

(1) Number of pages _____

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MADRAS RECORD OFFICE

Government of Madras

Pulse works DEPARTMENT

G.O. No.	1252.	Press
B.P. No.		Mis.
Dated	2. 5.	18. 12.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
2nd May 1873.*

Read the following letters:—

No. 25. From Captain H. W. WOOD, R. E., Officiating District Engineer, Malabar, to Colonel G. W. WALKER, R. E., Chief Engineer, Public Works Department, dated Calicut, 22nd February 1873, No. 22.

In Captain Bailey's diary under date 11th August 1872, the following remark occurs, "Muchitta Bridge completed; there was too much water in the river to find what was the actual top of the foundations of the bridge, but so far as I could make out to (*sic*) forcing down a stick, the bridge has been built more than 4 feet lower than allowed by the plan and estimate."

2. Colonel Farewell, the Superintending Engineer, 7th Division, having called for an explanation as to who was responsible for this deviation from a sanctioned design, Captain Bailey reported that he found the height of the Muchitta bridge to be 13½ feet instead of 17½ feet, making a deficiency of 656 cubic feet in the masonry. He also reported the waterway had been found sufficient during the monsoon, but that the bridge certainly would be under water in a flood such as had occurred within his knowledge.

3. He further reported Rupees 88-13-0 to remain unexpended from the sanctioned amount, and that explanation had been called for from Overseer Mahoney, who had built the bridge.

4. Bombardier Mahoney's explanation, forwarded without remark by Captain Bailey, was as follows:—"Owing to an error in the splay of the wing-walls given in the plan, I found when I had built them up to their present height that if I continued building any higher I would have no support for the earth-work forming the roadway." Bombardier Mahoney being quite a young man, who has not even yet passed his Overseer's examination, may possibly be excused for so very meagre and obscure an explanation as the above.

5. I consequently again applied to Captain Bailey, and asked him if he had any further information to add in explanation of the deviation from the sanctioned design for the Muchitta Bridge.

6. In reply, Captain Bailey informs me that "when the bridge in question had been raised to its present height, the Overseer found that if he built it to that shown on the plan, the embankment at top would have only been about to (*sic in orig.*) feet broad, the projection of the wing-walls in front and rear not being sufficient to support an embankment of the height intended."

7. I confess I am in considerable doubt as to the meaning of the above, as I am unable to see what connection there is between the height of the abutment of a bridge and the breadth of the embankment leading to it.

8. Captain Bailey proceeds:—"It would have been better if Mr. Mahoney, when he found out the mistake in the plan, had deferred completing the bridge till he had heard from me; but as the monsoon was beginning and the road would have been closed without the bridge, he completed it, making the roadway as high as it would stand." On this I would remark that though as far as I can make out, Captain Bailey passed the Muchitta Bridge in April, May, June, and July, it was not till after its completion in August that any remark appears in his diary

regarding it. The bridge is one of 18 feet waterway, approached by an embankment $15\frac{1}{4}$ feet high, and being in charge of a mere novice might reasonably have been expected to engage a little of Captain Bailey's attention. That having been entirely wanting, it is no wonder Bombardier Mahoney left the error to be found out casually after the bridge was completed.

9. Captain Bailey has not informed me who is responsible for the error in the plan (whatever that error may be); but as he does not mention that any one else is, I imagine it follows that he, as the officer in charge of the range, is so responsible.

10. The Muchitta Bridge mistake is no very serious matter as the sum expended was less than Rupees 2,000. But as the principle involved is precisely such as might cause grave consequences and heavy pecuniary losses, for which Government hold a District Engineer responsible, I have the honour to report the matter for such notice as may be deemed suitable.

11. If the information regarding the Muchitta Bridge should be thought to be scanty, I should add that I have much difficulty generally in obtaining from Captain Bailey such information as it is absolutely necessary for me to be furnished with to perform the duties and support the responsibilities of the post which I hold.

No. 26. From the same Officer, dated Calicut, 14th March 1873, No. 35.

In continuation of my letter No. 22, dated 22nd February 1873, I have the honour to forward the duplicate vouchers for expenditure on the Muchitta Bridge in the Cannanore Range. I do so because it appears from Captain Bailey's statements that "only the usual official measurement books are kept for all works under Rupees 2,500," and such usual official measurement books appear in the Cannanore Range to be confined to a bare statement of materials expended and labour employed. Captain Bailey states that "the printed forms for works below Rupees 2,500, as received from the Controller of Public Works Accounts, merely intend that the accounts should be divided under the head of Materials and Labour as ordered in the Manual." It is obvious that this cannot be the case, and that common sense demands that the quantity of work done for the materials and labour expended should also be shown, if any check is to be kept on the progress of a work. And, by the way, I may say that had this course been followed at the Muchitta Bridge, the mistake made, which was reported in my letter No. 22 above mentioned, would have probably been found out sooner than it was and opportunity have been afforded for remedying it.

2. But however that may be, paragraph 11, Section 1, Manual Public Works Accounts, which declares that station books "will vary in character and form, but each book shall contain a complete record of the work or section of road to which it refers;" paragraph 13 of the same section which declares "the station or day book of each work should also give the progress of the measurement of work done up to date;" and paragraph 57 of the same section regarding note books give sufficiently explicit directions regarding the necessity of measuring works. As from the enclosed papers such measurements appear to have been entirely neglected, I

have, in conformity with paragraph 4, G. O., 24th February 1871, No. 97, and the two concluding paragraphs of G. O., 20th February 1873, No. 183, to submit this circumstance to your notice.

3. I am not aware under what circumstances the statement of advances, appended to Proceedings of Madras Government, Public Works Department, 25th February 1873, was obtained; but I have the honour to point out that none of the advances which are shown to have been made by the vouchers enclosed appear in it.

No. 27. ORDER THEREON, 2nd May 1873, No. 1,252.

CIVIL WORKS, No. 1.

THE Muchitta Bridge, a work below the Kotiaddy Ghaut estimated to cost Rupees 1,900, appears to have been commenced in March 1872, the entries in the station book for which month consist of three avowed advances on 27th March to chunam contractors and stone-cutters and one to a Maistry (afterwards apparently reckoned as payment of salary) aggregating Rupees 270, and of Rupees 100 vouched for by a bill for stones supplied, dated 15th March, which seems to be as much an advance as the other items.

2. The station book for April contains five advances for stone made on 10th April, amounting to Rupees 380, out of a total outlay of Rupees 822-12-0, reduced by recovery of one of the advances of March amounting to Rupees 50. These advances are shown by entry in diary for 10th April to have been part payments for 10,000 stones delivered at Rupees 32 per 1,000 and part advances for more. The amount of work done is noted in the station books but not the exact measurements, and the date of Captain Bailey's inspection is noted as the 26th April without remark. And an entry in the Overseer's diary on that date appears to show that, though work was measured, it was not the cubic contents that were noted, but only the height to which the work was raised.

3. The station book for May shows payments for masonry and wood-work completed, and earth-work and plastering nearly completed, to the amount of Rupees 1,415-7-0 less all advances recovered to the amount of Rupees 580. The work was twice inspected by the Overseer, once on the 11th and 12th when he recorded his measurements in his diary, and again on the 24th when he paid up and apparently closed the season's work on account of the monsoon being imminent and fever prevalent among the workmen.

4. The station book for June contains only an entry of Rupees 5 as paid to a watchman, with note of inspection by the Range Officer, dated 30th October, to the effect that 656 cubic feet of masonry were deficient. A former inspection was made by him on 11th August, but measurements could not be taken in consequence of water in the river.

5. From the above analysis of the books forwarded by the District Engineer it would appear that taking into consideration the situation of the bridge in the jungles at the foot of the Kotiaddy Ghaut, a very feverish locality, the advances made were not objectionable either in principle or amount, and their recovery was

*Proceedings of the Madras Government, Public Works Department,
2nd May 1873.*

prompt and satisfactory; the only objectionable thing in the transaction being the want of contractors' receipts for three balances of Rupees 10 each on account of stone, for want of which the Overseer's bill should be reduced by Rupees 30. But Captain Bailey is doubtless wrong in his view of what is required as to entry of measurements in station books, and he will henceforth insist on his Overseers so recording the actual progress of their works, so far as they can be measured up.

6. With reference to the grave professional blunder in construction of the bridge, recorded in the District Engineer's letter No. 22 of 22nd February, it is clear that the Local Fund Board of Malabar have a claim against the Range Officer and Overseer for the cost of re-construction of the work, in proportions which the District Engineer, after obtaining all necessary information from the Range Officer, should submit for the orders of Government. It would appear from the papers laid before Government that a mistake was made by the Overseer in laying out the bridge, which they learn from his diary to have been done on the 18th and 19th April; but it is unaccountable how such an error could have been made and not been detected at Captain Bailey's inspection of the 26th idem. If such oversight was caused by defect of his own plan, the Range Officer becomes personally answerable for all the error. There is nothing in the Overseer's diary to lead the Government to understand that the Range Officer passed the work in the months of May, June, or July, as stated by the District Engineer.

7. His Excellency the Governor in Council must notice, in conclusion, the unsatisfactory manner in which the case of the Muchitta Bridge has been sent up by the District Engineer. That officer states himself to be in doubt of the meaning of some of the Range Officer's explanations, and yet calls on the Government to act in the matter. He will consider it his duty in future to master, at whatever pains, the details of every case that he may have occasion to submit for the orders of Government.

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,

Secretary to Government.

To the District Engineer, Malabar, with five Enclosures.
,, Controller of Public Works Accounts.

Exd. S. T. Austin.

No. 35

Malabar District Engineer's Office
Calicut 14th March 1873.

From,

The Offg. District Engineer,

To,

The Chief Engineer, P.W.

Sir,

In continuation of my letter No. 22 dated 22nd February 1873 I have the honor to forward the duplicate vouchers for expenditure on the Muchitta Bridge in the Cannanore Range. I do so, because it appears from Captain Bailey's statements, that only the usual official measurement books are kept for all works under Rs. 2500 and such usual official measurement books appear in the Cannanore Range, to be confined to a bare statement of materials expended and labor employed. Captain Bailey states that "the printed forms for works below Rs. 2500 as received from the Controller Public Works Accounts, merely intend that the accounts should be divided under the head of materials and labor as ordered in the Manual". It is obvious that this cannot be the case, and that common sense demands that, the quantity of work done, for the materials and labor expended, should also be shown, if any check is to be kept on the progress of a work. And by the way I may say that, had this course been followed at the Muchitta bridge, the mistake made, which was reported in my letter No. 22 above mentioned, would have probably been found out long since, and thus have been avoided.

for remedying it.

But however that may be, para 11. Section 1 Manual P. W. Accounts which declares that station books "will vary in character and form but each book shall contain a complete record of the work or section of road to which it refers"; para 13 of the same section declares "the station or day book of each work should also give the progress of the measurement of work done up to date"; and para 57 of the same section regarding note books, give sufficiently explicit directions regarding the necessity of measuring works. As from the enclosed papers such measurements appear to have been entirely neglected, I have in conformity with para 4 Ls. O. 24th February 1871 No. 189 and the two concluding paras of Ls. O. 20th February 1873 No 183 to submit this circumstance to your notice.

I am not aware, under what circumstances, the statement of advances, appended to Proceedings of Madras Government P. W. Department 28th February 1873, was obtained; but I have the honor to point out that, none of the advances which are shown to have been made by the vouchers enclosed appear in it.

I have the honor to be,
Sir,
Your most obedt. Servant

Malabar District Engineer's Office
Cachet 22 February 1873.

No 22

Malabar District Engineer's Office
Cachet 22 February 1873.

From

The Offg. District Engineer,

Malabar

To

The Chief Engineer, P. W. Department,
Madras.

Sir

In Captain Bailey's diary under date 11th August 1872, the following remark occurs, "Muchitta bridge completed, there was too much water in the river, to find what was the actual top of the foundations of the bridge, but so far as I could make out to (sic) forcing down a stick, the bridge has been built more than 4 feet lower than allowed by the Plan and Estimate."

Colonel Farewell, the Supg. Engineer 7th Division having called for an explanation as to who was responsible for this deviation from a sanctioned design, Captain Bailey reported that he found the height of the Muchitta bridge to be 13 1/2 feet instead of 17 1/4 feet, making a deficiency of 656 cubic feet in the masonry.

He also reported the waterway had been found sufficient during the monsoon, but that the bridge certainly would be under water, in a flood, such as had occurred within his knowledge.

He further reported Rs 88-13-0 to remain unexpended from the sanctioned amount and that explanation had been called for from Overseer Mahoney, who had built the bridge.

Bombardier Mahoney's explanation forwarded without remark by Captain Bailey was as follows: "Owing to an error in the splay of the wing walls given in the plan, I found when I had built them up to their present height that if I continued building any higher I would have no support for the earthwork forming the roadway." Bombardier Mahoney being quite a young man, who has not even yet passed his Overseer's Examination; may possibly be excused for so very meagre and obscure an explanation as the above.

I consequently again applied to Captain Bailey and asked him if he had
any

any further information to add in explanation of the deviation from the sanctioned design for the Muchitta Bridge.

In reply, Captain Bailey informs me, that when the bridge in question had been raised to its present height, the Overseer found that if he built it to that shown on the plan, the embankment at top would have only been about to (see in orig.) ¹⁰ feet broad, the projection of the wing walls in front and rear not being sufficient to support an embankment of the height intended.

I confess I am in considerable doubt as to the meaning of the above, as I am unable to see what connection there is between the height of the abutment of a bridge and the breadth of the embankment leading to it.

Captain Bailey proceeds "It would have been better if Mr Mahoney, when he found out the mistake in the Plan, had deferred completing the bridge till he had heard from me, but as the monsoon was beginning and the Road would

would have been closed without the bridge, he completed it, making the Roadway as high as it would stand." On this I would remark that though as far as I can make out, Captain Bailey passed the Muchitta bridge in April, May, June and July it was not till after its completion in August that my remark appears in his Diary regarding it. The bridge is one of 18 feet waterway, approached by an embankment 15 to 20 feet high and being in charge of 4 mule mules, might reasonably have been expected to engage a little of Captain Bailey's attention. That having been entirely wanting, it is no wonder Bombardier Mahoney left the error to be found out casually after the bridge was completed.

Captain Bailey has not informed me who is responsible for the error in the plan (whatever that error may be); but as he does not mention that any one else is, I imagine it follows that he as the Officer in charge of the Range is so responsible.

The

The Muchitta bridge mistake
is no very serious matter as the sum expended
was less than Rs 2000. But as the principle
involved is precisely such as might cause
grave consequences and heavy pecuniary
losses, for which Government hold a District
Engineer responsible; I have the honor to
report the matter for such notice, as may
be deemed suitable.

If the information regarding the Muchitta bridge should be thought to be scanty, I should add that, I have much difficulty, generally, in obtaining from Captain Bailey such information as it is absolutely necessary for me to be furnished with, to perform the duties and support the responsibilities of the post which I hold.

I have the honor to be

Li

Yours most obedt. Servt.

H. W. Wood Capt. R. E.

Offg. District Engineer, Malabar

P. W. 1873 Depart
D. P. W. Malabar District
From No 1236.
The Offg. Dist. Engineer,
Malabar

To
The Chief Engr, D. P. W.,
Madras

Dated 22nd
Recd 24th February, 1873

No 22.

Report on the
Condition of the
Muchitta Bridge on
the Road from Cothiady
to the Plant.

No 1252-2nd May/73

No 25

6th 9th April/73

No 1252 P. W. D.
Proceedings of the Madras Govt.
Read the following

From

The offg. Dist. Engineer Malabar. (H. E. Dec. 22nd 72nd 7th Dec/73)

do

do - (H. E. 35th 14th Mar/73)

The Muchitta

Bridge, a work below
the Kottiadhy Plant
estimated to cost Rs. 1900,
appears to have been
commenced in March
1872, the entries in the
Station Book for which
months consist of 3
allowed advances on
27th March to Chundan
Contractors

J. D. S.

See remarks.

Contractors and Storecutters
and 1 to a Maistry
(afterwards apparently
reckoned as payment of
Salary) aggregating
Rupees 270 and of Rs 100
vouched for by a Bill
for stones supplied dated
15th March which seems to
be as much an advance
as the other items.

The Station Book
for April contains 5 ad-
vances for stone made
on 10th April amounting
to Rupees 380, out of a
total outlay of Rupees 822.12,
reduced by recovery of one
of the advances of March
amounting to Rupees 50.

These

176
These advances are shown
by entry in diary for
10th April to have been
part payments for
10,000 stones delivered at
Rupees 32 per 1000 and
part advances for more.
The amount of work
done is noted in the
Station Books but not
the exact measurements,
and the date of Captain
Bailey's Inspection is
noted as the 25th April,
without remark - And
an entry in the Overseers
Diary on that date ap-
pears to show that
though work was mea-
sured, it was not the
Cubic

cubic contents that were noted, but only the height to which the work was raised.

The Station Book for May shows payments for Masonry and wood work completed, and Earth work and plastering nearly completed, to the amount of Rs 1415-7 left all advances recovered to the amount of Rs 580- The work was twice inspected by the Overseer, once on the 11th and 12th when he recorded his measurements in his Diary, and again on the 24th when he paid up,

and

and apparently closed the season's work on account of the Monsoon being imminent and fever prevalent among the workmen.

The Station Book contains only an entry of Rupees 5 as paid to a watchman, with note of inspection by the Range Officer dated 30th October to the effect that 656 Cubic feet of masonry were deficient. A former inspection was made by him on 11th August, but measurements could not be taken in consequence

A

of water in the River.

From the above analysis of the Books forwarded by the District Engineer it would appear that taking into consideration the situation of the Bridge in the jungles at the foot of the Poriadhy Ghaut, a very feverish locality, the advances made were not objectionable either in principle or amount, and their recovery was prompt and satisfactory; the only objectionable thing in the transaction being the want of Contractors' Receipts for three balances of Rs 10 each

We can hardly say this - if it be intended that Capt V. is to pay for his time when the Dist Engr could not order this.

J.D.

21 12
each on account of stone, for want of which the Overseers Bill should be reduced by - Rupees 30-0
His Excellency the Governor in Council is of opinion that no good object is gained by handing up to Government small details of past work which the District Engineer is himself competent to correct. It will be time for their intervention when his distinct instructions, issued in conformity with Government Orders, shall have been disregarded

disregarded or defied, which
the Government are com-
pelled would not be the
case in a Range worked
by an Officer of Captain
Baileys sense of duty
and obedience. That Officer
is doubtless wrong in his
view of what is required
as to entry of measure-
ments in Station Books,
and he will hereafter
insist on his Overseers
so recording the actual
progress of their work;
so far as they can be
measured up.

With reference to
the grave professional
blunder in construction
of

How are they free.
 secured this? It
 may be an En-
 passing precedent
 & must be carried
 in fut. unless we call!

Letter say - Staining
all necessary in-
formation from —

2
Admin 1 for the admin
of frat.

of the bridge recorded
in the District Engineer's
letter No 22 of 22nd Feb^y,
it is clear that the Local
Fund Board of Malabar
have a claim against
the Range Officer and
Overseer for the cost of
reconstruction of the work,
in proportions which
the District Engineer
after coming to an
understanding of the
matter with the Range
Officer, should decide
for their information.
It would appear from
the papers laid before
Government that a
mistake was made
by

by the Overseer in laying
out the Bridge, which
they learn from his
Diary to have been done
on the 18th and 19th April;
but it is unaccountable
how such an error could
have been made, and
not been detected at
Captain Bailey's in-
spection of the 26th Idem.
If such oversight was
caused by defect of his
own plan, the Range
Officer becomes personally
answerable for all the
error. There is nothing
in the Overseer's Diary
to lead the Government
to understand that the
Range

I concur in the
view Ellis as to
the transfer. Let Captain Wood from the
1st line. Capt W. leave to which he is
is a very old dringayotted. With a
who has done for younger Officers at his
work & is seen to disposal who is not
his present position wedded to a long stand-
by his own exertions. ing method of carrying
and therefore since on work which he has
himself says the grown into the habit
him to observe & of thinking essential
not introduce the to

12
25
Range Officer passed the
work in the months of
May, June, or July,
as stated by the Dis-
trict Engineer.

Arrangements
will be made for trans-
ferring Captain Bailey
to another District,
after the return of

Captain Wood from the
1st line. Capt W. leave to which he is
is a very old dringayotted. With a
who has done for younger Officers at his
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his present position wedded to a long stand-
by his own exertions. ing method of carrying
and therefore since on work which he has
himself says the grown into the habit
him to observe & of thinking essential
not introduce the to

to the peculiarities of
the District and its habits here - as
people, the Government a general arrange-
ment that no further - much - particularly
difficulty will be experienced by the District
Engineers in carrying
out reforms conducive
to greater precision
and method in execu-
ting and accounting
for work; such as he
feels it incumbent on
him to insist on, -
taking the very proper view
he does of the responsibility
of his position.

J. D. S.

I would notice the
unsatisfactory way
in which the case
has been sent up.
Capt. W. de la Harpe
states that he does not
understand much
of Capt. W.'s explana-
tions - and yet asks
in fact - He shall
have no interest in the
construction of the
bridge - J. D. S.

N.B. The Capt. must notice
in conclusion, the manner in which the
very manner in which the
case of the Michell's Bridge
has been sent up by the Dis-
trict Engineer. That Offi-
cer states himself to be in
doubt of the meaning of some
of the River Officer's explana-
tions, and yet calls on the
Govt. to act in the matter.
He will consider it his duty in
future to make, at whatever
price, the details of every
case that he may have occa-
sion to submit for the review
of Govt. - C. W. W.

To The D. C. Malabar with a copy
- Controller of P. & W. - C. W. W.
Decr 12-5-73.

P. 1843 Report
from, 1st May 1785.

The Office with Ensigns,
Malabar.

To,
The Chief Ensigns, D. W.
Madras.

No. 35.

Dated 14th }
Recd 18th } March 1843.

Encls: 5.

Forwarding the duplicate
vouchers of Noochutta Bridge
Expenditure and pointing out
the irregularity of the orders
of Government have been taken.

No 26

No 1252. 2nd May 1785

690/43

Op. 1785 41236
★

Govt. of Madras.

PUBLIC WORKS.

To the District Engineer
Malabar

Date

Recd.

Encl.

G. O. 2nd class 1878. No. 1252

No. 25027

Muchitta Bridge. Passing
orders on letters from
the S. E. Engr., Malabar,
relating to the faulty
construction of the bridge.