the Total Receipts and Expenditure for the Year ending 31st December, 1909.

On account of—	Rs. Cts.
Receipts	
Zanzibar	1,509 77
Pemba	1,181 35
Total	2,741 12
Corresponding period of 1908	2,481 00
Expenditure	
Wages	10,301 66
Food and Stores	598 85
Repairs and contingencies	4,421 36
Travelling allowances	190 41
Passages	427 20
Total	16,940 81
Corresponding period of 1908	17,812 62

F. S. BARDO, Port Officer.

(15)

Report from the Commandant of Police

On taking over the police on April 26th, I found that although the men were well drilled and in a fair state of discipline, they had a very poor idea of police work in the true sense of the word.

It seems that the force in the town of Zanzibar was divided into two companies, each of which provided the beat men for alternate days. The system was ludicrous, and based upon an antiquated idea of military police. There was

a superiority of Non-Commissioned Officers and Drill Instructors, while the clerical staff was starved and quite incapable of carrying out the policing of a town of the size of Zanzibar. Although the men were well drilled and smart, it did not necessarily follow that they were experts in the prevention and detection of crime, and, though some show considerable promise, a very large proportion are mentally incapable of becoming policemen. I do not attempt to compare them with white policemen, but with other native police in which I have served.

After waiting a few days to see how the system was worked, I came to the conclusion that it was an impossible one, and I decided to introduce a simple form of police control on a modern basis, and to abolish the antiquated semi-military system.

I divided the town into six quarters:—

1. Shangan, or the European and mercantile quarter.
2. Noko Moyo.
3. Darajani.
4. Malindi.
5. Kumbungu.
6. Mwanjambazi.

I placed an Inspector in charge with 180 men and the Detective Branch. I gave him a clerk to assist him and two Sub-Inspectors with a clerk apiece. This establishment has now been increased to three Sub-Inspectors, so that there is always one on duty, day and night. The advantage of this system is that there is always an officer on duty who is competent to decide what action to take.

Each of the quarters is in charge of a Sergeant in charge, who is a senior and experienced Non-Commissioned Officer. The six quarters are grouped in pairs, and each pair is in charge of a native officer, who is responsible for the prevention of crime in his quarter.

The Detective Branch is controlled from Head-Quarters, and is not stationed out in the town.

The Pemba police are now in charge of a Native Officer, though no provision is made on the Estimates for him and I had to spare him from my town staff. Next year it will probably be necessary to have an Inspector stationed there, as there seems some difficulty in working up cases and in maintaining discipline.

The country districts are not altered materially, and the men stationed in them are still under the control of the Assistant Collectors. The Shichas have now been given more powers, and will work more with the police than has hitherto been the case.

A very considerable amount of training has yet to be done to make the police in the various grades at all competent policemen. I consider that it will take another two years before they are properly trained and organized.

Estimates.—The establishment for the year 1909 and that allowed in the Estimates for 1910 are shown in Schedule "A." It will require further amendment in 1911.

A proposal was made by me last year that a contingent of Indian police should be recruited on a trial, but an equivalent, or larger number of Swahili police, should be discharged in their stead. This scheme fell through owing to the expense, but I hope to carry it through in the year 1911, as I was convinced that the step is necessary, as the Swahili will not patrol the back lanes and dark corners at night, and are far from trustworthy. This stiffening of Indian police will be useful as a deterrent force, more especially if armed with modern rifles, as I hope will be the case.

Staff.—On taking over the foregoing my predecessor found there was no staff at all in the various sections of the name, so Police Station Staff, no proper system of registration of correspondents, and very little in the way of records of any kind. This has now been rectified, and I have now a European Inspector in charge of the Head-Quarter Office, with an Orderly, Room Clerk, Assistant Clerk, and Interpreter under him. He is assisted by a Paymaster and Quartermaster—the latter has a Quartermaster Sergeant and a Tailoring Staff. The police station has an Inspector in charge with three Sub-Inspectors and three clerks under him. He has also a Native Officer in charge of the Detective Branch at Head-Quarters. The former police stations are now merely rest houses for the police on duty, and they are no longer used for the reception of prisoners or complaints.

Negotiations are now in progress towards obtaining the services of an Assistant Commandant. This appointment will relieve me of much routine work.

As stated in the preamble, I have sent a Native Officer temporarily to Pemba on account of difficulty with the police in that island.

Amalgamation of Police.—Owing to the numerous bodies of so-called police in Zanzibar Town, I suggested that they should be amalgamated under me and sworn in under the Police Decree. Up to now they have had no powers of arrest, were not subject to the Police Decree, and were in a very ill-defined position. The amalgamation which is now taking place will put the men on a sound footing, will give them all the powers now conferred on a policeman by the Police Decree, and will enable them to be better trained. At present various contracts are entered into by the various Heads of Departments for the supply of clothing at different prices. This will now be rectified, and all clothing and equipment will be indented for on me and will be issued by my Quartermaster from one central store. Consequently the number of clothing contracts will be largely lessened and the prices will be reduced. This scheme affects the Water Police, Customs Police, and Market Police.

Barracks.—Various schemes have been formulated for the housing of the men, but nothing definite has been settled. If the Indian contingent is authorized, it will be necessary to build for them in preference to any other scheme of accommodation, as otherwise there will be no quarters for them when they land.

Crime.—I attach a Schedule "B" showing complaints made to the police persons arrested and convicted in the Islands of Zanzibar and Pemba during the year 1909.

It is difficult to say whether crime has increased or decreased, as the records for previous years are very incomplete.

Three sentences of death were pronounced during the year. In one case the sentence was carried out, in the second the sentence was commuted to seven years' imprisonment by Seyid Khaleel, in the third the sentence was commuted to transportation, and as legal difficulties arose in that connection he was sentenced to fifteen years' imprisonment. A fourth case of murder was dealt with by remanding the accused in custody as a criminal lunatic.

Two cases of kidnapping for the purposes of slavery were investigated during the year, and in each case the principals were convicted and sentenced to heavy terms of imprisonment. In one case, that of Police versus Abduquah Mwanjo and Sahib-bin-Ali Baluch, the police showed considerable intelligence and energy.

Petty thefts, housebreakings, and pilferings seem to show no decrease in their numbers. I consider that the efforts of the police, which are considerably hampered by the polyglot population, the constant influx and departure of temporary residents, such as dhow crews, passengers of steamers, &c., all of which render it difficult to keep a check on the movements of notorious criminals, as well as the advantages offered to criminals by the network of back lanes in every quarter of the town and the flimsy construction of the houses and shops, these disadvantages from our point of view should be counteracted by the imposition of very much heavier sentences. The almost universal practice of receiving and offering bribes, another difficulty we have to contend with, I have been able to correct in a few instances and have inflicted very heavy sentences, but there is no doubt that a good deal still exists.

The Detective Branch leaves much to be desired. I have changed the way raised the rate of pay in order to attract a higher class of recruits, and threatened them repeatedly that they would be dismissed if they did not show signs of improving. Even after this warning, I can count up several cases of theft, which have occurred in European houses and which have not yet been detected. I am informed that the detectives spend money out of their pockets in order to obtain information. All I can say is that they must be hopelessly inefficient than I had thought. I can see no hope of improvement, as we must have Swahili detectives. Indian detectives would ascertain nothing from the Swahili section of the population.

The policing of the town is now placed on a settled basis, and consists of "beat" men and "patrol" men. The men show some considerable aptitude for the work, and will in time, when the alterations in the way of working the town have sunk in and are more clearly understood, become very efficient policemen.

Offices and Police Stations.—On my arrival I found the office accommodation to be most unsuitable. It consisted of dark passages and rooms under the

Commandant's quarters. In these passages were two clerks and a European prisoner who was employed as a clerk. There was no police station worthy of the name, and consequently no records were kept and no correspondence was filed. The Inspector in charge had to do the best he could with a filthy dog kennel of an office at Duraman. The work of investigating crime must have been neglected as there was no place where witnesses could be examined, and no staff to take down their statements when obtained. I moved into very suitable quarters in the main road where, with certain structural alterations, I started a police office and police station.

I have now a Commandant's Office, European Inspector's Office, Orderly Room, Clerk's Office, Paymaster's Office, Quartermaster's Office, Stationary Room, Rifle Store, Store, European Inspector's quarters (connected with electric bell with the police station), guard room, two cells, latrine, telephone room, police station and Inspector's room. This police station is connected with the telephone system of the town and island, and is always open, day and night. The cells are the only ones allowed in the town, and I have prohibited the use of those at the police stations. A Sub-Inspector and Clerk are always on duty, and can summon the European Inspector at any time by means of the bell.

The police stations still leave very much room for improvement. I have hired a house from the Waki Department as a police station at Soko Mohoro, and the box there is to be pulled down.

Country Police Stations.—New police lines are in progress at Weti. An experiment is being made by the erection of a hut, on the lines adopted in South Africa, for the police station at Biji on the north road. If a success, it will be taken over as a type for all country police stations.

Relief System.—In former days it was the custom to send detachments of men from the town of Zanzibar to police the various districts and Pemba at regular intervals. These men expected to be relieved at the end of four months, and were inclined to give trouble if there was any delay. As the system appeared to me to be utterly wrong and an unnecessary expense, I have, with much difficulty and opposition, arranged to enrol men for the various districts and Pemba with the help of the Mashaka, on the distinct understanding that they are to be permanently stationed in the district for which they were enrolled. It was obvious that any regulation that compulsorily removed a man as soon as he was beginning to learn his work and the criminals in his district was wrong and a direct incentive to crime. Moreover, a man who was conversant with, say, the Indians in the largest quarter of the town, and who could lay his hand on any man who was wanted, would be utterly useless among the Wapemba of the northern part of that island. At the meantime a man who knew the Weti district was bound to learn, at such expense and waste of time, the haunts and habits of the criminals in the town of Zanzibar.

Health of Men.—The health of the men has been good, and calls for no remarks.

Equipment and Clothing.—Little change has been made in the details of the equipment and clothing of the men. I have taken up a scale of clothing, and have issued equipment rolls which will do away any duplicate issue of kit or loss by carelessness.

A scheme is being made to issue the men in blue instead of khaki felt through owing to the cost of the material.

I have purchased some Brown handkerchiefs and whistles, with which all the men in the country districts are supplied. I have also issued before, and will extend the issue to the country districts as far as I have received the full consignment.

No attention has been made as regards the arming of the men with rifles. I still have the old pattern Martini-Heckler, and use them for drill purposes. I do not think however that the Martini-Heckler is a better class of rifle than the Indian sporting rifle approved by the Government. It can then be purchased cheaply, as they are no longer the regulation weapon for the Army, and would be excellent in every way.

Drill.—I have established a depot where recruits are put through a course of drill and instruction in police work. Men who are slovenly or weak in their drill are sent back there for a course of discipline, as a rule. I do not lay much stress on drill, as I think that it has been the bane of this Force in the past. As long as the men could "slope arms" correctly it mattered little whether they were capable of handling the crime in the town. Moreover, if a man is a policeman in the true sense of the word he has no time to spend on

drill. As a matter of fact, as long as one can march the men down a street and extend them along it, there is little else required.

Fire Extinguishing Apparatus.—About forty pounds worth of Fire Extinguishing Apparatus has been purchased and issued to the police stations in the town. It consists chiefly of articles for pulling off the makuti roofs of native huts such as fire-hooks, axes and ladders. There is also a supply of buckets.

On the completion of the new water supply I propose purchasing hose and tools to be connected up with hydrants which will be distributed over the Town.

Finger Print Bureau.—A Bureau has been established here under the charge of Inspector C. May and has proved itself of great value. There is now no difficulty in proving previous convictions and one has now no longer to trust to the possibly faulty memory of a policeman or warrior. There are some 600 to the possibly faulty memory of a policeman or warrior. There are some 600 records already, and when the districts send their forms in regularly we shall have a valuable record of the criminals in the two islands. In previous years much difficulty was experienced by the readiness with which criminals changed their names not only on arrest but in Court and in the gaol. Names are now superfluous and are practically ignored in proving previous convictions. The increased sentences passed on habitual prisoners lately has already shown the value of the system. I hope to add a photographic branch later, as it is obvious that a finger print classification, though very useful when the man is arrested, is not of much value for the purpose of identification in the street. It will be necessary to train an intelligent clerk in this work in case of Mr. May's illness or absence in which case the work will be at a standstill.

Census.—A census of the town has been taken by the police and is now in process of tabulation. This work has lasted several months, as it was carried on the house-to-house plan, but the results should definitely settle the long question of the population of the town.

Guides.—The Guides have been issued with new tickets and books showing the tariff in English and French. Regulations are now laid down in the Port Office Decree for their control by me. The tariff mentioned therein is incorrect and does not agree with the Tariff Book. Moreover, as the Port Office has no control over them it seems somewhat unnecessary to embody regulations in the Port Office Decree and I will suggest that they be placed in the amended Police Decree when that is issued.

The Band on December 31st, 1906, consisted of—

- 1 Bandmaster
- 1 Assistant Bandmaster
- 1 Band Sergeant
- 1 Corporal
- 10 Bandmen

A new Bandmaster arrived in April from India. Some of the older members of the Band have been superannuated and their places filled with younger men.

The Band is now much more efficient. I am glad to say that the competent to judge, that it has ever been before. The British Band has been improved by the purchase of new instruments and so on, at considerable request by private engagements.

Sunday evening concerts were instituted by me and after a very successful season was stopped owing to the return of His Highness from Europe and the consequent greater demands on the time of the Band. The largest attendance at any one concert was 110 Europeans.

Trouble was experienced with the Band on my arrival owing to the complaint of overwork.

A time-table was therefore drawn up by you and approved by His Highness and there has been little complaint since.

There was a decided lack of discipline in the Band at first, but that has now been rectified.

Artillery.

On December 31st, 1909, the Establishment of Artillery was 1 Jamadar, 8 Gunners. These men are chiefly Persians, but lately the experiment of enrolling Turks has been tried successfully. When I took over command I found that they had to be severely punished. Since then there has been no trouble.

The Battery at Malindi contains five 40 lb. breech loading guns on parapet mountings. They are now always used for saluting purposes in place of the obsolete nine pounder muzzle loaders.

Two more 40 lbs. are at the Gaol—as well as two Hotchkiss Guns and a Martini Henry Maxim.

The question of enlarging the Battery by adding another 30 feet to its length has been under consideration.

In addition to keeping the above guns in order, the Artillery are responsible for the care of the bronze and brass ornamental guns at the Gaol.

During the visit the Gunner of H.M.S. "Pandora" examined the guns, put them in order as far as he was able, and supplied a written report on their condition and serviceableness. From this report it was found that all the guns, with the exception of the nine lbs., would be of considerable use in case of emergency, provided that the requisite sights and ammunition were obtained. This question is now under consideration.

H. R. CARTWRIGHT, Commandant of Police.

SCHEDULE (A).

Table with 4 columns: Rank, 1909, 1910, and Position. Lists personnel such as Commandant, Assistant Commandant, European Inspector, Indian Detectives, etc.

SCHEDULE (B).

RETURN of Crime for the Islands of Zanzibar and Pemba for the Year 1909.

Table with 6 columns: No. of Persons Committed, No. of Persons Acquitted, No. of Persons Convicted, Value of Property Stolen, and Value of Property Recovered. Lists various crimes such as Theft, House-breaking, Cheating, etc.

Report from the Governor of Gaols.

State of Gaols on taking over charge.—I took over charge of the gaols on my arrival at Zanzibar on April 23rd, 1909. I found the gaol at Zanzibar in a very backward state. There was no system of admission of prisoners, commitment warrants were not used, remission of marks under the Consolidation of Laws Decree was not enforced, there was no system of labour, and as there was no Decree authorising the maintenance of a gaol there was no legal authority for any action taken by the staff. There was no gaoler and no gaol clerk. The police used a portion of the gaol for storing their rifles, and thus had free admission to their friends undergoing imprisonment. There was no time-table in force, and prisoners went to work and returned at the will of the head warders. There was strong presumption that money paid in at the gaol was fines, it was misappropriated. There was little or no hard labour of any kind. Many of the male prisoners were employed on delicate embroidery work. The acting gaoler on his own initiative, commenced a wood-chopping gang which is successful, and has been continued. The female prisoners were supposed to be making grass mats. It took six of them six months to make one mat valued at five rupees. Prisoners went sick when they wished, and there was no system of sick reports. It was not an uncommon thing to see thirty or forty prisoners loafing about the yard on the pretence of sickness. They were allowed to occupy the cells as they wished, and the rooms were thus not allowed to get aired during the day. There was no light in the entire gaol, and at night the warders had to grope about in the dark. The prisoners were not numbered, and their identification rested entirely on the memory of the warders. Practically no books were kept, and there were many prisoners in gaol with no papers but a typewritten list pasted in the cover of a book to show what their sentences were. Out-of-date and barbarous leg-irons were used. These were removed and destroyed by my orders, and a modern pattern ordered from Europe. Rations were handed out to the cook anyhow, and no check kept of the consumption. No record was kept of the distribution of the labour gangs. No gaoler or Medical Officer was present at the infliction of corporal punishment. Prisoners worked on Sunday or not as the whim took them or the warders. No entry was made of any punishment inflicted, nor could it have been, as there were no books kept for any such purpose. No records of previous convictions were kept. There was no compulsory bathing, nor any special attempts at sanitation or cleanliness.

Establishment.—The establishment of the gaols when I took over charge and the establishment for the forthcoming year are as shown on Schedule "A."

This establishment will not be nearly sufficient for the new gaol, and it will require augmentation as soon as the premises are occupied.

Buildings.—It is not necessary to deal with the present buildings of the gaol as they will be vacated by the end of the year.

Improvements and Alterations.—The following alterations in the management of the gaol have been carried out. No person is admitted as a prisoner or for detention of any kind unless he is accompanied by a duly authorised warrant of commitment, return warrant, transfer warrant, or order under the Lunacy Act. A gaoler and a gaol clerk have been engaged. Police are now only admitted to the gaol, which still has been drawn up, and warders and prisoners have proper safeguards. A time-table has been drawn up, and warders and prisoners have to adhere to it strictly. The hours of labour are definitely defined. There are receipts checked up the receipts of fine money, and it would be impossible for the warders to receive it fraudulently. Prisoners are now employed on cord-making, rope-making, stone breaking, quarrying, clearing ground, and in a hundred and one ways. There is no longer any light work, and although the work might not appear very onerous to a European, it is a considerable effort to the Swahili. The wood-chopping gang has been continued. The females are now employed in making soft rope. The male Swahili or native prisoner, and a lesser length by the females. On the other hand the Indian prisoner is able through his greater dexterity to turn out a larger amount. Sick reports have been instituted, and no prisoner is allowed to go sick unless he is certified to be so

by the Medical Officer on the Sick Report. Maliciously punished. There is a medical inspection of the prisoners every Sunday, when each man is examined by the Medical Officer. The sickness has now decreased considerably, and there is only about 1 1/2 per cent. off duty through sickness. The cells are not now occupied during the day, and are thus allowed to get aired. Water tanks have been placed in each cell, so that there is a plentiful supply of drinking water. These tanks have been made to a special pattern, and are mounted at night. The gaol has been lighted with electric light, and there are large standards in the yard with more powerful lights, which facilitate the supervision of the yard at night. The prisoners are now numbered with stencils on their jumpers, so that any man can be identified at once. Owing to the Finger Print Bureau at the Police Station there is now no difficulty in tracing the antecedents of any prisoner. Some seventeen books and forms are now kept in the gaol, including those laid down in the Prisons League. There is a complete record of all prisoners who must be accompanied by their warrants from the courts. Rations are now weighed out to the cooks and a rolled kept of the same, and a certificate filled in daily of the expenditure on food stuffs. The two registers show the total food consumed daily in the gaol. A daily printed statement shows the occupation of all the prisoners from their arrival at the gaol to their charging to the various Departments for punishment. A Medical Officer is present at the infliction of all corporal punishments. A statement is kept which shows an account of the work done by the prisoners, and a list of the prisoners which shows an account of the work done by the prisoners, and a list of the prisoners, etc. are washed out with disinfectants every day and frequently whitewashed. The old insanitary rush sleeping mats have been replaced by mats made from the coconut husk in the prison. More rooms and more cells for the issue of prison clothing, etc. have been established. The warders are equipped now with belts, whistles, and handcuffs. They are now properly attended and their clothes washed out for each man.

Number of Prisoners. The average number of prisoners in the gaols is as under:

Native male adults	
Native female adults	
Indians and Europeans	
Children	

... taking two days at each week and working out the average from the book. Expenses and receipts have been arranged at times, but an increase in the number of prisoners is to be expected.

... (Prisoners) have been engaged on making, repairing, and mending, and on the public works of every kind. Progress has been made in the reduction of prisoners who are now being held in the gaol at the end of the month.

... to be seen in the last few months of the year, and the fact of the lack of funds by the purchase of tools and the duty of articles. The Department has been engaged in making, repairing, and mending, and on the public works of every kind. Progress has been made in the reduction of prisoners who are now being held in the gaol at the end of the month.

... the Department would be much more than in their hands. It is a matter of hiring outside labour for which each had to be paid. The Department pays the men on paper, and the Government is responsible for the cost. I had a large number of prisoners who it would be desirable to have met the demands if it is a serious matter.

prisoners will be retained in these bridewells, the others being sent into the Central Gaol of Zanzibar or Pemba. Females, lunatics, civil prisoners, detained witnesses, Arabs and Indians of a superior class, Europeans and juveniles will not be retained at the bridewells.

Labour in Country Gaols.—Difficulty has been experienced in obtaining suitable work for prisoners in country gaols. Gardening and watering flowers is manifestly not what is intended by the term "rigorous imprisonment." Quarrying and masonry are forms of employment which would be more suitable, but the absence of skilled supervision renders their work of little use. The Swahili prisoner and warder are the most useless persons I have experienced. If a nail has to be pulled out of a packing case a "fundi" has to be sent for. They are incapable of doing anything but embroidery, and, though physically stronger, cannot perform as much in a day as an Indian can. I would put the proportion at three to five, i.e., if an Indian can make fifty fathoms of rope sunset a day, a Swahili will make only thirty. Consequently their labour is expensive, and for the most part useless. In South Africa the native prisoners work constantly on the roads, and understand the art of making them. The warders have knowledge of the use of dynamite, and can supervise all the blasting that is required. Here it would be useless to tell them to make a footpath, still less a road. They cannot handle tools, and would not know what use to make of European implements. Spades, picks, shovels, and wheelbarrows are unknown to them.

Conclusion.—In conclusion I would point out that the Gaol Department has been starved for want of suitable buildings and a proper staff. Now that the new gaol is about to be built, it will be necessary to engage the services of a European gaoler and to increase the staff very largely. The requirements of the Decree are somewhat exacting, and it is impossible to expect the present staff to carry them out, as they have never seen a properly organised gaol and know nothing of the work. It means constant supervision on my part, which detracts considerably from my police work.

The last year has seen the end of the old happy-go-lucky state of affairs and the commencement of a new régime—the foundation, we hope, of a satisfactory and up-to-date prison system.—There is, at any rate, no fear of the gaols reverting to the old illegal and careless methods, as the present routine is based on modern lines and sound ones, and has merely to be kept going.

H. R. CARTWRIGHT, *Governor of Gaols.*

SCHEDULE (A).
GAOLS.

1909.	1910.
Zanzibar Town.	Zanzibar Town.
1 Acting Gaoler	1 Governor
1 Clerk	1 Gaoler
1 Indian head warder	1 Clerk
4 Indian warders	1 Indian head warder
2 Native head warders	5 Indian warders
2 Assistant head warders	2 Native head warders
10 Native warders	16 Warders
8 Indian warders	1 Female warder
2 Female warders	1 Native cook
Mkokotoni District.	Mkokotoni District.
1 Native head warder	1 Native head warder
2 Native warders	2 Native warders
Muana District.	Muana District.
1 Native head warder	1 Native head warder
4 Native warders	2 Native warders
Chwaka District.	Chwaka District.
1 Native head warder	11 Native head warder
2 Native warders	2 Native warders
Pemba Gaols.	Pemba Gaols.
2 Indian head warders	2 Indian head warders
10 Native warders	10 Native warders

Report from the Collector of Pemba

General.—I was stationed at Mwanza as Assistant Collector for the first three months of the year. On the 25th March I came to Chake Chake to act for the Collector, who went on leave, taking over from him on the 31st of April.

On the 11th October I was confirmed in my appointment as Collector of Pemba.

From the 25th March to the end of the year, as the Assistant Collector was appointed, I had the Mwanza district to attend to as well.

Mr. Sheldon, the Chake Chake Assistant Collector, having been transferred to Zanzibar in May, Mr. Turner came up as Acting Assistant Collector to the district but owing to ill-health left in July on sick leave since which the appointment has been suppressed.

In the early part of August H. B. M. Hoppmann, Agent and Chief Constable and the First Minister visited Pemba officially, landing at Mwanza, Chake Chake, and Wetsi where they held Arab and Indian business which were largely a success and greatly appreciated, visiting other points and plantations by land.

A few cases of malaria occurred in the two districts, the remaining 10 deaths in years gone by these cases were not brought to light but owing to the knowledge that wounds can be skillfully and successfully treated by the Medical Officer, the people, as a rule, come into hospital to place themselves under his charge. In comparison with other years crime seems to be on the decrease.

The appointment of a Magistrate for Pemba in December has a decidedly good effect. He should prove of valuable assistance in legal matters to the District and Assistant Collectors, and by his presence in the Kadhis Courts should do away with the numerous corruptions which till now has often been apparent.

Twenty-one Decrees were gazetted during the year and three which appeared in Pemba have been put into force. When the usual difficulties in enforcing these Decrees are overcome they should prove helpful to the administration of the island.

The clove crop was a moderate one.

The rainfall throughout the year has been moderate. Owing to the laying up of the harvest some of the 1910 and the maximum of the regular work has been seriously handicapped. These reports are sent in hand and there seems to be a possibility of the harvest not being in use for many weeks to come.

Public Works.—Last year no bridges were constructed, but I am in support of building at least one over Pemba before commencing the building of roads, which at the earlier stage of the work, I have estimated for, as a bridge to be built in the Mwanza district, two in the Chake Chake, and two in the Wetsi district, seven in all, and I trust they will be passed.

A survey of Pemba would be of great assistance, and I trust that one day this will be accomplished. An account will be found in the Report of the Public Works Department of the work accomplished during the year.

Agave Culture.—Owing to the unusually heavy rainfall, especially during the latter part of the season, a large quantity of agave was lost. I would strongly urge the Government to consider some method of drying the agave before it is sent to the mills, and thus obtaining the heavy yield loss. The agave is now being planted in the island and the Government has a large stock of seed. The Assistant Collector of Wetsi has reported fully on the Government Rubber Plantation and Forest, both of which are in the district.

It is impossible yet to forecast what the future of the plantation will be, quite in its infancy. I understand that the planting and cultivation of rubber at the earlier stage is very precarious from many causes, chief amongst which are the selection of the right kind of rubber for a given climate, and planting, light (principally fungus growth), lack of knowledge in management, &c.

Clerical Staff.—Mr. Alamsahow, my chief clerk, desires to be transferred to Zanzibar. I shall be sorry to lose him as his knowledge of Pemba affairs ranges over a period of twelve years. He has worked under three Collectors.

Mr. Figueroa, the Treasury Clerk, went on leave on the 10th October. His duties have been ably filled by Mr. Jushi.

An Assistant Treasury Clerk, Mr. Carvalho, was appointed. Personally I would prefer British subjects to fill these positions.

I had cause to request the Post Office Clerk, Mr. de Silva, and asked for his transfer to another post, but as you wished me to report on him again at the end of the year I have not done so. He is a very good man and I am pleased to say that he has been successful in his duties.

The police force is to be recruited from Portuguese. The police force is not yet formed, but the natives have not taken to the sea. There seems to be great disinclination to go to Zanzibar for their six months' training, leaving their homes, wives, and children. Personally I consider that a well-selected Indian police with a sprinkling of the native element would be advisable, with a smart non-commissioned officer at their head in each district, one who has done police work in India, and is capable of conducting a police case in Court. The sergeant here at Chake Chake is of no use, and the men under him for the most part are worthless.

Ground Rents.

	Chake Chake.	Mkoani.
Revenue for—	Rs.	Rs.
1907	7,272	3,394
1908	3,873	2,540
1909	3,727	2,939

Estimated Revenue for the whole island in 1909, 10,000 rupees.
Exemption for owners of 50 clove trees and upwards.

	Rups.	Rs.
1909—		
Chake Chake	631	1,062
Mkoani	427	854

Exemption on account of sick and aged.

	Rups.	Rs.
1909—		
Chake Chake	33	66
Mkoani	95	190

In the Mkoani district on the Island of Matumbini people are cultivating plots of land, and as I consider this land is Government property, they paid the ground rents this year.

The Mkoani district has three Arab akida and is divided into three sub-districts, viz., Mkoani, Jambangombe, and Pufuni. An akida is a most useful person, not only in rounding up Masheha, but during the clove season in getting people to pick cloves in whatever shambas most require them. Akida might with advantage be allowed in Chake Chake and Weti districts.

Markets.—The only market in the two districts is the one at Chake Chake which was rented at 100 rupees per month.

Probate and Administration.—I should like the newly appointed Assistant Collector of Mkoani, when he takes up his duties on January 31st, 1910, to keep this Probate and Administration for his district distinct from that of Chake Chake.

Revenue for—	Rs.	Cs.
1907	2,863	50
1908	3,401	50
1909	3,949	50

Applications for Letters.

	Collector.	Liwah.
1907	72	11
1908	63	11
1909	44	28

Estimated Revenue for 1909 was 4,000 rupees for the whole island.

Canoe Licenses.—This tax was formerly collected for both Mkoani and Chake Chake by one man and the account kept at Chake Chake. I propose to let Mkoani keep its own account next year, lending the man who has heretofore done the work to Mkoani when wanted. The fishing stake dues have heretofore been paid into the Post Office and credited to Zanzibar Revenue. They amounted this year to 40 rupees in the Chake Chake district. I apply that the same be credited to Pemba for the future as the canoe licenses are.

	Chake Chake.	Mkoani.
Revenue for—	Rs.	Rs.
1907	131	10
1908	203	42
1909	200	42

Estimate of Revenue for the whole Island for 1909, 2,500 rupees.

Timber Royalties.—I should like the Royalty to be collected in Pemba, viz. at the head quarters of each district, viz. Chake Chake, Weti and Mkoani. If it is collected in Zanzibar the Customs should advise us and credit us with the amount.

The question of collecting Royalty in June will I trust be soon definitely settled.

	Chake Chake.	Mkoani.
Revenue for—	Rs.	Rs.
1907	18	10
1908	49	10
1909	141	10

Trade.

	Chake Chake.	Mkoani.
Revenue for—	Rs.	Rs.
1907	104	57
1908	100	40
1909	141	50

Owing to the Trade Depress the Revenue has fallen.
Nyoma Fees.

	Chake Chake.	Mkoani.
Fees for—	Rs.	Rs.
1907	100	10
1908	47	10
1909	100	10

The people have received the Dargah without dissent.

Court Fees and Fines.—

	Chaka Chaka		Mikoni.	
	Rs.	Cts.	Rs.	Cts.
1907	260	00	184	00
1908	250	00	208	00
1909	230	00	160	00

All H. H.'s Courts are included.

Births and Deaths.—

Births registered in—

1907	10
1908	8
1909	160

Deaths registered in—

1907	174
1908	187
1909	200

I regret to record the deaths of Mr. De Legh, who was 2nd lighthouse keeper at Kigomasha. He died at Chaka Chaka on the 14th August, 1909. And also of the head lighthouse keeper, Mr. Barnes, in November.

Post Offices.—

	Rs.	Cts.
Local Money Orders	2,428	78
Inland Money Orders	1,614	88
Foreign Money Orders	62,090	62
Money Orders from Zanzibar	1,78,561	65
Savings Bank Deposits	2,635	87
Savings Bank Withdrawals	1,209	07
Wireless fees	1,208	00
Commission on—		
Local Money Orders	14	24
Inland Money Orders	816	91
Foreign Money Orders	585	50

Telephones.—

	Rs.	Cts.
Earnings in 1909	403	87

Registration of Documents.—

	1907.		1908.		1909.	
	No.	Rs.	No.	Rs.	No.	Rs.
Sale of shares	397	84,807	456	94,463	451	1,20,000
Mortgage of shares	342	2,76,430	1,113	3,24,326	609	1,68,455
Debt (loans)	504	28,000	186	38,823	125	18,840
Wills	10	...	10	...	4	...
Powers of Attorney	8	...	8	...	23	...
Agreements	23	...	29	...	24	...
Wills	3	...	3	...	...	...
Receipts	7	...	7	...	4	...
Grants	63	...	19	...	27	...
...	3	...	1	...	4	...
Freedom	12	...	0	...	...	...
Total	1,552	...	4,826	...	1,390	...

The Indians are more shy of lending money now-a-days. I am glad to see that as the natives find they want work, when they are given the facilities, which used to exist, of borrowing.

Shipping.—The following passengers sailed by Government steamships—

	Chaka Chaka		Mikoni.		Revenue.	
	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.
1907	2,227	...	2,084	...	17,170	47
1908	2,271	...	1,618	...	1,200	...
1909	1,700	...	2,348	...	11,004	...

Port Service.—The following passengers sailed by dhows—

	Chaka Chaka		Mikoni.		Revenue.	
	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.
1907	504	...	4,960	...	1,200	...
1908	566	...	1,016	...	967	...
1909	141	...	2,560	...	1,077	...

The following dhows sailed—

	Chaka Chaka		Mikoni.		Revenue.	
	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.
1907	77	...	204	...	...	...
1908	624	...	111	...	...	...
1909	413	...	...	...	...	...

The following dhows arrived—

	Chaka Chaka		Mikoni.		Revenue.	
	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.
1907	88	...	100	...	...	...
1908	454	...	100	...	...	...
1909	475	...	175	...	...	...

Gaol.—

	1907		1908		1909	
	Convicts	Revenue	Convicts	Revenue	Convicts	Revenue
Chaka Chaka
Mikoni

Courts.—Cases heard in the Kiche and Livala Courts, Chaka Chaka.

	1907		1908		1909	
	No.	Rs.	No.	Rs.	No.	Rs.
...
...

The following Cloves and Copra shipped during—

	Chake Chake		Mkoani	
	Frs.	Rs.	Frs.	Rs.
1907—				
Cloves	182,110	18,21,100	153,559	15,35,559
Copra	29,698	2,96,944	27,987	2,79,461
1908—				
Cloves	103,960	10,39,745	81,284	8,12,844
Copra	51,199	5,11,997	31,322	3,13,222
1909—				
Cloves	135,140	13,51,400	124,608	12,46,080
Copra	45,575	4,55,745	32,060	3,20,600

In conclusion I beg to report most favourably on Mr. McClellan. As Assistant Collector of Weti he has worked hard and conscientiously. His knowledge of agriculture has, I consider, been specially useful to that Department.

Dr. De Souza's task has been a heavy one, but as usual he has carried on his work most admirably, together with the greatest courtesy, self denial, and skill.

G. GUNNING, Collector of Pemba.

(18.)

Report from the Assistant Collector of Weti

General.—I returned from leave in April. There has been no disturbance in the district, and crime has decreased, especially in knife cases and drunkenness, cases of the latter class arising from the drinking of scotch, or from the presence of the mail in the harbour.

Owing to the heavy and unusual rains in November and December the clove-harvest was greatly interfered with and a considerable quantity was lost. There was in the latter part of the time also a shortage of pickers, for at the time the rains stopped work, many of the Zanzibar men returned to their homes. Picking will continue up to the end of January.

The chief events of importance have been the issue of Decrees and the appointment of a Magistrate.

The former generally necessitate much additional work, and (as for example in the Prisons Decree) would if carried out to the letter necessitate also additions to the staff; but no financial provisions being made for such additions, we have carried on to the best of our ability with such staff as we possess.

I have found it somewhat difficult to ascertain the proper interpretation of some of the Decrees, notably the Agricultural Produce Decree: nor could the Director of Agriculture help me much.

The appointment of a Magistrate will give a much needed stimulus to the administration of the Civil Court, and the Trusts and Walf Departments.

As in 1908 I still think that in Trust matters have full responsibility for their control, (he would now be responsible to the Magistrate, I suppose, otherwise to the Collector.) For in regard to Walf trusts I cannot think that the policy recommended in 1908 of centralising all control in a central office at Chake Chake has resulted in much good and it is difficult to know where this responsibility, if any, of the Assistant Collector begins and ends.

As also with regard to Walf, with the difference that the centralization is in Zanzibar. So far as I know, we have absolutely no power to deal with this matter beyond written requests for information, which are usually ignored. (Arabs, Indians, and natives are quick to see what power lies behind such requests to enforce compliance). A Pemba Walf register is mentioned in minutes, but I believe that

most Officials doubt its existence. I consider that even with a large body of Commissioners in Zanzibar, the important questions cannot be satisfactorily dealt with unless we on the spot are given discretionary powers, so that the Officer on the spot can take effective action in necessary cases.

The Civil Court has in the past usually only been a nominal court, and I have welcomed the removal of the chief cases, and the removal of the people of a Magistrate in the district, and the removal of the people of a Magistrate in the district, and the removal of the people of a Magistrate in the district.

As regards the Assistant Collector's powers to deal with the local criminal matters in H. H. S. Court, I consider it is a more organized force, he is able to retain these powers, the clove-labour is in a more organized force, he is able to retain these powers.

Quite apart from the mass of work that needs the Magistrate's immediate attention, such as Civil Court anomalies, minor cases, &c., I consider a still more important one in such a clove-district as this, is the authority of the Assistant Collector in their harvesting, and must continue to be the chief object of attention of the Government, and the chief reason of our all being up here in Pemba, and under the Department of Agriculture is prepared to have an Assistant Director in each district, is the Assistant Collector, backed up by the Collector, to whom the Government has to look to carry this through year by year.

In my 1908 Report I dealt with the native business and labour, suggesting that such labour as can be got out of the Wapishas can only be got out of them by the personal influence of the local officer. Captain, such as returning the land to the personal influence of the local officer, fear the respect they have and the words to effect on them. It is the wholesome fear that some influence (some of children) that they feel for the Assistant Collector, that some influence (some of children) that they feel for the Assistant Collector, that some influence (some of children) that they feel for the Assistant Collector.

Clerical Staff.—In view of the additional work required in the various Divisions and the illness of my second clerk, partly through overwork I applied for a special warrant for an additional clerk in August. As it was not granted, I beg to apply that if the third clerk is granted in the 1911 estimates, he may be appointed at once.

In 1910 the whole work of my office was distributed through the head clerk of my head clerk from over work.

Ground Revenue

Collected in—	Rs.
1907	4,339
1908	4,382
1909	4,380
Estimate for 1910	4,382

In the two last years the authorized returns were given in clove-harvest. This has been dealt with in recent minutes, but much remains yet to be done in regard to agricultural lands, and I hope that very future minutes that may deal with the subject will enable me to settle the large amount of land in which Arab claims are in their hands by inheritance, which has either never, or within recent years, been under cultivation, or else has been recently abandoned by Wapishas for such crops.

These lands are outside the clove areas, which Arabs have visited by right of old conquest as well as inheritance, and are mostly waste near the coast, which were formerly looked on by them as property of acquisition, or else as public grounds which they did not intend to occupy for fear of the unpopulated Wapishas. Owing to the increased poverty of the Arabs they are now claiming their lands. Apart from their refusal to pay the Government ground rent, they would, in my opinion, make such good crops as the Wapishas in other parts would be able to plant, that they would not so well make the most of the abundance of the ground, as that I have advanced my wish to dispute their claims.

Markets.—The one market at Weti is at an old corner of the town. The market more than half of its trade through roadside banking at the far end of the town, which a new market recommended to recent Minutes to be incorporated with the old one, would stop.

Canoe Licences.—

	Rs.
Collected in—	
1907	158
1908	1,280
1909	1,323
Estimate for 1909	1,500

Difficulties have arisen owing to there having been no boat to send out. The new estimates are said to remedy this.

The fishing-stake dues were abolished in 1907. They will be re-instituted this year.

Timber-Royalties.—These have been mostly collected in Zanzibar. I believe that from 1910 I have permission to use my discretion in collecting the royalty locally.

But even were I to allow the show to proceed to Zanzibar and pay there, I apply that the Customs follow the usual custom and forward us a note of the amount paid, crediting our account with it.

Our custom of collecting a royalty on lime will I hope be sanctioned definitely. The double royalty on Government stone and wood can thus be collected at the same time.

The question of mangrove bark has often been before the Government. The proposals of Messrs. Smith Mackenzie in 1907 were so far as I remember very inadequate, and if better proposals cannot be obtained from another firm, I suggest that the Department of Agriculture look into the matter and see if Government itself could not do something with the bark.

Probate.—

	Rs.
Paid in—	
1908	677
1909	622
Applications for Letters in—	
1908	78
1909	107

The probate dealt with by the Assistant Collector is unimportant, consisting of estates under Rs. 500 in value. It was formerly called the Liwali's probate, and was managed by him; but I have taken it out of his hands.

I have the same opinion in regard to probate as to trust and properties of minors. The proper valuation of estates can only be done through the Assistant Collector who knows the properties and the likelihood of applicants making false statements. I see no reason why the two classes should be kept separate, and I suggest that the Magistrate take over both, making the Assistant Collector responsible in both for the ascertaining of the facts and the valuation of the properties.

Dobler.—

	Ls.
Collected in—	
1907	1,800
1908	2,840
1909	3,200
Estimate for 1909	

A ranger has been appointed on my advice to look after the boundaries of the rubber forest, which of late years has been much encroached upon by sabbogo cultivators.

I recommend the Agriculture Department to come to some definite decision as to whether it would be worth while to spend money on a light clearing of the forest so as to encourage the natural regeneration of the trees by the removal of some of the dens and growth of commercially worthless vines.

The *Landolphia* occurs naturally also in isolated patches of forest on the North East and East coast, and is collected by natives from these places.

A rubber tree, new to Pemba—*Mascarenhasia elastica*—was accidentally discovered by the Wali. I have planted out 50 young trees to keep under observation, but while naturally interesting as an indigenous rubber bearer, it is yet too early to

say anything definite about it as regards future cultivation. It is chiefly met with as growth from the stool in cleared ground or recently cleared young clove plantations. I have also on trial new number—*M. Pindangensis*.

I imagine that it is the same with rubber as with all other trees, that when introducing a species non-indigenous, great risks are run that though possibly for some years healthy, yet later fungal or insect disease that may attack it but slightly in its native habitat, may overcome it and be a serious restriction on profitable. For this reason, while strongly in favour of continuing the rubber cultivation at Chania, I should deprecate the carrying out of the extensive scheme proposed originally by the Department of Agriculture.

Tenbo.—

	Rs.
Paid in—	
1907	230
1908	252
1909	248
Estimate for 1909	250

The Temple Decree has largely stopped the issue of fitobona.

Ngoma Fees.—

	Rs.
Paid in—	
1907	544
1908	437
1909	400

Under a sense of duty I again bring forward my request that the Assistant Collector be allowed to use his discretion in stopping ngomas during the clove harvest.

The Attorney-General quotes the opinion of an official who has been "longer in the Government" than you or I have: "But you and I live in the centre of the clove industry of the two islands, and we are agreed that—

1. It should be stopped in the interests of the harvest.
2. That the native recognises the force and justice of stopping them, and is not sullen and never has been sullen owing to stopping.

An ngoma will stop all picking in the neighbourhood of it for two days and Zanzibar owners are entitled to Government support in this matter. It is impossible for Zanzibar officials to appreciate the importance of questions such as this from their knowledge of the Zanzibar plantations and houses which bear no comparison with the plantations and natives up here.

The idea of ngomas encouraging the natives to work was proved to be in redoubt at the time when the late Collector allowed them to the road men.

Births and Deaths.—

Births registered in—	
1907	377
1908	344
1909	344
Deaths registered in—	
1907	236
1908	236
1909	236

There is much yet to be done in getting the people to recognise the importance of the reasons for the Order in case of the census. As regards the influence of the census on the men.

Police.—The question of recruiting has been dealt with in recent months. I certainly look forward to the time when we can have our own police. It is not unnatural that the Zanzibar Superintendent does not want his best, and provided that the Commandant can see his way to meet our difficulties in the matter of recruiting, I think we could manage to get a better class of men than we now have.

The building of new askaris' houses is an immediate necessity.

The chief thing I notice amongst the men is the utter want of respect for their N.C. Os. This is largely the fault of the N.C. Os. themselves, but it creates difficulties in the handling of the men. Some of the old *Effendis* were a worthless lot, but I never noticed this so much as I do now in their time.

I again beg to apply that I be given Indian askaris for the pointing of Weti town, and let the Swahilis do the shamba work.

Public Works.—Very little has been done. I applied for a special warrant for trees which needed telephone extension, for which I had asked when preparing the 1907 estimate. As it was not granted, I hope that some of the telephone extension money in the 1910 estimate may be spent in this district.

Materials were sent up for a bridge, but nothing beyond this was done, though I understood that two bridges were allowed for in the estimates.

I suggest that two bridges be built in 1910: on the Weti-Chumak and the Chumak-Msuka roads respectively. Also that the hill be re-graded between Weti and Mtemani and between Weti and Mpona bridge. The latter on which much money was spent in 1907-08 is an important locality.

There has been some correspondence about the superintendence of the Public Works gangs. The Director of Public Works demurred to Assistant Collectors being given powers to dismiss idle workmen or negligent overseers, but requested that they should report to the Superintendent, a Paraoe.

The P. W. D. seems to me to be in the same position as the Agricultural Department. Unless there is an Assistant Director in each district, there is bound with the Indian Superintendents, overseers and Swahili overseers to be wasteful of money unless the Department is willing to put some trust in the Assistant Collector who from being on the spot knows more than anyone what is going on.

I also suggest that before plans for special-purpose buildings, such as clove-bandas, askaris' quarters, etc., are passed, they should first be sent to the Assistant Collector. His views might be disregarded or not, but he would at any rate be given a chance of stating his opinion on a matter with which, when the building is finished, he will be closely connected, especially as he more than any one else may be expected to know local requirements.

As the laying out of a new town at Weti may be done shortly, I urge, in view of the example before our eyes, that when land is let on lease for building purposes, stock plans and specifications should first be prepared, which the lease holder should be bound to follow.

There should be different classes of houses for the sites in the various localities. For example—

1. Large Indian shop of stone with iron roof.
2. Smaller ditto.
3. Msuhiri house of mud and stone with iron roof, suitable for the Arab fish-traders, who could not afford Nos. 1 or 2.
4. Large native house with thatched roof.
5. Smaller ditto.

I wish to see makuti roofs, built well together, and give the native the choice of one thatched with reeds or grass, or else one of iron.

Apart from the short life of a makuti roof and its general rottenness, a coconut plantation must degenerate from the constant removal of what is the natural fertilizer, and protector of the soil, and what in other countries is carefully placed round the tree-root. The native here should be encouraged to get into the way of thatching.

The stone and mud houses should have an ant-proof course similar to a damp course.

As regards Public Works accounts, I suggest that where the Assistant Collector as Sub-Treasurer makes payments on account of Public Works, he should be furnished with a monthly statement of what is spent on the particular work in Zanzibar or other workshops, so that he may be able to keep his books properly. Any enquiries from the subject, seemed to be taken as a personal affront by the Superintendent, who advanced a claim, impossible as it seems to me, if efficiency is to be observed, that it was not part of his duty to communicate at all with the Assistant Collector.

I mention these matters relating to Public Works because I consider that the Assistant Collector should either be relieved of all responsibility, or that the Department should recognise that in view of the difficulty of the Superintendent getting about the island and looking after the work in the three districts, the presence of the Collectorate Officer on the spot is of considerable value to it.

Agriculture.—There are various small shambas that have fallen in to Government from want of heirs or other causes that I suggest should be leased to Wapemba on terms which will prevent them mortgaging or selling.

With regard to the leasing of the larger shambas, I suggest that in the case of such a one as Matangatwani, where a very large tract of unplanted land is included in the shambas, the unplanted land should not be leased with the rest which would leave the Government free to offer it to others who might be willing to develop it at once, and also give an opportunity for small holders.

The organization of the cleaning of the shambas might I think be put on a better basis, as the present want of system leaves an open door for expenditure of money. This is partly due to the want of properly trained overseers, who would be able to line out a plantation into blocks, so that the work could be properly checked. This would undoubtedly be the method employed were a Company's money involved: and equally a Company would find it economy to provide overseers capable of the work.

So also with regard to the planting of coconuts and rubber: I suggest that before anything further is done, a careful estimate is prepared of cost and available labour in keeping clean what we already have and also what it will take to prepare ground for new plantings, and, the subsequent necessary cleanings during the plantation's early years.

Experience everywhere shows that it is better to plant small areas yearly on properly cleaned ground and for which labour can be found, than after cleanings then to plant up large areas amongst coarse grass with no labour or money for after attention with the result that the initial expenditure is thereby saved.

I should also like to see such expenditure sheets in use that our books would show what each shamba is costing.

Sales of Shambas.—There have been some minutes in which reports were made that the Judges of H. B. M's Courts had expressed dissatisfaction at the way in which Assistant Collectors attend to the orders of their Courts.

A very great deal of work is given to us by the orders of the different Courts, and these orders tend largely to increase while the Courts make no provision for giving us help. I have sometimes as many as 100 shambas on sale, nearly all of which difficulties and disputes are constantly arising over disputed boundaries, unwillingness of buyers to pay up, trespassing on or throwing of the crops of the shambas, all of which have in the first instance to come before me personally. Last year I applied for a paid dalal, as much extra trouble is given by the ordinary dalals acting with the Defendants to prevent an honest sale of the property.

Only an inferior class of man will take on the work if not pay beyond the commission attaches to the post.

Registration.—

Deeds registered in—	1907	1908	1909
1907	1,118	1,022	987
1908	1,022	987	987
1909	987	987	987

Registration is largely affected by the size of the shamba.

Summonses, etc.—

Civil Court summonses in—	1907	1908	1909
1907	2,118	2,022	1,987
1908	2,022	1,987	1,987
1909	1,987	1,987	1,987

The number of summonses is affected by the size of the shamba.

Cases in the Criminal Court—	1907	1908	1909
1907	2,118	2,022	1,987
1908	2,022	1,987	1,987
1909	1,987	1,987	1,987

Since May, 1909, 866 British Court summonses have been served.

Port and Shipping.—

Cloves shipped in—	1907	1908	1909
1907	132,340	132,340	132,340
1908	132,340	132,340	132,340
1909	132,340	132,340	132,340

	Rs.
Cases shipped in—	54,051
1907	47,163
1908	64,899
1909	445
Diapers called at Weti—	586
1907	580
1908	1,633
1909	1,514
Passengers arrived by dhows—	1,429
1907	2,099
1908	2,337
1909	4,882
Passengers arrived by mail—	789
1907	856
1908	875
1909	2,643
Passengers left by dhows—	1,843
1907	3,832
1908	
1909	

	Port Service		Shipping	
	Rs.	Rs.	Rs.	Rs.
1906	644	3,479	6,373	
1907	900	6,155	8,396	
1908	780			
1909	788			

F. C. McCLELLAN, Assistant Collector.

(19.)

Report from the Assistant Medical Officer of Pemba.

Two years have elapsed since the foundation of the new Hospital and Dispensary at Chake-Chake.
Out-patients.—The Out-patient Register for Chake-Chake and Weti gives the following figures this year.

	Chake-Chake. No. of cases.	Weti. No. of cases.
January	423	256
February	328	141
March	457	183
April	641	202
May	531	128
June	554	154
July	509	151
August	300	96
September	316	96
October	315	129
November	294	135
December		

This gives a total of 5,135 cases for Chake-Chake and 1746 for Weti as out-patients. In Chake-Chake there were fever cases during January and February and during May and June there were fever cases and a good deal of intestinal troubles. Dysentery is very prevalent at Weti, Chake-Chake being compar-

tively free from it. Clinically these cases seemed to be of pseudo-dysentery occurring chiefly amongst the prisoners. It follows a mild course and is short in duration.
In-patients.—There were 376 cases admitted into the Chake-Chake Hospital with 11 deaths and 203 cases at Weti Hospital with 10 deaths.
 The majority of in-patients at Chake-Chake were—

1. Cases of knife wounds, ulcers and abscesses.
2. Venereal diseases.
3. Chest complaints.

Malaria Prophylaxis.—Regarding anti-malarial measures, notes were distributed amongst the Arabs with reference to their life history and their connection with malaria, elephantiasis, etc. Quinine has been administered to all Government officials, as soon as fever cases began to appear and it is very encouraging to know that the Uvial and the Arab and native officials willingly take quinine as a prophylactic. In the next year, with an increase in the personnel of the Public Health Department more adequate measures will be taken in hand. It is also proposed to drain swamps at Mkoani and Weti.

Black Water Fever.—There were two cases of black water fever in the month of August which were duly reported to the Government.

Tick Fever.—Also a report was sent regarding a case of tick fever in a European.

Infant Mortality.—No vital statistics can be prepared as the registration of births and deaths is still in its infancy. No doubt the death-rate amongst infants is very high, unscientific and dirty methods during labour and birth, malaria which affects children during the early months of their existence, ignorance as to the proper care and feeding each and all tend to increase the infant mortality.

Leprosy.—The number of leprosy in the three large settlements stands at 127. It fluctuates to a small extent, as some die and new-comers take their place. It is difficult to say whether leprosy is really increasing, as it is impossible to have a proper control of these settlements under the present conditions. Provisions and clothing have been regularly sent to these settlements during the year.

Vaccinations.—About 1,000 children were vaccinated during August, September and October. In the Chake-Chake district, people are very keen on vaccination but they do not like to bring the children all the way from the hamlets to the town.

On the other hand the ordinary daily work of the hospital has to be carried on. Visits to the villages could only be carried on by special arrangements for the purpose.

Beriberi.—There were a few cases of beriberi at Weti and all necessary precautions have been taken to check it.

Revenue.—By sale of drugs, etc., Rs. 2,247 rupees 15 cents have been paid into the Treasury during the year.

J. S. DE SOUSA, Assistant Medical Officer.

(20.)

Report from the Public Works Department of Pemba.

The following new buildings were built of the year under report—

1. New Court and Residence at Weti.
2. Customs Shed at Mkoani.
3. Customs Shed at Jambozani.
4. Cell houses for Weti Hospital.

The following new buildings are under construction—

1. Cell house at Weti.
2. Tower for Water Tank at Chake-Chake.
3. Dispensary and Dispenser's Quarters at Mkoani.

The new Court and Residence at Weti has cost a rupee 30 cents per square foot of area built.

The Customs shed at Mkoani is built of stone and has masonry walls, covered with corrugated iron roof. It measures 16 feet by 40 feet in the inside, and it has cost 1 rupee 32 cents per square foot.

progressed and a portion of the lime already reduced to powder; thus suddenly depressing the temperature and chilling the mass, which renders it granular and lumpy. For thick walls mortar made of this lime is not at all suitable and more so for foundations, because it depends upon the slow action of the atmosphere for hardening it. The mortar can be made artificially hydraulic by mixing with it proper proportion of clay and sand, but this is not preferred. The best mortar is made of pure sand and lime if possible, the sand to remain in paste for some time before it is used, so as to allow the siliceous matters existing in the clay to attack the lime through the intervention of water thus forming the silicates and aluminates before setting commences.

Wood-Work.—Like all other tropical places in Pemba nearly all the timbers are exposed to one of the most destructive insects, viz. the white ants. These white ants attack the timber work in the buildings and destroy it without any noise and frequently without giving the slightest indication of the mischief they are doing, as they never destroy the surface of the wood. They will eat out the whole of the interior of wood leaving a thin shell of the surface untouched, and in case of wood that has been painted they will sometimes devour nearly the whole of the wood leaving only the paint supported here and there by a thin splinter. Indian teak, I think is almost the only wood the white ants will leave unmolested. It is probably some essential oil with which the teak is impregnated that prevents their touching it. In stone buildings these white ants generally find their way to the wooden work through the clay in the mortar, if the mortar is not well mixed, or along a piece of rope or wood left in the masonry at the time of construction. In some situations these white ants carry on their depredation with great rapidity, such as when the wooden posts are buried in ground. The old custom shed of Chaga-Chake furnishes a very remarkable instance of the rapidity with which these insects do their work. This shed was built of iron walls and iron roof supported on deal posts buried in the ground. In not more than three years, after the shed was built, all the posts and the wooden scantlings to which the iron walls were fixed, were entirely eaten out. Even the wood-work supporting the roof, was thoroughly destroyed. The shed would have surely come down, had it not been for the connections of the iron sheets that keep it on for some time. Madagascar teak, though very hard, is not free from their attack. Petroleum is generally applied to wood-work to prevent these insects, but this keeps them off only temporarily. Even coal tar and painting have absolutely no effect. The most effectual remedy is, I think, to thoroughly impregnate the wood with creosote. It is one of the products obtained from the distillation of coal tar, and as it possesses antiseptic and noxious properties, it has the effect of repelling the white ants. The creosote is impregnated by forcing it at a high pressure and under high temperature through one end of the timber placed in a closed iron cylinder. At least ten lbs. of this oil should be forced into every cubic foot of wood, so as to obtain satisfactory results.

Corrugated iron sheets.—The corrugated iron sheets as obtained in the local markets in Zanzibar are of very inferior quality and corrode very quickly. I have noticed several iron sheets that have corroded only in three years' time. This is chiefly due to the galvanizing being very poor. The sheets are generally galvanized before they are corrugated for the sake of economy, but as in the process of corrugation the sheets sometimes crack slightly on the surface (unless they are of the very highest quality) it is an advantage to galvanize these sheets after corrugation, so as to fill up with zinc any cracks that may have occurred. It is generally supposed that painting is an effectual remedy to prevent the galvanized iron sheets from being oxidized by the moist air, but this is not at all necessary (unless the sheets are exposed) if the galvanized iron sheets are prepared in the proper way.

Makuti.—For the sake of economy, makuti are often used for roofs. They no doubt make a very cheap roof in the beginning, but the constant expense of repairs, and the amount of inconvenience to the occupants in the wet seasons are sufficient to condemn their use, unless for very temporary structures. The makuti roof requires renewing just in the beginning of the rainy season, because if renewed any time after the wet season commences, they are almost useless. Again it is very difficult to obtain them in sufficient quantity at the proper season. Owing to this and many other such difficulties, they are quite useless as a permanent material for any permanent structure. It is quite desirable that the makuti roofs on all the Government buildings, except those that are only temporary, be replaced by corrugated iron ones.

P. E. VAZIDAR, Superintendent.

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Agricultural Department

CHAPTER I.

Section I.—Government shambas—History, past records and condition.

The Zanzibar shambas are alone referred to here because the stock-taking of those in Pemba is not yet carried out and because the extra-shamba expenditure of recent years has been confined to the former plantations.

The past history of the shambas has been fully dealt with in former annual reports.

There are 63 shambas in this island—some of which, however, such as Kabato, which includes six small isolated properties and Chenge which includes three, comprise more than one.

Their management was taken over by the Agricultural Department in 1905 and which date they were in a very foul condition.

Many of the plantations still show traces of past neglect.

So far as the records show there were at that time supposed to be 128,000 clove trees and 62,000 cocoanuts, or roughly 3,200 acres under trees.

In 1905 one plantation was leased in 1906 none more, and in 1909 a further twenty-one, making a total of 32 leased and 34 in hand.

The first two leased were for 30 years, the remaining leases are two for 25 years, twelve for 15 years, two for 10 years, one for 5 years, two for 6, and seven for 3 years.

The following table gives the financial history since taking over. The figures include Pemba.)

Net Revenue—	Rs.
1903	21,750
1904	11,000
1905	20,433
1906	17,129
1907	12,047
1908	107,000
1909	107,000

The figures for 1910 will not be available until the end of January. The 1908 and 1909 figures are estimated partly to show that the greater part of the 1908 clove crop was sold in 1909.

Year	Island	Revenue	Expenditure	Surplus
1908	Zanzibar	10,000	10,000	0
1908	Pemba	1,000	1,000	0
Total		11,000	11,000	0
1909	Zanzibar	10,000	10,000	0
1909	Pemba	10,000	10,000	0
Total		20,000	20,000	0

And partly also by certain capital expenditure, as e.g. :-

	Deficit.	Remarks.
1908—	Rs.	
Kibope	10,740	A large above planting.
Mahonda	10,074	New sikafu and house.
Mfanyageni	7,500	New sikafu.
Kimusi moshi	7,000	Fine apple planting.
Kiimbani kubwa	6,300	New sikafu.

All the figures in connection with the past history of the shambas are given very fully in that file headed "Shamba and other Arab memo. papers, and there is no need to duplicate the statements; I will deal with them further in that supplementary report which it will be necessary to send in when the figures for 1910 are available.

In approaching this question of shamba finance the statements in the file and memoranda above referred to are of great importance, namely that in Seyyid Barghash's time the shambas were in good order, but that from 1888 to 1892 no cleaning whatever was done, and the shambas were handed over in a condition of extreme foulness. This affects the whole question of recent management, as once a foul condition is established, it is a work of some years to restore its bearing capabilities.

My later remarks will show that, now, the clove-shambas in hand are clean, but the coconut plantations are not.

Section 1a.—Approximate areas of Government Shambas.

	Area in Acres.		Area in Acres.
1 Manyami	308	42 Mwendeladu	65
2 El Hathra	237	43 Mwarajani	29
3 Marseilles	582	44 Kahunda	19
4 Kitamba	361	45 Mgumbani	17
5 Basra	176	46 Mairishi	21
6 Mizima	612	47 Gangahe	66
7 Mivani	566	48 Mwaia kwetake	39
8 Kiniani	190	49 Kusani	153
9 Kinasi moshi	155	50 Chukwani	502
10 Kinango ndogo	164	51 Kibonde mzungu	269
11 Kinango kubwa	281	52 Gongowampama	44
12 Kibingo	139	53 Walezo	45
13 Kiimbani kubwa	132	54 Mfanyageni	505
14 Kinango	176	55 Mpanzi	558
15 Kinango	176	56 Danga	336
16 Bumbwa Kiimbani	245		
17 Bumbwa Sodi	100		
18 Kinuni mdgo	270		
19 Kidichi	690		
20 Seleni	368		
21 Seleni ndogo	160		
22 Mhalisi ndogo	167		
23 M. Imbwa	1117		
24 Kuopo	261		
25 Bet el ras	73		
26 B. ndogo	298		
27 Mahonda	33		
28 Donge	17		
29 Mkolotoni	150		
30 Kidke	1,000		
31 Nyanjalis			
32 Kama			
33 Bonato			
34 Mkanjuni			
35 Bode Mzungu			
36 Chuni			
37 Bet el ras			
38 Marhuba			
39 M. wanzani			
40 Mtoni			
41 Seleni			

Penia

59 Tundua	600
60 Chuka	1,000
61 Gande	56
62 Makhe	59
63 Mpanzani	188
64 Makondeni	135
65 Mpanzi	55
66 Kissen	5
67 Kichanjani	5
68 Kiimbani	40
69 Bonani	39
70 Weta	24
71 Madunga	11
72 Chaki Chaki	11
73 Vitongoji	11
74 Ugo	3
75 Kungeni	4
76 Pujani	10
77 Mkoani	17
78 Mchanzani	20
79 Kwamacho	30
80 Fufuni	300

Section 2.—Expenditure since January 1909 to Government Shambas since the Government took them over in 1909.

Agricultural Department.

STATEMENT OF EXPENDITURE IN THE ZANZIBAR ISLAND.

	1903.		1904.		1905.		1906.		1907.		1908.	
	Actual.	Estimate.	Actual.	Estimate.	Actual.	Estimate.	Actual.	Estimate.	Actual.	Estimate.	Actual.	Estimate.
Direction and Office Staff	Rs. 10,640 00	Rs. 10,640 00	Rs. 11,410 00	Rs. 11,410 00	Rs. 11,580 00	Rs. 11,580 00	Rs. 11,816 97	Rs. 11,816 97	Rs. 12,000 00	Rs. 12,000 00	Rs. 12,200 00	Rs. 12,200 00
Supervision	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,500 00	Rs. 10,500 00	Rs. 10,800 00	Rs. 10,800 00	Rs. 11,000 00	Rs. 11,000 00	Rs. 11,200 00	Rs. 11,200 00	Rs. 11,400 00	Rs. 11,400 00
Cultivation, bearing trees	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00
Cultivation, unbearing trees	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00
Plantation of new plantations	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00
Harvesting	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00
Expenditure on "special" labour	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00
Expenditure on "ordinary" labour	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00	Rs. 10,000 00
Total	Rs. 10,640 00	Rs. 10,640 00	Rs. 11,410 00	Rs. 11,410 00	Rs. 11,580 00	Rs. 11,580 00	Rs. 11,816 97	Rs. 11,816 97	Rs. 12,000 00	Rs. 12,000 00	Rs. 12,200 00	Rs. 12,200 00

Section 3.—*Fore Revenue*
 Attached is a table showing the past gross revenue from different holdings for the past 7 years up to 1909 inclusive.

Agricultural Department

STATEMENT OF REVENUE FROM THE GOVERNMENT PLANTATIONS

	1903		1904		1905		1906		1907		1908		1909		1910	
	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.
Zanzibar—																
Sale of cocoanuts (including nuts not for seed)	55,580	67	43,178	54	40,465	14	38,107	20	41,443	67	41,443	67	36,060	72	56,612	96
Sale of cloves and stems	66,012	34	40,050	25	29,749	70	1,45,064	06	87,622	70	87,622	70	803	48	1,39,833	08
Rent of leased plantations	...	...	...	...	300	00	6,832	50	13,175	00	13,175	00	11,095	00	21,280	84
Rent of leased cocoanut trees	1,721	64	1,253	90	2,352	81	5,570	01	4,313	36	4,313	36	6,386	56	2,325	93
Sundry receipts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	1,91,114	85	84,467	69	72,655	85	1,95,673	77	1,46,754	75	1,46,754	75	85,227	56	2,00,082	32
Pemba—																
Sale of cocoanuts	7,637	66	5,169	58	4,858	90	5,698	98	2,807	75	2,807	75	5,965	16	4,043	26
Sale of cloves and stems	21,883	76	51,686	96	12,348	65	48,189	38	48,660	00	48,660	00	14,864	11	43,822	12
Rent of leased plantations	133	00	535	78	373	50	159	63	48	00	48	00	24	00	...	...
Sundry receipts	5,180	02	2,675	53	2,650	43	7,117	36	2,738	73	2,738	73	3,368	66	7,361	35
Sale of rubber	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	33,960	58	60,677	87	20,180	47	61,054	64	54,464	98	54,464	98	24,485	28	56,209	61
Grand total	1,88,099	23	1,35,145	56	92,786	12	2,56,728	41	2,01,219	73	2,01,219	73	79,712	86	2,56,292	43

Section 2a.—*Clove Crops from Government Shambas.*

Year.	Crop.			Season	Total crop	Percentage of Government to whole
	Zanzibar.	Pemba.	Total			
1899	...	...	...	...	12,453	...
1900	...	...	...	...	2,632	...
1901	...	...	...	...	2,993	...
1902	...	...	...	1902-3	12,642	1.12
1903	...	...	...	1903-4	1,977	1.43
1904	10,596	2,106	12,702	1904-5	7,566	1.06
1904	756	5,039	5,795	1905-6	12,809	4.41
1905	3,288	1,335	4,623	1906-7	4,613	1.77
1906	12,003	3,403	15,406	1907-8	19,071	1.49
1907	7,680	4,528	12,208	1908-9	18,743	4.41
1908	57	1,681	1,738	1909-10	11,073	3.63
1909	15,323	4,745	20,068	...	...	...
1910	3,468	1,182	4,650	...	...	...

Note.—The last column gives the percentage that the crop of the Government shambas bears to the crops of all other owners on the two islands.

Section 3b.—*Cocoanuts Picked on Government Shambas.*

Year	Number Picked.	Average per Tree	Average Price
1902	325,271	...	...
1903	1,787,156	20.6	24.30
1904	1,851,907	11.4	28.75
1905	1,801,028	20.8	29.20
1906	1,928,307	...	26.30
1907	1,516,916	...	24.26
1907	574,968	...	...
1908	1,357,960	25.3	27.50
1909	...	...	...
1910	367,600	...	23.50

Note.—In 1910 most of the cocoanut shambas were closed, the harvest dating from various dates.

Section 4.—*Development of rubber trees.*

The official records show that recent years have been marked by large developments.

Year.	Cloves.	Cocoanuts	Rubber	Stambs.	Plantations
1903	...	20,000	...	...	...
1904	...	14,000	23,478	...	...
1905	...	21,542	45,779	...	...
1906	...	46,975	56,424	...	...
1907	...	34,663	60,983	...	...
1908	...	71,252	23,230	...	...
1909	...	62,549	48,972	...	...
1910	70,000	...	...

Note.—These figures are dealt with later in Chapter 4.

Section 5.—*Stocktaking of 1910.*

The stocktaking of the Zanzibar shambas has been completed at a cost of 500 rupees, and the attached table gives the result.

Columns are provided so that a comparison can be made between the numbers reported as existing before the stock-taking, and the actual figures, and also for the purpose of showing the number of young trees recorded in the office lists as having been planted.

The Pemba shambas will shortly be taken in hand.

The 5 groups are those into which I have divided the shambas for purposes of future management. (cp. Section 15.)

Agricultural Department

Name of Station	Cocoanuts										Rubber				
	From Office Records					1910 Staking					Pyré		Gum		
	Planted Number	Planted in last 10 Years	Reported Number	Total	1-10 Year Old	Planted in last 10 Years	Reported Number	Total	1-10 Year Old	Planted	Alive	Planted	Alive		
Morcelles Group															
1 Manyanha	3,000	3,148	400	3,810	400	2,400	699	1,228	699	1,228	...	...	...	...
2 El Herchira	2,045	3,092	600	3,725	600	3,000	3,578	4,303	3,578	4,303	...	...	...	...
3 Manzanillo	8,400	7,574	3,900	8,679	3,900	3,100	5,122	9,067	3,100	5,122	...	...	...	...
4 Barras	10,600	17,765	3,290	19,030	3,290	3,800	10,731	2,860	3,800	10,731	...	...	...	...
5 Durán	1,680	3,250	1,000	4,064	1,000	2,941	1,936	2,850	1,936	2,850	...	...	...	...
6 Durán (B)	500	3,379	441	4,426	441	3,000	3,815	4,816	3,000	4,816	...	...	...	...
7 Maracaibo	17,500	15,500	900	16,988	900	11,900	5,480	6,714	5,480	6,714	...	...	...	...
8 Miramiri	2,429	19,900	3,233	4,482	3,233	10,746	5,383	6,127	3,233	5,383	...	...	...	...
Total	38,832	70,676	39,307	69,898	39,833	48,337	22,486	36,544	14,038	22,486					
Kaimamban Group															
9. Kaimamban Kubra	7,000	6,900	1,270	7,865	1,270	5,836	2,685	4,394	1,270	2,685	...	...	...	...
10. K. Nidogo	3,600	3,540	62	3,712	62	3,688	726	1,759	3,688	1,759	...	...	...	...
11. Kipango	3,600	3,715	1,231	5,253	1,231	2,988	1,638	1,867	2,988	1,638	...	...	...	...
12. Kinani Moali	9,800	10,000	1,811	12,832	1,811	4,625	2,703	3,660	4,625	3,660	...	...	...	...
13. Munjo Kichwa	3,600	3,235	3,478	7,791	3,478	2,730	1,099	703	3,478	1,099	...	...	...	...
14. M. Nidogo	3,600	6,120	2,214	5,799	2,214	3,300	437	2,301	3,300	437	...	...	...	...
15. Baghi Kaitkan	2,076	2,129	3,013	5,199	3,013	4,468	885	1,374	3,013	885	...	...	...	...
16. Buhubi Nidogo	4,615	4,050	2,293	6,558	2,293	2,408	642	530	2,408	642	...	...	...	...
17. Gungogaram	8,000	11,049	2,000	13,049	2,000	10,017	2,314	3,638	10,017	2,314	...	...	...	...
18. Kinani Mo	643	4,706	499	5,852	499	4,260	858	1,456	4,260	858	...	...	...	...
19. Kibweli	3,000	3,062	560	3,762	560	3,903	133	133	3,903	133	...	...	...	...
20. Kibweli (B Sudh)											3,641	53,600	4,918		
Total	44,025	79,380	37,877	63,579	38,262	50,906	23,150	36,408	14,288	23,150					

21. Nidogo	12,000	11,778	1,744	13,923	1,744	9,828	3,785	8,199	3,785	8,199	11,984			
22. Kipango	5,370	4,980	4,206	11,842	4,206	1,424	22,195	4,628	5,707	4,628	2,290			
23. Mhalan Kubra	8,500	8,454	1,686	10,335	1,686	625	7,550	822	1,686	822	1,458			
24. M. Nidogo	4,500	3,718	4,428	28,919	4,428	660	4,052	860	4,428	860	1,730			
25. Mohanda	8,673	6,200	752	2,204	752	840	4,081	1,335	752	1,335	2,127			
Total	38,048	33,916	6,333	4,411*	6,333	6,377	57,727	7,911	16,917	23,828				
From Group														
26. Kafu Nidogo	600					2,400	11,077	4,586	6,747	4,586	10,332			
27. Chikamba						1,000	33,209	8,060	8,310	8,310	14,990			
28. Kinani						1,000	2,700	996	3,296	996	5,000			
29. Kikamba						625	3,350	1,190	1,615	1,190	3,624			
30. M. Nidogo (B)						816	4,900	6,030	5,017	10,937				
31. Muzifin						240	8,916	5,050	4,184	4,753				
32. Mwa						229	1,444	2,056	1,972	2,217				
33. Mchukulo						176	2,138	1,170	563	663				
34. Mshakulu						42	100	350	468	818				
35. Mshakulu (B)						137	2,947	226	1,522	1,762				
36. Mshakulu (B)						14	290	645	679	1,138				
37. Mshakulu (B)						31	134	581	593	1,171				
38. Mshakulu (B)						16	31	581	593	1,171				
Total						1,953	34,330	15,108	23,816	33,225	6,081			
Dismantled Group														
39. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
40. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
41. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
42. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
43. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
44. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
45. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
46. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
47. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
48. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
49. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
50. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
51. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
52. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
53. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
54. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
55. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
56. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
57. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
58. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
59. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
60. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
61. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
62. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
63. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
64. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
65. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
66. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
67. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
68. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
69. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
70. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
71. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
72. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
73. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
74. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
75. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
76. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
77. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
78. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
79. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
80. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
81. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
82. Mshakulu						100	3,000	1,000	3,000	3,000	8,000			
83. Mshakulu						100	3,000	1,000	3,000	3,00				

Name of Stamba	Trees				Cocoanuts				Rubber		Cassia	
	From Office Records		1910 Stock-taking		From Office Records		1910 Stock-taking		Planted	Alive	Planted	Alive
	Reported Number	Planted in last 10 Years	1-10 Years Old	Old Trees	Reported Number	Planted in last 10 Years	Old Trees	1-10 Years Old	Total	Total	Total	Total
56. Mischakott	...	600	780	1,140	2,278	3,427	...	...	...	...	...	...
57. Bannal	100	272	5,300	907	562	1,459	...	...	...	...	...	...
58. Kidote	570	711	4,320	367	253	660	...	...	...	...	...	...
59. Deiga	...	300	2,688	...	...	...	...	...	...	...	...	...
Total	6,094	21,491	47,671	26,435	26,531	64,936	...	...	61	...	...	1,270

A comparison between the reported numbers of the bearing trees and the actual number is of no importance, but the discrepancies between the actual number of young trees as compared with those numbers that were reported by the overseers, as having been planted, are so great as to demand attention and account.

Out of 249,041 young clove trees said to have been planted, only 121,326 were reported to be about 80 per cent. of deaths.

Out of 312,056 cocoa-nut trees said to have been planted, 211,235 were reported to be about 61 per cent. of deaths.

Out of 140,122 rubber plants put out, 103,970 were reported to be about 71 per cent. of deaths.

Undoubtedly failure in death will account for many of the signals wanted neglected by the overseers it cannot possibly account for the total losses, and the only other explanation is that they were never planted.

Whether this is the result of dishonesty or of general carelessness on the part of the overseers it is impossible to say, but in any case the system adopted appears to be far much, including as it did the instituting of three establishments in a large number of centres, the impossibility of control and supervision in all these centres, the work of each year having to be carried out within the space of a few weeks, the fact that so many of the head men engaged are illiterate, the lack of supervision of the plantations which the position of the plantings could be made out, the selection of sites from motives of economy of selecting existing patches of ground, and the cultivation of the native's cassava as the site for the coconut plantings.

Moreover it is difficult to get overseers to keep a record of the number of each plant put out and to keep a record of the number of trees that die, the exact number of deaths, and the effect of the weather on the loss of trees, as the overseers are responsible.

Undoubtedly, considering the very high cost of labour, it is surprising to have been planted, the initial cost in labour of planting alone has been high.

For since 1904 up to 1909 the Government is reported to have planted under these 2,620 acres of cloves, 11,000 acres of cocoa-nuts and 430 acres of rubber, amounting to 99 clove trees to the acre, 33 cocoa-nut trees and 100 rubber trees to the acre.

Their actual planting cost is reported to have been 2 rupees 2 cents per acre and to have been 1 rupee 2 cents per acre.

Their actual initial labour expenditure in planting the trees that are now alive is reported to be about 7 rupees 6 cents per acre.

These figures would represent the labour cost of planting the cocoanuts in sandy cleared ground and the cloves in ground cleared by the natives, and for this reason and because many of the trees have not yet reached the bearing stage, a direct comparison cannot be made between the estimated cost of 1 rupee 2 cents per acre of planting of cloves or cocoanuts to the bearing stage.

Calculating with 4 per cent. compound interest in labour, the full cost of planting would be to do this.

That is, when deciding on development operations on uncleared ground, the Government must prepare themselves for a capital expenditure of 275 rupees per acre on cloves, and 165 rupees per acre on coconuts before returns begin to come in, or if planted on ground previously cleared by natives for their cassava, then a capital expenditure of 165 rupees and 115 rupees respectively.

One is already shown as a set-off against the supposed pecuniary benefit derived from a choice of the better class of ground, is the great and to my mind the decisive disadvantage of the fact that it is in scattered and isolated patches, so that no lining-out, uniformity of planting, or symmetry is possible.

This matter is very closely connected with the discrepancies disclosed by the stock-taking.

From motives of economy, this class of ground was selected for the coconuts, the natives presumably undertaking to clean them. But the native practice of cassava cultivation is such as to entirely militate against the success of the plan, for not only do he not clean his crop in its later stages, which becomes then a tangled mass of undergrowth, but he moves on to another piece of ground, if it is available, for his next year's crop, leaving the Government coconuts to get on as they can, with the result that the whole plot is lost, or its existence forgotten.

It is difficult to explain the very heavy loss of the young clove trees except partly by the extreme negligence of the overseers, and owing to the large scale of the plantings by their inability to properly tend them during the first few years.

The clove tree, more than most other trees, needs constant attention in its early years in order to get it established.

Section 7. - Revenue for year 1910.

As the accounts for the last two months are not yet available, a supplementary report will be made during January.

A table of past revenues is given in section 4.

That from coconuts will be found to have increased, owing to the system of licensing annually.

The total revenue will be affected by the size of the clove harvest, which is estimated at less than half that of last year.

A small fresh source has been obtained from the licensing of sundry fruit trees such as mangoes, durian, jack fruit, etc.

A future source, small but indirectly very important, will be the income from ground-rents.

The conclusions I have come to regarding the all-important question "Can the revenues be largely increased?" are—

No large increase is possible without a large increase in expenditure.

I do not advocate any extensive schemes of development with the existing type of overseer in charge of them. The past schemes have generally been far from successful, and I attribute this principally to the quality of supervision.

In other sections I have indicated the extent of development to which I consider that the Government is justified in going.

A Capitalist Association, if it took them over the shambas, would undoubtedly combine with their management a trading business also, in cloves, coconuts, etc., and would find it advantageous to do so.

It would probably also loan money out, and so obtain a hold on other properties and their crops. It would set about reducing the cost of postage by forming roads through the properties in connection with the main roads of Government. It might itself start factories.

Such activities as some of the above, though sound enough methods of increasing the revenue of the shambas, are somewhat outside the province of a Government.

The revenue will automatically (apart from the ups and downs of the clove harvest) increase from those developments of recent years, and from those on a smaller scale proposed by me for the future.

I also look forward to increases by decreasing expenditure per unit under a more systematic scheme of weeding payments, measuring, etc., and by endeavouring to introduce a better class of overseer, for while some that we have are intelligent, as possibly honest, others lack intelligence, and I doubt their honesty.

Like all other shamba owners we suffer great losses from predial larceny.

Section 8. Policy of Leasing.

The attached table gives particulars of the shambas leased.

According to our stock-taking figures, the results are in some cases low.

With the present type of leases the system has great disadvantages, for to ensure development of the shamba a long lease is necessary, but these people do not wish for a long term with a view to their present, and of the 20 plantations let, most are for short terms of from 5 to 15 years.

Under such a term the tenant looks only to getting as much as he can out of that period, and putting as little money into it as possible.

The system of supervising is not also very successful, the reports of the supervisors are not trustworthy, and frequent visits of the District Agent and Superintendent are necessary.

Three forfeiture proceedings have been taken since the first half of the year, and since then two more have been completed.

A large number of notices have also been served, but proceedings will follow if the Government requirements are not carried out.

There is a general evasion by the tenants of the obligation of planting a certain number of trees each year, and the cultivation of the same is never carried out except under compulsion.

I have made recommendations with regard to a possible deduction in the case of what constitutes hyacinth-like treatment and cultivation of a shamba.

I do not recommend further leasings for short periods, but see no reason why existing shambas should not be let on long terms to suitable people under a form of lease as above, and that the unplanted land belonging to the shambas should be let at a nominal rent in the first few years, and a process of re-entry if not developed within a certain period and at a certain rate.

Agricultural Department
 STATEMENTS - Leases, Plantations

Name of Estate	Date of Lease	Date of Expiry	Name of Tenant	Area in Acres		Cultivated Area		Remarks
				Leasing	Unleased	Cultivated	Uncultivated	
1. Muziris	3,192	27 years	Major S. S. S. S. S.	8	100	7	93	
2. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
3. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
4. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
5. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
6. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
7. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
8. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
9. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
10. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
11. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
12. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
13. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
14. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
15. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
16. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
17. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
18. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
19. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
20. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
21. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
22. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
23. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
24. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
25. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
26. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
27. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
28. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
29. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
30. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	

31. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
32. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
33. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
34. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
35. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
36. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
37. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
38. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
39. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
40. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
41. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
42. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
43. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
44. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
45. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
46. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
47. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
48. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
49. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	
50. Muziris	12,120	27 years	Major S. S. S. S. S.	49	100	49	51	

Section 9.—Policy of Licensing Coconut Trees.

The attached gives the particulars of those shambas on which licences have been issued annually to pick the coconuts.

It also shows the gain in revenue compared to that obtained from them when in hand.

The system also has with it certain disadvantages, which are outweighed by the advantages.

It is difficult to control the final picking of the nuts, and to prevent immature nuts, and to the detriment of the incoming licensee if the outgoing man should not re-very, from being taken out.

Estimates are made for the actual number of nuts to be gathered at the final picking, but without a guard this cannot be controlled, and a better system would be to fix the date on which the final picking must cease, which should be about ten weeks before the expiry of the term, and that the incoming licensee should be given the right of pre-entry to the shamba, but not for picking nuts.

This system obtains better custom in land tenure at home, for purposes of cultivation, than it does in the islands.

The great advantage of the method of licensing is that the licensee is often a local man, and he knows the actual value of the nuts, and therefore he is better able to cope with the market.

Moreover, he is free to plant his own shamba, and to develop it as we think fit.

Agricultural Department.

STATEMENT of Licensed Plantations.

Name of Shamba	No. of Coconut trees bearing	Amount of Licence Fee	Gain under Licence.	
			Rs.	Rs.
Chittagong	75	819	398	218
Dacca	1,787	1,200	927	273
Moulvibazar	3,845	3,380	1,415	1,872
Kutubdia Canton	1,399	1,490	81	619
Kalimpang Canton	273	90	48	32
Barisal	799	435	300	40
Chandernagore	437	250	100	103
Wingate Camp	599	300	100	142
Khajuria Canton	1,171	1,119	200	426
Barisal	300	400	100	221
Barisal	300	1,340	100	642
Barisal	100	100	470	470
Barisal	100	100	471	329
Barisal	3,700	800	400	595
Barisal	570	570	200	298
Barisal	1,200	675	300	625
Barisal	642	640	300	270
Barisal	1,026	600	312	288
Barisal	890	1,020	304	426
Barisal	1,330	1,000	447	555
Barisal	1,060	500	496	94
Barisal	396	500	389	147
Barisal	429	390	128	72
Barisal	642	390	648	312
Barisal	3,745	1,850	1,780	490
Barisal	6,980	1,250	869	381
Barisal	822	990	326	594
Barisal	60	50	23	27
Barisal	3,036	3,700	3,412	289
Total	38,071	29,616	18,067	11,539

Section 10.—Future Development with Cloves.

The Government possess 113,061 bearing trees and 33,371 trees 1—10 years old, or roughly 1,130 acres of the former and 333 acres of the latter.

Also the stock-taking figures show that there are 39,000 dead trees or gaps in both old and recent plantings.

These occupy an area of 300 acres all of which has to be weeded along with the rest in order to prevent the intrusion of bush growth. We therefore, have to incur now an annual unproductive expenditure of about 4,200 rupees.

Where the gaps have occurred not through unsuitability of locality, we should first concern ourselves in getting young trees established on them, so that this unproductive expense may be ended; and where caused by unsuitability of locality, then in getting some other crop established, preferably coconuts.

The next two years should be spent in planting up these gaps.

The regularity and normality of some of the old plantations in the two islands is very noticeable, showing that the tree either established itself more readily formerly than now, or that greater attention was paid to young plantations in those days.

The latter is the reasonable explanation, as the Arabs employed professional planters who lined out the ground, shading and watering the trees for the early years, and the Government must be prepared to do the same, if it wishes to see the mortality reduced amongst its young plantings.

Section 11.—Future Development with Coconuts.

The Government has 86,468 bearing coconut trees, and 12,125 trees from 1—10 years old, or 2,620 acres of the former and 3,675 acres of the latter class.

In 1906 the Director of Agriculture estimated that there were 1,000 acres of land available for planting, giving room for 175,000 coconut and 200,000 clove trees.

Since 1906, and excluding that year, the planting record shows that 150,000 coconut and 105,000 coconuts have been planted, equivalent to about 1,000 acres.

The above estimate was, of course, purely approximate, as there is any other in the absence of a Survey, but were the planting record reliable, it would show that the available area would now be under a crop 9,000 acres only remaining to be planted.

But taking actual stock-taking figures, the clove and coconuts bearing and non-bearing together, cover an area of about 8,000 acres.

This I imagine covers about half the area within the Government boundaries.

The total area of the Government plantations has always been taken as about 16,000 acres in Zanzibar and 2,500 acres in Pemba. But it is evident from the stock-taking figures that the estimate is much below the mark.

Assuming that 8,000 acres are now unplanted, I consider that half of this would be for coconuts, giving room for over 130,000 more.

In addition there are the existing coconut plantations much below normality, and the factor of normality of which I put at '8, thus giving room for about 38,000 more.

In addition there are the blocks of clove plantations on unsuitable localities which should be converted to coconuts.

While I cannot as yet give an opinion as to the area of these, it is safe to assume that there is room for a total of 200,000 trees in addition to what we have got.

A capitalist would also probably reclaim much land now unsuitable for coconuts by drainage.

The past policy has been to select existing plantings and to extend them, and the overseers kept strictly to this, much of the losses would not have occurred.

For in order to avoid the expense of clearing they selected those of any rank growth they came to, passing on to the next clear patch. I have described the system fully above; it prevented any thinning out, and any further thinning of the annual deaths, with the result that these patches have since become almost barren but a fraction of what was formerly put into them.

It is difficult to see how any other system can possibly be devised, provided orders to plant out the 250,000 young trees, recorded as having been planted, and the sufficient increase was provided in the annual estimates to meet the direct current expenditure.

Mr. Linn estimates that it costs the Government 15,000 rupees to bring 100,000 to production stage, equivalent to 15 rupees per tree. But presumably this estimate is based on the cost of the operations in connection with the 250,000 trees, 61 per cent of which are missing, and to which estimate therefore would have to be added the cost of replanting and also of establishing.

Mr. Irvine (of Messrs. Lever Bros.) estimated the cost on these plantations to be about 5 rupees per tree, which is a little in excess of my own figure for here.

I recommend the future plantings to be done on a much smaller scale, and that nuts be annually set to raise (for our own plantations) 15,000 plants, sufficient to plant up 3,000 acres.

A further 20,000 plants can be raised for sale at cost price to those who have cleared and lined out their ground ready to receive them, 10,000 in each island.

As regards the position of these plantings, this next year we must plant where our influence and the influence of our agents should be first directed to develop those regions along the North Road, namely, Momi, Marahubi, Bet-el ras, and Kidibi and get normal plantations established on all vacant ground within their boundaries. These positions are all near a hard road, within easy reach of the shore, and therefore also to the site of any sugar factory that may eventually be built, which would probably be on Momi shamba.

In favour of these plantings also is the preference of the cocoanut for proximity to the sea and the fact that it, like other trees, falls less readily a prey to fungus and insect attacks in favourable situations.

Smaller plantations near the coast worthy of development are Kama, Nyanjala, Mungwanzi, Mhakatoni and Kakote.

In all future plantings the ground will be lined out first, which only increases the capital cost by 75 rupees per acre, but much facilitates the future working of the shamba, and it is noticeable that in all the early plantings of the Government it was always carried out.

In considering the question of the comparatively small rate of development that I propose with that of the old scheme it must be remembered that under this latter, even where no bush growth had to be cleared, the Government were committing themselves to a capital expenditure of £60,000 to bring all the trees to production stage.

I take it that the Government never intended to so commit itself and does not even wish to do so.

TABLE OF COCONUTS SET FOR SEED IN 1910.

Name of Shamba	Number
Be. 2000	10,000
Mpongwanzi	1,000
Dumi	1,800
Umpu	1,000
East Bush	600
Beloni	4,200
Dumani	2,000
Chuni	2,000
Kama	2,000
Nyanjala	8,000
Momi	2,000
Mungwanzi	17,000
Mungwanzi	950
Kupya	4,000
Kupya Hill	1,000
Kupya	8,500
Momi	1,000
Momi Hill	5,500
Momi Hill	1,000
Momi Hill	6,000
Momi Hill	3,000
Momi Hill	1,700
Momi Hill	1,000
Momi Hill	1,000
Momi Hill	1,000
	86,200

Section 1: Rubber and future Development.

Attention in this table giving the history of the rubber plantings examples have from time to time been sent home and favourably reported on by the Imperial Institute and Brokers.

Field experiments have not, however, been made either on the old Dunga plots or later on the new plantations, the last because we have no Overseer at Chuaka capable of superintending them.

I have already gone fully into the question of rubber and our existing plantings in those minutes relating to Professor Dunstan's remarks, and will only repeat here that I do not consider that action in leaving them would be premature in so doing.

I suggest that a man with practical knowledge of the management of a rubber plantation be appointed to reside at Chuaka in Pemba, and have control also of the smaller shambas of Mungatwani and Kimini Mushi, stationed at these latter places sub-overseers who would have been trained under him at Chuaka.

Tapping has not yet commenced at the smaller places, and only on a small scale at Chuaka.

The trees on the latter are far from uniform in size, and have suffered much from insufficient weeding.

The native casava has been the source of much damage, the weeding of the young casava benefited the rubber, yet later on if either forced the larger rubber trees up or smothered the smaller ones.

Without an efficient overseer also great damage is likely to be caused to the trees by rough and improper methods of tapping.

Under proper management also from 3,000 to 4,000 lbs. of rubber should be obtainable next year.

For the next two years three weeding yearly are absolutely necessary. The first weeding hitherto allowed them account for the slow progress.

In addition at Chuaka I recommend the sowing of 20 acres annually, or 4,000 plants, which will cost us 600 rupees on grass ground and 1,200 rupees on bush ground.

But our past experience (and everyone else's also) shows that it is quite useless to attempt to raise rubber except on properly cleared ground and with sufficient after-cultivation.

There is a young planting of Para at Kimini Mushi, which has the disadvantage of being in very foul ground, the trees having made in consequence a very slow growth.

This will be kept to its present limits but not extended. The Imperial Institute and the brokers reports on the sample of Para sent to me was very favourable as regards the quality, though not as regards the form.

This Para planting is sufficient for us in Zanzibar for trial, though I should like to see a small planting near an official's house in Pemba where the conditions are possibly more favourable than here, and I recommend the purchase of the valley below Mkoani Collectorate house, which has been recently drained by Government and would be valuable for the purpose.

With respect to other rubbers, the Imperial Institute's report on Castor was unfavourable, and there is nothing in the condition of the planting at Dunga to suggest further trials.

Trial plantings will be made of the South American Manihot and also Funtumia, none of which exist here except a few planted at Wele. The trial planting of the indigenous Macarouba had made little growth when I saw it last at Wele.

A sample of its rubber is being sent home for report. By the end of the year the yield of Latex from rubber from Ngazi forests will be about the same as last.

1907	1,200
1908	1,200
1909	1,200
1910	1,200

To the 31st December

The picking at Ngazi costs 1 rupee 2 annas per lb. 225 lbs. of Chuaka rubber have also been collected and sent from our Pemba shambas.

The gross revenue from rubber has been—

1907	1,200
1908	1,200
1909	1,200
1910	1,200

The 1910 price is equivalent to 105 rupees 59 centesims for 100 lbs. of Chuaka rubber, or 2 rupees 25 cents per lb.

TABLE of Rubber Plantings.

Shamba.	Number.	Total.	Variety.	Year of Planting.	Number Above now.
Chaska	80,000	80,000	Para	1908	30,000
Makagawan	6,000	6,000	"	1908	6,000
Mwambaka	2,500	2,500	"	1908	Abandoned
Chikwan	2,000	2,000	"	1908	Abandoned
Kuvu Muli	36,000	36,000	"	1908	4,818
	1,500	37,500	"	1909	
	1,800	39,300	Para	1909	
	1,450	40,750	"	1910	4,841

Section 12.—Development with sundry crops.

As already stated I consider that the energies of the Government must be first devoted to the maintenance of the development of their coconuts and the planting up of their groves.

Trial plantings as a small scale have been for years in existence at Dunga and Mpana, and full reports of these exist.

As regards crops already under cultivation.

(a) *Nutmegs*.—There has been a large planting of these at Dunga within recent years between 8,000 and 9,000 having been put out on an area of 74 acres.

There is nothing in the nutmeg trade to warrant an extensive development with nutmeg trees, and as many of those planted are in scattered patches and unlined, I propose to replant 2000 of 30 feet apart under the *Grevillea*, first making a heavy thinning of the latter, and I consider this 20 acres of nutmeg quite enough. The sexes cannot be distinguished until the seventh or eighth year, so it is impossible to know how many female plants will be present in the mature plantation.

The male plants are mostly under rubber, planted to give shade to vanilla, now discontinued.

On such ground nutmegs will be planted, and the nutmegs allowed to take their course as a standard crop to the coconuts.

The price of nutmegs has regularly declined for the last 10 years, and there is no sign of any increase in the demand which is limited both for nuts and oil.

(b) *Cocoa*.—1,500 trees have been planted at Dunga, covering an area of 15 acres, 347 remain on an area of about 4 acres.

Since the experimental station was given up, the cocoa trees have been neglected and the block is far from normal.

The trees are healthy but much overgrown with the shade-trees. I am removing many of the latter and the planting of 3 acres will be brought up to normality.

A trial sowing at stake has been made under a young coconut plantation for specimens referred to in my remarks on "General Management."

It yet remains to be seen whether cocoa would not do better here without shade after the early stages are past.

Most of the seed from the trees has been sold to plantations on the mainland.

A shamba has a report on the quality of the cocoa grown. Some will be sent home for this purpose.

(c) *Sisal*.—This has been grown for some years at Dunga and samples of the fibre sent home and reported, and no further experiments are necessary to show its ability to flourish here.

It is a crop that requires a large capital, and is therefore at present unsuited to the smallholder.

It is generally a crop suitable to the smallholder, who would require a factory at hand to which to send his produce, and owing to its bulky nature, unless the factory was within reasonable distance with connecting tram lines between it and the fields, the profit would be swallowed up in the carriage.

An acre of sisal has been underplanted with sisal for the same reasons as already stated.

To produce the best fibre however, it is always grown in the open, and in any large undertaking it would be a grown.

(d) *Various*.—Tea.—Of 13,000 tea plants 420 remain. 100 of these will be left for seed which is frequently asked for by Arabs and Indians for sentimental reasons.

Kola.—Of 569 kolas, 422 remain. The area will be planted up to normality and a consignment is this year being sent home for report.

Cinnamon.—Of those planted all remain. There is no reason why the area should be increased, but for the same reasons as mentioned above under "cocoa" I intend to make a sowing under a young coconut plantation, ultimately supplying the consignment.

Coffee.—Of 2,300 *Liberica* coffee some remain and all the 2,894 *Arabica* coffee have gone also. Nothing further will be done in this direction.

Pineapples.—Of the "Kew" variety 429 are at Dunga and 8,831 at Kinohi. In 1908 ten thousand plants were obtained from Ceylon.

The costs have been so far—

Year.		Cash.
1908	Plants	260 00
	Freight	965 00
	Cleaning ground	870 00
	Planting	180 00
1909	Upkeep	220 00
1910	Upkeep	143 00
	Upkeep	670 00
	Total	4,378 00

Our receipts have been—

Year.		Cash.
1909	Sale of 132 pine	14 25
1910	Sale of 2 428 pine	64 74
	Total	79 00

The variety was originally selected and planted at Kinohi and it is now starting a canning factory, an idea, however, that was never carried out. The shamba is a long way from town and not a profitable one, and the carriage is considerable.

There has been great difficulty in disposing of the produce, and a contract being made at 4 annas each.

I suggest that the plantation at this outlying station be given up, and that we keep 1,000 close to town, sufficient for local European demand, and which manure is readily available.

The fruit of this variety, though suitable for canning, is probably desirable for export to Europe, as it is large, fleshy and ripens quick.

We have demonstrated to local agriculturists that these improved varieties can be grown here successfully, and have distributed a large number of suckers to applicants.

Consignments have also been sent to Montreal, Aden, Bombay, Calcutta and London.

Reports have so far only come from Mombasa and Aden. As the former place there is no demand, at the latter they arrived in good condition, but at 100 tons to be seen whether our agents can find a market for it there.

Kopoi.—The tree is one that called locally "Kopoi" is a native tree of the island, and is common, easily grown, and bears in both islands.

Some attention should be given to the fruit of this tree, and I am sending samples home for report.

The product has recently become of some importance owing to the introduction of improved machinery for dealing with the short staple. It starts bearing at about the third year and records will be commenced and kept of the yield of trees at different ages.

12 rupees per acre for bearing trees and 18 rupees per acre for young trees per annum, and reckoning the gaps as young trees, we should spend a minimum of—

	Rs.
Bearing trees	15,990
Young trees	21,540
Total	37,530

We have spent in the last few years—

	Rs.
1908	42,024
1909	35,979
1910	29,726

Under the existing system it is impossible to say how many weedings the trees have in the year, but now that the stock-taking is finished and we know what we have, it will be easy to introduce a new method, and this will be done next year.

I think it quite possible from the appearance of the clove trees that they have all had three weedings a year since 1908.

With regard to the method of weeding, considering the present price of manual labour, it is doubtful whether ox-ploughing would cost less, it would probably cost more, taking into account capital expenditure, the increased cost of the wages of the stockmen—Swahilis being useless in the care of animals—and the fact that hand-hoeing would still have to be done round the tree itself.

As regards root-exposure, our Wanyamwezi weeding equals in quality the ploughing that I have seen.

I am making enquiries as to what sort of plough is used in the other countries where this look grass-weed also abounds, and when at home I suggest sanction for the purchase of two different pattern ploughs for further trial.

Taking next our cocunut plantations, 2,620 acres of old trees and 3,675 acres of young trees.

Were clean-weeding done throughout as in the case of the cloves, the Government would have to incur the expense of—

	Rs.
Mature woods	31,440
Young woods	66,150
Total	97,590

Equivalent to—

	Per acre per annum
Mature woods	Rs. 12
Young woods	18

Owing to the great expense of this, the department has had in the past to content itself with cleaning rings round the trees twice a year. These rings cost one pice each when six feet in diameter, and 30 for 1 rupee when 12 feet, the custom being to have the small rings round the old trees and the large rings round the young trees.

This system would, if universally followed, cost—

	Cost	Remarks
Mature woods	Rs. 2,760	Two weedings
Young woods	15,000	Three weedings
Total	17,760	

Equivalent to

	Per acre per annum
Mature woods	Rs. 1 03
Young woods	3 79

Our actual expenditure for the past three years has been—

Year		Expenditure	Total
1908	Old woods	Rs. 1,201	1,902
	Young woods	701	
1909	Old woods	2,009	3,721
	Young woods	1,712	
1910	Old woods	1,213	4,205
	Young woods	3,000	

But as these figures represent expenditure only on trees on hand the first figures covering all the Government trees, to them must be added the cost that would have been incurred on those shams has leased since 1908.

These are—

Year		Expenditure	Total
1908	Young trees	Rs. 100	1,002
	Old trees	902	
1909	Young trees	100	1,002
	Old trees	902	
1910	Young trees	100	1,002
	Old trees	902	

Comparing the cost of ring-weeding a the trees with what has actually been spent allowing for leased shams—

	Rs.
Normal cost	18,000
Actual cost—	
1908	3,902
1909	3,721
1910	4,205

The result has not been favourable to the condition of the plantations, which, Mtoni, Baara, Dunga and Maroding in all of which bush-growth is getting strong, established.

This unfortunate state of affairs is being dealt with by setting out blocks to contract to natives, the contract consisting of cutting uprooting of the bush-growth followed by a hoeing.

So far the work has been done at a very cheap rate, and since June 1, has cost about 1,000 rupees only.

I have gone thus fully into this matter, because it is one that is very closely the capital value of our shams and also the actual cost of the present and future.

To allow bush-growth to get a footing on the plantation (as it does with resulting injury to young plants and the loss of many of them) is the greatest.

Moreover more than any other tree the clove tree is the most susceptible to all round it. Dense undergrowth causes the condition of the plantation to be very bad, and provides breeding places for insects which attack the plantation-owners have to be on the alert, especially against the larvae.

Bush-growth affects therefore the community and a most affected shamba is a source of danger to its neighbours for the same reason, and because of the nature of it and special legislation is necessary for dealing with it.

In its own interests then, the Government should keep it under on its own plantations, and also as an example to others, which may have to be enforced by a Decree.

The Agricultural Department is faced with the choice of either reducing its clearing expenditure and presenting more immediately favourable accounts, or of allowing the properties to deteriorate in capital value, a condition which in later years will be more appreciable than it is now.

The Department has then by trials itself, and by watching what other countries are doing, to find out some method of keeping these shambas clean without the great expense incurred by clean weeding, which has also its disadvantages in a tropical climate like this, where on slopes in the heavy rains, erosion is likely to result.

While according to recent well-known experiments at home, the presence of grass is deleterious to trees, especially to their fruit-bearing capacity, yet our condition would not be so bad if the grass were a fodder and not the look that ordinarily prevails, for Mr Irvine stated that in Messrs. Lovers' plantations, cattle-grazing is all that is done to keep weeds down.

In section 13 I have referred to various crops with which I am underplanting coconuts at Dunga, for even if the immediate returns are small, there must be taken into account the fact that the cultivation of the under-crop includes that of the over-crop.

These trials will be increased.

Another method, which experiments are in constant progress elsewhere, is to grow some crop that will smother the bush-growth, that will be easily removable and provide a mulching for the trees; such as some of the Passifloras and certain leguminous plants.

Trials will be made with these at Dunga.

Considering the cost of cultivation and the large proportion of our annual grant that it absorbs, this question is one of great importance to shamba owners as well as to ourselves.

(c) *Harvesting*.—The experiments tried with the clove-stalking and screening machines were far from successful.

I propose to see the makers when at home and see if it is possible to do anything further.

An improvement might be made in measuring the cloves and paying the pickers. The present method of measuring in the pishi is lengthy and lends itself to cheating. On those shambas where we shall have accountants, I should like to institute self-recording platform scales with a large white dial face, the figures on which the natives would soon get to understand.

The former would prevent the overseers cheating us, and the latter would help the native to see that we were not going to cheat them.

Enquiries have already been addressed to the Imperial Institute relating to the cutting over of the clove trees at an early age—25 or 30 years.

Such a system would, of course mean a saving in the cost of picking, but considering the cost of establishing a clove plantation, it is a question which in practice is more one for a Capitalist Assisition than for the Government.

(d) *Supervision*.—Mention has been made in correspondence of the necessity of increasing the revenue by decreasing the cost of supervision.

I attach a table giving the numbers of the different classes of overseers, etc., since 1903.

In 1907 a very extensive programme of development was initiated, which accounted for the increase in the cost that year, and though this was continued right up to 1910, we had a drop of 2,000 rupees or 33 per cent on the total cost of supervision.

(The figures are not taken from the estimates, but from actual expenditure.)

In 1910 the cost has been 1.95 rupees per acre under cultivation, or about 62 rupees per acre of our total area.

I do not think this is excessive, and I would urge the Government not to insist on a further decrease for purposes of immediate gain to revenue.

The decrease shown in the table is not accounted for wholly by the leasing of the shambas, because the cost of these leases was only about 7 per cent of the whole.

Under the present system we are so dependent on the overseers, who, by improving measuring in the harvesting or weeding can cheat us so easily if they want to, that it is very undesirable to pay them less than the, in most cases, small wages that they now get.

The staking system shows five groups of shambas, and under this system I intend to manage them for the time. The first three groups will each have

its native accountant, who can write in English, and each of them will have a fixed area for the labour.

The five groups will be—

Marappila
Solein
Kumbhali kutwa
Town
Detached.

The last two will have overseers alone, the shambas being managed by the natives before by the native or arab overseer.

The three accountants will present a monthly statement for each shamba to the group, and they will also keep late-of-accounts of these shambas so as to be ready which will be used in the cases of tenant applications for rent reductions.

These alterations will cost about 500 rupees a year, but the estimated expenditure of 1911 will be less than that of 1910.

I have elsewhere mentioned that I consider another whole shamba system as required if the work in all the shambas is to be thoroughly supervised.

Undue economy in supervision can never result in a permanent increase in revenue, and the Agricultural Department seems to have realised considerably the supervisory expenses at the same time as it undertakes new responsibilities in the case of the small

TABLE of Cost of Supervision.

Year	White Accountants	Indian Overseers	British Overseers	Native Overseers	Assistants	Other	Grants under the system
1903	1	1	1	1	1	1	1,000
1904	1	1	1	1	1	1	1,000
1905	1	1	1	1	1	1	1,000
1906	1	1	1	1	1	1	1,000
1907	1	1	1	1	1	1	1,000
1908	1	1	1	1	1	1	1,000
1909	1	1	1	1	1	1	1,000
1910	1	1	1	1	1	1	1,000
1911	1	1	1	1	1	1	1,000

(e) *Small holders*.—A large number of these reside on our shambas, and it is not under an adequate understanding that they will not be allowed to do so, as the disturbance should be kept as possible to the small holders who, as a rule, are regular workers.

But to meet the case of the large number of able bodied and well educated people who daily may be seen streaming into town along the shamba paths, we propose youths of from 15 to 25 years of age, of the shamba paths, to be given the right by inflicting a ground rent of a rupee a year, with a permission to those who can produce proof of a certain amount of education.

My proposals have been submitted to the Government, and it is certain that people who live on these shambas, that is, who are the tenants, and that the managed by the Collector.

Former attempts in this direction have been made by the Government, but a want of uniformity in the system of the shambas.

(f) *Shambas of Government Tenants*.—These shambas all have a fixed area, and agreement at rents for the ground varying from 10 rupees to 24 rupees a year.

CHAPTER II.

Section I.—Present Shamba Ownership and "Arab Memô."

The memô sums up the general points of agreement between the officials and others consulted, and I will mention only those of most importance to us.

- (1) The financial position of the Arab.
- (2) Means of helping him, and the results.
- (3) The possibility of replacing him with some other class.

(1) *Arab Financial Position.*—There is no need to dwell further on this. Such a year as 1916 when the clove harvest is small, illustrates their difficulties and their inability to find money for shamba cultivation.

(2) *Means of Assistance.*—The only assistance they themselves want is the loan of money and the Government is not prepared, and in my opinion most rightly so, to do much more than is done at present, namely to advance small sums at the commencement of the harvest, and to be willing to advance for improvements of a permanent character such as

Laying down of roads, building floors,
Building of store rooms.

While the first class of advances might with advantage be left to the discretion of A.C.S. with certain limitations, applications for the second class should be made to the District Commissioner, and suitable returns should be furnished by A.C.S. to the D. of A. of all the work done on them and repayments.

Improvements necessary for work of the permanent improvements to be done under Government supervision, but would be anything but of a permanent nature.

Assistance for development is a different and a larger question, and is one for a Land Commission.

The usual complaint of the Arab does not think it ever possible that pawns he will pay will be lent to his Indian creditor, or that he will make any great effort to do so, and when we have to consider advances of a wider character than those already mentioned the question arises—apart from sentimental reasons—are we prepared to assist the Arab to go to a further generation of ownership of landed property, and to the generation that is coming on it, or being fitted by their fathers, to take to the responsibilities of mixed proprietorship under modern conditions?

The Arab memô quotes the unanimous opinion of those consulted that some help should be given, and I have not changed my opinion.

The assistance mentioned above and other indirect forms of help dealt with later as well, at any rate for a time, be enough for the more intelligent class.

But with the progress of our neighbours on the mainland, before our eyes we cannot afford to remain aloof.

The coming generation of Arab is entirely unfit to assume responsibilities such as are involved in the ownership of a large shamba property, and with the Arab dislike of thinking of death, but few, if any, of the fathers are taking steps to see that their sons are equipped for following them.

They do not adapt themselves to altered circumstances, nor do they see the necessity of their work being brought to do so.

There would be every opportunity to applications for advances for cultivation purposes, and for making themselves their own masters to their Indian creditors.

For the purpose of a land-bank, the Government should be prepared to advance a considerable amount of money.

For the purpose of loans for cultivation purposes must be considered purely from the point of view of Government interest and expediency.

The only part of Pemba that I visited, especially in the Mkoani district, has many shambas which were almost deserted to bush.

It is against State interests that this condition of affairs should be allowed to continue, and the Government are faced with the alternative of passing a law creating penalties in the case of a property confiscating, such properties which a Land Commission, if they are prepared for that and some other special purposes) should decide were being left to death by the owner taking everything out and putting nothing back, or of lending money for the purpose of clearing.

But with regard to the latter there seem to me to be insuperable difficulties.

The anxiety of the harassed Arab in a year like this is not the wanting of the shamba, but the getting of his daily food from the shop that looks for repayment from the clove harvest.

With a whole year's food indebtedness behind him, by what means can he persuade the shopkeeper to continue the supply for another year and wait for the prospect of another crop.

Unless the Collectorate in Pemba, and in Zanzibar, the agriculturists and the Collectorate departments together are in a position to undertake the supervision of the working, but a small proportion of advances will go for that purpose, but to satisfy his shopkeeper creditor, his daily food supplier.

For these reasons I am against cultivation advances at present. The question that is in addition to the view I advance above it would tend to aggravate the evil, remembering the class of man we are dealing with, and to encourage the idea that a shamba has only to be foul and a Government loan will follow.

Were the people in possession of a class to which we could hopefully look as the motors of the country's future prosperity, the case would be entirely different.

Our assistance to the Arab is not small as it is, and we can, with advantage, do ourselves continue what we are doing in that direction, and we should with all further delay pass such a law as would stop the present anarchy which is the cause of the loss of from 50 per cent. and upwards of the cost of a non-resident owner.

We can assist them also by enforcing strictly that article No. 4 of the Constitution of the legal status of Slavery, decrees relating to vagrancy, and by setting up an example, which they have assured us that they will follow, provided we do not insist on our tenants pay rent.

(3) *Means of Replacement of the Arab.*—In Zanzibar, Pemba, and in the typical shambas in Zanzibar, the coconut shamba called *Franca*, and the clove shamba called *Doli*, examples of properties being held to lease, but not actually the owners, still for a year or two longer capable of being worked, but without a permanent owner.

One is in an Indian's hands, the other in an Arab's. I have to pay first of all, and a conclusive argument that were State interests to be served by large properties going out of cultivation and by revenue producing land going back to being worked, the accompanying loss of capital and with the certainty that when such a time comes the years of unproductive years must follow, that the loss of other shambas could be reduced by one more worthy.

The Government should be put in the position of being able to take stronger measures than a claim for Waste Land, or the passing of the property under Trustees. The one would not be a sufficient remedy for the other, which would involve responsibilities of supervision.

Such properties should be confiscated, with or without compensation to the owner of the latter, then paying to from the proceeds of sale.

The duties in connection with such matters would belong to that Land Commission, the formation of which I have suggested above.

I should like to see such properties either handed over on perpetual leases to sound capitalist associations, or cut up into small holdings with provisions in the lease that they would not be further subdivided, so that the small-holder would be a permanent on the land.

There are all the arguments to be advanced about rights of private property, and in other countries these have to give way to the general interests of the country, and they should do so here.

Of the possible classes to whom advances to repay the shamba would be made:

1. A Capitalist association which first began, when Government shambas and in securing a foothold in the country, would be likely to be the most important of the Arab shambas class.

We cannot force such a class to come, and we do not know where to find it. The Indian money lender, he will be the first to come, but he is not a capitalist agriculturist class, and is likely to be the first to come.

He also may manage his shamba well, and of course, it is not the Arab in dealing with the native labour, but he is a class who, like the Arab, wish to become a permanent holder in the shamba. He will be likely to go to India, and he hopes to follow their better practices.

2. The West Indian agriculturist who has not yet come here, but has been here and bred in the tropics, and I should like to get the Government to make a class of detached Government shambas, and see what they will do with them.

4. The European settler, who need not be discussed further, as except on the coast I do not consider it a white man's country.
5. The Indian small agriculturists whom the Government are now taking steps to introduce.
6. The native small-holder or proprietor.

The encouragement of these must be regarded in the nature of an experiment, though one from which good results may be hoped for.

We do not want a class of small-holder who will regard their holdings merely as their sole means of support for the family, or merely as the garden in which they can grow their family food supply (and that is the chief difficulty which we have to contend with in dealing with natives). We want him to become a plantation-owner on a small scale, rising by his industry to larger ownership, and in addition of equal importance, to provide a source of labour to neighbouring plantations.

But to encourage any great extension of small holdings before a clearly defined system of land-tenure is established, is to put the cart before the horse, and I would urge the necessity of getting the proposed land decree issued as soon as possible.

The land-laws of the Federated Malay States, an account of which I attach, provides us with an excellent basis for legislation here, and I should like to see all land nationalised—though perhaps under Mohammedan law it is so now—titles given to existing owners of all cultivated ground, with a deferred title to such adjoining uncultivated ground as he could provide guarantees for future cultivation within a specified time, and falling this, then such lands and all other unclaimed ground to be offered to applicants under such conditions as may be decided on later.

In any such grant of lands, especially in view of recent claims, a reservation should be made that no compensation will be paid for land taken in the future for roads, beyond that for trees or houses standing on the line of route.

The way would then be open to establish the small-holder.

Concurrent with the land-decree should be compulsory registration of titles and compulsory delineation of boundaries.

As a Collectorate official with Magistrate's powers I have for the past two years urged the necessity of this, and I could never see the force of the objections raised against it.

The small-holder being established, the next duty of the Government must be to prevent him getting into the hands of the money-lender, and to provide him with means of developing and extending his holding on more modern principles than he has been accustomed to.

For only when free from the shackles of the Usurer can he be of value to us.

In other words the institution of a land-bank is desirable.

The native is not yet advanced enough for co-operated credit Societies such as those of Rafflesia, and while the means by which the small-holder or peasant proprietor obtain their advances, whether in the form of such Government guarantees as would encourage some capitalist to undertake the enterprise, or actual provision by the Government itself of the necessary funds, does not directly concern this department, yet the result would be the same, namely that the loan-seeker could obtain the wherewithal to develop his property at a reasonable rate of interest, without risking the loss of his property, and the establishment of a class that would be a factor in helping to solve our labour difficulties.

But there are other ways in which the Government can assist small-holders, especially when it has managed to break down the suspicion of the native of the motives of attempts to help, engendered in them by long residence in an atmosphere of cheaty. Amongst these I would mention:—

1. Distribution of good seed of economic plants in cultivation, and the establishment in our Government shambas (as I have mentioned in Chapter 1) of small stocks of new and good varieties from whence the seed supply for distribution can be drawn.
2. The encouragement of the idea of co-operation, both in buying and marketing. Considering their ignorance, it is yet too early to put it into practice.
3. The establishment of co-operative nurseries from which seed-plants can be supplied at cost price, or below it, to those who have cleared and lined out their land ready.
4. The provision of markets by which he can readily sell his produce at a price fair to himself and to the buyer.

In market-buildings should be posted up the latest prices of the chief produce.

I have already started this with cloves, and last week send a wireless to Penba giving the local equivalent of the latest London prices of cloves, together with the prices of the last (last) sale in Zamboanga.

In this respect the provision of such markets to giving the grower a larger and more extended market than is possible when the village market is the only one available.

I therefore look forward to the speedy provision of some good market for Penba.

3. The establishment of school-gardens where there are schools, or a trial one at Weti. These have proved very successful elsewhere, and it is plain that the green economic plants of improved varieties of them do of the change to the people.

The Education and Agricultural Departments should work together in this matter, the latter supplying the seeds and plants, and when necessary advising as to what should be grown.

Such gardens should, I believe, reach a native standard of good husbandry in the varieties and better methods of cultivation, and every encouragement should be given for the school children to bring in native plants. (Which we have little, and of which I intend, if we obtain a vegetable garden, to have a small quantity of the next planting season, especially the most heavy potato varieties and such things plants.)

4. Other Proposals for Assam and Ceylon. That limiting the price of a clove picking in certain districts by some voluntary arrangement of growers is impracticable.

It is practicable if must be accepted in the two islands, and the only way to the system of forced labour, and the British have this last in their hands, and the same similar proposals.

In contrast with the picking a new path naturally will be shown as a result of the than the old one, and which it was not good ground for the system, the British are the meetings agreeing to use the old one.

5. But when they were told that the Government would not have the means to do so at the old rate of 4 or 5 pence per bush, the new money being being being being being being the present cost of picking, they were told, and I have nothing more to do with it.

6. Labour Supply. It has formerly been the duty of the Agricultural Department to organize the labour supply for the harvest, and a considerable grant was provided in the estimates for this under "Labour extra ordinary."

The Department founded up labour through people called Headmen, and they were fairly successful in doing so.

The system had drawbacks, chiefly that it was much disliked by the Collectorate, and as they stated that they were fully able to get the requisite labour themselves, I considered that work might be entirely transferred to that Department, and it was.

I however at the time stated that I must reserve the right of appointing the Headmen, and to their requirements and their pickings.

I must also reserve something of the method of organization under which the Headmen will obtain the labour.

In view of the likelihood of a heavy crop in 1911, a heavy price for the crop must be ready to be paid before the harvest is on us.

If it comes up with labour, I have struck several times the system of picking it, which if it could be enforced, would enable the grower to get his crop picked at a reasonable rate without undue compulsion on the system.

This is the system of advance by the shambas, and before the crop is ready, the native is short of food and ready to pledge his future labour for money down.

Shambas operate with the direct encouragement of the Agricultural Department have been in the habit of making these advances.

Most unfortunately, I consider, the shambas have been left on the ground.

They advanced their money, the Agricultural Department presided over the transactions, and when the harvest came the pickers failed to turn up.

The Government was appealed to, but the only reply that could be got from the legal advance was that the aggrieved party had his remedy in the Civil Court.

I urge the Government to encourage this system of advances, by making it a case for police prosecution when these people break their clove-picking contracts.

Section 2.—*Predial Larceny.*

The subject has been before the Government for some time in connection with a proposed amendment of the Agricultural Produce Decree.

This Decree has in the country districts led to stop thieving, but something is still wanted here, will assume us to get at the root cause of the mischief—the receiver—generally a small trader or Manga dealer who acts as his shop in a place convenient for thieves to call at.

I want to add anything further to what I have already written concerning the proposed Decree, except to say that I consider essential that it should be—

1. Licensing of dealers in agricultural produce.
2. The term "Agricultural Produce" to be defined, as occasion may arise by special Order in the Gazette.
3. Where hard roads exist, licensed premises to be on these roads, and if no roads exist, then on main pathways only.
4. Prohibition of any dealings in green cloves.

The subject is closely connected with that of the Copra industry.

I consider that this particular class of shamba crime that so disastrously affects our only industry merits the earnest attention of the police authorities, more than, it has received in the past.

Section 8.—*Vagrancy and Tembo.*

These, though the subject of distinct Decrees, are closely connected with each other.

The present Vagrancy Decree should be said to have effected its object, which was primarily to get people to work.

While shamba owners might help the Government by rack-renting all occupiers on their properties, yet we know that they will not do this, and that we in our own interests must use other means to get work out of the native and to get the clove crop picked.

The matter is one for immediate serious consideration: because a year like 1907 of a large clove crop may soon again be on us when we shall require every native in the field.

No shamba owner will again burn his fingers with the expenses of such mainland labour as we called in in 1907, not is it likely that we can again adopt such strenuous methods of persuasion as in that year.

I have as an A.C. called attention to the evils of the system of lodgers in country districts, when young men lodgers—either in their parents or unmarried women's houses—prey on neighbouring plantations, do no work, and live by thieving or on the industry of their parents.

No honest native would consider it a hardship were youths, on attaining maturity, made to build themselves their own huts, or in default be declared vagrants.

Tembo is one of the curses of our native shamba life, and I utterly disagree with any statement that the Tembo Decree has resulted in a decrease of drunkenness.

I urge that the collection of tembo may be prohibited altogether. The fruitfulness of the coconut tree will not be interfered with and a cause of crime will be removed.

Those with a knowledge of native life know that Tembo-tamu is not a drink of the people, and if a native requires an exhilarating drink, he has his Pombe beer, a more wholesome drink than Tembo.

I urge strongly—

1. The prohibition of any Tembo collection.
2. The infliction of heavy punishment on the owner of any trees being tapped.
3. The prohibition of any step-cutting in coconut trees, and a Government charge of 1 rupee a year after a stated period on all trees having steps, the object being to make owners remove trees that are a source of temptation to the native, that provide breeding places for insect pests, and a likely source of infection from Fungi.
4. The licensing of Pombe beer shops.

Section 30.—*Pigs.*

In certain districts the presence of these, considerably increases the cost of establishment of coconuts, it varying from 15 rupees to 30 rupees per 1,000, thus increasing the capital of establishment up to production stage by 4 rupees 2 cents per acre.

The Government has offered rewards for carcasses brought in or proof of death, but this department has not been provided with the returns, so I am unable to judge the effect.

I have made a suggestion as to the inoculation with hog cholera, and the safety of doing this is being enquired into.

Unpleasant and unprofitable as the resort of pigs, and thus an additional reason to those given above for the adoption of some legislative measures for dealing with the owners of these, as a protection to other shamba owners who are developing their properties with coconuts.

Section 4.—*Roads.*

The transit of agricultural produce and the opening up of markets for the producer is of immense importance to these purely agricultural islands and this department has then a direct interest in the question of roads.

In the other branch of agriculture it is always found that expenditure on roads yields a most satisfactory return on the capital spent, owing to the increased value per unit obtainable for the timber, and where our produce is of the bulky nature of cloves and copra, similar results should follow.

In suggesting that the north and south roads should be connected by a link road from Koma to Hubau, I was considering chiefly the better working of our shambas, though, apart from that, I consider that it would pass through a better agricultural country than that between the older proposed route from Duru to Ma. Moreover the former route would land the produce at the railway terminus.

After the West-Maitani road is finished, I wish to see Kivua connected with Nyale (opposite West). Such a road would open up a large new district, and would enable the Government to prohibit shipping of cloves from several small places on the coast between Nyale and Kivua.

Section 5.—*Shipping of Cloves from Fomau.*

Pembe cloves as often as not reach Fomau in a bad if not a worse condition.

The difficulties of drying the large quantities in that more exact and costly account for this, and also the time occupied in the transit along the paths, especially in rainy weather.

But the main cause of the want of strength in the produce of shipment, the large number of small pieces of shipment, where shelling and separating is necessary, and the fact that the porters on arrival carry away from the eye of the shamba owner, his responsibility, and delay the work done, as often as not in the shamba area, and generally in the open, even if shelling is provided.

The clove dealer for shamba in the shamba between Fomau and Kivua.

When at West, I obtained sanction for a complete investigation on the shamba, and the proper attention I also got sanction for a time clerk to have his office on the shamba and with his other shamba work to be made responsible for the change of the shamba.

I urge the Government to see that any shamba are worked on shamba, and I suggest a similar arrangement at Kivua, where probably the shamba work is sufficient.

I have made a suggestion as to the way in which the work is done, and that for the shamba they are to be done, and that for the shamba they are to be done.

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Section 6.—*Copra.*

This subject is closely identified with that of pombe beer. By licensing the copra dealer and controlling the process of business conducted it will be easier to check thieving, and also the quality of clove pressed.

While the remedy is in the hands of the buyer and by the price that he offers can make it unremunerative to produce bad quality stuff, yet in other countries we find that

Section 2.—Medical Larceny.

The subject has been before the Government for some time in connection with a proposed amendment of the Agricultural Produce Decree.

The Decree has in the course of its history been proposed to stop thieving, but something is still wanted that will solve the problem of the true origin of the mischief—the thieves are generally a small Indian or Mangalore dealer who sets up his shop in a place convenient for thieves to call at.

I will not add anything further to what I have already written concerning the proposed Decree, except to say that I consider essential if it should be—

1. Licensing of dealers in agricultural produce.
2. The term "Agricultural Produce" to be defined as occasion may arise by special Order in the Gazette.
3. Where hard roads exist, licensed premises to be on these roads, and if no roads exist, then on main pathways only.
4. Prohibition of any dealings in green cloves.

The subject is closely connected with that of the Copra industry. I consider that this particular class of shamba crime that so disastrously affects our only industry merits the earnest attention of the police authorities, more than it has received in the past.

Section 3.—Vagrancy and Tembo.

These, though the subject of distinct Decrees, are closely connected with each other. The present Vagrancy Decree cannot be said to have effected its object, which was primarily to get people to work.

While shamba owners might help the Government by rack-renting all occupiers on their properties, yet we know that they will not do this, and that we in our own interests must use other means to get work out of the native and to get the clove crop picked.

The matter is one for immediate serious consideration, because a year like 1907 of a large clove crop may soon again be on us when we shall require every native in the field.

No shamba owner will again burn his fingers with the expenses of such manifold labour as we called in in 1907, nor is it likely that we can again adopt such strenuous methods of persuasion as in that year.

I have as an A.C. called attention to the evils of the system of lodgers in country districts, when young men lodgers—either in their parents' or unmarried women's houses—prey on neighbouring plantations, do no work, and live by thieving or on the industry of their parents.

No honest native would consider it a hardship were youths, on attaining maturity, made to build themselves their own huts, or in default be declared vagrants.

Tembo is one of the curses of our native shamba life, and I entirely disagree with any statement that the Tembo Decree has resulted in a decrease of drunkenness.

It urges that the collection of tembo may be prohibited altogether. The fruitfulness of the coconut tree will not be interfered with and a cause of crime will be removed. Those with a knowledge of native life know that Tembo and is not a staple of the diet, and if a native requires an exhilarating drink, he has his Pombé beer, a more wholesome drink than Tembo.

A large number—

1. The prohibition of any Tembo collection.
2. The infliction of heavy penalties on the owner of any house being tapped.
3. The prohibition of any Tembo collection in unapproved areas.
4. The Government charges of a licensed shop to be retained in all areas to be tapped.
5. The effect of the above measures to be investigated.
6. The effect of the above measures to be investigated.
7. The effect of the above measures to be investigated.
8. The licensing of Pombé beer shops.

Section 4.—Pigs.

In certain districts the presence of these, considerably increases the cost of establishment of coconuts, it varying from 15 rupees to 20 rupees per 1,000, thus increasing the capital establishment up to production stage by 4 rupees 4 cents per acre.

The Government has offered rewards for carcasses brought in in proof of death, but this department has not been provided with the returns, and I am unable to state the effect.

I have made suggestions as to the inoculation with hog cholera, and the necessity of this is being enquired into.

Incubated and fast-shaming are the result of pigs, and the Government should give advice by the adoption of some regulations to regulate the raising and the raising of these, as a protection to other shamba owners, and to the Government's properties with coconuts.

Section 5.—Roads.

The transit of agricultural produce and the carrying of such produce to the industry is of immense importance to these purely agricultural islands, and this department has their direct interest in the question of roads.

In the other branch of agriculture it is always found that expenditure on roads yields a most satisfactory return on the capital spent, owing to the increased price per unit of output for the timber, and where our produce is of the bulky nature of cloves and copra, similar results should follow.

In suggesting that the north and south roads should be connected by a link road from Kooze to Rabulu, I was considering chiefly the better working of the shamba, though apart from that, I consider that it would pass through a better agricultural country than that between the older road routes from Danga to Rabulu. Moreover the former route would lead the produce of the road to be more so.

After the West Mangrove road is finished, I want to see Kooze connected with Nyale (opposite Woti). Such a road would open up a large clove district, and would enable the Government to prohibit shipping of cloves from several small places on the coast between Nyale and Kooze.

Section 6.—Shipping of Cloves from Pemba.

Pemba cloves are often as not much damaged in a bad if not a rotten condition.

The difficulties of drying the large quantities is that there is very much weather account for this, and also the time occupied in the transit along the public wharves in a rainy weather.

But the main cause is the wind of overnight at the place of shipment, the large number of small places of shipment, where shodding and supervision is impossible, and the fact that the porters on arrival away from the eye of the clove—when someone is responsible, and dump the clove down, or often as not in the shade, and shod it, and generally in the open, even if shodding is provided.

The cloves also suffer while in the shade between Pemba and Zanzibar.

When at Woti, I obtained facilities for a suitable shed on the clove, and by proper supervision I also got situated for a few days before his office at the shamba, with his other shipping work to be made responsible for the change of this shipping.

I urge the Government to see that any sheds are constructed, and to suggest a similar arrangement at Chani-Chani, where recently the clove shed is sufficient.

A good shed should also be provided at where the work is proceeding, and also at the place where the clove is being shodded, and also at the place where the clove is being shodded.

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Governments take it on themselves to see that an article of good quality only is exported.

As matters are at present, makers of rotten copra have no difficulty in disposing of it to European and other buyers, and from the quantity that comes in the maker apparently has no need to be white to produce a better quality.

While on the one hand we find the Indians petitioning that the Government may take steps to stop the manufacture of bad copra, yet we find that Indians are as great offenders as anyone else in the matter. They readily buy immature nuts, they hurry through the drying, and they have so far displayed no great interest in practical proposals for meeting their petition.

When we have ascertained the steps taken by other countries for dealing with the subject, I hope that some Decree may be passed here; but we export our copra to Marsden, and our regulations need not be of so stringent a nature as where it is desired to supply an article used in human food manufacture.

Section 6a.—Coconut Development.

With reference to the enquiry as to what acreage is available for coconut development in the two islands, it is impossible in the absence of any survey to give figures that would be of any value. There is room for extensive planting.

I have elsewhere suggested that Government should put down annually nuts sufficient to raise 20,000 plants (10,000 in each island) for distribution at or under cost price.

The nuts would be put down in such centres where supervision would be possible and development desirable, and no plants would be distributed except to those who have previously cleaned and lined out the land ready for receiving them.

The Collectorate would receive applications for these plants and report to the Agricultural Department the names of those qualified to receive them.

There is no reason why if this should prove to be successful, the numbers should not be largely increased; but as a beginning I do not suggest more than the 20,000, which would be sufficient to plant up 200 acres in each island.

Section 6.—Clove-crop Forecasts.

There has been some correspondence about these, especially that of 1910, which contained no definite comparison, as was the case in previous years, of the size of the forthcoming crop with those of previous years.

While it is not necessary to recall the reasons under which this comparison was omitted by the Government, I think some means should be adopted whereby a more lucid statement might be offered to the public than has hitherto been possible.

For the Agricultural Department to gauge the crop of each shamba, as has been seriously suggested, is quite impossible, but the Department with the assistance of the Collectorate and Customs Departments might certainly do more to gauge the probable size of the coming crop.

As a preliminary I again urge the institution of the system of Agricultural returns.

Then I suggest the appointment of official local correspondents to the D. of A., who should send its monthly reports on all agricultural crops in their districts; such reports passing through the hands of the local officer in charge.

The stamping of Pemba gloves with their shipping-place name is very desirable, and the keeping of records accordingly by the Customs, with monthly returns to this department.

I also again urge that each district station be supplied with an automatic registering rain-gauge, and monthly records be sent to this department.

Owing to the rain-gauging, the ordinary gauge is useless here, unless attended to after every shower.

Section 8.—Live Stock

This subject does not appear to have received the attention of the department that all importance merits.

It is one that closely concerns the agricultural department as representing the agriculture of the country, and it should be the moving spirit in all undertakings concerning the revival of the industry, the health, feeding and housing of stock, and the improvement of breeds.

As regards the importation of live stock for food the department has assumed its responsibilities to devolve on other shoulders, and though the work that is carried out in connection therewith is beyond criticism, yet I think this department should be more in touch with it.

Once that imported cattle have passed through the hands of the veterinary officer who I consider should be an official of the Department of Agriculture, the control of their feeding and feeding with filled or acid should be in the hands of the D. of A. and the Principal Officer of Public Health jointly, each of whom would I imagine derive benefit from such joint authority.

The question of feeding these imported beasts offers no special difficulty owing to the custom of the stock owners leaving out the beasts on arrival to Washburn and agree to feed them and tend them until sold.

These Washburn turn the animals out daily on the shambas surrounding the town, with great resulting damage to the young coconuts. I have suggested 500 head at Mtent shamba alone.

I should like to see some scheme inaugurated whereby a few weeks when every quarantine should be drafted off to some shamba outside the town where they can do no harm; and that there be a weekly auction sale of live stock at the same time as our auction sales at home.

The provision of fodder for the beasts during their stay in town pending slaughter is also a matter of importance, and I have referred to it in Chapter I, where I have stated that this department will look into the subject of indigenous fodder plants and make trial sowings of the better classes of well known fodder plants.

As regards the improvement of cattle both as milk and beef producers, we see all on a small scale follow the example of all other countries by importing stock of desirable breeds and strains for crossing with our native animals, and as regards milk it would be advisable, if permission can be obtained, to encourage the keeping of morning and evening-milk records of the cows and buffaloes in H. H.'s farm-yard in the station.

The establishment of a small Government farmstead is desirable as a beginning.

If, as I understand, the Government are contemplating creating public dairy cow houses, then there should be in connection with these a milk factory in which the milk would be treated, and the seller's utensils washed, &c.

In such a case there would be no necessity for a Government dairy, as this would, like that of others, go direct to the factory.

I would suggest that no cow-house public or private be erected until the plans have been submitted to the Department for its opinion.

Section 2.—Fruit and Vegetables

These are becoming more and more the principal sources of the country's wealth, and Indian and other, and the general public in consequence care for them.

While the gardens are not large enough to be in the nature of a town vegetable garden, yet in their present form they might with care be both a source of pleasure as well as a flower garden pure and simple, and I consider the Government should possess a piece of this nature.

I would suggest that the children be encouraged to use the vegetable ground afforded by Mzee Moga and Cooper's Institute and that the vegetable gardens be reserved for adults only.

Appendix

Stock-keeping on the Pemba Islands

Owing to the want of system in the keeping of the accounts of the Pemba districts, the department has been unable to exercise any control over them, and was in a position to know what was being done on individual farms.

I hope that the agricultural work, whose appointment has been recently discontinued, will see to it that, when this anomalous state of affairs will be brought to the department be able to exercise some control over the expenditure and be supplied with regular returns.

The only developments of importance were those at Chaka in 1908 with coconuts and rubber.

Punjab Agricultural Department—continued.

Name of Shambha.	Office Records.				1910 Superstaking.				Office Records.				1910 Stocktaking.					
	Planted in last 10 years.		Planted in last 10 years.		Old Trees.	New, 1 to 10 years old.	Gaps.	Total.	Reported Number.	Planted in last 10 Years.	Old Trees.	New, 1 to 10 Years old.	Total.	Planted in last 10 Years.	Old Trees.	New, 1 to 10 Years old.	Total.	
	Reported Number.	Planted in last 10 years.	Reported Number.	Planted in last 10 years.														
Free District—continued.																		
Chawla	300	500	11	10	185	140	200	14,900	200	14,900	460	479	3,399	460	479	3,399	8,680	
Gando	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gando Karnal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kangasari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tangra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Khabra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	3,638	560	31,978	3,305	12,030	1,186	15,855	2,270	8,110	8,680	19,884	1,492	19,884	1,492	19,884	1,492	19,884	
Mount District—																		
Pitru	14,450	...	...	291	10,598	480	11,078	480	11,078	480	11,078	480	11,078	480	11,078	480	11,078
Mohand	1,342	...	...	336	984	128	1,112	128	1,112	128	1,112	128	1,112	128	1,112	128	1,112
Mohand	717	...	...	190	620	81	701	81	701	81	701	81	701	81	701	81	701
Total	14,509	...	...	616	12,208	689	13,208	689	13,208	689	13,208	689	13,208	689	13,208	689	13,208
Grand Total	29,647	560	26,715	4,486	30,410	13,554	33,854	13,554	33,854	13,554	33,854	13,554	33,854	13,554	33,854	13,554	33,854	

Appendix 3
Agricultural Department
Summary of Revenue for the Year 1910.

	Estimate.		Actual.	
	Rs.	As.	Rs.	As.
Zanibar Island—				
Cloves	1,02,000	00	70,630	00
Cocoanuts	21,100	00	15,000	00
Rent of leased shambas	20,791	00	24,367	00
Sundries	1,000	00	2,022	14
Commission on private estates	800	00	442	95
Total	1,44,891	00	1,10,461	95
Pamba Island—				
Cloves	74,000	00	81,179	41
Cocoanuts	2,000	00	2,200	43
Rent of leased shambas	4,000	00	3,870	00
Rubber	100	00	20	00
Sundries	...	...	...	...
Total	80,100	00	87,269	83
Grand total	2,24,991	00	1,97,731	78
Arrears of Revenue—				
Account rent of leased shambas (Zanibar)	611	75	...	...
Sundries (Zanibar)	102	18	...	...
Total revenue for the year			1,98,257	96

The revenue has been affected adversely by the quality of clove-harvest. As it is impossible at the time of preparing the Estimate to forecast the size of the crop, the figures have to be based on averages.

In addition the crop has been a late one, and picking will continue up to the end of February.

The Government shambas will yield about a further 2,000 francs in addition to what has already been sold.

The Revenue from cocoanuts tends to rise gradually, partly from the increase due to the system of licensing of the crops and partly from the cocoanuts being able to control the throwing of the nuts.

It is interesting to note here with regard to shamba receipts, the spread of white murrain and the extent of the losses by shambas arising from throwing. In 1903-4 Dunga (house) was regularly occupied by the D. of S. or his Superintendent.

The yield per tree of cocoanuts was then 43 lb. per year by year since after Dunga was given up as a place of residence, or, probably, by 25 nuts per tree, 22,000 nuts are shown yearly from this shamba.

Similarly with regard to cloves, the average yield was 61 lb. of dried cloves per tree. The average of the lowest yield of the 100 largest shambas in that year 7 lb. per tree, but average of the eight largest shambas (including Dunga) have yielded 11 lb. average or a mean yield of 7.34 lb. per tree.

The revenue from rent of leased shambas is less than the estimate, owing to the fact that at the time of preparing the Estimate it was proposed to lease Dunga, and the rent to be asked was included in "Rent from leased shambas". It was later decided not to continue the proposal.

The receipts from "commission on private estates" are less than the estimated amount owing to the poor clove-crop.

The receipts from "Pemba coconuts" are less owing to the leasing of Tundua shamba; and the "rent from leased shambas" is increased by 3,876 rupees.

The increase in rubber is almost solely due to the increase in price and a larger output from the rubber trees.

The Coats rubber has contributed but little to it.

Other questions concerning the revenue of our shambas are dealt with fully in other parts of this report.

(2)

Collectorate.

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ZANZIBAR.

The Acting Financial Member of Council to the Government of H.H. the Sultan, Zanzibar
Town Collectorate.

SIR, I have the honour to submit to you herewith the report on the working of the Departments under the Town Collectorate, for the year 1910.

Inland Revenue Department.

Revenue.—The revenue from all sources is (Statement A.) 88,759 rupees. As compared with the estimates, there is a decrease of 7,341 rupees, whilst with the previous year's receipts an increase of 21,833 rupees.

For purposes of comparison I append Statement B., showing the receipts from 1906 to 1910 under each sub-head.

Markets.—The income under this sub-head is 42,626 rupees, whilst the amount estimated is 58,000 rupees, the decrease being of 15,374 rupees, which is due principally to the estimate figures being over-estimated. As compared with the previous year's income, there is an apparent increase of 11,863 rupees, as the rent was 5 per cent. in 1909, whilst 10 per cent. in 1910.

From the statement B. it is evident that this source of income is falling off, showing thus that the markets are being less used. For causes of this decrease, I beg to refer you to previous reports on this subject.

The Bazaar prices of food stuffs (Statement C.) remained at a reasonable rate during the year, thus corroborating the Collector's statement in his report for 1909, that the increase in the rent has in no way affected the natives.

I am glad to be able to say that the structural and other repairs to the premises, the erecting of the suggested sheds, the installation of electric lights, the alterations to the drains, the re-building of the roads and approaches leading thereto and other minor works made during the year, have brought the markets up to a much better standard of efficiency and sanitation.

The Market Police, who since August 1st are under the Police Department, have on usual given every satisfaction.

Brokerage.—The amount collected is 5,831 rupees and estimated 4,500 rupees—an apparent increase of 2,331 rupees, as the amount estimated was not proportionately increased when the market rent was raised to 10 per cent. As compared with the previous year's income there is an increase of 2,904 rupees.

Notwithstanding the orders to the Police to prevent the fishermen from disposing of their fish upon landing, this collection has remained almost the same.

Slaughter-house and Cattle Department.—The income under the first sub-head is 5,517 rupees, there being an increase of 417 rupees as compared with the estimates and of 280 rupees with the previous year's receipts. The increase is due to the people conforming to the Regulations under Section 104 of Public Health Decree No. 1 of 1909.

The income from the latter is 2,800 rupees and the amount estimated 8,263 rupees. There is a decrease of 712 rupees as compared with the estimates and of 813 rupees as compared with the previous year's receipts. The decrease is due chiefly to less bullocks and cows, horses and chickens having been imported during the year. I beg to draw your attention to the report for 1909 wherein the Collector has applied for the revocation of those fees.

The attached statements D, E, and F show the number of animals slaughtered, condemned, imported and exported during the year.

The greatest attention was as usual given to the inspection of meat for human consumption and examination of cattle imported and exported.

Town Tembo.—The amount collected is 2,460 rupees and there is an increase of 1,185 rupees as compared with the estimate and of 1,202 rupees as compared with the previous year's receipts. The increase is due to a better supervision over the "Tembo" brewers.

Number of monthly licences for the year 98.

Town Ngoma.—This income amounts to 97 rupees and there is a falling off of 373 rupees as compared with the estimate and of 1,100 rupees as compared with the previous year's receipts. The decrease is due partly to some licences rarely being allowed after midnight and to a great degree to the Regulations in force under which day licences are now not issued.

The present Regulations being fairly a hasty work, it is suggested that the Revised Decree, which appears to meet the requirements both of the public and of the public, should be brought in force as early as date.

Number of licences issued during the year 1,274 see Part III.

Liquor Licences.—The amount collected is 1,000 rupees, whilst the amount estimated is 8,000 rupees, there being a decrease of 6,900 rupees as compared with the estimates and of 1,400 rupees as compared with the previous year's income. The decrease is due to the strictness observed in the issuing of these licences, in order to check as much as possible the facilities for drinking in the native quarters of the town.

Owing to the revision of the regulations there is here a better control over these has resulted and there is now a perfect check on the 3rd and retail sellers.

These licences are issued with the co-operation of the Police Department. A couple of 3rd class licence-holders were prosecuted for infringing the regulations, they were fined by H.M.'s Court and their licences were suspended by the Government. The number of licences granted in the year was

1st class (which give the property transmitted from seller to buyer) 1

2nd class (which are for shops and are limited to 2)

3rd class (which are for houses and are limited to 3)

Pawnbrokers' Licences.—The income from this source is 2,700 rupees and the amount estimated 2,000 rupees there being an increase of 700 rupees as compared with the estimates and of 350 rupees as compared with the previous year's receipts. The increase is due to a couple of new licences and consequently to a larger sale of tickets and bonds.

The number of licences for the year is 2.
Wetters and Washers and Money Lenders. These have given 390 and 880 rupees respectively. The latter was enforced this year and the former rate in 1909 is 1,000 rupees which the estimate estimated to 1,300 rupees, there being therefore a decrease of 300 rupees. The decrease is due to the amount of estimate being over-estimated.

77 Bachelors 46 HAWAII and 11 HAWAII-TRADING LICENCES were granted during the year.

Market Tembo and Ngoma from Licences. The receipts from this source are 10,555 rupees and the amount estimated 10,000 rupees. There is an increase of 4,855 rupees as compared with the estimate and of 2,970 rupees as compared

with the previous year's income. The increase is due to a better supervision and the re-establishment of the Country Markets.

These Markets were re-opened towards the middle of the year. They produced in 1906 8,730 rupees and in 1910 1,856 rupees, as follows:—

Mwan (from September to December)	84
Chwaka (from April to December)	817
Mkokotoni (from October to December)	948

Expenditure.—Statement G. shows the expenses for the year compared with the estimates and previous year's expenditure.

Crown Lands Department.

Revenue.—The revenue from all sources is 61,670 rupees (Statement H). As compared with the estimates there is a decrease of 118 rupees and with the previous year's income an increase of 4,665 rupees.

The attached Statement I. shows the income of this Department for the years 1906-1910 under the respective sub-heads.

Rent of Buildings. The income under this sub-head is 48,170 rupees and the amount estimated is 52,000 rupees, the decrease is of 3,830 rupees, which is due to many of the shops in "Dry Fish Stores" and other buildings having remained vacant during the year and to the non-payments of some of the rents due on 31st December. As compared with the previous year's receipts the decrease is of 1,051 rupees.

Most of the buildings are in a fair state of repair. Inspections are frequently made and urgent repairs immediately seen to, but owing partly to the climate and partly to the native tenants' habits, it is impossible to keep the houses in good repair.

Rent of Lands. The amount collected is 7,259 rupees. As compared with the estimates there is a decrease of 741 rupees, and with the previous year's receipts an increase of 1,015 rupees. The decrease is due to the non-payment in time of some of the ground rents for the year and to the non-recovery of some of the outstanding.

Legal steps were taken in the latter part of the year for the recovery of arrears and these are being paid in, though it will take some time before they are fully recovered.

An application was sent in for the sum of 178 rupees of ground rents which are irrecoverable, to be written off.

Sixteen applications for free rent were granted during the year to old, sick and destitute natives, mostly women.

I am pleased to hear that steps are being taken to have a survey made of the Crown Lands properties as suggested by the Collector in 1909.

Dhobi Station.—The amount collected is 2,290 rupees and the amount estimated is 1,788 rupees. The increase is of 502 rupees as compared with the estimates, and of 753 rupees as compared with the previous year's income.

The station was well looked after during the year, the ground leveling and grass planting having much improved it.

The proposed additions for the Dhobies bucking, ironing and finishing off the clothes at the station itself will, I daresay, turn out very useful and convenient for the washermen, but at present they do not appear to like the idea of all, or various grounds, but principally on account of the inconvenience they will be put to by the Government not providing them with quarters at the station nor with proper conveyances for bringing the clothes into it.

The scheme, if carried into effect, would no doubt be of great benefit to the public, as it would check the contaminations that clothes are at present subjected to by being washed and finished off at the Dhobies' houses which cannot be said to be clean and are, to make matters worse, right in the Indian part of the town.

Monthly average of tanks in use
Monthly average of sheds in use

Water Rate.—This collection was started early in January and reached 3,961 rupees. It is going on well but the public appear to find the charges rather too heavy and the regulations not quite clear and comprehensive.

Monthly average of tanks in use
Monthly average of sheds in use

Expenditure.—Statement J. gives the expenses for the year compared with the estimates and previous year's expenditure.

Water and Transport Department.

I have no observations to make this year with regard to the Department as its affairs were lengthy and involved and were the direct outcome of the Collector's former past.

I am pleased to be able to state that the department is generally well run and has been of great value and assistance. The registers for weighing, measuring, etc., have been by them set answering very well and providing a very good check.

There was a good deal of work throughout the year and great progress towards the end with the constant demands for carriage and cart transport and donkeys, both from H.H. the Sultan and the Officers.

The workshop staff were all the year round busy with the maintenance and repairing of carriages, rickshaws and carts.

4 Mules 4 bullocks and 6 oxen were purchased during the year. The number of animals in the year was 2,130. Mortality was checked due to horse sickness which to its full extent attacked the animals shortly after the start of the year.

The veterinary staff of the station was most satisfactory. I append the following statements K, L, M and N showing respectively the yearly expenditure the share of H.H. the Sultan and Government, the estimate of the expenditure for the years 1906-1910 and the number of animals, carriages, carts, water carts, &c.

Necessary District Department.

Revenue. The revenue derived from the station is a quantity of private animals. The station and revenue was for the year 1910 rupees (Statement O). There is a decrease of 2,127 rupees as compared with the estimate and of 1,765 rupees as compared with the previous year's income. The decrease is accounted for by there being fewer private animals and also by the fact that lower private animals have been kept at the station.

The work has increased considerably and with the increasing number of animals being single handed the Department is under the supervision, working quite satisfactorily in every branch. The slaughter house, hospital and station are daily inspected, the Markets, Dairies and cowsheds are regularly visited, the inspection of meat and examination of live stock imported and exported are well carried out and the handling of cattle done carefully according to the regulations.

Herewith attached copy of Veterinary Officer's report on Statements P, Q and R showing respectively Revenue for 1906-1910, 1910-1911, expenditure and number of cruelty cases.

General.

The general working of this office for the year has been very satisfactory and the work done has been extremely satisfactory.

During the Collector's absence on leave, which was of long duration, I had the pleasure to be given charge of the station of his office and I am happy to be able to report that the whole staff have discharged their duties with great discretion and to my entire satisfaction.

The services of this Department were requested under the Land Acquisition Decree for the lands required for public purposes—some under the Land Acquisition Decree the awards for which did not generally meet with the land-owners' approval, also for retention of some lots to be removed for site improvement and other minor town matters.

The following properties of H.M. the Sultan were, under instructions, taken over and entered in one Register of Government Buildings:—(1) "Balina Consulate," (2) "French Post Office," (3) "Kalfan's Banda," (4) "Bila Aba House," (5) "School House."

A couple of houses were leased during the year under the newly suggested long lease system, the lessees being responsible for all repairs, &c.

In conclusion, I beg to tender my most grateful thanks to H.M.'s Agent and Consul General and Financial Member of Council for the interest they took and the improvements they suggested in this Department during the absence of the Collector, and also to the Director of Public Works and Commandant of Police for their valuable assistance at various times.

I have the honour to be,
Sir,
Your Obedient, humble servant,
LEON DE SOUSA, for Town Collector.

Inland Revenue Department.

(A) REVENUE FOR 1910.

Details.	Estimated Income.		Difference, 1910.		Income 1909.		Difference, 1909-10.	
	Rs.	Rs.	More	Less	Rs.	Rs.	More	Less
Zonas								
Markets	58,000	42,626	2,331	...	30,768	11,863		
Brokerage	4,600	6,831	517	...	5,211	306		
Slaughter-house	5,000	1,300	1,185	...	1,093	1,392		513
Town Tembo	8,900	7,288	...	712	7,901	...		473
Cattle examination	1,500	928	...	572	1,401	...		1,400
Town Ngoma	8,000	7,350	...	650	8,750	...		
Liquor licences	2,000	2,709	709	...	2,400	309		
Pawbrokers' licences	1,500	990	...	510	...	990		
Brokers and hawkers	...	880	880	...	...	880		
Money-lenders	...	...	...	...	...	...
Market Tembo and Ngoma from Districts	6,000	10,855	4,855	...	5,480	5,375		
Total	96,100	88,750	10,450	17,818	66,926	24,824	2,186	

*Net Decrease, Rs. 2,211 (480). Net Increase, Rs. 21,835 (1,4567).

(B) REVENUE FOR 1906-10.

Details.	1906.	1907.	1908.	1909.	1910.
Markets	46,996	51,729	34,518	30,768	42,626
Brokerage	8,804	8,979	4,750	5,211	6,831
Slaughter-house	4,474	4,305	4,302	5,211	2,448
Town Tembo	2,448	1,526	1,370	1,370	7,074
Cattle examination	4,168	7,074	8,388	7,401	3,412
Town Ngoma	3,412	2,649	2,884	1,401	9,175
Liquor licences	9,175	10,875	8,750	8,750	1,174
Pawbrokers' licences	1,174	1,990	2,000	2,400	...
Brokers and hawkers	...	...	...	...	...
Money-lenders	...	...	...	...	...
Market, Tembo and Ngoma from Districts	22,187	30,217	17,775	5,480	425
Miscellaneous	425	496	...	...	...
Total	1,04,366	1,08,946	83,980	66,926	88,750

In 1906 and 1909 5 per cent. instead of 10 per cent.

(C) RETAIL PRICES (Average) Prices for 1910

Item	Per lb.	Per 100
Beef
Mutton
Lamb
Pork
Chicken
Duck
Geese
Swine
Butter
Ghee
Oil
Tea
Coffee
Sugar
Spices
Grains
Legumes
Vegetables
Fruits
Flowers
Medicines
Books
Stationery
Printing
Construction
Transport
Communication
Education
Health
Religion
Amusement
Other

(D) STATEMENT OF SLAUGHTER

Month	Number of Animals	Weight
January
February
March
April
May
June
July
August
September
October
November
December
Total	14,000	10,000

(E) STATEMENT of Slaughter-house for 1910.

Kind of Animal	Condensed, 1910.	
	No.	Wt.
Cows	2	8
Sheep	5	5
Total	7	13
Months		
January	1	
February	2	
March	1	
April		
May		
June	2	
July	3	
August	1	
September	1	
October	7	
November	18	
December	4	
Total	40	

(F) STATEMENT of Cattle Import and Export.

Particulars	Import.		Export.	
	1909.	1910.	1909.	1910.
	Nos.	Nos.	Nos.	Nos.
Bullocks	2,888	2,479	351	259
Sheep	3,787	5,619	167	224
Cows	248	165	70	44
Goats	9,873	8,949	898	1,069
Donkeys	186	125	200	234
Camels	67	94	32	44
Horses	56	32	45	29
Mules	50	43	34	46
Calves	1	9	6	16
Buffaloes		2		
Mares		1		3
Total	17,456	17,516	1,783	1,968

Particulars	Import.		Export.	
	1909.	1910.	1909.	1910.
	Nos.	Nos.	Nos.	Nos.
January	1,621	2,102	189	146
February	3,358	1,571	296	512
March	1,571	2,478	250	248
April	1,889	883	187	187
May	750	806	83	200
June	765	601	67	95
July	1,399	1,347	81	69
August	1,275	1,530	60	57
September	1,014	1,077	137	151
October	1,982	1,816	177	189
November	786	1,676	151	77
December	1,469	1,549	105	96
Total	17,156	17,516	1,783	1,968

(G) EXPENDITURE for 1910.

Sub-head	Estimated	Actual	Decrease, 1910		Decrease, 1909	
			More	Less	More	Less
Personal emoluments	21,500	21,624	124		29,250	7,626
Other charges—						
Printing	500	525	25		665	165
Passages	50	44		6	114	130
Station	500	472		28	30	30
Expensing markets	30	300	270		27	240
Contingencies and petty	500	450		50	64	14
Overtime to clerks	1,000	1,000				
Card tickets for markets		1,000		1,000		1,000
Substation					300	300
Total	24,050	24,079	29	29	33,000	8,161

Net Decrease Rs. 30,646.

Net Increase Rs. 8,161.

* S. W. for Rs. 4.19 for M. P. D. House & other charges from the Government &
 T. S. W. for Rs. 66 for the transport for the King Rs. 100.000.

from Local Department.

U. REVENUE for 19

Details	Estimated		Actual		Decrease, 1910		Decrease, 1909	
	1909	1910	1909	1910	More	Less	More	Less
Rate of Government and Crown Buildings	40,000	40,000	40,000	40,000			40,000	40,000
Rate of Lands	4,000	4,000	4,000	4,000			4,000	4,000
Rate of District lands and other	1,700	1,700	1,700	1,700			1,700	1,700
Water rate								
Total	45,700	45,700	45,700	45,700			45,700	45,700

Net Decrease Rs. 100,000.

Net Increase Rs. 4,000 (1911).

(H) REVENUE for 1909-10

Details	Estimated		Actual		Decrease, 1910		Decrease, 1909	
	1909	1910	1909	1910	More	Less	More	Less
Rate of Government and Crown Buildings	40,000	40,000	40,000	40,000			40,000	40,000
Rate of Lands	4,000	4,000	4,000	4,000			4,000	4,000
Rate of District Lands	1,700	1,700	1,700	1,700			1,700	1,700
Water Works								
Total	45,700	45,700	45,700	45,700			45,700	45,700

(J) Expenditure for 1910.

Sub-head	Estimated	Expend- ture	Difference, 1910.		Expend- ture, 1909.	Difference, 1909-10.	
			More	Less		More	Less
Personal emoluments*	Rs. 6,864	Rs. 5,938	Rs. 45	Rs. 826	Rs. 5,889	Rs. 79	
Other charges—							
Clothing...	130	32		98	168	136	
Rent of Sir Lloyd's house	1,800	1,800			1,800		
Contingencies and petties	750	628		124	431	495	
Passages	448	119		331	24	8	
Sikharu	34	32		2			
Ground rent of house built for British Judges	200	200			200		
Purchase of houses for the Zambar Government		1,25,500	1,25,500			1,25,500	
Total	10,228	1,26,318	1,25,500	555	1,463	1,26,707	152

Net Increase, Rs. 1,31,900 (8,335). Net Increase, Rs. 1,26,500 (8,437).

* S. W. Rs. 150 for one additional caretaker at Dholsi Simran.

† S. W. Rs. 120 as allowance to Khalid rent collector for water rate.

‡ S. W. Rs. 1,25,500.

Stables and Transport Department.

(K) EXPENDITURE for 1910.

Sub-head	Estimated	Expend- ture	Difference, 1910.		Expend- ture, 1909.	Difference, 1909-10.	
			More	Less		More	Less
Personal emoluments*	Rs. 24,404	Rs. 26,114	Rs. 490	Rs. 1,710	Rs. 27,764	Rs. 1,550	
Other charges—							
Telephone charges	180	180			180		
Purchase of four donkeys	4,500	1,900		945	21,981	1,900	
Food for live-stock	22,000	21,052		1	1,982	929	
Workshop requisites	1,500	1,499		1			
Material for carriage and rickshaw repairs	5,000	2,983		17	4,007	1,524	
Lights and kerosine oil	450	403		47	313	90	
Clothing	1,500	1,347		153	1,764	417	
Passages	1,000	388		612	1,131	743	
Food money to syces and bodyguard	1,000	587		413	405	182	
Sikharu	180	69		81	131	32	
Saddlery and harness	1,800	1,808	308		2,658	250	
Purchase of horses and oxen	3,000	655		2,345	2,690	2,035	
Contingencies and petties	2,400	1,242		1,158	1,597	356	
Substitutes	500	150		350	20	130	
Purchase of three pairs of mules	3,600	2,715		885		2,715	
Total	76,414	65,222	308	7,600	65,845	5,197	7,618

Net Increase, Rs. 7,300 (484). Net Decrease, Rs. 1,721 (102).

* S. W. for Rs. 600 salary of Storekeeper.

† S. W. for Rs. 350.

(L) STABLES EXPENDITURE for 1910.

Sub-head	On Account of		Total
	H. R.	Government	
Personal emoluments	Rs. 14,900	Rs. 12,114	Rs. 27,014
Other charges—			
Telephone		180	180
Purchase of donkeys	1,800	1,800	3,600
Food for live-stock	19,500	2,842	22,342
Workshop material for carriage and rickshaw repairs	2,500	1,774	4,274
Lights and kerosine oil	200	400	600
Clothing	1,500	388	1,888
Passages	407	388	795
Food money to syces	500	587	1,087
Sikharu	180	69	249
Saddlery and harness	1,800	1,808	3,608
Purchase of three horses	3,600	2,715	6,315
Contingencies and petties	500	150	650
Substitutes	1,700	150	1,850
Purchase of mules		1,800	1,800
Total	39,707	27,014	66,721

Amount estimated
S. W. 10,414

Total 300

(M) EXPENDITURE for 1907-10.

Sub-head	1907	1908	1909	1910
	Rs.	Rs.	Rs.	Rs.
Personal emoluments	20,404	21,114	27,764	26,114
Other charges—				
Food for live-stock	22,000	21,052	21,981	21,052
Workshop requisites	1,500	1,499	1,982	1,499
Material for carriage and rickshaw repairs	5,000	2,983	4,007	2,983
Lights and kerosine oil	450	403	313	403
Clothing	2,000	1,347	1,764	1,347
Passages	1,000	388	1,131	388
Food money to syces and bodyguard	1,000	587	405	587
Sikharu	180	69	131	69
Saddlery and harness	1,800	1,808	2,658	1,808
Purchase of three horses	3,600	2,715	2,690	2,715
Contingencies and petties	2,400	1,242	1,597	1,242
Substitutes	500	150	20	150
Purchase of three pairs of mules	3,600	2,715		2,715
Total	60,000	58,635	65,563	61,423

In 1907 Veterinary Hospital Expenditure is included.

(N) STATEMENT.

Particulars	H. H. The Sultan	Government
Animals—Horses—	10	11
Carriage	4	
Bading	8	
Bodyguard	4	
Males	1	12
Donkeys	10	12
Bullocks	33	
Cows, buffaloes and calves		
Total	70	39
Carriages (state, 10)	15	9
Rickshaws	3	21
Carts	8	6
Watering carts		5
Personnel		
Coolies	8	7
Stables and boys	12	12
Cartmen	5	5
Donkey boys	1	8
Bodyguard	8	
Workshop overseer &c	10	10
Total	47	49

Veterinary Hospital Department.

(O) REVENUE for 1910.

Details	Estimated	Income	Difference, 1910.		Income, 1909.	Difference, 1909-10.	
			More	Less		More	Less
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Zanibar—							
Upkeep and treatment to animals	4,500	1,979	2,521	3,744		1,765	
Total	4,500	1,979	2,521	3,744		1,765	

Net Decrease, Rs. 2,521 (1684.) Net Decrease, Rs. 1,765 (1181.)

(P) REVENUE for 1907-10.

Details	1907.	1908.	1909.	1910.
	Rs.	Rs.	Rs.	Rs.
*Upkeep and treatment to animals	2,360	4,579	3,744	1,979
Total	2,360	4,579	4,744	1,979

In 1907 credited to Treasury Miscellaneous account.

(Q) EXPENDITURE for 1910.

Sub-head	Estimated.	Expended.	Difference, 1909.		Difference, 1910.	
			More	Less	More	Less
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Personal appointments	5,500	4,200		1,300	2,800	450
Other charges—						
Feeding of animals	2,000	1,000		1,000	1,500	500
Medicine	1,000	800		200	1,800	100
Carriage and petrol	500	500	100		500	100
Clothing	400	400			50	50
Passage	300	300			5	5
Instruments for hospital	100	100				
Total	11,800	6,300	1,100	1,300	6,300	1,100

Net Decrease, Rs. 1,700 (1114.) Net Decrease, Rs. 1,900 (1242.)

(R) STATEMENT of Animals (owned by the Government Veterinary Hospital) during the Year 1910.

Category	Horses	Donkeys	Bullocks	Other	Stables	Cartmen	Donkey boys	Bodyguard	Workshop overseer &c
Government Exp.									
Rs.									
Total									

With very few exceptions the year 1910 has been peaceful in the Zanibar district, and there has been very little crime. 61 cases were reported in the district court, and of these nearly half were in the nature of petty thefts.

The two places where we had trouble during the year were the villages of Makupuchi and Mankuchi. In the former a very serious case of cholera broke out, and a knife cut reported in the field and bleeding to death for want of medical assistance to anyone who could think of such a thing as a village court.

The other place was Mankuchi where the cholera broke out and it was an effort to get it in both places we have had some trouble and in all the remainder of the district things have remained quiet.

The cholera broke out in Mankuchi in the month of August and it was very serious and numerous deaths were reported. It was very serious in the matter of the cholera, while he has done well in general and the report has been carried out for the public work in the district and the other of the have has been perhaps the worst of the year.

There were some who have been extra good in the district, who has had much extra work carrying on some in the district and he has had some charge of Mankuchi, Mankuchi and Mankuchi, together and he has had some work in connection with the disposal of the cholera at Zanibar and the appointment of a new one. Another who can be commended is Amu, who has been of great use to the district.

Of ground rents we have got in some 1,000 rupees of the 1910 rents and balance of 2,217 rupees of the 1909 rents in addition. This against 6,515 rupees

last year of the 1909 rents. The improvement is partly due to our getting the books earlier, and this year we hope to finish within the year.

The health and behaviour of the staff has been generally good, though the one boy ran away and dismissed himself. The two or three changes of clerks during the year have seriously inconvenienced not only myself but the kaem and others, and it has not been of any public advantage, but the contrary.

With the exception of the office boy no one of the staff has been any trouble, though the former donkey boy brought about the death of a woman by some carelessness.

The work of the native collector and Arab clerk has been good and he writes a beautiful hand suitable for notices and chequars. He has been very useful in this matter, and is on quite a different footing to an ordinary tembo collector. The creeks for wood cutting have been preserved as before, and cutting has been confined to the far side of the bay to give time for the woods to recover up the nearer creeks. If however, the Government want some good wood no damage would be done if some cutting of the larger trees only were made in these creeks, but with dhows going up it is very difficult to prevent indiscriminate cutting which would soon destroy the property altogether.

The re-opening of the country markets has given satisfaction, though the income received is small, but we hope this will improve in time and when they have fully realised that not only fish is included in the market revenue work. Hitherto in this district it has been fish almost exclusively.

Public Works.—Some repairs have been effected at the bungalow, the inside wall of one of the rooms being rebuilt, but not much could be done with other repairs on hand. The building itself is of so temporary a character that it is doubtful if it will stand at all more than another two years, and it might collapse much sooner, especially in very heavy rains.

The inside wall of the office has been completely rebuilt, and with some more repairs this will make quite good clerk's quarters for some years yet. The floors also have been repaired and re-made in three of the rooms.

Some repairs have also been effected in the clerk's quarters and at the post and police lines, but the buildings are so very bad that it was not worth while spending much on them.

The thatch of all has been repaired and almost entirely renewed, as this was unavoidable if the places were to be kept in occupation.

The gao and askari lines with offices, including a court, are urgently needed at once, and the officer's bungalow will be so by the time it can be ready.

Beyond the repairs at Chuaka some repairs have been carried out at Makunduchi at the school building and work has been done, though not finished on the house on the shore there.

This has been done (but is not yet paid for) by Ilija. Some clearing of roadways has been effected in most parts of the district, but if we get any heavy rains much more extensive clearing will be needed this year both on the main road and the paths.

Police and Gao.—Of most of the men in this district a fair report can be given of the company who were changed, but two were distinctly not to be commended, numbers 52 and 53, the latter especially behaved very badly, and after a full enquiry he was recommended for dismissal.

The new company now here have settled down after some small trouble and are now promising well, and the sergeant in particular has quite mastered his ways and now performs his duties in a satisfactory manner.

Among our own local prisoners we have had no trouble and the number has been small, and all the prisoners who were sent from Pemba seem to have turned over a new leaf on coming, and have behaved well and given no trouble, though some of them appear to have been notorious in Pemba.

The prisoners have helped very much in all work which has been going on, and we have had no other daily labour, whether repairs or agricultural work. They have been chiefly used in clearing bush and general tidying and carrying water, and also they planted out some hundreds of coconut plants.

Medical.—The work of the dispenser has been of a very satisfactory character and he has quite won the confidence of the people so that many who might otherwise be unwilling now go to him readily.

The vaccinator's work has been carried on steadily, but it has sometimes been with some difficulty, and many people have objected to being vaccinated and especially to re-vaccination.

The vaccinator got round the district as far as Makunduchi before the end of the year, leaving Jompa, Paaf and Bwejuu for the new year.

Immigration.—The slave traffic of the other districts and Pemba has been a disappointment to the people of Chuaka, and a number who went to Pemba for distant labour returned saying they could get no favour, and there were too many slaves.

The effect of that has been such as to diminish the getting position which existed at a time like this year.

The local crops have not been bad, but many gardens though we have had a very dry year.

In Chuaka some 175 pounds of sweetener planted out and much has been cleared to get ready for planting more, the bulk of the trees being having been buried by seedlings ready for the extra planting. We have not yet been hampered by the dry weather and I fear a good many more have not planted.

At present the district is more than half of the work has been in connection with the work of the officers of the district, and the work of the officers has had to be dealt with.

The district is an extra quiet one, and the work of the officers is small and quiet.

The health of the people is generally good, and the work of the officers will be a great advantage when the work is done.

THOMAS J. SHAW

February 1911

Mr. J. J. Shaw

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THOMAS J. SHAW

London

Report by Mr. J. J. Shaw on the Makunduchi District

General. The situation of the district has been generally satisfactory during the year. The work of the officers has been carried out in a satisfactory manner. The work of the officers has been carried out in a satisfactory manner. The work of the officers has been carried out in a satisfactory manner.

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Port and Shipping.—In September Mwanda was closed as a port and the clerk transferred to Kichangani-Tumbatu. If one may judge by the annoyance of the people themselves, I think the move was a wise one, and the presence of an official has undoubtedly checked a number of irregular practices which went undetected under cover of night.

The number of dhows which put into Mkokotoni during the year was 2,001. Into Mwanda, for the same period, 529.

The Mkokotoni boat is in a bad condition and ought to be replaced. A good deal of work has to be done on the sea and it is not right that any official who is compelled to use the boat for official purpose should be subjected to the risk which is undoubtedly in it at present.

Medical Department.—A certain number of out-patients, apart from Government employees and prisoners, attend for treatment, but the number is very small, about 1.5 daily. With the exception of one or two wounding cases which have been detained, the natives are very shy of trusting themselves as in-patients. This may to some extent perhaps be attributed to lack of sympathy on the part of the Dispenser, who unfortunately does not possess that gentleness of disposition which is so important a factor in rendering a hospital attractive.

Vaccination.—A lot of vaccination work has been done, but considerable opposition has been met with in several places. Particularly at Tumbatu, where the first appearance of the vaccinator caused a demonstration.

There have been a few cases of small-pox removed to Town, and it was generally reported that others were concealed. But in spite of the fact that I put a special private clothes askari on detective duty, only one unreported case was discovered. The subject of small-pox gives rise to a question of importance. The Masheha should be given power to demand the view of a body before burial, and should be given definite instructions to use their authority when it is rumoured that a person has died from small-pox.

Deaths and Births.—The relation of the birth rate to the prosperity of the country is so real, that the question should be given the most serious consideration.

After my short experience of administrative work, I am inclined to think that the death rate exceeds the birth rate, but that the disparity is not so serious as the records would lead one to expect. I have given the subject a good deal of attention and I am convinced that more accurate returns can be obtained by carefully prosecuting enquiries. A series of prosecutions in cases where an infant death had been registered and there was no previous record of the birth, made a very appreciable difference. A comparison of the three months, June to August, and October to December, is significant.

	Births	Deaths
June	27	175
July	51	122
August	45	73
Total	123	277
October	81	163
November	71	124
December	68	84
Total	216	311

TOTAL Registration for the Year.

	Births	Deaths
Male	266	492
Female	248	566

In making enquiries amongst the natives, they also appear to hold the opinion that the population is decreasing. One of the reasons quoted is either a serious one, that the increase in the number of pigs corresponds to a decrease in the number of human beings. It is maintained that there are fewer people to cultivate the land, and as it reverses the usual order of things, the and keeping the land down, and that the consequence is that it is unable to breed and is lost.

It might be thought that the subject of the population rate if it were possible to obtain reliable information as to the average number of children born to slaves in days gone by. At the present time the majority of the old people who die are freed slaves, and if it could be proved that, provided as Zanzibar was not conducive to prostitution, at present amount to some extent, for the disparity between the recorded birth and death rates. There is no trace of birth rate amongst native Christians would also be of assistance in arriving at a more definite conclusion.

The certificate books issued to the Masheha are lost. They should be counterchecked. I have been informed that people will register a birth and not take the trouble to bring the certificate to office. With counterchecked books the Masheha could render a monthly statement which would serve as a check by the District Registrar.

District Court: Criminal.—The District has been comparatively quiet, and serious crimes have been reported. Cases of wounding occur at intervals. There has been a slight increase in the number of prosecutions for theft, but I consider this due rather to an increase in the vigilance of the Police than to an increase in the actual number of thieves. Several disturbances have been caused by the Masheha, but a recent and timely settlement for a public assembly has probably mitigated the evil for some time.

There are a certain number of additional prisoners, but the introduction of the finger print system is of great help to the Assistant Collector and the District to reduce the habitual criminal population of the Masheha. A slight increase in the Police Office is of frequent assistance in deciding whether a prisoner should be sent to Zanzibar for trial.

I am of opinion that the system of carrying small loads which is prevalent to the natives encourages crime. If they knew only by means of the police, it is that the difficulty of opening them would prevent many of the goods from which now come and which are the result of elementary civilization.

It is not considered practicable to prohibit the use of handcuffs of iron, but should be taken care of. The usual order must be carried out. The work of the health officer has been busy up to date and complaints received from the District are in comparison with last year.

Probate. There are considerable arrears in the Probate and Administration sections, and to me it seems that the part of the administration which is one of the most difficult and most unsatisfactory which has to be connected with the Probate. I am afraid there is a good deal of concealment of property which is very hard to detect and to be satisfied as to the value for the estate which is brought for probate. The Probate section is a very important one, which has to be done by the Probate section. The Probate section is a very important one, which has to be done by the Probate section. The Probate section is a very important one, which has to be done by the Probate section.

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shams have been convicted of crime which has resulted in their dismissal from the force, but on the whole serious fault cannot be found.

The accommodation for the men at several of the out stations is unsatisfactory, and better housing should be provided. When police quarters are built it must be borne in mind that accommodation for women is always necessary, and that arrangements for cooking must be provided; probably a detached shed is the most practicable for the latter.

Markets.—The market shed at Mkokotoni was completed in September and is well patronised. Makuti shelters have also been put up at several other centres and have been let at a comparatively small monthly rental. I do not know why the markets were allowed to lapse after they were started about 1906, but there are difficulties undoubtedly which have to be contended with in those cases where the rent becomes inflated. The lessees, when any little difficulty crops up, expect assistance from the Assistant Collector which he is powerless to give. In some villages it is undoubtedly a convenience to the people to buy and sell in the market and they follow their own inclination. In others the convenience is not so great and the inhabitants prefer that the produce should be hawked round. I am inclined to think that those who have bid for the markets have done so, thinking that the Government would compel their use for the purchase of all shamba produce, and any departure from what they look upon as their rights is expected to be resented. If regulations are impracticable, it ought, I think, to be made clear that the markets are purely for the convenience of the people and that there is no compulsion to use them. Several applications have been made to me to compel the fishermen and others to bring their goods from extraordinary distances. Some of the owners, too, have very exaggerated ideas of the powers vested in them by their lease. Two instances have come under my notice since I have handed over the Mkokotoni District in which action has been decidedly arbitrary.

(1) A man passed a market with tambu leaves in his hand. He was stopped and brought to office, the complaint being that he had not purchased the leaves in the market. The fact that no tambu was on sale in the market was overlooked.

(2) The owner of a small shop exhibited bananas for sale. The market owner seizes them and carried them off to the market.

Masheha. The Masheha have been working well on the whole, although in one or two cases I have felt compelled to recommend changes. It appears to have been a not uncommon custom to appoint a very old man as Sheha, and in consequence it not infrequently happens that a son or some other relative acts for him. This arrangement while working well in some instances leads to irregularities in others.

One of the essential qualifications of a Sheha is that he be able to get about his district, and he ought therefore to be able-bodied. In the event of a man becoming infirm or being incapacitated through illness for a period which extends beyond three months, it would be better definitely to appoint a new man, or probation, rather than allow a relative to carry on, while the invalid remains in office in name only.

A great deal of trouble has been caused on this account at Donge. The Sheha was dismissed owing to his physical incapacity and the incompetency of his brother who acted for him. He has a very strong following in his own village, and the people wish another member of the family to be appointed; the other village included in the district have another candidate. There were undoubtedly irregular practices in existence, and I think it would be a dangerous precedent to allow the Donge people to have their own way and appoint yet another member of the same family.

The difficulty would not have been so great had the old Sheha been removed two or three months after he was first taken ill, and before the people had become accustomed to look upon the brother as his officially recognised representative.

Agricultural.—The Mkokotoni District has been no exception to the general failure in the clove crop, and the prevailing high prices have been of benefit to but few shamba owners.

The improved condition of the market in copra and coconuts is becoming known and promises to induce more planting. Many enquiries have been made, and the people appear prepared to buy the seedling coconuts at a price which would entail no loss to Government. The Nursery has done quite well and the whole of the March to April picking in the Government Shamba might with advantage be used for seed.

The general condition of the district is not so good as it ought to be. I have noted that a good deal of ground which was under cultivation between two and three years ago has reverted to bush. Some of the Shambas too, are in a very bad condition and, in addition to Francis Shamba, which must be depreciated, annually on the part of continued neglect, there are others in the district where where creeping vines top the clove trees. This question needs consideration as it directly affects other shamba owners, and the one who first planted with bush. It is not unlikely, even while the vines are being cut, that the plantation is an increased opportunity for the pest to breed. This constitutes a menace to every plantation with a considerable radius.

Labour.—Signs are not wanting that the difficulties in obtaining sufficient labour for clove picking are on the increase. Owing to the small crop of the present season the failure to obtain the labour needed for has not been of vital importance. But the whole question needs to be investigated before another large crop is imagined.

The Masheha maintain that they are unable to persuade the men to go, and that it will be necessary to give them some power of compulsion. How this is to be done I am not prepared to suggest. Various reasons have been given for the refusal of the natives to work this year. Amongst them are that a considerable number went up to the hills at the beginning of the picking season and were unable to obtain work. When negotiations were made later they refused to take further risks. Others complain that they receive very little payment at the hands of some of the plantation owners that the money they owe does not compensate for the extra work under which they have to work. The growth of the park is also talked of, as it appears that many owners still use the use of the old wooden machinery which compares unfavourably with the machine used in Africa. A complaint which reached me with reference to the Masheha was that some of the trees were cut by the harder work at the tops of the trees has to be done since they were cut at the same rate. But I am not inclined to think that the prevailing difficulties in the labour market are very serious with the coming season of independence amongst the inhabitants. Possibly the day of large plantations is over in Zanzibar unless they can be brought directly under European control. Feeling that the Government appears to be small holdings and I think it would be well to consider when the question will have to be considered seriously.

There is little doubt that to a few shamba owners the revenue of the district could be more easily worked.

MWERU

Acting Assistant Collector to the Acting Collector of Mweru.

Mweru,
December 21st, 1910.

SIR: I have the honour to acknowledge the receipt of the Administration of Mweru for the year 1910.

The Administration of this district was conducted in a very satisfactory manner followed in the previous year, and I am glad to see that things have gone smoothly. The district of Mweru is the most difficult one to administer on account of its mixed and turbulent population of various nationalities who, through now under the jurisdiction of His Britannic Majesty's Court, do not fail for the least thing to seek the protection of their respective Consuls.

The German subjects, chiefly Wadigo, for a long time to making and selling toddy, give the greatest trouble and are the cause of all the unrest and trouble in the district. They take out licenses for Tumbo some unlicensed toddy, but they draw Tumbo into highly fermented toddy, and sell to the population with the result that there are a great many cases of drunkenness among the natives and young Arabs. I am inclined to believe that the majority of criminal cases are due principally to drinking Tumbo. A native under the influence of Tumbo without

hesitation knife another on the slightest provocation and mostly those addicted to this habit take to thieving as being an easier way of gaining the wherewithal to purchase drink. I think that some speedy measures should be taken to stop the sale of Tambo altogether, as if this is not feasible then only a limited number should be granted licenses, and will of course cause considerable loss of revenue, but I think it will put a stop to the spread of the drink habit amongst the natives and lessen crime considerably. To control this it will necessarily require an Excise staff, but the present staff of native collectors would suffice if efficiently to do this work, provided it were made penal for Shanja owners to let their Cocoonut trees for the purpose of making Tambo.

Ground Rents.—The collection of these dues has been a complete failure this year and considerable trouble has been experienced in its collection. People who have been paying willingly before refuse to pay it now on the grounds that they are residing on their own lands, and nobody seems to know Government land from any other. Several test cases have been put into Court, but the decision has been against the Government. The income under this head has fallen from 7,000 rupees to about 1,800 rupees this year.

Labour.—Difficulties have now arisen and will still further arise with regard to the question of obtaining labour for the clove harvest, which during this year will be a heavy one and during the rainy season. The causes of which are quite apparent. The majority of the natives are born lazy, and to add to this they have been given to understand that other than willing labour will not be requisitioned by the Government, combined with promises of remission of rents should they assist in the harvesting of cloves, which has led the people to believe that all taxes have been abolished, have been the causes of the total disorganisation of labour. This apparently appears to them to be some sort of weakness on the part of the Government, and they now firmly believe that nothing could be done to them should they refuse labour.

There apparently appears to be only one solution to this hopeless state of affairs, viz., the re-introduction of the system of labour which was in vogue in the years past or the levy of a heavy poll tax on every able-bodied adult, who need not pay the tax on his proving that he has worked for the stated period required of him. Some may vote against such a system, but I fail to see the difference between willing and forced labour under such circumstances. Both work under the same privileges and are equally paid for. With the exception that the former willingly works for his maintenance and independence, and the latter who are in the majority does not do so, but on account of his inert laziness seeks an easier way to gain a livelihood, viz., to steal and do other villainous acts. If such people are compelled to work and that periodically only, and put in the right way of gaining their livelihood, for which they will receive, if they care to earn it, ample payment, their liberties, I think, cannot in any way be considered restricted by right-minded people! The question of labour plays a most important part in the administration of the country and it stops the not taken in time to mend matters, the stability of the Government will be seriously affected.

Partition of the Mweru District.—With regard to the proposed partition of the Mweru district and the abolition of the District Court, I am of opinion that such a step, if taken, will seriously affect the prestige of the Assistant Collector who, if he is expected to administer the district, must have a Court in which to exercise his authority specially with regard to criminal matters. It will, moreover, be a cause of grave and general complaint on the part of the population of the district, specially the plantation owners whose coconuts and other produce are systematically stolen. It will also be a cause of serious inconvenience and hardship to the poorer classes, who will have to come all the way to town to get redress in petty matters, both civil and criminal. These difficulties could be alleviated somewhat if their cases could be promptly heard and disposed of in town, but for the want of evidence which will have to be brought from the district this would not be possible. If will then mean that these people will have to stay in town for at least three or four days till their cases are finally judged; and in cases of longer postponement return again in town. In this the Town Courts will experience serious difficulties to get especially the witnesses to reappear. It has been my experience in such cases that witnesses are very loth to appear. They disappear and have to be hunted up. This is due to the disinclination of the natives to give evidence against their own kind, specially in criminal enquiries, which is characteristic of the country. If a man sees a crime committed his first impulse is to conceal his knowledge. He sees no reason why he should assist the authorities to do their

business; and by giving evidence he may incur enmity which may, at some time or other, provoke revenge, moreover a witness has to suffer much to travel some distance to the Court, to be detained at may be, some days and not immediately undergo close examination to be heckled in a fashion which to me is extremely and to a native torturing. Then again, the majority of the people have no friends or acquaintances in town with whom they can stay pending the trial of their cases, and in numerous instances have not the means to maintain themselves in town longer than a day; and thus the people, I am inclined to think, would take the law in their own hands or quietly submit to the petty wrongs done to them by their more powerful opponents. You might think that I have lost sight of the district police force in writing in this manner, but a force of 22 askaris is a very small one to look after a turbulent district of nearly 30,000 of population. These askaris, I need scarcely explain, have great temptations to bribe if they are not impressed by the strength and vigilance of a superior officer. The engagement of such an officer, I think, have to be considered soon after the partition of the district and the handing over of the district police to that of the town. I do not think that the town Inspector, though an experienced hand, with his constant duties, will have the time to look after and prepare the district cases as to not to inconvenience the time of the Courts. The district force will also have to be increased to at least three times its present strength, otherwise the askaris proceeding into town with cases, will in many instances, keep their stations pointless until they return.

With regard to the service of summons and execution of decrees, attachments and sale orders from His Britannic Majesty's and Town Magistrate's Courts, I have at present many difficulties to contend with, although the service and execution of them are personally directed by me. The average number of summons decrees, attachments, etc., aggregate fifty per month. To execute each of these it takes a day if the defendant can be found at once; otherwise the Messengers have to be sent out repeatedly before service can be effected and not infrequently it happens that service is delayed, and on other occasions it cannot be effected at all, and consequently returned to the Court to after the date of hearing. When the partition takes place these Messengers will have to be sent from town to the various parts of the district, and you can better imagine than I can describe what an amount of travelling and delay will be involved in the execution of the Courts' orders. I think, very much, if these Messengers will be able to keep up a continued struggle day after day to and from town to the various districts, moreover many were already there at present will have to be degraded to other services and execution of decrees.

With regard to the service of the writs of the district, which it is proposed to annex to the district of Chikankumbungu, etc., will have to go all the way from town to Chikankumbungu and then back by Messengers to the numerous Mweru districts for service. This will necessarily entail additional labour and involve a considerable expense in the service. In some of the orders the Messengers will have to attend the Courts after the partition and then take back their reports back each time to that office. They may be able to do this case of large proportion for which they brokerage will be proportionately large, but I doubt very much if they will undertake the sale of minor properties at 2 1/2 per cent, which are the main business especially in the produce and administration cases, and perhaps even had a chance for their trouble, time and service to Chikankumbungu. The same would apply to minor cases for town. What will become of those minor properties under such circumstances I have not to judge. Lastly, but not the least, what will the natives think of the partition of the district, which has been in existence as long as has the way at present. I have no hesitation in saying that the whole of the district work will be thrown completely out of gear for a long time and many difficulties will be experienced to put it right again.

Police.—The police here does their work fairly well in this district, but I think they could have done better and perhaps prevented a great loss of the crime perpetrated had the force been strong enough to cope with the work. The force of 22 policemen is rather small for a district of nearly 30,000 square miles and a population of nearly 30,000 in round figures. This gives five square miles of rural country and nearly 1,300 of population for one policeman to look after. The district contains a lot of turbulent element, mostly natives of Borough Province, and is rather difficult to administer, and I think that the police force ought to be doubled. The police stations are more and more indistinguishable from others, and should be substituted by stone built stations with lock-ups for offenders arrested during the night.

Of the two crops the "Mwaka" was the heavier, but both were unusually small, and no outside labour was required.

A very heavy crop is predicted this year, and picking will probably commence towards the end of August. Arrangements are now being made by which outside labour may be procured for the Arabs on terms to their advantage, but they are a difficult people to help, as at present they insist on making their own arrangements with the pickers who come up from Zanzibar or the coast, respectively of the fact that the Government may have difficulty in getting the men to come here without first advancing them money. The Arab is absolutely incapable of looking ahead, he lives purely in the present, hates parting with ready cash, and for these reasons it is difficult to make him see that it is to his benefit if the Government first bind both him and the picker down to an agreement, by which course labour is more assured him than would be the case where the picker is merely dumped down on the shores of Pemba, and left to his own devices and choice as to whether he picks or not.

As regards labour available on the spot, I would suggest that each of the masheha be called upon and made to supply pickers in relief of say 10, 20, or 30 men, (according to the size of the village) who shall pick for a certain number of days (5, 6, or 7), and not return to their homes till the relief arrives. That the pickers be sent to distributing centres established at say three convenient places in the district, each having a responsible Government official whose duty shall be to send the pickers to places where they are most wanted, the shamba owners having from time to time notified the Government as to how many pickers they require.

A similar arrangement as this was made in the Mwera and Chwaka districts during the heavy crop of 1907, and met with a considerable amount of success.

During the year 2,275 rupees was advanced to shamba owners for picking their cloves, of which 1,460 rupees has been repaid.

Of the new 6½ lb. pishi, 15 only have been sold. 8 pice per pishi is being paid where these measures are used, as against 5 pice for the 5 lb. pishi in general use. I attribute this small sale solely to the conservative nature of the shamba owners, who are always very slow at adopting innovations.

A statement of the current market price of cloves is now sent up weekly from Zanzibar and posted on the notice boards for the benefit of the merchants and shamba owners.

Government Shambas.—The Tundaua shamba was leased to an Indian for eight years from April, 1910, at a rent of 5,100 rupees per annum.

The coconut shambas of Vitougoji, Pujini Mchangani, and Pujini Mkonou, were leased for three years from January, 1910, at respective rents of 20 rupees, 28 rupees, and 8 rupees. That of Kichwani for one year at a rent of 24 rupees.

The clove crops of Kungeni, Ugoe, and Madungu shambas were leased at rents respectively of 400 rupees, 200 rupees, and 25 rupees.

In the shambas of Tundaua (before it was leased), Kungeni, Ugoe, and Madungu, 77,958 nuts have been picked. Of these 11,150 were sown for seed, (10,000 of which were sent up to the Weta District), some 3,000 were unfit for sale, and the balance 63,508 fetched 1,938 rupees. The three last named shambas, after paying expenses of weeding, picking and nakous wages, and not taking into account the coconuts planted—show a net balance of 452 rupees. Each of these shambas has been twice weeded during the year. Boundary marks have been put in at Tundaua, (where the Government has reserved for itself the large house and 40 odd coconut trees), and also at Madungu. Similar marks are in course of being put up at Kungeni and Ugoe.

Rubber.—There have been but few applications for seed, and it cannot be said that it is being grown to any considerable quantity, but there is Ceara rubber planted and doing well at Baganji, Dongoni, round the Imam's house at Chake Chake in Gomez's shamba, and also at Gulamhussein's at Shamba. Para rubber has also been planted at Benari and is doing well.

Agricultural Produce Decree.—The present decree is useless for all practical purposes, as the sale of coconuts without a unit is not forbidden. Also Section 2 requires amending, it being impossible to carry it into execution owing to the fact that so many of the dealers in cloves and copra are illiterate.

Scales.—There is much need for a Decree compelling merchants, buyers and sellers of cloves, copra, and other commodities, shopkeepers, etc., to use a fixed standard of scales and weights which should be open to inspection at any time by a Government Inspector, stamped, and treated in the same way as measures of capacity are now. I am convinced that, with the scales now in common use,

frequent wrong measures are given, and I would strongly urge the Government to rectify this universal abuse and fraudulent misrepresentation as soon as possible.

Exports.—The following were shipped to Zanzibar during the last three years—

Classes Cloves Copra	1908	1909	1910
	Tons 502,390 24,179	Tons 581,142 27,273	Tons 592,025 25,140

Public Works.

Water Supply.—Water works have been built near the old mosque here, which have proved most beneficial to the town. The water is pumped up from a spring about 200 yards distant, the flow being averaging about 11,000 gallons. Sixteen Public Stand Pipes have been placed at various places in the town, 12 of which water is turned on from 7 a.m. to 10 a.m. and from 4 p.m. to 6 p.m. The others not being sufficient to warrant a municipal supply, owing to the low level of the tank over the spring.

Roads.—No new roads have been built during a path about 2½ miles long to the Wireless Telegraphy Station, but extensive repairs have been made to the road continuing at the top of the landing steps, passing through the town, and reaching almost to the Light's shamba at Mampaji. The best path has been repaired and repaired. It is now proposed to divert this path round the shore towards the Light, Khan Ismail, eventually coming out at the bottom of the hill on which a small Indian house stands. The advantage is to be gained by this as that at the present (the path can be reached by boat, and there will be no difficulty, as now, to reach over land part of the channel which the carrying path now crosses. I trust the Government will see their way to sanctioning the extra expenditure which this will entail, about 5,500 rupees, the money provided for in this year's estimate, viz. 4,500 rupees, being only sufficient for the upkeep of the existing path. As an alternative to the spending of more money on this path, I would suggest that the channel be dredged as far as the end of the carrying path.

Bridges.—Two much needed bridges have been built, one at Gombezi on the road to Weta, about two miles from Chake Chake, the other at Pujini some eight miles out of town on the road to Vitougoji.

The old bridge on the beach path has been practically rebuilt, and a thorough good job made of it.

Dredging.—Main water channels have been cleaned and extended throughout the town, also alongside the walls of the prison and Sultan's house. Further extension in this respect is in progress.

Market.—A valuable addition to the existing fruit and vegetable market has been made by the building of a meat and fish market, and the whole of the markets enclosed by a wire fence, which has proved most beneficial in keeping out dogs.

In Machines.—This has proved an absolute failure. Its upkeep has been most expensive, 250 rupees per month. For the greater part of the year it has been out of working order, and that usually at times when it was most wanted for medicinal purposes. I have already submitted a scheme showing that by building an ice house and having a weekly supply of ice from Zanzibar it is possible to maintain a regular supply at a cost infinitely cheaper than when the old machine was working. I trust the Government will consider my proposals, and at least one way of experimenting on them.

Telephone.—Chake Chake hospital has been connected up with Weta hospital, and the Wireless Telegraphy Station, with the Chake Chake exchange, consequently to both instances there is a great saving of time in the transmission of messages.

Sand Filling.—This has been levelled up and makes a very fair football ground for the boys.

Revenue.

A statement of Revenue for 1908-1910 is found in Appendix III.

Ground Rents.—The incidence of ground rents has been a very unsatisfactory matter and legislation is much needed in this respect.

As time goes on, and the people gradually become more versed in the letter

of the law. The more difficult will it be to collect this rent of 2-2 rupees which, with certain reservations, is at present levied on each site of Government land occupied by a house or hut, or on land used for agricultural purposes. "Government land" is defined as "land upon which hut tax in former years has been collected, and for which the occupier thereof can produce no proof of ownership." If the people were to begin land-use the same that they shortly will to produce proof of ownership, besides other objections, the time of the Court will be well taken up, and our ground rents dwindle down to a very small sum, probably a mere nothing.

Were I to have insisted that the rent should be paid by all persons living on what we know to be "Government lands" (e.g. Tundua shamba), the result would have been that those people would have left the shamba in a body, and their labour lost to it. If their places could be filled by desirable tenants, well and good, but that to my mind is not likely to be the case.

I should like to see this "ground rent" abolished altogether, and a poll tax of at least 5 rupees per head levied on all able-bodied males of 18 years and upwards, be they Wapemba, Waswahili, or Mahuru. Owners of 50 or more clove trees, officials of the Government of one year's service to be exempt. The tax either to be paid in coin of the realm, or in labour on Public works, picking of clove for a certain number of days, etc.

Market Fees.—Here again, rules and regulations are required, as at present I know of no law compelling any one to sell his produce in the market. That the people do so to a certain extent according to a time-honoured custom, and pay a duty of 10 per cent. on the value of the produce to the market-master, is really obligatory of their part. The market at Chake Chake is now leased to an Indian, and he frequently complains that people are selling such things as betel-leaves, milk, tobacco, etc., outside, and not paying dues as they formerly did when there was less "law" in the country, and a "command" from the Collector, or Assistant Collector, was sufficient for all practical purposes.

Tembo Fees.—I believe the late Collector somewhat restricted the issue of tembo licences. I did not do so, as I considered if a man wanted to make tembo, he did whether he had a licence or not, there not being a sufficient staff of police to thoroughly supervise this trade.

As it was, there were only 15 convictions for drunkenness and offences against the Tembo Kali decree this year, as against 35 in 1909. However, as an experiment, I have now reduced the number of licences, and await results as to whether there is any apparent decrease of drunkenness.

I would suggest that a clause be added to the Tembo Tamu Regulations, whereby no licence shall be granted after the 7th day of each month. That as soon as a licence has expired, it must be returned to the office from whence it was issued, the penalty for omitting to do so being punishable with a fine of 5 rupees.

Canoe Tax.—I should like to see this tax altogether abolished for the following reasons:—

- (1) The canoes are chiefly used by people following no other trade except that of fishermen; and the industry should therefore be encouraged in every way possible.
- (2) Fish being a staple food of the people, besides being most healthy and nutritious, should not be taxed twice over, as market-dues of 10 per cent. have to be paid on the value of the fish sold. Other staple foods, such as rice, maize, sweet potatoes, and mihogo, are charged market dues only.
- (3) The sale of fresh fish, as opposed to the dried fish, should be encouraged.
- (4) The cost of collection is expensive, troublesome, and difficult. The fishermen as soon as they know the revenue collector is coming along, hide their canoes, and no doubt many thus escape payment.
- (5) The Government reaps but a comparatively small revenue from this tax.

For the majority of the above reasons, I would suggest that the tax on fishing stakes be also abolished. Only 18 rupees was collected this year, and 30 rupees in 1909. Why this revenue should be collected by and credited to the Port Office, when the Canoe Tax is collected by and credited to the Collectorate Department, I do not understand.

Money Lenders' Licences.—A decreased revenue may be expected another year, as the Indians are not parting with their money as readily as they did, making now on a deed of sale as security, instead of as formerly being content with a

deed of mortgage. Altogether 45 licences were taken out, including those issued to Indians in the Mikoa district, which are applied for at Chake Chake.

Royalty on Wood.—This in 1909 was represented by "Royalty on Wood" which is now collected in Zanibar. I would suggest that it be still collected there and there only, as if collected in Pemba a smaller rate is obtained than in Zanibar. Of course the royalty on wood sold in Pemba and will continue to be collected in Pemba, though its revenue this year was obtained from this source in Chake Chake.

Registration of Deeds.—1,023 documents (see Appendix D) were registered, bringing in 4,830 rupees, as against 1,266 registered in 1909, showing a revenue of 0.167 rupees.

Health.

Work of.—On the whole the Health, of which I have been of great assistance in the administration of the district. No cases of malarial fever, and their status gradually improves, they will become more so.

It was especially noticeable the way they responded to the orders of the Government and brought on sent to their people for vaccination, no matter how great the distance.

Doctors of.—They lately have been given power similar to those of the native and have already in several instances, exercised those powers judiciously.

Insurances and Deaths.—None of the bodies of insured institutions have been issued out to them, and copies of the various documents affecting their administration supplied them.

Appointments.—Fauzi Yakub was appointed Sheriff of the freed slaves Mahuru, who number over 4,000 in this district.

More has all was appointed Sheriff of the, to the place of Hamid, but Gumb, deceased, and Mwakato Ali Chuma, Sheriff of Kwaia, now Jonas Nygwah convicted of bribery.

Police.

Number and Distribution of Police.—Appendix V shows the number of Police stationed in the District, of whom twenty always detached for duty at Kwaia, a police village with several Indian shops, and an exchange for slaves, about eight miles out of town by the road to Wani.

There are twelve the number of men on duty at night as there are by day and I find by experience that this arrangement actually fulfils all practical purposes.

Sub-Inspector.—A Sub-Inspector arrived in July, a much needed want. The principal duties have been to keep the police books up to date, investigate cases of criminality, prepare them preparatory to their being heard before the Magistrate, when he commences on his visits to Wani and Mikoa. He has found his work fairly well, but requires constantly keeping up to the mark.

Discipline.—Discipline has been on the whole distinctly good to which I must attribute the excellent work of the Sergeant in charge, Sergeant Njoro, who arrived at the end of May.

Police Force.—A sprinkling of Indian recruits is always useful, especially when they work in conjunction with a British agent as they do here, but the majority of the average men in these parts needs improvement, before these people can be properly used.

Equipment and Tools.—The Police have their full complement of kit and quarters is always kept in readiness.

Health.—The general health has been good.

Cases.

Convictions.—If fewer convictions in one year or compared with another tend to prove a decrease of crime, then in this respect the district is fortunate. 202 convictions were awarded (see Appendix VI) as against 296 in 1909, a decrease of 194.

Cases Undecided.—There have been but comparatively few cases of undetermined crime, chiefly matrimonial cases.

1. A man married at Pemba, a village near Chake Chake.
2. A woman found dead at Yumbi, in which the verdict was one of murder.
3. A robbery at the Livala of Chake Chake's house, in which it was reported that 1,000 rupees had been stolen in cash, and 5,000 rupees in articles of gold and silver.

Gaoi.

Prisoners, Work of.—The principal duties of the prisoners consist in weeding, whitewashing, setting firewood, and making makuti. A lot of "makumbi" (coconut fibre) has been got ready to be made into ropes during the rainy season, when work is difficult because of doors.

Health.—The health of the prisoners has been excellent. They usually come out of gaol with a better physique and with a more healthy appearance than when they went in, and I am inclined to think that statistics would show there is no healthier gaol in the two Islands. The cells are whitewashed every month.

Food.—Each prisoner receives 1½ lbs. of "uji" (gruel) early in the morning before going to work, and a pound of rice with two cents worth of curry stuff in the evening after work is finished. The tokosa rice supplied by the Gaol Department at Zanzibar has been most satisfactory.

Head Warden.—The head warden, a Pathan, keeps the prison clean, but otherwise carries on his work in humdrum, dullness, sort of way. I should like to replace him, but fear to do so lest one gets "out of the frying pan into the fire." It is no easy thing to get a good Indian gaoler at 30 rupees per month.

Escaped Prisoners.—16 prisoners escaped in 1909, and 15 in 1910. Of these 13 and 14 respectively were re-arrested and punished.

Prisoners, Earnings of.—Prisoners' earnings amounted to 476 rupees as against 503 rupees in 1909. The decrease being due owing to that now the Public Works Department only are charged up with prison labour.

Customs.

Imports and Exports.—A table showing the value of the Imports and Exports during the last three years is given in Appendix VII.

Measures of Capacity.—403 rupees was collected by re-stamping measures of capacity, as against 74 rupees in 1909. This greatly increased revenue is due to the energy of the Customs' Clerk, who sent a man round to all the Indian shops where many measures were found to have been unstamped for a number of years.

Port Office and Shipping.

Mail Time Table.—The Time Table was altered in September to weekly "long trips" from alternate weeks of "long" and "short" trips. These "short trips" were of great benefit to officials going to Zanzibar, especially those at Weti who now suffer a considerable loss of time in making the journey. I am led to understand that the alteration was made to admit of a weekly call at Mikokotoni for the purpose of landing clove pickers. Now that the clove picking season is over, I would ask the Government to consider the advisability of reverting to the original time table.

Steam Launch.—The steam launch, having constantly proved herself to be unseaworthy, was sent down to Zanzibar in October for alterations and repairs. It is hoped that she will be ready for use again by April, as there is great need for her presence, especially in urgent cases of sickness at Weti and Mkoani.

Motor Boat.—I trust the question of obtaining at least one sea-going motor boat for service in Pemba has not been lost sight of.

Dhows, Lighting of.—Exception was taken by an Indian to an old local Regulation regarding the enforced lighting by night of dhows anchoring in the harbour. I would suggest that a Clause be added to the existing Regulations, making it incumbent on dhow owners to do so, and a fine of one rupee imposed as it is for other minor offences under Schedule I (Fines) of the Port, Shipping, Dhow and Boat Regulations.

Boat Licences.—Licences were issued to eight boats asking permission to ply for hire. I should like to see the new Regulations respecting them, which were drawn up some months ago, brought into force as soon as possible.

Passengers and Dhows, Number of.—Appendix VIII gives the number of passengers sailing by Government Steamers and dhows from this port during the last three years, also the number of dhows arriving and departing.

Medical.

Small Pox.—An epidemic of small pox, following on that in Zanzibar, broke out in July. Preventive measures were at once taken, viz.—All dhows arriving in the harbour were inspected before being allowed to discharge their cargo and passengers.

The refuge camp was thrust into a small pox hospital, and its occupants housed elsewhere in the town. There were in all 27 cases, of which 18 were discharged as fit, and 9 proved fatal.

Vaccination.—The number of persons vaccinated to December 31st was 18,782.

Refuge.—On an average per month there were 14 of those poor, diseased, homeless creatures in the camp, which owing to it being required for a small pox hospital had to be shifted in two rooms in a block of buildings on the main road of the town. They are well looked after and well fed.

Lepers.—There were 52 in the camp at Pujini. Arrangements are being made to station them elsewhere, as the camp is some 2½ hours' ride from town and water troublesome to obtain, but it is a difficult matter to fix on a suitable spot which fulfils the necessary requirements. There are, in addition to the above, 80 leper lepers living in various parts of the district for whom it is hoped accommodation will soon be found, where they can all live peacefully together and have their wants better attended to than is probably the case at present.

Quarantine.—Is weekly administered to all officials on the subordinate staff.

Hospital, Patients in.—There were treated—

	1908	1909	1910
In-patients	882	779	114
Out-patients	1,811	1,332	1,833

Sanitary.

General Remarks.—The town has really improved from a sanitary point of view. It is quite a different place to what it was when I was quartered here in 1906. Drains and cesspits have been constructed in many parts of the town, the people made to sweep up in front of their houses, and walls of public and other have been burnt.

House Inspection of.—There is a weekly inspection of the houses of all Government officials. I should like to see in this respect the provisions of the Public Health Decree carried out with regard to the general public. It is only time and force of example that will make the people see the necessity for this, but I think it might perhaps be advisable at present to force them to submit to them. Although the Levies and the Revenue are had great difficulty at first in getting the Government officials to pay the tax.

Sanitation.—An epidemic broke out in November, which was luckily confined to a batch of 17 bullocks belonging to the custom authority, 14 of which dhows had to be slaughtered.

Land and House Inspection of.—It would greatly contribute to the health of the place, and especially to the European officials living in the case of houses directly opposite the prison, if the land with some 27 lots on it behind these houses, and facing on the main road could be acquired. If, at some future date, it was considered desirable to build some suitable quarters for the European officials (the lot of ground on the main road on which a few makuti-roofed shops now stand would be admirably suitable). I do not know for what use the land and houses could be bought, but I should fancy it would be something under 1,000 rupees, and, being small, it would be money well spent.

Veterinary Officer.—The arrangements of this office are ordinary to meet out the provisions of Chapter XVI of the Constitution of Laws Decree, and Schedule I (Sanitary House Regulations under the Public Health Decree). Otherwise I would suggest that under the Decree the Health Officer should have similar powers to that of the Veterinary Officer.

Post Office.

Money Orders.—117,347 rupees were issued in Money Orders, of which 10,361 rupees were sent to India. In 1909 their value was 117,715 rupees, and 5,496 rupees sent to India.

Stamp.—Sale of stamps produced 729 rupees, and 754 rupees in 1909.

Savings Bank.—Deposits claimed 2,422 rupees, as against 1,621 rupees in 1909.
Telegrams.—Towards the end of the year, a very welcome indulgence was granted to Government officials in allowing all telegrams to Zanzibar to be sent free.

Births and Deaths.

The following were registered:—

	1908.	1909.	1910.
Births	9	160	267
Deaths	126	280	411

Wakf.

In all 34 cases have been brought to my notice, of which 21 have been engaged into and registered, 5 being vested in the hands of the Wakf Commissioners, and 3 remain to be dealt with.

School.

There were 22 pupils on the books in March, and 23 at the end of December. There is every indication of a steady progress being maintained, but I very much doubt if the number of pupils increase. Reports on this school during the year have been very satisfactory.

Most of the boys are sons of well-to-do, Arabs, and I wish the Wapemba could also be induced to send their sons, but this they are disinclined to do in spite of exhortations.

Staff.

Liwali.—I would especially bring to your notice the services of the Liwali, Suliman bin Mbaruk. He is a man of sound judgment, tact and common sense. His advice on questions directly affecting the Arabs and natives is invaluable. His service in His Highness's Government extends over 23 years, 19 of which he has been "Liwali." It would be very difficult—I might almost say well nigh impossible—to find a man capable of filling his place.

Clerical Staff.—The Treasury Clerk, the Customs Clerk, the Clerk of the Post Office, Police, and Gaol, and the Collectorate Clerk have all given me entire satisfaction. They are a hard-working lot of men, and all readily respond to whatever extra work (and there is a considerable amount of "Overtime" here) is required of them.

I have the honour to be,
 Sir,
 Your most obedient humble servant,

G. MONEY, Assistant Collector, Chake Chake

Appendix I.

The Mangrove Swamps in the Chake Chake District of Pemba.

Locality of Mangroves.—They abound profusely in all the muddy creeks on the shores of this district, especially in the North-east round Kuyu, and in the immediate vicinity of Chake Chake bay, round Tundaa, and Chasani.

Varieties of Mangroves.—They are known to the natives as "Mikanda" and "Mikoko." There are two varieties of the former, one a red (mikanda mikundu or migundu), the other a black wood (mikanda mwanu). Of the latter there are six varieties, the wood being of a white colour (mikanda misupe).

Name of, and Commercial Value of Mikanda Timber.—It is with the red variety that we have principally to deal from a commercial point of view. From it is obtained the following timber tabulated according to size of girth, commencing with the smallest:—

Particulars.	Total Price.		Per 1000 Pounds (Viz)
	No.	Rs.	
1.—Fak.	2	2	
2.—Paa.	2	2	
3.—Miania.	3	4	
4.—Makomponye.	4	4	
5.—Vigani.	2	2	
6.—Buru.	1	50	

Use of Mikanda Timber.—The above-mentioned are the timbers commonly used in the construction of native boats, and for building purposes generally.

No. 5 and 6 are also used for firewood.

The thicker timber is used for lime-burning.

The roots above ground are good for making fish traps (mbanda).

A red dye is extracted from the bark and used in tanning.

The black variety is used for the same purposes as the red though not so extensively as the wood is more brittle, and consequently does not command such a high price.

Varieties of, and Commercial Value of Mikoko Timber.—The various varieties of Mikoko are known by the names of:—

Particulars.	Total Price.		Per 1000 Pounds (Viz)
	No.	Rs.	
1.—Muuu.	1	0	For other purposes.
2.—Muuu.	1	0	
3.—Mikoko.	1	0	
4.—Muuu or Mikoko.	1	0	
5.—Muuu.	1	0	
6.—Muuu.	1	0	

Use of Mikoko Timber.—Of these varieties

No. 1 and 2 are used for building purposes and for firewood. The timber is used for tanning.

No. 3 is chiefly used for lime-burning, and also for supports to that plank.

No. 4 is used in making native boats and floors, for repairs to boats, and in lime-burning.

No. 5 is used for making native boats, chairs, stools, chairs, quads, barbed, and in lime-burning.

No. 6 is chiefly used for lime-burning, also for repairs to floors and canoes.

Remarks on Cut Mangrove Woods.—No charge is made of natives who cut wood for their own use. Owners of shores permit free passage of boats and other timber to Zanzibar where duty is collected. In all 184 such permits have been granted during this year.

Mangrove Swamps Injurious to Health.—Owing to the muddy deposits which mangroves collect, the more trees that are cut down in the immediate vicinity of Chake Chake and other towns, the better it will be for the health of those places. Mangroves are immensely prolific, and I see no signs at present of the industry decaying.

Appendix II

Table 1.—CENSUS of Pemba Island.

District	Males	Females	Children	Total
Chake Chake	16,768	13,600	4,368	34,736
Weti	11,421	11,938	4,496	27,855
Mkoani	6,269	5,280	1,683	13,232
Total	34,458	30,818	10,547	75,823

The population of Chake Chake town is 2,025. The population of Weti town is 1,681.

Table 2.—COMPARISON between Chake Chake, Weti, and Mkoani Districts.

Nationality	Districts	Males	Females	Children	Total	Total
Swahili	Chake Chake	7,283	11,862	4,311	23,456	31,279
	Weti	6,890	5,796	2,566	15,252	
	Mkoani	4,436	4,087	4,474	13,041	
Arabs	Chake Chake	1,543	1,644	1,267	4,454	10,319
	Weti	1,006	1,173	519	2,704	
	Mkoani	1,261	1,085	623	2,969	
Indians	Weti	267	114	207	588	1,318
	Chake Chake	179	90	100	369	
	Mkoani	142	78	91	311	
Europeans	Chake Chake	23	4	4	31	36
	Weti	13	2	2	17	
	Mkoani	4	1	1	6	
Goanese	Chake Chake	23	4	4	31	36
	Weti	13	2	2	17	
	Mkoani	4	1	1	6	
Total		33,450	31,809	22,798	88,057	121,057

Includes—Wapemba, Swahili servants living in their master's houses, outside grounds, areas of houses in harbours, patients in hospital, leprosy.

Includes—Mangochi, Washobu and Batachi.

Appendix III

STATEMENT of REVENUE for 1929-30.

Source	1929	1930	Increase	Decrease
Ground rents	2,371	2,350	21	21
Market fees	1,237	1,237	—	—
Tembo fees	661	670	9	—
Ngomas	526	526	—	—
Cases tax	—	—	—	—
Moneylenders' license	—	—	—	—
Payrollers' license	—	—	—	—
Drinking license	—	—	—	—
Hotel license	—	—	—	—
Beer license	—	—	—	—
Sale of stamps	—	—	—	—
Telephone	—	—	—	—
Registration fees, meat and milk	1,261	1,230	31	31
Total	5,856	5,813	43	43

* 526 persons registered by means of population 50 or more three times and 100 number of age or industry.

† Five licenses were granted from 1929 to 1930.

‡ Decrease of 21.

§ Yearly license expired in September and was not renewed.

¶ Degree not adhered until the latest part of 1929.

‡ Books issued up to the 31st.

Appendix IV

DOCUMENTS Registered in 1919.

Kind of document	Number of documents
Deeds	100
Wills	100
Gifts	100
Contracts	100
Agreements	100
Parties of interest	100
Receipts	100
Deeds of gift	100
Contracts	100
Wills	100
Total	1,000

Appendix V

POLICE COURT CASES—1929-30.

Offence	Number of Convictions	Number of Discharges
Theft	10	10
Swearing	113	14
Swearing before justice	16	13
Disturbance	20	11
Perjury	10	10
House breaking	6	6
Offences against public health	20	6
Disobedience	16	1
Contempt of Court	20	—
Adultery	6	—
Capital offences	—	—
Miscellaneous	63	23
Total	396	203

Appendix VI

POLICE FINANCE—Chake Chake, 1919.

Source	Total
Salaries	—
Grants	—
Local charges	—
Police	—
Supplies	—
Expenses	—
Total	—

Appendix VII

INCOME and EXPENSE, 1929-30.

Year	Total Value of Income from Localities	Total Value of Receipts from Foreign Sources	Total Value of Expenses of Localities	Total Value of Receipts from Foreign Sources	Balance (Excess of Receipts over Expenses)
1929	Rs. 5,856	Rs. 5,243	Rs. 5,813	Rs. 5,243	Rs. 643
1930	5,813	5,171	5,813	5,171	642
1929-30	11,669	10,414	11,626	10,414	1,255

Appendix VIII.
SUMMARY, 1908-10.

	1908.	1909.	1910.
Population falling by Government steamers	2375	2260	1870
Population falling by dhows	160	61	47
Dhows arriving	134	97	141
Dhows departing	124	81	81

MCOANI.

FIRST MINISTER.

I am sending herewith enclosed, Captain Durand's Annual Report on the Mkoani District for 1910. The last three weeks of the year during which I have been in charge of the Mkoani District is too short a time to permit of my adding any useful remarks. I have therefore merely completed the statistical information contained in the report.

C D W

January 12th 1911

MR. CLARKE, F.R.O.

January 21st, 1911.

Annual Report on the Mkoani District for 1910.

District.—The year 1910 has been rather an unfortunate one for the Mkoani District so far as the Collector's Staff is concerned.

There is no Liwali in the District, the work which is performed by the Liwal in Chaki Chaki and Weti districts is entrusted to three officials (Janet Wakida).

Wakida.—When I assumed charge of the district at the beginning of the year there was an Akida at Mkoani and one at Jembangone but a vacancy at Fufu. On the recommendation of the late Collector of Pemba and of the Liwali of Chaki Chaki an Arab named Seif bin Khamis El Mauli was appointed to the latter post; he, however, I found to be most unsatisfactory, and he was discharged and a man named Abdullah bin Khalifa El Mamni was appointed in his place. This man proved no better than the first, owing principally, I think, to his bad state of health, and I decided to get rid of him at the end of October. Since that date I have appointed the Masheba for whom the Akida of Fufu was responsible among the Wakida of Mkoani and Jembangone respectively. If the arrangement works satisfactorily it would, I think, be a good thing to abolish the post, especially as an overseer has recently been appointed to the charge of the Government station at Fufu. (Kwamacho and Mkenzani).

In the month of March Ali bin Ja El Mendri died. He was succeeded by Mohamed bin Abdullah El Mendri, who after two months also died, in the month of August.

On the 1st September a man named Amis bin Sultan was provisionally appointed to the post of Akida of Mkoani. He is working well and well, I think, in time to be a very useful official.

Revenue Clerks.—The death of Ali bin Ja El Mendri of Mohamed bin Abdullah to the post of Akida created a vacancy in the revenue clerks, and this post I found very hard to fill. I tried two men, trained officers, both of whom proved lazy and useless; eventually I engaged a man who had been working in the Education Department and I am satisfied with the way he is working.

Owing to these deaths and alterations in the Staff I have not been able to visit the outlying parts of my district as frequently as I should have done, and since the death of the two Wakida it has been very difficult to collect the balance of ground rent that was outstanding.

Kathi.—A Kathi was appointed early in the year, but after the Court had been working for five months he became very ill with fever and had to be sent to Chaki Chaki. He has since been invalided out of the Government Service. A new Kathi was appointed in October and the Court is now sitting regularly.

Dispensary.—When I came to Mkoani there was a dispensary stationed here but he was constantly ill with fever and unable to look after his work. He was sent to Hospital in March suffering from attacks of the fever and did not return. No dispensary was sent here until August when the new dispensary buildings were ready for occupation.

Health of the people.—The malarial fever from the foreground the health of the staff was very satisfactory for most of the year. There is no malaria here, but there have been many cases of the merrill and other fevers transmitted by mosquitoes, and the merrill has not as yet been eradicated. There has been some malaria here and the merrill has not as yet been eradicated. There has been some malaria here and the merrill has not as yet been eradicated.

Masheba.—There have been very few alterations among the Masheba this year. The Akida of Mkoani was convicted for misappropriating Government money and was of course discharged. After some difficulty a successor was appointed. In the whole I think the Masheba are working well and beginning to realize that they are responsible to the Government for the good conduct and order of their people.

Cases.—A census of the district was taken during the month of August and the following statistics were returned:

Muslims	1,100
Indians	100
Arabs	100
Wagaitis	11,000

Judicial.—The judicial work of the district has just much interfered with owing to the illness of the Kathi. A Kathi Court was established in January and was much appreciated, as previously all petty civil cases had to be taken to Chaki Chaki. Unfortunately the Court was unfortunately closed during the month of July, August, September and October. It is now sitting regularly and a lot of civil cases have been disposed of.

Police and Administration.—The work of administration of the Estates of deceased persons subject to the jurisdiction of His Majesty's Courts in this district is carried on at Chaki Chaki under the supervision of the Magistrate. I think it would be advisable to transfer this work to Mkoani, but the present arrangement would be that case have to be transferred.

Criminal Cases.—In this district all cases that do not have to be tried by a Court of Session or First Class Magistrate under the Indian Criminal Procedure Code are brought before the Assisted Magistrate. During the year 274 cases have been brought before the Court, resulting in 128 convictions and 16 acquittals.

Prison.—On the whole the conduct of the prison has been very satisfactory. Two men have been discharged as workmen, the remainder I am again satisfied with. It is unnecessary to be said to report that the men have good conduct, work to be transferred back to Zanzibar, although with one or two exceptions they are all Zanzibaris, and regularly come up here on the understanding that they will only be detained in Pemba for a few months.

I have had no complaints from Indians as to the police and guarding property of men being here but I cannot recommend, and that I know from past experience to be the best arrangement, a Chinese policeman can be given.

The health of the men has been good. One man I regret to say died of pneumonia during the month of September.

Crimes.—The most common recurring crime in this district which the police have had to deal with during the past year are house-breaking, theft of agricultural produce, and assaults with dangerous weapons or arms.

During the first half of the year a number of cases of house-breaking took place which resulted in the conviction of a number of blackguards, the majority of whom were known to the police and had already been imprisoned either here or at Chaki Chaki for similar offences. Lately these cases have fallen off much markedly and I attribute this to the fact that most of the habitual criminals in this district are at present in jail. I fully expect a commencement of house-breaking next year with some men's return to the island. Petty thefts of ornaments and agricultural produce are frequently committed but these are very difficult to detect and I am now giving rather heavy sentences for this description of crime.

Matters with reference to the Estates of deceased persons and the work of the Court is now sitting regularly and a lot of civil cases have been disposed of.

It is remarkable how few cases of drunkenness have been brought into Court, and not a single case of infringement of the Nguni Regulations.

Since I took charge of the district in January there have been on an average about 15 prisoners from day to day confined in the jail. The health of the prisoners has been good, no serious case of illness having been reported. Once in a while the number of prisoners has exceeded 20, and when this has happened the overflow has been transferred to Chaki Chaki.

Two warders should be stationed here. If this were done more work would be got out of the prisoners and there is always plenty of work on the station for them to do.

Agriculture.—The clove harvest has been a very small one in this district. Picking commenced in August and has continued almost up to the time of writing (Nov. 30). The "Mvuli" crop which is now ripening will spread well into next year; this crop will also, I am told, be a very small one. Prices are good, 10½ rupees a frasila having been obtained locally.

A system of advancing money to shamba owners to assist them in clove picking has been introduced by the Government this year (for the first time so far as the Mkoani district is concerned) and it has been a great boon to the shamba owners. It has been much appreciated, and up to the present time has not been abused. I believe that if loans were granted by the Government to assist shamba owners to clean their shambas of weeds much better crops would be harvested. Up to the time of writing the output of cloves from the Government shambas for this season only amounts to 108 bags of 100 lbs. each. During this year some 1,700 cocoanuts have been set for seed. Of these some 700 should be ready for transporting during the masika of next year.

An overseer has recently been appointed to take charge of the Government shambas at Fufini, Kwamacho and Mchenzani, and I hope that this will put a check on the thefts of cocoanuts which I am certain has been carried on to a great extent, but which is very difficult to stop.

Rubber.—One native in this district started a small rubber plantation a few years ago. He informs me that his trees are now ready for tapping and that he intends planting out more seeds. Several of the Arabs in the district inform me that they are thinking of planting rubber. I expect, however, that thinking about it is as far as they will get.

Markets.—Markets have been started at Mkoani, Jembangome and Fufini. At Mkoani a large market banda has been erected at a cost of 100 rupees, and a pigalia floor, built by prison labour. It has been rented for 44 rupees a month up to the end of this year.

At Fufini the market banda was purchased for 44 rupees. The site is not Government property, and 3 rupees rental is being paid monthly to the owner of the plot of land on which it is built. He is willing to sell it for 250 rupees, but I think the price is rather high. The market is let for 24 rupees a month. At Jembangome a site was purchased for 200 rupees and a banda erected for 100 rupees. This market is let for 24 rupees a month.

Public Works.—During the year the following public works have been completed in the district:—

- A masonry bridge at Kengeja.
- Two bridges on the Fufini-Kengeja road.
- A dispensary at Mkoani with makuti thatched outbuilding.
- A kitchen and servants' quarters for the Mkoani bungalow.
- The swamp in the valley south of the Station has been drained.
- The Government offices which were found to be cracking have been strengthened.
- Iron telegraph posts are being substituted for the wooden poles which carry the telephone wire on the Mkoani-Chaki Chaki road.

Boats and Lighters.—The grant of 30 rupees for the upkeep of one boat and lighter was found to be insufficient and a special warrant had to be applied for. The "Mweve" the Government boat used to be worked in Zanzibar and temporary repairs effected. Captain May reported that a sum of at least 500 rupees should be spent on the boat to put her in thoroughly serviceable condition.

Births and Deaths.—221 deaths and 215 births have been registered in the district during the year. Either the registration of births was not insisted upon in the past or the natives for some reason were reluctant to report them. I found that the number of births being reported was out of proportion to the size of the population.

I have had to make an example of a few offenders under the Births Decree, and matters have improved.

Annual Report on the Woti District for 1910.

General.—During the year the criminal cases have increased to a certain extent. Two murders have been committed, the last one which occurred on Christmas night, has not been officially traced yet. All my efforts tend to stop the drinking and fighting, and I shall hope to say that near the end of November, date of my arrival here, I have already obtained good results. The patrol system which I hope to soon working well, but with such fighting people as Wapemba the police force is not sufficient at present for the present. The ground rent has been collected regularly all over without objection since the change law.

Local Labour.—I am sorry to report that with the actual system of contracts all the local (portuguese and mozambique) had here any employment—the result is that they all go to the German coast or British East Africa. It is a loss for the country as many of them are really very useful and work at half price compared to the Indian funds. Could the Contractors in future be asked to use local labour as far as possible in order to encourage our own people.

Water Supply.—The water supply all the year round is quite insufficient, and with the number of people expected to Woti shortly, the actual supply will possibly not meet the requirements at all. Large tanks are wanted, and I do think also a pumping engine, the spring is quite sufficient for that.

Private and Administration.—This Department is not working well as I have nobody to look after it. I am obliged to rely on the Masikha for the valuation of the properties and I dare say that they cannot be trusted. Would it be possible to have a special clerk who would take charge of all the private for the whole island with his own books?

Thefts on Shambas.—Arabs have been complaining to me that the thefts of produce are going on on a big scale. I apply the decree stringently but I should suggest to have the command reinforced in that respect. Could also the Assistant Collector be allowed in case to take temporary measures with the sanction of the First Minister such as stopping people wandering after 9 p.m. unless they can prove a good reason such as Masikha (marriage, etc.) This has been applied before with great result.

Markets.—The markets are in gross failure and more applications are expected.

Land.—All the accounts have proved quite hard to be entirely reliable and trustworthy. Nearly all have worked under me for more than two years, and I am glad to say that I found them, this time again hard-working and steady men. I have only to complain against the Cadi, not so far as his judicial work is concerned, but for the business which amounts to nothing more or less. I have informed the Magistrate.

W. WELL,
January 2nd, 1911.

Customs Department

Chief of Customs to the East African Mail, Zanzibar.

Custom House,
Zanzibar, 29th February, 1911.

Sir, I have the pleasure to submit the following report with the accompanying statistics showing the Customs Revenue and the commercial movement of Zanzibar during the year ending 31st December, 1910.

Revenue.—The net receipts of this Department amounted to 16,06,157 rupees 61 cents as compared with 19,19,749 rupees 51 cents in 1909, being a decrease of 3,13,592 rupees 84 cents. This large decrease was entirely due to the decrease under the head Wine amounting to 3,17,354 rupees 66 cents. Other sub-heads of Revenue showing decreases were Imports from Foreign countries 5,827 rupees, other Exports 2,325 rupees, Beale fees 575 rupees, and Ivory stamping 545 rupees. Total

showing increases were, Miscellaneous 7,048 rupees, Consolidated rates 3,329 rupees, Chillies 1,229 rupees, Kerostine rent 700 rupees, Import and Export Declarations 444 rupees.

Imports.—The value of Imports into Zanzibar exclusive of those from I.H. Island Dominions amounted to 1,46,85,443 rupees as compared with 1,40,15,500 rupees in 1909, being a total decrease of 6,70,943 rupees. The principal items showing increases were, Copra 6,43,448 rupees, Miscellaneous 1,2,421 rupees, Groceries 1,93,300 rupees, Coal 1,02,233 rupees, Cotton Raw 88,916 rupees, Dry Fish 33,560 rupees, Beads 46,419 rupees, and Empty Gummy Bags 34,050 rupees, while those showing decreases were, Rice and Grains 2,94,563 rupees, Piece Goods 2,93,819 rupees, Ivory 2,83,864 rupees, Machinery 83,294 rupees, Petroleum 69,152 rupees, Jewellery 64,001 rupees, Rubber 36,079 rupees, Wax 35,563 rupees, Timber 35,804 rupees, Gum Gopal 31,671 rupees, Gum Copal 18,750 rupees, Galvanised Iron Sheets 11,350 rupees.

The large decrease in the value of Rice and Grain imported during 1910 was owing chiefly to the fact that fairly large quantities of rice are now imported from Madagascar in small kandas, which are sold at much lower prices than the Asiatic produce. Rangoon rice also commanded lower prices than during the previous year. The gradual falling off in the value of Piece Goods, as well as the decrease in Machinery, Petroleum, Timber, and Corrugated Iron Sheets can only be attributed to the development of the main land ports.

The following comparison of figures shows the relative value of goods imported from the various continents into Zanzibar during 1909 and 1910.

Continent.	1909		1910	
	Rs.	Rs.	Rs.	Rs.
Europe	39,28,799	31,69,971	4,38,302	2,39
Asia	64,30,697	64,23,330	1,16,310	
America	5,86,878	4,84,948	1,95,294	
Africa	38,22,432	37,67,745		

Exports.—The value of Exports exclusive of those to I.H. Island Dominions during 1910, amounted to 1,55,02,010 rupees as compared with 1,51,70,464 rupees during the previous year, being an increase of 3,31,546 rupees. The principal items showing increases were, Copra 16,23,687 rupees, Soap 1,3,657 rupees, Petroleum 87,397 rupees, Cotton Raw 22,983 rupees, Dry Fish 42,266 rupees, Groceries 37,942 rupees, Miscellaneous 25,577 rupees, Timber 25,389 rupees, Hardware 24,669 rupees, Rice and Grains 13,752 rupees, and Jewellery 9,707 rupees, while those showing decreases were, Cloves 11,54,004 rupees, Ivory 3,25,179 rupees, Stems 1,99,275 rupees, Piece Goods 95,284 rupees, Machinery 70,882 rupees, Gum copal 47,415 rupees, Gum Sim 37,868 rupees, Wax 32,285 rupees, Coins 15,312 rupees, Hides 14,799 rupees, and Rubber 14,207 rupees.

Cloves.—The total quantity of cloves received during the year amounted to 315,234 franslas as compared with 537,225 franslas during 1909. Of this total People produced 221,420 franslas.

The average prices realised for the year were Zanzibar's 114.3 rupees, People's 10.15.3 rupees, and Stems 3.0.0 rupees, as compared with 88.9 rupees, 9.3.5 rupees, and 2.0.9 rupees respectively during 1909. The 1909-10 crop from 1st July to 31st June amounted to 409,725 franslas.

The wet state in which cloves are landed from Pemba undoubtedly causes a source of loss to the Government for if they were landed in a thoroughly dried condition, there would be but little loss in weight and also higher prices would be realised.

General.—The alterations being carried out to the shed set aside for the storing of cloves before weighing will prove very beneficial, as there will not be the same opportunities for the different consignments to get mixed, as was previously the case. The baggage shed recently erected also provides a long fall, and passengers now being dealt with more expeditiously than previously, and traffic being greatly relieved at the main entrance.

I have the honour to be,

Sr,

Your most obedient servant,

W. A. SIMONDS, Chief of Customs.

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Education Department.

Director of Education to First Minister, Zanzibar Government.

Office of the Department of Education,

Zanzibar, 26th January, 1911.

Sr,

I have the honour to submit herewith my third annual report on the progress and condition of Education in Zanzibar for the year ending December 31st, 1910.

I have the honour to be,

Your most humble obedient servant,

S. RIVERS-SMITH, Director of Education.

C. SIMONDS, C.M.G.

First Minister of Zanzibar Government.

En-honneur.

Report of Mr. Rivers-Smith respecting Progress and Condition of Education in Zanzibar for 1910.

General.—The past year is significant in the brief history of Education in the Protectorate, inasmuch as the District schools at any rate have been carried on with little help and practically no supervision. I was absent on leave from February 22nd until July 1st, and immediately returned to Zanzibar, the shortage of officials in the Collector's Department, which has necessitated my taking charge of a District, has prevented me giving that close attention to detail which is so essential in guiding a new department during the first few years of its existence. Added to this, my Collector's work was interpreted by the people themselves to mean that the Shamba Schools were to be closed, and the Maschika of the villages ceased to give any help to the teachers. There was in consequence a decided falling off in school numbers. A fairly general improvement is again to be noted, but the satisfactory are still in great need of regular inspection.

Taking into consideration the difficulties which have to be contended with, the progress which I am able to report may be considered satisfactory. In those cases where the attendance has decreased, it may in almost every instance, be traced to lack of satisfaction.

The Primary School is making steady progress, and the work in the Industrial Section has fulfilled expectations. There is reason to hope that the prejudice and contempt of the Arabs in the town, as well as the appreciation of the benefits of Education, may gradually have got over their dislike to the instruction in Swahili in Latin characters, before the instruction proper in Arabic.

During the year a number of pupils whose names had been removed from the School books have been brought back, in some instances to begin again where they left off, and in others to a healthy end.

Primary School.—The Primary School has recovered from the set-back it sustained by the substitution of Swahili in Latin characters for Arabic in the elementary course. There is now a regular entry of new pupils and a sustained increase in the average attendance. This fact may be better appreciated by a brief retrospect.

In February, 1908, when the new scheme of Education first came into operation there were 41 classes in the school roll. When it became known that Swahili was to supersede Arabic the attendance fell as low as 24 on November 8th, 1908; but from that time there has been a steady forward movement.

The following is a record of the School roll and attendance during the last three years.

Average daily attendance:

1908	30
1909	39
1910	70

The admission of British Indian subjects from December 1st raised the average attendance towards the end of the month to over 100.

(224)

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Average percentage attendance of names on School roll — Per cent.

1928	57
1929	62
1930	76

Number of names on attendance roll —

January 1st, 1929	41
December 31st, 1930	141

Total admitted from January 1st, 1929, to December 31st, 1930, 7

Number of pupils who after leaving school have been re-admitted during the year, 12

Number of pupils who are still attending school out of 62 whose names were on the roll in 1928, 33.

Number of pupils who obtained:—

50 per cent. or over for attendance in 1928	4
50 per cent. or over for attendance in 1929	3
50 per cent. or over for attendance in 1930	10
50 per cent. or over for attendance in 1930	28

Note.—These figures would be higher if roll call were taken at the end of the hour; only half marks are allowed when a pupil is late.

Although there has been a marked improvement in individual attendance, there still remains many obstacles to the attainment of an average percentage which would meet the requirements of a European Board of Education. The junior classes have the worst record, due to the total lack of discipline in the home which would compel the children to attend school, and on the fact that the children themselves have not advanced far enough to take real interest in their work. The effect of climate must not be lost sight of in drawing a comparison between our record and that of other and more civilized countries. The heavy rains in their season reduce the attendance; petty ailments such as fevers, waxes, etc., also keep many away.

District Schools.—The degree of success which has attended the efforts of the native teachers has varied considerably. Under more favourable conditions than exist in Zanzibar, one would expect a percentage of failures amongst any batch of even properly trained teachers. It is not surprising therefore that amongst the men who applied for posts in 1930, having little knowledge and experience beyond the brief period of their training, a number should prove to be lacking in the fundamental qualifications which go to make a successful teacher. For this reason there is a marked difference in the work of the District Schools.

Lack of inspection has been a severe handicap, more particularly as the work is still in its infancy. But during the past year systematic inspection has been an impossibility, for constant previous action had the teachers been left to their own resources, which in many cases are not very great.

Schools closed.—Three schools were closed: Mwezi, Mwanzi, Pemba and Mwanzi. At Mwezi, the teacher had been called there temporarily with a view to his appointment to Mwanzi—a more highly populated district. But the necessary money for a teacher's bonus at the latter place was not available.

The failure of Mwanzi was unexpected. The fact that the teacher was only called there in February and had to depend on his own efforts alone, proved the worst of it.

Very little progress was made in Pemba. I recommended Matungwezi, but the Government had already been promised a school. This might have succeeded but for the illness of Sheikh Ali, an Imam who gave personal and valuable support during the short time the work was in operation while in life.

Public Schools.—The most satisfactory feature of the District Schools is the success which has attended those at Chake Chake and Wezi. I attribute this in no small degree to the practical interest shown by the Assistant Collector and Livings in Chake Chake the pupils are almost entirely Arab, and each day presents for the third year vigorous test in the last examination passed the required standard. Thus, in the ordinary course of events outside the pupils to begin the study of English, and I have endeavoured to persuade the parents to send their children with relatives in Zanzibar to enable them to attend the Primary School. Up to the present time they have not responded.

There is a possibility, however, that the Liwali of Chake Chake will send his son to Zanzibar in March, an example which may induce the greater confidence of other Pemba Arabs.

Many of them say that they cannot afford the expense, and others are afraid of us as a venture. Next year the advisability of sending an English teacher to Pemba ought, I think, to be considered. There are boys at Wezi who show a preference with those of Chake Chake, and in intelligence compare more than favourably with the Arabs of Zanzibar.

Mangapwani and Mahonda.—The district round Mangapwani and Mahonda has presented rather a difficult problem; it was at these two villages that Government teachers were first introduced, previous to the foundation of the Directorate of Education. The Arabs are very conservative and have keenly resented the sacrifice of their language to English in Latin characters. A change of teachers has had a good effect at the former centre, but at the latter there is no sign of improvement at the time being. I propose to make a change here almost immediately. I shall regret the necessity of closing the school as I consider Mahonda one of the most important Agricultural centres, if we are to combine some simple industrial instruction with the school work in the near future.

Mwambi-Laddu.—The school at Mwambi-Laddu has made very satisfactory progress during the year, and should prove a useful feeder to the Primary and Industrial Schools. Three pupils have already been transferred to the Industrial Section and I hope more will follow when vacancies occur.

South of Zanzibar.—The schools in the South of Zanzibar at the end of the year, showed a decrease on the average attendance at the same period of last year. The reasons have been those already quoted and there are now signs of improvement, more particularly at Mnyuni, where the standard is satisfactory.

Shamba Schools' Attendance:—

	Number of Pupils who have attended during the year.	Names on the Roll in December.	Average Daily attendance for Year.	Average Daily attendance in December.
Mahonda	26	12	9	5
Chake Chake	31	34	18	21
Mwambi-Laddu	54	28	16	24
Wezi	50	38	28	33
Mnyuni	40	30	17.5	16
Mwanzi	45	19	15.5	12
Kilim Kari	26	20	12	12
Mangapwani	37	23	13	12

Instruction.—The instruction in the Primary School has improved and much credit is due to the members of the Staff for the way in which they have educated themselves to working on a prescribed syllabus. There is a great deal yet to be learnt in school method and routine, but the difference in the style and quality of the work seems to prove that the syllabus is on the right lines and that the Government is well advised in refusing any instruction in English until the vernacular standard is passed.

Reading and Spelling.—In the vernacular Schools the standard, although varying considerably, shows steady improvement and may be considered satisfactory. Amongst the smaller boys one finds those who, after several months, are still unable to read any but the shortest words; but this is probably due to the fact that the teacher gives more attention to the upper class.

In the Primary School the third and fourth years begin to read English with intelligence and appear to grasp the general meaning of the passages read.

There are signs that a few of the more advanced pupils are inclined to read simple books outside their class books, but it must be a long time before a real desire to read will be created.

Spelling in the Primary School is on the whole fair considering that it is taught by Arabics who, in talking, fail to make the best advantage of the phonetic value of the words. One not infrequently finds simple mistakes in dictation which may be attributed directly to incorrect inflexion.

In the vernacular, the spelling is surprisingly good in some instances, and even very small boys can spell quite long words correctly. The phonetic rendering of the

languages in Latin characters makes spelling easy and for this reason the standard in dictation is higher than in any other subject.

Writing.—Distinct progress has been made and the style which is being adopted promises to produce a clean, commercial type of handwriting. The remarks made in my report last year are still applicable to the present year. The majority of the native teachers have improved comparatively late in life and at comparatively late hours. They have been further handicapped in that no vernacular text books existed, but now that they are remedied by the publication of a Government series I anticipate that another year will see a more decided improvement. Considering the short time the work has been in progress the standard at Chaka Chaka School may almost be considered excellent.

Arithmetic.—The instruction in Arithmetic in the vernacular suffers from the lack of a proper text book. In German East Africa only has a Swahili Arithmetic been published, and until we have one specially adapted for Zanzibar the subject will always be rather weak. It is a difficult one to teach without a text book, except by a fully qualified teacher.

In the Primary School a marked improvement is noticeable and pupils at last begin to exhibit signs of style in their work. Previously, untidiness was a great obstacle to progress.

English.—Fair progress has been made and the pupils of the third and fourth years begin to write intelligible compositions. The pronunciation is not yet very good, these faults being symptoms which one generally expects when the instruction is given by untrained. The pupils do not open their mouths sufficiently and clip the ends of the words badly.

Better results will be obtained when the teachers realize the value of the judicious correlation of subjects. The natural tendency is to follow the Time Table too closely and to lose sight of the fact that, for example, the reading lesson presents many opportunities for the improvement of the pupils' composition.

Teacher more attention must be paid to recitation. Its value as an aid to conversation is considerable.

Arabic. The standard is very fair and there is a marked improvement in conversation. Writing is good.

Geography and Drawing.—Progress has been made, but the subjects are still weak. Little has been accomplished in drawing beyond the use of pencil and ruler. The pupils of the industrial section begin to possess rudimentary ideas of scale.

In English Medium. Note that the Primary School is on a firm footing with respect of increased numbers, an English master should if possible be put in charge. Without in any way disparaging the work of the present staff, it must be admitted that the instruction in English leaves something to be desired. The better discipline and the presence of a European would make a great deal of difference in the general conduct of the school, and would ensure the pupils obtaining a fair amount of the actual life and a better knowledge of English than they pass up of the school to men that are untrained.

Manual Instruction. There is every reason to be satisfied with the progress that has been made in the industrial portion of the Primary School, and my original and somewhat optimistic opinion, expressed in my report of last year has been largely justified.

The quality of the work is very fair, and several of the pupils can make articles of furniture by using a drawing and make simple articles of furniture without the aid of a drawing. The progress in technical knowledge is not all that I could have wished, but the attention given to exercises while I was in leave was satisfactory, and will probably be largely maintained after the school has occupied the new premises. It is to be regretted that the progress of technical instruction. All the pupils however, and a large number of the more advanced can turn out very fair work in wood and iron and I trust that it will be possible to increase the number of apprentices, so that good outside work can be obtained.

Out of the four carpenters under whom the work is now carried on in the industrial section, only one in the present time can properly carpenter's benches. Until a few more are trained and used in the work has been done on the floor. This frequently necessitates a tedious and tedious in very simple work which could well be done by one hand in a bench and it is to be hoped that the difficulty will be overcome in the course of a few months as the pupils are now engaged in making their own benches.

Carpentry. Instruction in this subject, introduced in October, will be given in conjunction with that in joinery. A Swahili instructor has been employed, since the direct view is to foster the old native art, and to discourage the confusion of Indian and Swahili designs, which has become since an undesirable feature of modern work in the Protectorate.

Tooling.—This section was commenced at the beginning of November, and already several of the pupils show considerable ability. Regular instruction is given in all the elementary branches of the work, beginning with the simple stitches, patching, measuring, drawing and cutting out patterns and gradually working up to the use of the machine.

Arrangements have already been made for enabling me to tender for Government tailoring work to such extent as the present capabilities of the school will allow. It will not be possible for some years to accept the whole contract for the supply of any particular uniform, but if the industrial work is to be of any benefit to the Government, every pupil should have a thorough training in the making of all clothes supplied to the Government employees.

Apprentices.—In the Industrial Section there are now five boys who are about half way through their apprenticeship, so that in July, 1912, I hope to be able to start the scheme, a brief sketch of which I included in my report of last year. This will mean the equipment of a second room where trained apprentices will work in their own time, either at work which they obtain themselves or Government work given to the Education Department for execution. This section should be made self supporting, as in return for the use of the workshop and tools, a percentage will be deducted for wear and tear to cover the expenses of upkeep.

Two apprentices were placed in the P.W.D. Shops at the end of the year 1909, but the experiment did not answer, and the pupils in question were transferred to the Joinery Section in March, 1910.

Difficulties are still encountered in keeping a sufficient hold over the apprentices, and several have given up after five or six months' work. I can think of no way to remedy the evil altogether and it is inevitable that amongst a people, so uneducated and so undisciplined, a considerable percentage do not know their own mind when they apprentice themselves to an industry. Too severe measures would defeat the end in view and prevent pupils altogether from undertaking industrial work. I think we cannot do better than exercise patience in following up the present scheme and when guaranteed a regular supply of applicants; to introduce, say, a six months' trial before any apprentice allowance is paid.

Another disappointing feature is the complete failure of boys who after receiving their elementary education in the Mission Schools have been accepted into the Industrial Classes. They have left, without exception, after a short time; their complaint being that they suffer persecution at the hands of the Moslems. I have made careful enquiries and can find nothing to substantiate their statement. Further, since no complaint has at any time been made either to the Instructor, the Headmaster or to me personally, I am forced to the conclusion that the fault is with the boys themselves and that they lack backbone.

There are now ten pupils under regular instruction in Joinery and nine in Tailoring, and others are waiting to be appointed. It is my intention to limit the classes to about ten pupils in their first year. After a year's work less supervision is required and the instructor is able to look after more pupils. By the end of the present year, I hope to have not less than fifteen pupils under instruction in each class.

Most of the work done in the joinery section during the past year has consisted of small articles of furniture required by the department itself, which would have had to be ordered outside. The value of the furniture made and repairs carried out by the pupils amounted to about 1,000 rupees. I estimate that the turnover will be about double that amount during 1911.

One pupil has been working as an apprentice bookbinder in the "Gazette" Office for over a year, and whether will be placed there shortly to learn compositor's work. But, as a working knowledge of English and Arabic is essential in this branch, there are very few pupils who, having the necessary qualifications, wish to apprentice themselves to a trade.

Industry in Shamba.—I would suggest that it is time to consider the advisability of encouraging some simple industrial pursuits in the Shamba districts. There are many difficulties in the way, the chief of which is the lack of capable instructors; but, if any experimental work in agricultural is meditated I would suggest that it be carried out in connection with one of the schools. I think it

possible, however, that more might be accomplished if an effort were made to develop a cottage industry apart from pure agriculture. A profitable trade is being made on the mainland in bees-wax, and if it can be produced there, it might be a really profitable one. The methods followed up country are the primitive ones of burning and the bees. In Zanzibar our supply of wild bees is not sufficient to sustain this, but it would be necessary on the other hand to domesticate them and endeavor to increase the existing stock.

An experiment in this direction would not cost a great deal of money and if at some of this we could build up a cottage industry I think it would be beneficial to the native and to the trade of the country. The fact that the bees can work the whole year round and that there is an inexhaustible supply of flowers on the cocoanut trees at all seasons, would seem to point to a good yield per hive.

Another industry which I believe is occupying attention on the mainland is silk-worm culture. The mulberry tree has long been used to mark boundaries between chambers in Zanzibar, so there would be no difficulty in obtaining cuttings for planting purposes. I have experimented with a few at Mangapwani. It is difficult yet to express an opinion as to whether the trees will produce a good supply of leaves. They appear to grow rapidly and make a lot of wood, but it will be necessary to experiment on a larger scale to prove whether they will reach the required standard.

Before a decision is arrived at it would be advisable to inspect the work which is being done in British East Africa, in the region of the Lake, to find out what success has attended the experimental work there.

British Indian Subjects.—The permission granted to British Indian subjects, to enter the Government Primary School has given satisfaction to a large section of the Indian community in Zanzibar. Up to the end of the year 30 pupils had been entered on the school roll. Of these 8 were placed in the elementary or vernacular section and 22, who had already begun their study of English, in the primary section. The former is a matter of surprise to me as I had expected that the parents would have kept their children in the existing Indian schools until such time as they were able to pass the qualifying test to enter the primary school. The majority of applications come from the Khoja, Ethnasheri Sect, and numerous enquiries are still being made. It is not unlikely that a fruit will shortly have to be set to the acceptance of Indian pupils.

In conclusion, I may mention that the little that has been accomplished exceeds what I was led to expect would in the opinion of many of the older and more experienced officials of the Government be accomplished in the time. I will quote only one fact which tends to show the increasing confidence of the people. A good deal of tact was necessary at first to persuade the parents that the medical inspection to which every pupil is submitted before admission to the Central School was for their good, and one had to temporise on many occasions. It is now possible to tell them bluntly that there is no alternative, and no pupil has been lost to the school on that account during the past year.

Although an adequate test of the advantages of education is impossible until some of the younger pupils have passed through a complete course of instruction, rearing under the influence of school discipline at the minimum age of eight and passing through each successive standard until they are sixteen or seventeen years of age, the standard of ability is such that there is every reason to hope that a few of the best will see the majority of subordinate Government posts filled by natives of Zanzibar. And I confidently anticipate that even in a shorter time the bulk of the work of Government work in joinery and tailoring will be undertaken by Arab and Swahili workmen.

Annual Report on the Gaols of Zanzibar for 1910.

Establishment. The establishment for year 1910 and that proposed for the year 1911 are set forth in Schedule A. Lack of funds has prevented the increase necessary to bring the department up to date, which increase I asked for in my last financial report. I made private enquiries as regards the possibility of procuring

the services of a pensioned petty officer from the Royal Navy as a gaoler and found that the scheme was perfectly feasible and that there would be several applicants for the post. An increase of Indian warders, the appointment of two or three artisans as instructors are absolutely necessary.

Buildings.—Very little progress has been made with the new gaol and it would appear that several years will elapse before it is handed over as a completed state. Beyond a few sanitary alterations made for the convenience of the female lunatics who are now housed there no change is perceptible in the appearance of the buildings. Meanwhile the old Gaol is deteriorating more and more rapidly and, I presume, becoming more unhealthy every day. None but the most urgent repair is carried out, as we have for many months expected to move out the prisoners and vacate the building. The armoury is now transferred outside the gaol, which renders it unnecessary for any policeman to enter the gaol for the purpose of obtaining his rifle or bayonet.

Weti Gaol is in a good state of repair, but will have to be enlarged considerably when the Chake Chake Gaol is done away with as a Gaol and merely reverts to a Bridewell. The latter has had some minor repairs done to it, but is very unsuitable in many respects for the use to which it is put.

Mkoani Gaol is small but in good repair. It is quite unfit for the reception of prisoners at present.

Mwera Gaol will be abolished as soon as the new Gaol is opened in Zanzibar. Chuka Gaol is nothing more than a native hut and is also due for demolition and replacement next year.

Number of Prisoners.—The number of prisoners confined at any one time in the Gaols of Zanzibar and Pemba work out on an average as under—

Native male adults	1,200
Native female adults	100
Indians and Arabs	50
Civil prisoners	10
Lunatics	10

Employment.—A certain amount of improvement has shown itself in the direction of prison industries, and it has now become necessary to open a separate cash account for the articles made by the prisoners and sold for the benefit of the Government. Coat industry is the principal employment as the material costs are nothing as it consists of the husk of the coconut which is collected on the Government plantations by the prisoners. These husks are buried below high tide mark for some six to eight months, and when they are sufficiently rotted they are dug up, beaten and teased out. This fibre is then ready to weave into yarn, from which we make ropes of all sizes and lengths, mats of any length and in breadth up to 5 feet 6 inches, and for stuffing cushions, etc. All prison clothing is now made in the Central Gaol, and the sewing thus gained amounts to 2000 rupees a month, or, say, 1,200 rupees a year.

The firewood industry is well supported by the Government and uncertainty of obtaining the wood from Pemba on the mainland, but we have some 25 customers on our books who purchase from 1 to 15 tons each per month.

Kangas, rickshaw covers, and other articles are made by the prisoners, and the scheme will be extended as soon as the heavy work of providing all the prisoners in the two islands with their proper work is completed.

The outside work and maintenance of the gaols consists of clearing land, repairing roads, quarrying and other work, and the Public Works Department, as the work done by them is invariably distributed as much as possible owing to the heavy burden of supervision which falls upon the gaol. I hope that it will be possible to do away with all outside work except such as can be definitely procured up, and to confine the prisoners to the gaols, where they will be under strict closer supervision and where their daily work can be measured by every evening.

It was decided during the year that the services of prisoners should be supplied free of charge to all departments except the Public Works Department.

This is now being done. The payment in of course, namely a book transaction. **Lunatics.**—The female lunatics have been transferred to the new Lunatic Asylum (under conversion to the new Central Gaol) owing to the lack of accommodation in the present Gaol. The male lunatics are still, unfortunately, confined in the Gaol.

where their habits and dispositions render it almost impossible to keep the building in anything like a proper state of cleanliness. I have written very many times on the subject of expecting the Gaol Staff to do their duty properly while they are hampered with a number of unclean individuals whose manners are worse than those of any animals, and whose presence is a continual annoyance to the unhappy prisoner who happens to be locked up with them. I must again refer to my remarks in last year's report and ask that something be done to do away with this impossible state of affairs.

Health.—The health of the prisoners has not been as good as might have been expected, and is, no doubt, due to a great extent to the insanitary nature of the Gaol. The percentage of prisoners sick every day in the Central Gaol is 11 per cent. of the total number confined therein. Beriberi seems to maintain its hold over the prisoners, and though we have changed the rice, there seems little, if any, diminution. Every effort is made to keep the Gaol in a sanitary condition, and the whitewashing and disinfecting carried on daily is largely in excess of the requirements of the Decree. Some five prisoners have been released on account of ill health.

The Decree has been adhered to strictly and all its requirements carried out. The books are correctly kept and are up to date. The system with regard to the use of Commitment Warrants has been amplified somewhat, and there is now a register which requires the punctual return to the Court of all Warrants issued therefrom.

A new type of Warrant has been printed, which provides for the finger impression of the prisoner in question on the date of entry and of discharge, so that there can be no impersonation or error.

One execution was carried out successfully this year and, as was the case before, Mr. Crawley, of Public Works Department, and myself had to see to all the details. I think that the time is now ripe for arrangements to be made with the East African Protectorate Government for the hire of the services of their hangman in future executions, as it is hardly fair to require us to carry out such unpleasant duties.

Conclusion.—The Staff has generally performed their duties very well, and the prisons show a marked improvement during the last year. I consider that when the new Gaol is erected and in working order there will be little to complain of as far as the treatment of prisoners is concerned. It is now merely a matter of supervision and time, coupled with an increase in the estimate, will bring the Central Gaol, at all events, into line with other modern gaols in native territories.

(Signed) H. R. CARTWRIGHT.

- Sentence of Death during 1910.**—Nasibu bin Mabruki sentenced at Weiti 18th April, conviction squashed on appeal 11th June.
- Juma Mkate sentenced at Weiti 14th November, executed 7th December.
- Kidnapping.**—No cases during year.
- Serious Crime.**—No sentences exceeding four years were imposed.

(Signed) C. M. Inspector.

21st December, 1910.

(7)

Judicial (Magistrates) Department.

H.B.M. DIPLOMATIC AGENT AND CONSUL-GENERAL,
Herewith I have the honour to forward the annual reports (for 1910) of the Town Magistrate of Zanzibar (Mr. G. T. Sills) and the Town Magistrate of Pemba (Mr. W. F. L. Braidwood).

It is impossible for me, in view of the fact that I only arrived in Zanzibar in November last, to adequately comment on either of these learned gentlemen's report, which, as regards suggestions, seem practically identical in effect. As at present advised, I am inclined to agree with them upon their remarks as to knife carrying, but I do not, for the time being at all events, see any effective remedy.

I agree, further, with their criticisms upon assistant collectors, in fact I propose to enquire as strictly as I may into this question.

I absolutely and entirely disagree with the Town Magistrate's views as to a transfer of the probate work to the Attorney General's Department. It is already in his Department, but the Town Magistrate, as also being in that Department, immediately supervises the work. It would be a mental and physical impossibility for the legal member of Council to do so. I think the only possible solution of the difficulty referred to (if such there be) would be the appointment of a qualified person as administrator General, who should hear claims, and in cases of dispute and administration work, who should hear claims, and in cases of dispute (controversial matters being considered by a Town Magistrate except in his judicial capacity) undisputed cases he would deal with as before.

As I have said above, I refrain, for obvious reasons, from further comment on these reports.

P. S. J.

31st January, 1911.

Enclosure 1.

Town Magistrate to Legal Member of Council, Zanzibar

Town Magistrate's Court

Zanzibar 24th January, 1911.

Sir,
In Zanzibar the number of criminal cases tried at the Magistrate's Court has increased from 723 in 1909 to 1,048 in 1910, and the fines and fees collected have increased from 1,240 rupees to 1,623 rupees.

There has been 21 cases in which the sentence has been 12 months or over. There has been no case of murder, but there have been two cases of homicide not amounting to murder, in one of which the sentence passed was 3 years B.P., which is the longest sentence of the year.

The majority of the cases are not serious, the petty petty cases consisting of theft, house-breaking, and possession of stolen property.

There have been several cases of wounding, the custom of carrying knives makes the commission of this class of crime an easy matter.

The police have recently adopted the finger print system, which under Inspector May's supervision is proving of the utmost value; the police do their best work, and Inspector Nariman prosecutes fairly and well.

The work of the Court has proceeded in a satisfactory way and the Staff work well.

The Magistrates wish to draw your attention to the question of Assistant Magistrates. Assistant Collectors are second class Magistrates under the C.P.C. Act, Section 14 of the Zanzibar Court Decree of 1906 gives them power to try cases in which the maximum punishment is seven years, but they cannot in these cases give more than six months imprisonment.

The Magistrates recommended that this section be repealed, and that the jurisdiction of the Assistant Collectors be confined to that of second class Magistrates, and that their sentence be subject to revision by the Magistrate.

It must be remembered that the Assistant Collectors have had no legal training. The Magistrates consider that this alteration is absolutely necessary.

Under Section 391 B.C.P.C. an accused person cannot be sentenced to whipping and imprisonment unless the term is three months or upwards. The Magistrates estimate there are many cases before them in which whipping and imprisonment ought to be inflicted but for which the sentence of three months is excessive.

Civil Matters.—The number of cases tried by the Town Magistrate (with a 1910) against 673 in 1909. The number of civil cases tried by the Magistrate and two Cadias sitting together has decreased from 66 to 45; the decrease is probably accounted for by the fact that there is now a Magistrate in Pemba. But the number of appeals to the Court for Zanzibar and Pemba has been increased from 9 to 16.

Probate and Administration.—There have been 199 probate cases dealt with in Zanzibar town district in 1910, the estate duty received amounted to 10,693 rupees and the probate and administration fees received to 5,075 rupees 39 cents.

The Magistrates would be glad to see the probate work transferred to the Attorney General's Department.

During the vacancy in the office of Probate Agent for six months, and now again during the Probate Agent's absence on leave, the work has been and is being efficiently done by Mr. Kpeka.

The permanent establishment of a Magistrate in Pemba has proved of great value to the Administration of Justice there, but the Court building at Weji is quite insanitary and there is a considerable difficulty in housing the Staff there.

Mr. Braidwood is writing the Pemba report.
Mr. Reed is now on leave.

I attach a table showing the number of cases in the various courts.
I have the honour to be,
Sir,
Your most obedient servant,

GEORGE SILLS, Town Magistrate, H.H. Court.

To The Legal Member of Council, Zanzibar.

TABLE showing the number of Civil Cases heard in H.H. Courts.

Courts.	1909.		1910.	
	Cases.	Rs. Cts.	Cases.	Rs. Cts.
Supreme	3	100 00	6	200 00
Zanzibar and Pemba	66	1,173 00	45	987 00
Zanzibar Appeals	9	59 00	16	129 00
St. Burhan	96	44 00	106	154 00
St. Tahir	159	302 50	306	422 50
St. Ahmed	79	102 50	168	163 50
St. Ali	270	334 00	415	585 00
St. Nasir	69	56 50		
Mwera	323	378 00	267	315 00
Chwaka	213	184 00	738	540 00
Mkolotoni	290	291 00	412	377 50
Mkolonduchi	192	312 00		
Bankruptcy	6	28 00	8	40 00
Miscellaneous fees		995 00		1,460 50
Total	1,775	4,599 50	2,487	5,468 00
Criminal Cases—Magistrate	723	1,240 00	1,048	1,623 00
Total	723	1,240 00	1,048	1,623 00

Enclosure 2.

Court for Zanzibar and Pemba.

Pemba Report for 1910.

During the year the sittings both of the Civil and Criminal Courts were held only once at Chake Chake and Weji.

Civil Cases.—The number of cases heard in the Court for Zanzibar and Pemba was comparatively small, 36 in all, of which 10 were appeals from the Cadis Courts.

The cases are almost invariably concerned either with the title to or boundaries of shambas. Under existing circumstances these cases frequently present almost insuperable difficulties, and I am of opinion that the only final solution lies in the compulsory registration of title and erection of boundary stones.

I consider it most advisable that the mind of the people should be disabused of the prevailing idea that the registration of a deed of conveyance gives an indefeasible title.

Cadis Courts.—During 1910 the number of cases was as follows:

Weti	1,527
Chake Chake	1,524
Mkoloni	208
Total	3,259

At Mkoloni there are 23 cases still unfinished owing to a hiatus of four months in the middle of the year, due to delay in the appointment of the present Cadis.

At Chake (Chake and Weji) there are no arrears, a great improvement upon last year, when 2-1 cases were unfinished at Weji alone.

It may be borne in mind that 1910 represents the first year in which there has been a professional Magistrate in Pemba, and that the people being extremely primitive continue to apply to the Cadis Courts. There can be no doubt, however, that they will tend more and more to avail themselves of the opportunity of suing in the Magistrate's Court in which case it may be impossible to cope with the work.

Criminal Cases, Court for Zanzibar and Pemba.—As will be seen from the appended list, the cases heard totalled 276. The majority of these were comparatively trifling, consisting largely of petty thefts and assaults.

The most serious feature, however, is the prevalence of savage violence.

There were three charges of murder in one accused was executed, in another accused was convicted but acquitted on appeal.

In the third case the verdict was not guilty.

In addition there were four sentences of twelve months and upwards for voluntarily causing grievous hurt during the last three months of 1910.

The custom of carrying knives is unquestionably responsible for this violence, and should if possible be dealt with.

"Escape from lawful custody" reaches the surprising total of 30. I am personally opposed to severe sentences for this offence. I can see nothing in Malan's book to the contrary, and its frequency proves that the cause of its commission constitutes a perpetual temptation.

Debtors' Courts.—During the year the sums heard by the Assistant Collectors were:

Zanzibar	122
Weti	122

I have gone carefully through the lists of cases and sentences, and in some instances have imposed the fine.

If assistance be made for the complete absence of legal training possessed by the Assistant Collectors, the work has been fairly satisfactory.

On the other hand the sentences in many instances have unquestionably varied on the wide of severity, and in others the accused have been convicted on insufficient evidence.

I am, therefore, sending for consideration to the Hon. the Attorney General of H.H.M. Court.

I find several many instances for Assistant Collectors have imposed the punishment of flogging on the "F.C." and subsequently direct sentences of imprisonment with hard labour for terms of less than 3 months.

As at this stage time I consider that to that country the application of this section is a mistake, and beg to draw your attention to the advisability of removing the restriction.

Finally, I am very strongly of opinion that an Assistant Collector should have wider legal powers than those of a third class Magistrate under the Criminal Procedure Code.

Probation efforts are now being made for the proper closing and general supervision of estates administered by the Courts.

A great deal must inevitably be left to the Probate Clerk, personal inspection of these shambas by the Magistrate except in a few instances, being impossible.

I would also draw your attention to the anomalous position created by the Magistrate being the head of the Probate Department. It becomes his duty to

of cases made upon cases adjudged by the Court, and if legal proceedings were held, it is the case.

In 1900, the Magistrate administered 168 as compared with 67 for the previous year. The total duty and estate fees amounted to 2,564.87 rupees and 214 rupees respectively, as compared with 3,562.60 rupees and 67 rupees for 1900. The amount received in the estate duty is due to the inclusion in 1900 of many cases from previous years.

In writing this report it is unfortunately impossible to make satisfactory comparisons with 1900, as there is no complete record for that year. There can however, be no doubt that great advance has been made in the systematic performance of the judicial work in Pemba.

I have the honour to be,

Sir,

Your obedient servant

W. F. L. BRAIDWOOD, *Town Magistrate, H.H. Courts, Pemba.*

To The Legal Member of Council, Zanzibar.

Enclosure 3.

Report on Criminal Cases tried in H.H. Court, Pemba, during the Year 1910.

Nature of Charge	No. of Cases
Assault	42
Criminal intimidation	3
Adultery	1
Criminal breach of trust	2
Criminal breach by public servant	2
Infringement of Tembo Kali decree	29
Theft	54
Voluntarily causing hurt	15
Lurking house trespass and theft	3
Escape from custody	30
Drunk and disorderly	8
Being in possession of stolen property	5
Cheating	2
Secrecing and destroying document	1
Infringement of fire and arms regulation	1
Murder	1
Gambling	1
Maintenance	1
Abetment	1
Mischief	1
Mischief by fire	1
Infringement of—	
Consolidation of laws decree	8
Public health decree	3
Prison decree	1
Weapons regulation decree	7
Cruelty to animals	12
Infringement of Police decrees	3
Attempted rape	2
House trespass	5
House breaking	3
Bribery	3
Public servant receiving gratification	2
Vagrancy	1
Threat of injury to public servant	1
Intentional insult	2
Furnishing false information to Police	1
Disobeying an order of public servant	1
Refusal to answer question	1
Breach of duty by Police	2
Refusal to maintain wife	2
Wash driving	3
Trespass	1
Criminal appeal against judgment of the A. C. Mchao	1
Total	275
Criminal cases tried by the A. C. Mchao	224
Criminal cases tried by the A. C. Mwa	163
Grand total	663

W. F. L. BRAIDWOOD, *Magistrate, Pemba.*

Enclosure 4

Report on Criminal Cases tried in H.B.M. Court, Pemba, during the Year 1910.

Natural Charge	No. of Cases
Aggravated	1
Cruelty to animals	1
Theft	2
Drunken	1
Whipping	1
Refusal to attend in answer to summons	1
Fugitive for purpose of shooting	1
Not maintaining light	1
Gambling	1
Receiving stolen property	1
Disobeying order of Court	1
Perjury	1
Infringement of Tembo Kali decree	1
Causing hurt with dangerous weapon or means	1
Causing grievous hurt	1
Drunk and disorderly	1
Infringement of—	
Consolidation of laws decree	13
Public health decree	1
Agricultural provisions decree	1
Criminal intimidation	1
Criminal breach of trust	1
Bribery	1
Saltatory	1
Infringement of Customs, Port and Shipping Regulations	1
Interference with Police	1
Outrage of Court	1
House breaking	1
Intentional insult	1
Receiving a stolen weapon	1
Adultery to conceal offence	1
Infringement of building decree	1
Obstruction or disturbance by judgement-debtor	1
Disobedience to the order of public servant	1
Escape from custody	1
Total	30

W. F. L. BRAIDWOOD, *Magistrate, Pemba.*

Medical Department.

Principal Medical Officer's Report for 1910.

Summary.—The general health of the European community in Pemba during the year has continued the improvement recorded for 1909.

Four European children were born in Zanzibar during the year.

No deaths occurred amongst Europeans.

In Chaka Chaka, Pemba, (Charles McMichael, John Gunning, Collector and J. Mack water fever is fatal).

Commoner ailments.—Digestive disorders with acute intestinal and other febrile conditions cover the majority of ailments amongst the European community.

The satisfactory diminution in the number of cases of malaria, in which we drew attention last year, has certainly been maintained. In former years the incidence of malaria was noticeably greater in the months of May and October, during the last few years the greater number of cases amongst Europeans have occurred during January and February.

Involving of officials.—No officials were involved here during the year.

Arising out of Mr. Gunning's respectable death a rule has been established that officials shall be medically examined on the completion of each period of residence.

earning privilege leave (i.e. after 20, 25, and 30 months) as to their fitness to remain longer without home leave. Further residence against medical advice to be at the officer's own risk.

Notices. Registration of Deaths.—According to the Public Health Department's records the deaths in town and suburban districts during the year numbered 1,363, an increase over the total for last year of 209. This increase may partly be accounted for by more accurate investigation and registration of deaths, but the epidemic of small-pox must also be taken into account and an apparent increase in number of deaths from phthisis and diarrhoeas.

It still seems impossible to arrive at even a fair estimate of the population of Zanzibar town and island, so any attempt to work out a definite death rate from the figures we have is ridiculous. The most recent "census" gives the population of Zanzibar town and suburbs as 40,000. If this is so the death rate for 1910 works out at 34.07 per thousand, a terrible and unreasonably high mortality figure.

Conversation with some of those appointed for census taking in shamba districts shows their want of instruction in their duties and the whole-hearted horror of the natives at any such investigation which they believe can only result in a further increase in Government taxation.

Zanzibar Government Hospital.—It was with regret that last year we had to record a marked diminution in the number of patients attending hospital.

The figures for the last few years are as follows:—

Year	In Patients	Out Patients	Total
1907	902	5,743	6,645
1908	1,295	7,089	8,384
1909	1,050	6,168	7,218
1910	1,169	5,771	6,940

For in-patients this shows for 1910 a meagre increase of 119 over the total for 1909, but still 130 fewer than in 1908.

Of out-patients there were 337 fewer than in 1909 and 1,318 fewer than the total for 1908.

In our last annual report we recorded some of the main causes for this most regrettable falling off in hospital attendance, which had gradually been increasing in the most satisfactory manner, and we believe these conditions are still operating as a harmful and deterrent influence.

Deaths among in-patients numbered 51, a mortality of 4.3 per cent. of patients admitted (the corresponding mortality was 5.5 for 1909, 3.1 for 1908, and 2.0 for 1907). The decrease of 1.2 per cent from last year's mortality is fairly satisfactory, but still patients come in or are brought in by the police in the last stages of disease, instead of voluntarily applying for relief in the earlier days of their illness.

No notice has been taken of our annually reiterated request that *Isolation Rooms* must be provided in connection with the hospital. Cases where there is suspicion of small-pox, leprosy, or other infective condition, have to be temporarily housed in the mortuary until positively diagnosed. Patients with filthy diseases, stinking ulcers, venereal lesions, etc., etc. have at present to be admitted to the general wards or put into the small room, already inadequate as regards room space for surgical out-patients.

As little notice has been taken of our repeated request that a ward should be constructed in connection with, but separate from, the main building of the hospital for the accommodation of *Female Mahomedan Patients*. It seems altogether disproportionate that of 722 general in-patients for the year only 21 were female, a proportion of 1 female to 34 males.

Staff.—Dr. Macdonald, P.M.O., acted as M.O.H. from 1st June to 10th August during the absence of Dr. Spurrer on leave. Dr. de Souza, M.O. of Pemba, returned to Europe on four months privilege leave in May, his work in Pemba being undertaken by Dr. Nariman, House Surgeon to the Zanzibar Government Hospital. In October Dr. Macdonald, P.M.O., proceeded to Pemba for over a month, enabling Dr. Spurrer to leave for Bombay for his six months' leave.

Dr. de Souza returned in November, having been granted an extension of two

Miss Taylor went on leave from January to July, and on her return Mrs. Ziercher left for her six months' leave in August.

Miss Davies, of the Army Nursing Service Reserve, who was appointed a Government nurse in January.

Miss Cadman, of the Colonial Nursing Association, who previously examined the six nurses sent out by the Foreign Office in 1907 for plague work, was appointed in February. From April to August she visited the Chiko Chiko Hospital, returning to Zanzibar when Miss Taylor returned and proceeded to Pemba.

We are extremely fortunate in obtaining the services of Miss Cadman, who for many years was matron of the Unassisted Mission Hospital in Zanzibar and thoroughly knows the native language and local conditions.

The work of the nurses has been excellent though at times their duties and long hours have been extremely trying. It is absolutely necessary that we should constantly have a staff of three nurses on duty at the hospital, two by day and one at night. Without a staff of four, knowing of our being short of one nurse, have done special work at almost four o'clock this has not been done, but frequently resulting in two nurses unduly tiring to perform the important task of working both day and night.

The work of Dispensary assistants has been so that could be best done if it were possible that we should have three dispensary assistants, as if there is only one or two for more than two and this work becomes sooner than when one or two present two dispensary assistants have to do the work of three and the work is consequently being so changed compounders are not able to do their work properly and leave the stores. We draw attention last year to the fact that the stores were not kept in good order without these compounders and the stores were not kept in good order. We have since had these compounders and the stores are now in good order and the stores are now in good order.

Shamba Dispensaries.—The number of patients attending these by the natives in the latter half of the year was 1,000, and the number of patients attending these dispensaries the number of patients attending these dispensaries.

Climate (Comparative) Zanzibar
Windward Coast (Zanzibar)

1907
1908

is very different to that seen for other years sufficiently to be said to be reliable, and still harder to find now with our gain the conditions and the help of the natives.

Commoner Diseases amongst Natives.—Cases of dysentery, by-product, various forms of diarrhoea, abdominal and malaria give the highest incidence, followed closely by venereal diseases and淋病 in various forms.

Police. The general health of the police has shown a distinct improvement, many who were old and weak have been discharged, and the medical examination of recruits seems to have helped to create a physically sounder body of men. 206 of these applying were reported as well.

The rate regarding the fitting of these men while investigated from duty by general disease still remains, in spite of our criticisms and recommendations, a low but annual and is a special report.

For more than five years we have advocated the desirability of housing the whole or even a part of the police in military huts with their wives and families, where regular medical inspection of themselves and their quarters could be carried out. It would appear that we are to proceed with this in detail.

Children of Natives.—We have repeatedly and for many years drawn attention to the existence of such a large number of these children, and as often suggested their being institutionalized, or at least the removal of the girls from their homes where they were abandoned, so as not to be taken into their homes. In your report before they had even been considered.

Epidemic Diseases.—It is anticipated that the epidemic year 1911, by securing a better standard of health for the European troops have mainly been carried out, and that the public health has benefited. Last year we had to record the death of two European light troops this year there has been no fatality and little sickness.

King's African Rifles.—Part of the two companies, Shikano and Nandi, were quartered here.

The Nandi's very healthy company suffered severely from malaria and in August were relieved by a company of African Rifles. Amongst the Shikano, whose

cooking bands lay nearest to the latrines, and was infested by flies, amongst the many cases of dysenteric diarrhoea. The greatest incidence of disease among the African prisoners was prevalent. In October these prisoners were moved by Anzani and Alagani to the new camp, and their health has been very poor since.

During the year the number of Asiatic cholera cases among prisoners was 265, a monthly average of 22. In June 1939 the number were 62 and 562, in November the figure had fallen to 49 after the arrival of the Anzani and Yao companies.

Amongst those living in the lines, a matter of some 450 to 460 persons, there occurred six deaths, two Asiatic cholera, one phthisis, three women (from dysentery, post partum haemorrhage, asthenia), and one child (from enteric fever).

It is very disgraceful that on so many occasions the water supply to the lines has failed and the womenfolk have been forced either to carry water in tins and jars from the Mnjai Moja hydrant, a distance of about three-quarters of a mile, or to draw water from the low lying polluted surface wells in the Ziwanii hollow.

The Medical Board appointed to inspect the Ziwanii site for the K.A.R. line on two conditions, first that the Ziwanii swamps were drained, secondly that a constant and copious water supply was laid on to the lines. Neither of these conditions has been fulfilled. Although there is no longer a sheet of water in the swamps as in former days, still puddles containing Anopheles larvae are frequently found, and, as we have stated, there have been frequent occasions when there was not a drop of water in the lines. That a community of more than 450 men, women, and children should be stranded without a drop of water for personal and cooking purposes, far less for cleaning clothing and huts, is disgraceful.

Government School in Zanzibar. All boys entering this school are medically examined and their physical condition reported upon. Only those bringing forms certifying them to be paupers are now treated free at the hospital.

Government Prisons. European and Indian Goal. This building, and the health of the prisoners continues to be entirely satisfactory. The building is lofty, airy, well lighted, easily kept clean and never overcrowded.

The condition of the *Native Goal* is very different.

In our annual report of four years ago we condemned this building and showed the impossibility of entirely remedying its most unwholesome structural defects. We have vainly drawn attention to the high rate of sickness occurring in this building in both annual and special reports. The discovery of the truth of our statements and of the gravity of this excessive amount of sickness has fallen to the recently appointed Prisons Visiting Committee, and we most heartily wish that they may succeed in getting the hearing which we have failed to obtain. Arising out of minutes laid from the Governor of Goas and the Visiting Committee with regard to this sickness, we recently wrote fully on the matter and suggested remedies to which we believe would help to reduce the amount of illness; we were asked to reduce necessary alterations to as small a cost as possible as a new native Goal was soon to be built. None of even the small additions and alterations which we suggested have been carried out, though we presume the new building will not be completed within the next eighteen months.

Most of the deaths occurring amongst prisoners are from dysenteric diarrhoea, ber-beri, and debility.

In connection with the etiology of ber-beri, which appears to be endemic within the building, it is interesting to note that in addition to the walls of the cells being infested with bugs it was found that the coir sleeping-mats recently supplied to the prisoners also contained many. Recent research has pointed out the possibility of the bed bug being responsible for the conveyance of ber-beri.

The infection of Kibungani Asylum was more or less completed during the year, but it has since been determined that this building with the surrounding plot of land is to be utilized for the new prison. It would appear that this building was designed with rain water cisterns for its sole water supply, and it was only with difficulty that our request was acceded to that no further money should be spent on the extensive additions until water-pipes were laid up to the site and a constant and copious supply of water was assured.

A constant supply of water is absolutely essential for the free flushing of all latrines, urinals, showers, etc. for drinking and cooking, and for the washing of prisoners and their clothing. This Kibungani site being at some elevation we cannot help doubting the adequacy of the present pressure to supply these demands. We do not forget the assurance of an ample supply of water to the K.A.R. lines at

Ziwanii, and the fact that a much higher elevation than this neighbouring Kibungani site is to be provided for these lines to which attention has already been drawn. It is now necessary to ensure that when the pump and water tower are installed the water supply will be a simple matter by means of a lift, and to ensure that the water supply is sufficient to carry a sufficient surplus supply up to the K.A.R. lines as well.

The present old prison being close to the sea shore, the prisoners go down at least once daily to bathe in the sea, there being no provision for fresh water bathing within the building, they require during the day for defecation, etc., and the disposal of excreta from the toilet provide does not involve carriage for any great distance. But the Kibungani site, some considerable distance from the sea, and the disposal of excrement and of the drainage from the latrines, etc., will be a matter of some little difficulty.

Provision must be made for proper fresh water bathing arrangements, but water only being insufficient. As the pressure through the supply pipes is low, we strongly advocate the continuance of the City Council system for supply, and we strongly oppose the suggested water-tower and fixture in the system of sewerage, waste-water, and an experiment which we do not feel it attempted on a similar scale.

Prisons. For long the East African Legislative Council have protested against the housing of inmates in the lines. In 1935 the system was designed, a decision at Kibungani was made, and the building was started. The building, such as it was, was completed in 1936, and the inmates were moved there. It was stated that both a new Goal and a new building should be provided for the inmates. As we have stated, it is believed that the building is not yet completed.

We do not agree the suggestion that the building should be used for other purposes, and we wish to state that the building is not yet completed.

In November the East African Legislative Council have written to the Secretary of the Prisons Department, and the Council have expressed their views on the building, and the Council have expressed their views on the building, and the Council have expressed their views on the building.

European Prison Water Supply. We have with great appreciation the number of cases of typhoid fever which have occurred in East Africa, particularly in this district, particularly in the last few years, and we are sure that the Council will be most anxious to see that the building is not yet completed.

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We are at present engaged in these lines, and we have been asked to reduce necessary alterations to as small a cost as possible as a new native Goal was soon to be built. None of even the small additions and alterations which we suggested have been carried out, though we presume the new building will not be completed within the next eighteen months.

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St. Joseph Hospital—with the utmost regret that we have seen this big hospital closed down at the end of the year owing to the Government refusing to continue the expenditure of an adequate contribution to the same sums offered by the Eastern Telegraph Co.'s staff, the various European business firms, and private individuals to enable the Roman Catholic Mission to continue its hospital and nursing work. This attitude on the part of the Government is all the more extraordinary when one remembers that the British Consul-General in 1908 recognizing the right of the large European community in such a climate as that of Zanzibar to a thoroughly well equipped hospital, summoned a medical board to consider the advisability of building a new hospital solely for Europeans, and this at a time when both the St. Joseph's and the Universities Mission Hospital were open and prepared to receive European patients. This Medical Board gave it as their opinion that the potential accommodation of these two existing hospitals was sufficient for present requirements, and that the St. Joseph Hospital for many reasons was the more suitable of the two. The Board was then instructed by the Consul General to state what alterations this hospital required to make it thoroughly satisfactory for the accommodation of Europeans. The Board reported fully their views as to the alterations in management, staff, etc., necessary, the requisite structural details being gone into fully with the assistance of the Director of Public Works, who drew up an estimate. We do not know the ultimate fate of this scheme, or the correspondence, or of the estimate, but suppose that they were forwarded to the Foreign Office.

Since that date the Universities Mission has reduced their nursing staff to the minimum requisite for their mission members only.

We are now deprived of any hospital accommodation for officers of the superior staff of the Zanzibar Government, of British Consulate and Court, of the King's African Rifles, or for any of the large European community, or for any of the Goanese Parsee, Indian, Arab, and other communities.

With the existence of the well equipped Government hospital for all subordinate and native employees of the Zanzibar Government, and for any poor native of these islands who cares to present himself for treatment this want of any hospital for better class patients is manifestly an unjust and short-sighted policy.

Without considering the many cases of malarial fever, liver and other digestive troubles, minor surgical operations, etc., which naturally are much more satisfactorily controlled and treated in a hospital, we have during the last few years had amongst the European community alone cases of black water fever, acute malarial, rheumatic fever, typhoid fever, abscess of liver, sunstroke, phthisis with hæmoptoe, appendicitis, partial dislocation of neck, Bright's disease, intestinal obstruction, ovaritis with perforation, tubercular migration of bowel, rectal fistula with ulceration, perinephritic abscess, complete urethral stricture, pneumonia, dysentery, various midwifery cases, mental disorders, heart disease, gunshot wounds, fractures, amputations, severe ophthalmic diseases, all conditions which most emphatically could not have been treated except in hospital. In this list we make no mention of infectious diseases, many cases of which have occurred in the past.

It is perhaps not for us to point out how serious the want of any hospital might be to British men-of-war on this station whose sick would have to be taken to Daressalaam or Mombasa.

Resident patients of private practitioners in Zanzibar will be compelled to travel elsewhere to obtain hospital treatment, possibly when critically ill.

G. A. MACDONALD, F.M.D.
H. CURWIN.

(8.)

Police Department.

Annual Report on the Police of Zanzibar for 1910.

The progress mentioned in my last report has been well maintained and the police are in a fair way to becoming an efficient body of men. It is now only a question of time and continued training to make them as capable a body as can be expected.

No change has been made in the organization outlined by me in my last year report nor do I think any eighteen months' experience that it can be bettered. I have received a considerable number of expressions of satisfaction from members of the Government and other individuals and collectively they are of opinion that the efficiency of the men during the year 1910 was the best since the general tendency of most of the Swahili to accept police work is in the highest proportion, training would not very rapidly.

The non-commissioned officers are extremely good and should be retained from the preceding indentments. I have invariably found them energetic, reliable and with a keen sense of duty. The recruits are responsible for most of the trouble in the Force, and take several months before they acquire the necessary working their work will not be tolerated on any account.

Inspectors May and Northman have looked me up several times. Although working in most trying circumstances with longer hours of duty than they should necessarily have in this climate, and hampered by the ever present claim that they were given by them, through the stupidity of the man whom it is given, he neglected or had neglected. I have never found it necessary to complain of any lack of attention to current and instructions. The subordinate inspectors, and sergeants have also done their duty well and I have no reason to think that any other system of discipline will be so successful as that now in force.

Establishment—The establishment for the year 1910 and that calculated for the year 1911 is shown in Schedule "A." I do not mention that the normal staff is an adequate staff for Pemba, Zanzibar increasing in Pemba as regular service cannot be supplied here and elsewhere, and it will be necessary to draw from the reserve force considerably. It will probably be necessary to draw the Assistant Commissioner there on for a few months in April next. The present establishment on Pemba is a considerable one, but has not been fully employed and with the increased number of British and Somali Police owing to the augmentation of the Water, Customs, and Excise Police, there is less need for them. I have now Indian and Somali Police who are available for duty anywhere in the islands though it is usually advisable that they should be confined to their special duties as much as possible. The establishment in Pemba has been increased by a sub-inspector and a private officer, and has exceeded by 100 to increase to Pemba for 1911 but owing to lack of funds they are not being posted.

Staff—There is no special complaint to be made of the staff and duties of the staff as outlined in my last report.

Amalgamation—The amalgamation of the Police in Zanzibar was a very important step and one that should have been carried out with more care and more in fact, but the amalgamation has been carried out with some success, and the amalgamation with the Zanzibar Police is now complete. The result has proved the wisdom of the step, as there has been no friction, the men prefer the change, as they are now in a definite line and no longer uncertain of their powers, they are better equipped, and more regularly equipped, and they can always obtain advice or instructions on legal questions which are decided themselves during their spare time.

The Indians from the Customs and Excise for the transfer which were made that the station was organized to them. The founding of the Police Force under the Police Department of 1909 took place on August 1st and the first amalgamation did not take place till then, and was only brought about by the fact that the only way of getting it done being to get it done under the Police Force, to be put on the same staff and to be under the same staff, which was the only way of doing it. A considerable number of men have been transferred by the amalgamation, as in several places there were Police Force men who had been Water Guards within a few days of each other, and the result was that they had only a few days to the acquisition of any other kind of police duty.

For example, at the Bank Street at Mombasa there were the Customs Force, and one that no definite grade were reached there, one Water Guard to see that they were kept, which happened to be there, and one Water Guard to see that they were kept, and one that there was no breach of the peace in the adjoining streets, and a corporal and three men of Bank Guard. The Bank Guard was removed and the work of these seven men is now being done just as efficiently by one policeman. Similar instances occurred at Fungwi and Mwanibale and in connection with the markets.

The amalgamation added to my numbers—

Water Guards—	18
Somali	36
Swahili	
Market Guards—	49
Tobacco	11
Sinhalese	
Customs Guards—	36
Indian	15
Swahili	
Total of all ranks—	132

Barracks.—Nothing further has been done in connexion with the erection of barracks in Zanzibar Town. Those at Wehi are in course of construction.

Crime.—I attach a Schedule "B" showing returns of (1) complaints, 2 persons arrested or summoned, and (3) persons convicted, with a statement of the value of that recovered for the two islands of Zanzibar and Pemba for the year 1910.

There were two cases in which the death sentence was pronounced etc. There were no cases of kidnapping, etc.

Other serious crimes were culpable homicide, assault with dangerous weapons. The detective branch, as well as the police generally, have shown a marked improvement, and if they continue at the same rate of progress they will become a very efficient body of men.

The prosecution of the more important cases in Zanzibar Town has been generally carried out by Inspector Nariman, who has performed his duties exceedingly well, and who has gained the approval of the Town Magistrate on many occasions. The petty cases are generally taken up by Sub-Inspector de Souza, who has also done well.

The easy method of proving previous convictions by means of the Fugate Print Bureau, under Inspector May's charge, has shown itself to be of the greatest importance, and as a means of prevention of crime is unequalled. This sub-department should on no account be allowed to drop or become neglected as in years to come the utility of it will become more and more evident—I will refer to this later on under its proper heading.

I must again repeat what I said in my last report about the necessity for heavy sentences in the majority of theft and house-breaking cases. The natives do not appreciate leniency, and merely construe it as a sign of weakness on the part of the Magistrate. The beneficial effect of severe, almost too severe, sentences was shown during the few months Mr. Braidwood was acting as Town Magistrate. Instead of taking the cases summarily he, at some cost of time and trouble, sought to hear them under Section 257 of C.P.C., and when previous convictions were proved against old offenders sentences of appropriate severity were inflicted. The result was an appreciable improvement in the decrease of crime and a very wholesome dread of his sentences was widespread throughout the native quarter of Ngambo. With other Magistrates it has been necessary to apply for revision in several cases and the sentences have invariably been increased. When the Judge who revises the sentence, and the Commandant of Police who applies for revision, are equally convinced that the sentence is inadequate, there would appear to be something wrong in the reasoning of the Town Magistrate who imposed the sentence in the first place.

A certain amount of rioting took place on 9th and 10th November among the Manyema over an arrest of one of their numbers on petty charge of theft at an Indian shop, but it was soon put down. Forty arrests were made, and there has been no renewal of the disturbance. The behaviour of the police on this occasion was very good.

The policy of lighting the dark lanes and alleys where the Government is unable to compel any householder to erect lights is being continued.

Formerly the police avoided such places at night, and it was with the greatest difficulty they could be made to patrol them. This hindrance to the prevention and detection of crimes is rapidly disappearing.

During the year I drafted in rough form Decrees relating to the protection and discipline of masters and servants, but nothing further has come of them. These decrees are preserved practically by all the firms in the town, and little or no effect has been made to ascertain at the time the article is offered for sale whether it is the bona fide property of the vendor. I proposed to close all workshops at night to compel the artificers to work in their front rooms.

This raised a storm of protest from some of the European community who had, probably, not suffered any loss of property and were therefore not particularly interested in the subject. Some drastic measures must be taken as it is impossible to allow the universal presence of public peace to continue. Jewelry has in the street is never removed or treated as again. Articles such as gold official badges are stolen with impunity and melted down by the first goldsmith approached by the thief. In one case only half an hour elapsed between the theft of a gold bangle and its conversion into a worthless metal lump. The Master and Servants Decree proposed by me on the grounds that there exists an amount of unpaid servants for any definite period not of punishing them if they refuse to enter their agreement of indent also and with employers. The employers who over pay and under-work their servants and their servants who have no other means of livelihood. The Decree would be a benefit to both the employer and equally to the servant as he would have some means of providing himself with equal remuneration of wages. I am sure without the slightest delay the Decree will be passed.

It is a curious circumstance that in the month of August of some of the persons in whose houses the furniture and personal effects were stolen. I think it is a very curious thing that the same persons were not the victims of the same crime. I do not see why this should be the case. I am sure that I will be able to do so.

The Decree ought to appear in the next issue of the Gazette. I have any advantage which does not pertain to the case.

A "Minor Offences" Decree is now under consideration. It will deal with the numerous petty offences which are at present dealt with by the courts and would be dealt with by magistrates. It is a very important measure and will be the preservation of offenders under the Public Health Act. It is a measure which has been suggested by the Health Department at the request of the Acting Magistrate. It is a measure which was found that it was impossible to continue to deal with the work of the courts.

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Depôt.—The Depôt is being conducted on the same lines as hitherto, and, but for the constant demands made on it for men to fill vacancies among the trained men or to carry out some special duties, utility would be more evident than it is at present. It is almost imperative that recruits should remain for six months in the Depôt, but this has rarely been the case owing to the constant drain owing to desertions, dismissals, deaths, etc.

Fire.—The apparatus purchased during the year has proved its utility to such an extent that additional buckets, firehooks and two dams have been purchased for distribution in the town. Several large fires occurred during the year in the native quarter, and but for the prompt assistance rendered by the police and the rapid manner in which the progress of the flames was checked through the use of the apparatus very serious damage would have been caused.

I propose that two broad avenues should be cut through the native quarter of Ngambo, which would run, roughly, north and south and east and west. These avenues would assist very largely in checking the spread of any fire, would enable mains to be laid for the future water supply of the town, and would be available for wheeled vehicles, and thus afford direct means of communication by carts and trolleys between the suburbs of the town and the markets at Mkunazini. An examination of the ground shows that it is a perfectly feasible scheme and that the expense would not be very heavy.

One avenue would lead from the Police Station at Mwembeladi towards the Government Stables and the other from the Police Box at Muzazi Moja past the Police Station at Kisima-Majongoo to the Bridge at Darajani. They would thus link up by direct routes the most important police stations in that area, as well as fulfilling their original purpose in checking the spread of fires.

Finger Print Bureau.—This Bureau is continuing in its exceedingly useful work, and one that should, on no account, be allowed to lapse. I attach a report (Schedule B) by Inspector May, which shows what has been done in this way. Mr. May has shown the greatest interest and keenness in this work, and its success is entirely due to his untiring efforts.

Census.—The census of the town has now been completed by this Department and the results tabulated. The population of the town was found to be very much less than was expected. There is no reason, however, to doubt the accuracy of the figures arrived at.

Guides.—The guides are still under the control of the police, and are checked, as to their badges and tariff books, whenever a mail steamer is in port. I have drawn up draft regulations for guides, and when they are published the position of the guides and of the police will be more firmly established.

Shore Boats, &c.—Owing to the amalgamation of the Water Police the duty of supervising the shore boats, bum boats, licensed hawkers, dhow flags and numbers, and many other details have fallen on the Department, and has consequently added considerably to our work. There appears to be a marked improvement in the appearance and seaworthiness of the shore boats, and in course of time the standard will be raised still higher.

Band.—The establishment of the band is at present—1 bandmaster, 1 assistant bandmaster, 23 bandmen; and the strength is—1 bandmaster, 1 assistant bandmaster, 17 bandmen.

I regret to have to report a decided falling off in the discipline and training of the band. They have lately become very lazy, dirty, and inefficient. Their officers to keep their quarters clean obliged me to punish some 13 of them recently, and it would appear as if they intended to carry out a form of passive resistance against the bandmaster.

A proposal to dismiss the band and to replace them by Indian policemen trained as bandmen seems sound and is being investigated at the present moment.

Artillery. The establishment of the Artillery is at present—1 jamadar, 8 gunners. The strength is at present—1 jamadar, 8 gunners.

The jamadar and the gunners have carried out their duties most satisfactorily during the past year and there is nothing to complain of in their behaviour. The present jamadar has considerable control over his men, and I have to report a very decided improvement in their work and discipline.

No alteration has been made in the last year to the numbers or dispositions of the guns here.

(Signed) H. R. CAREWRIGHT.

Report on Budget Plans, 1914. This work, which was commenced at the beginning of the year, has already been completed, it relating to a considerable extent the same as last year.

Before its introduction into effect, however, will be submitted to the Hon. Member who presides in the absence of my proper master, and I have to report that the Hon. Member's approval is very probable and inviting procedure.

A glance through the Court records will now show that circumstances have altered somewhat. Many of the offenders who were originally turning up under a new name to serve a short sentence are now undergoing sentences from a year upwards, and the criminal records show the consequent retention in crime.

At present I have 180 records, and have received 16 previous convictions, and when it is taken into consideration that the records have only been working for a year some idea can be formed of the value of this work with reference to the future.

On May the 25th last a notorious house-breaker was identified by means of the means of three of his finger impressions, which he left on a door of glass that was broken by him in entering a building.

The work has also proved invaluable in identifying the members of the Prison Force. We have many applicants who are recommended as men of good character, but their finger impressions frequently show that they have been convicted at some place in the island, or in Bamba.

A short time ago the finger impressions of a man who had been in the hospital revealed the fact that he had been in the hospital with a "trust," and the quietness of establishment was maintained through the work with advantage. It is considered by the Government that the work is of great value in the positions where they have very opportunities.

31st December 1913

Port Service & Department

Annual Report of the Port Service, Water Supply, Lighthouse and Harbour Engineering Department, 1913.

Port Officer, Port of Mombasa, Comd'g the Harbour.

Port Office,
Mombasa, 2nd February 1914.

I have the honour to acknowledge the receipt of your letter and reports in the working of the Port Service during the year 1913, and to inform you that the Department is in receipt of your report, and to inform you that the Department is in receipt of your report, and to inform you that the Department is in receipt of your report.

The report given in the report is very satisfactory, and we have not had time to check all the details, but we have had time to check all the details, but we have not had time to check all the details, but we have not had time to check all the details.

The following is a list of the work done during the year 1913, and will be found in the report.

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business of the Port Office has been steadily decreasing for the past four years, as the following figures will show:—

Draws registered in—	1907	1908	1909	1910
	1,000	1,000	1,000	1,000

As all these Zanzibar dhows do most of their trading in Pemba, they are avoided being out by the Government steamers taking up the passenger traffic. Most of the cargo is, however, still carried by the dhows, as they can load and discharge it directly on the shore and at a cheaper rate than the steamers, and I think it would be better for the steamers to leave the cargo traffic to dhows as much as possible. It has not brought much revenue into the Government since we stopped doing outside trading with the Government steamers. It pays us much better to cater for the Pemba passenger traffic, and if we take the cargo, as well we shall kill the dhow trade to Pemba in a few years.

Harbour and Water Police.—There are forty-four harbour and water police in the Government service, half of whom are on duty at all times night and day. They are made up as follows:—The water police are all Somalis, as it has been found that they are more useful on the water than Swahilis, and also that they are better able to deal with the native boat boys. There are sixteen Somali water policemen, in the charge of a Somali officer, and twenty-four Swahili police, for duty around the harbour on the beach and at the landing places. The harbour police are in the charge of two native officers and one sergeant. The Somali water police keep watch in the harbour in two boats, and they board every steamer arriving to keep order at the gang-way. At night time one watch of Somali police are stationed on board the hulk "Chumini," which is anchored near the dhows, as we frequently had trouble amongst the dhow crews at night time. Since I stationed these Somalis on the "Chumini" there has been very little trouble amongst the dhows. The other watch of Somalis is stationed at the south-west end of the harbour, to keep watch on the dhows and lighters anchored off the Customs House, as many cases of theft used to occur there at night time. There have been very few cases this year. The Swahili harbour police, besides keeping order on the landing beaches and steps, have to see that the Port regulations are not infringed, that sand and stone is only removed from the proper places allowed, that cargo and building materials are only landed at the places allotted for such landing, that dhows are properly numbered and licensed, that fishing stakes are erected in the places allotted, and that passengers only land and embark at the proper places, etc. They also have to report to the Port Office immediately a British or foreign man-of-war enters or leaves the port. This information is afterwards sent up to H.B.M.'s Agency. The water and harbour police carried out their duties very satisfactorily up to August 1st, when they were transferred to the charge of the Commandant of Town Police, on six months' trial. This was done during my absence on leave in Europe. With regard to the working of the harbour and water police since the amalgamation took place, so far as the Port Service and Shipping Departments are concerned, this has not proved a satisfactory arrangement, and has caused much departmental and personal inconvenience and annoyance.

Licensed Beach Boats.—The charge of licensed beach boats was handed over to the Commandant of Police, as they have always been looked after by the water police, and the two things cannot conveniently be separated. Their licenses are also issued by the Commandant of Police, but all disputes have to be settled and cases tried by the Port Officer, as before, because the Commandant of Police has not the power under Decree No. 25 to impose any penalties. It is a very unsatisfactory arrangement, and I hope that if the Commandant of Police is to continue to have charge of the licensed beach boats, he will have the power to deal with defaulters as soon as possible. Much wrangling, delay and misunderstanding will then be done away with, and he will be able to deal with the cases himself at once. The new plaques, showing the legal tariff, were ordered out from Europe, and one plaque has been affixed to the back board of each boat.

Light and Harbour Dues.—The light and harbour dues collected during the year 1910 amounted to 69,714 rupees, this being a large increase over any previous year, owing to the extra number of steamers that have called. During 1909 we collected 61,268 rupees, and the expenditure amounted to 67,970 rupees, including the rebate paid for the previous 1908, leaving a deficit of 6,702 rupees. At the

end of the year we had to pay a rebate of 6,725 rupees for the year 1909 in accordance with the agreement entered into in 1905 to pay a rebate of 10 per cent. to companies running regular services of steamers to Zanzibar. The total deficit of 18,697 rupees has to be debited to the light and harbour dues collected in 1910. The expenditure on lighthouses and buoys has been rather heavy during the past year, because we had to purchase a new lighthouse light for the light keepers' quarters at a cost of 1,000 rupees, and we had to build the quarters for the light keepers of Kapeemba at a cost of 1,200 rupees, and repair the quarters at Bamba 5,000 rupees. There has, however, been a saving of about 3,500 rupees owing to the fact that we did not have to purchase any lighthouse oil, as we had enough in stock to carry us through the year. Below is a statement for the past year.

Actual amount of light and harbour dues collected	69,714
Actual expenditure on lighthouses and buoys	68,697
Leaves a balance in favour of the Government of	1,017
Deficit for 1909	6,702
Rebate paid for 1908	6,725
Total deficit for 1909	5,685
Deficit for 1910	16,715

This deficit will be still further increased when the rebate for 1910 has been paid. If no rebates had been paid since we started collecting light and harbour dues in the year 1904 our earnings would have covered our expenditure. The following table shows the earnings and expenditure since we commenced collecting light and harbour dues.

Year.	Receipts		Expenditure	
	Rs.	P.	Rs.	P.
1904	21,814	25,271	1,410	4,820
1905	24,392	25,076	1,100	4,624
1906	29,384	25,025	11,000	5,000
1907	30,021	25,200	11,000	5,000
1908	46,300	25,200	11,000	5,000
1909	61,268	25,200	11,000	5,000
1910	69,714	25,200	11,000	5,000

The small steamers belonging to the Colonial Government do not pay light and harbour dues, as they are Government vessels, but as they are engaged almost entirely in trading (in carrying passengers and cargo between Zanzibar and Victoria East Africa), I do not see why they should be exempted.

Lighthouses.—All lighthouses and beacons in the island have been satisfactorily during the whole year. Kipeemba was broken with one exception by a few boats in the early morning owing to the chains hanging from the masts of the boats, but they did not interfere with any shipping, and was put right again before night time. The foundations of Kipeemba lighthouse, which were not completed when it was built, have now been strengthened by the Public Works Department. The upper part has been buried in concrete foundation and the lantern should not require any further repairs for many years. The cost of strengthening the foundations amounted to 4,000 rupees. The new light beams have burnt very well and have been of great use to shipping entering and leaving at night time. A spare second lighted beam will be obtained in 1911, and this second complete set will be required for a few years in the case of harbour lighting, unless we have to obtain another beam for the wreck of the "Chumini." Fewer repairs have been required to the lighthouse this year, as most of them were thoroughly done up last year, and most of the wooden structures were replaced by stone and cement ones. A new ceiling has been made to the keepers' quarters at Bamba-Wanga lighthouse, and a new kitchen has been built, and the doors and windows of the store room and living quarters have

no reason why dhows wishing to call at Tumbatu Island should not be obliged to call first at M'Kokotoni to lodge their papers, and call there again for their papers on leaving. We should then be able to keep a check on their cargo and passengers. There is very little trading done by dhows at Tumbatu, the real reason for them calling there being that so many dhow crews have relations there. The majority of the inhabitants of Tumbatu being dhow sailors or fishermen.

Government Shipping Department.

The total receipts of the Government shipping department for 1910 show an increase of 1,355 rupees over the previous year, owing to extra earnings of Pemba trips. The total increase would have been considerably more but for the fact that the launch earnings have fallen off by over 3,000 rupees during the year. The chief cause being that no charge is now made for the use of steam launches for the by any Government department. The unpaid earnings of the steam launches for the year amount to 2,265 rupees. The total earnings of the steamers and launches for the year amount to 53,975 rupees paid up, and the unpaid earnings would amount to 26,456 rupees, if charged for at the usual rates. The "Cupid" and "Barawa" have been used entirely for Pemba runs and Government work. No outside trading whatever has been done, as it is impossible to spare either of the steamers now that they run weekly trips to Pemba. The freights and the passages both show an increase over the previous year, as the following figures show:

	1909	1910
Freights	Rs. 2,664	Rs. 4,019
Passages	Rs. 26,956	Rs. 41,710
Total	Rs. 29,620	Rs. 45,729
Total for 1909		Rs. 41,710
Increase for 1910		Rs. 4,019

The total number of voyages made by the steamer during 1910 was exactly the same as in the previous year, namely 11 trips. The number of clove pickers carried to Pemba free by the Government steamers shows a large falling off:

Clove pickers carried 1909	4,120
Clove pickers carried 1910	2,620
Decrease	1,500

The expenditure of the shipping department for the year compared with 1909, exclusive of the cost of purchase of "Cupid," but including all other expenses such as repairs to steamers and launches, expenditure on coal, stores, wages, etc., shows an increase of 1,518 rupees over the previous year, entirely owing to the extra consumption of coal of "Cupid."

Expenditure shipping department, 1909	Rs. 97,417
Expenditure shipping department, 1910	Rs. 98,935
Increase	Rs. 1,518

The "Cupid" is very popular with the natives and Indians travelling to Pemba, as the accommodation is so much better for them than it was in the "Kilwa." If we build another steamer within the next few years to replace the "Barawa," I think it would be advisable to design her entirely for passenger traffic, as it is hardly worth while increasing all the room we had in the "Cupid" for cargo, considering what a very small quantity we carry in the Pemba trade. Nearly all Pemba cargo is carried by dhows. The native passengers now prefer to travel by the weekly steamer. Nearly all the cargo we carry in Government steamers, which could be stowed in the tween decks and, as you will see by the returns, the whole amount of earnings from freight carried by both steamers for the year amounted to less than 300! If a steamer was designed for passenger traffic only,

the space taken up by cargo hatches could be used for cabins, and the whole of the upper deck might fore and aft could be fitted with first-class cabins, and the two decks could be with second and third class. There would be no need for the very high and possibly smoking chimneys that the builders were obliged to put in the "Cupid," and the fore and aft deck would be a great improvement. At the same time, the "Cupid" could be accommodated with the number of first-class passengers and with greater comfort. She could also carry a large number of deck and second-class passengers, and would be a better sea boat, not so top heavy, and would look a great deal more like a dhow. I cannot say how much longer the "Barawa" will pay for repairs, but she will be dry-docked about April and thoroughly overhauled and done up. When she has been surveyed we may consider whether it is worth while putting her into thorough repair, or whether it would be better to sell her and have a new steamer built. To see the frames and internals we shall have to remove all the lining, ceiling, stowage, etc., and then we ought to have her surveyed by the dockyard surveyor. The dock company will give us an estimate of the cost of repairing her if it is advisable to do so. As the passenger traffic between Zanzibar and Pemba is increasing so rapidly and the "Barawa" is not at all suited for carrying a large number of deck or native passengers, I should advise the Government to spend much more money on repairing her. I think it would pay better to sell her whilst she is still in running order, and have a new suitable steamer built entirely for the passenger trade. The reason of the increase in Pemba passenger traffic is because the steamers have maintained an absolutely regular weekly service during the whole year, and the natives and Indians, especially the latter, are getting to know that they can depend upon being taken up and brought back on certain fixed dates without the discomfort of depending on dhows. It very frequently happens that various Government officials wish to alter the dates of intended steamers arrival and departure to suit their own convenience. But I think it would be a great mistake to depart from the fixed date table except in instances of great need, as to do so would be to lose the confidence of the native passengers. Messrs. Gossage Dunshaw started a week's service to Pemba in competition with the Government steamers, always starting just before the "Cupid" or "Barawa" and charging half a rupee less fare, but the natives still preferred to go by the Government steamers, and Messrs. Gossage Dunshaw had to discontinue their Pemba service, as it did not pay them. The steamer to which they were attached was a very small vessel, instead of more a fortnight, and this has proved very popular with the native passengers. The number carried increases nearly every voyage, especially between M'Kokotoni and Chake's bank. The steamer is delayed at times as it is known for want of sufficient loads to take passengers to and from the shore, but just recently some of the Indians have taken out boat business, and I think it would be as well to encourage local boat owners, and to make the license fee as low as possible. We must look for our earnings from passenger traffic as we cannot compete with local dhow for cargo, the reason being that dhows can load and discharge directly on the shore, but the steamers have to use lighters, which naturally increase the cost of freight. The "Barawa" is designed almost entirely for carrying cargo, and a few years ago, when the steamers were used almost exclusively for trading, she was very popular. It is only within the last few years that the Government steamers have been running regularly to Pemba. As for the passenger traffic to Pemba in Government steamers, we have to put the passengers down in the cargo hold, and if there are many of them, we have to keep a watchman by the hatches to prevent them from getting in, and also to keep a watchman on the deck when the hatches are open.

The "Kilwa" was sold on May 27th of 1910, and the proceeds were used for the higher price bid for the fact that the Indian Government had decided that the Government were disposing of her because she was practically useless, and that it would not be made fit for further use. The merchant who bought her, Messrs. Vinton, spent about 2,000 on repairing her and she is now in very good condition, and as a cargo steamer will probably pay him well and last many years. The "Barawa" is a steamer which probably makes a good harbor pilot, as the Indians have come to know successfully. Messrs. Vinton has repaired the "Kilwa" and he is competing for the trade between the Pemba Coast and Zanzibar.

"Cupid" - The old "Cupid" being built of steel requires docking about once a year to keep her in thorough repair. She was docked in April 1910, but could not be opened again for docking until January, 1911. However, as this was only an interval of nine months and as she was in very good condition, being nearly new, it was not too long to wait. When she was docked the bottom was thoroughly

cleaned and received four coats of paint. Two of red, one of No. 1 and one of No. 2 patent composition. Small improvements have been carried out on board of her, such as adding extra ventilators and improving the quarters and a few other things, but not all for the accommodation of passengers. The dynamo has also been used as an extra passenger table for the engine repairs. Her engines have worked very well, and have not required any repairs. Her dynamo has also run very well without requiring much attention. It can only be run only one dynamo, and that is situated in a very hot place. It can only be run for about eight or ten hours at a time, and if it is run for a longer period there is danger of it becoming overheated and destroying the insulation. If the Government have a new steamer built to replace the "Barawa" she should be fitted with two dynamo, so that if necessary one could be run during the day and the other at night. It would also serve as a stand-by in case of a break down of the other dynamo.

Barawa.—The S.S. "Barawa" was dry docked in June and the bottom was cleaned and painted. One plate was found to be so badly corroded that it was removed and a new plate fitted. A patch was put on another plate and several rivets were renewed. The rudder pintles and gudgeons were examined and repaired, and several small repairs were done to the engines and boiler lagging etc. Her winches are worn out, the forward one being almost useless. A new winch has been ordered from Europe to replace this at a cost of 600. Her masts and derricks are getting rather shaky and will soon require renewing. She is in a condition to lift any heavy weight and cannot be employed safely to lift even the smaller buoy moorings, until her rigging lanards have been renewed and her dry dock. She is now laid up, being chipped and painted from the water side upwards. Several very bad places have been found above the water line but her bottom should be in better condition than her top side. It will be necessary to have her top sides wherever necessary. She will probably require new riveted frames in the bottom when she goes into dry dock and may require a few new plates.

Steam Launches.—The paid earnings of the steam launch for 1910 amount to 4879 rupees and the expenditure to 15,429 rupees. For coal stores, wages, repairs, and upkeep. The use of the steam launch can never result in a profit to the Government, because the highest charge made for the use of a launch never amounts to the actual cost of coal and stores expended and the wages of the crew & wages for the time being. For other Government purposes a charge which is made. The cost for coal stores, wages, repairs, and upkeep falls on the Engineering Department. A sum of 1000 per annum is charged to light and heavy work, and upkeep of launches, as they are employed frequently on light work and heavy work. When a launch is used privately only the actual cost of coal expended is charged (plus the overtime paid, if any, to the crew) so that it is impossible for the launches to ever show any profit or even to get 17 rupees. This total of 206 trips during the year, mostly on Government Government work.

Alta.—This launch was sold to the Government by the Government on October 20th for 2700 rupees as she was too small for Government work. She could not carry sufficient water to go round the North Lightship by a day, her draught being about 56 inches, and she was not very fast and had no accommodation for passengers. She made 15 trips during the year up to the time she was sold and earned 271 rupees.

Dowletan.—The "Dowletan" made 112 trips during the year and earned 2120 rupees. She had to have a new boiler which cost 2100 rupees and was thoroughly overhauled and repaired, and is now in very good condition. The repairs were surveyed by Mr. Stockwell of the E.E. Co. & Sheward College, and is reported very favourably on them.

Al Zammarath.—The "Al Zammarath" made 100 trips during the year and earned 12069 rupees. She was hauled up at Madras, South Malabar & 1 1/2 days in April and thoroughly overhauled. Mr. Stockwell surveyor of the launch on 1 tested it to 200 lbs. per square inch and gave a very satisfactory report upon the engines and boiler.

At Kathera.—The Pemba launch was brought down at the beginning of November to be thoroughly overhauled and done up. Her boiler was taken out to be inspected and tested. It was found to be leaking badly in a place that could not be got at to repair locally, so was condemned. This leak was under the fire box in a place that could not be seen by the driver, and the constant leakage had caused her

collapse on the edge of a boat. A new boiler was ordered from the builders, but could not arrive through time for her to return to Pemba. She is the most modern one in the fleet. She was made in a month and is well suited for anything except heavy work. Her boiler is top heavy and too much exposed. For this reason I have removed the top heavy boiler and replaced it with one that is more compact and will increase her stability. I have also had her air pipes and engine room ventilated and all deck work. I have also raised the gunwales one foot all round and about twenty inches in the bows. This should make her a very good sea boat, and at the same time a sea boat as any other launch in the Government. It cannot be expected that any of these launches will be able to go round to the islands in the monsoon season, but in ordinary weather she could do so quite easily and safely.

Old Launch.—The "Old Launch" made 31 trips during the year. She was used for collecting fish and other specimens and for carrying passengers. She is a very old launch and is in a very bad state of repair. It takes from two to three hours to get up steam in the launch. The launch is not a good sea boat and is not at all reliable and I never let her go out of sight of the harbours, but she is very cheap to run, costing less than half of a steam launch of her size for fuel and (including) the launch.

Kannur.—The "Kannur" is a very old launch and is used for carrying passengers between Zangbar and Kannur and other parts to the south of the coast. The launch was started on September 7th, making the round trip in a day, every Monday and Thursday. At first it was thought to do this the launch ought to start at 4 a.m. but it was found later that by starting at 6 a.m. she could get back in the evening at 1 p.m. in the time table was altered accordingly. As the launches are rather small for the service, only being able to carry about 20 passengers, we have not been able to recover the cost of these trips. The first three trips carried about 200 passengers and the third trip no passengers went. After they had been running for a month and the service had been discontinued, we got some passengers. The following is a record of the number of passengers carried every five days, as given by the launch from the time of starting the service to the end of the year.

Days	Passengers	Total
1st 5 days	100	100
2nd 5 days	100	200
3rd 5 days	100	300
4th 5 days	100	400
5th 5 days	100	500
Total	500	500

The total receipts for the month of December were 104 rupees and the total expenditure for the month was 104 rupees, being the actual cost plus expenses paid to the crew. The passenger receipts for the month were 104 rupees, for small packages carried by passengers. The launches "Kannur" and "Al Zammarath" were sold to the Government on the 20th of December, and have not been up to the time of writing. The launch "Kannur" was sold to the Government on the 20th of December, and has not been up to the time of writing. The launch "Al Zammarath" was sold to the Government on the 20th of December, and has not been up to the time of writing. The launch "Kannur" was sold to the Government on the 20th of December, and has not been up to the time of writing. The launch "Al Zammarath" was sold to the Government on the 20th of December, and has not been up to the time of writing.

Water Supply Department.

The revenue derived from the sale of water to shipping shows an increase of 4,626 rupees over the previous year, and amounts to 42,361 rupees. This is the highest recorded for many years. The reason of the increase being that more steamers have called here in 1910 than ever called here before. Most of them fill up their fresh water tanks here. A few years ago the German steamers used to fill their boilers here as well, and this took a considerable amount of water. The German Government now supply water for this purpose in Darassalam, but as the water is not fit for drinking they only use it to fill the boilers, and they still take their drinking water from Zanzibar. All water supplied to shipping in Zanzibar is now done by Messrs. Smith, Mackenzie & Co with their own water boats. They charge 2 rupees 25 cents per ton for water supplied, out of which they pay the Government 1 rupee 50 cents per ton for water. The Government water boat "Binti Baharini" was condemned and laid up, and the crew were paid off in June, when I was absent on leave. She is getting very old and requires constant repairs, and will only last another two years or so. Her engines are still quite good and she was employed recently to take water to Mwanawana Light-house (as they had run short), the distance being about 62 miles there and back. She is now used on a store water boat for the use of the steam inspection. They go alongside of her and fill up with fresh water when necessary. She has no crew on board and nothing is allowed in the current year's estimate for her upkeep. Although the "Binti Baharini" was never a great source of income to the Government she has always been very useful for supplying the Government steamers, launches and light-houses with water, her earnings have exceeded the cost of her upkeep and she has returned a small profit to the Government. Her average annual earnings for the past seven years has been 5,064 rupees and the average expenditure 4,580 rupees.

The total number of tons of water supplied to shipping during the past year amounted to 29,409 tons against 24,152 in the previous year. The earnings of the "Binti Baharini" up to the time she was laid up in June amounted to 1,088 rupees. The revenue of the water supply department, although it shows an increase over the previous year, would have been still more, but for the fact that the water collected from the dike tanks and drying sheds etc. has been transferred to the Collectorate Department, since January 1st, 1910. The water supply for shipping at Zanzibar is considered very good, and is quite the best to be obtained at any place between Port Said and Delagoa Bay. Condensed water may be obtained at Aden, but it is very expensive. A small supply of raw water is kept at Mombassa, but this often runs short of water and it is very expensive. There is also a water supply at Darassalam, but it is only fit for boiler use. The water supply at Zanzibar does not seem to be nearly so plentiful as it was up to about two years ago. The water from the hydrant in the Customs House frequently gets very low, and at times we have not been able to get sufficient to supply the ships in port. I cannot give any reason for this, as the rainfall for the past year has been well up to the average. The good water supply of Zanzibar is a great advantage to steamers in call here in their way up and down the coast, and steamers that might otherwise use Mombassa as a terminus come on to Zanzibar for coal and water, as the distance is only 130 miles. It will be a great pity if there is any falling off in the supply of good water, as this demand is likely to increase within the next few years.

Wireless Telegraph Department.

The wireless telegraph has been a very successful department for the past year, and any interference with it has been kept to a minimum. The number of messages sent during the year shows a corresponding decrease in the expenditure. The actual number of messages exchanged with Pemba during the year was 2,820, an advance on the previous year. The number of messages sent every day is usually three, sometimes four, and sometimes five. The first wireless telegraph was installed by the Acting First Officer in the year 1897, and since that time the number of messages sent has increased in length and number, and at the present time

we sometimes send, in addition to the ordinary messages, as many as twenty free messages in a day. If all these messages and the Reuter telegrams were paid for at the usual rates, the wireless telegraph returns would show a good profit after deducting the cost of upkeep and working. The following is the actual expenditure for the past three years, together with the receipts from paid messages only—

Year	Paid Receipts	Expenditure
1908	2,461	20,813
1909	2,741	16,948
1910	3,999	12,810

The expenditure during the coming year will probably be less, as we now have a good stock of spare parts, and no large repairs are likely to become necessary.

The receipts will certainly continue to increase in spite of the fact that no Government officials pay for telegrams. (1) Because the public are gaining confidence in the wireless. (2) Because it is getting known amongst the Indians and Arab population. (3) Because steamers are being fitted with wireless installations.

The actual number of paid messages sent during the past year (1910) compared with the previous year (1909) is as follows:—

1909	1,745
1910	3,265

In addition to the above 62 free messages were sent after September 1st and Reuter telegrams were transmitted daily. The cost of free messages sent since September 1st of paid for at the usual rate would have amounted to 1,474 rupees.

The D.K.A.L. steamers are being fitted with wireless telegraph, and I expect that in a few years, when other steamers are fitted with wireless, our receipts will be considerably increased. The first commercial message was exchanged with the D.K.A.L. "Gertrud Weermann" on July 7th, 1910, when she was on her way down the East Coast of Africa bound for Mombassa. This message was transmitted from Zanzibar to Mombassa by R.T. Co.'s submarine cable and was received in Mombassa on board before the steamer arrived there. The agents were able to have lighters and everything ready for her and she was despatched quickly. I read a paragraph in the "East African Standard" about this; it expressed the great satisfaction of everybody concerned, and pointed out the advantages derived by steamers fitted with wireless telegraph. I think very shortly every steamer (passenger) afloat will be fitted with wireless telegraph, as the International Telegraph Convention is trying to get this law passed, and we shall then be able to advise all shipping agents in Zanzibar at least 24 hours before the arrival of a steamer, so that they can have lighters and coal ready on arrival, thus saving much delay.

The Zanzibar Government acceded to the Radio Telegraphic Convention in Zanzibar (1910) agreeing to work on a wave length of 600 metres. I have had enquiries from some of the German mail steamers that were calling at Zanzibar, as to whether they had been taken of this, although they could have Zanzibar and Pemba exchanging signals. The result of this is that we are using Morse's Murchhead system, which has very fine tuning and is easily coupled to the transformer, and unless the steamer pulling up was fitted with about a 100 feet of 600 metres wave length they would not interfere with us, in fact we would not know that they were calling up. I have explained that to the agents, and the results have been most successful. At present only a few of the German mail boats are fitted with wireless, as we have had many opportunities to experiment with them, especially at night, especially during the night, when our wireless station is closed. The number of messages exchanged with them is growing, though. This voyage eight messages were exchanged with the "Gertrud Weermann" the first one being received four days before she reached Zanzibar. When the passengers begin to realize the advantage of being able to communicate with their friends in the next port a couple of days before the steamer calls there, we shall certainly receive a good many more messages than we do now. Very fine tuning has advantages when there are several other stations in the vicinity working at the same time, or in a place like the English Channel, where several ships may be calling up, but it is hardly necessary in Zanzibar or Pemba. Few of the operators carried on board ships are

experts at tuning and adjusting the instruments to a degree, although they may be quite capable of sending and receiving messages, and it is possible that they are not always in tune to within the necessary 1 per cent. The German mail stations are using the Telefunken system, and I do not think this lends itself to such fine tuning as the Lodge Marconi, which is used. We are carrying out experiments at the present time to see whether we can get good results when using a wider range in the tuning of the receiving set. If a wireless station is erected at Mombasa or Dar-es-Salaam they will have to work on a 600 metres wave length, according to the convention, so as not to interfere with our station working to Pemba.

During the months of December to about March the atmospheric conditions prevailing every afternoon become so bad that it is usually impossible to exchange messages with Pemba after 3 p.m. Sometimes these atmospheric starts at 11 a.m. and continue all the afternoon and night until sunrise. The conditions from 7 a.m. until noon are however, usually quite good. We have been experimenting with the possibility of going out to sea if we can cut out these atmospheric but find that with the present apparatus it is impossible to do so. In view of the fact that the weather is becoming and is likely to continue increasing I beg to suggest that the time has arrived for providing a more efficient installation. If a wireless telegraph station is erected at Mombasa our traffic will increase very much, and we shall not be able to cope with it in the months of December to March with our present installation. The experience has proved that in this climate the ordinary ordinary coils and ordinary receiving transformers are not the best receiving apparatus to use. I have received wireless communication used on board the Woomera cutter, and in many other places much better results in this climate. Our insular culture, and in other parts, requires constant and very careful adjustment. Our Indian operators although they are fairly good at receiving undulating messages, do not seem quite so smart when adjusting the instruments.

During the past three weeks since our wireless telegraph station was first installed many improvements have been made in other systems. The Woomera line using the Telefunken system, and when I was on board of the Albatross Wireless, we exchanged messages with Bombay direct, a distance of 1,100 miles. The extreme range of the Zanzibar wireless appears to be only about 200 to 250 miles although on certain days we might get further than this. The great defect of our instruments is that after sending a message we have to wait for the receiver for two reasons. First, because it gets overheated if kept running continuously, and secondly, because the signals are being given to the receiving set, the best speaking of the language upon the receiving set, available on conventional order. This causes great delay, because after sending a signal the operator has to start the set again before he can reply. Even if the engine is not then generally takes 2 to 3 minutes, and at times it takes half a quarter of an hour. On board the Albatross, where we discuss of running continuously all day, the operator merely has to change the set over to be either ready for sending or receiving. This saves a few seconds in the. Much of this trouble could be done away with if we used a slow speed oil engine of greater power instead of the high speed Petter engine of present use.

The great improvement would be to use a closed circuit system, instead of the present circuit of present use, and so also receiving transformer, with a variable condenser. We could then do away with the troublesome variable condenser, and the great delay which is constantly being wrong, and the great noise caused by the set when running. We should also probably be able to do away with the ordinary telegraph, and also be able to get our signals from ships much more readily, and our range would probably be increased even if we only used our present power. A large number of these stations are carried out at night, so well as during the day, and I think that when they supplied our present set it was the best they could do, but they have made very many improvements. What I would like to see was an experiment with a closed circuit, having evidently quite a few conditions that it is good. Nearly all wireless systems now use a closed circuit, as they have succeeded in the construction that it is best. We might also have a transformer if they could adapt our system to a closed circuit, many of the present methods could be used, and some that would not do they would probably give us an allowance in, such as the sending transformer coils. That is to say, we should be able to make powerful ones to increase our range.

If Mr. Cameron goes home on leave in April, he will see Dr. Hurrell and find out what improvements have been made, and also what the probable cost

would be to bring our stations up to date and to increase the range to about 600 miles.

In writing of the Petter oil engine at present in use I do not mean to say they are bad, for they have done their work excellently during the whole year, without a break down, and have only required the usual adjustments of the working parts, but they are not a suitable type of engine for wireless work. For driving the alternator it is essential the engine should run at a very steady uniform speed without getting overheated. If the engine gets heated the speed varies slightly and this alters the signals, and at times makes them unreadable by the receiving station. At the time our wireless station was installed the Petter oil engine was considered the best suited to the work if an extra flywheel was added to make it run steadily. Since then a much more suitable type of oil engine has been put on the market by Gardner & Co., and if we had two of these engines, one at each station we could keep them going continuously all day, and thus avoid much delay in answering a call. The present oil engines, which are in very good condition could probably be made use of by the Public Works Department.

The new alternators have worked very satisfactorily and have given no trouble whatever. The carbon brushes are a great improvement upon the old gauze wire ones, and the armatures have run very steadily without developing any fault. The instrument room at Pemba is built of deal wood and has got white ants into it very badly. It will soon have to be rebuilt. I have found this always happens in Zanzibar to deal wood structures. All the lighthouse store rooms and quarters that were built of deal wood had to be replaced after four years by stone buildings with oak wood fittings, and I think this would be the best plan for the wireless telegraph instrument room. It would also help to keep the instruments cooler, which is an important consideration.

The accommodation for the wireless operators in Pemba is very poor and great difficulty was experienced in getting suitable accommodation for them in Chake Chake. The superintendent has a house allowance of 30 rupees per month, and of the two operators stationed there one gets 25 rupees and the other 20 rupees per month house allowance. They have to live a considerable distance from the wireless station. A small wooden house was built near the instrument room for the accommodation of the operators, but as it was on the ground level and the operators were continually getting laid up, the medical officer condemned it as being unfit to live in. I beg to suggest that a small stone house raised above the ground level should be built near the Chake Chake station for the accommodation of the operators. A house similar to that provided for the Kgomachi lighthouse keepers would do very well. There would be a saving to the Government of the present house allowance to the operators, and it would also be very much more convenient for them to live near the station. The old house is now used as a store room.

In view of the fact that the wireless telegraph has now become almost an absolute necessity to Pemba, and that the traffic is bound to increase yearly, especially if a station is erected at Mombasa, and all the mail boats calling here are fitted with wireless, I would beg to urge the necessity of improving our plant and bringing it up to date as soon as possible, so that we shall be able to deal successfully with the increasing traffic, otherwise we shall again lose the confidence of the public. With our existing plant it is difficult to comply with the requirements of the International Telegraph Convention with regard to working on a 600 metres wave length. Our natural wave length is only 400 metres, and we have to bring it up to 600 metres by introducing inductance, thus damping our waves and reducing our effective range to about 200 miles. The actual working of stations with a six or seven hundred miles range would cost no more than our present stations, and I do not think the cost of improving the stations would amount to very much. We should be able to communicate with Comoro Islands, and would get a certain amount of traffic that way.

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

F. STANLEY BARDO, Post Office.

Statement of Receipts and Expenditures for the Year ending 31st December, 1916

2,700 Received

Receipts

Months	27000 Receipts		20000 Receipts		20000 Receipts		20000 Receipts		20000 Receipts		20000 Receipts		20000 Receipts		20000 Receipts			
	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.		
January	520	00	520	00	520	00	520	00	520	00	520	00	520	00	520	00	520	00
February	547	00	547	00	547	00	547	00	547	00	547	00	547	00	547	00	547	00
March	439	00	439	00	439	00	439	00	439	00	439	00	439	00	439	00	439	00
April	511	00	511	00	511	00	511	00	511	00	511	00	511	00	511	00	511	00
May	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
June	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
July	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
August	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
September	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
October	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
November	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
December	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00	508	00
Total	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00
Corresponding period 1915	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00	5,515	00
Increase	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Decrease	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

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Receipts—continued.

Months	Boat Finns		Tin Cases		Charts		P. S. Receipts		Hire of Buoys		Passenger Manifests		Pamba. Crew Lists		Omnibus Tax		Light and Harbour Dues		Other	
	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.
January	1	00	1	00	1	00	1	00	1	00	1	00	1	00	1	00	1	00	1	00
February	5	47	5	47	5	47	5	47	5	47	5	47	5	47	5	47	5	47	5	47
March	1	50	1	50	1	50	1	50	1	50	1	50	1	50	1	50	1	50	1	50
April	3	87	3	87	3	87	3	87	3	87	3	87	3	87	3	87	3	87	3	87
May	13	88	13	88	13	88	13	88	13	88	13	88	13	88	13	88	13	88	13	88
June	3	00	3	00	3	00	3	00	3	00	3	00	3	00	3	00	3	00	3	00
July	1	75	1	75	1	75	1	75	1	75	1	75	1	75	1	75	1	75	1	75
August	5	25	5	25	5	25	5	25	5	25	5	25	5	25	5	25	5	25	5	25
September	0	84	0	84	0	84	0	84	0	84	0	84	0	84	0	84	0	84	0	84
October	3	00	3	00	3	00	3	00	3	00	3	00	3	00	3	00	3	00	3	00
November	4	58	4	58	4	58	4	58	4	58	4	58	4	58	4	58	4	58	4	58
December	1	00	1	00	1	00	1	00	1	00	1	00	1	00	1	00	1	00	1	00
Total	53	20	53	20	53	20	53	20	53	20	53	20	53	20	53	20	53	20	53	20
Corresponding period 1915	53	20	53	20	53	20	53	20	53	20	53	20	53	20	53	20	53	20	53	20
Increase	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Decrease	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

Total Rs. 35 Cts. being 15 p. cent. rebate on amount of light and harbour dues refunded from 1st January to 31st December, 1916.

No. 2—Returns of all Ocean-going Vessels that have Entered and Cleared the Port of Zanzibar during the Years 1908-10.

WITH CARGONS.

Nationality.	Sailing		Steam	
	Vessels.	Tonnage.	Vessels.	Tonnage.
British	127	228,676
French	36	61,065
German	121	305,881
Norwegian	6	8,162
Italian	1	3,198
Other nationalities	996	...
Total	1	995	291	606,983

TOTAL.

Nationality	1908		1909		1910		Gross Tonnage.
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	
British	53	82,637	94	102,650	127	228,676	361,168
French	25	58,788	31	60,014	36	61,065	100,103
German	121	239,045	131	327,500	121	305,881	485,311
Norwegian	1	997	3	3,622	6	8,162	13,479
Italian	...	...	...	...	1	3,198	6,147
Other nationalities	2	3,898	3	2,893	2	4,191	6,147
Total	202	445,350	262	496,679	292	607,978	966,208

Returns of all Coasting Vessels that have Entered and Cleared the Port of Zanzibar during the Years 1908-10.

Nationality	1908		1909		1910		Gross Tonnage.
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	
British	3	608	70	12,800	3	483	1,000
French	66	10,742	64	3,562	71	14,445	52,563
German	73	3,237	...	...	55	3,213	11,930
Total	142	15,577	134	16,362	129	18,139	65,493

RETURN of Dhows Traffic during the Years 1908-10.

ENTERED.

Nationality.	1908		1909		1910	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
Zanzibar British	2,535	37,150	2,537	37,812	2,128	30,013
Zanzibar	1,946	19,688	1,626	16,704	1,411	13,911
British E. Africa	207	4,811	158	2,597	190	3,681
Indian	214	17,321	189	8,589	191	4,259
Arabian	214	10,809	208	9,588	170	11,668
Total	5,116	89,379	4,668	79,332	4,079	64,497
German	1,120	9,290	1,020	8,652	1,004	8,964
French	29	7,365	35	1,430	8	1,194
Italian	28	967	26	850	21	662
Portuguese	4	167	2	75	...	...
Grand total	6,297	95,538	5,751	88,130	5,024	100,000

CLEARED.

Nationality	1908		1909		1910	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
Zanzibar British	2,562	38,012	2,544	37,316	2,197	31,283
Zanzibar	1,987	19,337	1,663	17,040	1,481	14,020
British E. Africa	211	4,499	137	2,567	186	2,481
Indian	205	10,804	144	8,721	87	2,019
Arabian	217	12,366	214	11,184	182	17,580
Total	5,182	83,028	4,702	76,824	4,133	67,383
German	1,106	9,068	1,016	8,677	1,006	8,566
French	27	1,218	33	1,520	28	1,190
Italian	29	972	27	840	22	690
Portuguese	2	120	3	75	...	...
Grand total	6,546	96,986	5,781	88,246	5,274	100,000

RETURN of Men-of-War that have Entered the Port of Zanzibar during the Year 1910

Nationality—	Number of Men-of-War.
British	5
German	6
Italian	1
Portuguese	1
Total	13

Y. A. BARDU, Port Officer.

No. 3.—Returns of Dhows Registered, Numbered and Licensed during the Year ending 31st December, 1910.

Residency.	Number of Dhows.	Number of Crew Employed.	Tonnage.	Amount Received.
British	136	839	2,388 24	1,169 74
Zanzibar	181	862	1,608 41	1,201 24
Protectorate (not for Arabian Dhows, &c.)				324 00
Total	318	1,701	4,001 65	4,315 00
Corresponding period 1909	316	1,858	4,280 14	5,417 50
Increase	2	143	271 51	897 50
Decrease				102 00

F. S. BARDO, Port Officer.

No. 4.—Returns of Arrivals, Departure and Tonnages of British, Zanzibar, British East Africa Protectorate, Indian and Arabian Dhows in the Year 1910.

Month.	Zanzibar British Dhows.				Zanzibar Dhows.				British East Africa Protectorate.			
	Arrivals.	Departure.	Arrival.	Departure.	Arrival.	Departure.	Arrival.	Departure.	Arrival.	Departure.	Arrival.	Departure.
	Numbers.	Tonnages.	Numbers.	Tonnages.	Numbers.	Tonnages.	Numbers.	Tonnages.	Numbers.	Tonnages.	Numbers.	Tonnages.
January	295	2,844 36	226	2,102 00	114	1,123 24	139	1,369 79	23	469 61	20	277 35
February	287	2,412 36	254	2,149 35	187	1,243 63	122	1,029 08	21	725 44	28	262 01
March	228	2,124 26	227	2,203 40	127	1,308 37	135	1,269 70	21	475 21	25	241 50
April	177	1,551 01	165	2,295 35	65	878 20	66	1,265 64	26	411 52	21	241 21
May	182	1,521 01	165	2,465 27	65	1,111 66	136	1,585 24	26	241 52	21	241 21
June	182	2,279 06	141	2,109 54	144	1,264 54	156	1,585 24	26	241 52	21	241 21
July	211	1,954 18	145	2,746 74	144	1,264 54	156	1,585 24	26	241 52	21	241 21
August	200	2,061 84	202	2,815 24	141	1,264 54	141	1,264 54	26	241 52	21	241 21
September	200	2,061 84	195	2,730 41	141	1,264 54	141	1,264 54	26	241 52	21	241 21
October	171	2,022 26	177	2,652 70	109	841 76	456	1,264 54	26	241 52	21	241 21
November	171	2,022 26	177	2,652 70	109	841 76	142	1,264 54	26	241 52	21	241 21
December	171	2,022 26	177	2,652 70	109	841 76	142	1,264 54	26	241 52	21	241 21
Total	2,525	20,522 08	2,239	21,200 15	1,411	14,811 44	1,601	15,000 28	160	3,620 24	158	1,641 12
Corresponding period 1909	2,525	21,611 07	2,239	22,910 23	1,428	14,000 27	1,602	15,000 28	158	3,620 24	152	1,641 12

Barriers of Arrival, Departure and Tonnages of British, Zanzibar, British East Africa, Protectorate, Indian and Arabian Dishes in the Year 1910—continued

Months	Arrival						Departure						Total	
	British		Zanzibar		Other		British		Zanzibar		Other		Numbers	Tonnages
	Numbers	Tonnages	Numbers	Tonnages	Numbers	Tonnages	Numbers	Tonnages	Numbers	Tonnages	Numbers	Tonnages		
January	10	285 44	4	76 20	18	845 97	8	166 51	381	5,654 46	261	5,681 06	381	5,681 06
February	10	280 36	8	280 79	65	5,603 87	31	1,848 76	493	9,392 67	423	9,392 67	493	9,392 67
March	13	3,189 17	13	806 91	85	5,109 64	69	4,161 37	486	11,539 63	473	9,447 21	486	11,539 63
April	8	867 69	7	837 41	12	1,411 36	65	4,543 75	272	5,220 96	345	9,684 40	272	5,220 96
May	3	174 30	7	300 74	1	65 87	9	975 65	240	3,139 87	205	2,778 16	240	3,139 87
June	6	344 75	4	400 62	1	106 51	1	106 51	322	4,465 02	317	4,465 02	322	4,465 02
July	7	225 73	1	225 73	1	106 51	1	106 51	283	3,953 72	306	4,159 27	283	3,953 72
August	12	879 19	12	411 18	1	106 51	1	106 51	344	4,904 24	343	4,904 24	344	4,904 24
September	6	265 53	10	749 28	1	106 51	1	106 51	328	4,941 01	343	5,064 51	328	4,941 01
October	5	569 52	3	46 59	1	106 51	1	106 51	397	5,844 76	384	6,027 47	397	5,844 76
November	2	207 67	3	85	5	271 57	2	66 64	278	3,698 86	284	4,117 54	278	3,698 86
December	4	26 59	3	50 67	6	271 57	2	66 64	271	3,870 65	277	4,137 74	271	3,870 65
Total	101	4,398 48	57	4,079 06	186	11,687 81	187	11,582 18	4,039	46,591 45	4,170	50,163 53	4,039	46,591 45
Corresponding period, 1909	159	8,579 26	144	6,129 42	308	9,989 11	214	11,180 64	4,668	76,539 81	4,736	83,279 62	4,668	76,539 81

F. S. BAKO, Port

No. 5.—YEARLY REPORT OF PASSENGERS' DEPARTURE FROM ZANZIBAR DURING THE YEAR ENDING 31st DECEMBER, 1910

Months	Ports														Total			
	M'Kamli	Great Chake	Wata	Kaga	Fungu	Dogonyi	Dogonyoni	Kilima	Kilima	Chaka	Kilima	Mombasa	Mahidi	Lamu		Vanga	Mombasa	Great
January	60	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
February	62	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
March	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
April	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
May	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
June	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
July	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
August	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
September	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
October	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
November	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
December	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
Total	500	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270

Yearly Report of Passengers Departure from Zanzibar to the following Ports during the Year ending 31st December, 1910—continued.

Months	Kisumu	Tunis	Kampala	Batavia	Maraka	Mogadishu	Shant	Mahara	Soof	Suez	Makala	Sherber	Rasul Kuma	Gich Madaya	Karachi	Del Davaira	Aden	Total
January	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
February	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
March	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
April	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
May	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
June	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
July	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
August	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
September	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
October	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
November	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
December	16	2	28	10	10	3	206	100	55	41	111	6	36	11	6	36	586	5,699
Total	160	20	336	100	100	30	2,060	1,000	550	410	1,110	60	360	110	60	360	5,886	56,990

F. S. BARDO, Port Officer

WIRELESS TELEGRAPH STATIONS.

Statement showing Total Receipts for the Year ending 31st December, 1910.

Months	Zanzibar		To Ship		Passes		From Ship		Total	
	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.		
January	217	00			222	00			439	00
February	244	00			180	00			424	00
March	226	35			192	00			418	35
April	191	73			173	10			364	83
May	137	00			160	35			297	35
June	124	12			125	00			249	12
July	160	00	11	25	184	50	25	12	419	27
August	182	50			230	75			413	25
September	54	62	1	25	58	25	10	75	123	87
October	214	75			100	75	1	1	316	50
November	130	87			85	75			216	62
December	81	00			68	50			149	50
Total	2,018	73	11	25	1,943	50	67	62	3,999	67
Corresponding period 1909	1,559	77			1,741	40			3,301	17

Statement showing Total Expenditure for the Year ending 31st December, 1910.

Months	Wages		Fuel and Stores		Repairs and Contingents		Travelling Allowance		Passages		Total	
	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.	Rs.	Cs.
January	62	42			63	59	290	75			416	76
February	1,781	25			28	05	51	00			1,860	30
March	852	31			34	00	47	77			933	08
April	787	48			34	00	47	77			872	25
May	152	00			109	04	33	00			294	04
June	1,430	86			67	78	36	09			1,534	73
July	1,044	36			89	00	11	12			1,144	48
August	361	68			44	06	21	00			426	74
September	761	00			30	41	58	53			850	94
October	1,441	00			18	00	290	55			1,749	55
November	751	64			79	05	270	00			1,000	69
December	919	00			143	18	413	50			1,475	68
Total	10,146	38	283	25	1,473	62	610	65			12,513	88
Corresponding period 1909	10,351	66	600	60	4,437	20	600	41	430	20	15,819	67

F. S. BARDO, Port Officer

Post Office

Annual Report of Post Office for the Year ending 31st December, 1910.

Post Office

Zanzibar, 12th February, 1911

Sir,

I have the honor to submit my annual report for the year 1910. General.—No change of alteration requiring mention has been effected by the ordinary routine, and the Post Office has been worked in the same way and on the same lines as in 1909. The Post Office at Bububu was closed for the public for stationery want of transactions.

Mail traffic.—Correspondence and parcels.
Inland.—It has been estimated that the inland movement for the year stands as follows:—

	1909.	1910.
Ordinary letters and parcels	42,747	44,460
Registered articles	2,324	2,501
Postcards	229	247
Other articles	1,027	1,404
Total	46,727	48,612
Increase for 1910		1,885

An increase of 1,885 articles in the aggregate has been found and the development noticed in 1909 has been maintained. As stated in my previous report this is due to the correspondence between Pemba and Zanzibar. The sub-post offices in the Zanzibar island so far have not been utilised by the public.

Foreign.—The figures for foreign movement are estimated to be 612,837, out of which 297,990 were issued for delivery, 250,292 were posted in Zanzibar for destination abroad and 64,555 passed in transit. An increase of 20,453 is found in articles for foreign countries, mostly in postcards. The increase is due to more ships now calling at Zanzibar on their way to Europe and India and giving more opportunities to local residents to communicate with their friends abroad. The passengers brought by these steamers account also to the increased number in postcards.

Full details are given in Appendices A to D.

Customs duty.—On behalf of His Highness's Customs 7,000 rupees 19 cents were collected on parcels.

Dead Letter Office.—Out of 297,990 articles received for delivery from foreign countries 2,159 were returned as undeliverable. The number of articles received back at Zanzibar from foreign countries was 1,119.

Mail Receipts. 5,916 were used for the conveyance of mails, being 666 more than in previous year.

CLOSED BAGS IN TRANSIT.

	1909.	1910.
Unpaid bags in transit	918	1,258
Closed closed bags	106	95
Total	1,024	1,353
Increase in 1910 (see Appendix E)		329

EXCHANGE OF MAILS.

Inland.

	1909.	1910.
Mails exchanged with various sub-post offices being exchanged with officials	908	1,244
	51	134
Total	959	1,378
Increase in 1910		424

Foreign.

Mails received in—	1,478
1909	1,237
1910	
Increase in 1910	241
Mails despatched in—	1,103
1909	1,176
1910	
Increase in 1910	73

Full details will be found in Appendix F.
Homeward and Outward Mails. The homeward mails were carried by 36 steamers, and the outward mails were brought by 57.

Mails-conveying Vessels. 440 vessels arrived with mails and 434 sailed with mails, an increase of 65 and 55 each way respectively.

Money Order Branch. What was said under this head in my report for 1909 still holds good.

The Italian Southern Somaliland having now altogether ceased to draw, the final result has slightly fallen off.

The orders from Portuguese East Africa have further gone high by about 15,000 rupees, and it is very satisfactory to note that the inland orders have risen to 3,81,201 rupees 31 cents, about 40,000 rupees more than in the year 1909.

The transactions of this branch are fully detailed in Appendix I and a summary is given below:—

	1909.	1910.
Money orders issued	2,01,516 72	2,51,042 25
Money orders paid	2,00,271 28	2,52,800 26
Commission on money orders	4,778 34	4,778 34
Premium on orders issued	2,673 34	2,500 27
Total	2,09,038 68	2,60,621 16
Increase in 1910		51,582 48

Out of 8,51,043 rupees 25 cents shown as issued at Zanzibar, 51,963 rupees 25 cents represent transit orders, Portuguese East Africa being responsible for 71,170 rupees 44 cents, which it draws by one introductory on India. The amount is that orders to the value of 7,59,177 rupees 34 cents only were actually issued in Zanzibar.

Refunded Orders.—25 orders, amounting to 7,274 rupees 50 cents, have been refunded to foreign countries, and 31 orders to the value of 2,537 rupees 56 cents have been received back in Zanzibar for repayment to remitters.

Out of the inland orders only 7 orders to the value of 15 rupees were refunded.

British Postal Orders. 1,509 British postal orders of the value of 14,456 rupees 25 cents, were sold during the year, and 600, of the value of 6,965 rupees 25 cents, cashed. The allowance received for this service from the British Post Office was 31 rupees 50 cents, and the share of postage on postal orders sold was of 194 rupees.

Savings Bank.—The total number of accounts opened up to 31st December, 1910, is 962, and the number of accounts closed is 315, leaving a balance of 647 active accounts.

The deposits amounted to 1,91,506 rupees 41 cents and the withdrawals to 1,79,104 rupees, 66 cents, leaving a balance of 66,491 rupees 74 cents in the credit of 647 depositors on the last day of the year.

The interest allotted to depositors was 1,280 rupees 20 cents, and the net profit to the Post Office 686 rupees 98 cents.

	Rs.	Cts.
Receipts—		
Postage collections	86,873	38
Commission on money and postal orders	3,098	63
Telegraph revenue	3,798	74
Various other receipts	1,944	01
Total	95,713	76
Expenditure—		
Salaries of the staff	16,057	30
Cost of mail and parcel receptacles and conveyance	11,683	98
Share of commission on money and postal orders and of postage on parcels	4,378	29
Cost of stamps	3,085	50
Miscellaneous	3,621	01
Total	39,125	88

It will be seen from the Appendix J, where full particulars of the revenue and expenditure are given, that the share of commission on money orders alone is responsible for a decrease of about 8,000 rupees, which would more than cover up the decrease of the general total as compared with the year 1909. This is due to Beaudin discontinuing to draw on Zanzibar, as previously said.

849 rupees 62 cents interest on Savings Bank deposits represent the first half-year's interest allowed, the second half-year's, 1,077 rupees 56 cents, which should be added to the above amount, being not accounted for during the year under report.

On the other hand, the telegraph revenue, 3,798 rupees 74 cents, has to be set off for though the telegraph work is partly carried on by the department under my control, the expenses are all charged to the wireless department.

The real grand total of the Post Office revenue would, therefore, stand at 47,893 rupees 53 cents.

The expenditure compared with the previous year has increased by 4,331 rupees 08 cents, but the accounts for the carriage of mails, which had not been submitted in 1909 had to be settled during the course of 1910, and 11,432 rupees 29 cents had to be spent, compared with 2,506 rupees 62 cents of the previous year. Though about 9,000 rupees more had to be paid out, it was partly met by substantial decreases under various sub-heads, so that only 4,331 rupees 08 cents more were actually spent.

GROSS RECEIPTS AND PAYMENTS.

	Rs.	Cts.
Money orders issued	461,043	38
Money orders paid	16,833,890	80
Money orders returned	4,786	08
Foreign bank deposits for the year	69,135	86
Withdrawals from the Savings Bank for the year	49,127	29
Bank orders and Postal orders sold	14,356	26
Postal orders issued	6,885	25
Expenses	50,414	71
Total	16,66,323	07

Compared with the year 1909, there is a difference for less of 1,29,716 rupees 35 cents.

In conclusion, I trust my report for 1910 will meet with your approval.

I have the honour to be,

SIR,

Your most obedient servant,

T. DA. SILVEIRA, Acting Postmaster.

Tables showing Business transacted in connection with the Zanzibar Post Office for 1910.

A.—SUMMARY of Mail Traffic.

Designation.	Received.			
	1909.	1910.	Increase.	Decrease.
Letters	169,976	168,759	1,217	2,217
Postcards	5,612	9,554	3,942	
Other articles	100,889	103,399	2,510	
Registered articles (actual)	44,010	13,114		30,896
Parcels (actual)	1,088	2,068	980	
Total	281,584	297,894	16,310	447

Designation.	Despatched.			
	1909.	1910.	Increase.	Decrease.
Letters	158,561	166,374	7,813	
Postcards	32,201	41,544	9,343	
Other articles	23,464	23,871	407	
Registered articles (actual)	14,750	14,746		
Parcels (actual)	1,867	2,063	196	
Total	229,843	248,598	18,755	

Designation.	Transit.			
	1909.	1910.	Increase.	Decrease.
Letters	16,380	40,534	24,154	
Postcards	3,042	7,404	4,362	
Other articles	6,110	14,417	8,307	
Registered articles (actual)	2,674	1,189		1,485
Total	28,206	63,544	35,338	1,485

B1.—ESTIMATED Number of Ordinary Letters, Postcards, Newspapers and Book Packets received during the Year 1910.

Country.	Letters.	Postcards.	Newspapers and Book Packets.
Europe—			
Austria	66	111	61
Belgium	96	33	39
Denmark	130	126	36
Bulgaria	33		
Denmark	66	33	36
France	2,854	838	4,692
Germany	6,960	2,307	9,267
Great Britain	26,139	1,076	27,215
Greece	94	10	104
Holland	306	76	382
Italy	1,360	104	1,464
Norway	100	11	111
Portugal	100	11	111
Roumania	64	10	74

ESTIMATED Number of Ordinary Letters, Postcards, Newspapers and Book Packets Received during the Year 1910—continued.

Country	Letters	Postcards	Newspapers and Book Packets
Europe—continued.			
Russia	78	13	52
Serbia	13	13	...
Spain	208	91	65
Sweden	52	13	...
Switzerland	390	208	221
Turkey	104	...	78
British Colonies	221	59	65
Africa—			
Nyasaland Protectorate	520	...	78
British East Africa and Uganda	28,405	596	5,200
Cape	819	13	36
EGYPT	1,534	143	988
German East Africa	12,194	520	2,561
Italian Colonies	364	39	...
Madagascar and Dependencies	6,903	65	104
Mauritius	208	26	52
Morocco	13	...	...
Algeria	52	...	...
Katol	1,183	65	910
Orange River Colony	130	...	...
Portuguese East Africa	3,861	104	620
British Somaliland	195	13	...
Rhodesia	416	64	91
Seychelles	780	52	73
Transvaal	1,313	30	130
Tunis	26	13	...
Other French Colonies	13	...	...
Other British Colonies	91	...	...
Asia—			
China	39	13	...
Ceylon	2,418	78	650
India	56,004	650	26,325
Japan	91	13	...
Portuguese India	3,913	100	2,421
Siam	13	...	...
Turkey	780	13	...
Dutch Colonies	39	...	...
Other British Colonies	286	39	...
Philippine Islands	65	13	...
Australia—			
Argentina Republic	26	...	13
Brazil	13	39	...
Canada	104	39	390
Chile	13	...	...
Cuba	13	...	13
United States of America	2,418	78	2,639
United Kingdom	26	...	13
Western British Colonies	26	13	...
Yokohama	26	...	...
Yokohama	26	13	...
Australia—			
Argentina Republic	221	...	143
Total			
	168,753	6,555	103,597
Total			
	40,534	7,406	14,417

B2.—ESTIMATED Number of Ordinary Letters, Postcards, Newspapers and Book Packets Despatched during the Year 1910.

Country	Letters	Postcards	Newspapers and Book Packets
Europe—			
Austria	650	205	4 50
Hungary	78	26	...
Belgium	91	612	13
Bulgaria	13	13	...
Denmark	130	490	267
France	5,505	6,872	286
Germany	3,643	8,773	286
Great Britain	2,005	1,784	4,264
Greece	26	104	...
Holland	124	125	30
Italy	1,072	1,072	64
Norway	78	36	...
Portugal	418	400	70
Roumania	13	104	24
Russia	354	108	...
Spain	141	70	33
Sweden	30	...	...
Switzerland	212	50	81
Turkey	78	39	13
Serbia	13	...	13
British Colonies	311	13	323
Africa—			
Abyssinia	13	...	...
Nyasaland Protectorate	1,183	104	574
British East Africa and Uganda	20,279	312	3,314
Cape	1,371	1,331	117
Egypt	1,371	1,371	2,572
German East Africa	13,038	70	45
Italian Colonies	360	...	...
Madagascar and Dependencies	4,447	2,620	104
Mauritius	204	...	...
Algeria	52	...	...
Morocco	4,707	104	330
Natal	26	...	...
Orange River Colony	26	...	267
Portuguese East Africa	1,534	13	...
British Somaliland	204	...	...
Rhodesia	416	64	91
Seychelles	780	52	73
Transvaal	1,313	30	130
Tunis	26	13	...
Other French Colonies	13	...	...
Other German Colonies	26	...	...
Other British Colonies	130	...	...
Other Portuguese Colonies	30	...	...
Congo Free State	264	...	...
Asia—			
China	39	...	...
Ceylon	2,418	78	650
India	51,500	650	26,325
Japan	91	13	...
Portuguese India	3,913	100	2,421
Siam	13	...	...
Turkey	780	13	...
Dutch Colonies	39	...	...
Other British Colonies	286	39	...
Other Portuguese Colonies	13	...	...
French Colonies	26	...	...
Peru	26	...	...
Philippine Islands	65	13	...
America—			
Argentina Republic	26	...	13
Brazil	13	39	...

Approximate Number of Ordinary Letters, Postcards, Newspapers and Book Parcels Despatched during the Year 1910—continued.

Countries.	Letters.	Postcards.	Newspapers and Book Parcels.
America—continued.			
Canada	169	36	34
Cuba	39	...	...
United States of America	1,066	416	286
Other British Colonies	39	13	...
French Colonies	13	13	...
Mexico	13	...	...
Uruguay	13	13	...
Australasia—			
Australia	234	169	30
New Zealand	65	26	6
Total	166,374	41,548	25,671
Total	40,534	7,046	14,417

C1.—ACTUAL Number of Registered Articles Received during the Year 1910.

Countries.	Number of Registered Articles.
Europe—	
Germany	2,313
Austria	176
Hungary	1
Belgium	71
Denmark	4
Spain	13
France	638
Great Britain	1,280
Greece	16
Sweden	239
Norway	1
Denmark	215
Holland	54
Portugal	9
Romania	30
Russia	1
Switzerland	19
Turkey	3
Mexico	3
British Colonies	5
Africa—	
French West Africa	41
British East Africa and Uganda	1,063
German East Africa	1,208
Natal	39
Cape	119
Egypt	205
Seychelles	40
Portuguese East Africa	998
Rhodesia	17
Mauritius	15
Algeria	19
Transvaal	54
Tripoli	5
Tunis	5
Morocco	3
Orange River Colony	3
Orange Free State	3
French Colonies	354
Italian Colonies	143
Other British Colonies	3
Other Portuguese Colonies	1
Other German Colonies	1

ACTUAL Number of Registered Articles Received during the Year 1910—continued.

Countries.	Number of Registered Articles.
Asia—	
India	1,803
Portuguese India	56
Turkey in Asia	55
Japan	30
Siam	22
Ceylon	20
Persia	17
Other British Colonies	15
Other Portuguese Colonies	3
Dutch Colonies	2
French Colonies	2
America—	
United States of America	21
Brazil	1
Argentine Republic	1
Chile	1
British Colonies	1
Mexico	1
Australasia—	
Australia	1
Total	(2,112)

C2.—ACTUAL Number of Registered Articles Despatched during the Year 1910.

Countries.	Number of Registered Articles.
Europe—	
Germany	1,520
Austria	115
Hungary	3
Belgium	30
Denmark	10
Spain	8
France	380
Great Britain	2,313
Greece	13
Sweden	280
Norway	30
Denmark	67
Holland	117
Portugal	41
Romania	16
Russia	30
Switzerland	12
Turkey	3
British Colonies	3
Africa—	
French West Africa	53
British East Africa and Uganda	1,063
German East Africa	1,208
Natal	39
Cape	119
Egypt	205
Seychelles	40
Portuguese East Africa	998
Rhodesia	17
Mauritius	15
Algeria	19
Transvaal	54
Tripoli	5
Tunis	5
Morocco	3
Orange River Colony	3
Orange Free State	3
French Colonies	354
Italian Colonies	143
Other British Colonies	3
Other Portuguese Colonies	1
Other German Colonies	1
Abyssinia	1

Actual Number of Registered Articles Despatched during the Year 1910—continued

Countries.	Number of Registered Articles
India	2,199
Portuguese India	514
Turkey in Asia	37
Japan	39
China	49
Ceylon	11
Peru	4
Other British Colonies	14
Other Portuguese Colonies	10
Dutch Colonies	6
French Colonies	2
Philippine Islands	2
America—	
United States of America	109
Brazil	6
Canada	4
Argentine Republic	3
Mexico	1
Australasia—	
Australia	15
Total	14,746

D.—"EXCHANGE OF PARCELS" Received and Despatched.

Received.

Countries	Number of Parcels		Value	
	1909	1910	Rs.	Cts.
United Kingdom	1,719	1,476	1,004	81
India	1,302	1,249	73,310	88
British East Africa and Uganda Protectorate	121	121	4,027	37
Germany East Africa	40	34	...	...
Portuguese East Africa	19	11	318	88
Madagascar and Dependencies	35	28	...	...
Other Colonies	48	53	...	...
Total	3,088	2,966	1,16,671	94

Despatched.

Countries.	Number of Parcels.		Value.	
	1909.	1910.	Rs.	Cts.
United Kingdom	822	567	20,722	56
India	315	303	14,554	88
British East Africa and Uganda Protectorate	268	257	6,251	88
Germany East Africa	60	184	...	...
Portuguese East Africa	40	28	518	87
Madagascar and Dependencies	112	187	...	...
Other Colonies	366	527	...	...
Total	1,983	2,063	33,907	69

"EXCHANGE OF PARCELS" Received and Despatched—continued.

	Number of Parcels	Amount
United Kingdom	298	...
India	531	...
Madagascar and Dependencies	...	...
Portuguese East Africa	...	...
Total	515	70,300 15

Insured Parcels Despatched

	Number of Parcels	Amount
United Kingdom	12	Rs. 5,207 50
India	55	11,145 00
Madagascar and Dependencies	6	208 37
Portuguese East Africa	6	3,740 00
Total	141	20,300 87

An increase in (310 of 140 ships.

1909 1910	Place of Destination	1909 1910	Place of Destination
1	Ibo.	1	London.
1	Mozambique.	2	Lisbon.
7	Leo. Marques.	2	Paris a Modan.
9	British Chinde.	10	French Packet Agen.
9	Portuguese Chinde.	1	Paris.
9	Port Amelia.	2	Berlin.
13	Tanga.	10	Brindisi.
1	Salisbury.	0	F. K. Bale.
4	Bagamoyo.	0	F. S. Bale.
5	Beira.	1	L. Hoff.
11	Bukoba.	2	Naples.
2	Hong-Kong.	12	Munchen Kufstein.
1	Singapore.	7	Tuticorin.
1	Cape Town.	1	Port Said.
4	Durban.	3	Muzza.
4	Nossibe.	11	Suez (Port Taufig.)
9	Majunga.	18	Aden.
10	French Ships.	2	Rome.
6	Inhambane.	4	Colombo.
7	Omilimane.	11	Goa Talcoite.
1	Seychelles.	107	Bombay.
4	Italian Ships in East Africa.	27	Nora Goa.
12	German Ships in East Africa.	24	Mombasa.
10	British Ships in East Africa.	20	Italian Benadir.
15	British Ships in South Africa.	21	Schirati.
11	In Depot.	0	Darressalam.
916	Total.	672	

E2.—DEPARTED during the Year 1910

An increase in (310 of 140 ships.

1909 1910	Place of Origin	1909 1910	Place of Origin
12	Darressalam.	1	London.
6	Ibo.	10	Beira.
11	Mozambique.	7	Paris.
4	Quilimane.	11	Paris a Modan.
1	Inhambane.	9	Paris M. Gen.
9	Beira.	12	French Packet Agen.
12	F. Chinde.	12	Berlin.
12	F. Chinde.	11	Hamburg.
12	Leo. Marques.	10	F. K. Bale.
0	Portoria.	14	Johannesburg.
0	Johannesburg.	1	L. Hoff.
1	Durban.	2	F. S. Bale.
1	Port Amelia.	2	Brindisi.
1	Brindisi.	2	Naples.
1	F. K. Bale.	12	Munchen Kufstein.
1	Tuticorin.	7	Tuticorin.
1	Port Said.	1	Port Said.
3	Muzza.	3	Muzza.
11	Suez (Port Taufig.)	31	Aden.
18	Aden.	2	Rome.
2	Rome.	4	Colombo.
4	Colombo.	11	Goa Talcoite.
11	Goa Talcoite.	107	Bombay.
27	Bombay.	24	Nora Goa.
24	Nora Goa.	20	Mombasa.
20	Mombasa.	21	Italian Benadir.
21	Italian Benadir.	21	Schirati.
21	Schirati.	0	Darressalam.
0	Darressalam.	672	Total.

E1.—ARRIVED during the Year 1910

Grand total of 1910

Local Closed Bags

E3.—RECEIVED during the Year 1910.

Place of Origin	London	Aden	Rome	Berlin	Italian Consulate	Leo Marques	Darassalam	German Ships in East Africa	Italian Ships in East Africa	British Ships in East Africa	British Ships in South Africa	British Consulate Leo Marques	French Ships	Total
1910	23	12	3	1	1	1	1	1	8	9	8	24	1	106
1909	23	12	3	1	1	1	1	1	11	11	3	24	1	95

Showing a Decrease in 1910 of 11 bags.

E4.—DEPARTED during the Year 1910.

Place of Destination	London	Rome	Berlin	Mombasa	British Consulate	British Ships in East Africa	British Ships in South Africa	Italian Ships in East Africa	German Ships in East Africa	French Ships in East Africa	British Consulate Leo Marques	Total
1910	28	8	10	...	18	24	6	10	7	...	2	106
1909	27	14	10	...	16	26	12	4	2	...	2	95

Showing a Decrease in 1910 of 11 bags.

F.—EXCHANGE of Foreign Mails during the Year 1910.

Office of Origin	Received	Number of Mails
London	...	161
Bombay	...	104
Aden	...	95
French Packet Agent	...	92
London	...	27
Mombasa	...	54
Darassalam	...	72
Kenya	...	53
Paris & London	...	52
Paris West Coast	...	27
Mombasa	...	15
French Packet Agent	...	39
Paris East	...	26
Paris West	...	27
Aden	...	64
Bombay	...	37
Sea Post Office	...	59
India	...	14
Ships	...	24
Ships	...	11
Ships	...	7
India	...	4
Mombasa	...	131
Tanga	...	85
Funguti	...	16
Baganoyo	...	40
Darassalam	...	116
Kilwa	...	2
Lindi	...	6

Received—continued.

Office of Origin	Number of Mails
Ibo	20
Mozambique	34
Oglimano	6
Portuguese Chinde	24
British Chinde	26
Beira	30
Leo Marques	56
Durban	56
Inhambane	3
Tamnatve	13
Diego Suarez	14
Grande Comoro	9
Anjouan	9
Majunga	13
Noesibe	14
Ananalava	28
Mayotte	6
Moheli	25
Seychelles	96
Mauritius	11
Giumbo	1
Southampton	1
Total	527

Total

Departed

Office of Destination	Number of Mails
London	31
Brindisi	11
Naples	21
Kulstein Munchen	10
Marquilles	44
Modan & Massan	20
French Packet Agent	10
Port Taulag	40
Aden	63
Sea Post Office	50
Bombay	13
Mormu Goa	19
Brava	24
Mogadiscio	14
Merka	4
Kismayo	104
Mombasa	98
Tanga	85
Funguti	16
Darassalam	120
Baganoyo	40
Kilwa	2
Lindi	6
Ibo	20
Mozambique	34
British Chinde	26
Beira	30
Leo Marques	56
Durban	56
Capo Town	3
Inhambane	3
Tamnatve	13
Diego Suarez	14
Grande Comoro	9
Anjouan	9
Majunga	13
Noesibe	14
Ananalava	28
Mayotte	6
Moheli	25
Seychelles	96
Mauritius	11
Inhambane	3
Diego Suarez	14
Total	527

Total

G.—FORWARD and Outward Mails during the Year 1910.

Name of Vessel	Company	Homeward	Outward
Florida	B. T. S. N. Co.	7	7
Plaza	"	6	6
Natal	Messageries Maritimes	3	3
Lynx	"	3	3
Willoway	"	2	2
Osier	"	2	2
Admiral	"	2	2
Adolph Wierman	"	2	2
Kang	D. O. A. Line	4	4
Prinzess	"	2	2
Kronprinz	"	3	2
Feldmarschal	"	2	2
Herrng	"	3	4
Wendell	"	2	2
Waldemar	"	2	2
Waldemar	"	1	1
Burgtheater	"	2	2
General Wierman	"	2	2
Admiral	"	1	2
Prinz Regent	"	1	2
Prinzregent	"	1	1
Kronprinz	"	1	1
Waldemar	"	1	1
Kaiser	"	1	1
Europa	S. N. S. M. Line	2	1
Europa	"	1	1
Frederik	"	1	1
Goth	Union Castle Line	1	1
St. Rita	"	1	1
Total		58	57

H.—ARRIVAL AND DEPARTURE OF VESSELS carrying Mails during the Year 1910.

Arrivals.

	Number
Contract	206
Non contract	401
British Ships of War	5
Italian Ships of War	1
German Ships of War	2
French Ships of War	1
German East Africa Despatch Service	54
Zanzibar Government Despatch Service	65
Telegraph Ships	5
Others	1
Total	449

Departure.

	Number
Contract	227
Non contract	72
British Ships of War	5
Italian Ships of War	2
German Ships of War	1
French Ships of War	1
German East Africa Despatch Service	54
Zanzibar Government Despatch Service	70
Telegraph Ships	2
Total	434

I.—ORDERS drawn by and upon Zanzibar.

Year	Number of Orders Issued	Commission on Orders Issued		Amount of Orders Issued	
		Rs.	Cts.	Rs.	Cts.
1909	7,503	4,176	00	2,11,200	25
1910	7,702	4,379	16	2,51,045	22

Year	Number of Orders Paid	Share of Commission on Orders Paid		Amount of Orders Paid	
		Rs.	Cts.	Rs.	Cts.
1909	3,063	2,673	94	6,99,731	28
1910	3,041	2,306	22	1,62,380	30

Countries upon which Orders are drawn by Zanzibar.	Number of Orders		Amount	
	1909	1910	1909	1910
	Rs.	Cts.	Rs.	Cts.
India	5,385	5,787	2,82,026	00
British East Africa	214	249	20,070	00
German East Africa	81	84	1,777	94
Seychelles	29	12	1,370	23
Benadir	4	3	672	61
Cape Colony	4	13	347	22
United Kingdom	329	54	1,200	40
Nyasaland	7	1	80	00
Portuguese East Africa	1,293	1,332	1,32,584	56
Inland	13	1	600	00
Withdrawn	1	1	600	00
Total	7,503	7,702	1,11,900	75

Countries by which Orders are drawn upon Zanzibar.	Number of Orders		Amount	
	1909	1910	1909	1910
	Rs.	Cts.	Rs.	Cts.
India	182	216	39,000	00
British East Africa	333	330	46,378	73
German East Africa	327	376	28,620	61
Seychelles	14	29	1,770	23
Benadir	343	30	1,81,068	28
Cape Colony	30	16	2,461	06
United Kingdom	70	79	4,157	96
Nyasaland	2	2	190	00
Portuguese East Africa	486	922	90,118	00
Inland	1,309	1,332	4,32,204	00
Withdrawn orders	3	1	600	00
Total	3,063	3,041	6,99,731	28

12 - Receipts and Repaid Orders from and to Zanzibar.

	Rs.	Cts.
Portuguese East Africa	71,170	44
British East Africa	5,457	43
German East Africa	5,268	81
United Kingdom	74	00
Total	81,965	69

Repaid Orders.

By Zanzibar	Number of Orders.	Amount
India	2	Rs. Cts. 79 69
British East Africa	4	61 06
German East Africa	6	723 56
United Kingdom	7	588 38
Portuguese East Africa	9	755 81
Total	28	2,208 50

To Zanzibar	Number of Orders.	Amount.
India	48	Rs. Cts. 2,427 25
British East Africa	5	76 00
German East Africa	2	8 00
United Kingdom	2	21 31
Total	57	2,532 56
Loss	2	15 00

13 - STATEMENT showing the Net Revenue and Expenditure of the Zanzibar Post Office for the Year 1910.

Revenue	Rs.	Cts.
Sale of stamps	34,196	49
Underposts	1,005	28
Commission on Money and Postal Orders issued	6,722	68
Share of Commission on Money and Postal Orders paid	1,266	06
Charge of bank	51	37
Share of postage on parcels received	1,871	38
Various office charges	745	02
Interest on Savings Bank deposit	849	62
Telegraph receipts	3,798	74
Total	50,414	71

Expenditure	Rs.	Cts.
Postage on telegrams	15,613	81
Postage on all telegrams	2,431	80
Postage on all telegrams	82	84
Postage on all telegrams	324	70
Postage on all telegrams	968	50
Postage on all telegrams	1,961	87
Postage on all telegrams	2,793	32
Postage on all telegrams	250	69
Postage on all telegrams	11,438	23
Postage on all telegrams	4,065	50
Postage on all telegrams	10	80
Postage on all telegrams	1,241	27
Postage on all telegrams		
Total	36,125	88

Public Health Department.

Mr. Spurrer to First Minister, Zanzibar Government.

Sir: I have the honour to present a report of the Public Health Department's work for the year 1910, together with certain considerations on the public health generally of the town and islands.

Deaths.—The deaths in the town and suburban districts numbered—

1910	1,363
1909	1,124
1908	1,283
1907	1,204

134 deaths were from small-pox in epidemic form from June to December. The deaths from ordinary regular causes were 1,229 giving for the year a mortality of 24.58 per 1,000 if calculated on a town and suburban population of 50,000.

The population of the town and immediate suburbs has hitherto been estimated at 75,000, but from a recent attempt at a census it is made out to be only 40,000. As the correctness of this finding is disputed, a margin for error may be allowed and calculations made on 50,000, a drop of one-third from the former calculation.

Deaths, Sex.—There is a disproportion, the number showing a preponderance of males.

The figures are—

Males	738
Females	625

Nationality of the deceased

Swahilis	30
Khojas (Lomahis and Ithasheri)	207
Indian Mahomedan and Memons	21
Arabs	62
Banyans (Hindus)	54
Common Mozabils	69
Shoris	1
Bohoms	1
Somalis	1
Nyassas	1
Berabhis	1
Perakias	1
Gears	1
Arabs	1
Barawa Italian	1
Soudanese	1
Nandi	1
Maseju	1
Cingales	1
West Indian	1
Malaya	1
Mbia	1
Mindo	1
Total	763

Swahili deaths were—

1910	763
1909	599
1908	675
1907	599

Deaths from Small-pox.—Deaths registered:—

Total deaths	134
Of these were—	
Males	95
Females	39
Total	134

Nationality of the deceased:—

Swahili	86
Indians	20
Comoros	13
Arabs	7
Somalis	4
Sheris	2
Native of P. E. A.	1
West Indian	1
Total	134

Ages of the deceased:—

Under 1 year	9
1 to 5 years	10
5 to 10	8
10 to 20	26
20 to 30	56
30 to 40	20
40 to 50	2
Total	134
Deaths under 20 years	53
Deaths above 20 years	81
Total	134

Infantile deaths and deaths under 20 were:—

Due to—	
Small-pox	53
Other causes	282
Total	335

The infantile and child deaths in the three previous years were:—

1907	274
1908	281
1909	226

Causes of deaths under 20 years:—

Total deaths under 20 years	538
Small-pox	53
Convulsions	94
Enteritis	43
Diarrhoea	36
Debility	22
Typhoid fever	21
Dysentery	26
Dysentery	17
Fractures	10
Accidents	5
Ekhematosis	5
Hyperpyrexia	3
Tetanus	3
Engorgement of the spleen	3
Hemiplegia	2
Paratyphoid fever	2
Diphtheria	1
Marasmus	1
Inflammation of brain	1

Intestinal toxemia
Syphilis
Pneumonia
Tumour of nasal passage
Whooping cough
Fistula
Dropsy
Tubercular meningitis
Jaundice
Hernia
Anæmia
Croup
Post-partum hæmorrhage
Cerebral irritation
Fracture of skull
Endocarditis
Plague

Total

The large number of deaths ascribed to lunacy is remarkable, and has been connected with the appearance of the comet, which undoubtedly scared a great many people. I am inclined to attribute most of these deaths to the results of being smoked, datura poisoning, and syphilis. The number of deaths recorded from syphilis is unduly small, and to that cause probably most of the deaths from paralysis should be added.

NATIONALITY OF THE DECEASED FOR THE YEARS 1907-1909

Nationality	1907	1908	1909	1910
Swahili	190	170	200	190
Arabs	75	60	40	60
Comoro	15	15	10	10
Sheris	15	15	10	10
Banyans	71	60	100	100
Khojas	60	60	60	60
Mohamedans	70	60	60	60
Bohoras	15	15	15	15
Parsees	15	15	15	15
Goans	15	15	15	15
Cylonist	15	15	15	15
Baluchis	15	15	15	15
Parsees	15	15	15	15
Europeans	15	15	15	15
Native Christians	15	15	15	15
Chinese	15	15	15	15
Turks	15	15	15	15
Arabs	15	15	15	15
Nyasas	15	15	15	15
Yacs	15	15	15	15
Bambas	15	15	15	15
Bongas	15	15	15	15
Alipans	15	15	15	15
Wakas	15	15	15	15
Masals	15	15	15	15
Seychelles	15	15	15	15
Abyssinian	15	15	15	15
Bagawa (Italian)	15	15	15	15
Soudanese	15	15	15	15
Malays	15	15	15	15
Nandi	15	15	15	15
Mogajas	15	15	15	15
Mias	15	15	15	15
Mafis	15	15	15	15
West Indian	15	15	15	15
Total	1,200	1,200	1,200	1,200

BRIBAS, 1910.

Total number of births registered	378
Males	200
Females	178
Still-born	5
Total	378

Nationalities of the births:—

Khojas (Iamali)	133
Khojas (Ithnashi)	55
Banyans	55
Memons	24
Swahilis	21
Arabs	39
Bohoras	10
Goans	7
Parsoes	6
Sberis	5
Baluchis	4
Europeans	3
Comoros	1
Anglo-Indian	1
Majangs	4
Yao	1
Total	378

The Swahilis are still very reluctant to register births. Many women are said to leave town when pregnant and go to the shambas for delivery. It is thought, however, that the real aim of going to the shambas is to procure abortion. I consider it most important to ascertain the truth as regards this matter, and I am asking the Collector of Zanzibar to obtain for me some trustworthy information on the subject.

Vaccination.—Registered births have been followed up by vaccination at the end of the prescribed period of six months.

General vaccination in the Island of Zanzibar was begun in November, 1908.

4,658 vaccinations were done up to the end of May, 1910. This must have contributed to check the ravages of the recent outbreak of small-pox. The Town Vaccinator, Mr. Rawal, a Banyan by caste, has done regular and excellent work without any break, and now vaccinates daily from 70 to 100 people in systematic house-to-house visitation.

Mr. Travasso, the itinerant Vaccinator engaged for work in the south of the island, became dispenser at Chwaka, and Mr. Vas, another itinerant Vaccinator, became Dispenser at Mkokotoni.

At the outbreak of small-pox three Goan Vaccinators were appointed for the Mkokotoni, Chwaka, and Mwera districts, and continue to vaccinate there. It is intended to train some suitable natives for vaccination work, putting them first through a course of training in asepsis under the Parasitologist, the Bacteriologist, who will then give them a certificate when fit to practise vaccination.

Vaccination.—Number of persons vaccinated against small-pox during the year 1910, 34,233.

Of these:—

Vaccinated in—	
Town	23,407
Mkokotoni Districts	4,975
Chwaka Districts	3,002
Mwera Districts	2,849
Total	34,233

Nationality:—

Swahilis	18,874
Indians	12,781
Arabs	1,417
Comoros	1,319
Europeans	140
Other nationalities	780
Total	34,233

Food.—The following premises connected with the sale of food have been regularly inspected during the year—

Bakermans	11
Truck stalls	20
Meats' shops	100
Meat pedlars	11
Markets	2
Drug shops	2

The undernamed food has been condemned and destroyed—

Rice	20
Potatoes	20
Dhal	20
Onions	20

I would draw attention to my remarks on the food of the people in last year's report, as the conditions are unchanged.

Dairies and Milk.—No particular measures have been taken with the dairies in view of the research work and experiments which Dr. Aders is carrying on, in the hope of being able to remove the bacteria, or at least some of the worst situated of them to outside the town.

Dr. Aders arrived on October 23 and has been occupied since in investigating the nature and prevalence of the biting flies of Zanzibar town and neighbourhood, and other conditions likely to affect the well being of cattle.

The dairies are somewhat more cleanly kept than before, but there is still room for great improvement.

Periodical visits are paid to them and samples taken of milk. It is intended to do much more in this direction in the coming year.

Of the 11 samples taken without warning during the year, Mr. Pasham reported that they were all surprisingly good.

The dairy cows have been found in good health at all the times of inspection. 132 visits of inspection were paid to the dairies. On 61 occasions they were ordered to be cleaned out thoroughly.

Water.—The water question may be said to be the most serious of all water at the end of last year. Until a further supply of water is obtained from a higher level or more land is given to the present supply, it is impossible to raise the wells in the middle and higher part of the town, and yet their raising is demanded imperatively.

There have been several cases of cholera since the beginning of the year, and at Mwanja in the last month of the year it only requires a continuation of take up his residence in one of the houses being built where the cholera was in close proximity to the wells to produce an epidemic. The same applies to other parts of the island.

One well only has been found to be at Mwanja Falls, and these wells situated at Chwaka, Kipwani, and Mwanja.

If the land at the head of the Mwanja Springs does not yet belong to the Government, I consider it my duty to recommend most strongly that the whole land as far as the greatest outflow of the ordinary stream should be acquired speedily.

An unimpeded supply of water is a valuable asset. Lower down the stream several impeded channels. Mr. Pasham, who has analysed the water at several points of its course, says of the head water that it is "a mass of impurities in every way." Far down the stream he calls it "a foul and disagreeable water." He has time and time again pointed out, passing through many cultivated plots and by native huts, and has received a testimony coming from the shops below the present lower settlement.

Twenty-two visits of inspection have been paid to Indian milk shops, (Gurkha-Chwaka) during the year.

Thirty-five Indian hotels and boarding houses were also inspected, and 10 Indian schools.

Disinfectants.—243 gallons have been distributed during the year. 132 gallons (100 lbs) in the Zanzibar Camp also distributed on charge of the Quarantine.

Compost.—1,181 horse manure have been supplied and distributed. 520 compost, etc., have been marketed.

New public latrine built at Darajani near the markets and old ones destroyed.

A patent vacuum apparatus for emptying cesspools has been ordered from Messrs. Perryweather, of London, and will be a great labour-saving and a minimiser of a periodical necessary nuisance of a particularly unpleasant kind.

The new latrine will consist of a chamber with a siphon, a separate compartment for the soil and water, and a sloping trough leading to a drain. It is designed to be used in the most sanitary manner, and may be used in work-shops, hotels, etc. This type of latrine is used in Malindi, Fort Mearns and Malindi.

The Torfit urinal built within the compound of the Public Health Department's Offices is a distinct success. As it requires no water it is well adapted for use in schools and in the higher parts of the town, the effluent from it being inodorous and incapable of decomposition.

Ruins.—A good deal of work has been done with the aid of the Public Works Department in clearing the town of the many ruins of dilapidated houses and unfinished buildings which were practically dust-bins of uncleansable type for the dumping of varied rubbish. Moreover, these ruins were regular haunts of rats. Advantage was taken of this for poisoning purposes, and a fairly constant supply of rats came in from them. The rats to some degree were kept out of the houses by these retreats and the poison reached them, which is not always the case in Indian houses.

These ruins were cleaned out 93 times in the year. The ownership of several in dispute having been determined now, henceforth the owners are held responsible for their condition.

Street Refuse.—51,298 loads of refuse have been removed from the town during the year.

A monthly average of 4,272 loads.

Covered boxes for house refuse are now distributed to householders paying the sanitary fee. It is hoped to be able to provide covers for the carts next year. As a result of lengthy trials at home, stout canvas covers are proved to be the most satisfactory.

Refuse Destructor. (only one month, December, 1910).—1,512 loads of refuse were burnt in the destructor, also the carcases of:—

Rats	3,285
Cats	25
Dogs	30
Goats	10
Cow	1
Horse	1

411 cwt. of fuel were consumed for the number of 423 hours the destructor was worked.

Streets and Roads.—The sweeping of the streets has been much facilitated where the Public Works Department has put down tar macadam in the bazaars. With this impervious surface it may be possible to dispense with the large amount of dunny guttering to verandahs, which rarely fulfilled their purpose of carrying off water, and by sagging or by the choking up of down-take pipes afforded constant breeding places for mosquitoes at the end of every spell of rain.

Notification.—Notices with view to prosecution if not complied with have been issued as under:—

For repairs of drain-pipes, cesspools and general repair of premises	114
For abatement of mosquito nuisance	23
For removal of rubbish	—
Court order abatement of nuisance	—
Total	137

Mosquito Inspector Work.—Number of premises, including ruins, graveyards and other places, visited during the months of:—

January	66
February	796
March	157
April	848
May	730
June	532



Statement showing the number of premises, etc., where consequent breeding places were found during the year ending 1910:—

European quarters	60
Indian quarters	164
Arab quarters	92
Small quarters	261
Shed and yards	97
Chick, hen, brooder, poultry	35
Pigs, compound, grassy, garden	130
Stables, cowshed	75
Wagon	66
Total	915

Special Work.—Four deaths from plague occurred in the months of July, September, and November. Two of the cases being Barvans, one a Bohora and one an Arab.

Total number of plague inoculated	111
Indian	263
European	4
Arabs	—
Total	277

Plague Prevention.—Destruction of Rats.—Number of rats received at the various collecting stations during the year 1910:—

Public Health Office	11,451
Sanitary Police Station	14,528
Police	5,119
Reserve Force	5,238
Sanitary	4,260
Police	3,285
Trapped and brought to the office	4,112
Total	45,973

No. Number of rats received during the year 1910:—

January	1,862
February	1,375
March	1,712
April	1,138
May	3,398
June	3,238
July	4,817
August	4,620
September	3,092
October	3,238
November	4,281
December	3,212
Total	45,973

At the various collecting stations	45,973
At the office	15,281
At the station	7,728
At the market	3,710
At the bazaar	—
Total	72,692

(c) Number of pregnant rats with fatucae—	2005
Pregnant rats	18,343
Fatucae	52,135
(d) Number of rats examined for plague	Negative
(e) Result of microscopic examination	Negative

Anti-Malarial Work.—The following swamps and other places found breeding Anopheles larvae were regularly inspected and kept dry when required during the year:

- The Ziwayi swamp.
- The Sebulemi swamp.
- The Kiungani swamp.
- The further Kiungani swamp by the side of Mr. Bhanji's shamba.
- The matashy ground owned by Essaji Jeewanji at Kikwajuni.
- The Kikwajuni quarry ground at Mwembe Tanga—low ground at Mtendeni on the way to the Indian soap factory.
- The hollow ditches at Mwembe Ladu.
- The swamp by the side of Lady Janbai's Road.
- The low ground leading to the Gulioni Hospital and other places where rain water remained stagnant.

Extra Work.—1. Drain dug out to drain off surface water and puddles filled in with sand at Ziwayi.

2. H.B. Sultan's stone boat filled in with sand and covered with cement coating by the Public Works Department.

3. Two pits at Mwembe Ladu on the way to Gulioni, started to fill in with rubbish, debris, etc.

ANOPHELES Larvæ Breeding in other places.

Naval Canton	Lady Janbai Road	Mwembe Ladu Pits	Mnazi-moja Ground
January 15	September 12	April 4	January 29
May 28	November 4	October 19	August 27
June 4	November 28	October 27	December 3
August 6	December 10	December 16	December 10
August 20		December 31	

ANOPHELES Larvæ Breeding and the Swamps.

Ziwayi	Sebulemi	Kiungani	Luxman's
January 4	January 25	January 27	February 25
January 5	February 5	February 25	March 8
January 22	March 2	March 8	April 14
February 5	April 11	March 14	December 17
April 11	April 23	April 21	
April 21	May 3	May 5	
April 29	May 12	June 26	
May 4	December 17	December 17	
May 11	December 28		
May 23			
June 6			
June 19			
November 18			
November 25			
December 17			
December 28			

Malarial Fever.—The number of deaths from malarial fever (203) in the past year is disappointing. It would seem that not much benefit has been derived from the draining of the swamps. The explanation is that the swamps are not yet drained. So long as water lies unable to run off the swamp surfaces by reason of parts of them being lower than the outlets so long will the Anopheles mosquito find here and there undisturbed breeding ground beyond the areas of attempted destruction.

of the larvæ by becoming a little, comparatively, is required to be done to complete the drainage of the swamps some more filling in here and there being done. The beds of the channels at proper levels and sloping all towards them, thus the incidence of Anopheles mosquito larvæ, as shown in the table in this report, should never be repeated. Certainly malaria will not decrease, with the carrying of swamps being regularly bred on grounds if was the special intention of the Government, it should not be bred upon.

Tuberculosis and Its Spread.—I have not repeated in this year's report what I said last year as to the prevalence and causes of tuberculosis especially amongst the Swahilis. The mischief is not checked, indeed, it is on a further increase. The idea of the sanatorium to be opened by the Government, Mombasa has not been found to be realisable, neither is there any prospect of a Government institution for the treatment of early and hopeful cases and the free use of the sea has gone and hopeless. From the treat of things at home, which is leading to the adoption of simpler and more domestic measures, I still think the restriction of the sea-road would be the most efficacious measure towards checking this insidious disease, but it would bring open air treatment within the reach of all without breaking up the unity of the home. If the Government would lead the way I believe the best to a house of a water-tight roof also to be used for drying and sunning things by day and for sleeping purposes at night has only to be shown to be within the ordinary reach of people to be widely adopted.

Insect Mosquito.—It is difficult to see how a decreased case of malaria and their proper feeding can be secured until there is more intelligence as to be developed by education. The distribution of printed notices might influence a few. More will be done probably by the personal advice of nurses and ladies working at the missions, but their work is necessarily limited.

An experienced lady Health Inspector would be a great deal of good. It is true to come it will be regarded as a new post even in the staff of a Public Health Department in these regions that there should be a lady Inspector able to go into the purchases.

Ngonzo.—Very heavy rains in the latter part of the year have brought about the demolition of a great part of the native town Ngonzo, houses being blown down where roads ran, and houses gone down or becoming in many cases all sides. The tendency now is to abandon the higher rising roads and to move on to lower and more level ground. A large number of buildings were not occupied by residents of Ngonzo which require demolishing. As the intention of the Government is to make roads in Ngonzo it is now known the money the roads and make the better. It is certainly not to where they are primary and also what houses are to be destroyed for their making prevents necessary repairs being done to houses property. There are three low-lying sites in Ngonzo where, had they occurred before, would be to be safe, and some of the debris removed from one of them may well be used for filling up these hollows.

The Clock.—The acquisition of the Clock has been much improved of late. The bringing into use of the engine destructor has stopped the dumping of the lower water on the eastern side of the clock on the west the alignment carried out by the Public Works Department has contained it from their outlet at side side.

A varying number of men of the Department, according to opportunity, upon the labour of a gang of prisoners in cleaning the soil and sand which had been changed with organic matter and replacing it with fine clean sand from the sluice of the Clock on the other side.

The work from the Clock to reach the effluent then through the brick-lined like tank is fast becoming a popular proposition. It is hoped that an improved condition will be brought about from the present state of things by the being shut up. There are low, covered with soil water of such high temperature and finally, and effectively isolate the water from the surrounding country, a discharge being being obtained at great cost in other industrial towns of mixed treatment, and here naturally provided.

Leptos.—There were 87 reports of this disease in the progress of the year and 95 at the close of the year. Mombasa, Zanzibar.

It is impossible to proceed with the establishment of a new water supply until water is found. No water has yet been discovered in the present conditions. It is possible to use the water supply for its purpose as a temporary measure. There are very few really good disinfectants and the bulk of the water occupying the ground probably would be more suitable and satisfactory treated in a native hospital, or as out-patients to the same.

Provided the water supply is assured, a very suitable and safe water supply.

leper settlement on the village system is to be found at Kama, some ten miles north of Zanzibar, on the sea front of a peninsula.

The beach is impassable for the public at high water, and the traffic to town all goes inland well to the back of the site and the scattered villages of Kama.

Public Washing Places.—The general laundry known as the Dhobi Station has been much improved in the past year and is now well drained the whole site over, while the used washing water goes by a cemented channel direct to the Creek. All the area and the trench slopes have been planted with grass. Some shrubs have been planted along the roadside to keep down the dust nuisance from passing motor cars, and it is now possible for the clothes to be dried in conditions of comparative cleanliness.

The new rooms erected for the stowage of clothes are extremely deficient in ventilation; the whole of the fan-shaped space over the doors should be open with bars and wire-netting to prevent things being stolen and birds, bats, and rats getting inside the rooms.

For the laundry to be complete a drying shed and ironing rooms are needed and the provision of boilers for boiling the clothes. These and the drying shed, if constructed, would be used probably at once.

Ironing rooms present difficulties, as the Dhobis are accustomed to iron at night and at all hours in their own houses. It is certainly desirable that the clean linen should be taken direct from the laundry to the owner's houses and not lie about the Dhobis' premises. For improving the colour of the clothes electric bleaching fluid can take the place of the destructive bleaching powders now used. Next year, when more water is secured, some native public washing places are much needed in different parts of the town.

Quarantine and Pratique to Ships.—Pratique was given to 258 ships and 164 dhows from the Indian and Arabian coasts. As most ships now come in between 5 a.m. and 6 a.m. or at night, this granting of pratique is becoming a serious strain. As I have before pointed out, some contribution toward the daily services of a medical man for this purpose should be included in estimating the receipts and the rebates of the light dues. It is quite certain that my successor will demand a fee for ship work at night or in the early morning, as is paid elsewhere by shipping companies. As they do not pay such here, a portion of the Health Officer's salary should be debited to the light dues account.

Noxious Trades.—A beginning has been made in trying to remove to suitable sites a few offensive trades. These are skin curing and native tanning, the beating of flock for mattresses, pottery work and lime burning. There are no regulations specifically controlling these industries, and it is hoped to be able to deal with the potteries, tanning and beating of flock without such. The skin drying and curing is, however, carried on in the town by two large foreign firms, who are not likely to alter their arrangements unless under compulsion.

Lodging-houses.—Some special provisions for the control of details of lodging houses seem required in view of difficulties connected with sub-letting and the conversion of houses intended for one family only into accommodation for many separate families, whereby bedrooms have been put to use as kitchens and sculleries.

Mosques.—A forward step has been taken with the mosques in the past year. A paper of instruction to the mosque keepers has been printed in Arabic and posted in each mosque. This prescribes certain regular duties for the mosque keeper, covering the control of the well, water tanks, latrines, sweeping and washing of the mosque floor, weekly beating out and sunning of the matting, reporting of repairs needed to roof and doors, and supervision of any adjacent burial ground.

At a special meeting of the Wakf Commission it was decided upon unanimously that walls and gates should be provided for the principal burial grounds. It was also decided to clear the grounds of debris and to exclude animals.

There are 51 mosques in the town, 35 of which come under the control of the Wakf Department.

Cemetery.—A very suitable site for a new general cemetery has been selected close to the outskirts of the native town. The area measures 22 acres, and is level and of light sandy soil with firm sand as sub-soil. It is well raised and the slopes from the margins are Government property, not built upon, and planted on the town side with Caera indiarubber trees. The site will be planted round with a belt of trees and paths lined out leading to the different sections allotted to the various communities. As soon as it is ready some steps must be taken, by notice or otherwise, to bring about its adoption as a burying ground for the different communities as need arises.

The expansion of the native town in any regular manner is hindered by the many little burial grounds now in use, and the "town proper" cemeteries afford no more room than will suffice for the few Arabs and others who have claims to be buried in family burial plots or vaults. Such interments in the future will be allowed only by special permission.

There are thirty-one graveyards in the town proper. Thirty-seven graveyards in native town.

Seventy-seven burials took place in the town proper in 1910. The Prison Island Sanitary Station was made constant use of in the first six months of the year. On January 1st the S.S. "Hajari" from Bombay was sent direct there from Lamu with three cases of small-pox (of head and tail) passengers to be landed for observation.

On February 27th the S.S. "Kaiser" from Bombay was sent direct from Lamu with four cases of small-pox and 215 passengers for observation.

On March 18th the S.S. "Mahomadi" from Bombay was sent direct from Lamu with two cases of small-pox and 135 passengers for observation.

On March 29th the S.S. "President" from Bombay was sent on from Mombasa with one case of small-pox and 216 passengers for observation (including 72 second class passengers).

On April 14th the S.S. "Kaiser" from Bombay was sent on from Mombasa on board, landed 49 passengers for observation.

On May 25th the S.S. "President" from Bombay was sent on from Mombasa with one case of small-pox and 100 passengers for observation. The island was used also for the first cases of small-pox occurring in the town at the outbreak of the epidemic in June.

No other infectious cases from the coast have been taken to Prison Island this year in accordance with the views of the Public Health Officer (communicated to me in Dr. Horn's comments on my last year's report).

Bububu.—The Public Health Decree was extended to the village of Bububu in July. Consequently it became incumbent to undertake work at Bububu, the terminus of the railway, where a large village has sprung up.

A report on the sanitary conditions of the place was submitted on December 11. Since then a staff of an hygienist and three carriers and scavengers has been at work, and frequent visits of inspection have been paid to the place by responsible people. Several pits next to houses have been filled in, and with removed, earthmounds on the road cut back, and the roads kept swept. A site for a new fish and food stuffs' market was selected on December 30th. Water is to be had on tap, flushing and drains provided to carry away the waste water.

Offices and Laboratory. The new offices and laboratory were brought into use in May. The site is most conveniently situated for access from all parts of the town, and provides all necessary accommodations for the sanitary inspector, pay clerk, and clerk's office, births and deaths registration, disinfecting room, rat poisoning and trapping work, rat inspection and extermination, animal room, cart shed with repairing shed, flycatcher, gas analysis, sewage and caretaker's quarters on the ground floor and in the basement.

Above are the bacteriological and chemical laboratories, kitchen, coal storage room, and a room which, besides being used as an office, can house specimens for a future museum of economic products of importance with their respective parasites and pests.

Mr. Parham, the bacteriologist, will send at the end of this year a report of the work done in the laboratory.

Legislative measures are needed in the sanitary year 1911.

For the repression of quack practices, especially of the native class.

For control of the sale of poisons.

For better notification of infectious diseases, including notification of travellers.

For dealing with noxious trades.

For lodging houses.

For dairies and the sale of milk.

For licensing of strained water manufacturers.

WEATHER Report.

Month	Rainfall	
	1910	1909
	Inches	Inches
January	4.71	4.28
February	2.34	1.32
March	0.30	9.29
April	14.62	26.80
May	11.77	4.56
June	0.02	0.19
July	3.30	2.72
August	1.82	3.11
September	0.67	2.51
October	1.81	6.85
November	7.47	10.75
December	8.08	12.76
Total	56.83	85.14

In conclusion, I have to draw attention again this year to the excellent manner in which the members of the Staff have worked under Mr. F. Souza, the sanitary inspector, whose own energy remains unabated.

The ordinary work of the department, especially in the cool and rainy season, keeps all regularly busy, but when in addition there comes a great press of work arising from such a sharp epidemic as the late outbreak of small-pox, and the members of the Staff prove themselves equal to coping with it without outside help, it is plain proof that all must have worked very hard indeed, and deserve full recognition and generous treatment at the Government's hands.

I am Sir,

Your obedient humble servant,

ALFRED HENRY SPURRIER

CAPTAIN BARTON, C.M.G.,

First Minister of the Zanzibar Government.

Supplement to the Public Health Department Annual Report, 1910.

Small-pox Outbreak.—An outbreak of small-pox, which soon assumed epidemic proportions, took place in May and June, reaching its acme in July, and declining steadily to the close of the year.

Six ships infected with small-pox had arrived in Zanzibar from Bombay in the first five months of the year, and although all the cases they brought were isolated on Prison Island Sanitary Station and 1,018 people kept there under observation for the appointed time, it would seem that the outbreak must in some way be attributed to these large batches of people who had been connected with infection.

There are certain practices too, common amongst the Indians, of securing personal belongings to avoid disinfection, or of handing them on to other deck passengers to be sent back at some future time to their owners, which favour the introduction of infected material into a place.

On May 10th a child of a Banyan shoemaker living at Sokomohogo was removed on suspicion to Prison Island Sanitary Station, and her parents accompanied her. The case was of a very mild nature and the child recovered speedily.

On May 11th a child of one Alibho, living in the same street, was removed to a house of their own, thoroughly isolated, for "measles," which proved to be the initial rash of small-pox. This was also a very mild case.

The whole family accompanied the case as contacts and were isolated. The child made a quick recovery.

On May 16th a Swahili child, living at Mkunazini, was removed to Prison Island Sanitary Station, was lightly affected, and was soon well.

All the contacts in this, as in the previous cases, were vaccinated. The house was disinfected, and the occupants sent to the hospital. No other cases followed directly on the above case. On June 8th a case appeared in the same house, but from which the first case had been taken, and on the same day another was reported from the other end of the town. A third case appeared on June 13th at Kirindini, not far from the main town, followed by three more cases there on June 15th. Cases from localities near the districts named then began to show a daily increase, the case incidence was as follows:

Month	Cases	Deaths	Remained under Treatment
June	18	9	9
July	77	31	46
August	39	14	25
September	39	23	16
October	11	10	1
November	32	30	2
December	21	17	4

From June 8th to December 31st there were 244 cases of small-pox. Of these 134 died, 104 were discharged, 6 remained in treatment.

Deaths from Small-pox.—Deaths registered—

Total deaths	134
Of these were—	
Males	95
Females	39
Total	134

Nationality of the deceased

English	1
Italian	1
Portuguese	1
Arab	1
Swahili	1
Shona	1
Native of Port. E. I.	1
West Indian	1
Total	8

Age of the deceased

Under 1 year	2
1 to 5 years	20
5 to 10	2
10 to 20	10
20 to 30	20
30 to 40	20
40 to 50	1
Total	85

They were 53 deaths under 20 years, 61 deaths above 20 years.

Special Measures.—In order to cope with the epidemic the General Hospital, formerly used as a plague hospital, was re-occupied with patients quickly segregated, and all the cases obtainable were taken there, whether from town or country.

In Bomba at Chaka Chaka the Town refuge was turned into an isolation hospital, and suitable buildings were found, isolated sites and put to use at Mkwinda and Weta.

Vaccinations were made compulsory for all persons in the islands by a Notification in the Gazette of June 25th, 1910, as provided for in the Vaccination Decree No. 2 of 1910, Sec. 4.

The Public Health Decree was made applicable to the whole of Zanzibar and Pemba Islands on September 27th, 1910.

Notice of strict enforcement of notification of infectious disease and prohibition of burial without sanction of a qualified medical officer was published in the Gazette of September 20th, 1910.

Through representations made to the Government, communal cemeteries were opened by the Khojas, Banyans, Bohoras, and Muslims. These were included in the tabulated list appended.

List of Small-pox Cases received in various Hospitals for Treatment in the Year 1910.

Hospitals.	Cases.	Deaths.	Discharges.	Under Treatment.
Prison Island and Gulom Hospital	121	50	65	6
Khoja Jamali Hospital	6	1	5	...
Banyan Hospital	10	1	9	...
Bohora Hospital	15	1	14	...
Khoja Hanasheri Hospital	4	...	4	...
English Mission Hospital	1	...	1	...
Meman Hospital	3	...	3	...
Escaped to Shambas	3	...	3	...
Not reported to the Health Office till after death	81	81	...	...
Total	244	134	104	6

Three vaccinators were engaged for the three different administrative districts of Zanzibar Island and similarly for Pemba.

A large quantity of vaccine was called for from England and its use was attended by the following results:—

Kind of Lymph	Persons Vaccinated.	Positive.	Negative.	Positive, Per cent.
Jenner Institute	4,198	590	3,608	14.05
Lester Institute (Lanolinated)	174	9	165	5.17
Apothecaries	136	19	116	14.07
Pastur Institute	887	198	689	22.34
Daer's Salicyl (Local prepared)	17,788	14,186	3,347	79.28
Arm to Arm	890	890	20	92.83
Total vaccinations (results known)	23,467	15,362	7,815	...
Total vaccinations Zanzibar (1910)	32,253	...	...	...
Total vaccinations Pemba (1910)	34,608	...	...	...

TABULATED Return showing the Number of Children (ages below 15 Years) attacked with Small-pox from 8th June to 31st December, 1910.

	Cases.	Deaths.	Discharges.	Under Treatment.	Deaths, Per cent.	Discharges, Per cent.
Children vaccinated	41	5	37	7	7.31	92.69
Children not vaccinated	86	31	5	...	86.11	13.89
Total	127	36	42	12	...	...

* Discharged on 10.1.11.

NATIONALITY of Children Vaccinated seized with Small-pox

Indians	41
Swahilis	1
Arabs	1
Uganda boy	1
Total	44

NATIONALITY of Children Not Vaccinated seized with Small-pox

Indians	11
Swahilis	1
Ganjas	1
Arabs	1
Total	14

Cases in Pemba.—There were 31 cases of small-pox in Pemba, 27 of these were treated; the other 4 were reported dead.

There were 19 deaths.

Nationalities were—

Swahilis	11
Indians	1
Arab	1
Sheri	1
Ganjas	1
Total	15

Vaccination in Pemba.—34,608 persons were vaccinated in 1910.

The thorough measures taken by the acting health officer Mr. Martinwald and the diligence and perseverance shown by the whole of the members of the Staff of the Public Health and Medical Departments, aided by generous help from outside both in Zanzibar and Pemba, were rewarded by a speedy stopping of the progress of the epidemic and its halting at the close of the year. Unless it takes on new life in such non-vaccinated areas as now remain in the islands, the outbreak may be said to have ended.

(Signed) A. J. C. FURBER

(12)

Public Works Department.

Annual Report for Zanzibar and Pemba for 1910 by Mr. A. K. Galtred, Director of Public Works.

[No report was sent in 1909. Mr. Galtred's report on 1910 covers both years.]

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BAOS

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Report upon the Working of the Zanzibar Public Works Department for the Year ending 31st December, 1910. (Addressed to the Acting Financial Member of Council, Zanzibar Government.)

I. Introductory.

In accordance with your predecessor's instructions, I have the honour herewith to submit to you my first Annual Report with reference to the above for your perusal and information, and in the compilation thereof I may produce by stating that I have been guided by the following considerations—

Firstly.—To portray in as clear and concise a manner as possible the progress that has been made along that path of reform laid down in my report of the 27th July, 1910, and subsequently adopted in almost its entirety the ensuing month by the Government.

Secondly.—To present in detail an account of the arrangements effected towards this end showing the difficulties encountered and surmounted, and dealing more especially with those sub-departments where formerly the greatest wastage and extravagance occurred, viz. the stores and workshop.

Thirdly.—To draw your attention to other points not dealt with in my last report, which an increasing experience and more intimate knowledge of native habits and customs and other local matters have imperiously revealed having regard to the fact that my departmental re-organisation scheme was framed after the extremely brief residence here of some four and a half months only.

In order to effect this in the best possible manner I have deemed it desirable to adhere to my former classification, dealing with each section and its sub-divisions clauses seriatim, so that the two reports should be read together, the one being correlative to the other.

Section A.—Administration.

Essential Conditions.—Great difficulties have been encountered in the execution of this particular recommendation, difficulties which have considerably hampered and retarded the progress of re-organisation, which personally were not even anticipated by me at the time I drew up my scheme for the improvement and betterment of my Department. The causes of those difficulties were twofold, viz. —

Firstly.—The result of the enquiry demanded by me into the working of my Department during my predecessor's term of office.

Secondly.—The unfortunate vexations and unavoidable delays attending upon our efforts in the procurement of the proposed new Staff.

The first led to the dismissal of the Inspector of Roads (W. W. Beck), the resignation of the Draughtsman (S. J. Martin), the despatching of the Workshop Superintendent (W. Foxon); and its sequel in the suspension, arrest, and prosecution of the Superintendent of Works (G. S. Morrison), the last of which I depended on the grounds of the evidence that could be adduced being insufficient to procure a conviction; the resignation of the Storekeeper (N. C. Chatterjee); the compulsory retirement of the Head Clerk (A. S. Rebole), culminating in the despatching of the services of the Superintendent of the Pemba Public Works Department (F. V. Vazifdar).

The second may be epitomized as follows:—

- (i) The inability of Mr. A. D. Prouse, of the Ceylon Harbour Works, to engage my new Staff as originally arranged at the time of his being assigned here on his investigation into the proposed harbour scheme of the late Director, in consequence of the subsequent and unexpected refusal of the Ceylon Government to allow him to assist in the proposed scheme.
- (ii) The opening of the negotiations with the Bombay Government, then pending assistance, followed by the despatching of the Assistant Director when about to proceed on leave) to advise that Government as to our exact requirements in order to obviate any further delay and to expedite matters as much as possible; the failure of this mission and its ultimate abandonment by the parties concerned on the ground of the constant delay in the movement of the steamer, offered in regard to salaries by the Government, and the bad repute of the other among the Indians in the Bombay Presidency.

In consequence of such a formidable combination of adverse circumstances the work of the Department was all but paralysed, and it was only by the most extraordinary exertions that an absolute break down was avoided not once, but several times, hence it was utterly impossible to allocate and clearly define each individual's duties and responsibilities when one is so seriously handicapped by lack of adequate and properly qualified assistance.

Fortunately, recently things have been gradually and surely improving, and the new Staff is being slowly gathered together, as will be seen on referring to Section E, Technical, sub-section 1 Existing Staff.

Section B.—Finance.

1. *Financial Matters to be Dealt with by the Treasury.*—To suit the convenience of the Treasurer this arrangement was not inaugurated until January 1st of this year, when the Treasury, after being duly notified, commenced the payment of the town labour only, the district or shamba payments being started by them not until April last. These payments are executed by a Treasury clerk specially told off for this duty, and whose salary is paid by my Department as agreed. This officer will eventually deal entirely with all actual monetary transactions relating to the Department, with the ultimate object of obviating the necessity of any monies passing through the hands of any officer or employee of the Public Works Department. The former office of the Head Clerk, situated on the ground floor of these offices, is now solely occupied by the Treasury Public Works Cashier as a pay-office in order to afford him every facility in the execution of his duties.

2. *Method of Payment, etc.*—Contracts are paid by the Treasury as heretofore, but matters have been so devised that practically no daily labour is now employed, all being either weekly or monthly, and the pernicious system of advances of pay of small amounts to the monthly gang is now done away with.

Up to the end of March last all payments used to be made every Friday, and as there were seven different gangs, and their pay bills were all sent into the office on the morning of this day for the purpose of checking, re-casting if required, allocating, and submitting to the Treasury, the ordinary work of the clerical department was consequently seriously deranged, and for the following reasons this arrangement was eventually abandoned as very unsatisfactory:—

- It did not permit of any other work being done in the Clerk's office on pay day.
- Frequently the bills failed to reach the Treasury in time to allow that Department to check them before disbursement.
- On Friday afternoon the Pay Clerk was almost overburdened with payments, often working up to 8 p.m. with a corresponding shortage of departmental work for the remainder of the week.
- It was impossible for one pay clerk to be paying both the town and the shambas on the same day, therefore the undermentioned pay table was made:—

Time Table.—

Mondays.—At the Public Works Pay Office payment to workmen and labourers employed under the Superintendent of Buildings.

Tuesdays.—Payment to labourers employed on the Bweles Fumba Road.

Wednesdays.—At the Public Works Pay Office payment to workmen and labourers employed under Clerk of Works.

Thursdays.—Payment to labourers employed under the North Road Overseer.

Fridays.—At the Public Works Pay Office payment to workmen and labourers employed under the Town Roads Overseer.

Saturdays.—Payment of the workmen and labourers at the Public Works workshop.

This table is subject to revision as circumstances may demand.

Labour Tickets.—Commencing from the end of May, labour tickets were introduced. Before a man starts work his name, rate, situation of work, and the date of commencement are entered upon a ticket and its duplicate by the Overseer, an example of which is shown hereunder, the Overseer writing upon the spaces set aside for the initials in indelible blue pencil, as each man on each consecutive day commences his work. Upon the cessation of work the same process is repeated and the ticket and its duplicate are duly completed or not, as the case may be, for that particular week, each man being only paid for the time recorded upon his

ticket. At the time of payment the man's name or number is called out from the sheet or muster roll by the Overseer, the man steps forward, presenting his ticket to that officer, who identifies him, compares the ticket with the pay voucher on roll, and if they correctly correspond ticks off the name from the sheet or roll, calling out the amount due on the particular ticket to the Pay Clerk. As he does this he cancels the presented ticket with a rubber date stamp, handing it to the Pay Clerk, who files the tickets and pays the amount due. After all the tickets have been paid the duplicates are checked off and likewise cancelled by the date stamp. The tickets are then attached to their respective pay vouchers for the information of the Treasurer and the Auditors, the duplicates being retained by my Department and duly filed for reference. All the tickets and their duplicates are numbered consecutively in series alphabetically and each cancelled ticket is for consideration paid again.

No. _____ Week commencing _____ 1910
Zanibar P. W. D.
Rate _____
Name _____
Work _____

Fri. Sat. Mon. Tues. Wed. Thurs.

a.m.

p.m.

Payment Voucher No. _____

In the case of monthly labour, four consecutive weekly tickets are presented by each man; but this will be superseded by a ticket having spaces for each working day in the month, a better arrangement, and will be used as soon as we can get them printed for the monthly men. This system has received the approval of the Treasurer and the Auditors, and is a great improvement upon the old method of payment by the overseer direct from the muster roll, and says by means of numbered metal discs, effectively preventing the percolation and leakage which marred the systems hitherto in vogue, and which it has now superseded. In fact, the success and superiority has been so definitely established that I understand other labour employing departments of the Government are contemplating the adoption. In the shambas the wages have been, and are being, paid by the use of the motor cars, with most satisfactory results.

3. *Expenditure.*—The following statement shows expenditure of the Department for the year under report:—

	Annual
Personal emoluments	27,267 32
Repairs to town roads	7,000 00
Repairs to main roads	26,500 00
Repairs to Government buildings and houses	7,100 00
Repairs to H.H. Palace	20,000 00
Upkeep of telephones and of lamps in town roads	800 00
Furniture renewal H.H. Palace	700 00
Drains and cesspools repairs	1,400 00
Repairs to waterworks	2,400 00
Repairs to bridges	2,100 00
Electric lighting street and power	11,000 00
Repairs to barracks and prison	4,000 00
Telephone and upkeep	7,700 00
Miscellaneous unclassified works	8,000 00
Contingencies	4,000 00
Passages	1,700 00
General upkeep of building for Zanibar Commissioner	1,000 00
Barracks and quarters for K. A. B.	1,000 00
Upkeep of Crown properties	1,000 00
Crown property free houses	1,000 00
Repairs to Customs godown	1,000 00
Upkeep and maintenance of motor cars	1,100 00
Filling of Zwanzi Swamp, Kitungu Swamp Improvement	20,000 00

	Amount—
	Rs. Cts.
upkeep of pier	304 72
New machinery for workshop	1,298 81
Electric lights at Government houses	638 85
Planks to natives	309 40
Non-revenue—	
Medical—	
Admission to Innatic asylum	4,800 54
Agriculture—	
Clove-drying platform	2,237 80
Customs—	
Re-installing road at Malindi Customs	588 78
Collection—	
Marine at Mkokotoni	3,197 52
Public works—	
Re-installing Mushi Moja road	2,438 32
Re-modelling and re-constructing bridges	2,791 58
Constructions of market	8,121 80
Extension to Gazette Office	1,852 22
Strengthening Kiungu beacon	4,897 11
Second room for Registration Department	1,327 11
Compensation for trees and land	3,038 00
Strengthening quay wall at Malindi	4,107 97
Repairs and improvements to Victoria Gardens	933 58
Three sets boring gear	1,776 18
Three water carts and a pump	1,773 36
Dhobi Station	4,488 78
Laboratory and fittings	13,166 43
Refuse destructor	16,456 85
Covering pipe at Malindi with cement	1,769 02
H.H. Boat house	6,623 39
Repairs to Government stables and veterinary hospital	805 01
Shamba dispensaries	5,212 23
Repairs to H.H. pier	567 08
Water	7,003 79
Additional clove accommodation at Customs	3,484 94
Dispensary and quarters Kisanu	1,259 59
Harbour	4,056 25
Landing at Customs	1,607 24
Customs Hospital	7,375 37
Petrol Stores	2,085 63
Malindi cattle stable	267 62
Malindi isolation shed	205 05
Purchase of ground for public building	500 00
Access at the Estella market	219 17
Dispute latrine	2,116 03
Special expenditure—	
Roads and bridges	63,107 87
Survey of Zanibar and Pemba Islands	7,481 78
Total	4,68,782 76

Expenditure charts have not yet been introduced, as I find that owing to the number of Service heads it would occupy the entire time of one clerk to keep these properly up to date, and with my present clerical staff I cannot set aside a clerk for this particular work at present.

For work done departmentally with a view to keeping the expenditure within the estimated amount, each officer in charge of works keeps a book setting forth in the estimated amount, a description of the work the amount sanctioned, and the actual amounts entered all moneys already paid or due on account of the work done, and these are audited and balanced every week by the Head Clerk, whose reports are advised as to the expenditure upon each particular Service head.

The present system of expenditure is recognised without my previous sanction given in writing, and it has been duly brought to the notice of the Financial Member of Council, together with the reasons therefore, for his confirmation prior to the issue of any written authorisation. By these means the Departmental expenditure is kept under control.

It is my intention, however, to give this recommendation of my report a final trial, and I shall spare a clerk for the purpose.

Proposed Revision of Financial Arrangements.—The Senior Government Accountant at the time of his visit here a short while back proposed that all moneys

issued from the Treasury to my Department should be in the form of a monthly imprest, and that such imprests would form a monthly balance according to similar arrangements in force in British East Africa. At the time I assented to the arrangements in force in British East Africa. On going, however, very carefully into the matter I found that it would upset all the existing arrangements and create so much extra work that a special accountant, with probably an extra clerk, would have to be procured to cope with it; and partly owing to this and partly being provided for in the Estimates for 1911, and that the present arrangements are found to work satisfactorily, I had to withdraw such assent until the matter had been thoroughly enquired into, and an order in Council issued revoking the present arrangements as sanctioned in my re-organisation report. It is well to point out, however, that the proposed re-arrangement, although perfectly satisfactory in the British East African Protectorate with its large Staff and enormous area, may easily fail to be suitable here where the conditions are exactly reversed. In British East Africa I am informed that the Public Works Department has a separate accountants' branch for its particular work apart from the Treasury, and if this suggested re-arrangement is authorised, so far as I can ascertain my Department will have to have an accountants' branch run on similar lines, thereby entailing extra expenditure at the present time avoided.

5. **Revenue.**—Although the Public Works is the great spending department it is interesting and instructive to compare the revenue returns of the Department for the past three years—viz., 1908, 1909, and 1910.

	1908	1909	1910
Workshop work done	Rs. 643 00	Rs. 643 00	Rs. 643 00
Refund of wages and fines	49 00	49 00	49 00
Sale of materials	1,284 00	1,284 00	1,284 00
Total	2,176 00	2,176 00	2,176 00
1909			
Sale of stones, materials & fines	Rs. 1,000 00	Rs. 1,000 00	Rs. 1,000 00
Work done at workshop	1,176 00	1,176 00	1,176 00
Total	2,176 00	2,176 00	2,176 00
1910			
Sale of materials from stock	Rs. 2,000 00	Rs. 2,000 00	Rs. 2,000 00
Motor car receipts hire	80 00	80 00	80 00
School building material from quarry	90 00	90 00	90 00
Compensation drawn in 1909 refunded	1,000 00	1,000 00	1,000 00
Wages and fines drawn in 1909 refunded	1,000 00	1,000 00	1,000 00
Various miscellaneous	100 00	100 00	100 00
Work done for the public including work done at the workshop from 1st January, 1910	600 00	600 00	600 00
Work done at the workshop including 763 Rs. 87 cts outstanding	1,000 00	1,000 00	1,000 00
Total	6,870 00	6,870 00	6,870 00

In 1908 the income received from various sources, including the workshop, totalled 2,105 rupees 83 cents only, and especially noticeable is the workshop returns. In 1909 under my administration, the returns increased by some 6,464 rupees 74 cents. This year shows a further increase as 12,977 rupees 01 cents, or a total increase from 1908 of 7,376 rupees 75 cents. Not included in this year is the sum 1,250 rupees 84 cents due from Kisanu, which the Road Construction staff are for road construction, which will be settled in the coming year and credited accordingly. There are also the fines, amounting to 1,000 rupees, and the 1,130 rupees of Barkani, which through not being included from the nature of the work for their respective Service heads cannot be credited to revenue but are to be included in the balance accordingly under the Service head.

Section C—Contracts.

1 *Lump Sum Contracts.*—The introduction of this system for contracts of an estimated value of 1,500 rupees (100L) and over has proved quite successful, and the new agreement, conditions of contract, and form of tender have been fully approved of. The contract is based on the conditions of contract as first recommended by the Royal Institute of British Architects, and modified by the Builders' Institute on behalf of English contractors, and has been modified by me to suit local conditions. This contract was duly submitted to my new Attorney General, who in recording his opinion of it stated, referring to the schedule of conditions that "They are certainly the most stringent that I have ever seen in the course of my experience in these matters, and further that a very small deviation therefrom on his (the Contractor's) part lays him open to some retributive step on the part of the Director of Public Works." The translation of these conditions into Gujarati has just been completed, and it is to be hoped that these completed forms of contract will be received from the printers soon enough to be used for the contracts with the coming year. The printing of these contract forms will save a great deal of time and trouble on the part of the typists, and the Contractor's copy is printed in Gujarati in order that they may understand the responsibilities of it at the time of signing it as fully as possible. These contracts have to be entered into and signed by the First Minister on behalf of the Government instead of as formerly by the Director of Public Works.

2 *Penalty Clause.* The adoption and infliction of the penalty clause in all contracts has had a most salutary effect in preventing the undue dallying which used to prevail on the part of the various contractors in connection with their respective contracts giving me a most powerful lever for expediting their efforts when necessary, which I have to record has been of frequent occurrence, as an examination of our correspondence letter press book will reveal.

As a result of the enforcement of this clause the following Contractors have

Khaki Sewji, 2,040 rupees incurred in reference to the Dholak Station contract he being 136 days overdue. This amount has been reduced to 700 rupees.

Punja, 140 rupees for Well Pembal clove shed, for being 10 days overdue. The fine was subsequently remitted on account of the inclemency of the weather.

Bandali Alarkhia, 825 rupees for being 55 days overdue in connection with Highness's boat shed contract at Malindi. Owing to time allowed for extra works and inclement weather 525 rupees was refunded.

P. Bhotwar, 6,600 rupees, on account of the North Road construction, he being 88 days in excess of his contract time. The same Contractor also incurred 150 rupees for being 10 days over his time on the Bulao Pumba Road contract, both these fines, totalling to 7,350 rupees, have been reduced to 1,500 rupees.

Khaki Sewji, 5,500 rupees, being 78 days overdue on the North Road contract. This has also been reduced to 1,500 rupees.

In arriving at the absolute amount to be deducted from the contract sum with regard to these fines, after the most careful consideration had been given to each case, the amount finally decided upon by me was based upon the conviction that the Contractor in the ordinary course of events might be prevented from the contract concerned. The Contractor is also allowed every day when the rainfall exceeds half an inch, and in the case of road work, every two days counting as two days, in order to allow the ground to dry for cart and bullock traffic, and this is in addition to the general holidays observed by the different nationalities. From this it will be perceived that the contractors are not being treated unduly harshly, and that equity and justice is being observed wherever it is possible. The proof of this lies in the fact that these contractors are themselves keenly anxious for Government work. If they thought they were being unjustly treated they would discontinue tendering for Government contracts. In fact the Contractor Bandali has had 7,150 rupees disallowed from his contract owing to non-completion of the work in accordance with the contract. In this the late legal member of Council concurred with my recommendation, and although nine months have elapsed since this has been done the Contractor has confined himself to instructing his legal adviser to write to the Government to the effect that he had not abandoned his contract and that he would take other steps on his return from India at a future date.

3. *Amending Clause for Maintenance.*—This clause was taken exception to by the sureties (Esnailji Jeewanji & Co.) of Khaki Sewji on the grounds of 10 per cent. of the contract money being withheld for twelve calendar months. One year is in my opinion not unreasonable for new work of the building class, but for building repairs and road work I am of opinion that this clause should be modified to six months only, and I use my discretion accordingly.

4. *Sureties.*—The introduction of the surety clause has to a great extent been justified. Only recently I advocated that the small contractor be given an opportunity for tendering, and in two instances tenders for comparatively small amounts, as hereunder, were given them:—

- (i) Pursotam Punja, Arab School repairs, 1,652 rupees.
- (ii) Pursotam M'Belem Ndogo Sikafu, 1,198 rupees.
- (iii) Pursotam Jetha, Norwegian Bungalow, Chuaka, 2,119 rupees.

In the case of No. i the work was so badly done that some of the attempts were less than three attempts on the part of the contractor had to be done departmentally, and the cost deducted from the contract.

In case No. ii (the same contractor) I had to determine the contract and complete it departmentally at an excess over the contract amount of 749 rupees 28 cents, and as the contractor has gone bankrupt and left the Government's chances of recovering the moneys from such a source of distress exceedingly remote. If responsible sureties had been insisted upon the Government would doubtless have been saved this sum, but the experiment of encouraging the smaller contractors was in my opinion worthy of a trial, although the results have been very unsatisfactory.

The instance of No. iii was that its end of difficulty was experienced in getting the man to do the work properly, and when it was found that he was unable to do it, it meant that he had to lose and go through the bankruptcy process, but the work so far as it went through constant supervision was carried out, and although carried out in the shambles at a distance of 30 miles from his own place, so there was no need to avail ourselves of the Government should protect their interests.

There is no doubt that in every case the Government should protect their interests as far as possible in insisting upon the provision of proper and responsible persons to act as sureties for the due and complete performance of the various contracts. In a large contract the Government might be put to heavy loss through a defaulting contractor.

5. *Contract for Piece Work and Petty Jobs.*—In the past and at the present time works of this nature have been executed in the following manner:—Each contractor has been sent a schedule of petty works to which he has to put his prices, the lowest rates as a general rule receiving the work. This could be amended by inviting an annual or biennial competition, or, better still, instead of giving the work out at the lowest rates I would put all the rates at their average, and spread the work evenly amongst them. The Government would not suffer thereby, and the contractors would benefit equally from such an arrangement. The conditions of contract for petty works need revision, and under the new scheme this will be effected.

Zanzibar Government Public Works

TABLE showing Comparative Statement of Rates 1910

Name of Work	Date	Rate											
		A	B	C	D	E	F	G	H	I	J	K	L
Schedule	January 6th	22	24	26	28	30	32	34	36	38	40	42	44
Darajani Market	May 1910	24	26	28	30	32	34	36	38	40	42	44	46
Gazette Office	May 1910	24	26	28	30	32	34	36	38	40	42	44	46
Mkoloni market	May 1910	24	26	28	30	32	34	36	38	40	42	44	46
Chaka, Chaka Fish and other market	May 1910	24	26	28	30	32	34	36	38	40	42	44	46
Slaughter-house, Weti	June 1910	24	26	28	30	32	34	36	38	40	42	44	46
Darajani latrine	June 1910	24	26	28	30	32	34	36	38	40	42	44	46
Mkoloni Ndogo Station	July 1910	24	26	28	30	32	34	36	38	40	42	44	46
P. W. Stores, Weti	December 30th 1910	24	26	28	30	32	34	36	38	40	42	44	46

PERCENTAGE of Excess of Tendered Rates over Schedule.

	Maximum.	Average.	Minimum.
A	177	42	26
B	150	50	4
C	73	38	9
D	82	34	18

- A. Foundation masonry lime concrete per 100 cubic feet.
 B. Plinth masonry lime concrete per 100 cubic feet.
 C. 4 inch lime concrete floor and 1 inch cement plaster per 100 super feet.
 D. Back-cement plaster.

Notes. Rates, a- with most things connected with the money-market are peculiarly sensitive to the laws of supply and demand, and the fluctuations, as shown by a study of the table appended herewith, are of an extraordinary character. For the purposes of comparison four very ordinary items have been taken from the schedule list submitted by various contractors on January 6th ultimo for petty jobs and piece-work in connection with the various repairs executed for the Government within the limits of Zanzibar City, and compared with rates taken from the accepted and rejected tenders at various places within the city, as well as in the Shambas and at Pemba Island. Especially noticeable is the variation of Mahomed Tharab's schedule rate of 26 rupees for plinth masonry in lime concrete at per 100 cubic feet, when just over two months after he charges 60 rupees, an increase of 34 rupees, for exactly the same thing at Darajani Market, also within the city limits. Again, compare Talat's rate of 50 rupees for similar work at Chake Chake Fish and Meat Market against his schedule rate of 22 rupees within Zanzibar City limits, an increase of 28 rupees for Pemba work in just under four months.

On a general comparison the maximum excess averages about 114 per cent., the average, 34 per cent., with an average of 41 per cent.

The reasons are probably as follows:

- The insistence by the Government of a uniformly higher standard of work and materials, such as the elimination of "dongo" from lime-plaster and the provision of a better class of deal, and other woods, etc., to replace the scamped shoddy work and materials that formerly prevailed.
- The change of local rings and corners in building materials. To my own knowledge this has happened twice, once with tiles, and again with rolled steel joists. These would be obviated if the Government would lay in a proper stock beforehand, as suggested in Section F Stores, Sub-section 3 Improvements.
- The increased amount of labour rendered necessary in consequence of reason 1. When a contractor finds that he has to do a job not once, but two or three times over, because of scamping, he loses thereby and takes good care to protect himself in his subsequent tenders.
- The more stringent conditions of contract and their unhesitating enforcement when occasion demands.
- There is also the possibility to be considered of some of the contractors "sitting on the fence" to see which way the cat jumped, or by waiting to see if the Government would persist in the continuance of its demands for better materials and workmanship. This more particularly applies to the preparation and submission of the schedule rates adopted as guides. There are good reasons that the next schedule of rates to be shortly issued will be considerably higher than the one now quoted, and it is to be discerned how seriously this affects the Government estimates of being at variance to excesses.

At the same time several small contractors started who were doubtless at first to be as-credited financed by their bigger brethren, who for reasons of their own suddenly foreclosed on them, with disastrous results, the idea being to work the Government and embarrass the Government at the same time, in the latter of which they have failed; two instances have already been quoted where the smaller contractors have gone to the wall through such a course.

It is intended by me to start an analysis of the rates in a specially prepared rate ledger so soon as a clerk can be spared for the purpose. Such an analysis is extremely useful in saving time in the preparation of estimates as a safe guidance in pricing out bills of quantities, etc.

The rates are in the care and keeping of the chief engineering assistant, who is further answerable for the quantities and estimates in accordance with Section 4 Contracts, Sub-section 4, of the reorganisation report.

7. Labour.—For facilitating comparison labour can be conveniently classed as skilled and unskilled, and again subdivided into Indian and Swahili or imported and native.

The present rates are:

IMPORTED.

Skilled—

Carpenters—

Zanzibar city
 Shamba work

Masons—

Zanzibar city
 Shamba work

Smiths—

Zanzibar city
 Shamba work

Skilled Indian labour is limited, and the Indian as a fund is intelligent and painstaking. Still he is full of fads and crochets, and needs constant supervision of the work is to be executed in accordance with instructions.

Unskilled.—Labourers, 12 annas per diem.

Indian labourers are occasionally engaged by the Department for building, but hardly ever on shamba work as instructions have been issued to Swahili labour to be employed as much as possible on the ground of good work and economy.

NATIVE.

Skilled—

Carpenters—

Zanzibar city
 Shamba work

Masons—

Zanzibar city
 Shamba work

No native smiths can be obtained.

Skilled native labour can be procured in a reasonable quantity for plain straightforward work under constant supervision. The carpenters and masons will compare favourably with the Indians, and they are a good deal cheaper. Our native fund is under our English clerk of works, have done most excellent work, and will compete successfully in price and workmanship under ordinary circumstances against the Indian. For instance, our Swahili carpenters made a short time ago some school desks at a price of 21 rupees 7 annas each against Talat's, the contractor's, quotation of 27 rupees each with Indian labour, the finish and workmanship being in every way equal to the Indian.

Especially noticeable is the classing amongst the Indians, all Indian workmen invariably endeavouring to employ their own countrymen, who lose no opportunity of onsting the Swahili wherever and whenever possible, and that is another reason why I have issued instructions for preference to be given to the Swahili whenever the nature of the work permits.

Unskilled.—Of the Swahili labourer not a good word can be recorded. He is a shuffler from start to finish. He shuffles into life, he shuffles through life, and eventually shuffles out of it. His wage of 8 annas per diem and 9 annas to 10 annas in the shambas easily satisfies his simple needs, and the fact of being dismissed has no terrors for him. Generally as soon as he has earned a few annas he essays to take a rest, and only returns when his money is exhausted. He is thus only an intermittent worker, ever ready to skulk and mangle so that there is no doubt that he is too highly paid for the ease and amount of labour he usually performs. He needs constant and unflinching supervision, thus increasing his

competence. As a matter of fact, unlike his Tamil brother and his congeners on the mainland, he has never known what it is to starve, so has never reached the bed-rock of things, and in addition to this he is stupid, thriftless, and careless to the last degree. Without doubt, if ever any important works requiring a large amount of labour were undertaken by the Government, alien labour would have to be imported, so in our labour agita we have a powerful factor in increasing the cost of the public works.

Estimates.—Some 241 estimates, representing in the aggregate work to the value of no less than a sum of 252,263 rupees, have been prepared during the year, mostly by the chief engineering assistant. Out of these 11 have been altered and remodelled and nine have been amended or cancelled. The amount of work involved in their preparation is hardly realised by anyone outside the department. It means the taking of the dimensions from off the drawings, and then squaring them, abstracting them, and bringing into bill three distinct operations. In addition to these other calculations have to be made which necessitates constant reference to manufacturers' catalogues, engineering and architectural and text books, pricing out the various items involving working out rates and extracting labour constants. Apart from this consideration the constant pressure of work in consequence of being insufficiently staffed it is a very creditable performance, as on a basis of 700 working days per annum the average approximates to just short of one per cent. Further before the estimates leave the department they have to be typed in the official form and carefully checked.

No special attention has been given as to the care to be taken to avoid errors in the estimate amounts, and every precaution has been taken as far as possible under the most difficult circumstances to minimise this risk, but in consequence of the variations of the rates (vide paragraph 6), the number of alterations and amendments, including paragraphs, and other factors, such as amendments of estimates made by the various heads of Government departments when making their requirements, make this almost an impossibility. In the case of repairs to road fundings frequently one does not know the total extent of the estimated work as work has actually been started and more or less laid open, which means that by that time one has gone so far to withdraw from incurring extra expenditure.

Contract Board.—This organisation, as set up in my reorganisation report was approved at the first meeting to be held on 19th January 1910. The Board consists of the undersigned and the following members:

MEMBERS
1. Chief Engineer.

MEMBERS

2. Chief of Customs.
3. Post Office.
4. Director of Public Works.
5. Commissioner of Police.

Twenty-three meetings have been held during the year, at which 119 tenders were opened, examined and considered, out of which some 24 public works tenders, aggregating a value of 1,96,294 rupees 53 cents, were recommended to the First Commissioner for acceptance. It is desirable in the coming year to carefully revise the contracts in regard to the contracts for stores and to draw up proper specifications and to make more upon the submission of samples whenever feasible in regard to the same.

Section D—Clerical.

1. Now staff as at present constituted. The present clerical staff consists of—

	Pay.
	Rs.
Chief Clerk	2,940
1 First assistant	840
1 Second assistant	756
1 Third assistant	636
4 Other staff, 2nd class	4,444
4 Office boys, at 50 rupees	200
Total	7,236

On the retirement of Mr. J. S. Rebells, the new chief clerk, J. X. Martins, was transferred from the Treasury, and has been in charge of this branch since January last. On the 1st of November last Mr. Harold Bridgewater, on grounds of ill-health, retired from the service, and has been replaced by Mr. R. de Souza from the Attorney General's Office. Mr. A. B. de Souza, the Treasury cashier, was transferred to this office from the 1st April last.

2. Remarks thereon and upon all work appertaining to the accounting, book-keeping, copying, correspondence, etc., of the department.

(a) **Old System.** At the time of my taking over charge and until 31st December last the only books kept were (1) a cash book, (2) a ledger or vote book, (3) a minute book, and (4) three press-wire books. All these with the exception of the cash book were in arrears and no information could be obtained when required, either as to the accounts or correspondence. The entries were made only after the vouchers were returned from the Treasury. The late head clerk, who had been for years accustomed to this method of working, was, I found after trial, unable to adapt himself to the new conditions, and in consequence thereof I was reluctantly compelled to advise that he be retired. Besides, the books were kept in a careless, perfunctory manner, consequently there was great difficulty and delay in supplying any necessary information when required.

(b) **New System.** In order that record may be kept of everything that is done during a year, it was found necessary to introduce the following books, which have been gradually started, commencing from this year. All vouchers sent to the Treasury for payment are considered as paid, unless advised to the contrary by the Treasury. This procedure, which is in accordance with my reorganisation report of July last, enables the department to close its accounts on the last day of the month.

Cash Book.—I understand that the auditors had once said that this was unnecessary and it has therefore been discontinued.

Principal Ledger.—This has been kept up as before with the addition that at present it shows the total expenses under each head and the balance available.

Subsidiary Ledger.—This was found necessary in order to be able to state without loss of time how the amount shown in the principal ledger is made up.

Suspense Ledger.—This was found necessary to enable the department to send only one bill for a particular job executed either for the public or other departments. All the labour and materials as in the first instance paid out in suspense, and when the work is completed an adjustment voucher is prepared and the account adjusted.

Ledger of Work not chargeable to P.W.D.—In a few instances, as in the case of Pamba Public Works, etc., this department orders materials for other departments, and the bills are paid and debited direct to the department concerned, for instance the purchase of the motor car No. 3 and the various services for materials for Pamba. As the orders go from this department the instructions as to their accounts here, and with a view that a record may be kept of this although not debited to Public Works Department vote a separate ledger was issued from the beginning of the year.

Stores Ledger.—A separate ledger has been found necessary to keep a separate account in order to avoid the inconvenience hitherto experienced in preparing reconciliation statements for audit purposes.

Workshop Ledger.—As all monies on account of works are paid under suspense, as is shown under Workshop, it was necessary to start this ledger also.

Contractor's Ledger.—This has been insisted upon by auditors in order to avoid double payment and was started in the latter part of the year.

In addition to the above books and the three despatch books mentioned above, there is a set of subsidiary books kept in detail at the workshop which show how the amount shown in the office suspense ledger under Workshop is made up.

A petty cash book is also kept at the office for all cash payments, 100 rupees having been advanced by the Treasury for this purpose at the beginning of the year under imprest.

A pay book is kept for the permanent staff. As is expected the department has to prepare and check the necessary vouchers for the above accounts, enter them in the respective despatch books and send them to the Treasury for payment.

Estimates Register.—Commencing from 9th March last a register has been kept of all estimates made showing service head, sub-head and amount.

Call Book.—This book was started on the 9th March and shows the names of the persons interviewed by the department, the subject of the interview and its

...but only important interviews have been recorded owing to pressure of work. Though the actual number of enquiries must be much higher up to 31st December, the total number registered is only 157. Each day much time is lost in attending various enquiries.

Leave Register.—No leave register was formerly kept, the only reference being the pay book, where the name of the party concerned was left blank or omitted, such reference being very vague, as the blank might have meant something else, a register was started during the year. It was more especially required to indicate the period of leave granted to an employee.

The register now shows that—

1. The assistant director Mr Crawley, was granted four months' leave, to commence from the date of his departure from India, where he was sent by the Government to engage new staff for the department. He left Zanzibar on the 17th March, but his leave counts from 23rd April, the date of his departure from Bombay.
2. Watchman Jiva proceeded on three months' leave, to count from 10th March; not yet returned.
3. Messrs M. A. (temporary survey boy) on 10 days' leave without pay from 6th April, 1910 (returned on 10th April).
4. Mr P. E. Vaidias of Poona, proceeded on three months' leave prior to his departure from India, to the Government on 4th April.
5. Messrs S. S. (superintendent of works) on five months' leave prior to retirement.
6. J. V. K. (superintendent of works) on two months' leave on half-pay and one month without pay from 27th September.
7. Mr S. S. (superintendent of works) on three months' leave from 2nd November.
8. Messrs J. P. (superintendent of works) Maharaj, Paga Maraj, Gaffur and Ali (superintendent of works) were each granted four, three, three, four and two months' leave respectively as they were entitled to it before they left the Government.

Minute Minutes Register.—This book was found necessary because the minutes were often found for missing papers when such papers had never been sent. From the 16th March last all minutes received have been registered and numbered so that the time they were received. The register shows 3,166, including minutes received.

Minute Minutes Register.—This book was started from the 1st January, 1910, and contains from when the minutes, date of despatch from the other office, the reference number subject, Public Works Department reference number, date of despatch and the addressee.

It will be noted that in connection with this work a full copy is generally made of all the minutes, taking care that further minutes on the same subject are not carried forward a reference shown on the copy of the full minutes, such copied minutes number about 1,364, and minutes about 9.

Register of Absence.—This was started in consequence of a circular from the First Commissioner, stating that all employees who might have been absent from duty owing to illness or other reasons should be reported to the Treasury. Only 2,743 of the employees were reported during the 12 months, and they were daily reported.

Register of Bills.—There are four—viz. (1) showing 1,420 letters, (2) showing 471 minutes copied in duplicate to those mentioned under Outward, (3) showing 159 building letters written, and (4) 150 bills.

From a perusal of the foregoing it will be seen that the present technical staff is not sufficient to do what it can possibly do under existing conditions, and

it is necessary to obtain an extra clerk, for whom additional accommodation will have to be provided as the present accommodation is barely sufficient for the

Section B.—Technical

1. Existing Staff.—The present staff consists of:

Designation.	Pay	Rent	Allowance
1. Director of Public Works	Rs. 2,200	Rs. 1,200	
2. Chief engineering assistant	5,250	750	
3. Clerk of Works	3,000	480	
4. Surveyor and architectural draughtsman	2,400		
5. Engineering draughtsman	2,100		
6. Inspector of Buildings and Superintendent of Works	2,100		
7. Junior draughtsman	1,200		
8. Tracer	1,200		
Total	26,050	2,430	

No. 5 engaged in Bombay, but not arrived yet. The salaries of Nos. 1 and 2 were increased to 200 rupees per mensem, against 150 rupees per mensem for reasons shown in Section A II.

The services of a qualified plumber have not been secured yet though the salary first offered has been increased. It is absolutely necessary to have this officer in view of the importance of sanitary work in connection with water supply and drainage. There were 80 original drawings and 200 tracings prepared by the drawing office.

Herewith are given a list of contract and departmental work.

2. Contracts.—(a) Completed Works

1. Petrol stores by Allu Punjea for 208 rupees 63 cents.
2. Additions to lunatic asylum by R. N. Talati. This work was completed and Talati was paid 181 rupees 52 cents for his services.
3. Gazette Office extension by R. N. Talati, 1,832 rupees 71 cents.
4. Mkokotoni Market by Bandali Allarakhia for 1,620 rupees 71 cents.
5. Darajani Market by Bandali Allarakhia for 736 rupees 33 cents.
6. Repairs and alterations to Arab kitchen by Mahomed Tharia for 422 rupees 63 cents.
7. Darajani latrine by Allu Punjea for 1,420 rupees 82 cents.
8. Mahomed Nlogo clove drying platform by Parsotham Punjea for 2,241 rupees 80 cents. This work was let out on contract for 1,490 rupees, but was determined for reasons mentioned in Section A I, and carried out departmentally.
9. Repairs to Arab school by Parsotham Punjea for 1,250 rupees.
10. Repairs to Mangapwani Bungalow by Khaki Sewji for 1,800 rupees 64 cents.
11. Repairs to Her Highness' Town Palace by R. N. Talati for 1,960 rupees.
12. Chukwani Palace repairs by Mahomed Tharia for 2,192 rupees 60 cents.
13. Norwegian Bungalow repairs by Parsotham Jetha for 4,431 rupees 90 cents.
14. Covering water main at Malindi across the creek with concrete by R. N. Talati for 1,769 rupees 2 cents.
15. Mkokotoni Dispensary by Allu Punjea for 5,034 rupees.
- 16.* Dhoib Station by Khaki Sewji for 3,235 rupees 25 cents.
- 17.* Laboratory Building by R. N. Talati for 10,949 rupees 3 cents.
- 18.* Ziwan Hospital by Bandali Allarakhia for 1,236 rupees 93 cents.
- 19.* H.H. boat shed by Bandali Allarakhia for 6,609 rupees 39 cents.
- 20.* North Road by J. P. Bhedwar for 4,000 rupees.
- 21.* North Road by Khaki Sewji for 14,403 rupees 92 cents.
- 22.* Bweteo Road by J. P. Bhedwar for 13,414 rupees 33 cents.
- 23.* Lunatic Asylum by Bandali Allarakhia for 4,277 rupees 44 cents.
- 24.* Arab kitchen by Bandali Allarakhia for 620 rupees 95 cents.

* Note.—The figures against these items denote the sums paid in full settlements.

(6) Works in Hand.

1. Victoria Gardens Assembly Rooms, by Ali Punja.
2. Construction of South Road from mile 2 to mile 3, by Khaki Sewji.
3. Construction of South Road from mile 3 to Fuoni, by Ali Punja.

(a) Proposed Works.

1. New markets.
2. New buildings at Chwaka.
3. Improvements to Dhobi Station.
4. Warehouse in 41 feet.
5. New police stations, &c.
6. Sakali clothes-drying platform.
7. Public latrines and urinals.

(b) Departmental Works. (c) Completed Works.

1. Repairs to Government landing pier (charged to Port Office).
2. Norwegian Bungalows repairs.
3. H.H. the Sultan's house.
4. Shungu latrine repairs.
5. House No. 131 repairs.
6. Alterations in Agriculture Office.
7. Alterations in Finance Office.
8. Alterations in Customs Office.
9. Substituting battery repairs.
10. Repairs to psychical markets.
11. Repairs to go down No. 131 at Malindi.
12. Seyyed Burgaster's summer house repairs.
13. Repairs to Port Office.
14. Telephone cabin for Post Office.
15. Mosque at Mkokotoni.
16. Five houses adjoining power.
17. House No. 79.
18. Bunderabbee building.
19. Public Works Department Stores Office.
20. Dunga Palace repairs.
21. Arab school repairs.
22. Repairs to house No. 133.
23. Repairs to Superintendent of Agriculture's house.
24. Repairs to Central Police Station.
25. Repairs to Seyyed Thabit's house.
26. Repairs to house No. 80.
27. Repairs to house No. 63.
28. Repairs to house No. 79.
29. Mr. Kolan's house repairs.
30. Repairs to dry stone wall, cascade and path at the Agency.
31. Repairs to Sheikh Berhan's court.
32. Repairs to Judge Tomkinson's house.
33. Altering position of Victoria Gardens hydrant.
34. Talati's house repairs.
35. Garage house repairs.
36. International Bureau House.
37. Levelling Uthubi station and clearing grass, &c.
38. Wireless Telegraphy Station repairs.
39. Repairs and painting Government Hospital.
40. Landing at Customs House.
41. Demolishing old and erecting garden wall and erecting a fence round it.
42. Repairs to house No. 80.
43. Government Stores repairs.
44. House behind Seyyed market.
45. Sewer and cesspool water tank at Victoria Gardens.
46. Rectifying laboratory yard.
47. Rectifying ammunition boat and channel.
48. Repairs to Verge's house.
49. Malindi cattle stables.
50. Attorney General's house.
51. Arab kitchen repairs.
52. Lemate asylum.

53. Repairs to Darajani latrine.
 54. Repairs to Gulioni telephone and fence.
 55. Repairs to Malindi quay wall.
 56. Repairs to Kiungani Beacon.
 57. Repairs to country and town police posts.
 58. Repairs to jail drain.
 59. Repairs to drain near French Hospital.
 60. Various repairs to Customs go-downs.
 61. Repairs to water works.
 62. Repairs to police box at Mlandage.
 63. Repairs to Ziawani magazine.
 64. Repairs to wash house and cook room for Customs Station.
 65. Repairs to Police Station at Malindi.
 66. Repairs to Government stables' clock.
 67. Fly proofing animal room at laboratory.
 68. Repairs to Chukwani Palace.
 69. Repairs to latrine near Palace.
 70. Repairs to Customs Police lines at Sokoku.
 71. Re-arranging police boxes at Customs sea beach.
- (b) Works in Hand. None.
- (c) Proposed Works.—The various works for which estimates have been made in the estimates for 1911 under "proposed works" are as follows:

4. Petty Job Contracts. The following petty jobs were done by the following contractors:

1. Mkokotoni Market wire fencing by R. N. Talati for 125 rupees 10 cents.
2. Jooma Mosque repairs by Omar bin Said for 1,057 rupees.
3. Scraping and painting telephone poles by Bandah Allarakhia for 37 cents.
4. Kicheche Bridge by Bandah Allarakhia for 31 rupees 35 cents.
5. Betel Mtom Mosque by Bandah Allarakhia for 60 rupees 30 cents.
6. Laboratory water supply by R. N. Talati for 369 rupees 2 cents.
7. Mgomani drain by R. N. Talati for 271 rupees 75 cents.
8. Registration strong room by Bandah Allarakhia for 1,327 rupees 10 cents.
9. H. H. Bungalow, Chwaka, by Pursotham Jetha for 183 rupees 20 cents.
10. Wash house and kitchen repairs at Mkokotoni askari lines by R. N. Talati for 553 rupees 82 cents.
11. Mgomani Swamp Bridge by Pithamber, Datta & Co. for 206 rupees 42 cents.
12. Nwana Kombo Bridge by Pithamber Agrawal for 983 rupees 19 cents.
13. External repairs to Government Offices by R. N. Talati for 690 rupees 49 cents.
14. Walezi Station by Issaji Jiwanji for 277 rupees 9 cents.
15. Internal repairs to Government Offices by R. N. Talati for 1,462 rupees 54 cents.
16. Fly proofing meat shops at the market by R. N. Talati for 215 rupees 50 cents.
17. Repairs to Public Works Department Stores by Bandah Allarakhia for 3 rupees 75 cents.
18. Mnazi Moja Road culvert by Bandah Allarakhia for 125 rupees 42 cents.
19. Retaining wall at Gulioni Customs by R. N. Talati for 169 rupees 41 cents.
20. Repairs to abutment of Mkokotoni Bridge by Bandah Allarakhia for 871 rupees 92 cents.
21. Gulioni Customs repairs by Bandah Allarakhia for 412 rupees 22 cents.
22. Financial Member of Council's house by Ali Punja for 391 rupees 82 cents.
23. Mkokotoni Market ridging by R. N. Talati for 32 rupees.
24. Repairs to F. de Souza's house by Bandah Allarakhia for 6 rupees 46 cents.
25. Repairs to Hijj Police Station by Ali Punja for 330 rupees.
26. Darajani Mortuary by Bandah Allarakhia for 75 rupees 2 cents.
27. Slaughter house by R. N. Talati for 53 rupees 48 cents.
28. Wooden partition at the market by Dunsat Madista for 219 rupees 11 cents.
29. Two wells at Mkokotoni by R. N. Talati for 85 rupees 59 cents.
30. Fencing round Mkokotoni Market by R. N. Talati for 199 rupees 10 cents.

29. Repairs to Town Customs godown by R. N. Talati for 332 rupees 50 cents.
30. Malindi Customs by R. N. Talati for 1,274 rupees 62 cents.
31. Gwalior Hospital by R. N. Talati for 6,357 rupees 86 cents.
32. Renewing beretins at Malindi Gaol by R. N. Talati for 239 rupees 50 cents.
33. Repairs to Sheikh Barhan's Court by R. N. Talati for 163 rupees 18 cents.

5. **Architecture.**—(a) **Buildings other than Government Buildings.**—The new building application forms, together with the building application registers, were received from the printers' hands in July last, and since that date some 41 applications have been received and considered for submission to the First Minister: out of this number 30 were sanctioned and 3 refused, the latter because they contravened the regulations laid down by the Building Decree No. 2 of 1909. The erection of these buildings for which application has been granted, is supervised by the Inspector of Buildings whose duty it is to visit them as frequently as possible and see that they are erected in accordance with the approved plans and with the provisions laid down in the Building Decree aforesaid. In addition to the above numerous applications have been received and sanctioned for petty alterations, additions and repairs which were not considered important enough to warrant the submission of plans, sections, etc. The Building Decree No. 2 of 1909 at present is being more conscientiously and carefully revised, as several of the clauses are of a somewhat very hazy character, especially is this the case with Clause 6 of the schedule attached thereto, which lays down that every person who shall erect a new building shall, save as hereinafter provided, construct every external wall and party wall, etc. Here follow the constituents of the mortar, etc., and as there are no subsequent clauses dealing with the native huts constructed of fites, ndongo (mud), etc., making it manifest that if the decree be strictly interpreted that such huts are not permissible yet in a preceding clause, No. 4 of the same schedule and in Section 3 of the decree the word hut is specifically mentioned, which seems as if the draughtsman in drawing up the decree intended that such huts should be allowed; the first-mentioned gives the First Minister special powers to decide upon the arrangements of such huts, sheds, etc., for the purpose of ventilation, and for facilitating scavenging, and for the spread of fire, means of drainage, and general convenience of the public. It was for this reason that Section 6 was suspended as regards its action in West Pemba.

(b) **Government Buildings.** These may be divided into the classification adopted in the Estimates, viz. Government buildings, Crown properties, and free houses.

Government buildings can be subdivided into two classes, viz.

Class I.—Houses and premises belonging to the Government and used for the Government service.

Class II.—Houses and premises rented by the Government for Government service.

Under Class I there are 28 buildings and Class II of 40 buildings.

Under Class II there are buildings or premises belonging to the Government, and under Class I there are persons under this category we have 53 houses,

of which 12 are those in occupation of His Highness's relatives which belong to the Government, and number 13 in all.

Under Class I there are 174 properties, exclusive of Government mosques, cost of maintenance of which is 29,785 rupees 2 cents per annum to maintain and repair, and the Government are ascertaining the best possible way of how to reduce this expenditure, by making that to use it to the best advantage I propose to have the whole of these Government properties carefully inspected and reported upon by the Inspector of Buildings.

The economic programme dealt with, the recommendation of my re-organisation of the Government buildings, and the preparation of plans for office record of all these properties has not been effected.

All plans for Government buildings are now prepared by the Drawing Office, and the supervision of the chief engineering assistant and myself.

The recently-repaired Government mosques were repaired at a cost of 1,673 rupees 30 cents, and this sum has been deducted from the service heads previously referred to.

(c) **Exploitation.**—Sub-section (a) **Coal.**—

1. **Quarry.** The City Quarry has been put in charge of a quarrymaster, who has 50 quarrymen and the necessary headmen under him quarrying stones for Government works.

The quarrymen receive 8 annas per diem, and the headmen 10 annas. These men are entirely employed in quarrying stone for the many various Government works.

The different contractors are permitted under a royalty of 2 rupees per 100 cubic feet to quarry at this quarry for stone for Government work only. They employ their own labour and means of transport, and are liable to pay compensation for any damage done to the adjacent huts or other property.

Herewith is a statement showing the total output of the quarry from March last until the 31st December, 1910:—

STATEMENT of Output of City Quarry, March to December, 1910
FOR CONTRACTORS

Period.	Quarried by.	Purpose of Work.	Cubic feet.			
			Kokoti.	Stone.	Ndongo.	Fites.
March to August	R. N. Talati	Various Government works	1,287	4,064	3,087	—
June to July	Bandali Allarakhia	Darajani market	—	3,600	2,100	—
June to July	Bandali Allarakhia	P. W. D. Stores	—	—	100	—
—	Bandali Allarakhia	Registration room	—	—	175	—
—	Mahomed Tharia	Arab kitchen	—	—	600	—
March to November	Allu Punja	Petrol stores	1,900	3,000	—	—
—	Allu Punja	Darajani latrine	—	1,772	—	—
—	Allu Punja	Victoria Gardens	892	—	—	—
October to December	Khaki Sewp	South Road	18,299	21,565	—	—
Total			21,318	34,341	3,867	—

FOR DEPARTMENTAL WORKS

Period.	Purpose.	Cubic feet.			
		Kokoti.	Stone.	Ndongo.	Fites.
For Clerk of Works					
February to November	Kungani Beacon	3,305	—	—	—
August	Kungani Swamps	—	708	—	—
April to May	Ziwani barnacles	118	2,216	—	—
July	Ziwani swamps	—	440	—	—
April	Ziwani drain repairs	—	50	—	—
October to November	Refuse dumpsite	288	—	—	—
December	Lunatic asylum	128	—	—	—
—	Drains repairs near Seydiuh market	40	—	—	—
For Chuuka and Chukwani Road					
Overseer—					
April to May	Chukwani road repairs	1,422	—	—	300
April to July	Chuuka road repairs	15,869	—	—	300
For Town Road Overseer—					
March to December	Town road repairs	47,858	—	—	10,019
March to September	Guloni road repairs	13,866	—	—	1,115
March	Lady Jaubhai road repairs	350	—	—	174
March to September	Re-metalling Mnazi Moja road	9,475	—	—	29
June to August	Making footpath at the British Agency	3,558	—	—	224
June	Custom road repairs	916	—	—	—
May	Malindi battery	400	—	—	—
August to November	Drainage	1,188	139	280	—
October, November to December	Guloni Dabi station	1,100	1,000	—	—
For Building Superintendent					
April to May	Government stable pigala	721	100	—	374
April	Coal godown No. 139	—	—	—	—
—	Renewing beretins in Government house	120	—	—	—

FOR DEPARTMENTAL WORKS—continued.

Period	Purpose	Kokoto	Stone	N'longo	K. lbs.
		Cubic feet.	Cubic feet.	Cubic feet.	Cubic feet.
For Building Superintendent—					
road work—					
April to June	Government building repairs	...	310	600	...
April to May	Crown property repairs	...	110	425	...
June to July	Leams and coops repairs	60	399	165	...
June	Customs House repairs	...	30	30	...
July	Water works repairs	250	...	50	...
July to August	Garage house repairs	274	...	50	...
August	Landing at Customs	1,902	...	100	...
December		694	...	...	...
Total		60,792	6,137	2,541	14,456
Summary of above 1470 statements—					
Construction		21,348	34,001	6,874	696
Departmental Works		60,792	6,137	2,541	14,456
Total		82,140	40,138	9,415	15,152

The receipts from the quarry are dealt with under Revenue vide Section B Finance, sub-section 3, and the stone issued to the various Government overseers is charged to the work upon which it is used.

In March last the use of n'longo (mud) was forbidden for Government work, and from after that date it will be noticed that its issue was stopped from the quarry. The reasons why the use of n'longo in mortar was forbidden were as follows:

The whole of the way easily through it and then attacks the timber work of the structure unless it is thick, ordinary lime or cement mortar being evidently too weak for their digestive organs to tackle.

N'longo mortar sets considerably quicker than lime mortar; but after a few months dehydrates and will then run like dry sand from between the stones forming the masonry, thus doing seriously damaging the wall. This is what is happening at the Seyyidich Market Buildings at Darajani, and what happened to pull down Dunga House at mile 11 on the Chuuka Road.

It retains the damp touch longer than lime mortar, and on a damp soil continually chews it up, so that the wall is never really dry.

Shangani Quarries.—A good coral lime stone is procurable from Bet-el-Ras, some 14 miles out of Zanzibar City on the North Road. This stone is a really good building stone and is used by me as an aggregate for all the reinforced concrete work that I am now executing; in fact it is especially valuable as being the only aggregate on the island that is suitable for this purpose, and the quarries are extensive in owning the beds, which are only some 2 feet to 3 feet thick and about half a mile long, and situated on the actual sea shore.

Presently I am using the stone from there that was quarried and broken up in connection with the proposed harbour works of my predecessor, but sooner or later the concrete work will be used up, and it will then be necessary to establish a quarry there. It also forms an excellent stone for tar macadam, just having the proper proportion of lime required to readily and thoroughly assimilate the bit tar when applied to the heated stone. It is conveyed per the railroad at the rate of 1000 lbs. per ton, and deposited on Malindi Quay near the masonry building of the depot at Khalifa's Banda. This quarry is therefore most suitable for use in connection with transport facilities by sea, rail, or road. It is also a very good building stone of a similar character when on safari in different parts of the island here and in Pemba, but without success, the only other land quarries being that extending from the beach near the Cooper's Landing, Malindi, and right along the Shangani shore as far as the French Hospital. This bed of rock must, however, on no account be ever interfered with, as without doubt a great part of Zanzibar (Shangani) is situated on a spot of soft sand, which has formed on the sea side of this reef, being thereby protected

from the continual action of the strong southerly sea current which strikes the shore of Zanzibar at this point, and is deflected therefrom in a north westerly direction towards Prison Island.

The present portions of the island roads where a good stone is not locally procurable are from mile 11 to mile 13 and mile 16 to mile 20 on the North Road, and from mile 2 to mile 7 on the Chuuka Road; so between these particular points a thorough search must be made for a good stone for road repairs, and if that fails then it will be cheaper in the end to bring the stone even some 5 or 6 miles from the nearest suitable quarry. This is a matter that it is intended to deal with if possible in the coming year.

With a view to avoid any leakage from the quarry it is intended to introduce counter foil check tickets to be issued by the officer in charge of any work requiring materials from the City Quarry.

Subsection A. 2. Roads.—(i) Urban.—At the beginning of the year I made a careful examination of the city roads, and embodied my observations in a detailed report submitted to the City Council on the 10th March ultimo. In this report for convenience of reference I divided the roads into three classes, viz:

- Class I.—Metalled roads over 10 feet in width.
- Class II.—Metalled roads 10 feet and under in width.
- Class III.—Unmetalled or kutcha roads of any width.

Class I.—Of this class there are some sixteen as per list appended and they comprise the principal roads in the city:—

1. Main road from Customs Offices to Mathews Monument
2. Malindi road from Customs Offices to electric lighthouse.
3. Old Malindi road from electric lighthouse to Malindi Customs Office
4. Kiponda road from Darajani Bridge to Malindi road near the boat tank
5. M'Kunazini Bazaar road from junction of Sokomohogo road near Sanitary Office to Bhora Bazaar road junction.
6. Bhagani road from junction of Sokomohogo road near Police Station to junction of main road near Africa Hotel.
7. Bhoga road from junction of Sokomohogo near Police Station to D. B. Pereira's shop.
8. Main street from National Bank to main road near Messrs. Cowasji Dushaw's house.
9. Bhoga Street from Sokomohogo road near shop of Mahomed Jumla to junction of main road near judge's house.
10. Mnazi Moja road from Monument to office 1.
11. A road from junction of Lady Janbar road near Police Station to the junction of Chuuka road.
12. Gullani road from Customs branch office of Gambu Bazaar road to H.H. Sheikhani's bungalow.
13. Chuuka road from junction of Mbelado road to junction of Ngambo road.
14. Ngambo road from Darajani Bridge to Ngambo Customs Office.
15. Creek road from Mnazi Moja to Darajani Bridge, including Market Bazaar Street.

Class II.—This consists of some seven roads only (as per list hereunder):

1. Malindi Bazaar road from junction of Kiponda road to Malindi Market.
2. Bhora Bazaar road from near Palace to Fruit Market Street Bazaar.
3. Changa Bazaar road from Gate of Khoja Jamat Khana to junction of Bhora Bazaar road.
4. Sokomohoga Bazaar road from Palace to General Mathews Monument.
5. Kajificheni road from junction of M'Kunazini road near mosque to Sokomohogo near police hut.
6. Bhoga road from junction of main road near Arab Court to Sokomohogo Bazaar road near house of Bandali.
7. Shangani Street from Mr. Lascari's house to workshop of Mr. Talati.

Cause of Damage.—With reference to these two classes it is advisable to briefly review the agents that adversely affect the life of these metalled roads with a view to ascertaining the best method of counteracting their effect and so prolonging the life of the roads, thereby decreasing the cost of maintenance. The first and most powerful one is the action of the heavy rains, and consequent

wearing of the surface water over the road surface. This washes out the fine kila or binding material, disintegrating the road in an extremely short time. Moreover, the percentage of lime is high in the only road material that we at present possess, i.e. coral rock and lime stone, and the atmospheric conditions that obtain in this island in their united effects gradually deteriorate themselves the wearing properties of the stone; apart from this in these very narrow streets with their projecting bandias; without proper rain water channels the rain water literally pours off the road, falling perpendicularly from a height varying from seven to as much as, say forty feet, with the most destructive results. There were furrows washed through this ten to twelve inches deep in some of the bazaars.

Further even where rain water channels and down spouts are provided they discharge right on to the road surface and from these causes alone I estimate that about four-fifths of the damage occurs through the excessive erosion.

Hamali Carts.—The other principal agent is heavy traffic, especially of hamali carts in some of these extremely narrow thoroughfares, whereby the road becomes badly grooved. These carts carry sometimes as many as 35 bags of grain, each bag averaging in weight about 24 pounds. This is equal to a weight of 7,000 pounds or a load of 62½ cwt. being well over 3 tons, and equilibrating this over four wheels we obtain a load well in excess of ¼ of a ton per wheel, which is a load for a tire under three inches in width.

These wheel and traffic are the two principal factors in the wearing of the roads, the effects of other causes being practically negligible.

As remedial measures it is advised that all bandias be compelled to have proper rain water channels and down spouts. The latter to be without shoes and to terminate about one foot from the level of the road and discharging on to a shallow copper cement block called a down spout block.

These are made very inexpensively at Khalfan's Banda at a cost of 81 cents each and save the road very considerably by nullifying the perpendicular force of the falling water, which after expending itself upon the block surface overflows quietly away. This can be done under powers of Section 7 (2) of the "Building Ordinance No. 2 of 1909" and defaulters can be proceeded against under Section 11 of the same Act.

A great number of stoppage have already been served by my department, and have had favorable results as far as providing rain water channels and pipes are concerned, but further if certain barazas and bandias were removed in accordance with the local officer's suggestion it would be of material assistance. The Decree does not provide for the down spout blocks, and it should be amended in this respect, and the height of the pipe reduced to a foot and to further prevent the disintegration of the road surface a binding material such as Portland cement and tar macadam has been given a trial in certain roads, as per statement herewith.

The traffic in the narrow Shamba Bazaar is exceedingly heavy and has been chosen as being one of the worst places where tar macadam could be subjected to the most severe test possible.

Roads	Commenced	Completed	Size.	Cost.
		1910	Square feet.	Rs.
Large Bazaar Road, tar macadam	September 7th	October 4th	3,304	496
M. J. Street road at Shamba, tar macadam	November 1st	November 15th	1,087	165
Submarine Bazaar road, cement concrete.	June 1st	July 11th		403

On referring to the table appended, it will be found that this work has been completed just in time, and so far shows no signs of wear and tear in spite of the continual passing to and fro of heavily loaded hamali carts. Of course, it is necessary to speak with much certainty; but the ordinary coral macadam will last hardly two months, and costs about 60 rupees per 100 cubic feet laid, or 4 rupees and 12 annas per 100 square feet 3 inches thick. Tar macadam costs 60 rupees per 100 cubic feet laid, or 15 rupees per 100 square feet 3 inches thick, so that if it lasts only just over three months it will have paid for itself as compared with the ordinary road construction. That it will last more than this is certain, but how much more it is impossible to say, very probably twelve months with a little patching.

In Submarine Bazaar the road was made up in the ordinary way with the

exception that the wheel tracks were filled in with cement concrete made from some old condemned cement. It lasted some four months, until the little rains in November, when the rutting showed itself, and the road then soon went to pieces.

So far from these experiments tar macadam seems to be the material required for our principal urban roads, as it is economical, a stone preservative, dustless, cleanly and antiseptic, and another twelve months will prove the correctness of such statement.

Projecting Barazas.—In streets where projecting barazas have been done away with a trial could be made with cement paving blocks, 2 feet by 2 feet with channel blocks 18 inches wide, both 3 inches thick. Some samples are being made for trial, but they will require about a year's seasoning prior to use in order to obtain the best results.

Hamali or other carts should not be permitted to carry a greater weight than 10 bags of grain, say, 2,000 lbs., on each cart, equivalent to a load of about 4½ cwt., or not in excess of 5 cwt. (½ ton), for each wheel with their present tyre width. The most practical method of applying this regulation if decided upon would be to increase the width of the tyres in proportion to the load, although heavy loads—i.e., loads in excess of one ton—should not be permitted in the narrow streets on account of their cumbersome rendering them extremely dangerous to other traffic, as well as persons and property.

The Mnazi Moja road has been widened on the north side by an 8 feet pathway with a foot bridge over the culvert, so that pedestrians, especially children and their nurses, can now walk in comparative safety from the motor and other vehicular traffic that debouches along this road, that is practically the only one available for them for their ingress and egress from the city.

The M'Kunazini or Creek road has been widened some 10 feet throughout, so that it is now some forty feet wide. Trees are being planted along it, so that it will in the future form a fine boulevard.

The Shanzani landing place has been improved by doing away with the old bit of garden formerly belonging to the bank, and one of its approaches by the side of the English Club has been tar macadamed.

All the principal streets are being named and have name slabs at suitable points with the lettering carved in and painted black on slabs prepared from old marble tiles that we have taken from various old buildings from time to time.

Class III.—These roads are to be examined, surveyed, defined, and reported upon, and those most frequently used should be gradually metalled, especially the main road through N'Gambo from the Mnazi Moja road to the main road from Damiani Bridge to the Customs at Gulioni. This with one other road proposed to be cut from Mwenbelado Police Station to the creek will form the two great roads to open up the N'Gambo or native quarter on the eastern side of the creek.

(ii) **Shamba Roads.**—The following table shows the increase of the mileage of the metalled shamba roads since April, 1909, to date:—

	1909.	1910.
	Miles.	Miles.
1. Chukwani	7	
2. North road	9	14
3. Chuaka	30	
4. Buleo Fumba	1½	
5. South road		
Total	36½	24
Grand total		63

Out of this total increase of 26½ miles, some 4½ miles were done departmentally, 21 miles on the North road, and 2½ miles on the Buleo Fumba road, the rest being executed by contract. The Buleo Fumba road, which cost about 5,000 rupees per mile, is constructed across a stone country, and is thus useful as a guide in estimating the cost of the South road, which after leaving Fuoni, some 8 miles out from Zanzibar City, will mostly traverse country having somewhat similar characteristics.

It is noteworthy how the traffic returns have increased since the completion of these roads, and especially is this the case with the North road, thereby showing that they are meeting a public want. As an appendix is given a table

6. *Railroad*.—The Zanzibar Railroad has already been reported upon in detail by me in conjunction with Mr. A. D. Prouse, M.Inst.C.E., on 2nd September, 1909, and as a result of such report and the subsequent deliberations of the Government three schemes were prepared, and are briefly described hereafter as A, B, and C; A and B were for proposed diversions, and C was for the widening and improving of the narrow portion of N'Gambo Bazaar northward of Darajani Bridge that is traversed by the railroad.

Scheme A.—This scheme proposes to divert the existing line at a point opposite the timber yard, N'Gambo Road, and carry it along the edge of the creek to the lime yard, which will be used as the site of the terminus or depôt. This will necessitate the construction of two small bridges and a culvert besides the special construction involved in protecting the sea face of the embankment exposed so far as Fungoon Point to the action of waves, especially in the north-east monsoon.

This item alone costs 16,122 rupees, and in my opinion is necessary as very serious damage would probably occur to the embankment if it was unprotected, in consequence of its being slightly below high water mark of ordinary tides, and therefore constantly and diurnally subject to the action of wind and waves. I also understand that a good deal of land will have to be acquired in the creek bed, and it should be noted that people will have to be allowed to have their usual freedom of access to and from the creek.

ESTIMATE for Scheme A.

Items	Quantity	Per—	Rate		Amount
			Rs.	Cts.	
Removal of railroad	Feet	5,000			200 00
Making road good		2,300			1,000 00
Relaying of railroad					5,000 00
Embankment	Cubic feet	49,000	100	cubic feet	6 00 27,540 00
Concrete to face sea side of 1,100 feet of embankment	Cubic feet	26,570			16,122 00
New rails	Number	32	Each	12 50	400 00
New sleepers		334		2 50	960 00
New joints		132		1 31½	175 25
Bolts	Lbs.	1,702		0 25	425 50
New clips	Number	3,068			490 00
Bridge		1			1,778 00
Pipe culvert		1			1,888 00
Step block		1			1,000 00
Turn table		1			200 00
Water tank and pump		1			3,000 00
Station buildings					5,000 00
Engine shed	Square feet	1,200	Square foot	2 00	2,400 00
Carriage shed		2,600		2 00	5,200 00
					74,167 00
Contingencies at 10 per cent.					7,416 75
Total					81,583 75

Scheme B.—This scheme, similar to Scheme A, includes a terminus consisting of station buildings, carriage shed, engine shed, water tank, etc., at the lime yard. The bridge and one culvert only will be required in this case, and there will be very little embanking to do in consequence of its being a much shorter route than through the lines of houses, huts, etc., and above high water mark. These advantages collectively taken reduce the cost of construction to less than one-half of the preceding scheme. In this scheme access will have to be permitted across the line to the houses on the north side between the line and the creek, and in this scheme provision will have to be made for a direct approach from the N'Gambo road to the terminus at the lime yard.

ESTIMATE for Scheme B.

Items	Quantity	Per—	Rate		Amount
			Rs.	Cts.	
Removal of railroad	Feet	5,000			200 00
Making road good					5,000 00
Relaying of railroad	Feet	2,000			870 00
Embankment	Cubic yards	2,300			3,726 00
Excavation		526			502 00
New rails	Number	27	Each	12 50	337 50
New sleepers		334		2 50	835 00
New joints		132		1 31½	175 25
Bolts	Lb.	1,702	Lb.	0 25	425 50
New clips	Number	2,068			425 50
Bridge		1			1,291 00
Pipe culvert		1			1,000 00
Step block		1			200 00
Turn table		1			3,000 00
Water tank and pump		1			1,500 00
Station buildings					5,000 00
Carriage shed	Square feet	2,500	Square foot	2 00	5,000 00
Engine shed		1,200		2 00	2,400 00
					31,945 75
Contingencies at 10 per cent.					3,194 57
Total					35,140 32

Scheme C.—This scheme simply proposes to widen the existing main road from Darajani Bridge to Gulioni Customs by acquiring where necessary the existing barazas on either side and setting the permanent way of the railroad slightly over to the southern side, so as to allow of an 8 feet roadway between the lime and the opposite houses. This would be sufficient for the passage of an ordinary vehicle in one direction without getting on to the permanent way. All the barazas effected at the eastern end, as well as some barazas on both sides in other portions of N'Gambo road, would have to be acquired, especially some adjacent the Gulioni Customs.

ESTIMATE for Scheme C.

Items	Quantity	Per—	Rate		Amount
			Rs.	Cts.	
Moving railroad to outside for a distance of 2,800 feet and making road good					1,000 00
Total					3,000 00

Out of these three schemes the last one appears to be the most feasible, as it is the most economical and interferes least of all with the *status quo*. The acquisition of these barazas would simply mean that the tradespeople will have to have their shops within the main front wall of the buildings. This scheme could also cover at but very little cost the entire length of road between Darajani and Gulioni Customs, the others don't. These schemes were, however, very reluctantly abandoned on account of financial considerations. To the last scheme C in addition to the heavy cost of acquiring the barazas, grave objections were raised on the plea of the serious interference with the trade of the district.

Serious complaints against the railway were made by the public during the year regarding the working of the railroad, and they are enumerated hereunder:—

- (i) Excessive speed within the prescribed limits vide the railroad company's regulations.
- (ii) Overcrowding of cars vide Clause 20, Part II, of their regulations.
- (iii) Excessive spiking vide Clause 16, Part II, of their regulations.
- (iv) Constant breakdowns through defective rolling stock.

4. **Railroad.** The Zanzibar Railroad has already been reported upon in detail by me in conjunction with Mr. A. D. Prouse, M.Inst.C.E., on 2nd September, 1909, and as a result of such report and the subsequent deliberations of the Government three schemes were prepared, and are briefly described hereafter as A, B, and C. A and B were for proposed diversions, and C was for the widening and improving of the narrow portion of N'Gambo Bazaar northward of Darajani Bridge that is traversed by the railroad.

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ESTIMATE for Scheme A.

Items	Quantity	Per	Rate		Amount
			Rs. Cts.	Rs. Cts.	
Trimming of railroad	Feet	5,000		200	00
Finishing of railroad		2,300		1,000	00
Making road good				5,000	00
Embankment	Cubic feet	49,000	100 cubic feet	6	00
Concrete to base one side of 100 feet of embankment	Cubic feet	26,750		16,122	00
New rails	Number	32	Each	12	50
New sleepers		384		2	50
New joints		152		1	31½
Bolts	Lbs.	1,908	Lb.	0	25
New clips		3,068		4	90
Bridges	Number	1		1,778	00
Bridge		1		1,888	00
Pipe culvert		1		1,000	00
Stop block		1		200	00
Turn table		1		3,000	00
Water tank and pump		1		1,500	00
Station buildings				5,000	00
Engine shed	Square feet	1,200	Square foot	2	00
Carriage shed		2,500		2	00
				74,167	00
Contingencies at 10 per cent				7,416	75
Total				81,583	75

Scheme B. This scheme, similar to Scheme A, includes a terminus consisting of station buildings, carriage shed, engine shed, water tank, etc., at the lime yard. The bridge and one culvert only will be required in this case, and there will be very little embanking to do in consequence of its being a much shorter route through the lines of houses, huts, etc., and above high water mark. These advantages collectively taken reduce the cost of construction to less than one-half of the preceding scheme. In this scheme access will have to be permitted across the creek to the houses on the north side between the line and the creek, and in this scheme provision will have to be made for a direct approach from the N'Gambo road to the terminus at the lime yard.

ESTIMATE for Scheme B.

Items	Quantity	Per—	Rate.		Amount.
			Rs. Cts.	Rs. Cts.	
Removing of railroad	Feet	5,000		200	00
Making road good				5,000	00
Relaying of railroad	Feet	2,000		825	00
Embankment	Cubic yards	2,300		1,150	00
Excavation		526		263	00
New rails	Number	27	Each	12	50
New sleepers		354		2	50
New joints		132		1	31½
Bolts	Lb.	1,702	Lb.	0	25
New clips	Number	2,668		133	00
Bridge		1		1,291	00
Pipe culvert		1		1,000	00
Stop block		1		200	00
Turn table		1		3,000	00
Water tank and pump		1		1,500	00
Station buildings				5,000	00
Carriage shed	Square feet	2,500	Square foot	2	00
Engine shed		1,200		2	00
				21,945	75
Contingencies at 10 per cent				2,194	57
Total				25,140	32

Scheme C.—This scheme simply proposes to widen the existing main road from Darajani Bridge to Gulioni Customs by acquiring where necessary the existing barazas on either side and setting the permanent way of the railroad slightly over to the southern side, so as to allow of an 8 feet roadway between the line and the opposite houses. This would be sufficient for the passage of an ordinary vehicle in one direction without getting on to the permanent way. All the barazas effected at the eastern end, as well as some barazas on both sides in other portions of N'Gambo road, would have to be acquired, especially some adjacent the Gulioni Customs.

ESTIMATE for Scheme C.

Items	Quantity	Per—	Rate.		Amount.	
			Rs. Cts.	Rs. Cts.		
Moving railroad to one side for a distance of 2,800 feet and making road good					1,500	00
Total					1,500	00

Out of these three schemes the last one appears to be the most feasible, as it is the most economical and interferes least of all with the status quo. The requirement of these barazas would simply mean that the tradespeople will have to have their shops within the main front wall of the buildings. This scheme could also cover at but very little cost the entire length of road between Darajani and Gulioni Customs, the others don't. These schemes were, however, very reluctantly abandoned on account of financial considerations. To the last scheme (in addition to the heavy cost of acquiring the barazas, grave objections were raised on the plea of the serious interference with the trade of the district.

Serious complaints against the railway were made by the public during the year regarding the working of the railroad, and they are enumerated hereunder—

- (i) Excessive speed within the prescribed limits vide the railroad company's regulations.
- (ii) Overcrowding of cars vide Clause 20, Part II, of their regulations.
- (iii) Excessive spiking vide Clause 16, Part II, of their regulations.
- (iv) Constant breakdowns through defective rolling stock.

Items (i), (ii), and (iii) received, I believe, the attention of the police, and item (iv) was dealt with by us. In this last respect the services of Mr. J. Stockwell, chief engineer of the cable ship, S.S. "Sherard Osborne," were upon my suggestion secured, and he was instructed to make a careful examination of their 3 locomotives, especially their boilers. This step met with strenuous opposition from the railroad company; but the results amply justified the interposition of the Government, for two of the boilers were found in a most serious condition, and No. 3 locomotive was condemned by the railroad company's own engineer before it was examined by our own expert. Two of the locomotives and their boilers were properly repaired, and the engines are now running on Mr. Stockwell's certificate. The third locomotive is still under repair at the time of writing.

Where the railroad traverses the city streets and also crosses the North road at Gushon Customs, Punjabhi Chut, Marahoubi, and M'oni, automatic bell signals should be provided to warn vehicular and pedestrian traffic that a train is actually traversing those crossings. Within the city limits and as far as M'oni crossing certain stopping places should be arranged and denoted by a bi-coloured pole similar to the tramway traffic poles at home. It would be worth while to try an extension between the permanent way within the city limits, and an experimental piece should be laid down at some point to be mutually decided upon, for instance the curve into their depot across the Customs road, etc.

Brick and Tile-making. During the past six months samples of different clays have been collected from various sources here and in the Island of Pemba, and taken to Khailan's Banda, where a kiln has been constructed so that experiments could be made in order to ascertain whether a suitable clay could be found for brick and tile-making. Two tables are appended herewith showing the substance from the two burnings that have taken place:—

FACTS OF No. 1 Burning. Dated 16th October, 1910.

Item	Clay from—	Marks	Numbers	Remarks
1	Wan Shambha's hill, Pemba	...	38	Not good
2	Nunifi Shambha and K'wan to 2	...	31	Good but expensive
3	Nunifi near M'oni quarry	1	11	Not good
4	New side of Shambha's hill and Pemba	2	22	Very good, sandless, other clay not required to mix
5	Shambha near Buluhai railway station	3	15	Not good
6	Shambha near Buluhai railway station, distance 1/2 mile	4	160	
7	Shambha near Buluhai quarry east side	5	15	
8	Shambha quarry at Buluhai	6	12	
9	Nunifi at K'wan M'oni	7	11	
10	Shambha Ganga Ganga	8	13	
11	Nunifi near K'wan M'oni	9	12	
12	New Buluhai quarry east	11	14	
13	New Buluhai quarry	11	14	
14	High Chak-wan road near the station	12	17	
15	High Chak-wan road near the station	13	14	
16	High Chak-wan	14	10	
17	Typan shambha near Buluhai road	15	15	
18	Buluhai, road opposite No. 1	16	11	
19	Typan shambha near Buluhai road	17	13	
20	Shambha 2 miles from Buluhai	18	95	
21	Nunifi K'wan shambha near K'wan camp	19	125	
22	Shak earth hill side from Nunifi K'wan shambha	20	100	

OUT-TURN OF No. 2 Burning. December 9th, 1910.

Item	Clay from—	Marks	Numbers	Remarks
7	Korora	...	6	Good and expensive
8	Sheriff Moosa and Kiwani	...	16	
9	Sheriff Moosa and Kiwani	...	14	
10	Tomando	...	8	Not good
11	Sheriff Moosa	...	7	
12	Sheriff Moosa and Kiwani	...	6	

OUT-TURN OF No. 2 Burning. December 9th, 1910—continued.

Item	Clay from—	Marks	Numbers	Remarks
<i>Bricks—continued.</i>				
7	Korora	...	11	Very good, required sand to be mixed
8	Korora mixed with sand	...	15	Good
9	Red earth, Tomando and from quarry on the South road	...	18	Useless
10	Tomando	...	12	
11	Sheriff Moosa and Kiwani	...	14	Good and expensive
<i>Tiles.</i>				
12	Sheriff Moosa and Kiwani	...	10	Good and expensive
13	Korora Kiwani	...	9	
14	Korora	...	6	Very good
15	Sheriff Moosa	...	6	Not good
16	Sheriff for drain bricks	...	9	
17	Sheriff and Kiwani	...	7	
18	Korora	...	6	Very good
19	Sheriff Moosa	...	1	Not good, cracked
20	Sheriff Moosa	...	1	Not good, cracked
21	Tomando	...	9	
22	Sheriff Moosa Kiwani	...	4	Good and expensive

From the foregoing it will be perceived that the majority of the results were disappointing, the exceptions being No. 2, which is expensive, as the two clays used in blending are taken from shambas some 9 miles apart, and No. 4, which is alluded to hereafter in the Pemba report. In No. 2 burning we have samples Nos. 1 to 3 inclusive, which are costly for similar reasons given above with regard to No. 2 sample in the first burning, this also applies to samples Nos. 11, 12, 13, and 22 in the second burning. Nos. 7, 8, 14, and 18, all from Korora, a shamba situated some four miles from Zanzibar City, about 1 1/2 miles to 1 1/4 miles from South road, are good, and the matter should be further enquired into.

Search is still being continued with a view to discovering a suitable clay in order that the experiments may be continued. Especially is this the case with regard to tiles, for which there is a large and fairly constant demand, all tiles being hitherto imported, and mostly coming from Mangalore, India.

The cost of these experiments so far is given hereunder:—

	Rs.	Cha.
Making wooden mould for bricks	...	2 25
Making wooden mould for tiles	...	17 50
Making sample of bricks	...	26 00
Making sample of tiles	...	30 00
Making kiln and carting clay from different shambas	...	48 50
Total	...	124 75

8. **Reinforced concrete.**—Considerable economies are being, and can be, effected through adopting this form of construction whenever possible, and it has the following manifest advantages:—

1. It cannot be attacked by the white ants like deal and other soft wood.
2. It cannot be affected by dry rot and other agents which destroy even hard wood, such as teak, which is ant-proof.
3. It cannot oxidise like iron and steel work, and therefore does not require the annual cost of maintenance for scraping, painting, and other repairs.
4. It is cheaper, sometimes considerably so, than the ordinary methods of construction.
5. Its constituents are, as a rule, easily procurable and well adapted for transport facilities.
6. It is especially suitable for sanitary work, being of an impervious nature, and its surface, if soiled, is easily cleaned.

Appendix B—under is a table showing the different forms of construction already made and being made at Khalifa's Hamra, and from which it will be seen how the foregoing advantages are substantiated:—

COMPARATIVE COST.

Articled	In Ferro-Concrete		In Deal		In Teak	
	Rs.	Cts.	Rs.	Cts.	Rs.	Cts.
Boundary walls	4	25	10	00	18	00
Sanitation quarters	2	4	7	0	45	00
Cut-off pipe	2	4	6	00	7	8
Person posts (small size)	2	4	6	00	8	00
Lined	15	55*	20	00	27	25
Lattice structure	3	25	8	25	8	25
Wash (oil) garden	10	44*	20	00	55	5
Person posts (large size)	4	50	8	00	12	00
Wine posts	4	55	8	00	19	00

* This is in R. S. † This is in W. I.

Notes: * For cost estimates showing in favour of reinforced concrete.

The tank of concrete is constructed of 3 feet, internal diameter, and one range 18 inches deep reinforced with 1/2 inch wire meshing, and so constructed with an overlapping right-angled joint that the rings can be built up one ring to right underneath the eaves of the roof of the houses.

Person & latrine buckets is a special feature, as if successful, although heavier than the iron ones they will be much cleaner and more durable.

In addition to the foregoing, other substantial economies can be effected through the adoption of this construction, notably in the water works, bridges, floors, roofs, tanks, etc.

San Drainage Works. The first work of this nature was concreting over the 6-inch water main at those portions where it crosses Ranidogo Creek, for on no account should this main, hitherto entirely unprotected, be badly smashed by drifting snow, and the town consequently thrown into darkness, for this main supplies the electric light works. This work was done just 12 months ago, and by so doing its purpose, for which it is a big and extremely heavy duty, has not only been saved, but the concrete envelope, but saved the main; this happened at the height of the southernly monsoon, some six weeks after the work was done.

Masonry quay wall, which from the masonry boat as far as the Port Office, was badly cracked, has been underpinned and buttressed with concrete at a cost of 4,000 rupees. The interspaces however between the buttresses have still to be filled in this year at an estimated cost of 4,500 rupees. This work was done departmentally, and though being promptly dealt with the wall was saved from a serious collapse, which would have entailed a very heavy expense to make good.

A sea wall and groynes in cement masonry have been erected at the base of the foundation of the M'loni Mosque at M'loni, which were being gradually undermined by the sea. This work cost some 607 rupees 30 cents, and is answering satisfactorily.

Sub-section B.1.—Sanitary—Water Supply, Zanzibar City.—

Existing Water Supply.—The source of the existing water supply is a shallow (about 10 feet) spring situated in the shambas at M'loni some 34 miles north of the city, and the results of the analysis made of various samples recently taken not only from the spring but also at divers places in the town main, have proved it to be a good potable water.

Observations were commenced on the 11th February, 1910, by means of a weir placed in the stream adjacent the source of the spring with a view of ascertaining approximately the quantity of water yielded in gallons per diem of 24 hours.

The results of such observations are given hereunder:—

	Inches.	Date.	Rainfall.	Yield.
Maximum	7 1/2	May, 1910	Inches. 10.77	Gallons per 24 hours. 1,227,385
Minimum	2 1/2	January, 1911	0.54	294,367
Average	2 1/2			691,141

At the end of January, 1910, the readings were stopped in consequence of having to do away with the weir in order to get all the available head from the spring, it then being at its minimum. Assuming the results of the last census, giving a population of only 30,000 inhabitants for the city as correct, we get a supply at the minimum of only 9.80 gallons per head per 24 hours, which is insufficient. It must also be remembered that the minimum supply is probably lower than even this, as the weir had to be done away with for reasons previously stated. The average yield gives a supply of over 23 gallons per head per 24 hours, which is ample, so that one of the factors in the problem to be considered is the augmentation of the present supply. It is significant that the maximum yield of the spring when it reaches over 40 gallons per head per 24 hours synchronises with the period of the heaviest rainfall, and vice versa. This leads one to conclude that it has a local origin and does not originate, as native tradition has it, at some point on the mainland and reaches us from there along some fault in the strata under the sea; in fact as a result of my observations I have not been able to deduce one single fact in support of such theory.

The water level of the spring varies between 31.50 and 29.00 and at Guboni at the point where it flows in open conduit and enters the 18-inch cast iron main supplying the city, it is less than his so that for the most favourable conditions of supply it is not safe to assume a greater hydraulic head than 28 feet, and in those parts of the town where the pipe lines are most distant from the source of supply this head is reduced *pro rata* on account of the numerous taps, bends, and increasing pipe frictions, etc. Thus less of head varies with the consumption and other causes between 28 and 20 feet. Now a portion of Zanzibar City extending roughly from the Africa Hotel in the main road as far as the High School, Sokomobogo, is some 31 1/2 feet or more above datum line, or roughly about spring level, so that about another 5 feet per head would have given us a surface supply for practical purposes for the whole of the city, so another factor in the problem is increased head.

The most serious factor of all, however, is our financial limitations. The sum of 240,000 rupees (16,000%) was set aside in 1909 for the purpose of executing the scheme propounded by my predecessor, and I understand that we are extremely unlikely to get this amount increased enough to permit of:—

- A supply preferably by gravitation from another source.
- Pumping from the present source into a reservoir adjacent thereto and at a sufficient altitude to supply the whole of the city, such reservoir to hold at the least a month's supply, which on a basis of 12 gallons per head per 24 hours should be of at least 10,800,000 gallons capacity.

The existing system is extremely defective and faulty. To begin with the collecting tank at the spring leaks in several places, and the old Arab conduit now in use, some 5,610 feet long, constructed of lime concrete masonry, has in no less than two places collapsed, having to be made good with iron pipes. It has 69 ventilation shafts of 3 feet diameter along the whole of its route through the shambas, every one of which is a source of possible pollution, permitting the access of the numerous bats, birds, lizards, snakes, and various insects that infest the shambas. There are cracks in the crown of the conduit, in places which at any time may permit of the infiltration of the shamba surface water, which is known to contain the amoeba of dysentery. The conduit invert has numerous cracks throughout the whole of its course, and during the short time that a masonry weir was in existence at the Punjabhai end, the great difference of 125,000 gallons per 24 hours was shown to exist between them, and can only be accounted for on the assumption of the water escaping from these numerous leaks. The conduit itself is in a filthy condition, and it can therefore be realised how essential it

is that on sanitary and other grounds such a state of things should be remedied with the least possible delay.

In addition to this the short length of open conduit at Gulioni should be piped in with 24-inch cast iron pipes, and the whole of the present system of mains, sluice valves, dirt boxes, stand pipes, water taps, and other fittings needs being thoroughly examined and overhauled.

(b) *Improvements*.—The existing conduit now in use should be done away with and a Portland cement reinforced concrete tube substituted in lieu thereof, as per estimate herewith.

ESTIMATE I

Description	Quantity	Per	Rate		Amount	
			Rs	Cts	Rs	Cts
Cast iron pipes	100 feet	100 cubic feet	10	00	33,660	00
Standings 24 in.	20,000				35,000	00
Tramway	Square feet	100 square feet	30	00	10,500	00
Stand. P. Box	Cubic feet	100 cubic feet	80	00	3,600	00
Gravel					1,000	00
Excavation	Cubic feet	100 cubic feet	30	00	35,700	00
Sluice					12	00
Estimated price	Square feet	100 square feet	15	00	6,750	00
Stand. P. Box					13,464	00
Gravel	Square feet	100 square feet	7	00	17,830	00
Contingencies					1,612	84
Total					169,348	20

The cost of this tube will be, say, 11 per cent, providing that an average amount of water is run with, and no very hard rock. The tube would be laid on a course of new rammed concrete to the existing conduit, so that there would be no interruption of the present supply of water during the execution of the work. This sum is exclusive of all valves, sluices, dirt boxes, etc., and a new collecting tank at the spring for a new 24-inch cast iron main. The cost will be about 204,000 rupees, or 13,600, allowing a 10 per cent saving of 2,100, or some 18 per cent in favour of concrete.

ESTIMATE II

Description	Quantity	Per	Rate		Amount	
			Rs	Cts	Rs	Cts
24-inch cast iron pipes	Ton	500	110	00	91,000	00
Stand. P. Box					1,000	00
Gravel					161,500	00
Excavation					1,93,500	00
Contingencies 1 per cent					9,679	50
Total					203,260	50

If a reinforced concrete tube connected directly into the 24-inch cast iron main at Gulioni, we shall then obtain the greatest possible pressure attainable under the existing conditions of supply by having a perfectly tight conduit, thereby conserving the velocity of the water to its utmost. It should, however, be pointed out that although the present seriously defective state of things will be remedied, that in times of prolonged drought we may still be liable to shortage of water unless the borings

started this month demonstrate the amplification of the existing supply without much further expense through their medium.

Apart from this, under nominal conditions, when the improvements foreshadowed are effected, the wells that it is desired to close down could be replaced with sumps with supply pipes from the existing mains, from which the water can be pumped, as will be done at the New Prison and Asylum. Air valves are essential at every anti-clinal to prevent air locking. There is not one in the whole system. Washouts, bye-passes, and waste water meters should be provided where necessary.

To obviate the difficulty of getting water at Ziwan so as to ensure a regular service, a main could be laid from the Education Tank at Gulioni, across the swamps there and along the Lady Janbhai Road, across Ziwan swamps, to the lines. The existing 9-inch cast-iron pipes could be used connected up by a diminishing pipe to the existing valve off the old branch main done away with from this tank that formerly supplied Malindi. The cost of this work would be that of labour only for transporting and laying the pipes, and the continuing complaints about the scarcity of water at the K.A.R. lines would then cease.

(ii) *Alternative Supplies*. Four sources of supply have been considered and they are:—

- (a) The Bububu spring
- (b) The Walezo spring
- (c) The existing spring impounding Walezo stream
- (d) Existing spring borings.

(a) *Bububu Spring*. This is a spring situated out in the shambles some two miles north-east of Bububu. The water is good potable water, but on account of the low elevation of the site of the spring a pumping station and service reservoir would be needed in addition to over seven miles of pipe line to bring the water to Zanzibar City, so this scheme has been more or less abandoned on the score of the heavy expense that would attend its realisation. Its average yield according to the well situated close to Bububu averages some 743,927 gallons per 24 hours.

(b) *Walezo*. These springs lie at the foot of the slope of the hills off the Chwaka road about five miles north-east of the city, and according to level readings taken by the Assistant Director of Public Works they are some 100 feet above the highest ground level of the main road adjacent the Africa Hotel, and at a point some 1,900 feet from the spring head at the conflux of the streams there is a yield of 200 gallons per minute, equal to 288,000 gallons per 24 hours. There is thus sufficient head obtainable for all purposes, and from the point of intersection of the streams to the source of the spring the ground should be carefully surveyed and contoured with a view to the possibility of forming an impounding reservoir and conducting the water through a reinforced concrete tube of suitable dimensions to the town. A sample of this water has been taken and submitted to the Government Analyst, who reports that it is a good potable water of great purity.

(c) *Existing Source*.—The Walezo stream referred to in the previous paragraph continues its course down the M'toni Valley and passes underneath the present conduit at a point some 250 feet distant from the Chem Chem spring. Here it is only some five feet below the conduit invert, so that a portion of it could at any time be dammed and diverted into the conduit. Unfortunately, in its course it passes close to the leper settlement, and there is grave risk of contamination from this source. It also on analysis proves itself to be a polluted and dangerous water, but these impurities could be eliminated by a suitable scheme of filtration. It is also to be observed that although the quantity of the water supplied to the city would be augmented thereby the head would not be appreciably increased. Its average yield at this point is 325,490 gallons per 24 hours.

(d) *Borings*.—On the 20th October ultimo acting on the instructions of the First Minister I took out to the Chem Chem spring a certain Baron Von Brugsdorff and Miss Hicks, both of whom, and the former to a very marked degree, have the faculty of water divination. As a result of the visit the Baron pointed out no less than five places adjacent the spring where he stated that the water would be found in large quantities, and that such water was from an entirely different source from that of the Chem Chem spring, the water from the latter, according to him, coming from the interior of the island in five small streams, which, I may state, agreed with my own conclusions founded on the observations taken by me up to that date. On the 9th instant borings were started

there, and at the time of writing have progressed to a depth of some 68 feet from the surface. At six feet from the surface water was found, and at a depth of 40 feet it rose one foot in the borehole, i.e., five feet from the surface. A table of the strata passed through is given hereunder:

Light sandy clay	Feet.
Black sandy clay	1 to 6
Blue hard clay	6 to 12
Shale	12 to 20
White clay and shales	20 to 39
Shale	39 to 50
Yellow clay and shales	50 to 58

The water seems of excellent quality, and a sample has been taken for analysis. It is however too early yet to form a decided opinion as to whether it can be got down into the conduit provided the analysis is favourable. If it can the only drawback would be a very trifling expense, but unfortunately there will be the usual drawback of lack of head. It is advisable that two more borings be made in order to gain an idea of the extent of the area of this water-bearing strata, and they will be made at the spots pointed and pegged out at the time by Baron Von Heugenschaff.

It is also recommended that a Water Decree be passed in the near future, which should give the Government plenary powers regarding the regulation, supply and control of the consumption of water, and should define these water-bearing areas. This Decree should include the distribution of water for power purposes, and should also include every possible source of supply within a nine mile radius of the city.

(3) Other Supplies.—Water is needed at Tinubatu, M'Kokotoni and Chuaka and consideration of the question of its supply for these places must be dealt with. At M'Kokotoni and Chuaka Mess Hicks Beach pointed out places where it might possibly be discovered. At the former place a spot was pegged out at which I think a boring should be made, and as soon as the Chem. Chem borings are completed I intend to send the apparatus there in order to verify or not the result of her discovery.

(4) Sewerage.—The question of the provision of a sewerage scheme on the water-bearing strata in the Shanghai European quarter will doubtless have to be considered in the near future and although up to the present time has not permitted of any definite decision of the necessary data and information for such a project, steps will be taken to achieve this as soon as possible as stated in Sec. 6, Sub-section 4 of the Drainage Bill Reorganisation Report.

(5) Drainage Trenches.—Nearly all the numerous drains discharging on to the sea shore and into the ditches are nothing more or less than sewers, and they are almost without exception lamentably constructed of a rectangular cross section with rough stone masonry, and with slight falls, consequently they constitute a grave nuisance to the community, and are undoubtedly most of them dangerous to health. All these drains will have to be carefully overlaid and improved by construction of proper U-shaped drains covered over with strong cement slabs. Contours and levels will be taken with a view to favouring wherever possible the torrefactual flow of surface water during the heavy rains from the main streets into alleys and streets of lesser importance. All the outlets of these drains on the sea shore should be carried over by low water drains of spring tides whenever possible, and especially is this the case with the drains that discharge right on to the beach in front of the bathing places. The drains should be at least some five or six feet deep after heavy rains, the water being a grave nuisance right under the eyes of the incoming and outgoing bathing guests, and during the periods that the rains are rife. Drainage rods are provided in almost all the drains and special moulds are on order for making these pipes of different sizes for drainage and other work, also iron casting frames and frames have been prepared for the purpose of putting over the low masonry as soon as they have been constructed, where necessary. It is especially for this work that the survey of the city should be completed as soon as possible. A new brick cast-iron pipe drain with four gulleys has been laid from the Estella building along the Estella beach across Kiponta Road discharging into the Creek just before the bathing place. It is hoped will obviate the heavy flooding that formerly took place here, and will also be a cause of serious complaints from the local shopkeepers in consequence of the great damage done from time to time to their goods. Another similar drain has been laid to take the drainage from the Government

Laboratory in Sekomohogo Road across into the drain discharging into the upper part of the Creek.

The drainage Inspector reports that he has cleared out 63 drains, repaired 72 drains, and that he has cleaned 17 cesspools.

(ii) Swamps.—During the past two years some 20,000 rupees have been spent in this work mostly in acquiring certain swamp lands at Zanibar and a narrow strip of land some 60 feet wide along the No. 2 Kiungani swamp, and extending as far as the Migombani swamp, the most southerly of the southern swamps. All this expense has been rendered necessary in consequence of our being unable to control the cultivation of the grounds in those swamp areas, and as fast as we drained and improved them people would grow crops forming depressions in the ground which would hold water long enough to breed mosquitoes, and then demand and obtain compensation for their crops, so it became imperative to acquire complete control over such areas. By lowering the cement channel some three feet six inches at the entrance to Kiungani tunnel inlet the water was entirely drained off the Migombani swamp, which previously had always about two to three feet of water in it, this swamp is now perfectly dry. The ditches were then properly graded throughout and extended where necessary so that the water was got effectually away from the lowest portions of the two Kiungani swamps. The Migombani swamp should be acquired, as we are about to spend money in clearing away the rank vegetation, and by this it will considerably improve the value of the land there. The ground forming the hill at the outlet of the Kiungani swamp tunnel is moving, and the question will have to be considered of continuing this tunnel with an open cement drain above it as far as the sea beach at the foot of the slope by the Kiungani Mission. This should have been done in the first place and so prevent the excessive erosion caused by the swamp water from the tunnel for at any time during or soon after the heavy rains the soft sandy boulder clay may sag badly, blocking the tunnel outlet, and swamps will again be formed until the track can be cleared, which might possibly take a considerable time.

The two Ziwanu swamps have at last been acquired, as owing to their extreme flatness it was found absolutely necessary to fill them up some 15 to 18 inches in order to secure the requisite gradients to get the water quickly away. The lower swamp close to the lines has already been treated in this manner and is proposed to treat the upper Ziwanu swamp in a similar manner as soon as possible. The hollow places in the Schemu swamp above the Ziwanu swamps have also been filled in, and the ditches of the swamp land at Guboni have been cleared and graded and the ground levelled as far as Government land is concerned. There is no doubt but that the swamp land at Guboni should also be acquired, the lower portion only belonging to the Government and this swamp together with the Ziwanu swamps should be levelled over and grass grown to prevent the sand shifting, such grass being kept short by periodically cutting with scythes.

In fact these lands to be kept properly drained must be only used for grazing purposes, and on no account must cultivation again be allowed except for trees. In some places it may be necessary, especially in the Kiungani main ditch to lay a subsoil drain about 18 inches under the bed of the ditch to prevent the surface water laying there (as it sometimes does at present) long enough to breed mosquitoes. As agricultural pipes are not procurable here experiments will be made with a stone turf covered drain which if found satisfactory will save some considerable expense.

Dhobie Station.—This was formerly a swamp of the worst possible kind, the greasy water from the dhobie tanks draining into a hollow where the water itself was, if anything, too foul for mosquitoes to breed in. The whole of this low lying land has now been effectually drained by subsoil drains every 100 feet apart, such drains being formed of old six inch cast-iron pipes with broken ends. The drains in every case being carried right through on to the beach line of the dunes adjoining the sea. New clothes godowns and an open drying shed have since been erected, and the whole ground has been properly levelled over and fenced in with a barbed wire fence, the main drainage from the tanks being taken along an open cement channel with a good fall straight away to high water mark on the adjacent beach. Other improvements are contemplated by the addition of a shed for the grates with coppers for boiling water and for heating water for the clothes thereby avoiding the clothes being taken for this purpose, as is at present customary, to the houses, which are none too cleanly, of the various dhobies in the city.

Public Conveniences.—These are greatly required in various parts of the city, the one just recently erected at the Darajani market is quite satisfactory, and repairs to the two filthy offensive structures formerly existing there. This latter has

two separate compartments, one for each sex, and is constructed of cement concrete with reinforced concrete partitions two inches thick. At the upper end some five feet above ground level is fixed a 400 gallon wrought-iron flushing tank discharging about every half hour. This tank was made in the Government workshop. It is proposed to construct another latrine at the Customs landing place, and to use the "Turk" patent aseptic tiles which are giving every satisfaction at the urinal erected in the Government Laboratory Yard for the use of the Laboratory Staff there.

4. Refuse Destructor.—Just prior to my departure from England in February, 1909, at an interview with Mr. George Clerk at the Foreign Office, mention was made of the contemplated erection of a Horsfall destructor which was then already on the way out. However, on my arrival here, I learned for the first time that the erection thereof was subject to the approval of the Horsfall Company's representative in accordance with their guarantee under the terms of their contract, so I at once declined to take any responsibility whatever in the matter, and it was fortunate for me that I did so, as subsequent events have proved.

The commencement of the actual erection of the destructor itself was about the beginning of August, 1909, under the supervision of the Destructor Company's representative, Mr. Joseph Wilson, the Department supplying him with all necessary labour and materials. It was completed about the middle of November of last year, and after many trials certain defects were revealed which showed that the destructor as it then was was a failure. In consequence of this, Mr. Wilson returned home at the end of 1909 to consult his Company in relation thereto, and subsequently returned here in the middle of August last to carry out certain alterations with a view to making the machine work. In this he was eventually successful, and a 24 hours trial test was made and reported upon on his part without prejudice on the 22nd November last in order to ascertain how far the destructor complied with the terms of the contract, and as a result it was found that 62 loads of refuse were burned in the cells and 8 loads under the boiler fuel being added to the amount of 32 cwt. i.e., 30 cwt. for the boiler and 2 cwt. for the cells, this being practically equivalent to half the contract requirements.

In his report he makes certain suggestions to complete the destructor in order to make it work satisfactorily, they are:

	Estimate cost
	Ra. Cts.
1. Re-align chimney shaft 20 ft. to	1,500 00
2. Steel grate over boiler	867 86
3. Steel grate over boiler end	846 00
4. Cartway, main	4,097 44
5. Refuse motor, new	5,020 63
6. New oil	5,000 00
	17,331 98

Items 3 and 4 marked with an asterisk were not asked for in Mr. Wilson's report, but were found to be subsequently necessary by the Health Officer who is running the machine.

5. Slaughter. The present slaughter house has many defects, and it should be considered whether it is not advisable to have a properly planned and equipped abattoir for a more sanitary and humane treatment of the beasts to be killed there for food.

Dangerous Buildings, etc.—Excellent work has been done in this direction for the city was full of these dangerous buildings, ruins and sites, which were not only dangerous to the passer-by, but dangerous to the health of the community at large as they were infested by hordes of rats, bats, and other disease conveying vermin, besides being receptacles and dumping grounds for filth, rubbish and refuse of every description.

Sections 8 and 10 of the Building Decree No. 2 of 1900, have been found applicable for the purpose of this work, Section 8 for dangerous buildings and Section 10 for dangerous sites.

Details of the work already done are set forth as per the four tables given herewith, from which it will be seen that 19 buildings and ruins, and 14 sites have been dealt with under these Sections, and in addition to this five graveyards have been surveyed and their sites levelled. Nearly all the material removed has been used in the Gravel for the purposes of the Mkunazini Road widening, and the work of general improvement.

TABLE No. 1.—Buildings, etc., Demolished and Site Cleared under Section 10. Demolished by Owners but Site Cleared by Public Works Department except those marked *.

1. Kijuguakuni, near General Mathew's monument; Bhedwar's godown demolished by himself under Section 10 of Buildings Regulations. No notice was served. Site cleared and levelled by Public Works Department.
2. Kijuguakuni, near Bhedwar's plot; house demolished by himself, cleared under Section 10 (owner of the house Hamadi). This man was paid compensation and allowed to remove all useful materials. Site was cleared and levelled by Public Works Department.
3. Shangani, near Mr. Corbett Davis' house. Mevalim Sururu on being compensated demolished his house and removed all useful materials. The site was cleared and levelled by Public Works Department.
4. Do. Sultan bin Said do. do. do.
5. Kijuguakuni, near General Mathew's monument. Hamus on being compensated demolished his house and was permitted to remove the material. The plot was cleared and levelled by Public Works Department.
- 6.* Shangani, near International Bureau. Bhedwar on receipt of a notice under Section 10 of Buildings Decree demolished his premises and cleared and levelled the site.
7. Kidutani Bibi Reikye binti Hamed demolished a dangerous portion of her premises. The site has not been cleared yet. No notice was served under Section 8.
- 8.* Kidutani, the site of the demolished house of Abdulla Nagib (demolished by himself) has been cleared and levelled.
- 9.* Shangani, near Old Agency Gardens. After serving two notices to Hassan Nanyu to clear and level the ruins belonging to him, the Public Works Department made an attempt to clear the site, but the owner then undertook and began to do it himself. The site is not yet entirely cleared.
- 10.* Wooga Jooma Rahim demolished and cleared the site of his ruined house at Wooga.
11. Shangani, near Mr. Corbett Davis' house. Salem Sultan demolished a wall belonging to him, and the Public Works Department cleared and levelled the site.
12. Shangani, near Mr. Corbett Davis' house. On compensation Islam demolished his house and removed the materials. The site was cleared by Public Works Department.
13. Shangani Zakaria Suleman's house on main road, near Africa hotel. The Public Works Department had commenced to clear this site in accordance with a notice under Section 10, but this has been held over for the owner to build in accordance with approved plans.

TABLE No. 2.—Dangerous Buildings Demolished.

1. Malindi, near Shark Market. Khateja binti Nurmahomed's house on Government's ground demolished by Public Works Department after serving due notice to the local representative of the owner. The materials sold by public auction, and proceeds went to repay the Government expenses of demolition. The balance then due by her was debited to Government account. Stores and kifusi used for town road repairs.
2. Shangani, dangerous portion of Salem bin Mahomed's house was demolished by Public Works Department upon owner's non-compliance with the notice served. The expenses incurred were recovered from the owner.
3. Kajificheni notice was given to Mahomed bin Omer of the dangerous condition of his house at Kajificheni, near the bandsmen's house. The owner failed to take immediate measures to pull it down, but waited till the expiration of time allowed to commence the work. The building collapsed while he was engaged on the work, and damaged the outhouses of the bandsmen's premises. On the previous day of the collapse he was served with a further notice urging him to expedite. The Public Works Department undertook to demolish the house and re-roof the bandsmen's outhouse, and recovered the amount from Mahomed bin Omer through the Crown Solicitors.

4. Portuguese Street. The premises of Hamed bin Suleman, opposite the German Club collapsed before the expiration of the notice served on the owner. The Public Works Department immediately proceeded with the demolition of the dangerous portion when the owner undertook to do it himself. All expenses incurred by Government have been recovered from the owner. Site not cleared yet.
5. Shanganam. The dangerous portion of Gulam Hussin Hirji's house was demolished by Public Works Department and expenses recovered from owner. Site cleared by owner himself.
6. Main road opposite Dr. Andrade's house. Zakaria Suleman having failed to comply with the notice served on him, the Public Works Department demolished his house. Materials were sold by auction and the balance of cost of demolition recovered from him legally. Notice under Section 10 to clear site is held over for owner to build in accordance with approved plans.

TABLE No. 3—Graveyard Cleared and Ground Levelled.

1. Shanganam. At the rear of Mr. H. Lascari's house.
2. Kiponda. Cleared two graveyards near Khalfan's Banda.
3. Kiponda. Cleared a graveyard on Kiponda road.
4. Shanganam. Cleared graveyards behind Grand Hotel and levelled the ground.
5. Shanganam. Cleared graveyard near the Shanganam mosque.

TABLE No. 4—Sites Cleared by Public Works Department.

1. Shamba Vima. The Public Works Department demolished a banda belonging to Hafez Bani Nasser, and cleared the site. Due notice was served.
2. Portuguese Fort. The Public Works Department dismantled a baraza and cleared the site near Portuguese Fort Emplacement.
3. Malindi. The Public Works Department has commenced the demolition of ruined houses 71 and 72 belonging to Eesaji Jewanji and Brothers at Kanga beach, but upon owners putting in plans, etc., for building them the work was discontinued.
4. Malindi. The above also refer to a house of the same party near Mr. Ali M. Dattani's house.
5. Malindi. No. 3 remarks also apply to a house belonging to Sheikh Burhan bin Abdulla.
6. Malindi. The site of the ruined house of Suleman Habib, near Miralli Vihar, a house was cleared and levelled.
7. Mchikini. The ruins of a house on Government land near Seyid Khalid's house was cleared and levelled.
8. Darajani. Near Seyyidh market demolished a baraza and cleared site.
9. Sea front. Excavating kifusi and clearing site at the rear of William Oswald & Co.
10. Kajjicheni. Cleared site of a ruined house belonging to Dala Jera.
11. Kajjicheni. Demolished a Wakf ruined house near Juma Mosque and cleared and levelled site.
12. Mji Mpya. Demolished a house and cleared the site at the rear of the Gazette Office.
13. Shanganam. Demolished a ruined mosque, and cleared site near Mr. Corbett Davis' house.
14. Darajani. Levelled ground near slaughter house.

Similar work is still being done both in connection with demolition of dangerous buildings under Section 8, and clearing sites of ruins, etc., under Section 10.

Owing to the present building Decree No. 2 of 1909 providing no facilities for dealing with buildings or structures in an imminently ruinous or dangerous condition, a special decree known as the Building Regulations Amendments Decree No. 12 of 1910 was enacted, and came into force on the 6th December, 1910.

Section E.1—Mechanical Engineering Workshop and Motors.

Workshop Machinery.—It is unnecessary for me to reiterate on the condition in which I found the sub-branch of my Department soon after my arrival here. The scope of the enquiry demanded by me being the ascending of the lines

Superintendent of Workshop (Foxen), and the revelation of a state of things that can only be described as deplorable. As they have already been dealt with in detail in the Report of the Committee of Enquiry, there is no need for me to deal with it here, and I can only refer you to Paragraph No. 6 Financial in connection with the workshop, which is a revelation *per se*.

(i) *Old System*.—The old system by which the whole of the Workshop Staff and workmen were on the Permanent Staff, and paid from personal emoluments in the estimates was extremely pernicious, for no matter how little work a man did he was paid for it just the same by the month, in addition to which it entailed upon the Government the onus of providing the workmen with their leave pays, passages, gratuities or pensions (as the case may be). The most obvious defect of this system was that the wages of the men were a standing monthly charge for the labour engaged, whether it was required or not, consequently the cost of the work turned out was dearer, for their wages did not depend upon their individual industry, and the system was conducive to anything but efficiency.

So far as can be ascertained the method adopted in the keeping of the accounts of this branch of the Department was probably that of charging the labour engaged to personal emoluments as a charge against the Government, the cost of the materials being debited directly to the Department ordering the work, or requesting the customer to pay the bills of the merchant concerned. Under these conditions no record existed of the actual cost of the work, and more than one bill was frequently submitted for the same job, i.e., one for labour and the other for materials. In Foxon's time the books were found in such a muddled mess that the Treasury were unable to audit them when requested to do so for the purpose of the enquiry.

(ii) *New System*. The ruling feature of the new system introduced on the 1st January, 1910, is that one can find out at a glance the cost of any work done in the workshop. The attendance of the labourer is taken showing what each man has been doing during the day. The cost of the labour for each job is at the end of each month transferred to the ledger with the cost of the supervision added to it. As the bills are received from the merchants for the materials used they are also debited to their respective accounts, and when all claims are settled a bill is made out against the customer, meanwhile the account being paid under suspense. This entails a good deal more work upon the timekeeper and the Chief Staff, but it has the satisfactory result that one is enabled to know exactly what work has been done, and at what cost.

As a precaution to avoid excesses over the amounts estimated for the various jobs, a separate book is kept, showing what portion of the general vote under each sub-head of the Public Works Department estimate has been allocated for petty jobs to be done under any particular sub-head.

3. *Labour*.—It can be easily imagined that the men were both to see a system abolished which from their particular standpoint had for them so many advantages; accordingly soon after the notices were served on them at the end of November, 1909, by which their services were terminated on the Permanent Staff on the 31st December following, and that they were at liberty to re-engage themselves on the 1st of January following on an hourly wage dependent upon their individual exertions met with considerable opposition on their part. So much so, indeed, that they struck, and it was only after several conferences between myself and the new Superintendent, and the men and their delegates, that most of them agreed to stop on under the new conditions of service providing their wages were increased 10 per cent. allround, and that the privileges heretofore enumerated as to which they were entitled at that time would be granted them that they returned to work. *En passant*, I may state that it was never intended to deprive any of them of the privileges to which they were then entitled, and the Government since that date has disbursed no less a sum than 1,070 rupees in gratuities of 610 rupees in passages to various workmen formerly on the old Staff who have taken advantage of the regulations and retired. It is noteworthy that of all our former artisans there is only one now remaining to us of the original staff, and that is the present foreman of the shop. I make this statement in refutation of the prophesy made at that time that it would be impossible to run the workshop on the lines formulated by me, and that we should lose all our men, and the shop would have then to be closed down. Truly the older artisans retired gradually one by one, the new regime not being congenial to their habits acquired under the former one, but their places have been taken over by men of equal calibre as far as craftsmanship is concerned, and that is surely a good deal.

Under the present system the Staff can be conveniently classified under two heads, i.e.—

- (i) Permanent Staff.
(ii) Temporary Staff.

Permanent Staff.—This comprises the undermentioned:—

	Salary per mensem and quarter.
	Rs.
1 Superintendent	250
1 Tinsmith	53
1 Engine driver	23
1 Watchman	22
Total	348

The above total of 348 rupees per mensem was up to the 31st December, 1910, distributed over all works turned out during each month in proportion to the cost of labour engaged for each work exclusive of materials under the head of supervision. By this is meant that when all the bills for any one month are received either from the Government Departments or private individuals, this sum of 348 rupees originally charged to final expenditure in the estimates under personal commitments is repaid. However by an Order in Council dated 25th November, 1910, in force from the 31st December, 1910, the Treasurer not deeming it necessary, as the amount of supervision was already charged in the estimates; therefore, from the 1st January 1911, this amount will disappear as a charge against the workshop's various estimates. The reason why I have previously included it was that by so doing you get a correct statement of the financial position of the workshop. The balance of the workshop will also be added to the Permanent Staff from the 1st January 1911, at a salary of 110 rupees per mensem, as it is absolutely necessary that the Superintendent have a deputy to run the shop in case of the latter's absence through sickness or leave.

Temporary Staff.—This Staff, consisting of the artisans and labourers, is engaged and paid for by the hour and are therefore entitled for wages for the actual number of hours they may have worked, and are liable to be discharged without further notice if there is not sufficient work in hand to keep them employed. Their rate per hour is calculated (a) in the case of the old Staff by adding 10 per cent. to their former pay as agreed, and then dividing the result by 24, that being the number of average working days in a month; and again the result by 8, the usual number of working hours per diem, and (b) in the case of the new hands as previously agreed at the commencement of their engagement in accordance with their respective capabilities.

The attendance register now kept at the workshop shows exactly the number of hours each man has worked upon each job on any particular day, and the amounts paid to him during any month under any job. The present system is, therefore, more satisfactory as it enables the Department both to reduce the Staff when there is insufficient work for it, re-engage it or acquire extra labour as the occasion demands. It should however be pointed out that the present system of discharging labour when not required, if fully availed of, through slackness of work at any time, might result in a serious difficulty, as skilled labour is difficult to obtain in this country at short notice, by this is meant artisans as distinct from labourers. It is, therefore, of manifest importance that the Government workshop be maintained as much as possible by the various departments in order that the Staff may always be fully employed, and such an awkward contingency thereby avoided.

The Superintendent reports that he has effected the following minor improvements in the attendance and discipline of the men soon after he took over the duties of his office:

The engine was never started till 7.45 a.m., stopping at 11.45 a.m., instead of 7 a.m. to 12 noon respectively, also at 4.45 p.m., instead of 5 p.m., and the men started late and went away earlier. The men were made liable of absenting themselves if they had any private business to do during their working hours, such as banking money, procuring prescriptions, taking their children to the doctor, etc., etc. This has been stopped, leave only being granted providing the work permits, and the time of their absence is deducted from their pay.

- (iii) Much time was wasted by workmen, for a fitter, turner, or boilermaker having any blacksmith's work to do would order that tradesman to do it, and would wait while such work was being done.
- (iv) Formerly any workman working on outside work would take away the Government tools without permission or checking. All tools are now checked both inwards and outwards.
- (v) Artisans using a power machine would have a labourer to start it for them. Except in instances of heavy work there was no occasion for this.

4. Machinery. Herewith is given a list of the plant and machinery taken over by the new Superintendent on taking charge of the workshop on the 29th September, 1909.

LIST of Original Machinery.

Item.	Description.
1	1 oil engine
2	1 lathe, self acting and screw cutting 12" centre; 108 bed; 1 chuck 8", 1 face plate 1", 1 face plate 2", 1 face plate 3", spanners 4, tools 12
3	1 lathe, self acting and screw cutting 10" centre; 1 bed; 1 chuck 14", 1 chuck 6", 1 face plate 10", 1 face plate 17", spanners 4, tools 30
4	1 lathe, self acting screw cutting 8" centre; 5 bed; 1 face plate 9", 1 face plate 11", 1 chuck 14", 1 chuck 4", tools 14
5	1 planing machine, 1 vice 12" x 5" x 1", 1 vice 6" x 3" x 1"
6	1 drilling machine double geared admit in centre 24" admit in lower part and floor 3"
7	1 drilling machine facsimile of above but spindle worn out
8	1 without tapping machine with dies to tap 1/2", 1/4", 1/8", 3/16", 1/16", 1/32"
9	1 pipe tapping machine to tap 1/2", 1/4", 1/8", 3/16", 1/16", 1/32" the above running on oil engine
10	1 steam boiler for working P. and S.
11	1 shearing and punching machine to shear 1/2" plate and punch 1/2" plate
12	1 plate bending machine to take plates 1" wide
13	1 plate bending machine to take plates 5" wide
14	3 drilling machines to drill up to holes, hand power
15	1 treadle lathe self acting screw cutting 3 1/2" centre; 2 bed; 1 face plate 3", 1 face plate 7"

The whole of this machinery is more or less antiquated and worn, but a sum of 1,500 rupees under the Service head of workshop plant should be set aside every year with a view to improving and adding to the existing workshop plant. By this means the equipment of the workshop may be gradually brought up-to-date, and any extraordinary expenditure in connection therewith thereby avoided.

For instance, on the 10th December, 1909, the undermentioned machinery was procured and paid for in the manner stated:—

List of Additional Machinery, etc., added in 1909

Item.	Description.
1	1 sensitive drilling machine, style K, to drill up to 1" holes, 1 screw drill chuck for straight shank twist drill, 12 dozen of each size straight drills 1/2" to 1" 13 dozen taper shank drills 1/2" to 1" all to fit sensitive machine.
	Taper shank twist drills to fit double gear drilling machine, 7 dozen, 1/2" to 1 1/4".
2	1 Horton chuck 12" diameter to fit bolt 10" and 5" centre lathes.
3	1 Horton chuck 12" diameter to fit small treadle lathe.
4	1 pipe vice to take up to 6" pipe.

5. Materials.—Formerly there has been a great deal of extravagance in the ordering of materials, and it was "distour" on the part of the local suppliers to almost invariably send materials in excess of the quantity stated in the orders. This has now been stopped and every effort made to prevent excesses. The quantity required for each particular job. Frequently it is impossible to obtain the exact dimensions, sections, and quantities of the metals required for each separate job, owing to the shortness and smallness of the local stocks. This is a cause of frequent delays in the execution of work and often gives a great deal of trouble in cases of urgency in devising makeshifts, and invariably tends to increase the cost of the work.

6. Financial.—In my re-organisation report the expenditure for the twelve months totalled 17,616 rupees per annum, and the return from the Treasury for the same period amounted to the quite insignificant figure of 935 rupees, leaving a sum of

16,681 rupees absolutely unaccounted for. Where or how this large sum went it is impossible to say except that it was absorbed by peculation, extravagance, unauthorised work not paid for, and improper accounting, the natural concomitants of mismanagement, and lack of proper supervision.

When you compare this with the financial statement herewith for the year ending 31st December, 1910, it forms truly a most remarkable and significant contrast. The gross turnover being 22,745 rupees 30 cents, the actual net profit after allowing for supervision and machinery being 220 rupees 90 cents, the gross profit paid into the Government Treasury for miscellaneous revenue being 4,155 rupees 22 cents, and thus effected within the short space of a few months. Instead of an annual deficit of some 16,000 rupees, the Government has the whole of its actual expenditure of about 22,000 rupees returned with a small profit, which must result in considerable benefit to their capital account, apart from the remaining material, advantages derived from the abolition of a system so prolific of abuse and malpractice.

Supervision. There is still a good deal to be accomplished in the workshop for this head, as the workmen here are inherently careless and indolent, consequently the work is frequently scamped and has to be done not once or twice but frequently several times. Because of this I have refused to recommend the continuation of the present Superintendent's appointment on the completion of his period of probation on 29th September last. He has been warned continually again and again in this particular respect with but varying success. He is allowed to obtain there satisfactory results then he has hitherto attained in the past. It should be however stated in his defence that the character of the local workmen does not lend as a rule to efficiency, and that he has therefore an uphill task with such unpermanently trained men who can neither read nor write, and to whom everything has to be explained beforehand even once. Further, he himself is too much imbued with the laissez-faire spirit of the past, having previously served as second engineer in charge of Messrs. Smith Mackenzie & Co.'s ice factory here, to ever in my opinion acquire those qualities of observation, organisation, and resource which are so necessary to ensure the proper discharge of the duties of his position.

The cost of the work turned out from the workshop is lower than was to be expected, but still it is unfortunately too high mainly in consequence of the high wages already given in paras. 3, 5 and 7 (Labour, Materials, and Machinery respectively). It is to be hoped, therefore, that in the future, by the judicious employment of the labour through constant efficient supervision, and the curbing of the exorbitance regarding the procurement of the materials that the workshop charges will be eventually reduced. One thing is evident, that for certain classes of work, such as connected with the tin and coppersmith's trades, we shall never be able to compete with the workmen in the Bazaar, neither do I think was it ever intended that we should do so.

STATEMENT of Receipts and Disbursements of the Workshop for the Year 1910.

Cr.		Dr.	
Rs.	Cts.	Rs.	Cts.
Adjusted and paid into Treasury by cash	22,745	30	11
Gifts contributed to			
Raw materials, etc.	962	02	
			23,707
			78
Labour engaged at the workshops	8,187	91	
Outside labour	897	74	
Materials purchased	9,020	64	
			17,906
			29
Actual salary of permanent staff	4,155	22	
Materials used from stock not to be paid for	209	77	
Machinery at 2 annas per working hour	253	12	
			4,617
			11
Balance			23,524
			40
			479
			38
Total			23,008
			78

9. Conclusion.—In conclusion, I think one may reasonably claim to have placed the workshop on a proper basis as outlined in my re-organisation report. The Auditors have also expressed their approval of the method of workshop accounting, and their last report, and I am having attached in the form of an appendix hereto a list of works executed for a period of six months ending June, 1910, in order to give you an idea of the extremely varied nature of the work that has to be performed by the workshop. Eventually I trust that one will be able to say that in the Government workshop one can get things done in a proper manner at a reasonable charge. I am afraid that this cannot be truly said at the present time, and it certainly never has been justifiably said in the past.

Appendix

List of Work done during the Six Months to end of June, 1910

Port office, making spindles and link motion for steam launch
 Port office, making two new fairway buoys.
 Port office, making nuts and fly wheel for wireless telegraph engine.
 Port office, making screw cover for wireless telegraph engine.
 Port office, making spanners for water boat.
 Port office, making shaft and clamps for steam launch
 Port office, making water tanks.
 Pemba Chake Chake water tanks.
 Pemba water works, making plunger and flanges, etc.
 Pemba ice machine boring shaft, pins and valves, etc.
 Pemba steam launch, retubing
 Pemba strong room.
 Pemba P.W.D. making crowbars
 Pemba making donkey pump.
 Pemba making boiler chimney
 P.W.D. motor car repairs
 P.W.D. bicycle repairs
 P.W.D. motor cycle repairs
 P.W.D. carts, repairs and making tools for new.
 Lunatic Asylum, making six new water tanks
 Roads and bridges, repairs Mzazi Moja culvert
 Drains repairs at Stella market.
 Town water works
 Chem Chem water works, making door
 Steam road roller repairs.
 Upkeep telephone, making speaking tubes.
 Pemba roads, making new tools and repairs.
 Town roads, making new tools and repairs.
 North roads, making new tools and repairs.
 South roads, making new tools and repairs.
 Mwera bridge, scraping and painting.
 Zanzibar Survey Department, making drawers and drawing board.
 Zanzibar Survey Department, making pegs.
 Palace repairs, H.H.'s gramophone repairs.
 Palace repairs, H.H.'s motor car repairs.
 Palace repairs, H.H.'s has huru repairs.
 Palace repairs, H.H.'s water cocks and pumps repairs.
 Palace repairs, H.H.'s water copper tanks repairs.
 Palace repairs, H.H.'s water taps repairs.
 Chukwani Palace repairs.
 Chukwani Palace, making 3 sanitary dustbins
 H.H. pier repairs.
 Government landing pier repairs.
 Government buildings repairs, making kitchen chimney for F.M. house
 Government buildings repairs, repairs key for F.M. office door
 Government buildings repairs, cutting beams into pieces
 Customs Department, repairs stand cocks and sluice valves
 Customs Department, repairs crane
 Agricultural Department, bicycles.
 Agricultural Department, repairs motor car.

Agricultural Department, fixing speaking tubes.
 Agricultural Department, repairs clove sorting machine.
 Agricultural Department, making seats for Victoria gardens.
 Town Collectorate, overhauling and repairing bicycles.
 Town Collectorate, making iron grates for market.
 Zanzibar Gazette, repairs machine.
 Zanzibar Gazette, making columns.
 Police Department, making finger print.
 Police Department, removing guns from Palace Square.
 Treasury Department, fixing bicycle and repairing.
 Sanitary Department, laboratory.
 Government Hospital, water tap repairs.
 Government Hospital, lamp shade.
 Government Hospital, picture book.
 K.A. Riffo, water pump repairs.
 K.A. Riffo, repairs pulley wheel of flag staff.
 K.A. Riffo, making gong.
 K.A. Riffo, making lighting conductor at Ziwani.
 Ziwani Hospital, making six cakes.
 British Agency, repairs bath room pump.

Workshop.

mouth Mackenzie & Co. boring shaft and pins for S.S. "Pundua."
 Zanzibar ice factory making pump rod.
 Mr. Clarke repairs motor car.
 National Bank of India repairs water taps.
 Mr. F. de Souza (Overseer), bicycle repairs.
 Messengers Maritimes.
 Zanzibar Railway Co. making shaft and pins.
 Mr. Monda rickshaw repairs.
 Mr. Lyons repairs rickshaw.
 Mrs. Zanzibar repairs hat iron, clothes.
 English Club repairs water taps.
 Mr. Reed repairs camp bed.
 Mr. Gaulton, fitting books for picture frames.
 Mr. Young making nets for rickshaw.
 Eastern Telegraph Co. making six books.
 Mr. Brown repairs bicycle.
 General Mathew's Memorial, repairs chain.
 Mr. Wandersall repairs rickshaw.
 Mr. Lawson, repairs bicycle.
 Mr. Mashona, making dies.
 Mr. (Name obscured)

Sub-section C2.—Locomotion.

1. Motors. In accordance with the recommendation of my Re-
 organization Report, Section E, Sub-section B, Motors, a garage was accepted at the
 beginning of the year by the Agricultural Department car afterwards designated as No. 1
 and being handed over to the Public Works, and with that car now known as
 No. 2, all the various branches of the garage. Formerly if any officer of the
 Government outside the two departments named required a car, he had to apply for
 one to either the Director of Agriculture, or the Director of Public
 Works. With the inauguration of the garage all this ceased, and any officer could
 requisition a car for Government work whenever required.

The garage as at present constituted consists of the following:

- No. 1 car. Formerly the agricultural car, was purchased for £336 15s. 1d. by
 that Department on the 16th October, 1908, so has been running up to
 date more or less for a little over 14 months. It is a Coventry Humber
 (second grade), 10 to 12 h.p. car with tonneau body.
- No. 2 car. Formerly the Public Works car, was bought on the 31st October,
 1908, at a cost of £348 3s. 8d., so has been running exclusive of sundry
 breakdowns for just on 14 months. It is practically a sister-car to the
 above, being of the same make and horse power.
- No. 3 car. The Rover, was purchased for £379 4s. 1d., on the 10th June,
 1910, on the recommendation of the British consul at Mozambique, who

stated that he had had a Rover running there for two years without a
 break down. It is a twin-cylinder 12 h.p. car with tonneau body, and of
 a more improved and modern type than either of the aforementioned.

No. 4 is a 2½ h.p. motor bicycle with belt drive, purchased second hand for
 £20 from the late Director of Public Works, and mostly used by the
 subordinate officers for inspection work in the shambas.

All these three cars have been fitted with cape hoods, wind screens, speedo-
 meters, and electric horns. The two Humber cars originally had not these extremely
 useful accessories, especially the hoods to protect passengers from the fierce blazing
 sun and heavy rain.

They have also been equipped with portable telephones, so that in case of
 breakdown or other urgency, they can connect up to our shamba lines at any
 point adjacent the roads, and so get into communication with the garage telephones,
 when a relief car is immediately despatched. In this way breakdowns are mostly
 promptly dealt with at any hour of the day or night.

(ii) Staff.—Grave difficulties have been met with and eventually overcome in
 securing chauffeurs to drive the cars. Our first attempt was made as far back as
 the 1st August, 1909, when a Goan named Charles D'Souza was engaged at 100 rupees
 per mensem, and started a course of training at the garage. He was formerly an
 engine driver on the Zanzibar railroad, and received a good recommendation from
 the Railway Co. After some six months' training he showed such indifferent progress
 and was such a careless chauffeur, and this, accompanied by irregular attendance at
 his duty, that his services were dispensed with on the 7th February, 1910.

On the 10th August, 1909, H. Hagberg, a Swede, joined the garage, upon
 similar terms and conditions. He showed ready aptitude in learning, and at the end
 of six months was a most competent driver. In consequence of this, and his being
 able to keep the garage books in connection with the records and expenses of
 running the car, that he was promoted to be head chauffeur on the 21st March,
 1910, and his salary increased to 130 rupees per mensem. He, however, was unable to
 completely master the intricacies of the mechanism of the car, and failed to properly
 manage the cleaners; this, together with the fact that he was found on one or two
 occasions more or less inebriated whilst in charge of a car, made me relieve him
 from garage duties at the beginning of December last and put him in charge of
 the boring operations at Chem Chem, he having had previous experience in that
 class of work.

Gabriel D'Souza recommended as a chauffeur by the Collector of Zanzibar arrived
 from India here on the 13th June, and resigned on the 18th of the same month,
 after nearly upsetting one of the cars and showing himself but a mere tyro at his
 proposed vocation.

On the 1st December, the Electrical Superintendent (Gordhan Govind) was put
 entirely in charge of the garage in consequence of Hagberg's proved incapability.
 Gordhan is a skilled mechanic, and for a long time prior to his taking entire
 charge of the garage had been given the supervision of the repair work connected
 with the cars. He was also until quite recently chauffeur to his Highness the
 Sultan and has had a good experience of motors.

On the 6th July last, owing to our inability to procure competent chauffeurs
 from India, it was decided to place two intelligent Banyan carpenters, Nagi and
 Purshetam as apprentices under Gordhan Govind for training. They started at a
 wage of 75 rupees each per month on the condition that if they proved themselves
 competent to drive within three months they should receive 100 rupees per mensem. It
 was not however until this month that Nagi proved himself competent enough to receive
 the rate promised of 100 rupees, and Purshetam has yet to improve in his chauffeur
 before he can be put forward for his full rate of pay. It should be pointed out,
 however, that the men were considerably hindered in their practice by the continual
 breakdowns of the cars, and that Gordhan has proved himself to be a good and
 efficient trainer. Under his management the garage service has considerably improved
 there being but few breakdowns, and when they do occur they are most promptly
 dealt with by him with or without the aid of the workshop as the case may be.

As Gordhan cannot write English, and is unable therefore to keep the books, a
 Swahili clerk is to be engaged at 15 rupees per mensem, to keep them for him, and
 he will be rated as a cleaner in the estimates, for it is absolutely necessary for
 these books to be kept in a proper manner by a reliable man. I may further
 mention that Gordhan as Electrical Superintendent has entire charge of telephones and
 other electrical works of the Government, and in consequence of his proved ability

his salary has been increased in two years by two instalments from 150 rupees to 175 rupees.

(iii) *Career.*—It may be easily imagined how soon the demand for cars increased under the new conditions of service, and apart from the Agricultural and the Public Works Departments, the Collectorate, the Police, the Medical, and occasionally the Health Department were the most frequent applicants. At first, in consequence of the number of breakdowns and lack of competent chauffeurs, there was not unreasonably a good deal of complaint, but after allowing for this it was the exception that an applicant was disappointed, and every endeavour was invariably made to avoid such a contingency. A set of rules and regulations regarding the ordering of the cars was drawn up and received proper authorisation in order to avoid any undue friction, and a copy of them was sent to the Heads of every Department for their guidance.

Herewith are tables showing the mileage covered by each car during the time it was running under observation:—

No. 1 CAR.

Month	North Road	Chwaka Road	Bwelee Road	Chukwani Road	Trips	Total
April	127	212		130	40	869
May	498	530	240	98	63	1,336
June	173	198	48		14	419
July	185	238	48	84	31	555
August	409	414	154	144	53	1,181
September	171	34			7	225

No. 2 CAR.

Month	North Road	Chwaka Road	Bwelee Road	Chukwani Road	Trips	Total
April	123	34		42	8	181
May	420	184	72	34	13	362
June	171	49	48	42	18	306
July	25		37		2	49
August	95	182	38	28	17	330

No. 3 CAR.

Month	North Road	Chwaka Road	Bwelee Road	Chukwani Road	Trips	Total
April		24	90	42	63	1,632
May		34	37		2	38
June		98	83	56	29	725

From a study of these it will be seen, that No. 1 car averaged 740 miles per month during the time she was running under observation, until the end of the year a remarkable good performance, that No. 2 car averaged 409 miles during the eight months service, the shorter period of service being due to a bad breakdown which laid her off from the 9th July until the beginning of September following. No. 3 the new car, started her career one month after the above time, the time the records were kept, and ran only for five months, when a serious breakdown she was incapacitated from September until the end of the year so her average for that period is only some 580 miles per month. It is especially noticeable that the runs of No. 1 car for the months of August and November, viz. 1,181 and 1,185 respectively, this, however, has been done by the same car which in July last placed no less than 1,852 miles to her

credit, the highest recorded monthly run. No. 2 car never exceeded 880 miles for any one month, and for the month of July no less than 3,341 miles was covered by the three cars, an average for that month of 1,113 miles per car, a monthly average which has never been surpassed.

(iv) *Maintenance.*—This is an extremely important point in dealing with the efficiency of any garage, and the objects to be aimed at in relation thereto are the attainment of the greatest possible economy by (a) competent chauffing, (b) proper attention to cleaning and repairing the cars, thereby avoiding breakdowns, (c) careful checking of the consumption of petrol, oil, grease, tyres and other necessary accessories, so that waste is prevented as much as possible. Herewith are records duly tabulated for each car showing the consumption of these adjuncts during the period stated. They are unfortunately incomplete owing to the continued ill-health of the then head chauffeur, Hagberg, and there being at the time no one available to take his place at this particular duty.

No. 1 CAR.

Month	Petrol	Lubricate	Paraffin	Carbide	Cotton waste	Grease	Oil
	Gallons	Gallons	Gallons	Lbs.	Lbs.	Lbs.	Lbs.
April	13	2	4	5	6	17	1
May	18	14	4	5	6	7	1
June	14	3	1	5	8	7	1
July	15	24	1	5	8	7	1
August	19	3	1	5	6	14	
September	6	1					

No. 2 CAR.

Month	Petrol	Lubricate	Paraffin	Carbide	Cotton waste	Grease	Oil
	Gallons	Gallons	Gallons	Lbs.	Lbs.	Lbs.	Lbs.
April	18	2	4	5	6	17	1
May	11	14	4	3	6	7	1
June	12	2	1	5	6	7	1
July	3	1					

No. 3 CAR.

Month	Petrol	Lubricate	Paraffin	Carbide	Cotton waste	Grease	Oil
	Gallons	Gallons	Gallons	Lbs.	Lbs.	Lbs.	Lbs.
May	3	3	4	2	4	6	
June	8	3½	4	2	4	6	
July	17	4	1	5	6	6	

From the foregoing tables it will be ascertained that No. 1 car ran 4,799 miles from April to September last, and consumed 340 gallons of petrol, etc., etc. etc. giving an average consumption of 1-14th of a gallon per mile.

No. 2 car ran 2,218 miles between April and July, inclusive, consuming 136 gallons of petrol, etc., etc., equalling about 1-16th gallon of petrol per mile.

No. 3 car for three months May to July covered 2,136 miles, with a petrol consumption of 112 gallons, equivalent to 1-19th gallon per mile, as set forth in the tables of stores consumed.

The total mileage for all three cars for the period under consideration was 9,155 miles with a total petrol consumption of 588 gallons, or 66 gallons per car mile, which at 1-31 rupees per gallon equals 7 cents per car mile or thereabout.

The gross expenditure in the upkeep and maintenance of motor cars, including the motor cycle is 10,192 rupees 40 cents, detailed as under:—

	Rs.	Cts.
Repairs	511	58
Expenses	1,781	63
Fuel	82	83
Wages	76	90
Motor cycle	3,077	73
	63	69
Total	10,192	46

The total mileage of all three cars for the year is 12,925 miles. This is therefore equal to 79 cents (say 12½ annas per car mile). Not knowing the cost of running a car in England, one cannot make a comparison, but taking into consideration the extremely hard usage to which these cars were formerly submitted in the training of chauffeurs and the very bad condition of our shamba roads some 17 months ago, the results seem quite creditable.

Hereewith is a list of various breakdowns of the different cars, together with the dates of their occurrence:—

No. 1 CAR.

On the Wazirabad road at 16 miles	July 18th
At the Garage	July 22nd
At the Garage	August 8th
On the Wazirabad road at 27 miles	November 16th

No. 2 CAR.

On the Wazirabad road at 14 miles	July 9th
On the Wazirabad road at 16 miles	November 7th

No. 3 CAR.

On the Wazirabad road at 4 miles	July 7th
On the Wazirabad road at 12 miles	July 15th

We were first of all with No. 1 car, the first breakdown was through the differential gears whose going primarily caused by the bad manipulation of the gear levers through chauffeurs' mistaking, the second was from a similar cause; the third was a consequence of continual short circuiting through defective insulation which was remedied by rewiring with new insulated wire, the fourth and the last occasion was the old complaint first mentioned in this paragraph. From this it will be seen that bad handling was the principal factor in these breakdowns.

No. 2 car, the crank shaft fractured right through, and the car was consequently disabled until a new shaft could be got out by cable from England; the second breakdown was through the differential gears going, and in this case, also, a new set had to be ordered from home. Here again both breakdowns were due to faulty handling.

No. 3 car, the first breakdown arose through the seizing of the piston cap in the cylinder caused by faulty lubrication, and this was largely due to an inherent defect in the method of lubrication. In the second instance the piston bolts started and the piston broke free when the car was running at twenty miles an hour, this obtaining the balance wheel and the aluminum casing into several fragments, completely disabling the car as the new wheel, piston and casing had to be procured from England. This was proved to be due to the carelessness of the workshop foreman, who replaced the split interlocking pins to the piston bolts, and substituted a French nail and piece of copper wire in lieu thereof. Here the causes were defects in the design, and the carelessness of the workmen in connection with the repairs.

Improvements. The following improvements were effected in the accommodation of the garage:

1. The removal of a wooden screen at the eastern end of the garage, which lengthened it some five feet, the widening of the door some eighteen inches, so that cars could be driven easily inside. Formerly there was barely some three inches clearance on either side of the old door jambs, consequently the

cars were being constantly more or less damaged in their egress and ingress. A drain was cut into the garage floor draining off the water used for cleaning purposes into a cesspool situated in the yard at the rear, this was in order to obviate the nuisance caused by the water, oil, etc., finding its way into the main road; the court at the rear of the garage, formerly used as a shrubbery, was cleared of vegetation, pigsties all over, and a lock-up repair shed of corrugated iron and timber with the necessary pit was erected in the north-eastern corner. The whole of these works cost 726 rupees 41 cents.

2. Formerly the electrical accumulators used in driving the cars were charged gratis, either by the courtesy of the Eastern Telegraph Co. at their premises, or by the Electrical Light Co. at their station. This, however, had its inconveniences and delays, so a charging battery for accumulators has been erected in the garage at a cost of 150 rupees and is giving every satisfaction.
3. A part of the garage is also partitioned off and used as an office for the clerk to keep the necessary books and attend to the telephone. It is also used as a store room for the numerous but necessary spares, and a waiting room for chauffeurs and cleaners.

(v) **Concluding Remarks.**—The two Humber cars Nos. 1 and 2 are rapidly becoming worn out, and will not last much longer. They are only second grade cars to start with, and the rough treatment they have been through, as particularly described, has not tended to preserve them in a good condition. It is not possible to require repairs of so extensive a character that the cost of such repairs would be advisable of scrapping them and replacing them with a car of a more powerful make.

All the cars are under-engineed and they have to be driven at a low rate of speed to keep up an average of 20 miles per hour. It is not possible to increase them to pieces. At least two new cars are required to take the place of the present ones, and one is allowed for the spare. The new cars should be of a more powerful make, should therefore be put down in the estimates for 1911 for two cars, one of not less than 16 h.p. and 20 h.p. would be better. It is also suggested that for greater reliability in this respect the types of the second class of the Motor Cycle (Colonial model), the Vauxhall and the Motor Cycle are the most suitable. They should include all accessories and a complete set of spares for each car.

The motor cycle has got into such a state of disrepair that it will be repaired with one of a more modern make, as it is also fairly essential to have one to enable surprise visits to be made by subordinate officers to works in progress in the shambas.

It is better that the garage house should always be occupied by one of the officers of the superior staff of the Public Works Department in order that close supervision can be kept on the motors.

2. Bicycles.—The undermentioned officers of the Public Works are supplied by the Government with these extremely useful machines:

1. Director of Public Works
2. Clerk of works
3. Superintendent of workshops
4. Inspector of buildings
5. Electrical superintendent and telephone inspector
6. Inspector of roads
7. Chwaka road overseer
8. Bwalo Estate and Chukwani road overseer
9. Quarry master

Most of the shamba paths in the weather can be negotiated only on a bicycle, and in our extremely narrow and congested streets far better progress can be made with a bicycle than with any other mode of conveyance. The best make procurable at here, locally, is the Raleigh, which has been purchased. The necessary accessories and gear case, for 160 rupees, were also purchased, including the necessary accessories and gear case, for 160 rupees. There are various other makes, including the Ariel, the Rudge-Whitehead, etc., but the Raleigh proves that the first-mentioned is the best and cheapest all-round machine with fair average wear and tear. All necessary repairs to these can be executed in the workshop, or put out in the city as pressure of work or urgency may dictate. With nine bicycles always running I would advocate a stock of tyres being laid in, as they are frequently required, and expensive articles to buy locally.

Sub-section D 1.—*Electrical.*

1. *Telephones. Present System.*—The Government telephones in Zanzibar Island consist of about 79½ miles of line situated for the greater part in the shambas as per table herewith:—

No.	Route.	Call Stations.	Exchange.	Mileage.	Instruments.
1	Chuka	His Highness's bungalow, Mile 6 Mwera M'Koani Marselles Dunga Salem	2	32	5
2	M'Kushoto	Mangapwani City exchange	1	31	3
3	Chikwan.	City Palace First Minister's Office		7	2
4	City Palace Zwan	First Minister's Office City Exchange		1 2	1 1
5	H. B. M.'s Consul's House at the M'Nazi Maja	City Exchange		2	1
6	Gulshan Hospital	M'Wembeladu police station		3½	2
Total			3	79½	20

All these lines with the exception of Nos. 3 and 4, which are private lines, are connected through to the Telephone Co's Exchange in the city, and Nos. 6 and 7 are extensions that have been made during the present year.

Since I came after my arrival here I found the Government system of telephones in a very disorganised and unsatisfactory condition. This was due to many causes amongst which may be cited the following:—

- (1) Constant interruption to the shamba lines owing to their being fouled by vegetation.
- (2) Obsolete and defective instruments.
- (3) Exerts at the Company's exchange in the city, to which all our shamba lines are connected through to the different Government departments, and the Telephone Company's various subscribers.
- (4) Improper attendance at the sub-exchanges on shamba lines.
- (5) Lack of adequate supervision.

Remedies.

- (1) Was caused through the inattention of the linesman who, I found, used to waste their time at our stores depot, waiting for breakdowns to occur, so I altered this and have them out constantly examining and clearing the shamba lines.
- (2) All our instruments have gradually been replaced with those of the most modern type procurable.
- (3) These were frequently occurring owing to faulty fuses, earthings, etc., and were a serious cause of contention between myself and the Telephone Company, who would invariably try and put the blame on our shoulders. In consequence of this, on two occasions, I attended the Exchange personally, and after testing, pointed out the faults, and have had hardly a repetition of this sort of trouble since.
- (4) The telephone boys at the shamba exchanges were formerly very inadequately paid, consequently I have had their pay increased to 15 rupees per month, and now fine them if they are absent from duty during office hours, surprise calls being made from time to time to keep them up to the mark.
- (5) This was mostly due to Gordhan the telephone inspector being also chauffeur to His Highness the Sultan, consequently a great deal of his time was taken up in Government hours by attending to His Highness's three cars, and driving them whenever required. Owing to my frequent complaints a great deal of friction arose regarding this matter, and on my pressing the subject, I definitely decided the question, an arrangement was made by which Gordhan devoted only his own private time to His Highness's work, and the difficulty has now been finally decided by His Highness engaging another chauffeur from Egypt.

New System.—Owing to the numerous complaints and high charges of the Telephone Co., it was decided to determine the existing arrangements with them, and to start a new system at an estimated cost of 15,000 rupees. That this was an exceedingly serious matter for them can at once be realised when out of a total of 51 subscribers the preponderating number of 38 are subscribers for by the Government. During this year a sum of no less than £370 has been paid them by the Government for telephones, and owing to the large number of recent extensions this will be considerably increased with the coming year. Through this action on our part, the Company have decided to climb down, and to agree to a more equitable arrangement for the future.

With this sum of 15,000 rupees now at our disposal, advantage should be taken to improve our shamba lines by abolishing the present earth returns and substituting metallic ditto, and the question of the expediency of gradually replacing our present iron wire with copper ditto, could be considered together with any further extensions or improvements that may be considered necessary.

2. *Electric Lighting.*—The electric lighting has been extended as per table hereunder:—

No.	Nature.	Candle-power.	Situation.	Cost.
1	Carbon filament	8	Lane by Messrs. Arnold Cheney's house	18 00
2	"	"	Side lane of Mr. Manceky's house	25 00
3	"	"	Back lane of Tiputip Hotel	20 00
4	"	"	Lane near Mr. Marac's House	48 00
5	"	"	Side lane of Hassan Hirji	66 00
6	"	"	Back of Messrs. Hansang & Co	20 00
7	"	"	Back lane of Daud's Banda	27 00
8	"	"	Back of Bhora Masjid	60 00
9	"	"	Side lane of Sheriff Monboba (3 lights)	27 00
10	"	"	Back of Port Office	20 00
11	"	"	Back of Seyyid Abdulla's house	22 00
12	"	"	Back of Seyyid Thabit's house	41 00
13	"	"	Back of Abdulhuson Isaj	42 00
14	"	"	Side lane of Tharu Topan's house	11 00
15	"	"	Back of Merali Vissam's	26 00
16	"	50	At the beach near Water Police	20 00
17	"	16	Sultan's Pier	26 00
18	Metallic filament	"	Government Pier	22 00
19	"	"	Customs Beach	27 00
20	"	8	Stables clock (4 lights)	20 00
21	"	16	Court clock (2 lamps)	20 00
Total				621 00

By special arrangement with the Electric Light Co. a few have been arranged as a lamp cleaner at a wage paid by the Government of 10 rupees per month. This was in consequence of the filthy condition that these lamps were in, and that it was no part of the Company's contract to clean them. Some 500 lamps have been procured from Europe and fixed into position in order that the public interest may be distinguished from the private street lamps.

It is intended to experiment with the substitution of metallic filament lamps for the existing carbon filament ones in certain streets, the former giving a much greater light for an equal consumption of current, the filaments are, however, extremely delicate compared with the carbon ones, and are apt to break, etc., mainly caused by vibration than the other one, they being the same, etc., the Company refuse to guarantee them, etc., etc. The price of the same is 7 rupees 50 cents per lamp, including the necessary accessories to fit same.

- Extensions of the electric light are suggested in the following places, viz.:
1. Darjani Bridge.
 2. Ngambo road to Gulshan.
 3. Road from the M'Nazi Maja road to the Government Laboratory, and another street near the Government Laboratory, and another street near the Government Laboratory.
 4. M'Nazi Maja road to the new prison.
 5. Chuka road from the M'Nazi Maja road to Zwan hills.

In the Shangani road where the lights were placed too closely together, six of them have been removed and placed elsewhere as required.

Sub-section E.—Surveying.

1. *Form Survey.*—In consequence of the Department having been so considerably understaffed, this work has been practically at a standstill. I hope, however, very shortly to have it resumed and brought to completion, at all events as far as all that portion of the work lying to the westward of the Creek is concerned. This survey has become quite pressing in connection with the surface drainage, road improvements, and other administrative and sanitary work.

2. *Island Survey.*—In my opinion it is extremely doubtful whether such survey is really required, our present map to a scale of one inch to the mile prepared in General Sir Lloyd Mathews' administration by Iman Sheriff Khan Bahadur, of the Indian survey, is quite a good one, and Major Ghordey, R.E., at the time of his visit here, some months ago, spoke of it as really excellent work. There were a few slight inaccuracies in the names of places, etc., but beyond that it was quite correct enough for the purpose of depicting the routes taken by the roads telegraph, etc., and shows approximately the positions of the various Government buildings and shambas. If ever it was decided to have the Government shambas surveyed, it could be specially done by one of my own Staff, especially told off for the purpose as the occasion demands. A cadastral survey is a very expensive matter and will probably take about five years to complete, and cost anything over £20,000 apart from the almost impossible and interminable task of delimitating the boundaries of the various owners affected thereby.

3. *Special Surveys.*—Special surveys have been prepared of Mkokotoni and a Chikwaia, about the only two places at present in the island that really require them. At a future date one may have to be prepared for Bububu. In addition to these, surveys have been made of the following:—

1. Dhaka station Guljani
2. Ziwani swamp
3. Kungani swamp
4. M'Nani Mops and Cooper's Institute.
5. The Asylum now to be the prison.
6. The K.A.R. lines, Ziwani
7. Kadwan District of the town.
8. Kibakani District of the town.
9. The Creek South of Darjani.
10. Ngambu. Road from Darjani to Gulioni Customs regarding the railroad.
11. New Cemetery adjacent mile 2 on the Chuaqa Road.
12. South Road survey from 2½ to 8½ miles
13. Survey from the Government Offices at Shangani Point as far as the Port Office, Malindi, with reference to the harbour scheme report.
14. Survey from Chani Chani to the Punjabhai Club, also a good many other surveys on behalf of the Agricultural, Collectorate, and Legal Departments, too numerous to mention.

Great care has been taken in a large number of places within the old city boundaries, and hence marks permanently marked in various convenient centres off the public roads in order that they may be ready for use at any future date when levels may be required for any purpose. As our datum line means sea level, deduced from the tide observations at the Customs Quay, Zanzibar, has been preserved, and the same as the ordnance survey practice in England, which has been used in all the level work taken at Liverpool Docks.

Sub-section F.—Stores.

1. *Old System.*—The system of storekeeping in vogue on my taking over was based on that of the Indian Public Works and introduced by my predecessor. There were kept, viz., a general ledger, issue note book, and rough day book. These were kept in a careless perfunctory manner, and in consequence of my continual dissatisfaction with the former storekeeper (Chatterjee) and a survey conducted in October, 1909, after having served under me for the short period of six months only.

Following the resignation and the appointment of one of my clerical staff (Mr. A. V. M.) to this responsible and important post, the opportunity was immediately seized of having a searching investigation made into the irregularities and abuses which I had believed to exist, and as a result thereof the following recommendations were made and founded on good grounds:—

- (a) The books did not agree with the stores actually in hand, consequently no balance could be adjusted, and special authority had to be obtained from the Foreign Office to write off stores to the value of 1,620 rupees 21 cents in order that a reconciliation could be effected.
- (b) Valuable stores lying about not having been entered on the books.
- (c) Stores in suspense account received from England in 1908 were lying about unpacked, therefore not checked or entered on the books; nevertheless, all statements were signed by the late storekeeper as correct.
- (d) Stores issued without an issue note or receipt of any kind.
- (e) Alterations and additions to issue notes after their signature.
- (f) Stores kept in excess of the balance on the books in order to meet emergencies of shortage, caused through wrongful issue of stores.
- (g) Execution of indents:—
Local indents not promptly attended to, thereby delaying the workmen and their work.
Pemba indents were but rarely executed per return mail, although the interval between the sailings was much more than what it is now. Several Pemba indents, two to three months old, were found lying about unattended to.
- (h) Money received by the storekeeper for stores supplied and fresh stock bought with the money to replace it.
- (i) A watchman paid 20 rupees per mensem by the Government and working as a private servant to the late storekeeper.
- (j) No record whatever kept to show the value of the articles in stock.

In addition to the foregoing there was the usual local "distouri" amongst the store contractors on the principal of "heads I win, tails you lose." It was effected in this way, quantities in excess of the actual amounts indented for were almost invariably sent on the plea that the materials could not be cut to order, consequently the wastage was enormous, especially did this apply to timber and iron. In the former case an instance can be quoted in which a prominent European merchant here would, if white wood were indented for, supply a quantity of red, which is more expensive, on the plea of shortness of stock and charged the excess price, and when red wood was required he would supply a certain quantity of white of less value, taking good care to charge the red wood price. When a protestation was lodged, accompanied by a refusal to continue such a custom, on the grounds of "distouri," etc., it was politely intimated that the matter would be brought to the notice of the First Minister, and therefore further would be heard of it. Needless to say, the covert threat produced no effect.

All old building materials removed by the contractors from the various repair jobs disappeared under the "distouri" of perquisites and they thought they had quite a legitimate grievance when such practice was put a stop to.

2. *New System.*—The contents of the preceding paragraphs are a somewhat strong indictment of the manner in which the old system was carried out, and for works to be executed with economy and despatch it is absolutely necessary that an efficient system of stores and storekeeping be devised. To do this as succinctly and completely as possible the following books had to be introduced and kept up to date. They are:—

- (a) Unallocated stores ledger, in which an account is kept of receipts and issues of all stores in suspense. A monthly statement is submitted to the headquarter office of all the issues from this ledger to be finally charged off to the sub-heads to which the stores are issued.
- (b) Allocated stores ledger, where a record is kept of the receipts and issues of all the stores that have been charged off to works.
- (c) Invoice book wherein a copy of all invoices for goods received from England and other places are kept.
- (d) European indent book for foreign indents sent out of Zanzibar.
- (e) Local indent book for indenting goods locally, all bills rendered to the contractors for goods supplied are sent to the stores before being passed for payment for checking against the indents.
- (f) Rough day book, in which everything entered that is received daily in the stores, and from which all issue notes are made out and then posted to the different ledgers.
- (g) Issue note book, where issue notes are made out in duplicate giving details of the stores issued, the duplicate being detached from the book, and after receiving the signature of the official to whom the stores are issued are filed for audit purposes.

(b) Monthly statement book, in which is prepared a statement in duplicate every month of the stores issued from suspense account with all the information regarding works and prices complete. A copy on a loose form printed for the purpose is made and submitted for the information of the Head of the Department.

(c) Despatch Book for sending out indents, etc., to the contractors. The following recommendations of the auditors were effected in October last:—

- 1 The practice of entering in the "allocated stores ledger" all indents for stores which are charged straight off to the works carried out in the town has been discontinued.
- 2 The custom of contractors delivering all stores for the storekeeper's checking and approval has been done away with, these stores now being delivered direct on the works to the officer or foreman in charge of the work, they resupplying the indents accordingly. Formerly this was done by the storekeeper.

From a perusal of the foregoing it can be seen how essential it is for a good and capable store-keeper to be engaged to assist in keeping these nine books in a proper manner.

No stores are disposed of except by a written order from me with the concurrence of the Financial Member of the Council, or those that have been surveyed and recommended by a Board, appointed for the purpose in accordance with the Council Office Regulations.

The work of taking out the indents was formerly done in the office, but this arrangement was found extremely unsatisfactory, causing much delay and annoyance and was discontinued early in the year.

Improvements. The Auditors in their report for 1900 dwell on the exceedingly unsatisfactory state in which the stores were prior to my taking over office and in a letter dated the 4th October ult. animadvert very strongly upon the inadequate accommodation offered by the present one at Shanghai, at the same time calling attention to the fact of its being "choked a block" with a heterogeneous mass of deteriorated cement, old empty barrels and cases, building materials etc. In reference thereto I can only say that the urgent necessity of getting these accumulated stores has been consistently pressed forward by me, for in the 1900 Estimate 30,000 rupees was allocated for another store, but was subsequently struck out in consequence of the exigencies of the service, and has since been put over and over and that the accumulation of old materials has been allowed to go on to my insisting upon all the old building materials formerly in the warehouse being brought into store. This is, however, being gradually removed the balance of the old cement, consisting of some 1,567 barrels of an original value of 1,231 rupees 45 cents, has been removed to the old P.W.D. building near the Police Comptroller, all the old pipes, bands, valves, scrap iron, etc., having been taken from there and stacked in Government land off the Government land near the Government station. This old cement will not be used for any other purpose than the road construction in the town and to make down the old building. Old pipes and other small cement works, were should it fail such as to be used for any other purpose. A quantity of old useless materials were returned and sold on the 1st by a Survey Board, and the proceeds of public auction realised 1,552 rupees 30 cents. The results of this sale are, however, gradually nullified by the incoming of old materials from the various works. It is proposed that so soon as the new prison is completed the old store should be handed over to the department and used as a godown, but this cannot possibly take place for some months yet, and meanwhile what improvements that can be effected are being executed. All the pipes, bands, and valves brought about the city in the western side of the Creek have been collected and put together at the Depot previously alluded to. The 9-inch cast iron pipes lying between Gulikda Customs and Marahobi on the North Road are being used up for drains and culverts, and most of them will be eventually used in the new and new water main from the education tank at present direct to the house of Agha Khan at Zivan.

Expenses. Owing to the shortness of stocks continually occurring here, the instance of the ready bar iron for cement reinforcement, rolled steel joists, etc. etc. is at a standstill, and it would be much more economical for the Government to order these in large quantities direct from England or India, as the case may be, and issue them as required to the various contract

jobs. This could be done every year and the quantities based on the estimates for the coming year. At the present time this cannot be very well done in consequence of the extremely limited store room available. A recent instance can be given whereas we formerly paid 8 annas per lb for 1-inch bar iron for cement reinforcement, the supplier has increased this to 12 annas 5 pies per lb., and as he has the sole stock in the island we are consequently more or less at his mercy.

Classification of Stores, etc.—The stores should be divided into sections, each article stored separately. This would greatly facilitate issue as well as expedite the annual stocktaking. Under existing conditions this is most difficult of accomplishment.

Depôt.—A start has been made in this direction by the fencing in of a small plot of ground immediately north of the stables, where the town road overseer keeps his tools and carts, and the steam roller, and old steam wagon are housed. This should be extended as soon as possible and inexpensive lean-to sheds erected in which to accommodate the various kinds of cement work now being manufactured at Khalifa's Banda, the latter place being rapidly becoming congested through the steadily increasing stock that is accumulating there.

Requisitions for Stores.—It is proposed to issue to the various officers concerned requisition books consecutively numbered and perforated with duplicate sheets, so that a carbon copy is retained for reference. Each sheet will set forth the stores required, on what job and the date of order, with the signature of the indenting officer at the foot thereof. These can be priced out from the contract list by the various indenting officers, and submitted weekly to the head office for the purpose of checking the expenditure on the different works.

Carpenter.—A carpenter is being obtained for executing the various and numerous small jobs connected with the Stores, such as the repairs of carts and tools, packing cases, and other urgent work. When not engaged on store work he can be employed on the other numerous petty jobs constantly in hand.

Watchman.—This is of the utmost importance for the Shanghai Stores to guard the premises against theft, fire, and other accidents, especially is this the case with fire, for such highly combustible goods such as petrol, carbide, oil, paints, etc., are kept there in small quantities. In the future these should be stored in a separate godown in an isolated position. If a watchman had been previously provided the burglary in connection with the Shanghai Stores some five months ago would doubtless not have occurred. It would be this man's duty to receive the keys from the storekeeper when the Stores are closed, and to return them when required during business hours or in case of urgency.

So soon as these suggested improvements have been properly effected the Stores can then be said to be finally established on a satisfactory basis, and good progress has already been made in this direction as far as present circumstances will permit. The other items of reform dealt with in my re-organisation report under Stores have been mostly effected.

The introduction of this system of storekeeping has resulted in considerable economy, an economy, however, which, unfortunately, cannot be exactly arrived at on a monetary basis, but in labour alone, and the celerity with which any work is now executed departmentally, compared to the wasteful, slow, slack, and cumbersome methods formerly existing, is especially noticeable.

Section F.—Generally.

1. **Recommendations 1, 2, and 3 of my Re-organisation Report.**—Sub-sections Nos. 1, 2, and 3 regarding medical examination and increments of salary respectively have been carried out. Sub-section 3, every overseer has now his manifold report books in which he makes his daily or weekly report, as the case may be; but in consequence of being understaffed up to the present, and of having therefore to adjust the work to meet the exigencies of the Service haphazardly and vicariously, I have been unable to set forth in detail the specific duties of each officer in writing as recommended. However, when the completion of the Staff is definitely effected the time will have arrived when this can be done.

2. **Time Check for Indoe Staff.**—The arrangements foreshadowed for this in my re-organisation report have not yet been enforced, partly because of the more or less incompleteness of my Staff, and partly because until my Staff is completed I do not think the time opportune for such innovation. The two time books will

(b) Monthly statement book, in which is prepared a statement in duplicate every month of the stores issued from suspense account with all the information regarding works and prices complete.
A copy on a loose form printed for the purpose is made and submitted for the information of the Head of the Department.

(c) *Depot Book* for sending out indents, etc., to the contractors. The following recommendations of the auditors were effected in October last:—

1. The practice of entering in the "allocated stores ledger" all indents for stores which are charged straight off to the works carried out in the town has been discontinued.
2. The custom of contractors delivering all stores for the storekeeper's checking and approval has been done away with, these stores now being delivered direct on the works to the officer or foreman in charge of the work, they receipting the indents accordingly. Formerly this was done by the storekeeper.

From a perusal of the foregoing it can be seen how essential it is for a good and capable store clerk to be engaged to assist in keeping these nine books in a proper manner.

He should not be removed, except by a written order from me with the concurrence of the Finance Member of the Council, or those that have been authorized and sanctioned by a Board appointed for the purpose in accordance with the Colonial Office Regulations.

The work of making out the indents was formerly done in the office, but this arrangement was found extremely unsatisfactory, causing much delay and annoyance, and was discontinued early in the year.

Improvements. The Auditors in their report for 1909 dwelt on the exceedingly unsatisfactory state in which the stores were prior to my taking over office, and in a letter dated the 4th October ult., advised very strongly upon the matter, and recommended, offered by the present one at Shanghai, at the same time calling attention to the fact of its being "choked a block" with a heterogeneous mass of deteriorated cement, old empty barrels and cases, building materials, etc. In reference thereto I can only say that the urgent necessity of proper store accommodation has been consistently pressed forward by me, for in the 1897 Estimate, 30,000 rupees was allocated for another store, but was inadvertently struck out in consequence of the exigencies of the service, and has been kept out ever since, and that the accumulation of old materials has been speedily brought about by my insisting upon all the old building materials formerly in the contractor's "books" being brought into store. This is, however, being gradually cleared the balance of the old cement, consisting of some 1,567 barrels of an original value of 45,261 rupees 45 cents, has been removed to the old P.W.D. store near the French Consulate, all the old pipes, bands, valves, scrap iron, etc., having been taken from there and stacked in Government land off the 2½-acre plot adjacent the Government stables. This old cement will not be wanted for use being used on road construction in the town and to make down road drains, kerbs, lamp posts and other small cement works, wear should it fail such a state would not be attended by any serious results. A quantity of old useless pipes were surveyed and condemned on the

by a Survey Board, and at a subsequent public auction realised 1,552 rupees 30 cents. The results of this clearance were however, gradually nullified by the incoming of old materials from the various works. It is proposed that so soon as the new prison is completed that the old one be handed over to the department and used as a store, but this cannot possibly take place for some months yet, and meanwhile the various improvements that can be effected are being executed. All the pipes, bands, valves, etc., scattered about the city in the western side of the Creek have been collected and put together at the Depot previously alluded to. The 9-inch cast iron pipes lying between Gulian Customs and Marahobi on the North Road are being cut up for drains and culverts, and most of them will be eventually used in the proposed sewer water main from the education tank at Gulian direct to the tank at the end of the road.

It is proposed, owing to the shortness of stocks continually occurring lately, to issue to the contractor for iron for cement reinforcement, rolled steel joists, etc., and to issue them as a standard, and it would be much more economical to have the Government to order these in large quantities direct from England or India, as the case may be, and issue them as required to the various contract

jobs. This could be done every year and the quantities based on the estimates for the coming year. At the present time this cannot be very well done in consequence of the extremely limited store room available. A recent instance can be given whereas we formerly paid 8 annas per lb. for 1-inch bar iron for cement reinforcement, the supplier has increased this to 12 annas 5 pies per lb., and as he has the sole stock in the island we are consequently more or less at his mercy.

Classification of Stores, etc.—The stores should be divided into sections, each article stored separately. This would greatly facilitate issue as well as expedite the annual stocktaking. Under existing conditions this is most difficult of accomplishment.

Depot. A start has been made in this direction by the fencing in of a small plot of ground immediately north of the stables, where the town road overseer keeps his tools and carts, and the steam roller, and old steam wagon are housed. This should be extended as soon as possible and inexpensive lean-to sheds erected in which to accommodate the various kinds of cement work now being manufactured at Khalfan's Banda, the latter place being rapidly becoming congested through the steadily increasing stock that is accumulating there.

Requisitions for Stores.—It is proposed to issue to the various officers concerned requisition books consecutively numbered and perforated with duplicate sheets, so that a carbon copy is retained for reference. Each sheet will set forth the stores required, on what job and the date of order, with the signature of the indenting officer at the foot thereof. These can be priced out from the contract list by the various indenting officers, and submitted weekly to the head office for the purpose of checking the expenditure on the different works.

Carpenter.—A carpenter is being obtained for executing the various and numerous small jobs connected with the Stores, such as the repairs of carts and tools, packing cases, and other urgent work. When not engaged in store work he can be employed on the other numerous petty jobs constantly in hand.

Watchman. This is of the utmost importance for the Shanghai Stores to guard the premises against theft, fire, and other accidents, especially as thus the case with fire, for such highly combustible goods such as petrol, carbide oil, paints, etc., are kept there in small quantities. In the future these should be stored in a separate godown in an isolated position. If a watchman had been previously provided the burglary in connection with the Shanghai Stores some five months ago would doubtless not have occurred. It would be this man's duty to receive the keys from the storekeeper when the Stores are closed, and to return them when required during business hours or in case of urgency.

So soon as these suggested improvements have been properly effected the Stores can then be said to be finally established on a satisfactory basis, and good progress has already been made in this direction as far as present circumstances will permit. The other items of reform dealt with in my re-organisation report under Stores have been mostly effected.

The introduction of this system of storekeeping has resulted in considerable economy, an economy, however, which, unfortunately, cannot be exactly arrived at on a monetary basis, but in labour alone, and the celerity with which any work is now executed departmentally, compared to the wasteful, slow, slack, and cumbersome methods formerly existing, is especially noticeable.

Section F.—Generally.

1. *Recommendations 1, 2, and 3 of my Re-organisation Report.*—Part sections Nos. 1, 2, and 3 regarding medical examination and increments of salary respectively have been duly carried out. Sub-section 5, every overseer has now his manifold return book in memo form in which he makes his daily or weekly report, as the case may be. The consequence of being understaffed up to the present, and of having therefore to do the work to meet the exigencies of the Service haphazardly and vicariously, has been unable to set forth in detail the specific duties of each officer in writing as recommended. However, when the completion of the Staff is definitely effected the improvements arrived when this can be done.

2. *Time Check for Indoor Staff.*—The arrangements fore-shadowed for this in my re-organisation report have not yet been enforced, partly because of the more or less incompleteness of my Staff, and partly because until my Staff is completed I do not think the time opportune for such innovation. The two time books will

however, be printed so as to be in readiness for use when required, which will be without doubt at an early date.

3. *Time Check for Outdoor Staff.*— This has been put into execution, intermittently it is true, in consequence of the time of myself and my officers on the Superior Staff being so fully occupied during office hours by routine work, and also because there was so much extra work owing to incompleteness of the Subordinate Technical Staff. However, it is hoped that shortly these difficulties will be overcome and that there will be sufficient leisure to permit of the checks outlined in my re-organisation report being effectually executed.

4. *Supervision.*— The disabilities outlined in my original report have to some extent been ameliorated; but still up to the present I have been unable to execute this duty in that thoroughly proper manner that I eventually hope to attain. I have up to now twelve responsible overseers employing labour whose many different works in my opinion should be inspected by me at least once every week, and although I have striven very hard to effect this I have been unable up to the present owing to pressure of office work to carry it out, for to this alone would mean, practically the whole of my official time, consequently I have had to entrust a good deal of this work to my chief assistant, who has loyally executed the extra responsibilities entrusted to him, responsibilities which were strictly extraneous to his routine duties, although in the drawing up of my original report the possibility of such a contingency arising had been foreshadowed by me.

5. *Leaves.* My twenty-two months' residence here has confirmed my opinion that if an European officer is to work at his best that he should avail himself of the opportunity of taking his home leave at the end of twenty months' service. At present this only applies to European officers of the Superior Staff, but I most certainly think that it should be also extended to those European officers of the Subordinate Staff of whom I have no less than three in my Department. They should be given if possible three-quarter pay, and should also be afforded facilities for home leave. One of the great drawbacks relating to home leave of all officers is the haphazard way in which each officer takes his leave just as it happens to him. This occasionally means that a department is minus perhaps three or four of its responsible officers through the overlapping of their leaves, putting the remainder of the Staff to great inconvenience. It seems to me with a little judicious management this could easily be avoided, and it should be the aim of every responsible official to have a deputy to take over his duties at any time should sickness or absence through sickness or leave.

6. *Promotions.* At the present time it is all but impossible for an officer on the Subordinate Staff who may have shown exceptional merit and ability, and have rendered special service to the Government, to be promoted to the Superior Staff. There is, in my opinion, too great a gap between the two grades, and too much of what I suppose may be called caste prejudice existing here, which is not a prerequisite to any rank, and which seems somewhat pitifully absurd to those who, as I have said, have spent years at sea the whole of their lives at home. There is no doubt that such a position as I advocate bristles with many difficulties; but they should not be set as a stumbling block to the careful consideration with a view of determining whether it can be put into execution, for it should be a perfectly proper policy on the part of the Government to appraise and appreciate the services of its subordinate officers in such a way.

7. *Conclusion.* This report may perhaps seem unduly long, and that it is so I cannot help, but it is no longer than the peculiar amenities of the position in which I have found myself situated here during my present term of office have demanded. Let it be incumbent upon me to absolutely justify what I have done taking into consideration the many pitfalls that have beset my path, and the many efforts and efforts in the successful execution of the task into which I have not only been, but also the most capacious critic, after the most careful enquiry into the foregoing statements, cannot but fail to admit that good and substantial progress has been made along that path of reform which it has been my object and aim to pursue, and that such progress has been made during the twenty-one months that I have spent in the Government Service is greatly due to the valuable assistance, kindly encouragement, and appreciation of my superior officers in the efforts made by me to bring about such beneficial results. It is this assistance which has enabled me to overcome the burthen of the way, and which has been the result of the personal sacrifice that the difficulties of the situation have necessarily brought upon me. At the same time I most frankly confess that had it known before I left England one tithe of the heavy risks and

responsibilities that were to be thrust upon me by the acceptance of my present position, I never would have resigned my good appointment there to have jeopardised my professional reputation over the Augean and unsavoury task that I found awaiting me here on my arrival, a task which rapidly afterwards developed into such grave issues as to make me almost despair of ever accomplishing anything that would redound to the credit of my department, the welfare of which is my especial pride and solicitude. From what I can gather, the department in the past was the by-word and scorn of the sober and serious, a butt and jest for the ribald and vicious. This stigma has slowly, yet surely, been removed, and that out of the darkness of the night of chaos and mismanagement has been born the dawn of that brighter day when from the point of efficiency and progress the Public Works can truthfully and deservedly claim that proud and significant motto of "Nulli Secundus" amongst the departments of the Government Service.

Finally, I desire to record my sincere thanks, and especially to bring to the notice of the Government the loyal support and valuable assistance that I have consistently received from those officers of recent appointment on both the superior and subordinate staffs of my department, who have done so much to help me in effecting the good work which it has been my onerous duty to inaugurate, direct, and perform, for without such aid, granted invariably ungrudgingly and willingly, my task, difficult as it has been, would have then been well nigh impossible of a satisfactory accomplishment.

Zanzibar, 31st December, 1910.

PEMBA ISLAND.

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Section F—Generally

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1. Preliminary

The Department was not dealt with in my original report of July, 1909, as at that time having only taken over my duties on the 8th April preceding I had not had an opportunity of visiting Pemba, and my energies and attention were necessarily concentrated on my department in Zanzibar. Since then, however, I have from time to time visited this island, and studied the question very fully as to the re-organization of its Public Works Department upon a more efficient basis, and in this respect I recommended that the methods inaugurated and adopted in Zanzibar be applied with modifications to suit local conditions. A somewhat detailed system of classification is therefore observed for convenience of reference.

Section A—Administration.

The Public Works Department was in a very unsatisfactory and inefficient state in which I found the various Departments at the time of my taking over a state reacting upon each other, the principal cause affecting this department, one of the principal causes militating against efficient administration was the then continual friction between the Collectorate and the Public Works Department. The former department constantly giving orders to the latter Superintendent without the knowledge or concurrence of the Director of Public Works. Numerous instances are upon record of the Collector and Assistant Collectors of Pemba and the headquarters at Zanzibar all giving different orders for the same work, and the then Superintendent (a Parsee) was by his position and position of office unable to maintain a firm attitude with regard to instructions issued from his superior officers in Zanzibar, and it was this lack of firmness that greatly contributed to the errors and irregularities that were the main cause of the dissipation of his services, as otherwise he was a very capable officer. For departmental administration to be satisfactory it is absolutely essential that orders be given through the head of the department, and that on no pretext should any other department be allowed to interfere; if so, allocation of duties and proper discipline becomes impossible. In addition to this the head of an important sub-department must have sufficient authority and power to be able to meet and deal with the officers of other departments in equal terms preventing aggrandisement, and it is for this reason that I have advocated the Assistant Director of Public Works being placed permanently in

charge at Pemba with a proper residence at Weti. This step having been accomplished, he must be supplied with a sufficient and adequate staff. This is especially important, having regard to the increased activity in the Public Works that will be necessary to fully and properly develop the great commercial possibilities of this extraordinarily fertile island. Such staff must also be properly housed, as in consequence of the greater unhealthiness of the island and the lack of suitable accommodation the rate of sickness is very high, and due allowance must be made accordingly. Any expenditure under this head should be freely permitted by the Government, subject, of course, to sufficient funds permitting as a sustained and definite policy in this wise well-directed towards the gradual amelioration of the present circumstances of existence there will more than repay itself in consequence of better health and a correspondingly greater efficiency on the part of its officers on the station.

For Government administration the island is divided into two districts, viz. M'koani, Chake Chake, and Weti; but for Public Works administration, for reasons given under Section D staff I advised that two districts be formed and designated North and South respectively, the boundary line being the present one existing between the Weti and Chake Chake Districts. The North District is to be under the direct supervision of the Assistant Director with his headquarters at Weti, and the south one under a European assistant, denominated the Superintendent of Public Works, stationed permanently at Chake Chake, such assistant being, of course, upon the superior staff and under the control of the former officer, who could make visits of inspection as frequently as circumstances would permit to the South District. Formerly in the absence of the Superintendent of Works the department was placed in charge of the Collectorate. Such a course was objectionable and to be deprecated, consequently this has been done away with and arrangements made for the department to be invariably in charge of its own officer, in the temporary absence on duty or otherwise of either the Assistant Director or Superintendent from their respective offices the department must come under the head overseer or clerk, who will, of course, give due attention to all communications received from other departments, reporting the circumstances to the superior officer as soon as possible after his return. If there is any doubt in any matter communications can be made by wireless accordingly to headquarters in Zanzibar and instructions issued therefrom.

Section B—Finance

1. *Financial Matters to be dealt with by the Treasury.* The same principle to be followed here as adopted in Zanzibar, all disbursements, including wages, to be dealt with by the Treasury upon the production of the duly authorized vouchers.

2. *Method of Payment of Contract Bills, etc.*—At the present time the wages are paid by the departments' officers, but for reasons already detailed elsewhere this practice should be superseded and brought into line with the arrangements made for Zanzibar. As the wages were formerly paid by the Treasury or Collectorate I anticipate no difficulties in this particular respect with either of these departments.

3. *Expenditure.*—Regarding this particular head grave difficulties have arisen in the past owing to the reprehensible habit of the Collectorate giving orders for work to be started without consulting the Director of Public Works in Zanzibar, consequently instances have occurred in which money has been expended in Pemba on purchasing and getting together materials for certain authorized works, while the department in Zanzibar has accepted contracts for the full amount of the sum allocated in consequence of its being undivided as to my preliminary expenditure. Such materials, etc., have therefore had to be transferred to other works, causing a great deal of trouble, inconvenience and loss. On no account must any such expenditure be made without the written consent of the Director of Public Works, and at least once a month a statement must be submitted to Zanzibar, showing the balance on each Service head, to this can be added any expenditure incurred at headquarters on behalf of any Pemba work so that the exact amount of any money being outgoing can at once be correctly ascertained and a copy of such statement forwarded to Pemba each month for their information and record. By this means any such mistakes would be avoided in the future, as all orders should emanate from headquarters *pro forma*. The petty cash would be subject to the same arrangement regarding it in force in Zanzibar.

Section C.—Contracts.

1. *Preliminary.*—The arrangements for contracts are similar to those in Zanzibar. A clause is to be inserted in all future contracts that the contractors are to employ local labour as much as possible. This is a consequence of recent representations having been made from the Collectorate there on the dearth of artisans, they being compelled to go to East Africa, as they were unable to obtain sufficient work at their respective trades in Pemba. In this respect instructions have been issued to the Assistant Director to give preference to local artisans for departmental works, *ceteris paribus*.

I propose introducing a contract system for petty jobs and piece work on similar lines to the one I advocate for Zanzibar.

2. *Rates and estimates.*—Owing to the difficulties of transport, scarcity of skilled labour, lack of housing accommodation, etc., the rates for various works average from 15 to 30 per cent. more than for similar works in Zanzibar; with the exception of the Wetii Bungalow, the Sikah at Fufuni, and the hospital, and the Collectorate at Chake Chake, very little contract work of any magnitude had been previously executed. All these were carried out by various contractors under the old regime, when very bad work was the rule in consequence of the low rates, faulty plans, specifications, and lax supervision. All these works, owing to the general scamping then extant, are costing a good deal for repairs and upkeep, and the Sikah at Fufuni will soon have to be rebuilt. The late Superintendent based his estimates for all the recent works in Pemba upon these low rates, consequently when some few months afterwards the rates considerably increased because the contractors found that they had to do good work there were excesses as the sums allocated were insufficient and the jobs had to be curtailed accordingly. In addition to this there were frequent mistakes and serious omissions from the quantities which caused no end of trouble with the contractors and the Treasury, the final settlement necessitating many special warrants.

3. *Labour.*—Labour is scarce and therefore dearer, nearly all skilled labour having to be imported. Apart from the Zanzibar rate of 8 to 10 annas per day the labourers demand "posho" (food) money at the rate of 3 annas per day and rest it. The same difficulties in respect thereto apply even more forcibly here than in Zanzibar, more especially as this case with finding the men quarters, houses being most difficult to obtain, and all artisans and mechanics brought from Zanzibar demand quarters or an allowance in lieu thereof, thus considerably increasing the expense of the works. Previously the labourers were paid "posho" during the rains when not working. During the past years the Acting Superintendent (Mr. S. P. Bland) has commiserated by discharging them and re-engaging them so soon as the weather had sufficiently improved for the resumption of work. The headmen were also formerly treated on the same lines as their men and paid during wet days. They are now paid only for the time they actually work. The heavy rains prevail more or less intermittently for practically two months, so that it will be at once discerned that the economy is a substantial one.

Section D.—Staff.

(i) *Old Staff.* The present staff is allocated and stationed as follows, and consists of:—

Designation	Pay	Rent	Allowance
	Rs.	Rs.	Rs.
Superintendent	3,375	300	...
Clerical staff—			300
1 clerk	1,032	...	...
2 office boys	240	...	...
1 storekeeper	360	...	...
Working staff—			
1 overseer	4,220	...	...
1 mason (at 40 rs.)	480	...	...
1 carpenter and water works inspector	960	...	...
1 fitter and engineer	1,200	...	...
1 telephone inspector	336	...	...

Designation	Pay	Rent	Allowance
Working staff—continued.			
2 linesmen (at 17 rs.)	408		
1 blacksmith	720		
1 donkey boy	120		
1 hammerman	180		
1 fireman for water works	360		
1 boy for water works	180		
1 driver for ice machine	1,200		
House rent for staff		300	
Wetii—			
1 overseer	1,200		
1 mason	480		
2 linesmen (at 22 rs. and 17 rs.)	468		
1 donkey boy	120		
Mkoani—			
1 mason	480		
1 linesman	204		
1 donkey boy	120		
Total	13,462	600	300

(ii) *New Staff.* The new staff will consist of the undermentioned, as hereunder shown:

Designation	Pay	Rent	Allowance
Wetii—			
1 assistant director	7,200		
Clerical staff—			
1 clerk	1,032		
2 office boys (at 10 rs.)	240		
1 storekeeper	360		
Working staff—			
1 overseer	4,220		
1 mason	480		
1 carpenter*	960		
1 blacksmith*	840		
1 painter and tinsmith	600		
1 blacksmith's mate*	180		
1 telephone inspector*	336		
2 linesmen (1 at 22 rs. and 1 at 17 rs.)	468		
2 street lighters (1 at 15 rs. and 1 at 12 rs.)	324		
2 donkey boys (1 at 14 rs. and 1 at 12 rs.)	312		
4 bear-boys (1 at 16 rs. and 3 at 11 rs.)	588		
5 Tishari crew (1 at 15 rs. and 4 at 11 rs.)	708		
Chake Chake—			
1 superintendent	4,500	720	
Clerical staff—			
1 clerk	660	300	300
1 office boy	180		
1 storekeeper	360		
Working staff—			
1 overseer	1,260		
1 mason	480		
1 fitter and engineer	1,200		
1 ice-machine driver	1,200		
1 fireman for water works	540		
1 boy for water works	180		
2 linesmen (at 17 rs.)	408		
2 lamp-lighters (1 at 15 rs. and 1 at 12 rs.)	324		
4 bear-boys (1 at 16 rs. and 3 at 11 rs.)	588		
House rent for staff		300	
1 donkey boy	120		
Mkoani working staff—			
1 mason	480		
1 linesman	204		
Total	37,560	1,420	300

As it is absolutely necessary if the work is to be properly executed to have efficient supervision, it is essential that another European assistant be provided for. His official title should be Superintendent of Public Works, and he should be capable of surveying, levelling, contouring, etc., and have a thorough practical knowledge of building, road, drainage, and water works construction and the labour connected therewith.

This is the Acting Superintendent's suggestion, and the support thereof he points out that contract work has been, and is, proceeding at such far distant points in the island as Kigomacha, Weti, Chake Chake, and Mkoani respectively, and in addition to this there is departmental work in hand at Masuka, Tundavali, Pugani, Kingega and other places. Owing to the lack of facilities for quick transport to visit and properly inspect all these works takes at least ten to twelve days by boat and donkey and at Chake Chake alone numerous repairs are constantly in hand. It is therefore manifestly impossible under existing circumstances for adequate supervision to be given to detailed work, consequently the contractors have ample opportunities for putting in shoddy work, and getting it covered up, opportunities of which they are naturally not slow of availing themselves. That such things have happened in the past is evident, for the clove shed adjoining the Customs at Weti had no foundations, the end having to be shored up and underpinned to prevent its collapsing down the slope, and the Customs Office at Mkoani had foundations of dry loosely packed rubble only, which subsequently settled and have had to be made good at some expense and trouble; quite recently on two occasions within a single week the contractors for the market extensions at Chake Chake has been pulled up for defective work, and a little while ago the contractor for the Public Works Department workshop, stores, and quarters at Weti was resorting to similar malpractices. It will therefore be readily understood how necessary it is to have constant and proper supervision if good work is to be executed and how impossible it is to achieve this under such conditions. Already we have in progress at Weti the Public Works Department workshop, stores and quarters, the reconstruction and widening of the landing pier, the new slaughter house, the Treasury clerk's house, the magistrate's and Assistant Director's Public Works bungalows, the askaris lines, the shark market, and all the near future water works. It is palpable that the whole of the Assistant Director's time will be practically absorbed by the Weti contracts alone. The Collectorate gives every assistance in their power in checking bad work on the part of the contractor; but they have not the time, neither have they the technical knowledge requisite for such undertaking, and it is decidedly advantageous for the department to have absolutely direct control of its business. In reference to Mkoani it should be observed that there is absolutely no accommodation there for the department and as works are generally in progress in some portion or other of this district it is extremely desirable that such accommodation be provided with as little delay as possible.

3. Present Staff.—The present Public Works Department clerk is a very able and hard-working official, and carries on his duties satisfactorily. In late such duties have increased in consequence of the augmentation of departmental work and the effort that is being made to improve the administration. The Acting Superintendent therefore recommends that he be paid the special allowance of salary appertaining to his class, a recommendation which I strongly endorse. Another clerk has been asked for, owing to the increased departmental work and the necessity of having a clerk to keep the books of the South District at Chake Chake for the Superintendent of Public Works. This clerk will also be able to act as a relief clerk in case of leave or sickness, and during the time the permanent clerk was away on leave (only having received one month's substitute he had to be procured from Zanzibar) to work under his supervision. I therefore recommend that if the substitute's services prove satisfactory that he be transferred to the permanent staff for the South District at Chake Chake.

4. Working Hours.—The Acting Superintendent recommends an advance of salary to the two carpenters, the one at Weti and the other at Chake Chake, on the ground of long hours of overtime. It appears that in the past under the late administration these officials were paid overtime upon the slightest pretext. He states that they are very hard working competent men. His recommendation therefore seems desirable, and it should be stipulated that they work the same hours as their work, as is the custom in Zanzibar.

Formerly the three masons on the permanent staff were treated as permanent, but the acting superintendent has very properly insisted on their working for pay on any job on which they may be put in charge.

You will notice that certain members of the staff will be transferred from Chake Chake to Weti, on the completion of the stores at the latter place. An asterisk is placed against them on the attached staff lists.

Section II. Technical

Works. Herewith are given a list of contract and departmental works.

1. Contract.—(a) Completed Works

Weti District

1. New court and residence, by Banda A. Askaria, 3000 rupees
2. Clove shed, by Aloe Punjea, 2134 rupees
3. Sleeping quarters at Kingomacha, 7434 rupees
4. New pier, by R. N. Talati, 15,346 rupees
5. Slaughter house, by Aloe Punjea, 1,627 rupees
6. Clerk's house, by Mahomed Tharia, 2,296 rupees

Chake Chake District.—

1. Water tower, by Khaki Sowji, 2,871 rupees
2. Market improvement, by Mahomed Tharia, 2,000 rupees

M'Koani District.—

1. Shamba Dispensary, by Aloe Punjea, 6,238 rupees

(b) Works in Hand.—

Weti District.—

1. Two bungalows for officers, by Mahomed Tharia, 3,000 rupees
- 66,766 rupees
2. Askari lines, by Khaki Sowji, 27,446 rupees

Chake Chake District.—None

M'Koani District.—1. Well at beach.

(c) Projected Works.—

Weti District.—

1. Shark market
2. Water works
3. Dhobie Station

Chake Chake District.—None

M'Koani District.—None

2. Departmental.—(a) Completed Works.—

Weti District.—

1. New donkey stables
2. New columns under water tank
3. Repairs to clove sheds
4. Telephone extension
5. Ferry Bridge
6. Bridge repairs

Chake Chake District.—

1. Lime concrete floor to open part of road
2. Retiewing roof of vegetable market
3. Removing and reconstructing fish and meat markets
4. Levelling site for Government school
5. Drainage of Government quarters
6. Drainage of Askari lines
7. Water works
8. Telephone
9. Footpath to railway station
10. Repairs to mosque at beach
11. Repairs to beach at school
12. Repairs to Government buildings
13. Repairs to mosque at beach
14. Bridge, Ferry, Customs, and King's

M'Kooni District—

1. Customs shed.
2. New post boxes.
3. Bridges.
4. Customs shed at Jambangombe.
5. Repairs to steps at Jambangombe.
6. Kitchen and quarters for servants.

(b) Works in Hand—**Weti District—**

1. Metalling Customs House road.
2. Iron telephone poles.
3. Street repairs.
4. Bridge repairs, Likukna.
5. Shamba road repairs, Bongala Road, Chake Chake Road.
6. Bridge repairs.

Chake Chake District—

1. Telephones.
2. Repairs to bridges.
3. Street repairs.
4. Shamba Road repairs.

M'Kooni District—

1. Bridges.
2. Roads.
3. Telephones.
4. Swamp drainage.

(c) Proposed Works—

Weti District— 1. Ship and hard to clove shed.

Chake Chake District—

1. Street repairs.
2. Shamba Road repairs.

M'Kooni District—

1. Roads.
2. Askari lines at Kingija.

1. Architecture. 1. *Building other than Government Buildings.*—The Building Decree No. 2 of 1909 applied in Pemba at present to the townships of Weti and Chake Chake only. Much inconvenience and delay was occasioned by all applications from building owners having to be referred to Zanzibar and in order to obviate this the Collector in Pemba was authorised to act for the purposes of this decree for the West Makooni and the Public Works officers to act as "building surveyor" within the meaning of the decree for these districts.

Two building regulations, together with the new and improved forms of application, have been sent to Pemba for the two districts, so that the method can be brought into line with that existing in Zanzibar. Applications have been received from time to time, and difficulties have occurred in connection with the erection of buildings, but that in order to obviate them it was deemed advisable by the First Minister to grant the township of Weti from the application of regulations of the kind referred to in the Building Decree No. 2 of 1909 in order that the same might be observed, so that the gradual development of the township might be hastened by the enforcement of the stringent regulations which it strictly observed. The township and control of all buildings is vested in the District Engineer and he is to exercise the same in all the districts, and the necessity of attending to the provisions of the Decree to some extent ought to be maintained in the near future.

2. *Government Buildings.*—The plans, specifications, estimates, and contract for important buildings of this class are prepared at the Drawing Office here in Zanzibar, copies being sent to Pemba for the guidance of the officers concerned in the supervision of their erection. By the same the necessity and expense of keeping a Drawing Office in Pemba is avoided, and the department at headquarters is thus responsible for all details connected with the design and arrangements of architectural works. As in Zanzibar, all heads of the departments concerned are first applied to get their opinion in a concise and proper manner their special requirements for any particular or special building or work that it is contemplated erecting for their respective departments, and when the plans are

completely draughted they are submitted to the Head of the Department affected for final approval. Before tenders are invited by advertisement, the plans being signed by him to that effect.

With regard to works of petty repairs, and minor alterations and additions to existing buildings and structures, these are left to the discretion of the Public Works Department officers, as first hand local knowledge is essential in preparing the estimates, etc., for work of this class, and much delay thereby avoided if such works had invariably to be referred to headquarters.

It is hoped also that considerable economies will be effected in the future by eliminating the use of ndongo in the mortar and plaster, by substituting reinforced concrete for teak and other woodwork, as well as metal work, and by the use of other roofing materials otherwise than corrugated iron or tiles (the latter being very expensive) wherever and whenever possible.

2. Engineering. (1) *Civil Engineering.* 1. *Quarries.*—One of the very great difficulties in connection with road making in Pemba is the lack of suitable stone in the greater part of the island, in consequence of the coral rock being superimposed by ndongo beds of much greater thickness than those prevailing in Zanzibar, and the outcropping surface coral occurs only in the northern and eastern portions of the island close to the sea, at a great distance from the road-making centres.

In Weti stone has been taken heretofore for all purposes by digging it up from the beach. This stone was, however, of inferior quality owing to its friability and porosity, thus being practically unfit for road work. In consequence of this it was decided to bring stone for the Weti town from Fundu Island, situate at the head of Weti Bay, some seven miles away, and a dhow of 17 tons burthen was purchased some three months ago entirely for this purpose, and is doing good work in this respect.

Stone was reported near the surface of good quality in paying quantities, near Matangatwani, a large and important clove district some six miles north of Weti. As it is proposed to metal the road between there and Weti, it will be very convenient for this purpose, and steps are being taken with a view to acquiring it if possible.

At Chake Chake stone is quarried from the foot of the slopes by the Creek and at one or two quarries in the township, so that at this place it is easier to obtain than at Weti.

At Mkoani similar difficulties exist as at Weti, the stone being taken from the beach, and usually found to be of an indifferent quality.

Instructions have been issued to the Assistant Director of Public Works and the Superintendent of Public Works to carefully examine the country in their respective districts when on their inspection rounds, and to make enquiries with a view to locating the stone at convenient centres, for the purposes of establishing quarries.

2. *Roads.* (a) *Urban.*—So far only roads of this class have been metalled, and those being the main streets in Weti and Chake Chake only. At Weti the road from the Customs shed to the town was installed this year, as the work done in 1909 was more or less a failure through the sand being washed away by the heavy rains, and the mud then forming making it all but impassable. The work of metalling the road at the foot of the cliff from the landing place to the Customs has not been constructed, as previously reported by the late Superintendent; about a foot of filling is still to be put in before the road work can be started, which it is intended to do early in the coming year. All the streets in Weti have been patched, and as an instance of the great difficulty of procuring the stone, the greater portion of the materials used were taken from dilapidated buildings which had been demolished. All the urban streets are extremely narrow, being rarely more than eight to ten feet wide and only suitable for narrow ox carts and donkey traffic. At Mkoani orders were given to metal the settlement roads, and this will be accomplished, it is hoped, at the beginning of the new year as soon as the stone can be procured. At Jambangombe the main street is in a very bad condition, and an arrangement was effected at the time of the Consul General's visit there this month by which if the inhabitants will procure the stone and bring it to the roadside, the Government will do the levelling, grading, and other formation work.

(b) *Shamba Roads.*—Owing to the extremely undulating nature of the south-western portion of Pemba Island, an extensive amount of grading is required in the construction of the roads, gradients up to 1 in 7 being not uncommon. No

(2) **Improvements.**—Calculating upon the following bases, the working expenses of the Chake Chake Water Works are as follows:—

	Rs
Labour	1,300
1 filter (per annum)	540
1 furnace	180
1 boy	190
Total	1,920
Repairs (est.)	500
Coal	2,340
Grand total	4,760

Twenty thousand gallons pumped per day for 313 working days at a cost of 4,760 rupees, the cost per 1,000 gallons is nearly 75 cents. It is, however, probably greater than this for the estimate of 20,000 gallons is high, and if this is so, the cost of pumping may be as high as one rupee per 1,000 gallons. Now the whole of this expenditure can be done away with, according to the Assistant Director of Public Works and the Acting Superintendent, by the substitution of an adequate rain worked by the waters of a stream adjoining the spring. As the capital expenditure on procuring and fixing a rain would exceed 4,000 rupees if this taking the question carefully gone into, and should this be found to be correct, the existing plant could be moved and installed at Weti for the same or less than the cost, as there is considerable doubt as to whether there is sufficient water power there available to work an hydraulic ram. The use of coal has been substituted for Welsh coal by my direction since August for the reason, the difference of cost per ton being 14 rupees, so there is an equally effective case in this direction of some 308 rupees to date.

The existing plant has been fixed in a very clumsy manner, the suction delivery pipes being connected to the pumps with extremely sharp curves, causing water hammer and increased friction when working. In my opinion the efficiency of the pump could be increased by extending the collecting tank at no extra cost and this should be effected as soon as possible. At the time of my last inspection of these works the collecting tank was open to the air, so that a large amount of dirt and leaves and other foreign matter falling therein was the actual cause of the sun's rays from discolouring the water.

(3) **Alternative Supply.**—The existing supply seems to be sufficient for the present, but alternative has been contemplated. Especially will this be the case when the improvements recommended are effected.

(4) **Source of Existing Supply.**—At present the whole of this small settlement, including the Collector's House, is supplied with rain water tanks, and so far as it is known, this supply has never failed. There is a well some eight feet deep near the beach, a little way above high water mark, the water of which is brackish. It is, however, much used by the dhows, and therefore the wells have been lined with cement masonry to prevent them caving in.

(5) **Improvements.**—There is no doubt but that the tank accommodation should be enlarged, the dispensary there only having as its private supply 800 gallons of water in two wrought iron 400 gallons tank. Fortunately, the rain fall is pretty abundant in Southern Pemba, else there would be great difficulties in this respect.

(6) **Alternative Supply.**—A spring is reported to exist at the foot of the slope on the southern side of the swamp recently drained at Mkoani. This should be found, the yield ascertained, and the water analysed, so that at any time the question could be considered of supplying the settlement with water from the source of a windmill pump and a tank tower on the top of the hill.

The towns of Weti and Chake Chake and the settlement at Weti are all favourably situated in close proximity to the sea for sewage disposal, by water carriage and bacteriological treatment whenever required. The present primitive methods of the disposing of domestic drainage by taking it into shallow receptacles rarely emptied and cleaned, and worse still, of allowing it to exude over the surface, polluting the ground, are, so far as the least, to be discontinued. So soon as funds will permit I advocate a water carriage system of sewage disposal for the European quarters of Weti and Chake Chake,

both these towns having the requisite water supply, and it would not be very costly, as concrete pipes made departmentally could be used, the contour of the land lending itself to favourable gradients, and the effluent after proper treatment could be safely discharged into the sea at suitable places without any fear of pollution or nuisance.

(7) **Drainage.**—All the swamps in close proximity to the townships should be acquired (if not already Government property) with a view to their being properly cleared of vegetation and drained to the sea wherever possible. Especially is this the case at Weti with the swamps leading down to the creek between the European quarters and the new askaris lines at M'Changani, and the swamps situated between the new slaughter house and the Kisoni Peninsula.

At Chake Chake this question should be carefully studied with regard to certain swamps situated to the eastward of the town, as well as the creek inlets on the westward sides.

At Mkoani the swamp, has been drained and cleared of vegetation at a trifling cost by prison labour, with already beneficial results. The main drain, however, should be extended closer to the head of the swamp, with side drains bifurcating therefrom on the lines pointed out by me to the Assistant Director there at the time of my inspection last August, and as there is a sharp fall the whole of the surface water should get away. The banks of the stream should also be sloped to their natural size to prevent them being broken by waving in, as has happened heretofore.

(8) **Public Conveniences.**—Two of these should be erected, one on each of the landing places at Weti and Chake Chake. They should be on similar lines to the one already erected with successful results at the creek adjacent to the markets in Zanzibar City.

(9) **Refuse.**—At present the refuse has been thrown about in the crevices of the bluffs just as the whims of the hut dwellers have dictated, but this has been taken in hand and the practice now is more orderly. In fact, the action of the Health Department's Inspector now stationed here, would be a good plan to have a systematic collection and sorting of the refuse and use it for filling and reclamation purposes at some convenient portion of the creek where it would not create a nuisance. In the future the provision of a small, inexpensive destructor of simple construction for each of these towns would have to be considered.

(10) **Abattoirs.**—The present new slaughter house at Weti is a building of not of good design and can be considerably improved. As a general rule, drainage especially must be carefully considered, so that it does not create a nuisance.

The slaughter house at Chake Chake should also receive attention, and improvements being introduced of an inexpensive character.

(11) **Dangerous Buildings.**—Some buildings of this kind in the neighbourhood of Weti were recently demolished, and the stone used for road repairs there. However, as all are stone buildings, with the exception of the old hut at Chake Chake, are, comparatively speaking, of recent erection, not much work in this direction need be anticipated.

(12) **Lighting.**—At the present time the lighting of the public streets in the towns of Weti and Chake Chake is done by means of oil lamps, the method besides being effete is troublesome and expensive for the results obtained. In consequence of this I purpose going into the question of the provision of a scheme of lighting for each town by the installation of one of the modern non-explosive gas systems, such as petrol or gas for the generation of an absolutely uniform and intimate mixture of air and hydro-carbon vapour. Installation can now be obtained from 35 to 40 or more lights of 50 candle power, each varying in price at place of manufacture from 500 rupees to 4,000 rupees; the results being equal to electric light at a most low cost.

(13) **Mechanical Engineering.** I. **Workshop.**—With the completion of the Public Works Department stores, quarters, and workshop, a workshop will be started at Weti with the coming year, and the arrangements are being made to equip it with the necessary plant and staff. It will differ from the workshop here, inasmuch as besides being much smaller, the staff will have to be placed on the Permanent Staff under personal supervision because of the impossibility of securing skilled labour there in any other way. By this means a lot of petty repairs formerly of a necessity sent to Zanzibar will be done in Pemba, and considerable delay thereby avoided. A sum of 2,000 rupees has

been set aside in the Estimates for 1911 for its equipment, and it will take a few months to effect this and get it into proper running order.

Ice Machine.—The present machine at Chake Chake has proved itself absolutely unreliable and most expensive for upkeep. It is under-estimated and continually breaking down, so a sum of 5,000 rupees has been set aside to replace it with a new one of better design, and the question of the provision of one for Weti must also be gone into. In fact, I consider it advisable for the new one to be placed this year at Weti, the old one remaining at Chake Chake, as they will doubtless be able to scrape along for another few months until a new one can be supplied them in 1912. When working at its best it takes six hours to make about 16 pounds of ice, and the average daily cost of running the machine being about 6 rupees, this approximating to about 2 rupees 50 cents per pound of ice manufactured. In Zanzibar ice can be obtained at 3 cents per pound, so ice-making in Pemba is a necessary, but expensive luxury. As there is now a regular weekly service of steamers, it is well worth experimenting whether ice cannot be sent up per steamer in an ice chest to have a weekly supply at a time, and ascertain whether it will last out or not. If it will, this expenditure of 5,000 rupees, or 10,000 rupees, as the case may be will be obviated.

Locomotion.—At present the modes of transport are donkeys and ox carts, the latter a few by land, and boats and dhows by water. Bicycles are used a little, but with the improvements in the roads their use will be no doubt extended, and a special narrow tricar similar to those used in Costa Rica (Central America) to carry two would be advisable for use when the roads are properly completed.

(IV) Electrical & Telephone.—All telephones in Pemba are installed and worked by the Government. No copper wire is used and earth returns are general. The instruments at the time of my first visit there were excessively faulty.

A large number of borbis were used as poles, the insulator brackets being often fixed to tree trunks, so the breakdowns alone from this source were numerous, and consequently the service was extremely unsatisfactory and unreliable.

Improvements have been effected by the substitution of the most modern instruments supplied by the National Telephone Co. in place of the hitherto very defective ones of obsolete type; the borbis poles are gradually being replaced with iron ones, and the tree trunk supports being done away with. In this case about nine miles of line from Matangatwani to Masuka have been so treated, and this will be continued until the whole system has been gone over. Improvements have been carried out from Weti to Masuka and Masuka to Peki, as well as to Jambangone. Further improvements should in time be effected gradually by substituting galvanized iron for soft iron, and copper wire instead of soft iron. This and better trained telephonists should in course of time make the system quite efficient and satisfactory.

The system in detail consists of three exchanges, as follows:—

II.		III.
From Weti to Chake Chake.	From Chake Chake to Weti.	From Mkoani to Chake Chake.
1. Chake Chake	1. Weti	1. Chake Chake
1. Ligonicha	2. Mkoani	2. Jambangone
1. Fushwe via Matangatwani	3. Tundua	3. Fufuni
1. Bompaa	4. Dak bungalow	4. Kengeja
1. P. W. D. Dak bungalow	5. P. W. D. Office (Mosque House)	
1. Baga	6. Hospital	
1. Mando		
1. Collinwata bungalow		

There should be installed in all offices and resident Government buildings in Zanzibar, for the convenience and comfort of the officers concerned.

Island Survey.—At the present time no proper survey of the island exists, the only map being the Admiralty chart surveyed a few years ago, with the places in the interior roughly plotted in. A survey of

the whole island should be made as soon as possible and plotted to a scale of not less than one inch to the mile.

2. Special Surveys.—A special survey has been made of Weti, and one has yet to be done of Chake Chake and Mkoani. These are especially wanted for works of water supply, sewerage, drainage, town planning, etc.

(VI) Stores.—1. *Weti.*—The new Stores have just been completed at Weti, so that a Storekeeper will have to be sent there as soon as possible to conduct the Store on similar lines to the one at Zanzibar. Arrangements are to be made by which the Pemba Storekeeper will be able to indent for stores direct to Europe through the usual channels here, the stores in such a case being delivered at Weti per steamer without being previously unpacked and checked here, as has been hitherto the custom.

2. *Chake Chake.*—It is proposed to erect a small Store at Chake Chake to replace the existing old Store, and a sum of 1,500 rupees has been set aside in the Estimates for 1911 for the purpose. This will be conducted on similar lines to the one at Weti, the Chake Chake Public Works Clerk acting as Storekeeper in lieu of the overseer who does this duty at the present time.

Section F.—Generally.

Supervision.—The arrangements thus effected will, I trust, prove sufficient for the proper and adequate supervision of the contract works in hand and to be executed in the future. An extra donkey will be required for the Superintendent of Public Works for the Chake Chake District, and another boat required for the Assistant Director of Public Works in the Weti District, thus giving these two officers every possible facility at present available for the due performance of their several and respective duties.

Conclusion.—Hitherto Zanzibar has not been without reasons accused of persistently neglecting Pemba, so much so, that Pemba has not been inaptly termed the "Cinderella" of Zanzibar, and from a perusal of these pages it will be evident that there was a great deal of truth in such an aphorism. During the past two years serious effort have at last been put forth to remove this reproach, efforts which if consistently pursued cannot but fail to prove of lasting benefit to both islands. In this of a necessity the Public Works Department must have the honour of the burthen of the day in providing increased facilities for transport by means of bridges, roads, and landing places, by improved sanitation in the provision as far as possible of a more hygienic environment through better quarters, water supply, drainage, and other matters of a like nature, thus securing a correspondingly greater measure of continued good health for those whom Fate has decreed should labour for the common weal amongst her many charming, fascinating, yet fever-stricken, hills and dales. Pemba in the past has shown amazing results of her almost unique fertile possibilities, and when these are developed to the uttermost, as it is to be hoped they will in the not far distant future, though the benefits that inevitably accrue through a continued judicious administration, who is there now existent who can define the limit to which her remarkable resources thus properly fostered may not attain.

Supplement to the Public Works Department Annual Report, 1910.

Director of Public Works to the Acting Financial Member of Council, Zanzibar Government.

Sr.

Zanzibar Waterworks. Supplementary Report.—Since my report of the 31st December ultimo I have gathered the following additional information regarding the above, which I beg to lay before you for your consideration:—

Early History.—(1) It appears as the result of enquiries I have made that the existing tank at the spring and the conduit were constructed by Seyyid Bargash some fifty or more years ago, and that at that time an intake conduit was constructed tapping the water of the Walezo stream on M'Toni River some hundred yards up stream from where the conduit now crosses it. Here I found the remains of the dam and the intake is still existing, consisting to the third ventilation shaft counting from the spring. This intake was, however, bricked up

at the conduit, and about nine years ago, by Mr. Bamonji, owing to the impurity of the water from the Waless source, and soon afterwards the dam itself was swept away in a cloudburst during the Masika.

(2.) The spring itself is also subject to big uprushes of water during a prolonged and heavy Mankha, so that two or three times the doors have been burst open and washed away and the conduit damaged.

(3.) At a point some 450 feet from the spring are four springs of water rising from the hillside between the M'zeni River and the conduit, and at a slightly lower level than the conduit invert. Three of these springs have been banked in with the object, I am told, of ascertaining whether the water would rise to a sufficient height to enter the conduit; but the result was a failure. At all events there is a 6-inch connecting pipe from the conduit into this tank, which during the heavy rains carries off some of the surplus water from the conduit into the tank, which it rapidly fills and then runs over, the 6-inch outlet pipe in each instance being then insufficient to discharge the whole of the incoming water. The remaining spring at the southern end of this tank discharges direct into the M'Toni River, the waters of which formerly supplied the conduit to the M'Toni Palace, now in ruins.

(4.) That in cutting through the mound known as Crawley's Hill for the construction of the existing conduit no timbering was used, consequently the ndongo which it is composed of caved in several times and a great many men were killed.

(5.) That in the hollow basing just south of the rising ground a bad catastrophe occurred through a rush of water down the hillside sweeping several feet of the conduit away which necessitated blocking off the two ends at the sound portions of the conduit and connecting them with 24-inch cast iron pipes. This took some six months to effect, and happened, so far as I can make out from the native reports, about seven years ago.

(6.) That the three borings now done have proved that there is a great quantity of water about five feet to seven feet below the surface, and that there is a great probability of getting it to flow into a collecting tank, No. 3 boring, the one we are at present engaged upon in trying to recover our broken boring rods at a depth of about 24 feet from the surface, is giving us no end of trouble through the uprush of water and sand. Although we have had a 6-inch hand pump worked by eight to ten men, delivering some 1,800 gallons per hour, working night or less for over a month, we have been unable to get at the bottom rods yet. The amount of water increasing the deeper we go, and the excavation, which has had to be heavily timbered, being filled up within seven feet of the surface within a few minutes of the pump ceasing to work. The Government bacteriologist reports that, with the exception of sedimentation, which is caused by the pumping, this water is quite potable.

In regard to the foregoing I therefore make the following recommendations, i.e., that a collecting tank, by-pass, spillway, and other works be executed.

First, that a large shallow collecting tank, preferably in reinforced concrete be constructed some eight feet south of the existing tank and just north of the existing conduit in the hollow formed there in the shamba. This tank will not be more than five to six feet in depth and will hold about 24 hours' supply, viz. 300,000 gallons. It is essential for the following reasons:—

1. That with a 24 hours' supply always in hand, the spring will have an opportunity, especially during times of drought, of filling the tank at night, when there is a minimum consumption, so that unless the drought was absolutely excessive we should not have the frequent shortages that have been so fruitful a source of complaint during the recent dry weather.

2. That if the water is to be used from the three existing borings the tank will be placed just low enough to catch their outflow without the present head being even appreciably lowered, and possibly slightly increased.

3. That the spring by this means will not be working against a head.

The construction of such a tank will mean the least possible amount of excavation and disturbance with the existing surface of the ground, which is of paramount importance, taking into consideration the treacherous nature of the cutting material being composed of red soil and the extreme caution that must be observed in order not to interfere in any way with the outflow of the present spring, which will be done especially as it is. Such tank will also have to be roofed over with a strong roof in order to prevent any possibility of contamination from surface water or other causes, and also to prevent the breeding of mosquitoes.

at the conduit, and about nine years ago, by Mr. Bamonji, owing to the impurity of the water from the Waleso source, and soon afterwards the dam itself was swept away in a flood during the Masika.

(2) The spring itself is also subject to big uprushes of water during a prolonged and heavy Masika, so that two or three times the doors have been burst open and washed away and the conduit damaged.

(3) At a point some 450 feet from the spring are four springs of water rising from the hillside between the M'Toni River and the conduit, and at a slightly lower level than the conduit invert. Three of these springs have been janked in with the object, I am told, of ascertaining whether the water would rise to a sufficient height to enter the conduit; but the result was a failure. At all events there is a 6-inch connecting pipe from the conduit into this tank, which during the heavy rains carries off some of the surplus water from the conduit into the tank, which it rapidly fills and then runs over, the 6-inch outlet pipe in each instance being then insufficient to discharge the whole of the incoming water. The remaining spring at the southern end of this tank discharges direct into the M'Toni River, the waters of which formerly supplied the conduit to the M'Toni Palace, now in ruins.

(4) That in cutting through the mound known as Crawley's Hill for the reconstruction of the existing conduit no timbering was used, consequently the ndongo which it is composed caved in several times and a great many men were killed.

(5) That in the hollow basing just south of the rising ground a bad subsidence occurred through a rush of water down the hillside sweeping several feet of the conduit away which necessitated blocking off the two ends at the sound portions of the conduit and connecting them with 24-inch cast iron pipes. This took some six months to effect, and happened, so far as I can make out from the native reports, about seven years ago.

(6) That the three borings now done have proved that there is a great quantity of water about five feet to seven feet below the surface, and that there is a great probability of getting it to flow into a collecting tank, No. 3 boring, the one we are at present engaged upon in trying to recover our broken boring rods at a depth of about 24 feet from the surface, is giving us no end of trouble through the uprush of water and sand. Although we have had a 6-inch hand pump worked by eight to ten men, delivering some 1,800 gallons per hour, working stage or less for over a month, we have been unable to get at the bottom yet. The amount of water increasing the deeper we go, and the excavation, which has had to be heavily timbered, being filled up within seven feet of the surface within a few minutes of the pump ceasing to work. The Government bacteriologist reports that, with the exception of sedimentation, which is caused by the pumping, this water is quite potable.

In regard to the foregoing I therefore make the following recommendations, viz. that a collecting tank, by-pass, spillway, and other works be executed.

That a large shallow collecting tank, preferably in reinforced concrete, be constructed some eight feet south of the existing tank and just north of the existing conduit in the hollow formed there in the shamba. This tank will not be more than five to six feet in depth and will hold about 24 hours' supply, viz. 300,000 gallons. It is essential for the following reasons:—

1. That with a 24 hours' supply always in hand, the spring will have an opportunity, especially during times of drought, of filling the tank at night, when there is a minimum consumption, so that unless the drought was absolutely excessive we should not have the frequent shortages that have been so fruitful a source of complaint during the recent dry weather.

2. That if the water is to be used from the three existing borings the tank will be placed just low enough to catch their outflow without the present head being even appreciably lowered, and possibly slightly increased.

3. That the spring by this means will not be working against a head.

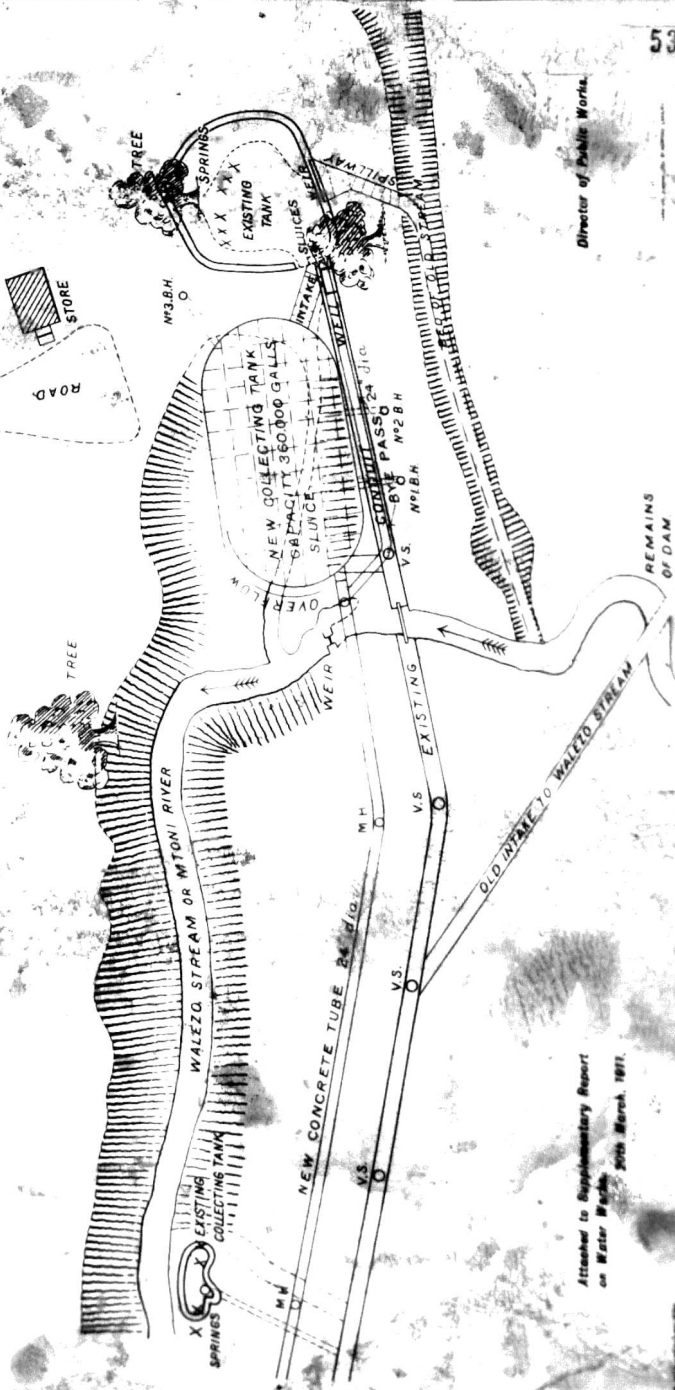
The construction of such a tank will mean the least possible amount of excavation and disturbance with the existing surface of the ground, which is of considerable importance, taking into consideration the treacherous nature of the soil and the extreme caution that must be observed in order not to interfere in any way with the outflow of the present spring, which will be especially so if it is. Such tank will also have to be covered, with a strong roof in order to prevent any possibility of contamination from surface water or other causes, and also to prevent the breeding of mosquitoes.

Director of Public Works.

Attached to Supplementary Report
on Water Works. 20th March 1911.

ZANZIBAR WATER WORKS.

Old Work - Black.
Proposed Work - Red.



1000

By-pass.—A 24-inch diameter concrete by-pass, will be required with two valve sluices in order that the water can be at any time shut off from the tank for cleaning and other purposes. This by-pass will connect direct from the spring to the reinforced concrete tube below the tank, the tube itself being directly connected to the tank. This by-pass will be constructed in the bed of the existing conduit so soon as the new collecting tank and tube are completed and in use, so that the least possible interference will be made with the daily service.

Spillway.—This is to prevent any extensive damage that may possibly occur from any extraordinary uprush of water from the spring, which has been known to occur, as set forth in paragraph 2 of this report. It is proposed to construct a six feet across out of the eastern side of the existing spillway at such a height that when the new collecting tank is full the water from the spring will discharge over the weir into a cement concrete channel, which will then cross leading into the old water course, which must be repaired, and then to a point of discharge into the Walezo stream or M'Foni River. As a further precaution an overflow will be provided at the southern end of the new collecting tank to flow out towards the river, and each bay of this tank will be provided with a proper air-hole to prevent the accumulation of air within the recesses and formed by the beams of the bays of the roof of the tank.

Among the minor works to be considered are the providing of a new sump tank to replace the existing faulty tank and collect the water from the four small springs mentioned in paragraph 3, and raise it by means of preferably an hydraulic ram, worked, if possible, by the waste waters of the Walezo stream and M'Foni River into the tube or even the present conduit. As on a very rough and approximate estimate the output of these springs cannot be less than some 18,000 gallons per diem, this addition to our supply would be most acceptable in times of drought, and if a ram can be used the capital outlay will be small and the expenses of upkeep trifling. A sample of the water has been submitted to the analyst for analysis, and his report is awaited.

The education tank at Guluani should be roofed with a concrete roof and the French main laid therefrom across to the Zawani lines, and this portion of the work could be very well done during my absence, as it would in no way interfere with the existing supply.

The question may perchance be raised why these matters were not discussed by me before, but it is only just recently that I have been in the position to devote a good deal of my time to a thorough elucidation with my department. At those particular times have by their greater prominence and urgency overshadowed the most important question of the water supply, and further my absence from the field of the spring must of a necessity take some considerable time ere I could speak with any certainty upon the best course to be pursued in dealing with the remedy of the many defects of our present system.

Instructions have been given by me to prepare the necessary estimates for these extra works based on the outlines and rough sketch plans that I have prepared, and I trust that I shall be able to lay them before you on my return from my local leave about the 13th proximo.

A rough sketch plan is attached illustrative and explanatory of the constructive works first referred to herein.

I have the honour to be

Your most obedient humble servant

(Signed) A. R. GALBRAITH *Deputy District Engineer*

Zanzibar 31st December, 1910

(13)

Registration Department.

H.B.M. DIPLOMATIC AGENT AND CONSUL-GENERAL.

I have received the accompanying report from Mr. Dinshaw Ranji, Acting Registrar, on the working of the Registration Department during the last year.

As I have already mentioned elsewhere, I refrain from making comments on annual reports for 1910, as no comments from me could usefully assist you.

With regard to this report, however, I should like to point out that although it was feared that the revenue of this department would largely decrease upon the introduction of a new reduced scale of fees under the Registration of Documents Decree, 1908, the revenue has not been materially affected thereby.

In 1908 and previously the average receipts were 35,000 rupees. The new scale of reduced fees has brought in nearly 31,000 rupees during the last year, only showing a difference of 4,000 rupees. But even this difference is accounted for in a similar decrease in the total number of documents registered during the period.

On reference to the previous years' records, I find that in 1907 the number of documents registered was 3,651; in 1908, 3,635; and in 1909, 3,187. In 1910 only 3,128 documents were registered, which show a gradual decrease as compared with previous years. Therefore I think that the decrease of revenue is not entirely due to the reduced scale of fees.

Before the close of the last year I issued a revised scale of fees. It was represented to me, and I agreed that the former scale was ambiguous. The revised scale has been brought into force as from January, 1911. There are two results to be expected from this scale—as to one, I think, the revenue will largely increase, and as to the other, I think, it will slightly decrease in cases of leases and agreements purporting to be transactions in which small amounts are involved.

I may also mention that a "strong-room" for keeping documents and records of the department has been built and completed during the last year, though we still lack a fireproof safe adequate for the safe deposit of all documents.

Finally, I think it right to thank Mr. Dinshaw Ranji for his report and for the assistance he has rendered in conducting the Registration Department.

P. S. T.

9th February, 1911.

Enclosure 1.

Acting Registrar to Legal Member of Council, Zanzibar Government.

Zanzibar, 2nd February, 1911.

I have the honour to submit my report upon the working of the Registration Department under "Registration of Documents Decree No. 9 of 1908" for the year 1910.

This was the fourth year of my holding the office as Acting Registrar, and during my absence on leave from 8th November, 1909, to 1st May, 1910, Mr. V. de Souza, the first assistant, was appointed by the late Attorney-General to be in charge of the office.

After the departure of the late Attorney-General, Mr. Peter Grain, a question was raised as to who should countersign the registration documents, which the late Attorney-General used to do in accordance with the old and uniform custom which was in vogue before the publication of the new Registration Decree, and after some correspondence which passed between the Acting First Minister and His Excellency the Secretary-General, it was decided that the documents signed by me were to be countersigned.

The total number of documents that were registered during the year under report was 3,128, as compared with 3,187 during 1909.

The following statistical table will show the number and nature of the compulsory and non-compulsory instruments registered during the year 1910:

Compulsory—	1,016
Sales	1,288
Leases	88
Agreements, contracts, transfers, &c.	43
Gifts	25
Receipts	15
Wills	13
Total compulsory	2,561
Non-compulsory—	272
Acknowledgment of debts	65
Powers of attorney	63
Receipts	59
Agreements, contracts, settlements, &c.	36
Wills	29
Guarantees	14
Mortgages	11
Judgments	5
Sales	5
Total non-compulsory	547
Total compulsory	2,561
Grand total	3,128

The above total includes 78 instruments registered free of charge for the Zanzibar Government as below:—

Compulsory leases	19
Agreements, contracts, &c.	9
Sales	2
Total	30
Non-compulsory agreements, contracts, &c.	55
Receipts	9
Judgments	4
Total	68

From the above it will be seen that the number of compulsory documents, as expected, exceeded that of the non-compulsory instruments by 2,034. Again, it will be seen from the annexed schedule that though the number of compulsory mortgages was smaller than that of sales by 360, the revenue derived therefrom was in excess of that derived from sales by 2,051 rupees.

The total value of transactions in property dealt with in the 1,016 mortgage documents amounted to 10,48,310 rupees. 8,21,513 rupees were involved in the sale transactions of 1,376 deeds, showing a decrease of 70,701 rupees in the former and an increase of 1,13,870 rupees in the latter as compared with last year.

In addition to the registration of the aforesaid documents, 66 certified copies, 25 passports, and 2 visés of passports were issued. These brought in 290 rupees, while the amount collected for searches, fines, sale of stamped papers, and miscellaneous was 1,206 rupees 45 cents.

With a view to afford facilities to the public, it was arranged that the Registrar should attend the houses of such persons as were desirous of having their documents registered, but who for any good reason were unable to go to the Registration Office in person. For this attendance a fee of 3 rupees is charged. This practice has found much favour with the public, particularly with Arab and Indian ladies, who do not go out of their houses during the day time, and with invalids.

The total number of such attendance during the year under report was 184, and the fees derived therefrom amounted to 552 rupees.

Thus the total revenue derived by the Registration Department during the year 1910 amounted to 30,989 rupees 95 cents and the total expenditure to 9,388 rupees 22 cents, showing a net surplus of 21,721 rupees 73 cents.

The expenditure was less than that of the previous year by 503 rupees 12 cents. The annexed schedule will show the statement of revenue and expenditure of the Registration Department for the year 1910 as compared with the year 1909.

In the district of Mkokotoni the total number of documents registered was 227, and the fees collected thereof amounted to 697 rupees 50 cents, as against the total expenditure of 552 rupees 56 cents, which is borne by the head Registration Office.

The monthly returns from Pemba show that the number of deeds registered at Chake Chake during the said year was 1,048 and at Wedi 775. The receipts of the former amounted to 4,439 rupees 12 cents, and of the latter to 3,183 rupees.

I have the honour to be,

Sir,

Your most obedient, humble servant,

D. RANJI, Acting Registrar.

Enclosure 2.

SCHEDULE of Revenue for the Year 1910 as compared with the Year 1909.

On Account of—	1909.		1910.	
	Rs.	Cts.	Rs.	Cts.
Compulsory mortgages	15,178	00	13,649	00
Compulsory rent	10,897	50	11,598	00
Compulsory agreements, contracts, gifts, receipts, wakfs, &c.	2,798	00	1,658	00
Non-compulsory mortgages			44	00
Non-compulsory sales			71	00
Non-compulsory acknowledgment of debts, contracts, powers of attorney, judgments, &c.	852	00	1,561	50
Wills	360	00	360	00
Passports			1,054	00
Attendance, fines, copies, &c.	297	85	213	45
Stamps and stamped papers			719	00
Miscellaneous				
Total	30,365	35	30,989	96

Enclosure 3.

SCHEDULE of Expenditure for the Year 1910 as compared with the Year 1909.

On Account of—	1909.		1910.	
	Rs.	Cts.	Rs.	Cts.
General expenses	8,918	16	8,800	78
Postage, printing, &c.	808	74	420	73
Stamps	44	44	46	69
Total	9,771	34	9,668	22

(14.)

Treasury.

Acting Financial Member of Council to First Minister, Zanzibar.

Treasury,
Zanzibar, 28th February, 1911.

Sir,
I have the honour to submit the report on the working of the Treasury Department for the year 1910.

The Estimates provided for,

Revenue	£	184,890
Expenditure		197,380
		12,365

which it was proposed to meet by the balance of 27,320L. carried forward from the previous year.

The actual results have been:—

Revenue	£	181,706
Expenditure		192,925
Deficit		11,220

The actual revenue and expenditure have been therefore less than the Estimates by 3,190L. and 4,335L. respectively. During the year invested funds to the extent of 13,407L. were realised for paying off His Highness's debts. Of this sum 625L. representing five monthly instalments, each of 125L., was re-invested in colonial securities, so that the net realisation of our invested funds during the year was 12,782L.

The corresponding figures for 1909 were:—

Revenue	£	24,863
Expenditure		89,014

The revenue for 1910 was therefore less by 23,158L. and the expenditure more by 3,911L., in comparison with the previous year.

The shortage of revenue is due principally to the small clove crop, since 12 cloves from Government plantations having realised only 3064L. against an estimated amount of 9,200L.

Increases of actual as compared with estimated revenue occurred in Customs (clove duties), Gazette interest, miscellaneous, Post Office and Water Supply Departments, whilst decreases are recorded in Agricultural, Customs (import duties), fees of Court, ground rents, Inland Revenue, Registration, Shipping and Veterinary Departments.

Revenue

Agricultural Department. The actual receipts from this department were 8,842L., against 14,507L. estimated, the decrease being due to the sales of clove which show a deficit of 6,146L. The revenue from rubber sales showed an increase of 371L., the actual receipts being 698L., against an estimated amount of 327L.

Customs Department.—The revenue from this department showed an increase of 744L., the actual receipts being 107,977L., against an estimated amount of 106,233L. Sub-heads showing increases were

Duty on cloves	£	30
Chillies, Declarations, &c.		149
Consolidated rates		489
Miscellaneous, fish, royalty on wood, &c.		533

whilst decreases are observed under:—

Other exports	£	186
Imports from foreign countries		5,307

The actual revenue of 1910, as compared with that of 1909, shows a decrease of 20,891L., due chiefly to cloves, the decrease under this head alone amounting to 21,145L. Other sub-heads of revenue showing decreases were:—Imports from foreign countries, 388L.; other exports, 155L.; and scale fees and ivory stamping, 15L. Those showing increases were:—Miscellaneous, 469L.; consolidated rates, 262L.; chillies, kerosene oil rent, import and export declarations, 173L.

Fees of Court, Fines, &c.—The total revenue of this department was 2,316L., against 2,633L. estimated for the year, a deficit of 323L., of which 206L. is due to the retention by H.B.M.'s Court of the fines levied in that Court, and 57L. on the other sub-heads, made up as follows:—

Decreases	£	£
Pembe		
Magistrate's court fees		285
Estate duty		87
Court fines H. H.'s courts		34

Item	£	£
Land Revenue		
Land Revenue	394	
Land Revenue		57
Ground Rents		
Ground Rents		2,430L
Ground Rents	2,733L	
Ground Rents	1,586L	
Ground Rents	2,000L	
Ground Rents	733L	
Ground Rents		84
Ground Rents		84
Ground Rents		394
Ground Rents		57

Ground Rents—The total revenue from this source amounted to 2,430L, whilst provision had been made for a revenue of 2,733L, leaving a deficit of 303L.

The total collection in Zanzibar was 1,586L, and in Pemba 844L, whilst provision was made in the Estimates for 2,000L and 733L, respectively.

No refund has been made during the year to the clove pickers, as was customary in former years.

Island Revenue Department—The actual receipts from all sources were 6,524L against an estimated revenue of 6,666L, a decrease of 142L, made up as follows:

Item	£	£
Land Revenue		
Land Revenue	998	
Land Revenue	47	
Land Revenue	38	
Land Revenue	43	
Land Revenue	34	
Land Revenue		1,160
Maritime Revenue		
Maritime Revenue	129	
Maritime Revenue	34	
Maritime Revenue	79	
Maritime Revenue	48	
Maritime Revenue	323	
Maritime Revenue	58	
Maritime Revenue		60
Maritime Revenue		73
Maritime Revenue		35
Maritime Revenue	182	
Maritime Revenue		1,018
Maritime Revenue		142

Interest on Investment—The receipts under this head were 16,207L against 16,442L, estimated, leaving a surplus of 855L, due chiefly to the fact that our floating balances in London during the year were more than in previous years, and also to the recovery of outstanding interest on loans on mortgages.

Miscellaneous Revenue—Under this heading the actual revenue received was 2,418L against 1,867L, an increase of 1,461L, the increase being due to the sale of 8,000 "Adwa," 480 "Sale of old donkeys, 69L (for both of which no estimate was made), "work done in Government workshop," and "various other receipts."

Post Office Department—The estimated revenue for this department was 3,267L, and the actual results were 5,757L, the increase of 470L being spread over various receipts, miscellaneous, and light and harbour dues, the last item showing an advance of 300L over the estimates, due to the fact that more stamps were sold than during previous years.

Post Office—The receipts from this department show an increase of 167L, the actual receipts being 3,300L, against an estimate of 3,199L. The principal items making up the increase were: Sale of stamps, 213L, and telegraph revenue, 255L. Under other receipts, an increase in money and postal orders paid there was a deficit of 300L, which was due to Madagascar having discontinued transacting their money order business with Zanzibar through the intermediary of the Zanzibar Post Office.

Registration and Excise Department—The estimated revenue for this department was 3,073L, the actual receipts have been 2,640L, being a decrease of 453L; the principal items contributing to this decrease were—Zanzibar compulsory mortgages, 219L; sales, 67L; and Pemba agreements, mortgages, etc., 260L; whilst small increases are shown under compulsory contracts, 13L, and miscellaneous, 48L. This latter sub-head was not estimated for.

Crown Property—The estimated revenue for this department was 4,159L, the actual receipts have been 4,158L. Increases are observed in rent of Dhobla tanks and sheds, 33L, and water work, 264L, whilst decreases have taken place in rent of Government and Crown buildings, 250L, and rent of Government and Crown lands, 48L.

Public Health Department—The estimated revenue for this department was 840L, and the actual results have been 799L, being a decrease of 41L from the Zanzibar voluntary subscriptions.

Shipping Department—The estimated revenue for this department was 3,866L, the actual receipts have been 3,598L, a decrease of 268L, accounted as follows:

Freight	43
Passages	334
Landing charges	17
Total	394

Veterinary Hospital—There is a decrease of revenue in this department of 168L, the actual receipts having been 132L, against an estimated revenue of 300L. The large decrease is entirely due to the fact that fewer animals were sent to this hospital for treatment than in previous years.

Water Supply—The estimated revenue for this department was 2,500L, the actual receipts were 2,828L, an increase of 328L, due to the increased consumption of water by shipping, a greater number of vessels having visited the port during the year.

The corresponding figures for 1909 were—
Estimated, 2,300L; actual, 2,712L.

Expenditure.

As compared with the Estimates, gross savings to the extent of 19,111, were effected in the following departments—

Administration	4
Attorney-General's Department	63
Agricultural Department	2,378
Labour extraordinary Department	900
Collectorate of Zanzibar	386
Collectorate of Pemba	368
Civil list	30
Customs Department	480
Educational Department	99
Gazette Department	99
Government Stables Department	479
Veterinary Hospital	414
Leprosy and Poor account	350
Medical Department	303
Police Department	363
King's African Rifles	308
Port Service Department	1,143
Post Office	1,143
Public Works Department	50
Registration Department	1,311
Shipping Department	9
Telegraph Department	204
Water Supply Department	328
Wireless Telegraph Department	123
Total	19,111

whilst increased expenditure to the extent of 15,476L. occurred under the headings of:—

	£
Crown Property Department	8,333
Interest and sinking fund	1
Judicial Department	186
Miscellaneous	4,118
Pensions and gratuities	753
Prison Island Quarantine Station	5
Public Health Department	2,030
Stationery	27
Victoria Gardens	45
Total	15,476
Net decrease	4,335

Administration. The savings in this department amounted to 266L., the total actually spent being 2,738L. against 3,004L. estimated for the year.

The savings are observed in nearly all sub-heads, and amount to 203L., less the cost of a typewriter, 25L. not estimated for, and purchased for the use of His Britannic Majesty's Diplomatic Agent and Consul-General's Office.

Attorney-General's Department.—The actual expenditure in this department amounted to 1,712L. against 1,755L. estimated, a saving of 43L. having been realised.

Agricultural Department.—There was a saving of 2,799L. in this department, the actual expenditure being 6,492L. against an estimated one of 9,291L.

The decreased expenditure was owing to the small clove crop, the expenses of gathering and transport having amounted to 405L. only, against 2,475L. estimated, the balance of the savings were realised in coconut gathering, 176L.; plantation acquisition 46L.; passenger, 31L.; clove screener and stalker, 242L.; and in wages of work not engaged, 235L.

Cloves Extraordinary.—The estimated expenditure under this heading was 894L., and the actual amounted to 86L. only, due to the clove crop having been a small one.

Collectorate of Zanzibar. The actual expenditure in this department was 6,918L. against an estimated one of 7,682L., showing a saving of 764L., made under following sub-heads

	£
Personal emoluments (District)	350
Captaincy	75
Travelling and travelling expenses	40
Passages	80
Carriage of tools and country	73
Subsidies	40
Uniforms	16
Other sub-heads	96
Total	764

Public Collectorate. The savings in this department amounted to 864L., the actual expenditure having been 4,609L. against 5,473L. estimated for the year, the chief contributing items to these savings were personal emoluments, 741L., and passage and travelling allowance in Chake Chake, 123L.

Coal Lev.—The small saving of 32L. was due to the fact that some constables having been absent from Zanzibar their salaries were not drawn.

The total expenditure in this department was estimated to be 21,444L., whilst actual amounted to 21,412L.

Crown Property Department.—There is an excess of expenditure in this department of 8,333L., due to houses formerly belonging to His Highness having been taken over from him in part settlement of his debts with the Government at a cost of 8,333L.

Customs Department.—The estimated expenditure in this department was 7,426L., whilst the actual amounted to 6,444L. only, the savings were therefore 982L. The chief items that contributed to this decrease were:—

	£
Personal emoluments	402
Salaries	250
Coal	193

	£
Light	89
Passage money	114
Incidental expenses	24
Total	982

Education Department.—The savings realised in this department amounted to 665L., the actual expenditure having been 2,631L., and the estimated 3,296L.

The following are the items in which savings were made:—

	£
Personal emoluments	393
School materials	140
Furniture	38
Passage	50
Local travelling allowances, &c.	30
Total	665

Government Stables.—The total expenditure in this department was 4,215L. against 4,694L. estimated. The savings realised were 479L. spread over all the sub-heads, the chief item being purchase of horses and oxen, where a reduction of 157L. was effected.

Veterinary Hospital.—The net reduction of expenditure in this department was 114L., effected under "personal emoluments."

Judicial Department. The actual expenditure in this department was 7,927L. against 7,741L., an excess expenditure of 186L., due to the appointment of a new magistrate in Zanzibar.

Leper and Poor. Under this heading there was a saving of 295L., due chiefly to the fact that fewer lepers applied for admission into the asylum in Pemba than in previous years. The total expenditure amounted to 1,523L. against an estimated one of 1,818L.

Medical Department.—The total expenditure in this department amounted to 6,962L., whilst the estimates provided for an expenditure of 7,785L., a saving of 823L., which is spread over a number of sub-heads, chiefly personal emoluments, food and medical comforts, and drugs and dressings, in Zanzibar.

Police Department.—The savings in this department amounted to 948L., the total expenditure having been 12,733L. against 13,681L. estimated for the year. Reductions were effected in nearly all sub-heads.

King's African Rifles.—The saving in this department amounted to 663L., due entirely to the fact that the medical expenses in connection with the detachment were met from the votes under the Medical Department.

Miscellaneous Expenditure.—There was an excess expenditure of 1,118L., due to the following expenses not having been provided for in the Estimates, and which had to be met:—

	£
Settlement of Seyyd Hamoud's estate	207
H.H.'s travelling expenses to England	1,000
Loss on condemned coins	809
Loss on condemned stores	115
Metal badges	111
Fire extinguishing apparatus and clock in Law Courts, &c.	96

Pensions and Gratuities.—The increase under this head amounted to 733L., due to various unforeseen gratuities and pensions having been granted during the year.

Port Service Department. The saving in this department amounted to 266L., the total expenditure having been 7,167L. against an estimated one of 7,421L.

The reduction was effected in all the sub-heads.

Post Office.—The total expenditure in this department amounted to 2,688L., against an estimated one of 2,990L., a saving of 382L.

This was effected chiefly in share of commission on money orders, 107L.; personal emoluments, 111L.; interest to depositors, 67L.; and the balance spread over the other items of expenditure.

Public Works Department.—The savings in this department amounted to 7,143L. Certain works in course of construction not having been completed in 1910,

it became necessary to have them (together with other unexpended votes) re-voted for the current year, viz.:

	£
Metalling of Bridges, Tada and Kumbani roads	698
Expenses for the new Magistrate and Assistant Director of Public Works, Weta	4,000
New laboratory quarters, Weta	1,200
New laboratory in the neighbourhood of the market	59
F. W. D. Store, workshop and quarters, Chaki Chaki and Weta	1,080
Additions to Hospital Asylum	352
Shamba dispensaries	319
Drains and cesspool repairs	274
Malindi cattle shed	20
Bridges repairs	125
Remodelling and reconstructing bridges	147
General repairs of buildings for the Zanzibar Collectorate	100
Repairs and upkeep of Crown property	58
Repairs and improvements to buildings in Victoria Gardens	500
Improved accommodation for cloves in Customs Department	8
Total	8,690

The following votes provided in the Estimates were not expended:—

	£
Landward	
House for Kathi at Mvwa	230
Kathi's Court at Chwaka	250
Remodelling Kathi's Court at Zanibar	167
House for clerks, Mkokotoni	100
Godowns for cloves, Mkokotoni	133
Repairs to old godowns	100
Re-casting transformation godowns	533
Depots for Public Works Department	2,000
Purchase of steam roller	200
Purchase of weightbridge for Depot	200
Drainage telephone extension	200
House for Shamba road overseer	133
Motor car and engine for driving	467
Public	
Wet and waterworks	1,000
Total	5,713

The following new and urgent works for which no provision was made in the Estimates, were taken in hand:

	£
Bridge destruction	1,023
Repairs to Signal Station	299
Covering water pipes at Malindi	118
Stationary and quarters for E. A. R. Zwan	84
Walls	465
Laboratory and fittings	871
Additional clove accommodations at customs godowns	232
New laboratory on the market	141
2½ lighted head house	441
Box building at customs	90
Quarantine small pest hospital	491
Prison stores	139
Shamba dispensaries	347
Maritime payments to Coode (son and Matthews)	270
Public	
Dispensary Mkwani	416
F. W. D. stores, workshop and quarters, Chaki Chaki and Weta	409
Clove shed, Weta	142
Total	5,978

Registration Department.—A saving of 53% was realised in this department, effected in all items of expenditure.

Public Health Department.—The excess of 20% in this department was chiefly due to the outbreak of small-pox, for the expenses of which no provision was made in the Estimates.

Shipping Department.—The total expenditure was 6,598*l.*, against 7,809*l.*, a reduction of 1,211*l.*

Savings were made in all service heads, but chiefly in coal, dock stores, and sundries.

Stationery.—There was an excess of expenditure in this department of 27*l.*, which was unavoidable.

Victoria Gardens.—The excess of 45*l.* was due to increased extra labour having been required for further improvements to public roads and open spaces.

Water Supply Department.—The saving realised in this department was 304*l.*, due chiefly to the water boat "Binti Baharini" having been sold to Smith Mackenzie & Co., who now supply all the water required by the shipping in the harbour.

Wireless Telegraph.—The cost of running this establishment was 833*l.* against 1,005*l.*, the saving being therefore 122*l.*, effected under the sub-head of personal emoluments.

General.—The annual abstract account is appended, together with a statement of assets and liabilities as at 31st December, 1910, a statement of loan due to the Protectorate by the Government of East Africa Protectorate, a statement showing the amount of the loan due by the Protectorate, a statement showing the amounts set aside and invested as a sinking fund for the ultimate extinction of the loan, and a statement of assets and liabilities and balance sheet of the Currency Board as at the 31st December, 1910.

The balance of cash consisted of,

	£
Cash in Zanzibar and Pemba	10,127
Cash in London with Crown and London Agents	29,417
Loans on mortgages, advances, accounts in suspense, and deposits	1,624
Total	40,168

The excess of assets over liabilities, in which the above figures are included amounts to 259,984*l.*, apart from 200,000*l.* due to the Protectorate by the Government of British East Africa, which is shown separately in a loan account.

I have the honour to be,

SIR,

Your obedient servant,

W. A. SIMONIS, Acting Financial Member of
the Council of the Government of Zanzibar and Pemba

Veterinary Department.

Veterinary Officer to the Acting Master of the Harms

Zanzibar, 14th January, 1911.

SIR,

I have the honour to submit my annual report of the Veterinary Department for the year ending 31st December, 1910, with the following divisional reports:

Slaughter house.
Dairies.
Stock inspection.
Veterinary Hospital, and
Government Stables.

I beg to remain,
SIR,
Your obedient servant,

J. A. N. DA CUNHA, G. B. V. O.
Veterinary Officer to Government

Enclosure 1.

Report by Veterinary Officer to Zanzibar Government for 1910.

The work in connection with the department has increased considerably since last year, and was chiefly concerned with matters connected with the control of meat inspection, dairy and cowsheds inspection, stock inspection, veterinary hospital, and Government stables.

Zanzibar, although it possesses vast agricultural resources, is at a great disadvantage by not being a stock-raising country.

The sources of the supply of meat for Zanzibar markets therefore depend solely upon the importation from overseas, specially from the Benadir ports.

During some months of each year two steamship lines call regularly at the ports of Benadir and a new Italian line has commenced a regular service from Europe to Zanzibar, calling at African intermediate ports.

The three months of the year during which these lines do not call at the ports are June, July and August, when the south-west monsoon prevails. These are the most important months engaged in bringing live stock to Zanzibar.

Hinterpest, foot-and-mouth, pleuro-pneumonia, anthrax, and tick borne diseases are continually threatened to be introduced from the mainland.

To safeguard against its introduction, all the live stock are inspected by me on board the steamers before permission is given for their landing, and I may state that the health of all animals has been good. Some accidental injuries occur owing to lack of proper means for their embarkation and disembarkation.

It is also very satisfactory to note that in most cases all live stock are now supplied with the necessary equipment of fodder and water which would last during the voyage.

Special vigilance has been exercised with regard to the meat and food stuffs which are proposed for sale and with few exceptions (when it was found in a stale and unfit condition for human food was seized and ordered to be destroyed), were found to be satisfactory.

554 criminal cases were admitted to the hospital, compared with 360 of last year. In many instances proceedings were taken for penalties, and the offenders were generally Indians.

All the Janakthanians of the town and other people kill their animals at the Government slaughter house and pay the due fees.

In the month of July I was particularly struck by the sight of a butcher's assistant who was engaged in washing and conveying carcasses; he was affected in various degrees with skin disease, specially on the hands. This man was at once made to submit to a medical examination, and on the recommendation of the Medical Officer he was compelled to change his occupation.

A three aged East African horse, belonging to an Indian named Tar Mahomed, was found diseased with epizootic lymphangitis. This horse was destroyed and its carcass carefully disposed of under my personal supervision.

In conclusion, I take this opportunity to reiterate the following recommendations:

1. The application of tuberculin and mallein tests to all cows and equine animals respectively in cases where the clinical indications, while causing suspicion, are not sufficiently definite to enable a positive decision to be arrived at, and to add that—
2. Payment of compensation in cases where apparently healthy animals react to the test and are destroyed by order of the Government.
3. The mosquito proofing of the Government stables and those at Chukwani belonging to the Sultan.

Slaughter house. The standard of the meat inspection and cleanliness continues to be well maintained at the Government slaughter house.

A special tented for human consumption is subjected to a rigid examination, and if found healthy is stamped before permission is given for it to be put on the market.

Inspection is both anti-mortem and post-mortem.

In the anti-mortem inspection such animals as exhibit palpable and apparent signs of disease are rejected.

As for the internal examination the diseases are many for which examination is made, but that of tuberculosis is by far the most common.

Registers are kept of all animals slaughtered and condemned.

The following are the particulars of animals slaughtered during the year under my direct supervision—

	Killed	Rejected	Totally Condemned	Partially Condemned
Oxen	2,150	11	16	23
Goats	11,638	5	5	26
Camels	34		16	20
Sheep	1,505	9		
Buffaloes	1			
Total	15,328	25	40	

Comparison with last year's statistics will show that there has been an increase in nearly all classes of animals slaughtered. This is accounted for by the fact that the Janakthanians slaughtered their animals in the abattoir since the new decree was put into force (1st January, 1910).

The percentage of condemnation of cattle and sheep has been higher than that of last year.

Dairies.—Dealing with the supervision of the milk supply, I am able to report that there are evidences of considerably greater attention to cleanliness.

At the same time much still remains to be done, the paramount necessity being the sanitary condition of the cowsheds of the town because tuberculosis is largely a question of bad air and close byres.

The Medical Health Officer has sanctioned a scheme of general sanitation of cowsheds which I believe will be productive of the greatest possible good.

The milk supply of the town is derived mainly from dairies kept within the city area and a few of them from the shambas.

All registered cowsheds and dairies in the town supplying milk for human consumption continue to be under my systematic and periodical examination.

This examination includes not only the matter of cleanliness as required by Section 21 Schedule 2 of Public Health Decree of 1909 but also a systematic examination of the udder of each individual cow with regard to the evidence of tuberculosis.

The number of registered dairies in the town is 29, the milk supply of which is drawn from 215 cows.

Everything is produced with cleanliness and the least possible contamination.

Stock Inspection.—The city has been free from any contagious disease except for the outbreak of a fatal form of gastro-enteritis amongst sheep and goats imported from Mombasa in the month of November.

Quarantine was new to the dealers, and many opposed for a time, but their objections and grievances were finally overcome.

At the end of October last cattle sickness was reported to have been seen at Pemba amongst the cattle of a bullock named Ahmed.

The suspected cases were investigated and the presence of the disease ascertained. Immediate measures were adopted to prevent contamination and spread of the disease.

The following table will give the exact number of animals imported and exported during the year—

	Imported	Exported
Bullocks	1,504	1,504
Cows	1,000	1,000
Calves	1	1
Sheep	1,100	1,100
Goats	1,000	1,000
Horses	50	50
Mules	50	50
Donkeys	100	100
Camels	100	100
Buffaloes	1	1
Total	11,000	11,000

Veterinary Hospital.—During the year under report 592 cases were treated, as compared with 466 during the previous year.

The increase of 127 is satisfactory.

The total number of cases admitted in the hospital was 602. In 4 cases the animals were destroyed, in 7 cases they died in hospital—588 animals were discharged, and 4 remain under observation at the close of the year. Many operations were successfully performed.

The total mortality reported among horses, cattle, camels, sheep, goats, and donkeys was 234.

The following table gives the exact number of animals treated in the veterinary hospital as cruelty cases during the year:—

Caught by	Horses	Donkeys	Mules	Bulls	Goats	Sheep	Camels	Dogs	Cows	Fowls	Total
Government Inspector	4	133	...	20	...	...	9	...	...	...	166
Inspector, Z. S. P. C. A.	...	48	...	...	2	...	...	...	...	...	20
Police	3	107	...	15	166	48	3	7	11	8	368
Total	7	258	...	35	168	48	12	7	11	8	554

Government Stables.—The diseases and troubles among horses were horse sickness, wounds, sprains and lameness, the result of defective harness and accidental injuries.

Horse sickness is an equine plague known throughout East and South Africa.

The best investigators have studied this disease for many years with the object of understanding it thoroughly and stamping it out, but so far the results have been unsatisfactory.

Their experiments, however, have demonstrated beyond doubt that the disease is one in which infection is carried by a biting fly.

Hence I would urge the necessity of mosquito proofed stables as the best preventative.

The losses among horses have been mostly due to the ravages of this horse sickness.

One mule and four horses succumbed to this disease.

Besides the above, one died of rupture of the stomach and one of tetanus.

Hopeful results were obtained, however, in the cases of two horses among the batch brought sick from Chukwani, when a medical treatment applied in total effect effected a complete cure. The new system of keeping records of the hospital, which was inaugurated in the month of March, has answered extremely well.