

(1) Number of pages 16

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.**Government of Madras.***Public Works* **DEPARTMENT.**

G.O. No.

257

Press

Mis.

Dated

2611877**Not to be folded or roughly handled**

No. 500. Read the following letter from W. A. GOODCHAP, Esq., District Engineer, Kurnool, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Camp at Dupad, 1st January 1877, No. 1 :—

With reference to G.O., dated 28th November 1876, No. 185, regarding an emergent estimate submitted through this office in November 1875 for repairs to the Cumbum tank channels and requesting a report on the following points, viz. :—

- 1st.—Who is responsible for the inaccurate or useless levels ?
- 2nd.—Under what instructions they were taken and by whom given ?
- 3rd.—If a Surveyor or subordinate was in fault, it must be shown as regards levels which were of no use for the purpose required and sufficient instructions were conveyed to him * *

I have the honor to report that, in the first instance, the Collector requested an estimate to be prepared by this department for the repairs of the channels in question together with a survey showing the distributing channels, the portions proposed to be repaired and the extent of land irrigated under each.

2. The matter was referred to the Chief Engineer for Irrigation in this office No. 19 of the 20th April 1875, as soon as it was reported by the Range Officer that the Overseer was unable to prepare the survey and levels, as he was incapacitated from severe and frequent attacks of fever, and he sanctioned a temporary survey

No. 429 of 29th April 1875.

establishment in his memorandum marginally noted.

3. The services of a temporary Surveyor named Venugopala Moodaliyar, after some delay, were entertained, viz., on the 16th June 1875, on a salary of Rupees 80 per mensem. This man made, in my opinion, a tolerably accurate survey of the tank and channels, as requested by the Collector, which took him about 2½ months to do, and was a fair out-turn of work under the circumstances, as during that time he was occasionally laid up with fever. He then commenced levelling and took longitudinal sections of the following channels :—

- 1st,—a proposed new channel for the water-supply of the town ;
- 2nd,—Sekrel Katwa irrigation channel ;
- 3rd,—Pedda Cumbum " "
- 4th,—Nakkalagandi " "
- 5th,—Marlapati " "

making a note of the cross sections required and also marking their positions on the channel banks, which, of course, was a bad arrangement, as each section ought to have been quite completed before another was commenced. Unfortunately the Surveyor completed the longitudinal section only, when he was laid up with a very severe attack of fever and had to be removed from Cumbum on the 8th September 1875 to Madras by his friends.

4. The survey and levels were taken under instructions from this office through the Range Officer, Cumbum, (copy enclosed).

5. The late Range Officer, Mr. Francis, was certainly to blame for not checking the levels and ascertaining from time to time if the Surveyor were working according to instructions. He, however, tried to rectify matters when the Surveyor left Cumbum

sick, by going over the channels with the Taluq Overseer and making observations in connection with the longitudinal sections and taking rough cross-sections, from which he framed an *emergent estimate*, which provided for—

- 1st,—rooting out and removing weeds ;
- 2nd,—removing silt and deepening channels ;
- 3rd,—renewing embankments to channels where necessary ;
- 4th,—stopping leaks, where they existed, with puddled walls ;
- 5th,—providing stone revetments to channel banks, where necessary, to prevent breaches ;
- 6th,—clearing jungles from channel banks.

6. The survey and estimate were forwarded to the Chief Engineer for Irrigation ; but by an oversight it was not explained why pukka longitudinal and cross sections were not submitted. This was owing partly to the fact that arrangements had been made to take the levels over again in a complete form by the Taluq Overseer, to be submitted with the estimate for the *proposed improvements and masonry works* in connection with the channels.

7. The Chief Engineer for Irrigation, however, refused to sanction the emergent estimate without special longitudinal and cross sections, and at the same time sent a memorandum of instructions (No. 7 K. R. of the 25th March 1876) of what was required by him to check the necessity and correctness of the estimate for repairs submitted, and the one proposed to be framed for improvements and masonry works. As a Special Engineer was appointed shortly afterwards for the work, and it was ultimately settled that the old channels were to be altered and improved, and other arrangements made in connection with the water-supply of the town and drainage, Mr. Johnston very properly rejected all the old levels and even the survey (which he has admitted since was fairly correct), as he wished to do them over again under his own immediate superintendence.

8. The levels for the Chinna Cumbum channel, referred to by Mr. Farmer in paragraph 7 of his report for the week ending the 29th July, could not be correctly taken, inasmuch as the channel banks, and even the bed in some parts, were thickly overgrown with jungle, date trees, &c. ; and the completion of the levels under the special officer have been delayed, even up to the present date, on account of the time, &c., it has taken the Revenue Department to clear them away.

9. I take this opportunity to observe that it would lead any one to suppose, from the graphic and telling reports submitted weekly by the Head Assistant Collector, that the Cumbum tank channels had been so improved that nothing or little more remains to be done to make them perfect for irrigation ; but when the Special Engineer's elaborate levels, estimates, plans and reports are submitted for sanction, it will, I think, be shown that Mr. Farmer's exertions were confined to work more in connection with sanitation than irrigation.

10. I beg to forward certain estimates framed by the Special Engineer of work executed by the Revenue Department to the Cumbum tank channels. I do this, because I mentioned the word superficial in my letter No. 73, dated 23rd October 1876, in connection with the work executed by the Revenue authorities ; and as Mr. Farmer only takes exception to one of the estimates in his weekly report ending

29th July 1876, viz., the Chinna Cumbum channel, as being 6 per cent. under actuals according to the Revenue Department measurements by means of a yard cube box, I presume they may be considered approximately correct. A reference to the column in the estimate of depths in excavation will show why I made use of the word, that may hereafter be taken exception to. I also beg to observe in connection with the estimates that the rates of this department will bear favorable comparison with those allowed. I was also led to make this observation, as the Head Assistant Collector is under the impression that he can execute work at one-fourth less rate than this department—*Vide* his letter No. 358, dated 13th September 1876, to the Special Engineer Mr. Johnston.

11. It will be seen by a reference to G.O., dated 25th July 1876, No. 1,885, that the Revenue Department roughly estimated the cost of removing silt and weeds from the channels at Rupees 5,109. It will, however, be observed, on a reference to the estimates and the liberal actuals taken by this department, that there is a considerable difference between the depths estimated by the Revenue Department and those actually executed ; hence the cause of saving as noted by Mr. Farmer.

No. 501.

ORDER THEREON, 26th January 1877, No. 257.

IRRIGATION, No. 56-B.

ORDERED to be recorded.

2. There can be no doubt that the Range Officer, Mr. Francis, was to blame for not exercising such supervision over the Surveyor employed at Cumbum as would have detected the incorrectness of his levelling while it was in progress.

3. The checking of survey work and levelling operations should be provided for as the work goes on, so that any error of importance may be at once detected and corrected.

4. Mr. Johnston appears to have concluded too hastily that none of the survey work done by the Surveyor was reliable, and some loss of time and additional expense have resulted.

(True Extract.)

Lieut.-Colonel, R.E.,
Secretary to Government.

To the District Engineer, Kurnool.
" Chief Engineer for Irrigation.

Exd. E. C. Shunker.
Spare Copies

Kurnool District Engineer's Office.
Camp. Dupes (Machipir Salu)
No 1 1st January 1877.
Despatched 8.40.
From

The District Engineer
Kurnool

The Chief Engineer
Public Works Department
Madras.

Sir,

1. With reference to G.O. dated 28th
November 1876 No 185 regarding an emergent
estimate submitted through this office in
November 1875 for repairs to the Cumbari Tank
Channels and requesting a report on the following
points Viz:

- 1st Who is responsible for the inaccurate
or useless levels.
- 2nd Under what instructions they were taken
and by whom given.
- 3rd If a Surveyor or Subordinate was
in fault it must be shown as regards
levels which were of no use for the
purpose required and sufficient
instructions were conveyed to him. xx

I have the honor to report that in the first
instance the collector requested an estimate
to be prepared by this Department for the
repairs of the channels in question, together
with

with a survey showing the distributing channels, the portions proposed to be repaired and the extent of land irrigated under each.

2. The matter was referred to the Chief Engineer for Irrigation, in this Office No 19 of the 20 April 1875. As soon as it was reported by the Range Officer, that the Overseer was unable to prepare the survey and levels, as he was incapacitated from severe and frequent attacks of fever, and he sanctioned a temporary Survey Establishment in his Memorandum marginally noted.

No 429 of 29 April 1875.

3. The services of a temporary Surveyor named Venugopala Mordaliyan, after some delay were entertained viz on the 15 June 1875 on a salary of Rs 80 per mensem. This man made in my opinion a tolerably accurate survey of the Tank and Channels, as requested by the Collector, which took him about $2\frac{1}{2}$ months to do, and was a fair outturn of work under the circumstances, as during that time he was occasionally laid up with fever. He then commenced levelling and took longitudinal sections of the following

1. A proposed new channel for the water supply of the Town.
2. Sekrel Katwa Irrigation Channel.
3. Pedda Cumbum.
4. Nakkala gandi.
5. Marlapati.

Making

Making a note of the cross sections required, and also marking their position on the Channel banks - which of course was a bad arrangement as each section ought to have been quite completed before another was commenced. Unfortunately the Surveyor completed the Longitudinal sections only, when he was laid up with a very severe attack of fever and had to be removed from Cumbum on the 8 September 1875 to Madras by his friends.

4. The Survey and levels were taken under instructions from this Office through the Range Officer Cumbum (Copy enclosed).

5. The late Range Officer Mr. Francis was certainly to blame for not checking the levels and ascertaining from time to time if the Surveyor were working according to instructions. He however tried to rectify matters, when the Surveyor left Cumbum sick & dying, going over the Channels with the Tank Overseer and making observations in connection with the Longitudinal sections and taking rough cross sections, from which he framed an Emergent estimate which provided for

1. Rooting out and removing weeds, &c.
2. Removing silt and deepening Channels.
3. Renewing embankments to Channels where necessary.
4. Stopping

4. Stopping leaks, where they existed, with puddled walls.

5. Providing stone revetments to channel banks, where necessary, to prevent breaches.

6. Clearing Jungles from Channel Banks.

The Survey and estimate were forwarded to the Chief Engineer for Irrigation, but by an oversight it was not explained why such a Longitudinal and cross sections were not submitted. This was owing partly to the fact, that arrangements had been made to take the levels over again in a complete form by the Taluk Overseers to be submitted with the estimate for the proposed improvements and masonry works in connection with the Channels.

7. The Chief Engineer for Irrigation however refused to sanction the Emergent Estimate without Special Longitudinal and Cross sections and at the same time sent a Memo of Instructions (No 7 K R of the 25 March 1876) of what was required by him to check the necessity and correctness of the estimate for repairs submitted, and the one proposed to be framed for improvements and masonry works. As a Special Engineer was appointed shortly afterwards for the work, and it was ultimately settled that the old Channels were to be altered and improved and other arrangements made in connection with the water supply of the Town and drainage. Mr Johnston very properly rejected all the old levels

Some of the work was done

levels and even the survey (which he has admitted since was fairly correct) as he wished to do them over again under his own immediate supervision.

8. The levels for the China Cumbum Channel referred to by Mr Farmer in para 7 of his report for the week ending the 29 July could not be correctly taken, in as much as, the Channel banks and even the bed, in some parts were thickly overgrown with jungle, date trees &c, and the completion of the levels under the Special Officer have been delayed even up to the present date, on account of the time &c it has taken the Revenue Department to clear them away.

9. I take this opportunity to observe that it would lead anyone to suppose from the graphic and telling reports submitted weekly by the Head Assistant Collector that the Cumbum Tank Channels had been so improved that nothing or little more remains to be done to make them perfect for Irrigation; but when the Special Engineer's elaborate levels, estimates, plans and reports are submitted for sanction, it will I think be shown that Mr Farmer's exertions were confined to work more in connection with Sanitation than irrigation.

10. I beg to forward certain estimates framed by the Special Engineer of work executed by the Revenue Department to the Kumbhari Tank Channels, I do this, because, I mentioned the word superficial in my letter No. 73 dated 23 October 1876 in connection with the work executed by the Revenue Authorities and as Mr Farmer only takes exception to one of the estimates in his weekly report ending 29 July 1876 viz: the Chenna Kumbhari Channel, as being 6 percent under Actuals according to the Revenue Department measurements by means of a yard cube box. I presume they may be considered approximately correct a reference to the Column in the estimate of depths in excavation will show why I made use of the word, that may hereafter be taken exception to. I also beg to observe in connection with the estimates that the rates of this Department will bear favorable comparison with those allowed. I was also lead to make this observation as the Head Assistant Collector is under the impression that he can execute work at one fourth less rate than this Department. Vide his letter No. 358 dated 13 Sept. 76 to the Special Engineer Mr Johnston.

11. It will be seen by a reference to G.O. dated 25 July 1876 No. 1888 that the Revenue Department roughly estimated the cost of removing silt and weeds from the Channels

No. 7730
not yet disposed of

Channels at Rs. 5709 - it will however be observed on a reference to the estimates and the liberal Actuals taken by this Department that there is a considerable difference between the depths estimated by the Revenue Department and those actually executed, hence the cause of saving as noted by Mr Farmer.

I have the honor to be,
Sir,
your most obedient servant.

C. S. G. G. G. G.
District Engineer.

C. S. G. G. G. G.
Sub.

QD1-4-76 to 610 final def
 1-5-76 - 1094
 25-7-76 - 1885
 28-11-76 - 185



From

The District Engineer
 Kurnool.

To
 The Chief Engineer
 Public Works Dept.
 Madras.

Dated 1st 8th } January 1877
 Received

No. 1

Encl. 5.

Submits report on certain
 points called for in G. O.

No. 185 dated the 28 November 1876
 regarding an Emergent Estimate
 Submitted through this Office,
 for repairs to the Cumbar
 Tank Channel.

No. 500.

Cir. 22-1-77.

No 257
 Public Works Department.
 PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 26 Jan 77
 Read the following:—

From

The District Engineer
 Kurnool

(H.C. Secy 1. 9. 1. 1877)

Recorded.

There can be no doubt that
 the Range Officer, Mr. Francis,
 was to blame for not exercising
 such supervision over the Surveyor
 employed at Annabram as
 would have detected the in-
 correctness of his levelling while
 it was in progress.

The checking of survey work
 and levelling operations should
 be provided for so the work
 goes on, so that any error of
 importance may be at once
 detected and corrected.

Mr. Johnston appears to have
concluded too hastily that none
of the survey work done by the
Surveyor was reliable and
some loss of time and addi-
tional expense have resulted.

W.M. May 20/11

D.L. Raymond 7.1.11
Chas. H. King
Chas. H. King with 5

Enclosures

Dec 8-2-11

230

Govt. of Madras.

PUBLIC WORKS.

To *The D. G. Minors*

Dated

Issued

Recd.

Encl.

G. O. *25th Decr* 1877, No. *257*

Nos. 500 - 501

Cumbum Tank Channels, Ram

Str: - Passing orders on
letter of the Str: Ingr: submitting
the report called for in
G.O. No. 185 of 28th Nov 1876
and to the ^{officers} persons responsible
for the incorrect levels taken
in connection with the
dredging to the —

Not in file

22-11