1. Number of pages. 20.
2. Date of receipt 11.8.37.
3. Initials of Examiner.

M.R.O. 1—82,400—22-11-30.

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Gen. Lr. 10.5.37

G.O. No. 1966 Press Mis.

Dated 20—10—1837

Not to be folded or roughly handled

No. 82. Read the following letter from Colonel C, E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 29th September 1857, No. 4063.

SIR,

With reference to Extract Minutes of Consultation No. 656, dated 8th April 1857, I have the honor to submit the following information in reply to the enquiries of the Honorable the Court of Directors, so far as it is in my power to do so as I am unwilling to delay the final disposal of the several questions until I can more fully dispose of them.

2. Para. 5 Groynes at Tranquebar. The last report on these works is by Major Lawford, Superintending Engineer Southern Circle, dated 2nd February 1857. That officer states as follows. "The groynes at this place have had a most severe trial in the storms of November and "December, and a good deal of stone has been displaced from the sides the slopes of which it "has lengthened. The reserve stones should now be added to the heads and a further supply "must, I think, be brought from Trichinopoly."

3. It thus appears that the supply of stone calculated by Colonel Cotton in 1854, has not proved sufficient for the permanent security of these works after their being damaged by storms.

4. The alterations of the river Umbenaur for the improvement of the Port of Tranquebar have not produced any material effect owing chiefly to the extremely loose nature of the soil through which the cutting for the three miles North of the Town was made, from which cause and the violent wind the channel has been annually filled up, and the danger of flooding the adjacent lands so increased as to prevent the entire body of water from being turned to the Southward as was originally intended.

5. Para. 16. The town walls of Tranquebar were not restored with any view to their uitility as Military defences, but in order to prevent their becoming so ruinous as to occasion a nuisance in the place, and lead to its becoming unhealthy, as well as an account of their affording some measure of security against thieves, and to shelter the houses from drifts of sand, on which grounds the repair and preservation of the walls was earnestly solicited by the inhabitants and sanctioned by Government.

6. Para. 11. With respect to the Ponairy and Choughat Canal, I do myself the honor of submitting copy of a letter and statement received from the Acting Collector of Malabar shewing that all claims for compensation have been settled, and explaining the present state of the Canal, which forms only one link in the chain of inland navigation on the Western coast to which so much attention has been given and with as good results as the limited scale of operations allowed.

7. The average number of boats on the Ponairy Canal during the year is said to be 8,000 but the practise of throwing bunds across it to exclude salt water from the lands seriously impedes its efficiency.

8. A special report as now called for will be furnished hereafter, including the entire line of navigation on the coast of Malabar which Mr. Robinson is very desirous of seeing extended to Canara.

Abstract of expenditure incurred for the construction of the Chowghaut Canal from 1854 *to April* 1857, *prepared in accordance with the Chief Engineer's requisition dated* 4*th May* 1857. *No.* 79.

Particulars.				Amount.		
				Rs.	A.	P.
Amount expended out of the sum of Rupees 13,171-15-8 sanctioned by Government on the 29th April 1853 and 14th August 1854 for opening in 1854-55, 14 miles of Canal from Ponairy to Chowghaut as per Bill No. 21, submitted to Chief Engineer on the 24th September 1856...				12,410	1	6
Constructing a Sluice at Velliangode and another at Poogondakel &c. to keep off the Salt water from the Canal amount of sanction Rupees 1,573-1 as per ditto No. 22 ditto ditto 10th November 1856.				2,237	15	2
9th April and 20th December 1853 Government.						
As per bill No. 23 forwarded to the Chief Engineer on the 1st October 1856.	Ditto 34 Wooden drains on the banks of the Canal from Palapaddy to Ponany, executed on emergency as per Diary for 1855...	237	12	0		
	Ditto 3 drains at Jemath Mosque, Velliangode and Palapaddy do. do....	216	11	1		
	Revetments along the banks of the Canal near the Appytodu bridge.	40	4	9		
	Driving piles on the banks of the Ponany and Appytodu Canal.	104	9	11		
	Deepening and turfing sides of ditto.	1,088	10	8	1,688	0	5
Repairing the revetments along the banks of the Canal executed on emergency as per bill No. 5 submitted to the Chief Engineer 10th November 1856.		119	4	0			
Re-building the Lock gate of the Velliangode sluice ditto.....		165	9	4	284	13	4
Expended in 1856 for collecting materials for constructing a sluice at Appytode out of the amount sanctioned by Government on the 14th June 1855, Rupees 1,105-6 as per bill No. 68 submitted to the Chief Engineer 2nd July 1857.....					250	10	9
As per Bill No. 95 submitted to the Chief Engineer 2nd August 1857.	Driving piles on the banks of the Canal near the sluice at Velliangode and Poogondakel in 1856.	31	8	2			
	Turfiing sides of the Canal.	30	3	8			
	Repairing the Beam of the sluice in 1856.	5	8	2			
	Ditto Planks of ditto.	6	13	5			
	Driving piles on the banks of the Canal near the Poogardekel sluice in 1856.	17	2	6			
	Ditto ditto on the do. of Ponany and Appytode Canal.	1	15	0			
	Constructing an earthen dam on the Ponany Canal...	5	2	0			
	Ditto ditto at Velliangode.	5	13	11	104	2	10
Amount paid for lands taken up for the construction of the Canal as per sanction of Government dated 9th April 1853, and report to Board dated 2nd June 1855 as per bills Nos. 111 of 1855-56 and 90 of 1856-57, forwarded to the Chief Engineer on the 3rd August 1857...					3,440	11	10
Total Rupees.					20,416	7	10

Calicut,
17th August 1857.

E. E.
(Signed) W. ROBINSON,
Acting Collector.

Letter from W. ROBINSON, Esq., Acting Collector of Malabar ; to Colonel C. E. FABER, Chief Engineer, dated 17th August 1857, No. 4104.

SIR,

No. 656. No. 12. With reference to para. 11 of Extract from the Minutes of Consultation, dated 8th April, and para. 17 of letter from Honorable Court of Directors, dated 19th November last, I have the honor to state that all claims and other charges connected with the Chowghaut and Velliangode Canal as per margin have been settled.

Abstract of the amount of compensation &c., paid for lands taken up for the construction of the Ponany and Chowghaut Canal.

Particulars.			Amount.		
			Rs.	A.	P.
Paid on account of the claims of ryots.....			3,296	12	11
Amount due to ryots and held in deposit pending the decision of Civil Suits			143	14	11
		Total..	3,440	11	10
Amount payable to Jarath Tungul of Ponany and payment refused		20-14-2			
Do. do. to the Zamoria Rajah do.		244-10-5			
Do. payable to parties whose names are unknown ..		8-10-6	274	3	1
		Total...	3,714	14	11
Amount sanctioned by Government 23rd April 1853		2,000			
Balance of estimate after deducting subsequent charges of Rupees 43 incurred out of the sum of Rs. 804-14-2 reported to Board 2nd June 1855 para. 7 as available.....		761-14-2	2,761	14	2
Excess Rupees.....			953	0	9

This excess is attributable to the estimated amount Rupees 2,000 having proved insufficient, owing to the extent of lands required not having been ascertained by measurement before the work was commenced.

2. Statement or Bills shewing all expenditure on this important work were submitted on the dates given in the accompanying abstract of expenditure.

3. The average number of Boats which passed along the Canal during one year amounts to 8000. Despite peculiar difficulties, to be explained below, this is the most used Canal of the District. No other result could be expected from a line of Canal which brings the extensive and splended backwaters of Cochin and Travancore into connection by water with the Ponany river and Tanoor Canal.

4. But the Canal claims a largely increased expenditure to place it on a thoroughly effective condition. The correspondence noted marginally shows the importance of this Canal with a view to bringing the Harbours of Cochin, Allepey &c., into communication with the Railway Station at Betutpoodiangady. The Canal however in its present state is subject to the grave objection of having solid earthen dams thrown across it at 3 or 4 different places during the 6 months of dry weather, to prevent the ingress of the Salt water and consequent destruction of the Paddy crops, grown in the low marshy grounds through which the Canal passes.

To Chief Engineer, dated 17th April 1857, No. 1045 with enclosure.

5. You are aware that our Canals on the West Coast have been estimated for and carried out on a scale which the more liberal spirit of the present times, would consider inadequate to the requirements of such valuable works. The lowest land was of course selected, but the exceedingly moderate section of the excavation has left very little material from which to form strong and broad side banks. Serviceable sluices or value shutters have not generally been supplied where openings in the bank have been necessary for the drainage of the land. The Canal is therefore in a great measure wanting ineffective provision for preventing the Salt water, if once admitted into the course of Canal from percollating the bank or inundating the low paddy land. The consequence has been that the practice of keeping up the dams which from time immemorial had prevented the ingress of Salt water to the swamps and low ground through which the Canals pass has been permitted to continue.

In many parts where it passes through Swampy land on the margin of which Rice grows no side bank at all are formed.

6. The matter requires early attention with a view to rectifying the difficulty. It was earnestly pressed on the attention of the Superintending Engineer on his recent visit.

No. 83. ORDER THEREON, No. 1966 ; dated 20th October 1857.

Ordered that the above letter and its enclosures be brought to the notice of the Honorable Court of Directors with reference to their Despatch in this Department dated 19th November 1856, No. 12, paras. 8 @ 10, 17, 18 and 27.

(Signed) H. FORBES,
Acting Secretary to Government.

Central Office of Pb.
Fort St. George, 9th Sept. 1857.

No. 1/4063.

From The Chief Engineer
To The Secretary to Government Pb. &c.

Sir,

Public

With reference to Extract Minutes of Consultation No. 656, dated 8th April 1857, I have the honor to submit the following information in reply to the enquiries of the Honorable the Court of Directors, so far as it is in my power to do so at present. I am unwilling to delay the final disposal of the several questions until I can more fully discuss each of them.

Enclosures 2.

2. Para 5. Groynes at Sanguebar.— The last report on these works is by Major Lawford, Superintending Engineer Southern Circle, dated 2d February 1857. That Officer states as follows. "The groynes at this place have had a most severe trial in the storms of November and December, and a good deal of stone has been displaced from the "the slopes of which it has lengthene "The reserve stones should now be

"be added to the heads and a further
"supply must, I think, be brought from
"Trichinopoly."

3. It thus appears, that the supply of stone calculated by Colonel Cotton in 1854, has not proved sufficient for the permanent securing of these works after their being damaged by storms.

4. The alterations of the River Vumbeir for the improvement of the Port of Tranquebar have not produced any material effect owing chiefly to the extremely loose nature of the soil through which the cutting for three miles north of the Town was made, from which cause and the violent wind the Channel has been annually filled up, and the danger of flooding the adjacent lands so increased as to prevent the entire body of water from being turned to the Southward as was originally intended.

5. Para 16. The town walls of Tranquebar were not designed with any view to their utility as Military defences, but in order to prevent their becoming

so ruinous as to occasion a nuisance in the place, and lead to its becoming unhealthy, as well as on account of their affording some measure of security against thieves, and to shelter the houses from drifts of sand, on which grounds the repair and preservation of the walls was earnestly solicited by the inhabitants and sanctioned by Government.

6. Para 11 With respect to the Porto Novo and Chowkiat Canal, I do myself the honor of submitting Copy of a letter and Statement received from the Acting Collector of Malabar shewing that all claims for compensation have been settled, and explaining the present state of the Canal, which forms only one link in the chain of inland navigation on the Western Coast to which so much attention has been given and with as good results as the limited scale of operations allowed.

7. The average number of boats on the Porto Novo Canal during the year is said to be 8,000, but the practice

Chowghaut & Pellianyode Canal as per margin have been settled.

2. Statements or Bills shewing all Expenditure on this important work were submitted on the dates given in the accompanying abstract of Expenditure.

3. The average number of Boats which passed along the Canal during one year Amounts to 8000. Despite peculiar difficulties, to be explained below, this is the most used Canal of the District. No other result could be Expected from a line of Canal which brings the Extensive & Splendid backwaters of Cochin & Travancore into connection by wales with the Tanamy Nuvoor Canal.

4. But the Canal claims a largely

Abstract of the Amount of Compensation &c paid for lands taken up for the Construction of the Tanamy & Chowghaut Canal

Particulars	Amount		
	Rs	As	P
Paid on account of the Claims of Ryots	3296	12	11
Amount Due to Ryots & held in deposit pending the decision of Civil Suits	143	14	11
Total	3,440	11	10
Amount payable to Parathe Tangal of Ponany & payment refused — 29.11.2			
Ditto Ditto to the Zamorin Rajah ditto — 244.11.5			
Ditto payable to parties whose names are unknown — 8.12	274	3	1
Total	3714	14	11
Amount Sanctioned by Government in 1852 — 2,000			
Balance of Estimate after deducting Subsequent Charges of Rs 43 incurred out of the Sum of Rs 804.14.2 reported to Board 2d June 1855 Para 7 as available — 761.14.2	2761	14	2
Excess Rupees	953	.	9

This Excess is attributable to the Estimated Amount Rupees 2,000 having proved insufficient, owing to the Extent of Lands required not having been ascertained by measurement before the work was Commenced.

River and

To Chief Engineer
3/7 April 1857 No 1045
with Enclosure

largely increased Expenditure to place it on a thoroughly effective condition. The Correspondence noted marginally shows the importance of this Canal with a view to bringing the Harbours of Cochin Allepey &c into Communication with the Railway Station at Betutpoodian-gady. The Original however in its present State is subject to the grave objection of having Solid earthen dams thrown across it at 3 or 4 different places during the 6 months of dry weather to prevent the ingress of the Salt water and consequent destruction of the Paddy Crops, grown in the low marshy grounds through which the Canal passes.

5 You are aware that our Canals on the West Coast have been Estimated for and Carried out on a Scale which the more liberal Spirit of the present times, would Consider inadequate to the Requirements of such valuable works. The lowest land was of Course Selected, but the Exceedingly moderate Section of the Excavation

Excavation has left very little material from which to form Strong & broad side banks. Serviceable Sluices or valve shutters have not generally been supplied where openings in the bank have been necessary for the drain = age of the land. The Canal is therefore in a great m re wanting in effective provision for preventing the salt water, if once admitted into the course of Canal from percollating the bank or inundating the low paddy land. The consequence has been that the practice of keeping up the dams which from time im = memorial had prevented the ingress of salt water to the swamps and low ground through which the Canal's pass has been permitted to continue.

In many parts where it passes through swampy land on the margin of which Rice grows, no side banks at all are formed.

6. The matter requires early attention with a view to rectifying the difficulty. It was earnestly pressed on the attention of the Superintending Engineer on his recent visit.

I have the honor to be &c

/Signed/ W. Robinson
Acting Collector

/True Copy/
Wd Faber Colonel
Chief Engineer

Copy Ill

Abstract of Expenditure incurred for the Construction of the Chowghaut Canal from 1854 to April 1857, prepared in accordance with the Chief Engineer's requisition dated 4th May 1857. No. 79.—

Particulars	Amount	
Amount expended out of the sum of Rupees 13171. 15– 8 sanctioned by Government on the 29th April 1853 and 14th August 1854 for opening in 1854/55, 14 miles of Canal from Pollamy to Chowghaut as per Bill No. 21, submitted to Chief Engineer on the 24th September 1856	12400	16
Embankments &c. Sluices at Vellangode and another at Pongandabedi &c. Embankments &c. to keep off the tide water from the Canal amounting to Rupees 15713–1– as per Abstract No. 22 dated 10th November 1856	2237	52
Debt. 34 Window drawing on the back of the Canal from Pongandy to Vellangode as per Diary for 1855	23	12
Debt. 5 Sluices at Jemmal Nagar, Vellangode & Calapaddy do do	216	1
Revetments along the Banks of the Canal near the Appytode Bridge	46	4
Driving Piles on the Banks of the Canal under Appytode	104	11
Deepening and Widening Sides of ditto	1288	10 8
Repairing the Revetments along the Banks of the Canal executed on emergency as per Bill No. 5 submitted to the Chief Engineer 10th November 1856	1688	0
Rebuilding the Lock gate of the Vellangode Sluices ditto	1194	0
Expended in 1856 for Collecting materials for Constructing a Sluice at Appytode out of the amount sanctioned by Government on the 14th June 1855 Rupees 1105–6– as per Bill No. 68 submitted to the Chief Engineer 2d July 1857	165	94
	250	10
Carried over Rupees	16871	92

Chief Engr. to Govt. No. 21.
Dated 15th January 1859.
Rec'd 15

Enclosure in a letter from the Chief Engineer to the Govt. dated 15th January 1859.

Dated Pt. Pedro 13th September 1858.
Received 5th October 1858.

Copy of a letter from the Acting Collector of Chilaw to Mr. Secretary Ellis, forwarding the enclosed Abstract for an Amount of Rupees 11 17 15 8 Sanctioned by Government on the 29th April 1853 and 14th August 1854 for opening in 1854/55, 14 miles of Canal from Pollamy to Chowghaut, which has been expended on the Construction of the said Canal.

Brought over Rupees			16,8[illegible]1	9 2
Driving piles on the Banks of the Canal near the sluices at Vellangode & Cogandekal in 1856		31-8-2		
Turfing sides of the Canal		30-3-8		
Repairing the Beams of the sluices in 1856		5-8-2		
Ditto Planks of ditto		6-13-5		
Driving piles on the banks of the Canal near the Cogandekal sluice in 1856		17-2-6		
Ditto ditto on the ditto of Coroany and appiptode Canal		1-15-0		
Constructing an earthen dam on the Coroany Canal		5-2-0		
Ditto ditto at Vellangode		5-13-11	104	2 10
Amount granted for land taken up for the Construction of the Canal as per Sanction of Government dated 9th April 1855, and Report to Board dated 2d June 1855 as per Bill No 211 of 1855/56 Page 190 of 1856/57, forwarded to the Chief Engineer on the 3d August 1857			3440	11 10
Total Rupees			20,416	7 10

E. E.

Calicut
17th August
1857

(Signed) W. Robinson
Acting Collector

True Copy

Wm Faber Colonel
Chief Engineer

Enclosed in a letter
from the Chief Engr.
To the Secretary to Govr
Dec 1 1857

Dated 29
Recd 5 Sept 57.

No 1063.

D No 1935/57

1957

Copy of Abstract
of Expenditure incurred
for the Construction
of the Chesapeake
Canal from 1857
to April 57.

2 to 6 Comp 21st April/57 N34
2 — 29th " 33 · 34
2 — 6th June 155 · 34 32
2 — 20th Sept 154 · 374
2 — 15th Augt · 29 31
2 — 14th Guard · 63 265
2 W — 24th Febuary 57 · 78 19

Copy sent as G. L. to C.
d/ 3d February 1859 · No 1
Para 15

Public Works 1857 Departments
Copy 20th October 1857 No 1935
From
The Chief Engineer
To The Secretary to Govt
Fort St George

Encs from — Do — 19th Oct 57
C No 2068 inclo: 10 Nov
55-5

Date 19 Sept/57
Rec 30

No 1963

Encls: 2
No 1966 20th October
Submits with reference
to Lt. Mules: Ord: No 6566 of the
8th April/57 information in
reply to the enquiries of the
Public the Board of Excise
&c regarding the rights of the
Chief Engr concerning the
Choultry at Triplicane
Also the statement of the Sub
together with his perspective
& opinion on the policy
of keeping up the defensible
works of the Town and upon the
Cavalry and Triplicane Canal in
Madras — North can order

No 82 + 83

C 13 Oct R 15

No 1966.

Ordered, that the
above letter and its enclosures
be brought to the notice of
the Honorable Court of Direc-
tors with reference to their
Despatch on this Department
dated 19th November 1856 No 1
paras 8 & 10, 17, 18 and 27

Fort St. George
20th Oct. 1857