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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.

702

Press
Mis.

Dated

18 11 37

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
1st April 1864.*

No. 21 Read the following letter from Lieutenant-Colonel O. W. S. CHAMBERS, R. E.,
Superintending Engineer, 1st Division, to Colonel C. A. ORR, R. E., Secretary to
Government, Department Public Works, dated Camp Dowlaishweram, 13th March 1864,
No. 2,331 :—

SIR,

1. I do myself the honor of submitting to Government an original letter from Major
Stoddard, Executive Engineer Godavery, on the dredging of
the Cocanada Harbour and of the Godavery channels, regard-
ing which an order was passed on the 26th ultimo, No. 583.

1 Letter with two enclosures.

2. Major Stoddard shows, with respect to the Harbour dredging, that if only one dredge had
been charged for in the returns submitted by me, there being only punts sufficient for the work-
ing of one machine at a time, the cost per cubic yard of spoil removed would be reduced from
Rupees 1-3-4, the amount tabulated, to Annas 14-4.

3. This is perfectly true, and Government were informed that one of the reasons of the
unsatisfactory nature of the work performed is there being
but twelve punts for the removal of spoil instead of thirty-six ;
but in calculating the cost of the work, I do not see that this
makes any difference.

Paragraph 7 of letter No. 2,127 of 26th
January 1864.

4. Looking only at results, whether the punts are insufficient in number or not, whether
the dredges are laid up under repair or not, the cost to Government of the operation they are
engaged in is the actual money outlay on the work, *plus* the interest on, and the depreciation
charge of these expensive machines.

5. Major Stoddard is in error in supposing that my report to Government shows that the
two Harbour Dredges worked at the same time; a reference to the returns accompanying that
report will show that they are represented as working alternately, but this does not alter the
result attained : to show what the dredging costs year by year interest and depreciation must be
charged in the accounts for both machines even though the latter charge be nominal.

6. On reporting that the working of the Harbour Dredges was unsatisfactory, I threw no
blame on Major Stoddard or his Subordinates; I believe that he and they did the best in their
power to work the dredges economically. I know that Captain Magnay took much pains in
the matter, and that Major Stoddard was naturally anxious to show a more favorable result than
has been attained: Government, if I may be permitted so to express myself, is under a mistake
in thinking that carelessness has been displayed on the part of their Officers.

7. With regard to the Canal Dredging much the same thing may be said; the actual work-
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by interest and depreciation being charged on machines too many in number, in part not very
efficient, and in part worn out, or constantly needing repair: to me there is no appearance of
any neglect or carelessness shown in the execution of the work done.

8. I cannot see that the result obtained from a bad investment can be anything else but
unsatisfactory, and I am afraid that if Government were to call for returns of the cost of work-
ing, or of not working, the dredges at the Kistna and at Negapatam, it would be apparent that
the Godavery is not the only District in which it is evident that it was a mistake originally to
order out from England so many of these machines.

9. The Godavery also has been saddled with machines belonging to other Districts, and
should hardly be charged with interest and depreciation on the same.

10. Major Stoddard naturally feels deeply the reprimand conveyed to him, and the threat
held out to him of dismissal from the Department for having by a misconception of orders failed
to keep a record of the section of the Bar across the mouth of the Coringa river for the last three
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to keep a record of the section of the Bar across the mouth of the Coringa river for the last three
or four years.

into

*Proceedings of the Madras Government, Public Works Department,
1st April 1864.*

11. With the greatest respect I take upon myself to say that such censure as that contained in Government Order No. 583 is a very severe punishment for an error in judgment, and that, if Major Stoddard be removed from this Department, there will be little encouragement left for others to do their duty.

12. Government must allow me to state that the loss of this Officer to this Department and to this District in particular, in which he has worked ten years, holding during some three years the post of District Engineer, the duties of which were discharged by him to the satisfaction of all concerned, will not easily be made good. The above expressed with all deference and respect, is the out-spoken opinion of one whose connection with Government and this country will shortly cease, and which therefore may be considered unprejudiced.

No. 22.

ORDER THEREON, 1st April 1864, No. 902.

Ordered to be recorded.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

Exd. S. T. Augustin.

3/

Executive Engineer's Office

Sowlaivaram

No. 331

11 March 1864

From

Major J. Stoddard

Executive Engineer Godavery Dist.

To Lieutenant Colonel O. W. Chambers R. E.,
Superintending Engineer

1 Division

Sir

I have the honor to acknowledge the receipt of the Order of Government No. 583 dated 26 February last and lose no time in laying before you the following facts, which I beg you will do me the favor of submitting to Government with your own remarks at an early period.

2 As far back as 1861 I directed Captain Maynard, then in charge of the late No. 1 Range which includes the Port and Harbours of Secanada and Coringa to make the most careful and rigid investigation into

into the cost of working the Sea Dredge with a view to ascertaining beyond all doubt the cost per Cubic Yard. Captain Magnay personally superintended the working for 7 consecutive days and the result of his investigation is tabulated in the accompanying Original Statement.

He made the actual cost per Cubic Yard a small fraction less than 29 Pies or ^{as} 2-5. you will see in his remarks that Captain Magnay considered the work done on that occasion was a fair average and cheaply done.

Now taking the actual working expenses of the Two Sea Dredges as given in the Table pages of the Proceedings of Government namely Rs 1313-3-1 + 4199-4-2 = 5512-7-3 and dividing it by the number of Cubic Yards excavated viz 32690 we get ^a 2-8 as the cost per Cubic

Yard or only 3 more than when ⁵ the work was done under the personal supervision of a good officer.

Before proceeding further I would respectfully beg to point out a mistake which both yourself and the Government have made in supposing that both Sea Dredges were at work together - Such was never the case. I always complained of having too few Puntis to keep even one of the Dredges fairly at work and it was not at all likely that I would have reduced the number of Puntis to half by dividing them between the 2 Dredges. It is true that the two Dredges did both work in the year under review, but it was never together. No 2 was set to work on No 1 getting out of order, in order that the work might not be interrupted while the former was being repaired. The Interest

and depreciation should not therefore have been charged for both Dredges as you have done in para 4 and 5 of your letter of 563 dated 26 January last. By doing so you have enhanced the cost per Cubic yard by 5 annas. making it Rs 1-3-4 instead of only Rs 14-4. This makes a vast difference. the more so when Interest and depreciation on such very expensive machines is tacked on for idle days as well.

3 This brings me to the next point, namely the number of days the Dredge worked in the year. I think I need not mention to you who are so well acquainted with the District that there must be several months in the year when the Dredges must be laid by - The Monsoon, the freshes in Godavary and Yalawar, unfavorable winds and high tides, to say nothing of other minor Contingencies, such as scarcity of labor during certain seasons

I would like to know the Govt. has pay interest and depreciation for every day in the year. Sunday included and the amount of this must be defrayed from the works. No doubt.

Seasons, Engines getting out of order &c &c, all acting singly or together compel us to stop work. Captain Maynag in his remarks in the Statement herewith forwarded, thinks the Dredge ought to be laid by 3 months at least or 90 days out of 365, but I am of opinion that the Dredging at Hecanada or Boringa cannot be done conveniently or without danger to Steamers. Dredge and Punties in October & November and part of December, when the North East wind accompanied by high swelling sea prevail. I should say from past experience that 200 working days is as much as we can calculate upon.

4 I would now beg to give a few facts on the Canal Dredging. I must refer you to Captain Maynag's investigation in this matter also. In 1861 I requested those Executive officers who had Canal Dredges

working under them to make a trial
of the quantity and cost of work
they could be made to do. I
received the results from 2 or 3
of the Officers but I can now find
only Captain Magnay's, without
his signature unfortunately, but
I can vouch for its being genuine.
If you have any doubts you may
refer it to Captain Magnay.

From this statement it appears
that under personal supervision
of a first rate officer one of Foresters
bad Dredges. (Vide his remarks) with
the full complement of Punks excava-
ted a Cubic Yard of sand in a
tide way at nearly 29 Pies or at 2-5.
Captain Magnay was of opinion
that in the Canal the cost would
be only at 1-10 per Cubic Yard of mud.

Now taking the statement at
page 7 of the Order of Government it
appears that the average actual
working cost per Cubic Yard of the

9/
9 Canal Dredges in the year is at 1-8 1/2
or 1 1/2 Pie less than Captain Magnay
under his own eye could get out
of the Dredge. I do not think this
could be called unsatisfactory
when it should particularly be
noted that the item "Cooly Labor"
alone for unloading the spoil from
the Punks &c amounted to more
than half the actual cost of
working or Rs 8508-15-2 out of 15704-13-7
leaving 7195-14-5 for the working of
the Dredges which divided by 1115.572
Cubic yards excavated gives only
7 Pies per Cubic yard. which deduct-
ed from at 1-8 1/2 (Vide above) leaves
at 1-1 1/2 per Yard for "Cooly Labor"
removing spoil. I do not consider
this at all exorbitant as 6 out of
the 9 Dredges are bad, more than half
the spoil falls on the deck of Dredge,
and has to be removed twice, first
into the Punks, and second out of
the Punks on the bank.

5. Supposing however that this cost of at 1-8 $\frac{1}{2}$ actual cost of removing a cubic yard of mud from a Canal is still considered by Government to be high, I would most respectfully urge that if so it is not attributable to any fault of mine. The Dredges were working under the several Executive officers as shown in my statement, and my duties as Acting District Engineer did not permit of my doing much more than inculcating on them the necessity for strict supervision (which I can prove I often did) over the working of these Dredges.

I must however in justice to them all state it as my firm belief that they did their best and best can do no more.

6 I have before this on more occasions than one shown that that these Canal Dredges cannot be incessantly worked. - From your knowledge

knowledge of the Godavery and the
Canals, I feel sure that you will
agree with me that to work the
Dredges during the freshes would be
simply to throw money away. That
there are more Dredges, unfortunately,
in this District than are actually
required I admit, tho' I am not
answerable for that, and that they
are enormously expensive I allow.
but if cheaper machines are not
to be obtained, this can't be helped

By adding Interest & depreciation
for the whole year whether they
work 6 months or 12, and that too
in addition to cost of repairs which
by all rules of fairness ought to be
deducted from the depreciation, the
cost per yard might be made to
appear enormous but that the
actual working cost is so, I think
can safely deny and challenge
any other District in which Orders
now are in use to show that
they

What the God of Israel has done for
in the east including
religion during the whole
of Jewish history - Israel
the - Israel and his
people to do culture
and culture from
the of Israel the
of Israel the
the whole of Israel
the east of Israel
and led to the east of
any to that the east of
the whole work and of
may them as seen in
deserved to be
do the work
by or for

they can work cheaper.

7 As regards the sections of the
Cocanada river and bar which
I am blamed for not having
recorded, I beg to express my regret
for the omission. I did not know
they would be called for, or I should
certainly have had the soundings
which were so frequently taken
preserved.

<sup>we must be accurate in our results and how
can we do so unless we register observations</sup>
The fact was that I was under
the impression that what was really
required of me by the Government
Order No. 2524, dated 26 October 1859
was to set the Dredges to work and
deepen the river till a width of
100 Yards and a depth of 14 feet at
High water was obtained. I therefore
with that purpose in view had the
Dredge worked, merely taking soundings
I am now having the river surveyed
and cross sections taken at intervals
of 100 Yards and hope to forward them
to you shortly. This shall be done
once in 6 months as directed in para 9

13/
of the Order of Government
8 I cannot conclude without
stating how keenly I feel the
severity of His Excellency the
Governor's remarks in para 9.

The charge of this extensive
and more than common District
was never sought by me. but when,
whether by accident or design,
I was entrusted with it, I did
my very best to perform the onerous
duties entailed on such a charge
in a manner that would elicit
the approval of Government and
it is a cause of great pain to me
that I have so utterly failed in
that object, as is clear from the
warning conveyed in this order
that the next act of carelessness
on my part will insure my
removal from the Public Works
Department. Such an ending to
a long and uninterrupted service
of nearly 24 Years, more than 10 of
which have been passed in this

Department, would be so great
 a disgrace, that I would most
 sincerely and respectfully beg
 as a favor and in consideration
 of long and faithful service, that
 should His Excellency deem it
 necessary to remove me from the
 Department he will give me the
 option of resigning and thereby saving
 my hitherto fair name & character

Have the honor to be
 Sir

Your most obedient servant

Wm. A. B. Major

Executive Engineer, Palmyra, N. Y.

Douglas W. W. P.
 11 March 1862

For the
1111 Broadway
The Executive Eng
Engineers Division.

SEP 12 1908/14

Statement for
Bridges

EX 55 X 55

and
The Executive Eng
Engineers
Division
dated 11 March 1908
Received
SEP 12 1908/14
No 331
Enclosure was
State the fact of
the working of the
in Broadway District
of removal the
formed by the

Statement showing the Quantity and Cost of Work executed by the Steam Dredge in Locust Bay during 7 days in August 1861

Comparative Statement of different kinds of cost per cubic yard										Total Cost		
No. of hours working	No. of Pumps operated	Number of cubic yards	No. of cubic yards of lumber used	Price of Lumber per cubic yard	Share of Crew for 1 day at 2.81 per month	121 Pumps employed at 2.81 per yard	7 days of work Black & white Cement & sand at 1.50 per cubic yard	Total Cost	Total Cost per cubic yard			
70	121	2420	349 units or 10-8 Tons.	43.32	63-72	24.20	15.15	364-10-4 or 28-93 Pie for Cubical ft.	5.033 pie 3.427 Pie	19.2 Pie	1.273 pie	28-93 pie

Revolutions of bucket _____ 90 seconds.

Vacuum _____ 18 to 19 inches

Diameter of Cylinder _____ 22 1/2 inches

Length of stroke _____ 24 inches

Crank makes 42 revolutions in _____ 60 seconds.

40 Revolutions per hour

320 ————— per 8 hours or day

$320 \times 22 \times \frac{1}{3} =$

The quantity of work done is the same as last year which can be obtained and is far above the average of a months work either during last year when the price was so low as in the present Brownson time; but is about what may be done with the earth soft and in only ordinary tides & provided no delays even caused by either necessary repairs to the engine now out of order now the state of the weather. The first and third of these causes prevented the Dredge working more than twenty days in the year which time she excavated 317 pints or 15-8 pints per day and I consider that ^{the} quantity of that quantity can be maintained it will be a ~~great~~ ^{very} fine thing. The Dredge was used as one of the Co's hire for unloading each punt has been reduced by 4 Annals and this appears to be a very great reduction which favors the hope that by another average I have assigned a fair one the Dredge will perform will be nearly 6 pints per yard and of course vary with the quantity done, the charge of oil and blacksmiths also will likewise change but the price for fuelwood & stowing spoil must remain constant per yard unless a change in the prices takes place.

I would recommend the dredging should be stopped during the summer months of each year as is done, I believe, at Summinger from the fear of dredges kill flatfish - this time would allow of all repairs being made so as to afford a reasonable expectation of working throughout the remaining nine months without interruption on that account and would obviate the necessity of maintaining the crew during the months in which they might not be required to work owing to the high freshes in the York river, thereby tide sand wet warehouses when winter cannot be avoided -

Henry May Jr.
A. B. Esq.

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for in the returns submitted by me,

1:2331. Superintendent Engineer's
Office 1st Division Camp
Dawlatnagar 13th March 1864

From
Lieutenant Col. Chambers R. E.
Superintending Engineer
1st Division
To
Col. J. A. Orr R. E.
Secretary to Government
D. P. Works.

Enclosure
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Mr. Stoddard from
Lt. Col. Chambers R. E.
to the duty Engineer
Dawlatnagar
13th March 1864
Statement from
Colonel Chambers R. E.

there being only punts sufficient for the working of one machine at a time, the cost per cubic yard of spoil removed would be reduced from Rs 1.3.4, the amount tabulated, to Annas 14.4.

3. This is perfectly true, and Government were informed that one of the reasons of the unsatisfactory nature of the work performed is there being but 12 punts for the removal of spoil instead of 36; but in calculating the cost of the work, I do not see that this makes any difference.

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Para 4 of letter
No 2127 of 26th
January 1864.

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manuscripts
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27/1
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The above expressed with all deference
and respect, is the outspoken opinion
of one whose connection with Government
and this country will shortly cease,
and which therefore may be considered
unprejudiced.

I have the honor to be
Sir,
Yours

The question is whether Brown should have been removed
from duty to the satisfaction of all concerned it seems to
me that he has not - if others are to be removed
because he has not, we must remove them too - the best
reference to those who have formerly been in the service.

29/
Your Most obedient Servant
Orb. Chamberlain
Superintending Engineer, &c.

Received of the
Superintending Engineer
for the District of
Columbia
the sum of \$100.00
on the 10th day of
April 1861
for the purchase of
land for the
District of Columbia
at the rate of \$10.00
per acre
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[illegible]

Mr. J. P. Esquire
for Revision

The dear friend

*Oct. 13th 1893
Wash D.C.
C.B. & Co.*

Feb. 23.

012902
Oscar
The family
1500/1643

1892.

[illegible]

I do not see that it is necessary to give any orders
upon this - my object was to warn Major Stoddard
that the Gov^t would not submit to be deceived
in a loose unsatisfactory manner - if he does
his duties properly & efficiently due consideration
will always be shown to any capital defect
in his work - but Gov^t cannot & will not tolerate
in him or in any other officer a loose and careless
mode of doing duty or rather of leaving duties
undone

Submitted for order
since the date of the order of Govt
to which the Chamber refers
has not been made in the
fully submitted in the
enclosed for the
have been generally
submitted

W. J. ...