

- (1) Number of pages _____
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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	592	(9)	Press
B.P. No.			Mis-
Dated	6/3		1876

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
6th March 1876.*

No. 59. Read the following letter from Lieutenant F. C. SHEPHERD, R.E., to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated London, 20th December 1875 :—

With reference to G.O., No. 3,443-A., dated 7th December 1874, I have the honor to report as follows :—

1. I regret that a serious illness which necessitated my taking sick leave since November 1874 has prevented me from replying up to date.

2. Before leaving India I particularly requested Mr. Randall to write to me for explanation of any apparent differences between the accounts I had prepared and claims brought forward by the Contractor, as I thought it very likely that the latter would take advantage of my departure for England to bring forward statements that I could easily show to be false, but that any one with less knowledge of the facts of the case might find it difficult to disprove. I find, however, that a year and a half after I left the country the Contractor's claims have been settled *ex-parte*, and that I am now in the unsatisfactory position of having to offer explanations of a matter already disposed of.

3. I am called upon to explain—

1st.—The difference between Rupees 14,992 shown by me to be due to the Contractor and Rupees 41,073 finally admitted

2nd.—The issue of certificates containing erroneous measurements.

3rd.—The system pursued with regard to the payments made in the case of certain tank bunds of exhibiting as measurements quantities taken from the estimate.

4. I have no doubt that if I had all the details before me I could show good reason for making no alterations in the accounts that I left. These accounts were under dispute for about two years while I was in India, but as long as I remained on the spot to explain them no alterations were necessary. They were examined both by Mr. Randall and the Superintending Engineer, Colonel Roberts, R.E., while every objection that could be urged against them was considered by both those officers as well as by myself.

5. The first item that calls for notice is Rupees 1,692-11-0 paid in addition to my valuation of Rupees 4,836-5-0 of work done in excavating the foundations of the anicut.

The sum I allowed was based on actual measurements made by myself in checking previous measurements made by the Overseer which were found to be inaccurate.

These measurements were explained by me to the Contractor before he signed the next certificate in which he accepted these revised measurements. He did not bring forward any claims to be paid according to the Overseer's measurements until some years after.

It was impossible for me to check all the measurements that were made for the monthly certificates before paying for the work; but I always took the earliest opportunity of doing so.

However, although the Contractor has been allowed to examine all the certificates issued during the period of about three years that he was employed, this is the only instance in which he has found a mistake in the measurements, and that was immediately discovered and corrected by me. I hope due allowance will be made for the difficulty in checking the measurements of incomplete work made monthly.

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6th March 1876.*

The original estimate allowed for a depth of foundations of $10\frac{1}{2}$ feet while they were actually laid at a depth of $7\frac{1}{2}$ feet. Mr. Rundall, however, bases his reasons for the extra payment on "the extra depth at which the foundations were laid."

6. The extra payment of Rupees 2,562, noticed in paragraph 3, is founded on a false supposition. The agreement was to supply bricks at Rupees 5-8-0 per 1,000, not at Rupees 1-10-8 a cubic yard. The total amount deducted was therefore calculated on the value of the number of bricks actually supplied estimated at the agreed rate. This will appear from an examination of the detailed accounts.

The number of cubic yards executed and the rate of Rupees 2 per cubic yard are necessarily only approximate, as it was impossible to wait until the last brick supplied departmentally had been used up and then to have measured the work actually executed. The deduction is shown in this way to suit the form of the contract certificate. Mr. Rundall has evidently based his calculations on the supposition that 300 bricks went to the cubic yard; but the bricks supplied to the Contractor were smaller than those moulded afterwards. In an experimental cubic yard that I built I recollect that there were about 350 per cubic yard.

7. It is impossible for me to notice each item in detail, because the reasons for the admissions are not given, but the following are undoubtedly over-payments. In paragraph 22 Mr. Rundall states that a deduction on account of work valued at Rupees 544-2-6 is connected with a change in the line of bund for which Ragavachary was in no way responsible. But this portion of the work was rejected by Mr. Hughes, because it consisted almost entirely of sand, although the Contractor had been warned repeatedly not to make use of that material. I also concurred with Mr. Hughes in rejecting this work; but as the line of bund was altered I did not charge the Contractor with the cost of removing it.

The Contractor did not excavate any portion of the foundations of the eastern syphon sluice mentioned in paragraph 23, even the channel was not excavated to its full depth at this spot. He therefore has no claim to the Rupees 300 allowed.

8. There are three other points that require notice. In paragraph 24 it is stated that the turfing was measured up under my directions. This was not the case. I had nothing to do with the measurements of the turfing except in checking them, when I rejected a certain portion which was put on the slopes of the incomplete channel and which had therefore to be removed before the slopes could be properly finished. The Contractor agreed to this at the time, and he was afterwards paid for those portions which he ultimately finished in a proper manner. I always reserved to myself the right of rejecting the measurements of my subordinates, especially when, as in this case, the work must have been passed through an oversight. If I had accepted them in this case the Contractor would doubtless have claimed to be paid for the completed channel on the ground that if the channel had not been completed the turfing would not have been passed. Had the watering been delayed until after the measurements were checked the turfing would have withered.

9. With reference to the firewood question discussed in paragraph 25. The firewood was supplied by the Tahsildar of Tenkarei, and my calculations were based on his accounts.

If these accounts have been shown to be inaccurate the deductions cannot stand,

*Proceedings of the Madras Government, Public Works Department,
6th March 1876.*

10. The deduction that I made on account of tools is admitted in paragraph 26 to be equitable; but reasons are given to show that it was not my intention so to adjust the account. I admit that I returned the security deposited for the return of the tools; but I did so because I had sufficient other security in hand. It is not true that I submitted an account to Mr. Prince showing that only Rupees 1,000 were due for both tools and firewood; but I did prepare a statement showing a deduction of Rupees 1,000 for sundries at 5 per cent. on tools and firewood, thus:—

Tools	Rupees 15,000
Firewood	" 5,000

Rs. 20,000 five per cent.

on which is Rupees 1,000. This probably caused the mistake.

It is stated that masons' tools ought not to have been supplied; but they were allowed to the Contractor because they were included in the estimate according to the rates of which he had contracted to execute the work. When the work was taken out of the Contractor's hands no tools were issued, but the rate for cut stone had to be increased. The conditions under which the tools were issued were clearly stated in a memorandum which, however, had been abstracted from the file in the office; but if a legal question had arisen it would have been sufficient that both the writer and myself could have given evidence of its contents.

11. I have now to explain the alleged discrepancies in the measurements of the northern tanks, in paragraphs 21 and 22. I was aware that payments for these works were made on quantities taken from the estimate deducting, if necessary, for incomplete work.

This was the system pursued up to the completion of these tanks, and Mr. Rundall, when he examined the work, agreed with me that it was the only satisfactory method of payment. The reason was that it was impossible to measure the pits dug, partly because much of the soil excavated had to be thrown aside as unfit for forming a bund, and partly because of the difficulty of distinguishing old pits from new ones.

The measurements for these works were fully discussed while I was in India, and I then showed that the supposed discrepancies arose partly from the damage caused by the flood of 1869 and partly from a deduction made for a portion of the bund rejected. This question was finally settled with Mr. Prince and the re-opening of it barred by agreement in 1871.

I had no opportunity of checking the first measurements because the bunds were damaged immediately afterwards by the flood of 1869, in allowing for the damage caused by which only the principal trenches were measured. I cannot therefore understand what comparison there is between the measurements taken before the flood and those taken afterwards. That the former measurements were not final is, however, evident from the form of the certificate, in which the total quantity of work executed up to date was always shown and the previous quantities deducted.

12. Finally, I notice that in paragraph 7 it is stated, with reference to the south channel, that over-payments were made on measurements of the same work given credit for two or three times over. It is necessary, in accordance with the form of the contract certificate, to give credit for the same work in each certificate up to the final one; but the error in this case, which was a clerical one, consisted in an omission to deduct the correct total of work previously executed.

*Proceedings of the Madras Government, Public Works Department,
6th March 1876.*

13. Writing as I now do without having the details before me, I have carefully omitted to state anything of which I am not perfectly certain. Had I been furnished with further particulars I have no doubt that my statements would have been much more conclusive. I trust however that my explanations will be considered satisfactory.

No. 60.

ORDER THEREON, 6th March 1876, No. 592.

IRRIGATION, No. 4.

It appearing that Lieutenant Shepherd was furnished only with a copy of the Proceedings of the 7th December 1874,

and not with the connected papers, and that consequently he had not, when writing his explanation given in the foregoing letter, the information requisite to enable him to make it full and complete, he will be furnished with a copy of the printed file of papers commencing with Mr. J. W. Rundall's letter, No. 115, of the 25th October 1873, which file contains the whole of the Contractors claims' memoranda as well as the District Engineer's Notes thereupon. Any further explanations which Lieutenant Shepherd may wish to offer after an examination of these papers will be awaited.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the District Engineer, Tinnevely.
„ Chief Engineer for Irrigation.
„ Lieutenant Shepherd, R.E., with Enclosures.

Ed. S. T. Austin.
Spare Copies

London

Dec. 20th 1875

From

Lt. F. C. Shepherd R. E.

to

The Chief Engineer for Irrigation
Madras.

Sir

With reference to G. O. No 3443 A dated 7th Decr 1874 I have the honor to report as follows:-

1. I regret that a serious illness which necessitated my taking sick leave since November 1874 has prevented me from replying up to date.

2. Before leaving India I particularly requested Mr Rundall to write to me for explanations of any apparent differences between the accounts I had prepared and claims brought forward by the Contractor as I thought it very likely that the latter would take advantage of my departure for England to bring forward statements that I could easily

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shew to be false; but that anyone with less knowledge of the facts of the case might find it difficult to disprove.

I find, however, that a year and a half after I left the Country the Contractors' claims have been settled ~~in~~ parts and that I am now in the unsatisfactory position of having to offer explanations of a matter already disposed of.

3. I am called upon to explain
1st The difference between Rs 14,992 shown by me to be due to the Contractor and Rs 41,073 finally admitted.

2nd The issue of certificates containing erroneous measurements.

3rd The system pursued with regard to the payments made in the case of certain tanks instead of exhibiting actual measurements quantities taken from the estimate.

4 I have no doubt that if I had

3
all the details before me I could shew shew good reason for making no alterations in the accounts that I left. These accounts were under dispute for about two years while I was in India, but as long as I remained on the spot to explain them no alterations were necessary. They were examined both by Mr. Rundall and the superintending Engineer Col Roberts R.E. while every objection that could be urged against them was considered by both those officers as well as by myself.

5 The first item that calls for notice is Rs 1692 - 11 - " paid in addition to my valuation of Rs 4836-5- of work done in excavating the foundations of the Anicut. The sum I allowed was based on actual measurements made by myself.

14
in checking previous measurements made by
the Overseers which were found to be in-
accurate.

These measurements were explained by
me to the Contractor before he signed the
next certificate in which he accepted these
revised measurements. He did not bring
forward any claims to be paid according
to the Overseers measurements until some
years after.

It was impossible for me to check all
the measurements that were made for the
monthly certificates before paying for the
work; but I always took the earliest
opportunity of doing so.

However, although the Contractor has
been allowed to examine all the certifi-
cates issued during the period of about
three years that he was employed this
is the only instance in which he has
found a mistake in the measurements.

5
1103
and that was immediately discovered &
corrected by me. I hope due allowance
will be made for the difficulty in checking
the measurements of incomplete work made
monthly.

The original estimate allowed for a depth
of foundations of $10\frac{1}{2}$ feet, while they were
actually laid at a depth of $7\frac{1}{2}$ feet.

Mr. Randall, however, bases his reasons
for the extra payment on "the extra depth
at which the foundations were laid."

6 The extra payment of Rs. 2562.
noticed in para. 3. is founded on a false
supposition. The agreement was to supply
bricks at Rs. 5-8-0 per 1000, not at
Rs. 1-10-8 a cubic yard. The total
amount deducted was therefore, calculated
on the value of the number of bricks
actually supplied estimated at the
agreed rate. This will appear from an
examination of the detailed accounts.

6
The number of cubic yards expended under
the ^{rate} ~~rate~~ of \$2 per cubic yard are neces-
sarily only approximate as it was impossi-
ble to wait until the last brick supplied
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then to have measured the work actually
expended. The deduction is shown in this
^{way} ~~case~~ to suit the form of the Contract or
certificate. Mr. Randall has evidently
based his calculations on the supposition
that 300 bricks went to the cubic yard;
but the bricks supplied to the Contractor
were smaller than those moulded after-
wards. In an experimental cubic yard
that I built I recollect that there were
about \$50 per cubic yard.

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each item in detail because the reasons
for the admissions are not given, but the
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In para 22 Mr. Randall states that
a deduction on account of work valued

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1384
at \$544-2-6 is connected with change
in the line of bank for which Raynwick
was in no way responsible. But this
portion of the work was rejected by Mr.
Hughes because it consisted almost en-
tirely of sand; although the Contractor
had been warned repeatedly not to make
use of that material. I also concurred
with Mr. Hughes in rejecting this work;
but as the line of bank was altered I
did not charge the Contractor with the
cost of removing it.

The Contractor did not excavate any portions
of the foundations of the eastern syphon
sluice mentioned in para 23. even the
channel was not excavated to its full
depth at this spot. He therefore has no
claim to the \$300 allowed.

8 There are three other points that
require notice. In para 24 it is stated
that the turping was measured up under
my directions. This was not the case.

I had nothing to do with the measure-
ments of the turfing except in checking
them, when I rejected a certain portion
which was put on the slopes of the incom-
plete channel and which had therefore
to be removed before the slopes could be
properly finished. The Contractor agreed
to this at the time and he was afterwards
paid for those portions which he ultimately
finished in a proper manner. I always
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especially when as in this case the right
must have been passed through in
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have claimed to be paid for the com-
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the channel had not been completed
the turfing would not have been passed.
Had the watering been delayed until
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the turfing would have withered.
9 With reference to the firewood question
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on his accounts.
If these accounts have been shown to be
inaccurate the deductions cannot stand.
10 The deduction that I made on ac-
count of tools is admitted in para 26.
to be equitable; but reasons are given
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so to adjust the account. I admit that
I returned the security deposited for the
return of the tools; but I did so because
I had sufficient other security in hand.
It is not true that I submitted an ac-
count to Mr. Prince showing that only
Rs 1000 were due for both tools and
firewood; but I did prepare a statement
showing a deduction of Rs 1000 for
sundries at 5 per cent on tools and

firewood thus:-

Tools \$15,000.

Greenwood 5,000

No. 20,000 five pt. cent.

on which is N^o. 1000. This probably caused
the mistake.

It is stated that masons tools ought not to have been supplied; but they were allowed to the Contractor because they were included in the estimate according to the rates of which he had contracted to execute the work. When the work was taken out of the Contractors hands no tools were issued, but the rate for cut-stone had to be increased. The conditions under which the tools were issued were clearly stated in a Memo which, however, had been abstracted from the file, in the Office; but if a legal question had arisen it would have been sufficient that both the writer and myself could have given evidence of its contents.

21. I have now to explain the alleged discrepancies in the measurements of the Northern Banks in paras 21 & 22. I was aware that payments for these works were made on quantities taken from the estimate deducting, if necessary,

for incomplete work.

This was the system pursued up to the completion of these banks and Mr.

Rindale when he examined the work
 agreed with me that it was the only

satisfactory method of payment. The reason was that it was impossible to

measure the pits dug, partly because much of the soil excavated had to be

thrown aside as unfit for forming a
bond and finally because of the diffi-

difficulty of distinguishing old pits from
new ones.

The measurements for these works were fully discussed while I was in India

and I then showed that the supposed

discrepancies arose partly ^{from} the damage caused by the flood of 1869 & partly from a deduction made for a portion of the bind rejected. This question was finally settled with Mr. Prince and the reopening of it ~~corrected~~ ^{barred} by agreement in 1871.

I had no opportunity of checking the first measurements because the binds were damaged immediately afterwards by the flood of 1869; in allowing for the damage caused by which only the principal benches were measured. I cannot therefore, understand what comparison there is between the measurements taken before the flood & those taken afterwards. That the former measurements were not final is, however, evident from the form of the certificate, in which the total quantity of work executed up to date was always shown and the previous

quantities deducted.

Finally I notice that in para 7 it is stated with reference to the South Channel that overpayments were made on measurements of the same work given credit for two or three times over. It is necessary in accordance with the form of the Contract certificate to give credit for the same work in each certificate up to the final one; but the error in this case, which was a clerical one, consisted in an omission to deduct the correct total of work previously executed.

Writing as now do without having the details before me, I have carelessly omitted to state anything of which I am not perfectly certain. Had I been furnished with further particulars I have no doubt that my statements would have been much more

conclusive. I trust however that my
explanations will be considered satisfactory.

I have the honor
to be
Sir

Yr most obedt servt.

J. L. Shepley
H. A.

clusive. I must however
 make some

M. WORKS FORM No. 3.

Current No. 1539

From

Lt. F. C. Shepherd R.D.

No. 20 } Decr 1875
 Dated 20 }
 Recd. 1 } March - 76 1876

Subject:-

Explanation relative
 to the irregularities noticed
 in the work of the Meeriguntam
 Amicut.

ENCLOSURES.

From to
 " "
 " "
 " "

Orders and Proceedings in file.

Department.	No.	Date.	ENDORSEMENTS.		
			Department.	No.	Dated.
Report of the claims of Ragabachary" —					
Recd. 24.12.74					

No 592 Public Works Dept
 Proceedings of the Madras Government

Under date the 6th March 76

Read the following:-

Letter from Lt. F. C. Shepherd R.D. to
 Chief Engineer for Irrigation dated London 20th
 October 1875.

It appearing that Lieut.
 Shepherd was furnished
 only with a copy of the
 Proceedings of the 7th Dec-
 ember 1874, and not with
 the connected papers, and
 that consequently he had
 not, when writing his ex-
 planation given in the
 foregoing letter, the in-
 formation requisite to
 enable him to make it
 full and complete, he will
 be furnished with a copy
 of

of the printed file of papers
commencing with Mr. J. W.
Randall's letter No. 115 of
the 1st of October 1872 which
file contains the whole of
the Contractors claims memo-
randa, as well as the Dis-
trict Engineer's notes there-
upon. Any further explana-
tions which Lieut. Shepherd
may wish to offer after
an examination of these
papers will be awaited.

W. 26/2
W. 26/2

To The Dist. Engineer Zimmell
- Chief Engr. for Irrigation
Lieut. Shepherd P.E.
207 Dec. 27/6 with Encls
X Supp. Copy with Encls
Given to President of the
Board

1879

Govt. of Madras.

PUBLIC WORKS.

To
The St Engineer
Trincomalee

7/3

Vol. 1

Part 1

Part 1

Part 1

G. O. 6. 1879, No. 572

Dec. 5-60

Free from the Office of
Works, Trincomalee Dist.
Mr. F. C. Shepherd B.E. is
furnished with a complete
file of papers connected with
the — and for the explanation
from the records regarding
the irregularities of work