M.R.O. 1—32 4/6—23-11-62

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. [illegible] Press Mis.

Dated [illegible] 18[illegible]

Not to be folded or roughly handled

No. 98. Read the following letter from Major E. LAWFORD, Officiating Chief Engineer; to the Secretary to Government, dated 20th July 1858, No. 2105.

SIR,

1 Letter dated 21st Dec. 1857 from Mr. Walker to Superintending Engineer Southern Circle with enclosures.
1 Letter from Acting District Engineer Gangam No. 27, dated 18th May 1858.

With reference to the remarks contained in the 30th Para. of Lieutenant Colonel Cotton's report on his tour in Ganjam and the orders of Government thereon conveyed in 19th Para. Extract Minutes of Consultation No. 2167 24th November 1857, I have the honor to submit the report therein called for and an original letter from Mr. Walker dated 21st December 1857.

2. The present Acting District Engineer of Ganjam reports that Mr. Walker cannot be held accountable for the serious injuries that have occurred to the Arleenutta Tank near Saravacotta in the Purlah Kemedy Zemindary, as his estimate was carefully prepared, and it appears that he had nothing to do with the actual execution of the work which was unavoidably and unfortunately entrusted to unqualified native agency.

To Superintending Engineer Southern Circle dated 21st December 1857 Para. 4.

3. Mr. Walker in his letter asserts that he did use a level when framing his estimates, and there is no proof to the contrary.

4. The District Engineer states that Mr. Walker's Estimates altho' not in form, appear to have been carefully framed, and as in his estimate for the Calingulah no mention is made of a site, it was left to and clearly the duty of the Parties entrusted with the execution of the work to see that a proper site was selected and its crown placed at a suitable relative level with the top of the Bund which does not appear to have been done, nor were orders solicited on the subject; the result was the breach that occurred.

5. The work was commenced under the orders of a Lieutenant Ross, 2nd Assistant Civil Engineer Northern Division, whose other duties unfortunately rendered it unavoidable that the work should be entrusted to Native Agency, no other being procurable or available after Lieutenant Ross' departure from the Division, which occurred shortly, afterwards the work came under the charge of the Kemedy Manager since dead, and as the accident appears to have occurred prior to an inspection by the Engineer Department, I can come to no other conclusion than that the damage is attributable to the faulty execution of the work, the result of its having been entrusted to an unqualified Native Agency, and not to Mr. Walker, who I recommend therefore should be exonerated from blame for the failure of this work.

Letter from Captain E. H. HARINGTON, Acting District Engineer Ganjam; to Colonol C. E. FABER, Chief Engineer, dated Aska 18th May 1858, No. 27.

SIR,

1. I have the honor with reference to your Proceedings No. 6715 19th January 1858, calling for a report on Overseer Walker's statement (herewith returned) to inform you that from the enquiries I have made I consider that Mr. Walker cannot be held accountable for the failure of the Saravacotta tank, Kemedy Zemindary. He made estimates for it on the requisition of the Principal Assistant Collector in the beginning of 1853.

They provided for Earthwork to tank Rupees	2206	2	0
Calingulah 75' long	596	5	6
Two Sluices at 266-1-0 each	532	2	0

I think it will be evident to any one who looks at his estimates that (though, as he states, unacquainted with the forms) he has framed them with care, and on detailed measurements. He himself affirms that he used a level and from all I have ever heard of Mr. Walker, I think any statement of his may be relied upon.

2. I am not prepared to say that his estimate is correct or a sufficient one, or altogether applicable. I have never seen the tank in question. The rates are certainly too low both for earthwork and masonry in a jungly unhealthy country, but this may be considered an error due to inexperience, and any one executing the work afterwards could have brought to notice any in-

sufficiency in the estimates. From all I have heard, I believe a considerable supplemental estimate *would* have been necessary.

3. It appears that Lieutenant Ross, then a 2nd Assistant Civil Engineer in the 9th Division (Ganjam and Vizagapatam) commenced the work, which however was left far too much to native Agency. Lieutenant Ross shortly afterwards left the District, and then the Kemedy manager (since dead) took charge of the work. Without doubt, the want of efficient responsible superintendence (not to be had probably in those days) has caused great mismanagement and and most faulty Execution of the work in question, ending in a serious accident to the Tank.

4. The work dating long before I joined the District and as I do not personally know the locality, I cannot now furnish fuller details regarding the deserve or progress of the Project, but as I am satisfied that Mr. Walker does not deserve the blame fairly and wholly attributable to faulty execution with which he had nothing to do, I think it just to him not to delay this report.

Letter from Mr. W. H. WALKER, Overseer Public Works Department; to Major E. LAWFORD, Superintending Engineer Southern Circle, dated Porasavacum, 21st December 1857.

Sir,

I have the honor to acknowledge the receipt of your Official Memorandum of the 16th Instant, enclosing an Extract Minutes of Consultation dated 26th November 1857, respecting the Saravacottah Tank; before giving the explanation therein required, I must request that you will be kind enough to consider, that very nearly 5 years have elapsed since I first visited the site where it was proposed to construct the Arleemetta Tank, and as I was only at the village twice I have but a faint recollection of the work in question: from records in my possession, I am however able to make the following Statement.

1st. The only Official order I received to inspect the site of the proposed Tank, was contained in a letter from the Principal Assistant Collector,* and in compliance thereof I went to Saravacotta early in January 1853, and, made my report† to the Collector on the 25th of the same month, enclosing a memorandum‡ of the measurements made by me.—I should here mention that I had then only very recently been appointed a Revenue Surveyor, and being unacquainted with the routine and form of submitting estimates, I (at the request of the Collector) was in the habit of furnishing him with any estimates or measurements he might require, and he submitted the estimates for sanction. In reply to my letter of the 25th January I received an order* to estimate for the channel proposed by me, and again went to Saravacotta and took a line of levels from the proposed site to the ridge mentioned in enclosure No. 2, and on the 7th February 1853 wrote to the Collector† again on the subject, and enclosing estimates for a Calingulah‡ and 2 Sluices. On the 9th February Mr. Knox forwarded a letter to me for perusal, which he had received some time before from Lieutenant Rundall, Assistant Civil Engineer; and in which Lieutenant Rundall recommended a Calingulah of more water-way than that for which I had estimated for. I met Mr. Knox on the following day and told him that I considered my estimate sufficient; but as Mr. Rundall was daily expected at Chicacole he would on his arrival be able to decide the matter. This was the last correspondence I had on the matter. I left the Southern part of the District early in March 1853, and the division in January 1854, and heard nothing more of the Tank until the receipt of your memo of the 16th Instant.

* Enclosure No. 1.
† Enclosure No. 2.
‡ Enclosure No. 3.
* Enclosure No. 4.
† Enclosure No. 5.
‡ Enclosures Nos. 6, 7, and 8.

2nd. Neither the Tank or Calingulah were commenced when I left the District, and I had nothing whatever to do with the construction of either; but had I have had the Superintendance of the construction of the works, and by carelessly neglecting to take the required levels, committed the absurd blunder of laying the floor of the Calingulah above the level of the bund, I should have considered myself entitled to all blame attending the consequences thereof; and had I have framed all the estimates respecting the works, I should most undoubtedly when constructing them, have carried the bund to a sufficient height, even had I exceeded the amount

sanctioned by so doing. But I would beg to remark that Major Birdwoods report would have been more consistant had he have stated that the Calingulah had been built above the level of the bund, and at an improper site, and not that the bund had been carried below the level of the Calingulah. For it is seldom that the Calingulah is built before the construction of the Tank; and consequently the censure should have fallen on those who superintended the building of the Calingulah.

3rd The Calingulah estimated for by me allowed a section of 25 yards water-way and each sluice 1 yard. The old Gudda did not afford a section of 30 yards and had not the appearance of overflowing its banks. The natives living on the spot also informed me that it was never full. I therefore considered that the water-way allowed for by me was quite sufficient. The site proposed by me for its erection was at a spot between the Kimedy road, and the Western Hill; and where the bund according to my measurements was to have been 4 yards in height. Allowing the dam-stones to stand 2 feet 8 inches above the body, the bund would then have been 7 feet 9 inches above the body of the Calingulah, or 5 feet 1 inch above the dam-stones: but whether the Calingulah was erected at this site, and according to my estimate; or whether the bund was carried up to the level intended and allowed for by me, I cannot say; and it is now of course impossible to judge whether the latter was the case or not, as the breach must have destroyed the bund. It is quite evident that the Calingulah was built at an improper place, or that the bund was not sufficiently high, and I would respectfully submit for consideration that the censure should fall on those who constructed the work; for, allowing that my measurements were insufficient, it was the duty of the Superintendent to have brought the fact to the immediate notice of the Civil Engineer. A supplementary estimate would have been sanctioned; and the breach would not have occurred. Such would have been the line of conduct I would have adopted; and such I am sure would have been approved of by my superiors.

4th. Colonel Cotton states in his report that in estimating for the bund I omitted the use of a level, and that nothing could be more incorrect than the laying out of the work. Both Colonel Cotton and Major Birdwood must have been grossly imposed upon by those from whom they gained their information, for although I consider that the use of a level was not actually required in simply estimating for the bund, (though very necessary in constructing it) yet I not only used one in taking my measurements at the tank, but also in taking a line of levels (in two directions) to the Agathapoorum Tank. These levels I have unfortunately mislaid, or destroyed, or would produce them as proof of my assertion. I agree in opinion with Lieutenant Colonel Cotton that nothing could be more incorrect than the laying out of the work, but with this I had nothing whatever to do.

5th. I trust that the above explanation to the Chief Engineer will be considered sufficient to enable him to exonerate me from all blame. I cannot help coming to the conclusion that the person who superintended the work has made some gross error, and is now attempting to throw the blame upon my shoulders. I also trust that should the Chief Engineer consider me innocent of the charge made against me, steps will be taken to remove the stigma on my character consequent upon Lieutenant Colonel Cotton's report, and the Minutes of Consultation of the 24th November 1857.

Letter from W. KNOX. Esq., Principal Assistant Collector, Ganjam; to Mr. W. H. WALKER, Assistant Revenue Surveyor, dated Byree, 30th December 1852, No. 258.

Sir,

Herewith I send you four Urjees received from the Ameen of Polaky and request you will inspect the sites of the works and give me your opinion as to the propriety of making the repairs in question and the correctness of his estimates, you will also please to look at any other works he may point out. I send also a list of masonry works required in the Wodadah Talook and beg you will send me Plans and Estimates for them as early as you can; you will have the goodness during the working season to pay great attention to the channels as I know the money allowed is not fairly expended on them. As soon as the works for 53 are sanctioned I will send you a list, the channel from Purlah leading to Polaky requires much attention. When up in

the neighbourhood of Nagaricutkam you will not forget to examine and estimate for the new Tank at Arleemetta, if you inform the Kemedy Manager he will send Carcoon to meet you and point out the locality.

Letter from Mr. W. H. WALKER, Assistant Revenue Surveyor, to W. KNOX, Esq., Principal Assistant Collector, Chicacole, dated 25th January 1853, No. 9.

SIR,

I herewith beg leave to forward a Memorandum of measurements made by me at the Arleemetta Cheroovoo of Saravacotta: allowing the new bund to have a slope of 1½ to 1, a breadth at top of 5 yards, and to be 8 yards above the Kimedy Road, 70,596 cubic yards of earth-work will be required: which at 6 Pice per cubic yard would amount to Rupees 2,206-2-0. With respect to the Channels, the manager's estimate for the west channel is correct, but as to the east channel it may be carried in two directions.

1st. Round a small Hill, which stands out from the larger one, and is connected to it by a low stony-ridge; or it may be carried by cutting through the ridge: the latter in my opinion will be more advantageous, though rather more expensive than the former; for by this means three different Tanks, namely the Agathapoorum Patha Cheroovoo, the Agathapoorum Cheroovoo, and the Saravacotta Cheroovoo may be supplied from the Arleemettah but ift he channel is carried round the Hill to the Agathapoorum Cheroovoo, it will then be too low to be available for either of the other Tanks. The additional expense incurred by cutting through the Hill will be about 150 Rupees.

I have not yet been able to examine the estimates for the sluices, and Calingulah, but will forward them as soon as possible.

Measurement of Earth-work required to the Arleemetta Cheroovoo of Saravacotta.

Length		Breadth		Depth		C. yards.	
10-0	×	5-0	×	2-0=	.....	100-0	Raising breach near east Hill.
30-0	×	5-0	×	2-0=	.....	300-0	Raising old bund do. do.

New Bund.

End section average Breadth 11
Depth 4

Area of end section 44

Section No. 1.

Average Breadth 17
„ Depth 8

Area at section No. 1 136

2) 180
Av. sectional area of 1st portion 90
Length of do. 64

Cubical contents of do.....5,760-0
Area at section No. 1.....136

Section No. 2.

Average Breadth 17
„ Depth 8

Area at section No. 2 136

2) 272
Av. sectional area of 2nd Portion 136
Length of do. 100

Cubical Contents..... 13,600-0 To Kimedy Road.
Area at section No. 2 136

Section No. 3

Average Breadth 16-4
„ Depth 7-8

Area at section No. 3 121-14

2) 257-14
Average sectional area of 3rd portion 128-15
Length of do. 240

Cubical Content..... 30,945-0 To Gudda.

4th Portion Gudda
Average Breadth 21-8
„ Depth 11

236-8
Length 10

Cubical Content..... 23,65-0 Filling in Gudda &c.

Section No. 4.

Average Breadth 15-8
„ Depth 7

Av. sectional area at section No. 4 108-8

Section No. 5.

Average Breadth 14
„ Depth 6

Av. sectional area at section No. 5 84-0

2) 192-8
Av. sectional area of 5th portion 96-4
Length of do. 80

Cubical Content of do. 7,700-0
Area at section No. 5 84

Section No. 6.

Average Breadth 8-13
„ Depth 2- 8

Average area at section No. 6 21-14

2) 105-14
Average sectional area of 6th portion 52-15
Length of do. 224

Cubical Content of do. 11,858-0
Area at section No. 6 21-14
End section 2

2) 23-14
Av.sectional area of 7th portion 11-15
Lengh of do 128

Cubical Content of do 1,528-0

Total	74,156-0
Deduction for old bund	3,560-0
Total earth-work of cubic yards	70,596-0

(Signed) W. H. WALKER,
Acting Revenue Surveyor.

No. 14.

Official Memorandum.

With reference to the suggestion in his letter No. 9, 25th January 1853, Mr. Walker is re-

quested to furnish an estimate for the Channel to the Agathapoorum Tank cutting through the ridge alluded to along with the masonry estimate.

Ganjam District Principal Assistant Collector's Circuit Cutcherry Purlah Kemedy, 28th Jany. 1853.

(Signed) W. KNOX,
Principal Assistant Collector.

Letter from Mr. W. H. WALKER, Assistant Revenue Surveyor, to W. KNOX, Esq., Principal Assistant Collector, Chicacole, dated Chicacole 7th February 1853, No. 14.

SIR,

Herewith I beg leave to forward plans and estimate for a Calingulah and 2 Sluices for the tank at Arleemetta; and with reference to your Official Memorandum No. 14, dated 28th January 1853 to state, that when at Saravacotta last month, I was under the impression that the Channels would be an after consideration and that the Engineer himself, would see and decide upon their course, before it was necessary that the work should be executed: I therefore did not pay particular attention to them, but after the receipt of your memorandum, I again went to Saravacottah, and find that the suggestion offered in my letter of the 25th ultimo would, if carried out, be far more expensive, and more difficult than I at first anticipated, and the same end gained otherwise *viz.*, by carrying the Channel round the Hill to the Narrayanahdammoo Cheroovoo of Agathapoorum, strengthening the bund of the latter, and connecting it with the Pillewada Cheroovoo by Channel.

The quantity of earth-work required for this is as follows:

Channel from East Muddoor in the Arleemetta Tank.

	L.	B.	D.	C. Y.	Rs. cost	A.	P.
Raising and strengthening the bund of the Narraynahdammoo Cheroovoo...	1,472	2,0	2·0	5,888	184	0	0
Channel from Narrayanahdammoo Cheroovoo to Pillevada Cheroovoo...	280	6·0	2·0	3,360	105	0	0
	400	2.0	2·0	1,60	50	0	0

The Patha Cheroovoo of Agathapoorum will by this means derive no benefit from the Arleemetta; but it is well situated and large enough for the supply that is likely to be required from it, when the above alterations are made. At the present time it supplies land which can hereafter be supplied by the Narraynahdammoo Cheroovoo and Pillavada Tank.

Letter from W. KNOX Esq., Principal Assistant Collector, Chicacole; to Mr. W. H. WALKER, Assistant Rev. Surveyor Sub-Division Calingapatam, dated Ganjam 9th February 1853, No. 20.

SIR,

With reference to your letter and the plan of the Calingulah for Arleemetta, I beg to send for your perusal a letter of Lieutenant Rundall's in order that you may consider whether you have allowed sufficient breadth. You will have the goodness to return the letter enclosed.

No. 99. ORDER THEREON, No. 1575; dated 10th August 1858.

Under the explanation furnished by Mr. Overseer Walker, the Governor in Council exonerates him from blame in connection with the faulty construction of the Sarvacottah Tank in the Kimedy Zemindary alluded to in para. 19 of Extract Minutes of Consultation, dated 24th November 1857, No. 2167.

(Signed) T. PYCROFT,
Chief Secretary.

Revenue

Central Office of P. Works
Fort St. George 20th July 1858

No. 2105

From
The Officiating Chief Engineer

To
The Secretary to Government
Public Works Department

Sir

With reference to the remark contained in the 30. Para of Lieutenant Colonel Cottons report on his tour in Ganjam and the order of Government thereon conveyed in 19. Para 6th Extract Minutes Consultation 2167. 24. November 1857, I have the honor to submit the report therein called for, and an original letter from Mr. Walker dated 21st December 1857.

2 The present Acting District Engineer at Ganjam reports that Mr Walker cannot be held accountable for the serious injuries that have occurred to the Arleemutta Tank near Saravacotta in the Purlah Kemedy Zemindary as his estimate was carefully prepared and it appears that he had nothing to do with the actual execution of the work which was unavoidably and unfortunately entrusted to unqualified native

Enclosures 2 in Orgl.
1st Letter dated 21.12.57 from Mr. Walker & Supdg. Engr. Mr. Price with enclosures.
1st Letter from Actg. Dt. Engr. Ganjam No. 27 18.7.58.

native Agency.

3 Mr. Walker in his letter asserts that he did use a level when framing his Estimates, and there is no proof to the contrary. To Sub Dy Engr's Letter dated 21/12/57 Para 6.

4 The District Engineer states that Mr. Walkers Estimates although not in form, appear to have been carefully framed, and as in his Estimate for the Calingulah, no mention is made of a site, it was left to and clearly the duty of the Parties entrusted with the execution of the work to see that a proper site was selected and its crown placed at a suitable relative level with the top of the Bund which does not appear to have been done, nor were orders solicited on the subject; the result was the Breach that occurred.

5 The work was commenced under the orders of a Lieutenant Ross 2nd Assistant Civil Engineer Northern Division, whose other duties unfortunately rendered it unavoidable that the work should be entrusted to Native Agency, no other being procurable or available after Lieut. Ross' departure from the Division, which occurred shortly, afterwards the work came under the charge of the Kemedy Manager since dead, and as the accident appears have occurred

occurred prior to an inspection by the Engineer Department, I can come to no other conclusion than that the damage is attributable to the faulty execution of the work, the result of its having been entrusted to an unqualified Native Agency, and not to Mr. Walker, who I recommend therefore should be exonerated from blame for the failure of this work.

I have the honor to be
Sir
Your Most Obedient Servant
A Dawson Major
Offg. Chief Engineer

Central Office of P.W.
Fort Saint George
20 July 1858.

To
The Secretary to Government
P.W.D.

Cont: 24th Nov.r 57. No 153.
" 1st " 1856 " 1957/176.

N. 98+99.

C27 Lordy 29th Aug.t

PWI 1858 Retarte
Coms 10th August
No 1613.

From
The Offg Chief Engr

To
The Secretary to Govt
P.W.D.

Dated 20th
Recd 21st } July 1858.

Encls 2. Returned 15-9-58

Submits with preference to Extract Minutes Consultation No 2167 dated 5th November 1857 letters from Mr Walker and Acting Dist.t Engineer Conjeeram affording the information called for on the Varavaretta Tank in the Conjeeram District.

With an Order.
No 1575. 10th Aug.t 1858.

No 1575

Under the explanations furnished by Mr Overseer Walker, the Governor in Council exonerates him from blame in connection with the faulty Construction of the Varavaretta Tank in the Pinneely Zemindary alluded to in para 19 of Extract Minutes of Consultation dated 2th November 1857 No 2167.

Fort St George
10 Augt 1858

To Chief Engr & Dupty Secy