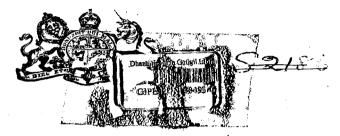
Keport of the P.W.D. Commission.



THE COLONY AND PROTECTORATE OF KENYA.

REPORT

- OF THE -

P. W. D. COMMISSION.

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GOVERNMENT NOTICE No. 411.

THE COMMISSIONS OF INQUIRY ORDINANCE, 1912.

A COMMISSION.

I, Edward Northey, Major-General of His Majesty's Forces, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Companion of the Most Honourable Order of the Bath, Governor of the Colony of Kenya, do by virtue and in exercise of the powers conferred upon me by the Commissions of Inquiry Ordinance, 1912, by this my Commission under my hand appoint:—

LT.-Col. John Kerr Robertson, R.E.

MAJOR JAMES HAMILTON GAILEY, D.S.O.

HAROLD EDWIN GOODSHIP, ESQUIRE.

HONOURABLE E. NAPIER.

HONOURABLE THOMAS ALFRED WOOD, M.B.E.,

to be Commissioners to inquire into and report upon the execution of Public Works in the Colony, and to make recommendations as to the scope of the activities of the Public Works Department and as to improvement in its methods and efficiency.

And I do hereby appoint the said Col. John Kerr Robertson, R.E., to be Chairman of such Commission and in case the said Col. Robertson should be unable to act as Chairman I do hereby direct that the Commissioners shall elect one of their number to act as Chairman during such time as the said Col. Robertson is unable so to act.

And I do hereby appoint Alfred Ernest Hoer to be Secretary of the said Commission.

And I do hereby direct that three of the aforesaid Commissioners shall form a quorum.

And I do hereby direct that the aforesaid inquiry be held at such places in the Colony and Protectorate as the Chairman may think fit.

And I do hereby command all persons whom it may concern to take lue notice hereof and to give their obedience accordingly.

Given under my hand at Nairobi this 14th day of December, 1920.

EDWARD NORTHEY,

Governor.

GOVERNMENT NOTICE No. 49.

THE COMMISSIONS OF INQUIRY ORDINANCE, 1912.

A COMMISSION.

I, Edward Northey, Major-General of His Majesty's Forces, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Companion of the Most Honourable Order of the Bath, Governor and Commander-in-Chief of the Colony and Protectorate of Kenya, do, in exercise and by virtue of the powers conferred upon me by the Commissions of Inquiry Ordinance, 1912, Section 3, by this my Commission under my hand, alter the Commission issued under the aforesaid Ordinance by me, dated the 14th day of December, 1920 (Government Notice No. 411), by appointing Bhagwan Singh Varma, Esq., and Satyenera Triambaklal Thakore, Esq., to be Commissioners to inquire into and report on the matters the subject of inquiry of such aforesaid Commission of the 14th day of December, 1920, in addition to the Commissioners therein appointed.

Given under my hand at Nairobi this 14th day of February, 1921.

EDWARD NORTHEY,

Governor and Commander-in-Chief.

LIST OF WITNESSES.

		, .
Adams, C. H.	Resident Commissioner.	Eldoret.
Alibhai Ahmed & Co.	Merchants.	Nairobi.
Bennett, S. C.	Assistant Engineer.	
Birch, H. M.	Acting Deputy Director	
	(late Executive Engineer.)	11
Blain, W.	Deputy Director.	,,
Blowers, George	Contractor.	,,
Blunt, R. H. T.	Assistant Storekeeper	**
Brierley, L.	Inspector, Mombasa Water	Wanaha an
Buck, F. J.	Supply. Motor Mechanic.	Mombasa. Eldoret.
Buckley, F. A.	Acting Executive Engineer.	Nairobi.
Campbell, H. A.	Assistant Engineer.	Nakuru.
Champion, A. M.	District Commissioner.	Naivasha.
Charag Din	Contractor.	Nakuru.
Clarke, P. H.	Member, District Committee.	Mombasa.
Cordeiro, J. F.	1st Grade Clerk.	Nyeri.
Cresswell, G. H.	Executive Engineer.	Mombasa.
Crook, Wm.	Road Foreman.	"
Dawson, Hon, W. J.	Settler.	Nakura.
Denovan, C.	Agent.	Nairobi.
Dudgeon, Major A. F.	Chamber of Commerce)))
Fairley, W.	Assistant Engineer.	Nyeri,
Fontaine, S. H. la	District Commissioner.	Kisumu.
Green, Percy Gregory, C. W.	Contractor.	Nairobi,
_ ~ ~ ~	Chief Storekeeper.	Mombasa.
Hammond, H. J. Haslewood, B.	Road Foreman. Chamber of Commerce.	Nyeri. Nairobi.
Hawley, C. E.	Wagon Maker.	
Haywood, Chas.	Government Electrical Engr.	. 27
Howarth, S. E. J.	Chief Accountant.);
Hughes, Capt. W. H. F.	Settler.	Nakuru.
Jack, Major	Assistant Dist. Commissioner	
-	(Trans Nzoia.)	Eldoret.
Lynde, W. M.	Quantity Surveyor.	Nairobi.
Mabert, A. T.	Contractor.)2
MacRae, Jas.	Equator Saw Mills.	9
McClure, H. R.	Resident Commissioner.	Nyeri.
McClure, Thos.	Saw Expert.	Nairobi.
Mahomed Din Boota	Contractor.	V:
Margerison, A. E. R.	Foreman. Overseer.	Kisumu. Nairobi.
Methews, S. T. Maxwell, Mr.	Contractor.	Kisumu.
Meghji Ahmed and Co.	Merchants.	Nairobi.
Menezes, E. J. C. Lima	3rd Grade Stores Clerk.	Nyeri.
Mendonca, Jos.	1st Grade Clerk.	Mombasa.
Nicholson, John	Executive Engineer.	Naivasha.
Nightingale, Robt.	Contractor.	Mombasa.
Noad, J. E. M.	Assistant Engineer.	Nyeri.
Noon, J. H.	Animal Transport Officer.	Nairobi.
Osborne, G. H.	Resident Commissioner.	Mombasa.
Overy, C. Rand	Government Architect.	Nairobi,
Pollok, John	Contractor.	T.' "
Reynolds, C. H.	Executive Engineer.	Kisumu.
Ross, Hon. W. McG.	Director of P. W. D.	Nairobi.
Saidler, J. R.	Assistant Engineer.	Kisumu,
Shillington, J. A.	Settler, Ruiru. Govt. Hydraulic Engineer.	Nairobi.
Sikes, H. L.	Mechanical Transport Officer.)
Simpson, A. B. Smith, F. C.	Overseer.	Eldoret.
Stedman, H. J. H. S.	Executive Engineer.	Nyeri.
Stones, H. W.		Nakuru.
Tannahill, A. C.	Equator Saw Mills.	Nairobi.
Thomas, E. T.	Acting Office Superintendent.	
Trench, Le Poer	Settler.	Nyeri.
Wade, A de V.	Native Commissioner.	"
	A	Nakuru.

NAIROBI,

28th April, 1921.

To: --HIS EXCELLENCY,

THE GOVERNOR OF THE COLONY AND

PROTECTORATE OF KENYA.

Your Excellency,

Having enquired into the execution of Public Works in the Colony and Protectorate, in accordance with the Commission given above your signature on the Fourteenth day of December, 1920, we have the honour to report as follows:—

I.-INTRODUCTION.

At the outset we deemed it advisable that the hearing of witnesses should be held in public, and this policy was adopted, and the powers vested in us under Section 10 of Ordinance No. 28 of 1912, to administer and examine witnesses under Oath, were with few exceptions exercised by us.

In order to avoid indefinite protraction of the proceedings, we invited and encouraged witnesses to submit statements concerning the subjects on which they were required to be examined, and these statements were subsequently admitted as evidence under oath.

We held in all seven Meetings, two of which were preliminary meetings in Nairobi to consider the scope of the work and the procedure to be adopted.

For the purposes of taking evidence, eight Sittings were held in Nairobi:

One at Nyeri.
Two at Mombasa.
One at Naivasha.
One at Kisumu.
One at Eldoret and
One at Nakuru.

Five Meetings were held for the purpose of drawing up this report.

We examined the Offices, Stores and Workshops of the P.W.D. at Nairobi, Nyeri, Mombasa, Naivasha, Kisumu and Eldoret, and also some works presently being carried out by the Department.

II.—SCOPE AND DEVELOPMENT OF P.W.D.

The Public Works Department was inaugurated about 1903, when MR. S. C. Bater was appointed first Director of Public Works, assisted by three officials with the titles of "Superintendents, P.W.D."

Of these four officials, only Mr. G. H. Creswell now remains in the service.

At that date, with the exception of a few miles of roads at Mombasa, there were few roads in the Colony, the majority of which were maintained by the Administrative officials with labour supplied from the native chiefs.

STAFF.

, On the 6th April, 1905, Mr. McGregor Ross was appointed Director.

At that date the establishment of the Department consisted of 13 European officials and 23 Non-Europeans. It now consists of 91 Europeans, 62 Goans, 34 Indians, 4 Seychellians and 5 Africans, or 196 in all.

Funds.

The funds granted for purposes of Public Works (excluding Personal Emoluments and Other Charges) in 1905 amounted to £58,366, of which £52,701 was for provision of new works. For the financial year 1919-20, £167,972 was allocated to the Department, of which £105,765 was for new works.

The following table shows the amounts granted and expended by the Department on Roads, Buildings, and new work since the commencement of the financial year 1905:—

P. W. D. KENYA COLONY AND PROTECTORATE.

FUNDS GRANTED AND EXPENDED.

Financial Year.	Maintena Renewal and Br	s Roads		ance and la Public lings,	New Y	Works.	To	tal.
	Granted.	Expended	Granted,	Expended	xpended Granted. Expended Grant		Granted.	Expended.
	£	£	£	£	£	£	£	£
1905-08	2,000	1,859	8,665	3,528	52,701	47,147	58,366	52,534
1906-07	2,955	2,852	5,096	3,934	54,544	52,277	62.595	59,063
1907-08	4,400	4,891	5,587	5,950	158,359	114,687	168,846	125,528
1908-09	6,250	6,040	6,138	6,693	81,425	65,684	93,813	78,417
1909-10	6,700	6,554	7,264	7,655	41,879	87,939	55,848	52,148
· 1910-11	7,000	7.300	7,600	7,860	39,092	27,798	63,692	
1911-12	6,568	5,789	6,800	6,760	197,973	78,877	211,341	91,426
1912-18	7,500	7,756	8,000	8,482	78,279	69,860	98,779	86,098
1913-14	9,500	10,572	9,280	9,180	183,990	123,145	202,770	
1914-15	15,000	15,446	10,200				170,814	
1915-16	15,000	13,840	10,797	9,910			68,396	
1916-17	15,000	15,586		10,220	58,448		84,240	
1917-18	15,000						103,258	
1918-19	41,950						161,646	
1919-20	48,857	42,390	13,350	13,001	105,765	61,965	167,972	117,350
	203,680	193,050	128,724	124,611	1,424,467	930,571	1,756,871	1,248,23

The expenditure on Personal Emoluments and Other Charges in 1905 amounted to:—£9,044, and in 1919-20 to:—£39,930.

Under this head the amounts granted since 1905 are shown in the following table:—

PUBLIC WORKS DEPARTMENT.

		PERSONAL	,	OTHER
YEAR.	E	MOLUMENT	s.	CHARGES.
		£		${f \pounds}$
1905-1906		7,968		1,076
1906-1907		12,655		9,000 •
1907-1908		15,026		3,653
1908-1909		15,351	•••	4,768
1909-1910	•••	17,243		4,029
1910-1911		15,523	•••	5,575
1911-1912		13,643		4,897
1912-1913		14,490		5,089
1913-1914		17,018		6,392
1914-1915		21,841		9,104
1915-1916		23,322		5,508
1916-1917		22,609		3,938
1917-1918		23,993		4,320
1918-1919		25,146		7,972
1919-1920		28,095		11,835

 Includes "Carriage of Goods"—that is to say, Railway freights on material, charged in 1907-1908 and following years to "Unallocated Stores."

ROADS.

It is difficult owing to the absence of records being maintained to state accurately the mileage of Roads which have actually been formed and maintained by the Department since 1905, but from the evidence given before us, it appears that the Department has now about 2,294 miles under supervision and maintenance. This figure does not include District roads or subsidiary roads in Native Reserves which are maintained by the District officials.

In 1916-17 the mileage of roads maintained by the Department was about 1,691, for the maintenance of which £15,000 was allocated, or £8 7s. 4d. per mile.

In 1919-20, the sum allocated for maintenance of roads was £48,857, or £20 3s. per mile, and for 1921 the amount has been increased to about £30 per mile.

BUILDINGS.

The number of Buildings maintained by the Department is 789, of which 502 are dwellings and 287 buildings for public and administrative purposes.

The following table shows the distribution of these buildings:-

39 95
57 139
35 77
53 132
346
789

WATER SUPPLY.

The only works of any importance for the supply of water, controlled and administered by the Public Works Department, is the Mombasa Water Supply and Distribution system, the construction of which was completed in 1916 at a cost of about £110,000, the average daily delivery being about 350,000 gallons.

LABOUR.

The number of Africans employed monthly since April 1906 to March 1920 is shown on the following diagram:—

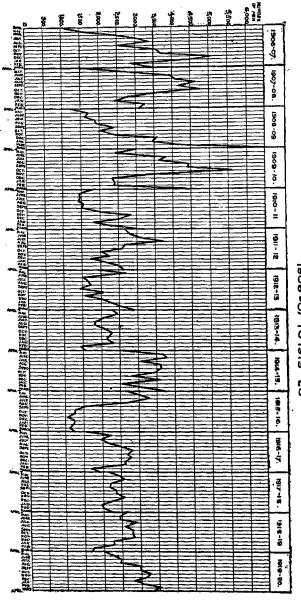


DIAGRAM OF AFRICAN LABOUR EMPLOYED
1906-07 TO 1919-20

PUBLIC WORKS COMMISSION PLACEAM HR. 2

Inspection of the diagram shows that there has been a general decline in the number employed as against the expansion of the Department.

The opinion of Executive officers, as expressed before us, was almost unanimous in declaring that the labour was insufficient for proper maintenance. This insufficiency was attributed to the exhaustion of Maintenance funds available, before the end of the financial year.

In view of this evidence, the decline of the labour strength employed cannot be viewed without some suspicion that it is not entirely due to the increased efficiency of the native as a labourer.

WATER CONTROL.

Following upon the closer settlement of the Colony, the control of public waters in principle was accepted, and this decision led to the investigation of the hydraulic conditions within the Colony by the Department, so as to ensure the establishment of a definite policy and the definition—by regulation—of State control. These Departmental duties led in January 1919 to the formation of an Hydraulic Branch within the Department, under the control of an Hydraulic Engineer.

CONTROL OF ELECTRICAL ENERGY.

A further State control exercised through the Department of Public Works concerns Electric power installations and matters relative to the development, in the public interest, of electric power projects.

The exercise of this control led to the formation of an Electrical Engineering branch within the Public Works Department, financial provision now being made for entertaining the services of two Engineers.

Engineering Special Duties-(Drainage).

This is a branch created to study and prepare a scheme for Drainage works within the Nairobi area. It is in charge of an Assistant Engineer who deals direct with the Director of Public Works.

It is anticipated that the present duties of the Branch will be completed in July.

The work is entirely independent of the Municipality, and their activities engineering and sanitary.

STORES DEPOT.

The outstanding feature of the Stores branch is that it is in reality a Colony and Protectorate Store department, and, as such, is responsible for clearing and forwarding the entire stores of all Government departments with the exception of the Uganda Railway.

Any other Government department can indent for stores on any Public Works depot, whether they have notified the Central Tender Board of their requirements or not, charging the stores to their own departmental vote.

That this practice comes about is due to the procedure laid down in the early history of the Colony, when the requirements of departments other than the Uganda Railway were very limited.

Previous to July, 1919, a portion of the duties now devolving on the Chief Storekeeper, P.W.D., were undertaken by the Director of Transport and Coast Agent. He had his office and staff at Mombasa.

In July, 1919, this office—together with staff and duties—was transferred to the Chief Storekeeper in addition to his own duties. It thus comes about that the Chief Storekeeper, P.W.D., is also Government Coast Agent (Transport Officer) and Coast Agent for the Uganda Government.

In this capacity he deals with all indenting for stores on the Crown Agents in London and the purchase of materials, etc., locally, clearing and forwarding of P.W.D., Kenya and Uganda Government stores and their survey, freighting stores shipped from Mombasa, and as agent for both Governments, arranges the embarkation and disembarkation of Government servants.

In addition to the main stores at Mombasa, there are sub-stores at Nairobi, Naivasha, Kisumu, Nyeri and Kismayu; the latter is under charge of the District Commissioner there, and the others are under the supervision of the Executive Engineers.

All furniture for the Provinces of Seyidie, Tanaland and Jubaland, both house and office, is issued under control of the Chief Storekeeper.

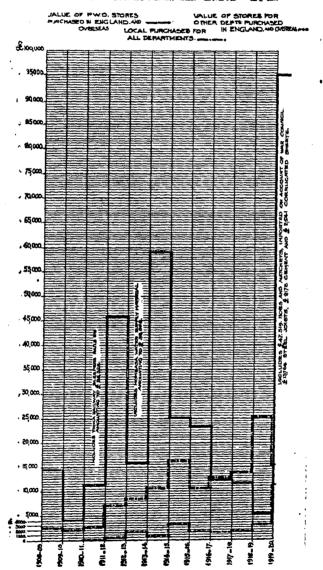
The duties of the Mechanical Transport Officer are also performed by the Chief Storekeeper. His offices, as Coast Agent, are in Mombasa; as Chief Storekeeper, P.W.D. his offices are also in Mombasa, but about a mile apart.

The staff of the Chief Storekeeper, P.W.D. consists of 10 clerks; the staff of the Coast Agent consists of 9 clerks.

The expansion of the duties of the Stores Department is shown in the following table and diagram, which exhibits the volume of stores purchased and dealt with through the Chief Storekeeper from 1908 to the end of the financial year 1919-1920:—

PW.D

STATEMENT OF STORES PURCHASED NEWCAND NO LOCALLY



MECHANICAL TRANSPORT.

A further State activity, and most certainly a growing one, falling within the scope of the Department, relates to the supply and supervision of Motor transport within the Colony.

When this branch was established, in June, 1919, the number of cars placed at its disposal consisted of 3 Fords. The fleet now consists of :-

72 Fords.

17 Dodges.

Auto-car lorries.

1 Overland.

2 Hupmobiles.

1 Talbot.

112

ANIMAL TRANSPORT BRANCH.

The duties performed by this Branch are not solely departmental, but, as in the case of the Mechanical Transport Branch, are in the general interests of all Government Departments.

The control and direction of the Branch is under the administration of the Department of Public Works.

AFRICAN TRAINING DEPOT.

In this Depot, Africans receive training as Carpenters, pupils being apprenticed for a period of 3 years.

At the date of our inspection there were 48 boys in training.

III.—PURPOSE OF P.W.D. AND THEORY OF ITS CONSTITUTION.

The existence of the Department of Public Works lies in the recognition by the State of the necessity for the performance of certain services for the well-being, convenience and prosperity of the community. The administration, direction and control of the organisation performing the services included in the Department of Public Works are vested in the persons of the Director and Deputy Director of Public Works, and upon the administrative ability of these officials depends the degree of efficiency and economy or otherwise with which the executive of the Department functions.

The Department of Public Works is in fact an industrial concern, depending for its successful operation or otherwise, upon the foresight, acumen and administrative ability of the management, which is reflected in the system, good or bad, under which its activities are performed, and in the degree of control and direction under which its agents or staff translate the designs and intentions of the administration into actualities: and as the measure and index of the standard attained in production by industrial methods is invariably considered in terms of currency per unit, no control or comparison of methods and systems, or of individual effort, is possible without the existence of a very efficient. Accounting and Statistical Department, charged with the duty of reducing the operations of the concern and its agents, by proper accounting methods, to intelligible statistical form. Hence the Department consists of three Divisions:

- A. Administrative.
- B. Executive.
- C. Accounting and Statistical.

IV.—DIRECTION OF ENQUIRY.

We have therefore directed our enquiry into the organisation and efficiency of these Divisions.

Under "A" we include the duties of the Director and Deputy Director and their immediate technical and clerical staff, the consideration of all Departmental methods, including system of control, issue of instructions and orders directed to secure efficiency, direct effort, to achieve desired results economically and avoid all waste and inefficiency, selection of staff best graded to perform its duties and put into effect all orders and instructions issued.

Also the control and discipline of the staff and its disposition to function efficiently.

Under "B" we include all Executive Engineers, Assistant Engineers, and the Overseers, Foremen and labour employed, the Stores Branch, Motor Transport, Animal Transport, Contracting agents, Mechanical agencies, Workshops, etc.

Under "C" we include the Accountant, Accounts clerks and Monetary control.

Another aspect from which we have endeavoured to examine the activities of the Department is from the view-point of the public, relative to the services performed on its behalf by the Department.

Under this division we include all evidence obtained from witnesses outside the Department, including Administrative officers, members of District Committees, Road Boards, etc.

V.—CONSIDERATION OF EVIDENCE.

(A) ADMINISTRATIVE.

Under the present system of Administration, every branch of the Department is directly under the charge of the Director, assisted by the Deputy Director. In addition to all general, inter-departmental and governmental correspondence, all matters, routine or otherwise, from the 17 branches and divisions of the Department, flow to one centre.

In addition to these duties, the Director is a member of the:-

Legislative Council.

Housing Board.

Public Health Board (1913 Ordinance).

Town Planning Board.

Central Tender Board.

and sundry Commissions and Committees.

We have not been able to ascertain that there is any division between the departmental duties of the Director and the Deputy Director. The Director was closely examined on this point and stated that:—

> "the line of cleavage between the duties of the Director and Deputy Director was not easily defined."

That accumulation of pressure, with the expansion of the work of the Department on the administrative head has led to some devolution, is established by the statement of the Director that:—

> "The Chief Accountant was responsible for the scrutiny of accounts to the Treasury, and only in special matters referred them to the Director."

The Chief Accountant, Mr. S. E. J. Howarth, examined on the returns provided for the information of the Director, states:—

"That he did not give the Director such information as a Contractor would require."

It was further established that the monthly financial statement was not placed before the Director as a matter of routine, while the Deputy Director admits that he is unable to put before the Commission the machinery by which expenditure is controlled. It is therefore questionable if what devolution has taken place, is altogether in the right direction.

Further questioned as to the feasibility of passing Maintenance works to the sphere of the Deputy Director, the Director stated that:—

"Activities were now so numerous and so pressing that devolution of responsibility must take place."

The examination of Mr. H. M. Birch, Acting Deputy Director since 1st November 1920, failed to produce evidence of the existence of any regulated system in the Administrative offices of the Department. So much so, indeed, that the absence of any system of administration may be accepted.

Mr. Birch has previously acted as Deputy Director and even as Director.

Questioned as to the functions of the Deputy Director and the duties and responsibilities allocated to the position, Mr. Birch failed to show that any responsible duties are attached to the office of the second Administrative official of the Department. The Deputy Director, in fact, upon the evidence produced before us, merely performs the duties of clerk to the Director.

Further questioned, Mr. Birch stated that he had not been on inspection since assuming office. So far as he knew there had been no new schemes for the consideration of the Deputy Director for the past 12 months. His duties excluded inspection, consideration of financial statements or consideration of new schemes. His duties consisted of "answering letters and trying to keep things square."

Asked to put before the Commission the machinery by which Expenditure is controlled, Mr. Birch replied:—"I cannot."

Chairman proceeding:— "It therefore follows that no official is controlled."

Mr. Birch: - "Yes, each E.E. is absolutely his own boss."

Asked if he was satisfied that the administrative machinery functioned efficiently and economically, Mr. Birch replied:— "I am not."

Mr. Blain, recently Acting Director, records in evidence:-

"The duties of Deputy Director were entirely clerical and of an unimportant character.

"There was no connection whatever with the Executive officers or with their work, nor with the technical branches centralised in Head Office.

"There were no definite duties or responsibilities, written or verbal.

"There were no inspection duties connected with the appointment except on instructions from the Director. Such an instance occurred once during my incumbency."

. In his evidence before the Commission, the Government Architect, Mr. C. Rand Overy states:—

"It is I consider essential that a certain amount of decentralisation in the work of Head Office should be instituted. No one individual can possibly do such strenuous work as falls on the Director."

The Hydraulic Engineer, Mr. H. L. Sikes, in his evidence states:-

"I am of opinion that there is scope for improvement in the Head Office by the expansion of its organization on existing lines.

"It is quite clear that far too much work falls on the Director. No single man can possibly deal with the mass of correspondence, succession of interviews with his staff and the public, attendance on Legislative Council and Committees which under the present organization falls on him.

"The result is that correspondence is sometimes seriously delayed."

In a statement submitted by the Quantity Surveyor, Mr. W. M. Lynde, under oath, this officer states:—

"Owing to the claims of many other duties, it has become quite impossible for the Director of Public Works to give the necessary attention to details of these works. E.E.s complain that they cannot get answers to their letters to Head Office, and as a result, considerable delay and waste of money occurs."

The Executive Engineers at Kisumu and Nairobi, Messrs. Reynolds and Buckley, in their evidence before us, have expressed themselves on the subject by quoting Para. 18 of the Minutes of Proceedings at the Executive Engineers' Conference in 1919, which is as follows:—

"We cannot, however, refrain from mentioning that in our opinion the lack of organisation in Head Office is largely responsible for present delays in dealing with departmental correspondence and other matters which are detrimental to the efficient working of the various Divisions.

"Want of co-ordination has been referred to in another Resolution, and it is suggested that the work in the various Divisions should be placed directly under the control of the Deputy Director, who would by frequent inspections keep in touch with and co-ordinate the work.

"We consider that the D.P.W. should delegate his powers to an increasing extent, so as to enable those under him to deal rapidly and decisively with a large proportion of the business."

No single witness before us has dissented from the tenour of the evidence quoted; on the other hand, corroborative evidence may be quoted at considerable length.

Other Branches of the Department which may be properly looked upon as Administrative Branches are:—

- (a) Water Control.
- (b) Electrical Engineer.
- (c) Government Architect.
- (d) Quantity Surveyor.
- (e) Office Superintendent and Clerical Staff.
- (f) Engineering special duties. (Drainage).

while the following branches, although not located within the Head Office, may be considered as of general utility to the various activities of the Department, and are therefore considered in the division of Head Office branches:—

- (g) Stores.
- (h) Motor Transport.
- (i) Animal Transport.
- (i) P.W.D. Training Depot.

The personnel and functioning of these branches, as determined by evidence given before us, will now be considered—thereafter that of the Executive Engineering branch of the Department.

(a) WATER CONTROL.

The question of water control within the Colony has occupied the attention and time of the senior official of the Department since early in its existence, the control of water rights first coming under the Department in 1907.

In 1916 the necessity for a more defined and constitutional control led the Director to prepare the draft of a Water Ordinance. Other work of more pressing importance has, however, precluded the scrutiny and adoption of this Bill.

From careful consideration of the whole question, the Director was eventually led to form the opinion that the methods then adopted for granting water rights were inadequate, for either great delay occurred in the alienation of these rights to settlers, or else they were alienated without sufficient investigation and knowledge of the conditions governing each case.

The consideration of water applications developed to an extent which precluded the necessary degree of investigation being given to individual and often conflicting applications, without the services of a whole-time officer to take charge of these matters and matters relating thereto.

The first appointment to the office of Government Hydraulic Engineer was made on 30th January, 1919, when Mr. H. L. Sikes was appointed to the position.

Questioned as to his duties, Mr. Sikes stated:-

"I do not superintend any Water supplies. I have been recently engaged in modifying the Water Ordinance drafted in 1916, which occupied me for most of last year.

During the day I was chiefly engaged in the matter of water permits.

"Since the end of March, 1920, 97 permits have been ssued."

Questioned as to investigation of sources of supply, the Government Hydraulic Engineer stated that the duties were divisible under two branches, viz:—

- (a) Control of water.
- (b) Control of diversion of water by private persons throughout the Colony.

"Before this can be done," continued witness, "gauging must be done and weirs installed. To date 12 weirs have been erected."

Asked if Boring was proceeding, the Government Hydraulic Engineer replied:—

"No. Ever since my return I have been trying to get money for boring."

Questioned as to rain gauges, witness stated that this work is done by the Agricultural Department:

The staff of the Government Hydraulic Engineer consists of one Assistant Engineer and one Goan clerk. All records and clerical work are maintained independently of the clerical department of Head Office.

The staff considered necessary by the Government Hydraulic Engineer for the purpose of his duties is one Assistant Engineer on water control to relieve him and act for him during leave, and one Assistant Engineer for Hydrographic Survey.

(b) ELECTRICAL ENGINEER.

Mr. C. Haywood, Acting Government Electrical Engineer, stated that the office of Government Electrical Engineer was instituted in September, 1914. His duties were of a dual nature, viz:—Inspection under the Ordinance, and Government Electrical Engineer.

Examined as to his duties under this Ordinance, Witness stated that no concerns at present came under it. Looking to the future, he anticipated extensive development of electricity in the country.

As Government Electrical Engineer, the only installation in existence was at Kabete, a small one of 10kw., which supplied only two bungalows with about 16 lamps.

Mr. Haywood is also a Mechanical Engineer and was capable of superintending workshops.

His staff consisted of two Goan wiremen, one at Mombasa and one at Nairobi.

(c) GOVERNMENT ARCHITECT.

Mr. C. Rand Overy, Government Architect, stated that he had held office since June, 1908, prior to which there was no Architect—only a Senior Draughtsman. All architectural and other drawings prepared at the Head Office of the Department were done in his office.

Estimating and Quantities did not come under his office.

His staff did work for the Executive Engineers, Hydraulic Engineer, and various other technical branches of the Department.

The staff he had at his disposal was:-

One European Architectural Draughtsman.

One Temporary Architectural Draughtsman.

. Three Indians—one Draughtsman and two Tracers.

Previously an Engineering Draughtsman was on his staff, but he had been working at the Office of the Executive Engineer, Naivasha, for the past year.

Examined as to the procedure under which Bills of Quantities are prepared, the Government Architect stated that he had to prepare statements of approximate quantities himself.

Further examined on the point, he stated he was not satisfied with the procedure now in existence, the reason being that the services of the Quantity Surveyor were not available and "quantities were actually not taken out."

In the past, Committees had been formed for the purpose of selecting sites, but in no single instance had the Government Architect been consulted or asked for advice. Meetings of District Committees, specially called in connection with building of new schools and other public works, had not been attended by the Government Architect.

Mr. Rand Overy is of opinion that if the expert knowledge and advice of the Government Architect were at the disposal of such Committees and Meetings, when discussing technical matters, it would

> "prevent re-occurrence of the contentious feelings which occurred in connection with the preliminary arrangements in regard to both the new School Boarding House at Eldoret and also at Nakuru."

Referring to the execution of the professional duties of the Government Architect, Mr. Rand Overy stated:—

> "I strongly recommend competitive Architectural efforts between local Architects for large and important public buildings, and in some cases open competitions, especially when special sanitary elements are not affected and when time is not a special consideration."

. Mr. Rand Overy was of opinion that the staff of the Government Architect's branch should consist of the following for present requirements but not inclusive of the staff which may be required under any new large building project:—

- (a) Government Architect.
- (b) Quantity Surveyor.
- (c) One Assistant for Quantity Surveyor.
- (d) One Senior Architectural Draughtsman.
- (e) One Engineering and Structural Draughtsman.
- (f) Two Architectural Draughtsmen.
- (g) One Architectural Draughtsman (Anglo-Indian).
- (h) Two Tracers.
- (i) One clerk and typist.

Describing his office, the Government Architect states:-

"The building occupied by the Government Architect's Office, together with the Drawing Office, is most unsuitable in nearly every respect.

"The offices face South (West?) and in the afternoons are intensely hot and the light is extremely trying to the eyes.

"The rooms are not large enough to accommodate the present staff (which is not up to full strength) and the Government Architect has not an office to himself.

"New offices are most urgently required with North-North-West lighting."

(d) QUANTITY SURVEYOR.

Mr. W. M. Lynde stated that he joined the Department in 1910 as Quantity Surveyor. From 1910 to 1918 he was employed as Quantity Surveyor; in 1918 he acted as Government Architect.

From September, 1918 to January, 1920, he was in charge of buildings at Kabete. From 1920 until recently he had been on leave and since his return he had been engaged in details of Loan Work.

Asked if he prepared Bills of Quantities for the Government Architect and the Engineering branch, he replied:—"Not for the Engineering branch."

Questioned as to whether he formed part of the Government Architect's office, he replied:—"Absolutely and entirely separate."

Further examination established that with the exception of the preparation of a Rate Book 3 years ago, nothing appertaining to Quantity work for the Department had been done.

Discussion on the Quantity Surveyor's relations with other branches of the Department elicited the fact that:—

"he could not develop his efficiency because of his relations with other Departments."

Questioned "Could your office undertake all Engineering, Architectural and other quantities and estimating required after organisation?" His reply was:—

"Yes, it could, with staff."

(e) OFFICE SUPERINTENDENT AND CLERICAL STAFF.

Mr. E. T. Thomas, Acting Office Superintendent, stated that the clerical staff consisted of one Office Superintendent and seven clerks (three Europeans and four Indians).

This staff dealt with the whole of the clerical work of the Head Office, with the exception of the offices of the Chief Accountant and Hydraulic Engineer.

The Office Superintendent received all correspondence and he placed every letter before the Deputy Director, who dealt with them.

Discussing the Filing system, Witness stated that the ordinary Shelf system was followed and there was no Card Index system.

Asked if he considered the system satisfactory, Witness replied:—
"No. He would like a system where he could tell at once where a
particular file was."

Hon. T. A. Wood.—There is difficulty in finding something you want?

WITNESS.—It is a great waste of time.

MR. GOODSHIP.—Do you think that the Asiatic clerks would be able to carry out the system?

WITNESS.—Yes, a card system can be worked with Goans and Indians. I have experience of them.

Asked if work is carried out by the Minute system, Witness replied:-

"No, except some pencil notes at the bottom of letters. Most work was carried on verbally."

Asked if any record of these verbal instructions was kept, Witness replied:—"No."

It is therefore established that the Office Superintendent and the Deputy Director both deal with all correspondence and that the absence of a correct system of minuting within the Head Office has led to the introduction of the most unsatisfactory expedient of unrecorded verbal processes for the transaction of business.

(f) Engineering Special Duties. (Drainage.)

Mr. S. C. Bennett stated that since December, 1920, he had been on special duty in connection with the preparation of a project for the construction of a Waterborne Sewage system for Nairobi and the surrounding area.

Asked under whose orders he worked, Witness replied:-

"It is entirely a Headquarters job. I report to the Director and consult with him on all points as occasion demands."

(q) STORES.

Mr. C. W. Gregory stated that he had held the office of Chief Storekeeper since 1906, and was also Transport Officer (Govt. Coast Agent) Mechanical Transport Officer and Coast Agent for the Uganda Government.

Up to the year 1919, the duties of Coast Agent were performed by a whole-time officer, the offices being situated in Mombasa. On the 26th July 1919, the position, duties and offices of the Coast Agent were taken over by the Chief Storekeeper, P.W.D., in addition to his own duties.

With the exception of the Uganda Railway, the stores of all Govt. departments are cleared and forwarded by the Coast Agent. As previously stated, the staff of the Chief Storekeeper, P.W.D. consists of 10 clerks and 9 for the Coast Agency.

During the months of January and February 1921, the number of packages landed at Mombasa by the Chief Storekeeper was:—

For Kenya Colony ... 1,522
For Uganda Protectorate ... 2,447
For P.W.D. 5,291
TOTAL ... 9,260

The following table shows the volume of traffic dealt with by the Coast Agent at Mombasa for the years 1918-19 and 1919-20, excluding consignments for the P.W.D. which are shown on Page 13, for the years 1908-09 to 1919-20:—

 Statement of goods imported through the Crown Agents, cleared and handled in the Customs and despatched to various departments during the year under review:—

No. of packages 5,119 6,230 1,111
Tonnage, tons 547-17-0-14 648-18-0-15 101-1-0-1
Value £29,631-18-2 £31,641-18-4 £2,010-0-2

2. Goods imported through the Bombay Agents:-

1918-1919 1919-1920 INCREASE DECREASE
No. of packages 655 830 175

1,627

1,310

377

INCREASE

407

DECREASE 721

364

3. Government officials travelled by rail:— 1918-1919 1919-1920 I

2,348

903

First Class

Second Class

Inter Class	741	377		304
m ' 1 01	19 896	14,994	2,158	
4.	Government Stores, M	laterial and Offic	cials' baggage f	orwarded
: ##.	by rail:		_	
	1918-1919	1919-1920		ECREASE
Tons	23,503	21,969	T	ons 1533
Cwts.	9	19	C,	wts. 10
Qrs.	2	1	Q	rs. 0
Urs. lbs.	15	19		os. 24
	Railway freight charg	zes on stores.	material and	Officials'
5.	baggage, etc.:	500 Om 51,	-··· .	
- i, - ·	1918-1919	1919-1920	Increase 1	DECREASE
•		Fls. 480,350	· FI	s. 54,100
6.	Landing Charges on	stores imported	during the year	:
. 0.	1918-1919	1919-1920	INCREASE	Decrease
	Fls. 2,195	Fls. 2,080		Fls. 115
7.	Stores purchased loca		ear :	
••	1918-1919		Increase :	Decrease
	Fls. 12,016	Fls. 6,958		Fls. 5,058
8.	Freight on stores	shipped from		**
0.	Kingdom:	amppod 110m		
	1918-1919	1919-1920	INCREASE	Decrease
	Fls. 1.073	Fls. 6,938	Fls. 5,865	
9.	Freight on stores shi		Ports, Bombay	, etc. :
	1918-1919	1919-1920		DECREASE
	Fls. 8,443	Fls. 33,581 .	Fls. 25,138	
10.	Amounts paid for pa			or Govern-
	ment Officials (Civil	and Military) :-		
*		1919- 1 920	Increase	Decrease.
	Fls. 9,843	Fls. 17,528	Fls. 7,685	
11.	Number of Officials			rom leave,
	etc.:—		••	
	1918-1919	1919-1920	INCREASE .	DECREASE
	94	255	161	•
12.		who went on le	ave and on term	ination of
	appointment:-			
	1918-1919		Increase	DECREASE
	78	237	159	
13.	Number of tusks of	ivory taken deliv	ery of and deliv	ered to the
	Chief of Customs:-		_	
	1918-1919		Increase	Decrease.
14	454	480	26	•
14.		specie and curre	ncy notes receiv	ed from the
	Crown Agents and 1918-191	denvered to tre	asury, Mombasa	
	1910-191		Increase	DECREASE.
15.	Number of house of	1,600		
10.	Number of boxes of Treasury and despa	specie and curre	ency notes receiv	ed from the
	Stations and delive	red to Treasure	Mombass -	up-country
	1918-191	9 1919-1920	Increase	Dronnes
	955	660	INCREASE	Decrease 295
1	6. Number of loads		ed through this	office her no 1
	for up-country :-		mrough mis	once by rall
	1918-191	9 1919-1920	Increase	DECREASE:
	. 15,688		2,791	on hease.
	•		~, · · · ·	
	*	•		7 1 · · · · · ·

 Number of loads packed, entered, passed and shipped through the Customs for Northern Ports:—

18. Number of packages received and despatched by the Transport Agents at different stations during the year:—

	1918-1919	1919-1920	Increase	Decrease
Kapiti-Plains		2,400		
Lumbwa		375		
Londiani .		60		,
Thika		29,511		
Kijabe		9,375		
Kibigori		180		
. •				

Giving evidence before us, the Chief Storekeeper stated:-

"First and foremost I must bring to your notice that every branch of this store, although nominally P.W.D., is to all intents and purposes Protectorate stores only we are not recognised as such."

In addition to the main store at Mombasa, there are branch or sub-stores at Nairobi, Naivasha, Kisumu, Nyeri and Kismayu. With the exception of the last, all stores are under the supervision of the Executive Engineers.

In corroboration of this statement the Director of Public Works in his evidence states that the P.W.D. store at Mombasa was becoming more and more a Colony store and not merely a departmental one, and supplied other departments with the exception of the Railway.

Questioned as to whose orders the Sub-Storekeeper, Nairobi, was under, the Director stated:— "At the present time under the Executive Engineer."

Further questioned as to the restriction of the Chief Storekeeper's duties to Mombasa, the Director of Public Works replied:—

"He is the receiving and despatching agent of all stores of the Department and the sub-storekeeper indents on him for local requirements."

Asked if the Stores carried by Sub-stores were accounted for in the Chief Storekeeper's 'or Executive Engineers' records, the Director replied:—

"The Executive Engineers' records. The Chief Storekeeper's ledgers do not show them. His ledger shows the items in his stores at Mombasa."

In his evidence before us on this subject, the Chief Storekeeper expressed himself on this subject as follows:—

"It was scarcely believable that the Chief Storekeeper has no control over these stores.

"The result of these arrangements may be imagined. There is no uniformity whatever in the management of these Stores. Each individual officer does exactly what he pleases and purchases what he likes without reference to stock elsewhere or Chief Storekeeper, and as to their ideas of the most suitable material to stock and from whom to purchase, they vary considerably.

"The condition can only be described as chaos, resulting in the accumulation of dead stock and subsequent waste.

"This has been brought to the notice of the Head Office since 1913-14 and previously."

Asked on this, "Have you any authority over Sub-storekeepers," the Chief Storekeeper replied:—

"No, they are under Executive Engineers, and only when they are in difficulties I go up and suggest what I can." The opinion of the Executive Engineers is shown by their evidence, which is unanimous that this phase of their duties imposes a considerable amount of work upon them.

Mr. Buckley, Executive Engineer, Nairobi, is of opinion that the Sub-storekeeper should work direct and be responsible to the Chief Storekeeper, while Mr. Reynolds, Executive Engineer, Kisumu, states:—"The work in connection with the Store alone entails signatures on some 5,000 papers per annum."

Asked: - "Do stores occupy much of your time?"

He replied: "Yes, a considerable time."

He had proposed a system whereby the Executive Engineers would be relieved of these duties.

The Director, on the subject, states: - " I am not satisfied with the existing organisation."

The main source of supplies of stores is from England through the Crown Agents, and by local purchase. Under both these systems there appears to be a considerable confusion of authority.

The Chief Storekeeper states:-

"All indents are supposed to be prepared in this office and forwarded to the Director of Public Works for transmission to the Crown Agents. Actually there is no very definite system and Head Office frequently indent direct for general stores such as Cement, without reference to the Chief Storekeeper."

Generally indents on the Crown Agents are compiled twice a year.

Articles ordered are decreased or increased according to the demand made for them by the various depots, and the amount of money granted for Maintenance and Repair of Roads and Bridges, and Maintenance of Public buildings.

No information is given to the Chief Storekeeper of proposed new buildings, consequently he is entirely in the dark as to what will ultimately be required.

LOCAL PURCHASES.

These are largely created through two reasons:-

One, owing to the Chief Storekeeper not being informed as to the requirements of a Department:

and the other, by departments indenting for larger quantities than originally given to the Tender Board, and also for stores not generally stocked.

Local purchase is nominally under the control of the Tender Board, which calls upon departments other than P.W.D. for their requirements for a year including foodstuffs; some of these are put up to tender but as the majority of articles are carried by the P.W.D. stock, these requirements are passed to the Chief Storekeeper for compliance.

Questioned as to the authority under which Executive Engineers make local purchases, the Director states:— "In matters of urgency it lies with their discretion." "As a matter of regulation they should apply to Head Office if expenditure exceeds £5, but this has not been found feasible."

Chairman. "Then their direct powers of purchases are un-

Director. "It is left to their discretion."

Asked as to the value of local purchases by the Department, the Director stated that "for last year it was £57,000."

Questioned as to whether this amount was for P.W.D. stores solely, the Director replied:— "Yes, these were only P.W.D. stores

Further investigation however disclosed that in the amount of £57,000, the value of materials and stores purchased from the Salvage Commission and issued to various departments is included.

The amount is made up as follows:-

				æ.
Salvage			٠	23,923
Paint, oil,	etc.	•••		10,887
Miscellane	ous	Stores, Furn	iture	•
Etc.				14,800
Posho				7,390
				£57,000

Asked if Executive Engineers brought these purchases on to their Store Ledger, the Director replied:—

"Except for quite trifling purchases required for immediate consumption."

Asked:—"Can you say from the results of your inspection of substations that everything is brought to Ledger?"

The Chief Storekeeper replied :-

"Not in every instance; they are sometimes charged direct to works, but I think they should be brought on to the Ledger."

VOCABULARY OF STORES.

We have ascertained that the last Stock and Price List was issued in May, 1917, and that since then it has not been possible to issue one.

Questioned as to the advisability of the introduction of a Stores Vocabulary which would lay down the maximum and minimum stocks to be held, the Chief Storekeeper replied:—

. "Yes, this system would reduce local purchases and prevent overstocking."

On this subject the Director stated :-

"I am entirely of the opinion that the introduction of a Vocabulary of Stores fixing maximum and minimum stocks to be held would be most wholesome."

While Mr. Reynolds, Executive Engineer, Kisumu, is of opinion:—
"That Head Office should get out a Vocabulary of Stores."

Loss and Depreciation of Stores.

To cover Loss and Depreciation of Stores a sum of money is provided in the Annual Budget which bears no relation to the amount of stock held.

Discussing this, the Chief Storekeeper states:-

"I suggest that in lieu, a sum of 3 % be added to all stores taken into stock, which sum should be at the disposal of the Head of the Department. The Government would have sufficient safe-guard through the Audit for the proper utilization of this sum."

On it being suggested to the Chief Storekeeper that an accurate method for providing for the depreciation of stores and disposal of second-hand stores so as not to inflate or distort the Stores financial statement, lay in the establishment of a Profit and Loss Account, the Chief Storekeeper expressed himself as not altogether in favour of the proposal.

FURNITURE.

On the matter of the custom regarding the control of Furniture, the Chief Storekeeper stated:—

"I am in charge of all furniture for the Provinces of Seyidie, Tanaland and Jubaland, both Office and House. It is issued and the vote controlled by this office.

"We keep a Furniture Ledger with name, Department and every item issued, and the same practice is followed in Nairobi." Cost.

We find that the costing of the stores at Mombasa is done with precision, the exact cost—including Freight, Insurance, Lighterage, Landing charges, Haulage charges and handling—being entered in the Stores Ledger under the proper nomenclature.

All stores issued by the Stores Depot, Mombasa, are priced to destination, i.e.—Above charges, plus rail-freight on each article delivered at the Depot to which it is sent.

We examined the Stores Ledgers and other records, and found them carefully maintained and up-to-date.

DEAD STOCK.

We are informed by the Chief Storekeeper that:-

"this is steadily increasing owing to want of proper administration."

The largest items are materials left over from the Mombasa Water Supply value Fls. 23,105-82.

166,376 Hoe-heads and 3,958 Corn knives were purchased by the War Council, valued at Fls. 210,275-31, while at Nairobi there is a large quantity of material returned from the Thika Tramway valued at Fls. 15,738-12.

Another reason for the accumulation of dead stock is the want of co-ordination between the various store depots of the Department. Referring to this the Chief Storekeeper states:—

"What is dead stock at one Depot may be useful at another Depot, but as the Sub-storekeepers only send in statements of their stocks once a year, and then to the Chief Accountant, the circulation and distribution is impossible.

"In spite of this," plaintively records the Chief Storekeeper, "the Chief Storekeeper is supposed to keep sub-stores supplied with materials, and keep stock valued to a certain sum only."

Before us, the Chief Storekeeper sums up the situation clearly:-

"If the Stores are to be run efficiently and economically, the Chief Storekeeper must control all sub-stores, and Sub-storekeepers must take their orders from him and from him alone, and the indiscriminate buying by Executive Engineers must stop.

"In the matter of discipline they might come under the District Officer, but the existing farce of communicating between Chief Storekeeper and Sub-storekeepers being compelled to be sent to Executive Engineers, will I hope be abandoned once and for all."

VERIFICATION OF STOCK.

We examined Executive Engineers and Stores clerks on the actual verification of their stock balances by actual count.

With the exception of "spot" checks, no verification is made.

We enquired into the Departmental rules regulating the verification of stock; none could be put before us.

STORE BUILDINGS.

We inspected the Stores buildings at Mombasa, Nyeri, Nairobi, Kisumu and Naivasha, and in all cases find they are sufficiently commodious to hold the stocks normally necessary for the Department.

In all cases they were in a reasonably orderly and cleanly state.

STAFF.

The absence of an Assistant Storekeeper at Mombasa may be commented on.

The authorised establishment provides for the entertainment of the services of an officer, the salary of the post being £250 per annum.

Mr. Gregory states that he cannot obtain the services of a qualified Assistant Storekeeper for this sum.

SALE OF STOCK.

This matter came prominently before us with reference to the sale of Government blankets by the officers of the P.W.D.

We examined the Director of Public Works, the Chief Storekeeper and Mr. Blain, recently Acting Director, on the authority under which sales of stocks are permitted.

The Director, in giving evidence before us, was unable to quote or put before us the authority under which sales are effected, and was requested to submit to us a memorandum setting forth the Government and Departmental rules and regulations on this subject.

From this memorandum and the evidence before us, it appears that the sale of stock by the P.W.D. derives authority solely from the custom of the Department to do so. Its application had, however, been limited to the sale of articles which could not be purchased locally or in the country, an enhancement in price of 20% being added to cover the Customs and overhead charges.

In how far, however, this guiding principle was respected is problematical, for we find a Circular, dated 20th August, 1907, from the Director to all Executive Engineers and the Chief Storekeeper, which reads thus:—

"It appears that in several cases lately, Stores have been sold to private individuals without 10% having been added for Customs Duty.

"This duty must always be added where the articles are not to be used for Government purposes, and no stores should be sold to private individuals if the same can be purchased locally."

That the Director recognised that the Department had no authority to effect sale of articles which are obtainable in the country, is obvious from his indecision in permitting the sale of Cement to the public in 1919, for he awaits the sanction of the Government before authorising the sales, as is shown in his Circular, dated 6th September, 1919, in which he records:—

"Sanction has now been received to sell Cement for any purposes of assisting development to Settlers, and not only for Cattle Dips, at a price consisting of the book price on Ledgers, plus 20% to cover Customs Duty and Supervision."

When giving his evidence before us, the Chief Storekeeper was questioned on this subject.

Asked if he had any orders forbidding sale of stores, Mr. Gregory replied:-

"No. Until recently we sold if merchants could not obtain in town or country."

Closely examined on the authority under which he authorised the sale of blankets in 1919-20, Mr. Blain, who was Acting Director of Public Works at that time, stated that he could not quote any authority for the sale of stores.

Mr. Blain was requested to refresh his memory by reference to Government and Departmental instructions on this subject, and thereafter to submit a memorandum under his evidence on the subject. On the 6th April, Mr. Blain reported:

"I have made search and enquiries as to the existence of any written authority or instructions as to the disposal of Government stores.

"I am unable to discover any such authority. The procedure appears to be established by general custom."

(h) MOTOR TRANSPORT.

Mr. A. B. Simpson stated that he was appointed Mechanical Transport Officer on the 4th June, 1919, prior to which there was no Mechanical Transport Branch.

When he assumed office he took over 3 Ford Cars from the Animal Transport Officer.

The present fleet of cars consisted of 112, the distribution of which is shown in the following table:—

QUARTERLY STATEMENT OF CARS AND MOTOR CYCLES IN POSSESSION OF THE GOVERNMENT.

Make.	Talbot Touring	Hupp Touring	Ford Touring	Ford Box.	Ford Amb.	Dodge Box.	Dodge Touring	Dodge Amb.	Autocar Lorry.	Overland Box.	Total
Cars allocated and in use.											
H. E. The Governor	1	2									
Administration	<u> </u>	_	2	19					6		3
Medical Department			2	7	4	-		<u> </u>	<u> </u>		27
Agric. & Vety. Depts.	-		<u> </u>	6		3		-			14
General Post Office	 		-	1				-	<u> </u>		9
Public Works Dept.	-	_	<u></u>	4	_	8		_		<u> </u>	1
Customs	<u> </u>		1	-	_	- <u>-</u> -			7	1	21
Conservancy, Mombasa			<u> </u>		-						. 1
				2	ļ	-		_			2
General Service 5 5 3 1 4 18 Cars allocated and awaiting Reconditioning.											
Administration .				3				1			3
Agricultural Department	_		_	1	 ,	[-[-		_	
General Post Office	<u> </u>	-	-	2	-	-		-			
Public Works Dept.	_	<u> </u>		 1	-	1					
	Cs.	l Irs l	i Iina	l Hoc	 afa						3
	1			4	2	u. 		1	1 1	! !	
				•	Z				2		8
Total	1	2	11	55	6	15	1	1	19	1	112
."	MOTOR CYCLES.										
Make.	Tr	iump	h.	Jam	es.	Ruby	Ha	rley-	David	lson.	Total.
То Wном Ізяпер.							i			<u>!</u>	
Medical Department		3							1		
General Post Office			-1		1	1	-		<u></u>		
Total		3		·	1	1			¹ .		6

With the exception of 10 cars allocated to the P.W.D., all the cars are allocated to the officers of other Government Departments, the allocation of which was made by a Committee especially charged to do so.

Log-books are maintained on each car, and monthly returns submitted of petrol consumed and mileage run. The Mechanical Transport Officer states that he "finds the books are well kept."

Asked if working costs were kept, the Mechanical Transport Officer replied that he was not able to keep costs of running, etc., as although logs were submitted to the P.W.D., all payments for staff and material—and under certain circumstances repairs—were made by the officers to whom the cars were allocated.

Questioned as to the financial provision for running and maintaining cars, the Mechanical Transport Officer stated that there was no provision in the P.W.D., Budget for the repair and running of all these cars. Each department of the Administration makes provision for the repairs of the cars allocated to it. He had thus no control over Departmental expenditure on cars.

Questioned further on the absence of working costs, cost of repairs, and statements upon which an opinion could be based as to the efficiency and state of repair or cost of upkeep of individual cars, the Mechanical Transport Officer stated that no such information was recorded. It was not therefore possible to say that excessive amounts were not spent by Departments in repairing "dud" cars.

The Mechanical Transport Officer's branch had its own workshops. Machinery ordered 14 months ago was now arriving.

The Mechanical Transport Officer was unable to get away much for inspection purposes. His assistant was unable to get away at all. He had, however, a Head Indian mechanic to do the inspection.

At Eldoret, Kisumu and Mombasa he was assisted by the Executive Engineers, while at Eldoret and Mombasa he had mechanics. He was satisfied that the cars were in good condition.

Mr. Buck, Motor Mechanic, Eldoret, examined, stated:-

"At Eldoret there were 6 cars. With the exception of the two Post cars, the other cars were allocated to officers of other departments who made all arrangements for the supply of petrol for the cars allocated to them."

Asked if the cars were in good condition, Mr. Buck stated:-

"Very bad condition. The cars of the D.C. Trans Nzoia and the Veterinary Officer's car were in poor condition when received."

Asked: "'Are they costly to maintain,?" Mr. Buck replied: "Yes, nearly every week they come in for repairs."

Questioned as to the advantage which might be obtained by the reduction of maintenance costs through the employment of a better car, Mr. Buck replied:—

"Yes, I think these cars should be sent back to Nairobi and sold."

Major Jack, A.D.C., Trans Nzoia, exhibited his car as evidence of the waste incurred through expenditure in up-keep by running a car so thoroughly worn out.

Mr. H. R. McClure, Resident Commissioner, Nyeri, in his evidence before us stated:—

"I have been 11 months in the Masai Reserve. I had 4 Ford Cars, 3 at Narok and 1 at Ngong.

"They were uneconomical and also inefficient.

"None did 10 miles to the gallon and no three were ever working at the same time."

Asked if he had considered any alternative scheme for securing satisfactory service of motor cars, he replied:—

"I would scrap the lot, abolish the whole present system and institute State-aided cars and give a decent running allowance.

"The other alternative is to scrap the present cars and buy others of a different make."

We are of opinion, from a consideration of the cars belonging to this Branch, and the possibility of wide extension of motor transport within the Colony, that this is a subject which requires careful consideration.

(i) Animal Transport.

Mr. Noon, Animal Transport Officer, states that he had Depots at Nairobi and Nyeri, and Divisional branches are in charge of Executive Engineers.

The stock maintained at Nairobi consists of about 150 oxen, 45 mules and 31 Scotch carts, 18 mule wagons and one ox-wagon.

At Nyeri the equipment consists of 40 ox-carts and 200 oxen, which work entirely for the Northern Frontier District, the K.A.R. having their own transport.

Mr. Noon stated that the organisation at Nyeri was shortly being transferred to the Military authorities, and he then proposed to bring the stock now at Nyeri to Nairobi, where he could make use of it.

The work of the Animal Transport branch consisted of general transport for all Government departments and officials. Only about 25% of the work done was for the P.W.D.

Supplies for the branch were obtained through the Central Tender Board, but at Nyeri he bought requirements locally, as prices were lower there.

The senior staff of the Branch consisted of himself and an Assistant Transport Officer, Mr. Neave. The personnel consisted of 82 natives.

Questioned as to the relative economy of Animal Transport and Mechanical Transport, Mr. Noon was of opinion that owing to the variety in P.W.D. loads Animal Transport was, if anything, more economical.

In giving evidence before us at Mombasa, Mr. Cresswell, Executive Engineer states:—

"Mechanical transport should be developed. I should entirely do away with the whole of the native ox and wagon transport in most districts and certainly in towns."

"The present motor transport in Mombasa against the local donkey transport previously is striking. Fls. 3.50 per 100 cube feet, whereas donkey transport is Fls. 8 per 100 cube feet." Besides, motor transport delivers treble the amount a day."

Referring to the carting of stores between Nairobi Railway Station and P.W.D. Yard, Mr. Noon suggested that the provision of a Siding, Ramp and Crane, if effected, would save much transport between these points, which are about three-quarters of a mile apart.

Mr. D. G. Cormack, Assistant Engineer, Uganda Railway, reports that a siding will cost:—

Fls. Laid with new materials 40,000 Alternatively laid with secondhand material ... 19,000 Ramp-60 ft. long, complete 600 ... 5-ton Crane 5,000 ... These estimates are based upon a plan of a proposed siding submitted by Mr. Cormack.

(j) P.W.D. TRAINING DEPOT.

The African Training Depot is an interesting branch of the Department. In it Africans receive training as Carpenters.

It is anticipated that the School will be extended for instruction in other trades,

Pupils are apprenticed for 3 years, which is the period of training. There are 48 boys under training, which is carried out in a systematic manner.

The School receives a grant of £750 per annum.

So far as is possible, practical results as well as training is kept before the pupils, the labour involved in their instruction being used profitably for the manufacture of boxes, chairs, tables, doors, windows, etc.

It is interesting to note that for the last financial year, the volume of work done to meet orders from the Public Works Department and other departments, amounted to nearly £70.

Regular systems of instruction and discipline are observed.

(B) EXECUTIVE.

ENGINEERING.

For the purpose of maintenance of existing roads and works and for the construction of new work, the Colony is divided into 5 Divisions. Sanction has however been accorded for the establishment of a sixth Division, though this has not yet been inaugurated.

The existing Divisions are :-

Mombasa. Kenya. Ukamba. Naivasha and Nyanza.

Each Division is in charge of an Executive Engineer, assisted by a staff of Assistant Engineers, Overseers, Clerks, Foremen, etc.

The following table shows the area of the territorial Provinces, area therein administered by the Public Works Department, approximate length of roads and number of buildings maintained:—

Division or Province.	Area of Province sq. miles.	Area Administered by P. W. D. sq. miles.	Approximate mileage of roads main-tained.	Number of buildings.
Mombasa	26,500	2,700	130	132
Kenya	13,000	5,000	600	1 77
Ukamba	18,700	7,000	595	346
Naivasha ·	25,000	11,000	669	139
Nyanza	13,500	6,000	300	95
TOTAL	96,700	31,700	*2,294	.789

Not including roads maintained by Administration Officers and subsidiary roads in Native Reserves.

Within these Divisions, in addition to the actual supervision of Public Works, the Divisional Officers are responsible for supervising the Departmental accounts, the sub-Stores, and Government house and office furniture.

The following table shows the staff of the Divisional Officers:—

Executive. Engineers.	Assistant Engineers. A	Over- seers.	Fore	men. B	Cle Gen	rks eral. B		erks ounts B		rks res.
Mombasa Kenya Ukamba Naivasha Nyanza	1 1 0 3 1	1 0 2 3 3	1 3 9 15 4	5 1 7 2 0	0 0 2 1 0	4 0 6 1 2	0 0 1 0	2 1 1 2 1	0 0	2 1 6 2 2

- A. European.
- B. Non-European

In giving evidence before us, Executive Engineers were unanimous in advocating the necessity for the introduction of a better system under which work is carried out and controlled. The weight of evidence disclosed the necessity for this change, and was in very general agreement in suggesting as to how the improvement in these duties should be obtained, and are:—

- (1) Improvement in system of control.
- (2) Withdrawal of duties connected with accounts, stores and furniture from Executive Engineers.
- (3) A further division of Divisions into sub-Divisions in charge of Assistant Engineers under the orders of Executive Engineers, but responsible for, and entrusted with, the performance of specific duties.
- (4) The necessity of providing a class of official intermediate with the present class of Overseers and Assistant Engineers. They should be able to use instruments proficiently, set out and measure work, and prepare plans, sections and drawings.
- (5) Increase of staff with improved qualifications.
- (6) Provision of more Plant and improved Workshops.
- (7) Restriction to the extension of the appointment of special technical officers, as Executive Engineers desire to obtain work of professional interest which will stimulate their interest in the performance of their duties by devolution of responsibility upon them.
- (8) Introduction of a system of maintaining costs.
- (9) Increased facilities for Inspection.
- (10) Extension of system of work by Contract.
- (11) Imrpoved Housing accommodation and in some cases Office accommodation.
- (12) More conferences with Director of Public Works.
- (13) Adoption of standard type plans for Bridges, Roads, etc.
- (14) Improved methods of recruiting labour.
- (15) Survey and preparation of Road projects.
- (16) Preparation of Estimates.
- (1) IMPROVEMENT OF SYSTEM OF CONTROL.

Dealing with this subject, Mr. Reynolds, Executive Engineer Kisumu, said:—

"There is no doubt that considerable unnecessary delay occurs in dealing with matters. It is no uncommon thing to wait for a month for a reply to a letter."

and another matter to which attention is directed is the desirability of more co-operation between the Government Departments, e.g.—

"The Marine shops here are well equipped for carrying out classes of work which it is not possible for the Public Works Department shops to do.

"The charges are high, so high that little advantage can be taken of them."

We have already quoted, on Page 25, the Resolution on this subject passed by the Executive Engineers' Conference in 1919.

Mr. Blain, recently Acting Director, discussing the reasons which led him to make certain proposals for the re-organization of the Department, states:—

"My personal knowledge of the dissatisfaction of Executive Engineers with the delays and apparent neglect of the Head Office was purely my reason for making the suggestion."

That this want of control or system is felt throughout all ranks of the Department is shown by the evidence recorded by Mr. Walby, Overseer, Nakuru. He states:—

"No rules are laid down for organization so far as I am aware, not even for standard works. One is simply instructed to execute certain works and left to get on with them the best one can.

"In the case of roads, these are often constructed according to the ideas of the officer appointed to execute the works without even a survey having been made."

(2) WITHDRAWAL OF ACCOUNTS, STORES AND FURNITURE DUTIES FROM EXECUTIVE ENGINEERS.

The Executive Engineers were unanimous in their evidence in stating that the charge of the Sub-stores, supervision of the Accounts clerks and work required in connection with administering the use and supply of Government furniture occupied much time, which they were of opinion would be more profitably and advantageously occupied in the performance of Engineering duties.

In his evidence the Director of Public Works states :-

"The Executive Engineer is finally responsible for the accuracy of all Stores returns and Accounts accruing from his Division.

"This is coming to be regarded as an unworkable encroachment upon the time and attention of qualified engineers."

(3) Sub-Division of Divisions.

Questioned as to their duties, Major Saidler, Assistant Engineer, Kisumu; Mr. Campbell, Londiani; and Mr. W. Fairley, Assistant Engineer, Nyeri, stated that their position is that of Assistant to the Executive Engineer. They have no actual territorial district or specific duties; they are the Executive Engineers' assistants.

The Director of Public Works states:-

"While it is not the practice to move Executive Engineers more than is possible, this does not apply to Assistant Engineers, who are moved about the country to give them an all-round acquaintance with the country."

Questioned on the advisability of the formation of sub-divisions, the Director replied :—

"At the present time there are no distinct sub-divisions. The Assistant Engineers are liable to be moved at the discretion of Executive Engineers."

Asked his opinion as to the advantage of defining sub-divisions, the Director replied:—

"When there is staff of sufficient quantity to cover the territorial area of a Division with Engineering officers—most desirable."

The Executive Engineer, Kisumu, was asked:—"Do you approve of dividing your Division?"

He replied :-- "Most certainly."

Asked:—"At present the Assistant Engineer is merely your assistant?"

Replied :--"Yes."

Questioned:—"You approve of moving officers as little as

Replied:—"Certainly. It takes a man some time to know a district."

(4) Institution of an Official of Class between Overseer and Assistant Engineer.

The necessity for this class of official has been brought prominently before us.

All Executive Engineers and Assistant Engineers examined on this subject by us emphasised the necessity for establishing a class of official capable of surveying, levelling and measuring up work, preparing plans and estimates, etc.

Examined on the qualifications of the most senior class of official of this type, the Director stated:—

"In the existing state of affairs, the most competent officers are distinctly weak in the compilation of accounts.

"Assistant Engineers had at times made complaints about the inefficiency and insufficiency of the staff."

(5) INCREASE OF STAFF WITH IMPROVED QUALIFICATIONS.

In his evidence, the Executive Engineer, Kisumu, states:-

"The present system of carrying out work is in my opinion entirely wrong. The Department is attempting to carry out investigation of new works, construction works, and maintenance, with a staff hardly more than sufficient to carry out maintenance only.

"Plans for new works should be prepared and estimates made out a year before the construction takes place."

This officer has one Assistant Engineer, 3 Overseers and 5 Foremen presently with him. He is of the opinion that a further Assistant Engineer and additional staff are required—emphasising the necessity for a Surveyor of the qualifications outlined in No. 4 above.

Dealing with the evidence of Mr. Nicholson, Executive Engineer at Naivasha, it emerges that it is proposed to divide the Division as early as funds are available to establish a new one. The present Division extends from the Aberdare Hills to Kedowa Station, and includes Laikipia, a great part of the Naivasha Province, the Uasin Gishu Plateau, Trans Nzoia, and the Turkana country—the greater part of which is country rapidly developing and calling for the construction of more roads and buildings, and we quite agree with the Executive Engineer when he remarks:—

"At present the Executive Engineer's time is very fully occupied."

and he adds, probably only too truthfully:

"With the result that he has scant time for careful consideration of the various Engineering problems arising in his District."

In view of the early partition, we do not require to consider the staff engaged in the Naivasha Division.

Referring to supervision, and the qualifications of junior officials available, Mr. Nicholson's remarks and proposals are interesting. We reproduce them:—

"Extreme difficulty has always been met with in obtaining Road Foremen suitable for the type of work required in this Province. "Locally engaged men have in a few cases proved moderately satisfactory. In many cases much trouble has been caused by men with little or no road-making experience being engaged in the entire absence of any skilled men being available—mainly due to the unattractive wages offered.

"Men engaged in England with no previous Colonial experience have found it difficult to fall in with local conditions and have merely been learners for a considerable period.

"I would like to suggest that positions for Road Foremen should be advertised not only in England, but in the Colonies where much more similar conditions prevail to those experienced in this country."

The Executive Engineer, Mombasa, states that his present staff consists of one European Road Foreman and one European Inspector of Water Works. Previously he had two Assistant Engineers, but both became sick and for the last three months have not been replaced. He had Indian mistris.

The Executive Engineer is of opinion that his staff should consist of :--

- 2 Assistant Engineers.
- 2 Road Foremen.
- 1 Shop Foreman.
- 1 (or more) Building Foreman-as work demands.
- 1 Mechanic for motors and machinery.

(The above staff to be European.)

He also emphasises the fact that a Surveyor is required for taking levels, making plans, sections of roads, etc., who might be an Indian.

For the supervision of the Mombasa Water Supply, he is of opinion that the services of a whole-time Assistant Engineer are required, and states the present method of running the system is unsatisfactory—too many natives are in more or less responsible positions.

The Executive Engineer, Nairobi, asked if he was satisfied with his staff, replied that he would like to have an Assistant Engineer for supervision; otherwise he was satisfied.

Mr. Stedman, Nyeri, has:-

- 1 Assistant Engineer.
- 3 Foremen.
- 1 Non-European Foreman.
- 1 Accounts Clerk.
- 1 Stores Clerk.

This officer is developing the system of defining supervision and responsibility for proper maintenance.

On the Nyeri-Fort Hall Road he has regular maintenance gangs and allocation of duties and responsibility to all grades of his staff. We have found a very general desire on the part of Executive Engineers to develop this system, the further development of which we deem essential for proper supervision and control.

(6) PLANT AND WORKSHOPS.

The provision of additional and proper plant as a means of economical and efficient maintenance and execution of work received our attention.

Road graders existed, but the Executive Engineers generally condemn the pattern of the machines supplied, which are not used by them. The reason given being that it is weak and intended for horses, and that oxen cannot drag it properly.

On the other hand, the Honourable Mr. W. J. Dawson stated that he had used a P.W.D. grader in road work with oxen and native boys, and found it quite satisfactory.

Questioned on Plant, the Executive Engineer, Mombasa, states that the Department should be equipped with the latest up-to-date plant. At present it is poorly supplied. Some stations have not got beyond the "Jembi" and "Karai" stage.

Mr. Reynolds, Executive Engineer, Kisumu, states that the shops in his Division consist of a few sheds, badly equipped, inconveniently placed and altogether unfit for efficient working. The construction and equipment of new shops is an urgent necessity.

Mr. Nicholson, Executive Engineer, Naivasha, states:-

"I do not think it conceivable that any Engineering body could be worse off in the supply of Tools and Plant than the P.W.D.—in up-country Divisions, at any rate.

"Given a few labour-saving machines for metal and woodwork, a very considerable percentage of costly...and inefficient labour could be dispensed with."

Mr. Walby, Overseer, Nakuru, states:-

"At present the plant and machinery in the Department is, practically speaking, 'Nil.'"

In our examination of Witnesses charged with the actual supervision of work, it has been brought to our notice that in the more settled districts of the Colony, further road rollers and water carts are required for the proper maintenance of "pukka" roads, and in respect of this matter we have observed 4 Road Rollers lying unused in the Public Works Department Yard, Nairobi.

(7) IMPROVEMENT IN PROFESSIONAL STATUS OF EXECUTIVE ENGINEERS.

In such a Department as that of Public Works, results can only be obtained depending on the standard and degree of professional distinction and personal enthusiasm of the Engineers serving in it.

We are of opinion, therefore, that every step possible should be taken to develop the professional interest of the members of the Department. The opinion of the Executive Engineers of the Department regarding this is expressed by a Resolution passed at their Conference in 1919, which is as follows:—

"We have already suggested that the status of Executive Engineers should be raised and more responsibilities given to them."

Commenting upon the appointment of technical officers, Mr. Buckley Executive Engineer, Nairobi, remarks:—

"Instead of further appointments of this kind, I would suggest that each officer in the Department should do his own job of work.

"In connection with this I may mention that I have now been in charge of this Province since June last, and I have never yet received quantities for any work that has been entrusted to me."

Mr. Reynolds, Kisumu, is of opinion that the plans of all houses should be submitted to the Executive Engineer before completion for criticism as to their suitability for the particular locality. The completed plans should give full details and be accompanied by specifications and quantities.

The opinion of Mr. Blain, recently Acting Director, is as follows:-

"The preparation of projects and designs is almost entirely confined to the Head Office, which, if left to the Engineers concerned, would give much useful and desirable experience.

"The appointment of experts and specialists in the Department, particularly if these are selected from outside, is likely to be detrimental to departmental efficiency and is the cause of dissatisfaction to the Engineering staff."

(8) MAINTENANCE OF COSTS.

This subject is further referred to in dealing with the accounts, but we will now examine it from the view-point of the Engineer.

The system of accounting in the Department does not provide for the compilation of costs. Executive Engineers are endeavouring to maintain some statement of costs, but necessarily these can only be inadequate, as it is outside the system of accounting adopted by the Department.

The necessity for the introduction of a proper system for recording expenditure so as to exhibit costs, is indicated by the evidence of Mr. Reynolds, Executive Engineer, Kisumu. He states:—

"In 1908, whilst in Nairobi, I drafted a system of keeping costs, but eventually had to abandon it owing to insufficiency of clerical staff. I consider it a vital necessity."

Mr. Blain, lately Acting Director, states :-

"Under the present system of accounts, not only is the cost of sub-heads of a work not known, but the actual total cost after completion is also unknown."

On this subject, we have had corroborative evidence.

(9) INCREASED FACILITIES FOR INSPECTION.

The extent of Divisional charges of Executive Engineers, Assistant Engineers and Junior Officials is such that provision of means of locomotion and encouragement of inspection are deserving of careful consideration.

Executive Engineers are provided with motor-cars, Assistant Engineers have either motor-cars or mule transport, provided or supplied by the Department from the Mechanical or Animal Transport Branch.

The Director of Public Works considers that the allowance of 15 cents a mile, or 25 cents a mile with a passenger, for motor-cycles, is inadequate.

(10) EXTENSION OF SYSTEM OF WORK BY CONTRACT.

In the more settled areas near towns, it might be possible to encourage Contractors to undertake work of maintenance on contract terms. The emergence, however, of competent contractors in the country has been slow, and even now the number is very limited and competition for work outwith towns does not exist.

We are of opinion, however, that as an agency for the execution of Public Works, no effort should be spared in encouraging this form of agency for their execution, but we recognise that as an aid to the Department, it can for the present be only of minor importance, and that the Department for long must look to its own resources for the execution of all maintenance work.

(11) ACCOMMODATION.

In the Colony, the consideration of staff immediately introduces the housing question. "The question of staff depends," said a Witness before us, "upon the house accommodation available."

The accommodation provided for the Executive Engineer, Kisumu, is so inadequate that he has to occupy a portion of the verandah, whilst his Assistant Engineer shares a house with his Overseer.

The Assistant Engineer, Londiani, asked: "Are your quarters satisfactory?" replied: "More or less." The house consists of 2 rooms, cedar roof, with corrugated iron walls unlined. "I should say the house is not suitable for the climate. The same applies to the Office, which Dr. Wilson said was a death-trap."

(12) Conferences with the Director.

Several Witnesses before us have expressed their conviction that more opportunity of conversation and conferences with the Director of Public Works would be most beneficial to them, and avoid delay in work and tend to promote a closer bond between Divisional Offices and Head Office.

(13) Type Drawings and Specifications.

Our enquiry into the methods and system under which the execution of work is controlled, included determining in how far the best experience of the Department was utilised and its application enforced by the issue of Type drawings and specifications, the existence of which would ensure a realization of economic and safe designs and their construction in a · workmanlike manner—avoiding unnecessary work being done in the various Divisions by the preparation of a multitude of designs, each requiring a considerable portion of the time of the Engineers.

The evidence recorded discloses the existence of very few such documents, resulting in a diversity of practice, and entailing considerable waste of the time of officers.

Examined, the Executive Engineer, Kisumu, stated:-

"Standardization of design would assist expeditious construction and lessen cost. The adoption of standard Bridge designs and detailed type plans would facilitate work to a great extent. Present day standard specifications suitable for all the usual operations of the Department would reduce office work."

The Executive Engineer, Nairobi, asked: "Are there any standard specifications for roads?"

Replied :--"No."

Asked :-- "Are there Departmental specifications for the information of Officers doing the work of the Department?"

Replied :--"No."

Mr. Walby, Overseer, states :-

"So far as I am aware, no such things as standard types of roads exist, and no standard rules or regulations relating thereto.'

Mr. Smith, Overseer, Eldoret, states he received no drawings for Bridges. He prepared his own drawings.

The Director's attitude in this respect is summed up in his evidence :-

"It is left to the Executive Engineer's own initiative to improve trafficability with the funds at his disposal."

(14) LABOUR.

The procedure regarding the recruitment of labour is set forth in the evidence of the Executive Engineer, Kisumu, who states:-

"The onus of getting labour to maintain roads and carry on work is put on the Executive Engineers. The provision of an adequate supply of labour is no light matter."

Mr. H. A. Campbell, Assistant Engineer, Londiani, states that he had to recruit his own labour.

Labour recruited by himself cost Fls. 5. excluding blankets, price about Fls. 2/60. Through Recruiting agents it cost Fls. 15/50, including

He had 200 on Maintenance work; at the end of January he had 500.

On the Eldoret Road he had 300 convicts, of which only 225 to 250 could be got out to work.

Asked what the cost of convict labour amounted to, Mr. Campbell stated each convict cost 27 cents per day including cost of labour camp,

The Executive Engineer, Mombasa, recently had 200 boys on roads. As however funds were exhausted, he has now only convicts. He said convict work was of great assistance for that reason.

The Director of Public Works has placed before us a full statement of the policy he advocates and has adopted. It is based entirely on the The Executive Engineers, at their Conference in 1919, entirely disagreed with the Director's expressed opinion, and consider voluntary labour in sufficient quantities will be for many years unobtainable.

We are of opinion that possibly there will be difficulty in obtaining sufficient labour, but in the long run the supply of labour can best be guaranteed by the adoption of the voluntary principle.

Under present conditions the personal factor enters largely, and it is only by the realisation and development by officials of the Department of the attitude which attracts and keeps labour, that a supply can best be obtained and retained.

The institution of an organisation for the recruitment of labour for the Department has not been considered by us in view of the appointment of a Commission to enquire into and make recommendations on this subject.

(15) SURVEY AND PREPARATION OF ROAD PROJECTS.

The entire absence of the systematic study of the alignment of roads and the preparation of plans and estimates is established.

The reason probably lies in the absence of a staff qualified to do so, but so far as we can ascertain, no attempt was ever made to determine the alignment and location of a road in a systematic manner, and all the evils resulting from this cause have followed, viz.:—

Expensive maintenance, difficulty of transport owing to severe grades and high degree of curvature, drainage troubles, and so on, in some cases leading to the abandonment of the road and the construction of another following a better alignment.

We recognise that the instances we generalise from were formed as Pioneer roads, and that the work of the Department then consisted of pioneer work done in a pioneer manner.

Our reason, however, for animadverting to the subject is because we cannot find that even with an increased staff and additional funds at the disposal of the Department, any attempt is being made to study road alignment previous to their formation, and there is evidence before us to lead to the conclusion that the errors made in the construction of roads 10 years ago, are being repeated now.

The necessity for the systematic and methodical preparation of road projects is clearly established by the evidence given before us. The Executive Engineer, Naivasha, desires "the inception of a properly constituted road survey and location party in the Province," and gives as a reason for not offering more work on contract, that the existing staff in the Division does not permit of the necessary surveys, plans, specifications and Bills of Quantities being prepared.

Mr. Reynolds, Executive Engineer, Kisumu, is of opinion that plans for new works should be prepared and estimates made out a year before construction takes place.

The experience of Mr. Walby, Overseer, is recorded as follows:-

"In the case of roads, these are often constructed according to the ideas of the officer appointed to execute the works, without even a survey having been made."

In the case of the construction of the Eldoret-Ravine road, the Assistant Engineer states that "there were no plans or sections prepared. The alignment of the road was as laid out by a Road foreman."

In this case we do not mean to infer that the alignment is a bad one, but quote it as an illustration of Departmental methods of road location.

(16) ESTIMATES.

Our investigations and enquiries have established conclusively that detailed estimates are seldom if ever prepared.

WATER SUPPLY.

Giving evidence before us, Mr. G. H. Cresswell, Executive Engineer, Mombasa, stated that the capacity of the Mombasa Reservoirs was 750,000 gallons; the daily average delivery being 350,000 gallons.

Mr. L. Brierley, Inspector, Water Works stated:-

"At the present time we can only deliver 450,000 gallons per day."

Asked what population the supply served, witness stated: "Over 30,000."

The current rates charged for Water Supply are:-

 per 1,000 gals.

 Fls.

 Ordinary consumer
 ...
 1
 50

 Shipping
 ...
 4
 00

 Government
 Departments
 ...
 1
 25

A certain reduction is made to ordinary consumers when their average daily consumption exceeds 30,000 gallons per day.

A flat rate of Fls. 5 per month per tap is applied in the absence of a meter.

There are at present over 400 connections of which 100 are without meters.

Questioned as to the consumption of water, the Executive Engineer states:

"A large amount of waste is going on owing to the charge of flat rate in gardens at 20 Fls. per month. We discovered instances where taps had been removed altogether and the water was running night and day. This was corrected by installing meters.

"We have no organisation for detecting waste of water."

He would advise more meters being put in.

Mr. L. Brierley, Inspector, asked what provision there was for avoiding waste, stated :-

"Hardly any. We have the same staff as when we started in 1915.

"The supply was more or less controlled.

"The control was inadequate."

The staff engaged on the supervision of the works and for collecting revenue, etc., consists of :—

1 Inspector (European).

1 Overseer, Pipe Line Inspector (Seychellian).

1 Accountant (Goan).

1 Meter Reader (Indian).

and

3 Mistris.

At the Reservoirs only natives are employed, one being in charge and two for cleaning out the tanks.

Major Lee, whose services were placed at our disposal by the Auditor, reports that the average monthly receipts for sale of water are Fls. 10,785.

Assuming an average daily consumption of 350,000 gallons for a month of 30 days at the lowest rate charged, i.e., Fl. 1.25 per 1,000 gallons, the monthly revenue would amount to Fls. 13,125, which corroborates the evidence establishing the existence of leakage.

In a statement submitted to us, the Executive Engineer, Mombasa, writes:—

"Mombasa Water Supply should have an Assistant Engineer whose time is given solely to the system.

"The present mode of running the system is unsatisfactory.

"Too many natives are in more or less responsible positions" while Mr. Brierley further states:—

"Better supervision and inspection would lead to economy and pay for itself several times."

Major Lee who audited the accounts, reports that under the method of accounting adopted, the concern is apparently operating at a profit of £18 10s. a month.

He points out that certain items which are a fair charge against the concern are not brought to account.

(C) ACCOUNTS.

The authorised personnel of the Accounts branch at the Head Office consists of:—

One Chief Accountant.

Two European Accountants.

One European Accountant.

(Temporary)

Ten Non-European clerks.

Actually at the date of our inspection it consisted of :-

One Chief Accountant.

and

Ten Non-European clerks.

Questioned as to where the staff actually was employed, the Director stated:-

"One Temporary Accountant was in the office of the Executive Engineer, Nairobi, which deals with 40% of the Departmental accounts.

"The first Accountant had not operated as an Accountant for more than a year past, being employed on other duties, including those of Office Superintendent, Nairobi, the other Accountant being on leave."

The personnel responsible and the system under which Departmental accounting is performed, is best described by the following abstract from the evidence recorded during the examination of the Director of Public Works:—

Question. You mention 6 Divisions. Are there Accountants in these Divisions?

Director. No, they have Goan Accounts clerks.

Question. Is the Accounts work done in the Executive Engineer's office?

Director. Accounts are prepared by the Accounts clerk, who puts them up to the Executive Engineer for scrutiny, confirmation and transmission to the Chief Accountant.

Question. These Accounts clerks for Executive Engineers. Are they under your direct control, the Executive Engineer, or the Chief Accountant?

Director. Executive Engineer.

Question. For professional direction?

Director. Yes.

Question. So really the Executive Engineer is Accountant de facto?

Director. Yes.

In relation to this evidence, the following extract from the evidence of the Chief Accountant, Mr. Howarth, is illuminating:—

"A Government Engineer should not condemn the business side of Engineering enterprise as unworthy of an Engineer's attention. There is no discredit to him in having an intelligent understanding of the principles and practice underlying the operations of contractors, which determine questions of Profit and Loss.

"The ideal Engineer would be a specialist in both Engineering and Accountancy. He would recognise that the sciences of Engineering and Accountancy were closely allied, and if allowed to drift apart, there would be waste and ineffectiveness."

The system of accountancy throughout the Department is simple. Our enquiry on this Branch of the Department resolves itself into determining how far the system is properly carried out, and in how far the compiled accounts are of use departmentally.

Expenditure is incurred against Votes sanctioned in the Colonial Budget, which are primarily based on Departmental Estimates. Expenditure against these votes can only be incurred on the authority of a Departmental Requisition or a Special Warrant issued on the authority of the Government. Funds are obtained by Requisition voucher on the Colonial Treasury.

Expenditure in the form of cash is allocated against the Vote under which it is incurred, and posted in the Cash Book, which also exhibits the allocation.

The value of Stores issued and used, and allocated against the Vote head, is contained in a monthly debit from the Stores Department or Substore. The allocation of the charge for Stores appears first on the requisition for the issue of the stores, and is copied from that document to the priced debit after issue.

From the Cash Book and from the Stores issue documents, Monthly Abstracts of the expenditure during the month under each vote are prepared on loose sheets.

From these Abstracts, monthly statements (Form 18) are prepared which show the expenditure in Cash and Stores incurred against each vote. This statement exhibits the balance of vote available at the close of the previous month, and balance still available at the end of the month. The total amount of the vote, and the expenditure for the previous months, does not however appear.

This is the only financial and statistical record which is available to assist the Engineer's Department in the administration and execution of works—capital and maintenance.

Parallel with the Cash-book, Vote Ledgers are maintained in which all transactions, Cash and Stores, incurred under each vote are entered. The check on the correctness of these is effected by the Cash Abstract and the Stores abstract, the preparation of which is explained above.

These, with the exception of an Advance Ledger, are the only accounts maintained by the Accounts clerks at Divisional Headquarters, and the departmental examination of these accounts at Headquarters is the duty of the Chief Accountant, and an abstract from them represents the final financial record of expenditure maintained at the Head Office.

Payment for work done under contract is made on vouchers prepared from measurements made on site. These payments appear in the Cash Book and Votes Ledger, but no Contractors' Ledgers are maintained.

The works done under contract are the only works measured. This fact alone precludes the possibility of the maintenance of costs of work done or articles produced.

In connection with this subject, the Chief Accountant was asked:—
"You agree, as an Accountant, that perfect costs must
be maintained?"

Reply. "Yes."
"You have none?"
Reply. "No."

During our enquiry we have found, however, that several Executive Engineers maintain for their own guidance and information a partial system of costing—the work of the Executive Engineer, Mombasa, Mr. G. H. Creswell, being the most notable in this direction.

The fact however emerges that the Departmental Accountancy system does not permit of costs of production being maintained.

That the Accountancy system is primitive in other directions is shown by the fact that the cost of sub-heads of works are not recorded, for example:—

In the construction of the Eldoret-Ravine Road, the cost is simply recorded in a lump sum, and that—divided by the length of the road-work done—is the cost of the road per mile.

No attempt is made to maintain expenditure under sub-heads such as:—

- 1. Forest clearing.
- 2. Formation earth-work.
- 3. Bottoming-Corduroy, Stone, etc.
- 4. Bridges.
- 5. Drains, etc., etc.

This is corroborated by the evidence of Mr. Blain, who states:—

"The present system of accounts shows the total expenditure up to date against any work as a whole. It is necessary that the system of accounts should be so modified as to give this

that the system of accounts should be so modified as to give this information definitely sub-head by sub-head, as

Excavation.

Concrete, etc., etc.

"This could be done without difficulty."

For the establishment of a sense of responsibility and as an index as to the performance of duties, the Engineer in charge of works has only one means to aid him, and that lies in being able to inform himself at any time during the progress of any work of the ratio of expenditure to production, and to compare that ratio with the established ratio or unit rate.

For this information to be available at any time it is necessary that :-

- (a) Estimates be prepared for every new work and repair work.
- (b) There should be established unit rates or costs for all descriptions of work, as for example:—Excavation, Concrete, Masonry Painting, Woodwork, etc.

based upon an analysis.

- (c) Accounts should show by a simple system the expenditure to date against each estimate referred to in (a) and against each description of work referred to in (b).
- (d) Measurements should be taken of all work done and submitted to the Accountant, together with statement of labour and stores used, all allocated to the work on which they are employed.
- (e) A complete final estimate prepared, showing in comparative form the quantity of each description of work estimated as required and actually done, and the unit rate and amount of each as estimated, as against the unit rate and amount actually done and expended.

None of the above accounts are maintained by the Department.

UNSPENT BALANCES.

Inspection of the Table on Page 8, shows that—without exception-annually since 1905-06 to 1919-20, large amounts of funds granted to the Department have lapsed.

Throughout our enquiry, the reason advanced for shortage of staff or failure to execute or maintain works has almost invariably been "shortage of funds." This reason we find irreconcilable with the financial statement as put before us by the Chief Accountant.

It is not, however, with the validity or otherwise of the reason for the failure to execute works, but with the actual reason for the lapse of funds that we now occupy ourselves.

Discussing the preparation of the Annual P.W.D. statement for inclusion in the Colonial Budget, the Director has explained to us the steps leading up to the time when they go before the Legislative Council.

"Theoretically," states the Director, "all this should take place in such good time that the final sanction accorded should be available by the

beginning of the financial year."

"But," continues the Director, "on recent occasions four or five months of the financial year have elapsed before final sanction to the year's expenditure is forthcoming."

"During that period the activities of the Department are confined to operations under the recurrent vote and the completion of works sanctioned in the previous year and not finished off, sanction being presumed to the carrying over of unexpended balances from the previous year."

On receipt of the sanction of the Secretary of State to the Colonial Budget, the Chief Accountant prepares a separate requisition for each vote appearing in the schedule of new works; this is transmitted to the Treasury, through which is obtained the formal sanction of the Govern-

ment.

"This procedure," states the Director of Public Works, "is admittedly cumbersome, and has been avoided recently by the introduction of a one-line Vote in the Departmental Estimates, called the D.P.W.'s Reserve." Within the limits of this vote the Director can authorise instant execution of works he considers to be necessary.

There is evidence that the extension of the one-line Vote practice is

We view the introduction of the one-line Vote authorisation for expenditure with disfavour, as acquiescing in the suppression of the preparation of full and detailed estimates for State expenditure, which forms the foundation of all fiscal control.

The plea advanced by the Director in favour of the practice, i.e., that it tends to relieve the technical department of a large amount of recrimination and criticism for delay in operations, is thoroughly unsound.

The result of these delays outwith the Department, is that they have to crowd into some six or seven months of the financial year, when quite possibly weather conditions may not be the most convenient for their operations, the programme designed to cover a period of twelve months.

In this procedure may possibly be found the reason for the greater part of the large annual unexpended balance referred to above.

We are of opinion that, so far as District accounts go, they are fairly well kept by a very small staff working at high pressure, but there is evidence that a more extended system of accounting and costs would be beneficial if the results obtained were intelligibly used and applied, and would be the means of obtaining greater economy in production and efficiency in working.

We are further of opinion that the Accounts maintained are primarily to satisfy the Treasury and Audit Departments and are not designed for the use or guidance of the staff of the Department, and in the form as presently existing, are of little practical value or utility to Engineers.

VI.—CONSIDERATION OF EVIDENCE FROM THE PUBLIC REGARDING ROADS, ETC.

We have endeavoured to obtain evidence and to form an opinion as to the execution of Public Works in the Colony, and in considering this particular reference in our Commission we have premised the standard by which we will estimate the performance of the Department as relative to the state of development, resources and requirements of the community.

The conditions obtaining in the Colony at the date of the inauguration of the Department were those of a pioneer community. The transition of a community from pioneer conditions to those of a settled community is progressive; the incidence of settled conditions is primarily confined to centres which multiply and expand eventually to the entire exclusion of pioneer conditions.

Two lines of policy were therefore open to the administration of the Department to adopt :-

On the one hand, the future could be visualized, and the funds and organization at the disposal of the Department utilised in the construction of good roads, bridges and buildings to a small extent, suited to the requirements of settled community conditions.

On the other hand, the funds and organization could be distributed over a wide area, providing a wide system of pioneer-constructed roads, etc., so as to serve the immediate demand of the greatest part of the community.

At the outset these roads, considering the funds and staff available, could be little better than tracks cleared of scrub and obstructions, but providing possible lines of communication which, by constant betterments and gradual improvement, eventually emerge as roads fit for the requirements of a settled community.

This was the policy adopted by the Department, and we agree it was the correct policy.

By-public announcement of our Sittings and of our willingness to hear evidence, we had hoped to obtain considerable evidence on the services rendered to the public by the Department. Voluntary witnesses, however, were rare, and we have even to record instances of the expressed intention of members of the public to give evidence, not being carried out.

Quite a reasonable volume of evidence, however, has been obtained, and we had the opportunity ourselves of travelling over a considerable mileage of roads and gaining some knowledge of existing conditions.

At Nyeri, giving evidence before us, Mr. Le Poer Trench, asked for his opinion on the state of the roads, said :-

"A wonderful improvement. Six years ago you could not get a car through in all weathers."

The Hon. W. J. Dawson, asked if he considered the roads in the Nakuru area met local requirements, stated:-

"Roads in the district are not too bad considering the state of the country's progress.

"Traffic is pretty regular all the year round."

Asked :-- "Is there a demand for a better class of road or a necessity for it?"

He replied:—"My opinion is that money could be spent in such a way as to make roads much better.

"During the past two years there has been considerable improvement in the way money has been spent. Previously, their condition was scandalous, having regard to the money

"There are attempts now to make roads."

Asked:-"With a little more system a better class of road could be obtained?"

Mr. Dawson replied:-

"Yes. . . . Properly made in the first instance and properly drained, an earth road is quite reasonable."

Capt. W. H. F. Hughes, who resides in the Solai district, 17 miles from Nakuru, giving evidence regarding the construction of roads in that district, criticised the construction of the Laikipia Road, and stated:

"The Road Foreman did not know his job. There was no necessity for catch-water drains, and money was wasted by cutting grades and putting drains on each side, which prevents waggons drawing off the roads.

"The natural surface could not be improved except by

metalling.

"There was a lack of intelligence in applying funds.

"The road was aligned at an impossible gradient.

"There was a right-angle turn at the Bridge, absolutely impossible.

"The gradient, in my estimation, is one in three. Nobody would attempt to go up it, much less come down."

Questioned as to the roads in the Solai district, Mr. Dawson condemned the first four miles of the Laikipia Road as wasted money. In his opinion there is a tendency to go for mileage.

Considering the Lower Molo Road, Mr. Dawson was of opinion that it must have cost twice as much as it ought to have. It includes a piece of

road which has been abandoned. "The circumstances under which labour was managed was

scandalous. That was two years ago." Mr. Dobbs, District Commissioner, Kericho, in a statement sub-

mitted to us, records:-"The method of road repair and maintenance in this District is wasteful and inefficient. There is no supervision at all, and a good deal of the work done by the gangs would be better

Mr. Dobbs considers that this state of affairs arises from insufficient supervision, and that a Road Foreman should be stationed at Lumbwa or Kericho.

Mr. Reynolds, Executive Engineer, Kisumu, has also brought before us the necessity for the better supervision of roads, and is of opinion that an Assistant Engineer should be stationed at Lumbwa to supervise the maintenance of roads, etc.

In considering this evidence, it must be recollected that it is not impartial, insomuch that it fails to consider the entire situation. Members of the public, with no reasonable ground for complaint as to the condition of roads, are silent.

The fact also that the Department have formed over 2,000 miles of roads, including many miles metalled, in addition to buildings, bridges, drainage, railways and other works, must not be lost sight of.

The whole of this subject has been put before us in another form by the officials of the Department. They point to the lack of staff-let alone qualified staff-available for supervision, and, as in the case of the Executive Engineer, Mombasa, the exhaustion of funds.

In our enquiry we have established that no road records or maintenance diagrams are maintained. There are no complete plans in any of the Divisions showing the roads within the Division. Many of the Executive Engineers found difficulty in informing us as to the mileages of roads in their charge.

Few roads have mile-posts or direction posts. These, we are of opinion, should be erected, as without the former, proper supervision and control of maintenance is difficult.

That in the maintenance and construction of roads there has been insufficient attention and care given to location, and that there is insufficient direction, inspection and supervision in the performance of maintenance work is established. Evidence, however, exists showing that the condition in which the roads are maintained, has of late years improved.

There are three systems of administration under which roads can be formed and maintained :-

- 1. By the P.W.D.
- 2. By District Officials and District Councils on behalf of the P.W.D.
- 3. By District Officials in Native Reserves.

From the evidence and correspondence put before us, we are of opinion that it is necessary to define a directing control designed to secure and co-ordinate effort, direct and decide details of work to be undertaken by each, and decide upon the disposition of labour available from the combined administration; as well as to allocate funds and control and record expenditure.

Recommendations designed to give effect to these proposals are included in a later section of our report.

ROAD BOARDS.

With reference to the construction and maintenance of roads, we have enquired into the working of Road Boards and their relations with the Public Works Department.

The degree of control assumed by them, both for construction and maintenance by various Road Boards, is similar—as will be seen from the following evidence:-

Major Jack, A.D.C., Trans Nzoia, stated that with the exception of the Charangani Road and all bridges, all roads in the Trans Nzoia were under the Road Board.

The funds available were £2,000. Last year they amounted to £750. The Board maintained all new roads.

Asked if at present the Road Board met the requirements of the District, Major Jack replied :-

"It does not. We cannot get supervision and have not sufficient funds to employ an Overseer.

Questioned: "You recommend the extension of a system of employing supervisors?"

He replied: -- "Yes. We cannot expect the Board itself to supervise. The majority of settlers cannot leave their farms."

Asked as to the connection between the P.W.D. and the Road Board, Major Jack replied:

"We simply must have a P.W.D. representative in the Trans Nzoia and we must have someone for building bridges."

Questioned:- "You suggest that important bridge sites should be fixed by the P.W.D. and bridges built by them to a programme and scheme that is prepared under the direction of the Road Board?".

He replied :-- "Quite. To decide priority."

Mr. C. H. Adams, Resident Commissioner, Eldoret, and ex officio Chairman of the Road Board, gave the following evidence regarding the working of the Road Board and their ultimate position relative to the P.W.D. :-

Question .- What is the extent of your district?

Answer.—From Nzoia River to 12 miles from Londiani.

Question. - In the preparation of the Estimates was your Board consulted when the P.W.D. put up their demands for next year?

Answer.—Not specifically.

Question.—For the year drawing to a close, what funds were placed at your disposal?

Answer.—About 16,000 rupees.

Question.—How often does your Board meet?

Answer. - About once every two months, only when it is necessary to call a meeting.

Question .- At your Meetings do you discuss how you are to spend money?

Answer.-We decide and then I go on with it.

Question. - What supervision have you?

Answer. - Most of it is done by me, and if working near a farm we ask them to do it.

We have one foreman under my orders, and the Road Board members look after gangs if near them.

All members have done a good deal of supervision.

Question.—Is the principle of administering the roads by District Boards satisfactory?

Answer.—I should like to see the Road Board maintain the road but all technical work to be done by the P.W.D.

Question.—For the ultimate development of the country, would you advocate the continuance of the Road Board?

 $Answer.{\longrightarrow} I$ do not think so ; if the P.W.D. were able to do it themselves.

Question.—You think that the Board should generally remain in a position to criticise the P.W.D.?

Answer.—The Board is very useful in an advisory capacity, to say what should be done, but the work should be done by technical men.

Question.—Your opinion is that the P.W.D. should be strengthened to undertake the work?

Answer.-Yes, ultimately, and responsibility.

There is too much work now in looking after Road Board work, involving a lot of clerical work even now, with vouchers and one thing and another.

Question.—You recognise the necessity of people living in the district being articulate through some channel?

Answer.-Yes, and I would strengthen the P.W.D.

Mr. P. H. Clarke, a member of the District Committee, Mombasa, stated that he had been deputed by the Committee to represent them before the Commission.

Mr. Clarke explained the constitution of the Committee, pointing out that it was a stepping-stone to a Municipal Committee.

He cited, as instances of improper performance of Public Works and inefficiency of the Department:—

The delay in completion of Piggott Market;

The dismantling of a water cart urgently required on the roads; The doubling of Corporation Road at a cost of Fls. 30,000 for a quarter of a mile;

and explained the difference of opinion between the Department and the Committee on the subject of a Town planning and Drainage scheme for Mombasa.

The latter, we recognise, are matters of a highly technical nature, and have received from the Director of Public Works most careful study based upon thorough investigation and consideration of the conditions obtaining and the interests involved. That difference of opinion may legitimately exist we recognise, as also the degree of importance to be attached to the arguments, communal, economic, and hygienic, advanced for and against alternative proposals.

The settlement in such cases, where one authority fails to convince the other, can best be effected by the mediation of a third party, whose decision would be mutually respected.

Execution of Public Works by Contract.

We have in the course of our enquiry, recorded evidence from seven Contractors (five European and 2 Indians) and heard the views of the representatives of the Chamber of Commerce, Nairobi.

The evidence of these witnesses was unanimous that they would only accept contracts within specific areas, which in some instances were very restricted.

All desired that tenders should be invited and a plan and full Bill of quantities furnished, and that payment should be made upon actual occupied on general work. All were well, if not fully,

Inconvenience was occasioned by the method of payment to Contractors by the Department in cash of all denominations.

Recently the Department invited Contractors willing to undertake work for them to submit their names. 33 replies were received—13 European and 20 Indian.

Later a further letter was issued to firms submitting their names, asking for evidence of proof of their ability to undertake work. To this enquiry six replies were received, ample time to enable replies to come forward having elapsed.

It thus appears that the number of possible Contractors in the country is limited to 4 Europeans and 2 Indians. Other contractors may come forward or be attracted to the country, but for the present the number and resources of contracting firms is distinctly restricted.

Causes which further reduce the probability of these Contractors being a real and reliable agency for the execution of Public works, are the great amount of general work obtainable by them, and the limited area in which they will operate.

There is a very general desire on the part of Executive Officers in the Department that as much work as possible should be done under the contract system, and we agree that the policy of the Department should aim at the eventual execution of all Departmental work on the contract system, and that to this end, every effort should be made to encourage development of public contracting in the Colony.

We have established that the available contracting agencies are only able to undertake a fraction of the operations required in the execution of public works in the Colony. The necessity, therefore, for the maintenance of an executive establishment, sufficient to execute all requirements for the provision and maintenance of Public works, must be accepted.

Witnesses before us have advanced the opinion that the grounds as to which specific work should be done by Contractors or alternatively by the P.W.D., should be decided solely on the relative amounts at which each party estimate they could execute it for, and hold that in order to permit of a correct comparison being made of the two estimates, the P.W.D. should include a sum of 10% on all'imported stores required, to cover Customs Duty, and a sum for overhead charges.

The same witnesses however recognise and accept the necessity—in the public interests—of the Public Works Department's executive organisation to undertake the many duties which, owing to their very nature or the locality in which their performance is necessary, cannot be undertaken with profit by private concerns.

The necessity for the retention by the State of the services of professional and skilled technical officers, to safeguard and be responsible for the interests of the community, cannot be denied. The cost therefore of the establishment of the Department, administrative and executive, with its auxiliary branches, must in the public interest be incurred.

Any work, therefore, which the Departmental organisation can undertake without increased expenditure should not, for that reason, be burdened for fair comparative reasons with a part of an expenditure actually incurred for quite separate and different services, and the very actually incurred for quite separate and different services, and the very fact that they can be undertaken by an existing organisation, represents a distinct saving of public money.

Any increase of expenditure for employment of further staff or for the use of property required to undertake any work, would however be a correct charge against it under the head of "Works Establishment" or "Plant."

In comparing Private tenders with Departmental Estimates, we are of opinion that consideration should be made of the amount of Customs Duty payable by the Public on imported materials required to be used in the execution of the works tendered for, and also the difference in Railway freights charged—if an.

CONCLUSIONS AND RECOMMENDATIONS.

We have devoted much time to the consideration of the execution of Public Works in the Colony and Protectorate in its branches and divisions and dependent auxiliary agencies.

It will be abundantly clear from our preceding remarks that the problem is complicated, owing to the transitionary period and state in which the Colony now is.

At its inauguration the Department was faced with pioneer conditions requiring pioneer methods; as time passed, settled conditions developed, but these are even now, far from predominating.

The growth of the Public Works Department, parallel to the development of the country, shows a great similarity. It is now partly pioneer, partly settled, for example:—

The Accounting system and Stores organisation are primitive, while the results and application of the most recent hydraulic research are available, as also scientific methods of Town Planning and advice in the framing of complicated Ordinances of highly technical natures.

The problem before us was therefore to collect evidence as to the existing Departmental organisation—administrative and executive—and evidence from the public referring to the services rendered, and in ascertaining in what degree the Department's operations were economical and efficient, and in recommending to Your Excellency such steps as we deem are necessary for improving the organisation to ensure economy and efficiency.

In the preceding section of the Report, we have endeavoured to analyse the evidence obtained. We will now sum up and record our conclusions derived therefrom, recording them in similar order to that followed in the preceding section of the Report.

SCOPE OF DEPARTMENT.

The scope of the activities of the Department cover the performance of all duties usually required from such a Department.

There has been a distinct tendency to specialise at the expense of the general activities of the Department. This policy has not tended to expand the capacity of the Department to perform its functions. On the other hand it has exercised a cramping influence on the Department and its activities.

That there has been increasing intensity in the activities of the Department is clear, and that the intensity will further increase with the development of the country is certain.

The development and extension of the Executive branch of the Department to meet these demands upon it has not, we are of opinion, been effected. The desired-for relief has been sought in overloading the central administration by the creation of special branches and the appointment of specialists, until the administration is unable to cope expeditiously with the business of the Department, resulting in the disorganisation and the failure of the Department to economically and efficiently perform its functions.

(A) ADMINISTRATION.

"Centralisation carried to an extreme," best describes the administrative organisation at Headquarters of the Department, centered in the person of the Director, and in Divisions in the persons of the Executive Engineers.

Looking to the very manifold extra-Departmental duties of the Director, it is inconceivable that he can give the necescary time and attention required for the successful and thorough performance of the duties necessary for the administration of the Department which he retains under his direct control.

This very failure to utilise to the fullest extent and in the best possible manner the services of officials by devolving upon them responsibility for the performance of specific duties thoroughly, is a cause of loss and inefficiency.

The Deputy Director is merely employed as a clerk, while Executive Engineers—through the non-transference of all stores and accounts matters to the heads and subordinates of these branches—have to occupy themselves keeping accounts and maintaining independent store Depots, and are thereby unable to give all their time to the study of road alignments and their survey, and enforcing a thorough supervision to ensure the satisfactory maintenance of roads and other public works.

Assistant Engineers are attached to Executive Engineers and not permitted to assume any direct duties or responsibilities.

The Specialists at Head Office, in water-tight compartments, plod on as though they were independent departments. The consideration of a Drainage scheme or the necessity for a plan of a Township, leads at once to the establishment of other special offices.

In the early days of a small Department this system of administration may have been possible, but the needs of the country have outgrown it long ago. It is an anachronism. We cannot emphasise too strongly that the whole of the activities of the Department have been paralysed by the extraordinary degree to which centralisation of authority and duties has been carried.

Our proposals for the entire destruction of this benumbing system and policy, are contained in the following section of this Report.

The position of second Administrative Officer in the Department is anomalous. No use is made of the professional and administrative qualifications which the nature and description of the office tacitly leads to the supposition he possesses.

It should be a coveted Departmental office, carrying wide and great responsibilities, administrative and professional, which—performed with distinction—would win for the Department admiration and respect.

We rightly conclude that the functions of the Deputy Director of Public Works have absolutely passed into abeyance under the system of administration now obtaining, and in the person of the occupant of the office, the services of a highly paid official are wasted to the community.

HYDRAULIC ENGINEER.

We have given the duties of, and necessity for this office very careful consideration.

Under the administrative policy of "one man one job" the office was assuredly a necessity. The logical development of this policy is well illustrated and exemplified here.

The specialist is obtained. He provides himself with a clerk and Assistant. The segregation of the Branch is established.

For the execution of the duties of this Branch of the Department, Assistant Engineer specialists are required, also artizans and workmen.

We do not deny the necessity for the performance of the duties, but we decry their exaggeration, and doubt—in view of the necessity for strict economy—the great urgency for their entire immediate performance, and we feel assured that the duties could be more comprehensively and economically performed if they became, under regulations and instructions, part of the every-day duties of Engineers charged with the performance of all Departmental Engineering duties within specific

It might conceivably meet the public convenience if Water permits were obtainable from Executive Engineers, while results of observations requiring collaboration would be transmitted to a Deputy Director who, under a new system of administration, would with other duties be responsible for their proper record and use.

We therefore recommend that this Branch be abolished.

The funds so liberated, we hold, would with other economies to be suggested, go far to strengthen the ranks of Assistant Engineers who, in addition to receiving observations of flow over weirs, would be able also to enforce proper supervision of road maintenance, proper surveys for and location of road alignments, and perform generally the duties of Engineer officers of the Department within specific areas.

We make proposals later for an alternative method for the performance of the duties now being carried out by the Hydraulic Engineer and his staff.

ELECTRICAL ENGINEER.

The duties of the Electrical Engineer are admittedly light. The appointment is however statutorily necessary.

We propose to combine this office with that of a Mechanical Engineer, under whose charge will be united the Mechanical Transport, Workshops, and control and inspection of all machinery of the Depart-

We hope thereby to reduce the incidence of many individual and separate organisations and thereby reduce staff, clerical staff and personnel, and effect—by combining workshops—reductions in expenditure on stores, general oncost, and supervision charges, and enforce a closer supervision on Motor-transport expenditure.

GOVERNMENT ARCHITECT.

This is an important office and we are forced to the conclusion that full use is not made of the services of the official holding the appointment

We are of opinion that he should be the Chief Building Administrative officer of the Department. He should prepare full designs for all buildings, in so far as necessary in collaboration with the Executive Engineers. He should be responsible for the preparation of standard and special building specifications. He should draw up and prepare programmes for all building schemes and projects, and prepare all estimates for the Budget for new buildings and maintenance of existing buildings.

As explained later, we hold that all expenditure to be incurred by the agency of the Public Works Department for their own and other Departments, should be included in the Public Works Department Budget.

The Government Architect would therefore be responsible for the preparation of estimates for all Government buildings. His services should be secured on all Committees charged with deciding questions relating to building operations, selection of sites and similar duties.

The Drawing Office, in which all Architectural and Engineering drawings would be prepared, should be under his sole and direct charge and control.

The Quantity Surveyor, as part of the Drawing Office staff, should work entirely and solely under his orders and direction, and the Government Architect should be responsible for the full and complete preparation of all plans and drawings, and see that all building plans and others exhibit, or are accompanied by, full schedules and Bills of Quantities.

He should be responsible for the maintenance of Divisional and Head Office rate books, which should be compiled under his orders and directions by the Quantity Surveyor from information supplied by the Costs section of the Accounts office, and from analyses prepared by the Quantity Surveyor.

The Government Architect should also be responsible for the maintenance of a building record of all house and building property belonging to the Government, showing full particulars of its first cost and costs of additions and important alterations, and the expenditure incurred on it annually for minor repairs and upkeep.

A key plan and a book of reference explaining the position of all such buildings, the purpose required for or used for, should be prepared.

He should be responsible for, and prepare all contract documents for building work, and check and pass his remarks upon all tenders connected with building work.

The actual construction of buildings, as explained later, would be done under the direction and control of Executive or Assistant Engineers, but during construction they should be visited and reported upon by the Government Architect, so as to ensure that his designs and intentions are actually given effect to.

To undertake these duties, the staff of the Government Architect might possibly have to be strengthened, but this could probably be effected by the combination with it of the services and staff of the Quantity Surveyor.

QUANTITY SURVEYOR.

We recognise that the duties of this office have hardly been performed for long.

The Government Architect and Executive Engineers alike complained of the absence of any bills of quantities, and the absence of correct bills of quantities has done much to prejudice the P.W.D. work in the eyes of Contractors.

We examined one such document, and considered it a very unfinished and incomplete production, and one which does not in our opinion guard the public interest sufficiently.

The Quantity Surveyor, as explained, should be on the staff working under the orders of the Gvernment Architect and in close touch with the Drawing Office and its staff. He, under the control of the Government Architect, should prepare all estimates for new and repair work, and only on a full and complete estimate, should the Director or the Deputy Director sanction the execution of any new work or repair exceeding the sum of Fls. 50.

The Quantity Surveyor should also make and maintain, in collaboration with Executive Engineers, a Divisonal rate book.

HEAD OFFICE CLERICAL STAFF.

The clerical work at Head Office appears to be satisfactorily carried out. We are of opinion, however, that the Central Filing system should be adopted, and that all clerical work for all branches of the Head Office should be performed by a central clerical office under the Office Superintendent, who would also be responsible for the receipt, distribution and despatch of all correspondence, and file and maintain all records.

ENGINEERING SPECIAL DUTIES.

We consider that no such special appointments should be made in future.

All Engineering schemes and projects except those involving an exceptional amount of investigation and study, and the preparation of many plans and estimates, should be prepared by the Executive Engineer in whose Division the work happens.

In the case of the project of exceptional magnitude, additional staff would be placed at the disposal of the Executive Engineer. But in every instance the Executive Engineer would be responsible for putting up the scheme complete, based upon instructions as to its scope and purpose, etc., previously issued by the Director or Deputy Director for guidance.

STORES.

In a previous section of this Report, we have dealt fully with the activities of the Stores Branch. It only remains to record our conclusions formed thereon.

We recommend that all sub-Stores, their stock, staff and control, be transferred completely to the control of the Chief Storekeeper, and be included and form part of the Stores organisation, to be operated and directed as one branch of the Department.

Stock carried by the sub-storekeepers would be held as a sub-store and be included in the returns and records of the Chief Storekeeper. To ensure this, sub-storekeepers would submit monthly statements to the Chief Storekeeper, showing stock held by them, and all financial and other returns for main and sub-stores will be prepared and submitted to the Chief Accountant. by the Chief Storekeeper.

Sub-storekeepers will continue to issue under requisition. They will draw their stocks from the Chief Storekeeper, or if he directs, obtain them by transfer from other sub-stores.

Sub-storekeepers shall only be under the Executive Engineers for discipline, and without the sanction of the Chief Storekeeper they should not be permitted to make any local purchases.

SUPPLY OF STORES.

There are two sources from which the Department, obtain their supply:—

(a) Indent on Crown Agents.

(b) Local purchases.

From the evidence before us, it is established that purchase of plant, material and stores outwith the Colony through the Crown Agents, is effected at a less cost than by local purchase, and we recommend that the practice of purchase through the Crown Agents continues, subject to the following recommendations.

On the other hand we recognise that stores and materials required which can be supplied in the country and are of a quality not less than that necessary for the purpose for which they are required, and are priced at not more than the cost of a similar article imported and which can be obtained in the quantity required, should be purchased locally.

For the purchase of local stores the Department should quarterly advertise their requirements and invite tenders for their supply. Should it be found that the rates at which supplies are offered at, are greater than the rates at which the same articles can be imported for by the Department, tenders should not be accepted.

In the case of acceptance, the names of the firms whose tenders are accepted, should be announced in the public Press. All tenders should be submitted to a board for consideration and their recommendations.

We have scrutinised a statement showing details of articles purchased without tender locally, and are surprised at the size of the transactions.

We consider that the purchase of stores, otherwise than by publicly invited tenders, should be only permitted under the most exceptional circumstances, and then only on a proper "authority to purchase" issued by the Director, on which is set forth the reasons necessitating the purchase.

To control the amount of stock held, reduce the number of varieties stocked, and permit of standardising articles used in the Department and reduce clerical work, we recommend that a priced Vocabulary of Stores be issued. This document would lay down the maximum and minimum stocks to be held, and officials of the Department would be instructed to confine their requirements to articles stocked.

Half-yearly, for the purpose of revising the Vocabulary and preparing indents for recouping the stocks. a Board would be convened which would prepare and draw up indents for the supply of stores required.

What could be purchased locally on the conditions outlined above, would be so obtained, the balance being indented for on the Crown-Agents.

We cannot emphasise too strongly that a stop should be put to indiscriminate local purchase of stores.

Loss and Depreciation of Stores.

We recommend that the Depreciation and Loss of all stores be accounted for by the establishment of a Profit and Loss Account, to be maintained by the Chief Storekeeper.

We have, by recommending the introduction of a Vocabulary of Stores and the regulation of local purchase, and by permitting only half-yearly indents on the Crown Agents, established—so far as we are able—safeguards for the prevention of the accumulation of dead stock.

We recommend that every step be taken to reduce dead stock held, by the circulation to the Uganda Railway and other departments of a list showing stock available for transfer or sale, and also that a Survey Board be convened to ascertain what part of it can be disposed of by sale by public auction.

FURNITURE.

All furniture at present in charge of Executive Engineers should be made over to the Stores Department, including sub-stores, and henceforth be accounted for and controlled by the Stores Department.

VERIFICATION OF STOCK.

We recommend that all stock be verified once a year, and a certificate as to the actual balance in stock, at date of verification, given above the signature of the officer appointed to make the verification.

SALE AND DISPOSAL OF STORES.

. We have enquired carefully into the rules under which stock is sold to Government officials and members of the public, and have established that no rules on the subject exist. The sale of stores to Government officials and the public is made on the unsatisfactory foundations of "use and wont."

We recommend that the sale of stores to Government officials and the public be prohibited, except on the recommendation of a Survey Board specially convened, and on the confirmation of their recommendations to do so by the Director.

STAFF.

We are of opinion that the services of an Assistant Storekeeper should be secured at once. In view, however, of our recommendation for amalgamating the offices of Chief Storekeeper and Coast Agent, we defer our recommendations regarding other staff.

STORES OF OTHER DEPARTMENTS.

As the Chief Storekeeper has also to meet the demands of all departments of the Colonial Government excepting the Uganda Railway, there is little use, we feel, in rectifying the practice and procedure respecting the purchase, costing, issue and disposal of P.W.D. stores, if the conditions under which transactions connected with the stores of other departments are not defined and regulated also.

MOTOR TRANSPORT.

We are of opinion that the entire procedure regulating the control, expenditure on, and maintenance of Government mechanical transport, requires revision. Under the present regulations, charges for all transport are buried in the Estimates of each department. There is, therefore, no possibility of ascertaining the total expenditure from the departmental records, incurred in repairs, renewals, spares and the supply of running stores. There can, therefore, be no check on the expenditure incurred, nor can any opinion be formed as to whether the service is wasteful or not.

The Log-books are maintained, but it is established that no use is made of the information contained therein, nor is any check made between the stores as acknowledged in the books with the stores actually issued

We recommend that a branch be established in the Public Works Department for dealing with all mechanical, electrical and motor engineering, under the charge of the present Acting Electrical Engineer, and that at Nairobi all workshops, mechanical departments and motors, be combined under his charge.

. It would permit, we submit, of a reduction in establishment and a more close control over expenditure and supervision of work done.

All Government cars would be transferred to this new branch, and provision for all funds for Mechanical transport would be made under one Budget vote, and the new branch would be responsible for its economic use, and account fully and satisfactorily for its expenditure, showing the expenditure incurred on each car under two heads:—

- (1) Repair and maintenance.
- (2) Running costs.

It would also be required to control the issue of stores and be responsible for their economical use.

Local repair depots would be under the control of Executive Engineers in the absence of mechanics, and all returns would be submitted to the Mechanical and Electrical Engineer for inclusion in the central accounts.

We consider that in view of the certainty of the expansion of the Motor Transport service, early steps should be taken to control this expenditure and regulate the issue of stores and supervise the condition of the cars.

ANIMAL TRANSPORT.

In towns and their vicinity, Mechanical Transport should be substituted for animal transport, and the Animal Transport branch abolished.

Included with this, we recommend that the provision of a Railway siding to the Public Works Department Yard, Nairobi, be considered.

Animal transport required in the Districts would, as at present, remain under the control of Executive Engineers.

P.W.D. TRAINING DEPOT.

This Branch is well organized and doing work of importance not only for the Department, but for the country, by increasing the number of a class of artizans for whose services there is a great demand.

We are of opinion that the further extension of the Depot so that instruction in other trades may be afforded to Africans, should receive consideration.

(B) EXECUTIVE.

Engineering.

The system under which the execution of all public works is carried out by Engineers of the Department is based upon territorial distribution, and is, we are of opinion, a sound one.

The system is elastic, and as the work of the Department increases with the development of the country, it permits of the creation of further divisions by a simple process of partition.

The policy we recommend is the strengthening of the position of Executive Engineers until complete devolution upon them of all Engineering duties within their districts is established.

In order that they may have every opportunity of giving their full time and attention to purely engineering matters we have recommended that all duties in connection with the accounts, stores and furniture be taken from them.

Further developing the principle of territorial control, we recommend that the Division should be divided into three sub-divisions, one—small—in charge of the Executive Engineer, and two in charge of assistant Engineers.

Ordinarily, sub-divisions would be in charge of Assistant Engineers, but under exceptional circumstances it would be permissible for a junior official to act as Sub-divisional officer.

The Sub-divisional officers would be responsible for the proper performance of all engineering work within their sub-divisions, under the direction and control of Executive Engineers. They would be personally responsible through the Executive Engineer and the Director, to Government for the good, proper and efficient execution of all matters of the Department within their sub-divisions.

The Sub-divisions in charge of the Executive Engineer will be smaller, relative to the work to be performed, than those of the Assistant Engineers.

Sub-divisions will be further divided into sections, each in charge of an Overseer, responsible to the Assistant Engineer or Executive Engineer as the case might be.

Roads and other work within the section would be divided into subsections, so that the responsibility for works on every yard of the country would repose in some individual, and it would be his duty, through and with the co-operation of higher officials, to effect repairs and so direct the work and labour, that all roads and public works shall be maintained in a good and reasonable state with economy.

It is the duty of the Executive Engineers and Assistant Engineers, by constant and unremitting inspection, instruction and advice, to secure that the supervising staff shall obtain efficient results from their labour, and so ensure to the community the provision of good roads and other services.

The absence of subordinates capable of survey, preparation of plans, and able to make measurements and estimates, is most surprising.

We consider it essential to the proper execution of works that they should be carried out to sanctioned plans, accompanied by schedules of quantities and estimates, and that on completion they should be measured up and the final measurement and the estimate compared; all large discrepancies being the subject of close enquiry.

The final measurement should invariably be done by the Assistant Engineer or Executive Engineer, but the original estimate may be prepared by the Subordinate and checked and certified by the Engineer.

That the staff is inadequate, not so much on account of the actual amount of work, but by reason of its distribution, we agree.

We also suggest that a process of eliminating men without proper qualifications and replacing them by more qualified men be put into operation and maintained, until a really efficient staff is collected.

The recommendation of Mr. Nicholson, Executive Engineer, Naivasha, quoted on Page 38, that advertisement should be made in the Colonies for men to fill the position of Road Foremen, is deserving of attention.

We have not been able to give sufficient time to investigate in detail what additional plant is required by Eexcutive Engineers. Undoubtedly some road rollers and water carts are required, also more machine tools and extension of Divisional workshops.

Every encouragement and facility should be offered to officials to travel and move about their Divisions, Sub-divisions and Works, as it is only by constant and tireless inspection that the best results can be obtained.

We consider that if the scheme we propose later for the re-organization of the Department is acted upon, that the Director will have an opportunity of frequent conferences with all Executive Engineers and Assistant Engineers, and of personally inspecting all works frequently and regularly, and that this is most necessary.

We recommend that Type drawings of Bridges, Road sections and other works which permit adoption of standard designs suitable under certain conditions, be prepared early and circulated throughout the Department with instructions regarding their application.

During the year preceding their inclusion in the Budget, complete surveys, plans, designs and estimates of all proposed works should be made. In the absence of properly prepared estimates, the execution of any work, new or maintenance, should not receive sanction.

Mombasa Water Supply.

The evidence given before us clearly establishes that owing to inadequate supervision and the absence of sufficient meters, there is a serious waste of water and loss of revenue.

We are of opinion that adequate and qualified supervision should be engaged upon the works, both for the detection of waste and to ensure proper and efficient maintenance.

We are further of opinion that a proper system of Accounting should be introduced, so as to exhibit the true financial position of the concern and ascertain how far the water used is accounted for.

(C) ACCOUNTS.

We consider only by an entire change of system and organization can any improvement be made in the present system of accountancy in the Public Works Department.

The present system as it exists, is apparently intended only to satisfy the requirements of the Treasury and Audit Departments, and even at that, that it is wasteful of time is shown by the fact that the staff are hardpressed in endeavouring to keep the accounts up-to-date, in spite of which they are now four months in arrears.

We can only recommend the total abolition of this system and its substitution by a proved and tried sysem such as has been developed in the Public Works Department of some country of wider experience and longer continuance than that of this Colony.

The first necessity is that the Budget Estimates as prepared by the Department should be based upon thoroughly well considered plans and methods of construction and maintenance, and detailed estimates.

The consideration of new works should take place the year preceding their inclusion in the Budget, and in the case of large works even earlier.

For new Road projects and any big scheme, a programme extending over 3 or 5 years should be drawn up and the financial arrangements required for each year of the programme ascertained.

We recommend that at the commencement of the financial year, the funds allocated to the Department be available immediately for expenditure, and the One-line Vote procedure abandoned.

The next requirement is the introduction of a system of Departmental sanctions based upon detailed estimates; the maintenance of accurate costs against these estimates, and the exhibition of the total cost as against the original estimate—all under sub-heads of work, and finally the actual expenditure as against Budget votes should be exhibited in more detail than is now attempted. These proposals apply equally to work done by Contract or by the Department.

In order to ensure thorough control of funds, we recommend that all funds disbursed by the Department, whether on its own behalf or for the work of any other Department, be allocated through the Public Works Department Vote.

The impossibility of maintaining financial and operative control of the Mechanical Transport Branch is due to the expenditure on this service being buried in the Votes of many Departments. We therefore recommend that the Mechanical Transport funds be placed under the vote of the Department, and the Mechanical Transport Branch organized so as to maintain full and accurate working and maintenance costs.

We have previously reported the absence of Contractors' Ledgers. This form of account should be introduced at once.

We have also shown that the present system whereby accounts are compiled by Accounts clerks under the direction of Executive Engineers should be abandoned and the whole of the Accounts work done under the direction and control of the Chief Accountant, Accounts Clerks being posted at Divisional Headquarters.

These Accountants will furnish all financial details to the Executive Engineers, and put before them full and accurate statements of their expenditure against sanctioned Departmental Estimates and maintain manufacturing and cost accounts so as to place the Executive Engineer in a position to ensure that works are executed without waste and within sanction, and that the whole of the work sanctioned is actually executed.

Under this scheme of re-organization, we recommend the Chief Accountant would have a status equal to that of a Deputy Director.

ROADS, LOCAL AND DEPARTMENTAL CONTROL, AND

ALLOCATION OF FUNDS.

We find that, considering the conditions obtaining in the country, the Public Works Department has developed throughout the country a reasonable system of roads, designed to meet the traffic conditions obtaining. We also find that the condition of the roads is improving.

We are, however, of opinion that more study and consideration should be given to the alignment of roads, and that they be properly located.

For the proper maintenance of roads more inspection by officials is required, and closer supervision of labour, which can best be assured by the re-organization of the Engineer Branch as recommended later.

The provision and construction of roads in the Colony is effected under three distinct organizations:—

- 1. Public Works Department.
- 2. Road Boards.
- 3. Administrative Officials in Native Reserves.

We hold that the Public Works Department should be eventually the sole authority charged with the construction and maintenance of roads.

Under present conditions, we recognise the assistance afforded and work done by the Road Boards as valuable. We recommend, however, that all alignment of roads, construction of bridges, and the supervision of their construction and maintenance, falling within the areas of which the Road Boards are the road authority, should be done and supplied by the Public Works Department, so as to secure in the first instance good alignment, proper bridges, and skilled supervision.

Similarly in Native Reserves, we recommend that the decision as to what roads should be constructed, their alignment and the construction of bridges thereon, rest solely with the Public Works Department.

It has been represented to us that Senior Commissioners consider that funds for roads are not allocated with promptness or in sufficient amounts for the purposes of roads in the Native Reserves. To obviate contention arising on this subject, we recommend that a Vote appears in the Public Works Department Budget described as:—
"For Provision and Maintenance of Roads in Native Reserves," and that a definite sum be allocated for this purpose in the Colonial Budget, this estimate being based upon a detailed estimate prepared by District Commissioners and Executive Engineers in consultation.

CONTRACTORS.

Recognising the insufficiency of Contracting agents in the Colony, we are of opinion that the Public Works Department must in the mean-time maintain their executive at a strength which permits of their undertaking all the work likely to be required from it.

On the other hand, we are of opinion that the Department should do all in its power to encourage the expansion of public contracting in the Colony, aiming ultimately at the execution of all work of the Department through these agents.

OFFICE ACCOMMODATION.

The accommodation afforded in the existing Public Works Department Office building is, we consider, inadequate.

The office of the Chief Accountant is crowded and insufficient for the needs of the Branch; while conditions prevailing in the Government Architect's office are also not conducive to the best work being obtained from his staff.

Some improvement of conditions might be obtained by a redistribution of offices and the addition of a small extension for the accommodation of the Chief Accountant and his staff.

PROPOSALS FOR THE RE-ORGANIZA-TION OF THE PUBLIC WORKS DEPARTMENT.

In our Conclusions and Recommendations we have pointed out that the present organisation and the methods of the Department are such that its operations are neither efficiently nor economically performed. In short, the best results are not obtained from the funds and resources placed at the disposal of the Director, nor is sufficient control over the disbursement and expenditure of funds maintained.

The necessity for the re-organisation of the Department is imperative—the re-organisation being on lines calculated to devolve responsibility and authority and ensure a closer and more responsible system of direction and control, by placing specific duties on each official of the Department and fixing upon each the responsibility for the proper, punctual and efficient performance of the duties of the office he holds.

Further, there must be ensured by thorough supervision, the elimination—so far as possible—of waste of materials and time, and careful consideration ensured, of ways and means by which the best methods may be adopted for the execution of all works.

It is equally imperative that the funds of the Department are controlled and their expenditure recorded so as to exhibit the exact degree of relative efficiency and economy with which each work is actually carried out and service maintained.

Under such a scheme we shall outline the duties, the performance of which each official should be personally responsible for.

First, we recommend that the Director of Public Works should transfer to Deputies a very large part of the duties personally performed by himself. The Director, being thus relieved of many routine and executive duties, would be free, after attendance on the Legislative Council and the many Committees of which he is a member, to devote the necessary time to the administration, control and working of his Department.

He should be able to direct the administration of his Department and to regulate the working of it so as to obtain from each official the complete performance of the duties of his office, and by consultation with technical officers ensure the adaptation of the best Engineering practice, and in conference with his Financial officer, inform himself with what degree of economy the works and services of the Department are executed and performed.

The duties of the Director of Public Works will therefore be Legislative, Administrative and Consultative. The actual performance of duties Administrative, Executive and Financial would lie in the province of two Deputy Directors and the Financial officer of the Department, these officers being termed respectively:— Deputy Director Administration, Deputy Director Roads and Works, and Chief Accountant, Public Works Department.

Under the Deputy Director, Administration, will come the control and direction of all Head Office branches, such as Stores, Architectural, Mechanical and Electrical Engineering, Public Works Department Training Depot, Hydraulic Engineering, if this branch be retained. He will also personally direct and attend to all questions of establishment and staff.

He shall also prepare all Budget estimates, based upon full and complete detailed estimates, and generally ensure that proper statistics are obtained and circulated in the Department for the information and guidance of the staff, also that proper Type Plans and specifications, and Technical instructions are maintained in the Department.

The Deputy Director Administration will also be responsible for the preparation of all Building, Electrical and Mechanical Engineering

projects.

The Deputy Director, Roads and Works, will be charged with the duties of maintaining and constructing all roads, buildings and works whatever, and the preparation of all schemes for new roads, Town Planning schemes, and works other than those of the nature of Buildings and Mechanical and Electrical Engineering, and in the event of the Hydraulic branch not being maintained, with Hydraulic schemes. The actual execution and construction of all works will be under his control and direction—whether executed Departmentally or by Contract—with the executive staff of the Department acting under his orders.

The Chief Accountant will be responsible for the introduction and maintenance of a sound and efficient system of accountancy in the Department. He shall also be the financial adviser to the Director of Public Works and maintain all accounts, prepare the necessary statistical returns required, and be responsible for all disbursements and the custody of cash.

He shall be assisted by a staff which shall include Divisional Accountants who shall, under his direction, perform at the Headquarters of Executive Engineers, all duties of an Accounting nature, and advise the Executive Engineers on all financial and accounting matters and supply Executive Engineers with information and statistics necessary for the proper control and supervision of their works.

On the attached diagram the channels through which responsibility, control and work will devolve on the entire staff of the Department are shown.

Considering the diagram, we will now briefly outline the duties to be performed by each officer, and emphasise that incumbents of offices must be personally and solely responsible for the performance of the duties of their office, also that upon the degree of thoroughness with which each perform his duties, will depend the efficiency of the Department and the degree to which its services contribute to the convenience, well-being and prosperity of the community.

DUTIES OF THE DIRECTOR.

Legislative, Administrative and Consultative, his personal staff consisting of one Confidential clerk and one Personal Assistant, if and when required.

DEPUTY DIRECTOR, ADMINISTRATION.

The execution and performance of all duties regulating and administering the establishment of the Department.

The direction of all matters financial and statistical, administration of Government regulations, compilation of annual estimates, preparation of Annual Report. All legal matters, administration of stores, direction of transportation, preparation of all building and power projects, etc., as outlined previously.

DUTIES OF DEPUTY DIRECTOR, ROADS AND WORKS.

Maintenance and Construction of all roads and all works whatever, and the preparation of road projects, Town planning schemes, Water Control, and all projects excepting those connected with Building and Power schemes.

CHIEF ACCOUNTANT.

Control and direction of all matters usually included in the Accounts Department, including compilation of all statistics of expenditure and cost the control and expenditure of authorised funds, departmental Audit, Cash, preparation of returns required, the scrutiny of all estimates and veto on all works carried out without sanction or estimate, scrutiny of all completion reports of works and authority to call for explanation.

OFFICE SUPERINTENDENT.

Receipt, registration and distribution of all correspondence, the execution of all clerical duties, filing and records, printing, and the introduction of latest methods of central filing and central clerical office systems.

The general clerical duties for the Head Office would be performed by the Office Superintendent and his staff, and would be solely and entirely under the control of the Office Superintendent, who would be responsible to the Deputy Director, Administration, only.

Immediately under the direction and control of the Deputy Director, Administration, are the following branches:—

Mechanical and Electrical Engineering.
Stores Department.
Government Architect.
P.W.D. Training Depot
and

Hydraulic Branch, if maintained.

In charge of the Mechanical and Electrical Engineer we propose to place the Mechanical Transport Branch and all workshops, which would be combined, and the responsibility for the proper maintenance and employment of all plant and machinery in the Department. He would inspect and design the largest for all workshops applications.

would inspect and design the layout for all workshops employing machine tools and power plant in the Department, and be responsible for the economic administration of these services.

Under the Chief Storekeeper would come the Mombasa Stores and all sub-stores, also the charge of all Government furniture, accounting for the same financially and numerically, and their safe custody.

The Government Architect would be Chief Building Officer, under his control and direction being the Quantity Surveyor and Drawing Office, Engineering and Architectural, and the custody of all plans. He would be responsible for the preparation of all building projects including plans, bills of quantities and estimates.

The control and responsibility for the maintenance and construction of all works whatever which lie in the province of the Deputy Director, Roads and Works, would devolve upon the Engineering staff under the following division of duty:—

The Executive Engineer in charge of a division.

Each Division divided for control and execution of work into three sub-divisions, one under the Executive Engineer and two under Assistant Engineers.

These sub-divisions would be further divided into Sections, in charge of Overseers, and into sub-sections under Foremen.

Roads and Works would be further divided into Maintenance sections, each having the labour required for systematic maintenance. These responsibilities and duties would be fixed and assigned.

The Accountant would deal direct in Accounts matters with the Finance Department on behalf of the Director of Public Works, and direct with the Director of Public Works only as his Financial Adviser, reporting to him the economical or uneconomical execution of works or services. He would also deal direct with both Deputy Directors.

To define the duties of all officials and to lay down rules and regulations under which these duties would be performed, we recommend the preparation and circulation throughout the Department of a Public

Finally, it is our considered opinion that to give effect to and carry out this scheme of re-organisation there are no officers in the Department possessed of the necessary knowledge of administrative organisation, both in principle and detail, gained in the service of a similar Department of wider and greater experience than that of this Colony. Therefore, in the formulation and introduction of any scheme for giving to the Public Works Department an establishment and constitution which will ensure the institution of an efficient organisation, the necessity for placing the Department's administration in charge of officials possessed of a wide and sound knowledge of administration, Departmental and Technical, gained from experience and training in a modernly organised and highly developed and efficient service, is imperative.

We are of opinion that the selection of an officer to the position of Director should be based more upon his Administrative ability than his professional qualifications, and that in filling the position this principle should be recognised in future.

We recommend that the Acting Deputy Director reverts to his substantive rank, that the services of the Chief Accountant be transferred to another Department, and that the services of competent and experienced officers be obtained to fill the positions of Deputy Director, Administration, Deputy Director Roads and Works and Chief Accountant, and that these officers be directed to prepare and submit a scheme and Code under which the Department will function, based upon the conclusions and recommendations of this Report.

Later they should be charged to introduce such scheme and Code, and re-organise the Department thereon within a definite period, with power to recommend that the services of any official who does not show, within a reasonable period, complete knowledge and application of the Rules and Regulations to be introduced, be dispensed with.

FORMATION OF DEPARTMENTAL TIMBER CONCERN.

The Director has placed before us for our consideration a scheme for exploiting the Government Forests and the erection of a Milling plant for the production of the timber required by his Department.

We have carefully considered this scheme and heard evidence upon the subject.

We are of opinion that the cost of timber as put on the market by private concerns is governed by two factors:—

First; the cost of imported varieties of timber.

Second; the demand.

We are of opinion that the cost of imported timber will not materially decline for long, and should the Public Works Department come on the market as large buyers of local timber, the demand will increase and the price of local timber rise.

Although we do not agree with the estimate of cost of production put before us, we are of opinion that under the scheme now being considered, timber could be produced at a cost less than the market price of local timber.

We have heard evidence from the representatives of private concerns and also experts from the Public Works Department, but we find that there is not sufficient evidence to establish that artificial methods of seasoning varieties of local timber will produce timber, the use of which will be attended with less cost than the use of imported timber, especially if the latter is purchased in large quantities at point of production and shipped direct.

Until the effect of artificially seasoning local timber is established, we are unable to make any recommendation. We propose that use be made of certain varieties of local timber and imported timber, each under the conditions and circumstances which make its employment economical and safe.

"RUSHTON" SCHEME.

Under directions from Your Excellency, for our information we have been supplied with copies of a Memorandum of Mr. H. H. Rushton, recently Acting Treasurer of the Colony, on the subject of the Reorganisation of the control and the management of Lines of Communication.

Under this Scheme, it is proposed to centralise the control of Railways, Public Works, Posts and Telegraph, Port and Marine, and Transport, under the administration of a Directorate in the person of a Director General.

The Scheme admittedly is "mere outline" and the application and working of it in detail has not been considered.

We are of opinion that the very wide and constantly expanding field of technical knowledge necessary, the diversity of interests affected and methods of administration necessary, preclude the possibility of such being efficiently and expeditiously performed under the control of one official. The super-man is unobtainable.

Further, the re-organisation of the functions performed by puble Departments, their general policy and criticism of their control, must lie in the province of the Government responsible to the community, and not with a single individual.

We recognise that evasion of responsibility of Directors and Heads of Departments is inimical to the best interests of the public and subersive to the interests of the Department, and that the proposals contained in the Scheme now being considered do not exclude the possibility of Directors transferring the responsibilities of their appointments to the Director General.

On the contrary, the actions of a Director General might be eversive to the authority of Directors.

In either case, these defects are serious in the constitution of any Public department, and are avoided by the system of direct Departmental government control.

We perceive in the constitution and formation of the departments enumerated in the Directorate of Communications only one common factor, and that is financial control.

That this control should be unified in system and method so as to be applicable to each and directed by one Accountant General, and placed in the hands of officials solely of the Finance Department, amenable only for discipline to the Department to which they are attached, we agree.

Further, we are of opinion that, should the Scheme under consideration be developed to the degree at which its application might be considered workable, it would be found that the result was the inception of an organisation more costly than one based on devolution under departmental directions, and also less effective and less efficient. ecutive Engineer, Nairobi, a representative of Mr. Alibhai Ahmed, and Mr. Meghji Ahmed, regarding their actions and their knowledge of the negotiations which led up to and concluded in the sale of the blankets.

We first endeavoured to establish the rules of the which govern and regulate sales of Government property. Early in our report we have dealt with the subject and establish that the only and most unsatisfactory authority is "use and wont"; qualified with the restriction that only articles can be disposed of which are unobtainable locally in shops and stores.

In the case of transactions under consideration, that these conditions existed cannot be established, as witnesses have told us that there were abundant blankets available on the market at the date the blankets were sold.

The examination of Messrs. Alibhai Ahmed's representative showed that before the middle of December, 1919, Mr. Lynde, Quantity Surveyor, and Mr. Gregory, Chief Storekeeper, went to the shop of Messrs. Alibhai Ahmed and asked if he could make them coats. They were measured and each gave a blanket for the purpose.

From a conversation which took place at this meeting, it resulted that Messrs. Alibhai Ahmed two days later called on Mr. Blunt and enquired if there was any information about the sale of blankets. He was told "nothing up to now, but I will probably hear later on."

Later he called again and Mr. Blunt said: "I will sell you them." The result was that Messrs. Alibhai Ahmed purchased the first lot at that time at the rate of Rs. 5-50 each, and later proceeded to Mombasa and obtained a further supply from Mr. Gregory there.

The evidence of Mr. Meghji Ahmed is corroborative. In this case Mr. Blunt called at his shop. Meghji Ahmed asked if blankets were for sale at the P.W.D. store. Mr. Blunt replied: "Only for sale to Departmental people, not to the outside public."

Later Mr. Meghji Ahmed called and saw Mr. Blunt at the Public Works Department Office where he was told that the blankets were for sale at Rs. 5-50 each. He then purchased what quantity was available at Nairobi and later proceeded to Mombasa where he purchased from 200 to 300 from Mr. Gregory.

It transpired in evidence that previous to the sale of blankets to Mr. Meghji Ahmed, Mr. Gregory and he had a conversation regarding blankets in the former's shop in Nairobi—presumably about the same date as Mr. Gregory had a conversation with Alibhai Ahmed, as that is the only date about that time that we can establish that Mr. Gregory visited Nairobi.

In his evidence before us, Mr. Blunt states that Mr. Gregory and he discussed the question of the sale of blankets in Nairobi in December, and in support f this statement produced a note which he stated was in Mr. Gregory's handwriting, showing certain calculations working out a rate for sale of some articles which concluded in fixing the rate at Rs. 5-50.

On this document Mr. Blunt has made the following endorsement:-

"Blankets. C.S.K's instructions to be sold to Messrs. Alibhai Ahmed & Co.

(Intd) T.B. 12-12-19"

We have also established that about this date Mr. Gregory had several meetings with the Acting Director of Public Works, and it was probably at this time that the representations referred to by the Acting Director of Public Works in his letter No. 180/94 of 26/29th June, 1920, were made to him, and undoubtedly by Mr. Gregory, Chief Store-keeper.

It is interesting to note that all sales of blankets at Nairobi were actually made by the Assistant Storekeeper, on the direct written authority in every instance of the then Executive Engineer, Nairobi, Mr. Birch.

During our examination of Mr. Birch, he was asked, did he attend a meeting on the 12th December, 1919 with Mr. Gregory?

He replied :-

"About that time the Chief Storekeeper came up from Mombasa especially about blankets.

"So far as I know, Mr. Gregory had blankets at the Coast but had not enough storage. He had sent telegrams asking permission to get rid of them and came and saw Mr. Blain for that purpose.

"There was some question of fixing a price as the Treasury wanted to make a profit.

"I went to the Store with Mr. Gregory to look at the blankets. The Storekeeper complained of bad quality and some very dirty."

Chairman: Did you discuss the matter with Mr. Blain?

Witness: No. I had no meetings with Mr. Blain, simply instructions.

Chairman: What was the object of your going with Mr. Gregory?

Witness: I am rather hazy about it. The Storekeeper is nominally under the Executive Engineer. I think I was present there as his senior officer.

Mr. Gregory, examined at Mombasa, stated that he went up to Nairobi and found blankets being sold there, and produced a letter (stating that it had been decided to dispose of blankets at Rs. 5-50 each) in support of his action.

The whole evidence of Mr. Gregory on this matter is far from clear. Replying to us, Mr. Gregory stated:—

"I know I went up to Nairobi and found blankets being sold. They were considered too good to sell to a native, who would get a red blanket in its place."

Asked: What price were these blankets brought on your books at?

Witness: Rs. 3-85. I was mixed up selling hoes at the time, and could not say whether I saw the Treasurer about the blankets

One of the reasons advanced was that some of them were of an extraordinarily good quality and it was decided to sell all good quality ones.

Chairman: Later on you sold them at a higher figure?

Witness: They started selling at Nairobi, then afterwards I sold a few here.

Chairman: The Storekeeper, Nairobi, started selling in November?

Witness: I cannot recollect the whole thing. Mr. Dean told me that they were selling, and to Government people. Those we opened here were pretty crude.

Indents came to me; I did not sell mine till December.

The sales commenced in Nairobi on November 28th, 1919.

There were various kinds of blankets, some hospital brown, and some very good grey blankets. I sent a lot more up to Nairobi.

Chairman: This communication which is alleged to have passed between you and the Acting Director of Public Works?

.....advisable to dispose of them.....

Witness: I have no recollection. They were superior blankets to what would be issued to natives, and some people were making suits of them.

Chairman: You made no representations to the Acting Director of Public Works that they should be sold?

Witness: I might have discussed it with the Treasurer but could not say. I did not know what was going to be done.

No blanket was sold here until I heard from Mr. Dean that they were being sold in Nairobi.

Mr. Blain, asked by us during examination under what authority was the sale of blankets effected, replied:—

"It was reported that the blankets in the store at Nairobi were badly damaged by rats and on that report I authorised the sale."

Chairman: Did you verify the report?

Witness: I had it from the Storekeeper, who has been in the Department for many years. I did not take any steps myself.

Chairman: Did you direct any steps to be taken?

Witness: No, I did not.

Chairman: Did not large purchases by local shopkeepers arouse your suspicions?

Witness: I cannot remember. The first intimation I had was from the Storekeeper in Nairobi and he reported that the blankets were badly damaged by rats.

Chairman: Was the report in writing?

Witness: A verbal report. I cannot remember a written report. I cannot remember anything except authorising the sale of blankets in Nairobi. That I authorised the sale of these at Mombasa must have been a mistake.

Chairman: Here is a letter authorising the sale at Mombasa.

Witness: It must have been my mistake. I had no knowledge of the condition of the blankets at Mombasa.

Chairman: It was not brought to your notice who was going to purchase these blankets?

Witness: No.

Chairman: Tell us exactly where the original suggestion came from.

Witness: From the Storekeeper, Nairobi. It was on that report that I acted.

The report, therefore, as to the poor and dirty condition of the blankets and that they were rateaten cannot be accepted from the evidence before us and from the fact that shortages only amounted to 5, and that the rest were issued for use, and that the blankets purchased by Messrs. Alibhai Ahmed and Meghji Ahmed were eventually sold at prices ranging from Rs. 6-50 to Rs. 8 each.

Having heard the evidence, we are of opinion that Mr. Gregory proposed and recommended the sale of blankets to Mr. Blain, and that Mr. Blunt was aware of the proposal and recommendation, and that Mr. Blain—on Mr. Gregory's recommendation—authorised the sale of blankets.

Mr. Birch also acquiesced in the sale, covering himself with the authority given by the Acting Director of Public Works.

We have not been able to establish the motive which led Mr. Gregory to recommend the sale, and there was no foundation for the reasons advanced for the sale of blankets, i.e., that they were of poor quality, dirty and rat-eaten.

We are of opinion that Messrs. Blain and Birch failed in the proper performance of their duties in permitting the sale of blankets, and we recommend that this transaction be the subject of further inquiry by Government.

RECOMMENDATIONS REGARDING COAST AGENCY.

In compliance with the expressed wish of Your Excellency, conveyed to us under letter No. S.21907 of 14th January, 1921 from the Hon. the Acting Colonial Secretary, we have enquired into the functions and duties performed by the Coast Agent.

Previous to 1919, the duties of Coast Agent were performed by a whole-time officer. On the 26th July, 1919, the position, duties and office of the Coast Agent were taken over by the Chief Storekeeper, P.W.D., in addition to his own duties.

The Office of the Coast Agent is at Mombasa, less than a mile away from the office of the Chief Storekeeper.

The staff of the Coast Agent consists of one European and 9 clerks. The European official has however been on leave for some time.

The Coast Agent clears and despatches by rail all Government stores shipped from England and Overseas to the various departments by whom they are required—with the exception of the Uganda Railway.

From the 1st January, 1920, to the 1st March, 1921, the Agency cleared over 7,000 packages, of which 77 were surveyed and claims submitted against the shipping agents. The Agency also ships Government stores, and during the year 1919-20 exported 35,000 packages, valued at Fls. 651,829.

The embarkation and disembarkation of all officers of the Colony is superintended.

The Agency also undertakes the transport of stores $% \left(\frac{1}{2}\right) =0$ for the 5th King's African Rifles.

Considering the charges levied by private firms on Bills of Lading, Bank Guarantees, Customs entries, Agency fees and Warehousing, Transport, etc., we are of opinion that the work can be undertaken at a very much less cost by the Coast Agent, and we recommend that the office of Coast Agent be continued.

We are of opinion that the existence of the office of Coast Agent in a separate building from that of the Chief Storekeeper is inconvenient, and leads to delay in the despatch of work and is prejudicial to maintenance of discipline and efficiency and that the two offices should be combined in the one building.

It is difficult to determine the exact staff which should be necessary for the combined offices, but we suggest the following staff as necessary:—

One Chief Storekeeper and Coast Agent.

One Assistant Storekeeper.

One Assistant Transport and Shipping and Clearing Officer.

One Head Clerk. Nine Store Clerks.

Nine Clerks for Agency work.

We recommend that so long as the present Chief Storekeeper performs the dual duties of Chief Storekeeper and Coast Agent, he should receive an allowance of £50 per annum as Coast Agent, and a further sum of £50 per annum as Coast Agent for the Uganda Protectorate, but that when the position is vacated, the two offices should be combined, and no allowance be made to the Chief Storekeeper for duties performed as Coast Agent and Transport Officer for Kenya.

In concluding our Report, we desire to acknowledge our appreciation of the services rendered by our Secretary, Mr. A. E. Hoey, and to record our thanks for the diligence with which he has carried out his duties.

We have the honour to be,

Your Excellency's most obedient,

humble servants,

J. K. Robertson.

Chairman.

H. E. GOODSHIP.

E. Napier.

THOS. A. WOOD.

B. S. VARMA.

S. T. THAKORE.

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A. E. Hory,

J. H. GAILEY,

Secretary.

Nairobi, 28th April, 1921.

Appendix No. 11.

PUBLIC WORKS DEPARTMENT.

Statement of scales of pay, allowances, wages and easements permitted.

Nore.—Easements:—The whole of the officials shown in the following list are entitled to quarters or 15% of initial salary of grade in lieu.

(A)	denotes	entitled	to	first	class	passage.

(B)	,,	•	to second , ,
(C)	13	**	to deck passage.

Designation.	:	Scale of pay.	Allowances.
(A) Director of Public Works		£1,200 fixed	50% temporary
A) Deputy do.		£900 fixed	local allowance ditto
	•••	£800 llxea	4.00
A) Assistant Engineer,			,
Personal Assistant	.,.	£500 by £25 to £700 with	
to Director	""	efficiency bar at £600	ditto
m Fneinger			ditto
A) Electrical Engineer			ditto
		A 4 A A A A A A A A A A A A A A A A A A	ditto
A) Office Superintendent		£250 by £15 to £400	ditto
B) European Clerks	'''	2200 by 1122 11	
B) Instructor of African		£300 by £15 to £400	dicto
Apprentices Engineers		£700 by £25 to £800	dltto
A) Executive Engineers		£500 by £25 to £700	ditto
A) Assistant Engineers	-	with efficiency bar at £600	ditto
···		£300 by £15 to £400	ditto
B) Overseers B) Inspector, Mombasa	,		
B) Inspector, Monitor	!	£300 by £15 to £400	ditto
Water Supply		£250 by £15 to £350	ditto
B) Foremen B) European Timekeeper		£200 by £15 to £250	ditto
B) European Timexcoper		£250 by £15 to £300	ditto
B) Steam Roller Drivers	```]	• 1	
B) Sub-Overseers (Non-		Fls. 187-50 by Fls. 12-50	
European)	- "	to Fls. 312-50 p.m.	Nil
and the constant		£500 by £25 to £600	50% temporary
A) Chief Accountant	- ' '		local allowance
		£400 by £20 to £500	ditto
Accountants		£600 by £25 to £700	ditto
A) Chief Storekeeper	```		also £100 as Govt
	i		Coast Agent
Storekeener		£300 by £15 to £400	50% temporary
A) Assistant Storekeeper	J	*	local allowance
		£300 by £15 to £400	ditto
B) Sub-Storekeepers		£500 by £25 to £000	ditto
A) Government Architect A) Quantity Surveyor A politectural		£500 by £25 to £600	ditto
Quantity Survey			7144-
I Sanior Alourion		£400 by £20 to £500	ditto
I ILBIDE Browner		£300 by £15 to £400 Fls. 190 by Fls. 15 to	ditto
B) Draughtsmen		Fls. 190 by Fls. 15 to	NE
3) Draughtsman	Ì	Fls 255 p.m.	Nil Na
O) Menoor		Fls. 174 p.m. fixed	Nil
3) TracerA) Hydraulic Engineer		£700 by £25 to £800	50% temporary
	}		local allowance
A) Mechanical Transport			ditto
Officer		£500 by £25 to £600	ditto
as a minimum t ditto	{	£300 by £15 to £400	ditto
A) Animal Transport Office	r	£400 by £20 to £500	ditto
		£200 by £10 to £250	ditto
DI Aggietant to Vogov **5**	t (£300 by £15 to £400	Nill
Clerks, First Grade	•••{	Fls. 260 p.m. fixed	
Second ,		Fls. 190 by Fls. 15 to	do
3) " 2800110 "	- 1	Fls. 255 p.m. Fls. 125 by Fls. 10 to	
B) Third "		FIS. 120 DY PIS. 10 to	do
B) » Inite »	ļ	Fls. 180 p.m.	-
R) Fourth		Fls. 75 by Fls. 7-50 to	do
B) » Fourth "]	Fls. 120 p.m.	•
C) "Janior "		Under Fls. 75 p.m. non-	do
C) " amnor "		incremental.	

