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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 2624-2624A Press Mis.—

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Dated 3 11 1862.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 3rd November 1862.

No. 37. Read the following letter from Lieutenant-Colonel J. OUCHTERLONY, for Deputy Chief Engineer, Northern Circle, to Lieutenant-Colonel W. I. BIRDWOOD, R. E., Secretary to Government, Public Works Department, dated Madras, 25th September 1862.

SIR,

I have the honor to submit herewith for the information of Government, report* from Captain Haig, upon the subject of the Godavery Navigation works, giving reasons for the delay which has intervened, and which has prevented him even now from submitting the estimates called for in G. O. No. 324, under date 28th February 1862. Under all the circumstances, I conclude it is not the desire of Government that I should offer any remarks upon this subject; my own individual opinion of the state and purport of affairs connected with it, and which is rather confirmed and strengthened than weakened by what has now transpired, having been already freely expressed in former communications.†

1 Letter from District Engineer Upper Godavery, No. 208, dated 5th September 1862.

* No. 208, dated 5th September 1862.

† No. 8, dated 3rd February 1862.
„ 80, „ 18th „ „
„ 182, „ 28th „ „ and No. 267, dated 16th April 1862.

From Captain F. T. HAIG, District Engineer, Upper Godavery, to Lieutenant-Colonel S. O. E. LUDLOW, R. E., Deputy Chief Engineer, Northern Circle, dated Dumagudiem, 5th September 1862, No. 208:—

SIR,

1. In reply to your letter of 28th ultimo, No. 248,* I have the honor to state, that I have not yet revised the estimate for the works at this Barrier, because the cost of the work done hitherto has so much exceeded the rates allowed in the original estimate that it was evident that a revision of these would be necessary, in addition to the alteration in the amounts of work consequent on the change in the size of the locks. It was also quite evident that the experience of at least one full working season would be required to enable me to form any reliable deductions as to the probable cost of work in future.

* Received on 8th instant.

2. It is perhaps necessary for me here to explain the circumstances under which the first estimate for the works at this Barrier was framed. At the date of the first grant of three lacs for the prosecution of the works in December 1860, no detailed estimate had been submitted for the Anicut or locks. The Government therefore required that such an estimate should be laid before them, before sanctioning the commencement of operations. My first duty therefore in the begining of 1861 was to prepare it, and in doing so I had no previous data to guide me, nor any reliable standard of comparison by which to determine what rates of pay would be sufficient to attract laborers from the more populous districts of the coast and of the interior.

3. The wages given to the natives employed in the expedition of 1855 were exceptional. They were offered to tempt a small body of men to leave their homes on the coast and to encounter the hardships and risks of an expedition into a wholly unknown country, and might reasonably be supposed to be much in excess of what the same men would require to induce them to settle for two or three years at a station on the river within a moderate distance of their own country, and which increasing intercourse had rendered them more familiar with.

4. Neither did the operations which had been carried on in the interval between 1855 and 1861, afford any better guide. These were on so small a scale that labor sufficient could always be procured upon the spot, and it was never necessary to import any.

5. The only data then which I had to guide me in the preparation of my estimates in January 1861 were:—

1st. Two Annas per day, a common rate of hire for day laborers in the Godavery and Kistna Districts.

2nd. Four to six Rupees per month the rates paid at Bezwarah, and 3½ to 5 Rupees hoset at Dowlaishwaram, to practised quarry-men.

3rd. The rates paid for earthwork in the Kistna District, a table of which I procured from the District Engineer, and which being rather higher than those given in the Godavery District, I assumed as the basis from which to construct a scale for the Upper Godavery.

4th. Five and 6 Hyderabad Rupees, equal to about Rupees 4-6-0, and 5-4-0, as a monthly wage, attracted above 1,000 men for the works at the 2nd Barrier in 1855.

5th. One and a half to one and three quarter Annas per day had always been the common hire for coolies at this and other stations on the river since 1855, and had on some occasions attracted several hundreds of laborers.

6. I therefore adopted the following rates in my estimate :—

(1.) For monthly laborers 5 Rupees.

(2.) For day do. 2 Annas.

(3.) For Carpenters, Smiths, and Sawyers, rates 30 to 50 per cent. above those paid at Dowlaishwaram.

(4.) For earthwork, 30 per cent. more than the Kistna prices.

7. I took at the same time advantage of the necessity, which was forced upon us, of supplying almost the whole of the food required for the consumption of our work-people, to sell it at a fixed price considerably below those prevalent in the coast Districts, which from the want of markets in the interior I have been enabled to do, with some loss, up to the present time. Twenty Rajahmundry seers (equal to twelve Madras measures) is the rate at which rice has been, and still is, supplied to all classes of work-people at all seasons of the year. This, of course, makes the wages given hire really much higher in comparison with those in the surrounding Districts than the mere difference in money represents. For instance, at the present time the common price of rice in the Rajahmundry District is twelve to sixteen seers per Rupee, and at one time last year the price in the Vizagapatam and Ganjam Districts was quite as high.

8. I think, therefore, that under the above circumstances, when, at the commencement of works involving so large an expenditure, it was of such importance not to offer unnecessarily high rates of pay at starting, it will be admitted that the rates I allowed were fair, and such as there was a reasonable prospect of our working to. In illustration of this remark, and also of the extreme difficulty of framing a reliable estimate with only such information and experience of the country as we possessed eighteen months ago, I would point to the operations which have been carried in this year at the 2nd barrrier. There a wage of 5 Rupees per month immediately attracted 1,200 laborers, and would have drawn many more, had there been employment for them, yet the very same men who have thus flocked to those works only seventy miles above this barrier, have when refused employment there steadily declined to take work here at 6 Rupees a month, though that rate has attracted hundreds from the coast Districts and Hyderabad, 200 to 400 miles distant. I have no doubt whatever that had we commenced operations at the 2nd barrier we should have had many more men at 5 Rupees a month than we have ever succeeded in collecting here for 6 Rupees.

9. You are aware, however, how entirely our hopes of an adequate supply of labor have been disappointed. An addition of 20 and even 30 per cent. to the estimated rates has failed to attract more than a small portion of the labor required for the vigorous prosecution of the works, or rather it would be more correct to say that while it has attracted probably not less than 3,000 people at various times, it has not proved sufficient inducement to *retain* more than a third of that number at any one time on the works.

10. The causes of this failure have been the great and increasing competition for labor, both on the coast and in the interior, and the prevalence of fever during a great part of last year to a degree which I hope future years may show to be exceptional.

11. In every direction wages have been and are steadily rising. When attempting to engage laborers in the Nagpore Districts, I find myself in competition with the Railway and the Public Works Department of Nagpore. In Hyderabad I had to bid against the Local Government, the Irrigation Company, the Railway, and even the Public Works Department of the coast Districts, while in the latter, labor is every month becoming more scarce and expensive.

12.* The Public Works Department of Nagpore is now enlisting coolies at Sironcha on 7 Rupees per month, numbers of them from among the very men who have been working for the last six months at the 2nd Barrier tram-road for 5 Rupees.

* Since this was written I have seen the Chief Commissioner Central Provinces, as well as the Deputy Commissioner of Sironcha, and am led to doubt the correctness of this statement, at least as regards the rates of pay offered.

13. When competition becomes such a reckless scramble as this, it is time to consider whether some organized system for providing labor for the Public Works of the country might not be adopted with advantage, and it certainly renders it difficult to foresee how much works, which will require several years to execute, are likely to cost.

14. But unquestionably the chief cause of our failure to keep up a proper supply of labor even at the increased wages which have been given for the past year has been the great prevalence of fever during the rains and cold season. It is necessary that I should point out that this was an obstacle, the magnitude of which we were very ignorant of a year and half ago. Up to that time no European had spent a monsoon upon the river. The working parties sent up in previous years had never been allowed to enter the malarious Districts before the end of January, and so little sickness had then been met with, compared with what report had led us to expect, that there was good reason to conclude that the accounts we had received of the fever had been considerably exaggerated. It is evident, however, from the experience of the past year that the fever, which is endemic along about 200 miles of the river, though not of a severe or malignant type, is much more prevalent than was supposed, that, in fact, it is only in rare cases that the people either of the country itself or of other Districts escape its attacks. Those who can be induced to remain and to encounter the sickness of the first season, find, with, I believe, very few exceptions, that with a careful attention to such precautions as experience shows to be necessary, the attacks of the disease becomes less and less frequent and severe.

Judging from the few who have been stationed here for several years past and who came up from the Rajahmundry District with the expedition of 1855, I should say that such persons may gradually become so thoroughly acclimatized as to enjoy as good health as in their own country.

15. But when our men found a large percentage of their number struck down by fever in October last, they did not stop to consider whether it would be worth while to stay one year in hope of enjoying better health the next. They ran away by hundreds, six hundred, one half our then total number left, in violation of their engagements, and mostly in debt to Government, in one week. They met some hundreds on their way to the works from Vizagapatam and Ganam, and frightened them back to their villages, no restitution having been made of the travelling batta they had received.

And this proceeding was repeated on a smaller scale constantly through the cold months.

16. The men who remained were retained with difficulty, and only by constant concessions at the expense of Government. Often weakened by disease and always dispirited, they were ever ready to avail themselves of any excuse for leaving the works. A fine for a bad day's work, or a bad week's work, was considered sufficient excuse to justify the offenders in absconding altogether. The slightest attempt at task work was treated as an invasion of their rights, and was in more than one occasion resented in the same manner. Our men in fact dictated their own terms, as to the amount of work they should do, and the Officers had to choose between concession or losing their men altogether, in other words, between very dear work or no work at all.

MINUTE BY THE HONORABLE THE PRESIDENT.

1. This letter is but a long and labored excuse on the part of Captain Haig for the incorrectness of the estimate which he formerly submitted. Of course if his detailed estimate was founded upon insufficient data his general estimate is equally erroneous, and the cost of the

whole work will have to be increased in the same proportion as the cost of the past. I am not, however, disposed to admit as valid the excuses brought forward by Captain Haig; these are two in number, first, the general rise in the value of labor throughout India; second, the unhealthiness of the locality.

With reference to the first I may observe that prices have not made any great jump since 1861; there are two causes, one of which the gradual change in the value of money raising *all* prices, has been in operation for the last ten years; the other the demand for labor on Railroads, &c., has been in action for nearly the same length of time. I must say therefore that if Captain Haig did make his estimate upon the idea that he was going to get labor at the rate of 2 Annas per man, and from 3½ to 5 Rupees per month for a good quarry-man, it is not to be wondered at that he is now obliged to make the confession contained in this letter.

2. As regards the second excuse, the unhealthiness of the river, I must say that in 1861 the river had a very bad character, I was advised to guard against this even during the prevalence of the south west monsoon, and though this season may have been a bad one the possibility of such visitations should have been calculated upon. In fact there is hardly a place in India where *sickness* ought not to be provided for under the head of contingencies.

3. I have never been satisfied with the information I have been able to extract from Captain Haig, his communications partake of the character of this letter, they are excuses for himself and give no information to the Government. I am therefore very glad that the Secretary of State has adopted the recommendation of this Government and has transferred the control of the work to the Government of Central India. Under these circumstances not only should this letter of Captain Haig with the Minute on it be forwarded to the Chief Commissioner, but all the papers connected with the work, Plans, Reports, Estimates, Minute, &c., should be forwarded also.

(Signed) W. T. DENISON.

No. 38. ORDER THEREON, 3rd November 1862, No. 2,624.

Ordered that the following letter be despatched to the Chief Commissioner of the Central Provinces :—

(Signed) W. I. BIRDWOOD, Colonel, R. E.,
Secretary to Government.

Ordered that the following letter be despatched.

No. 39. From Colonel W. I. BIRDWOOD, R. E., Secretary to the Government of Fort Saint George, Public Works Department, to the Chief Commissioner of the Central Provinces of India, dated 3rd November 1862, No. 2,624.

SIR,

1. In a Despatch recently received from the Secretary of State for India, dated 30th August 1862, No. 21, the Government are informed that the necessary arrangements have been made for transferring to you the Superintendence of the Upper Godavery Works. I am directed, therefore, to transmit for your disposal a letter* from the Deputy Chief Engineer Northern Circle, giving cover to one† from Captain Haig, furnishing explanation of the delay which has taken place in the preparation of revised estimates for the works at the Sinterála Barrier, &c. The Proceedings of Government to which Captain Haig's letter is a reply, as well as all previous correspondence‡ on the subject, are herewith forwarded for your information. His Excellency the President has recorded a Minute containing his opinions on the pleas urged by Captain Haig for the delay in the preparation of the estimates called for, and a copy of that document also accompanies this letter.

* Dated 26th September 1862, No. 400.
† Dated 5th September 1862, No. 208.

‡ E. M. C. 19th May 1857, No. 82.
Precs. 8th November 1861, Nos. 96—105.
Do. 11th January 1862, „ 4, 5.
Do. 30th do. „ 163, 164.
Do. 25th February „ „ 440, 441.
Do. 28th do. „ „ 437—439.
Do. 11th March „ „ 148, 149.
Do. 31st do. „ 565, 566.
To Government of India 11th April 1862, No. 190.
Precs. 3rd May 1862, Nos. 108, 109.

2. In two separate§ communications Captain Haig brings to notice the insufficiency of the funds placed at his disposal for expenditure during the current official year on the Upper Godavery works. Adverting to the intimation received from the Home Government with regard to the transfer of those works to the Government of Central India, Captain Haig's application for an additional‖ grant has been laid before the Government¶ of India who have been moved to authorize the same from the General Reserve at their disposal. In the meanwhile to obviate the stoppage of operations, an advance of Rupees 50,000 has been authorized** by the Madras Government, which is to be repaid from the funds to be allotted by the Supreme Government.

§ Dated 6th September 1862, No. 306.
Dated 15th Do. No. 313A.

‖ Rs. 2,00,000.

¶ 18th October 1862, No. 2,484.

** 18th October 1862, No. 2,482.

1a

PUBLIC WORKS DEPARTMENT.
Public.
FORT SAINT GEORGE,
3th November 1862.

No. 2,624A.

From

COLONEL W. I. BIRDWOOD, R. E.,
Secretary to the Government of Fort Saint George, P. W. D.,

To

The Chief Commissioner of the Central Provinces of India.

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Dated 15th Do. No. 313A.

‖ Rs. 2,00,000.
¶ 18th October 1862, No 2,434.

** 18th October 1862, No. 2,482.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) W. I. BIRDWOOD, Colonel, R. E.,
Secretary to Government.

Exd. S. T. Augustin.

Upper Godavery
District Engineers
Office Dumagudeirm
5th September 1862.

No. 208

From

Captain F.V. Haig
District Engineer U.G.

To

The Deputy Chief Engineer
Northern Circle
D. P. W.
Madras

Sir,

1. In reply to your letter of 28th ultimo No. 248,* I have the honor to state that I have not yet revised the Estimate for the works at this Barrier, because the cost of the work done hitherto has so much exceeded the rates allowed in the original estimate that it was evident that a revision of these would be necessary, in addition to the alteration in the amounts of work consequent on the change in the size of the locks. It was also quite evident that the

* received on 8th instant

the experience of at least one full working season would be required to enable me to form any reliable deductions as to the probable cost of work in future.

2. It is perhaps necessary for me here to explain the circumstances under which the first estimate for the works at this Harbour was framed. At the date of the first Grant of 3 Lacs for the prosecution of the works, in December 1860, no detailed estimate had been submitted for the Ammiah or Locks. The Government therefore required that such an estimate should be laid before them, before sanctioning the commencement of operations. My first duty therefore in the beginning of 1861 was to prepare it, and in doing so I had no previous data to guide me, nor any reliable standard of comparison by which to determine what rates of pay would be sufficient to attract labourers from the more populous districts of the Coast and of the Interior

3. The wages given to the natives employed in the expedition of 1855 were exceptional. They were offered to tempt a small body of men to leave their homes on the coast and to encounter the hardships and risks of an expedition into a wholly unknown country, and might reasonably be supposed to be much in excess of what the same men would require to induce them to settle for two or three years at a station on the river within a moderate distance of their own country, and which increasing intercourse had rendered them more familiar with.

4. Neither did the operations which had been carried on in the interval between 1855 and 1861 afford any better guide. These were on so small a scale that labour sufficient could always be procured upon the spot, and it was never necessary to import any.

5. The only data then which I had to

to guide me in the preparation of my estimates in January 1861 were
1st 2 annas per day, a common rate of hire for day laborers in the Godavery and Kistna Districts
2nd 4 to 6 Rs. per month the rates paid at Bezwarah, and 3½ to 5 Rs. those at Doulaiswaram, to practised quarrymen.
3rd The rates paid for earthwork in the Kistna District, a table of which I procured from the District Engineer, and which being rather higher than those given in the Godavery District. I assumed as the basis from which to construct a scale for the Upper Godavery.
4th 5 and ½ Hydrabad Rupees, Equal to about Rs. 1–6, and 5–1, as a monthly wage attracted above 1000 men for the works at the 2nd Barrier in 1855.
5th 1½ to 1¾ annas per day had always been the common hire for Coolies at this and other stations on the river since 1855,

and had on some occasions attracted several hundreds of laborers. 13

6. I therefore adopted the following rates in my estimate.
1. For Monthly laborers 5 Rs.
2. For day Do 2 annas
3. For Carpenters, Smiths, and Sawyers, rates 30 to 50 per cent above those paid at Doulaiswaram
4. For Earthwork – 30 per cent more than the Kistna prices.

7. I took at the same time advantage of the necessity, which was forced upon us, of supplying almost the whole of the food required for the consumption of our work people, to sell it at a fixed price considerably below those prevalent in the Coast Districts, which from the want of markets in the interior I have been enabled to do, with some loss, up to the present time. 20 Rajahmundry seers (equal to 12 Madras measures) is the rate at which rice has been, and still is, supplied to all classes.

classes of work people at all seasons of the year. This of course makes the wages given here really much higher in comparison with those in the surrounding Districts than the more difference in money represents. For instance, at the present time the common price of rice in the Rajahmundry District is 12 to 16 seers per rupee, and at one time last year the price in the Vizagapatam and Ganjam Districts was quite as high.

8. I think therefore that under the above circumstances, when, at the commencement of works involving so large an expenditure, it was of such importance not to offer unnecessarily high rates of pay at starting, it will be admitted that the rates I allowed were fair, and such as there was a reasonable prospect of our working to. In illustration of this remark, and also of the extreme difficulty of framing a reliable estimate with only such information and experience of the Country as we possessed eighteen months ago, I would point to the operations which have been carried on this year at the 2nd Barrier. There a wage of 5 Rupees per month immediately attracted 1200 laborers, and would have drawn many more, had there been employment for them, Yet the very same men who have thus flocked to those works only 70 miles above this Barrier, have when reduced employment there steadily declined to take work here at 6 Rupees a month, though that rate has attracted hundreds from the Coast Districts and Hydrabad, 200 to 1100 miles distant. I have no doubt whatever that had we commenced operations at the 2nd Barrier we should had many more men at 5 Rs. a month than we have ever succeeded in collecting here for 6 Rupees.

9. You are aware however now entirely

classes of work people at all seasons of the year! This of course makes the wages given here really much higher in comparison with those in the surrounding Districts than the more difference in money represents. For instance, at the present time the common price of rice in the Rajahmundry District is 12 to 16 seers per rupee, and at one time last year the price in the Vizagapatam and Ganjam Districts was quite as high.

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entirely our hopes of an adequate supply of labor have been disappointed. An addition of 20 and even 30 per cent to the estimated rates has failed to attract more than a small portion of the labor required for the vigorous prosecution of the works, or rather it would be more correct to say that while it has attracted probably not less than 3000 people at various times, it has not proved sufficient inducement to retain more than a third of that number at any one time on the works.

10. The causes of this failure have been the great and increasing competition for labor both on the Coast and in the Interior, and the prevalence of fever during a great part of last year to a degree which I hope future years may show to be exceptional.

11. In every direction wages have been and are steadily rising. When attempting to engage laborers in the Nagpore Districts I find myself in competition with the Railway and the P. W. Department of Nagpore. In Hydrabad I had to bid against the local Government, the Irigation Company, the Railway and even the P. W. Department of the Coast Districts, while in the latter labor is every month becoming more scarce and expensive.

12. The Public Works Department of Nagpore is now enlisting Coolies at Nineteen on 7 Rupees per month, numbers of them from among the very men who have been working for the last six months at the 2nd Barrier tramroad for 5 Rupees.

13. When competition becomes such a reckless scramble as this, it is time to consider whether some organized system for providing labor for the Public Works of the Country might not be adopted with advantage, and it certainly renders it difficult to foresee how much works, which will require several years to execute, are likely to cost.

14. But unquestionably the chief cause of our failure to keep up a proper supply of labor even at the increased wages which have been given

given for the past year has been the
great prevalence of fever during
the rains and cold season. It
is necessary that I should point
out that this was an obstacle the
magnitude of which we were very
ignorant of a year and half ago.
Up to that time no European had
spent a monsoon upon the rivers.
The working parties sent up in
previous years had never been
allowed to enter the malarious
districts before the end of January,
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been met with, compared with what
report had led us to expect, that
there was good reason to conclude
that the accounts we had received
of the fever had been considerably
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however from the experience of the past
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to remain and to encounter the
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of the disease become less and
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Judging from the few who have
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years past and who came up from
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become so throughly acclimatized
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left in violation of their engagements,
and mostly in debt to Government,
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hundreds on their way to the works
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frightened them back to their
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And this proceeding was repeated
on a smaller scale constantly
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as to the amount of work they
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to choose between concession or losing
their men altogether, in other words
between very dear work or no work
at all.
17. The enfeebled state of
almost the whole of the Europeans,
especially of the Subordinates,
prevented their exercising even
when fit for duty, an Efficient
supervision over the work people.
18. Of 19 Subordinate Europeans
and East Indians who have been
employed for shorter or longer
periods on the Annicut and
Canal work during the past
eighteen months.
2. have died
4. After constant attacks of
fever were so completely
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Compelled

year in hope of enjoying better health
the next. They ran away by hundreds.
600, one half our then total Number
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at task work was treated as an
invasion of their rights, and was
in more than one occasion resented
in the same manner. Our men
in fact dictated their own terms,
as to the amount of work they
should do, and the Officers had
to choose between Concession or losing
their men altogether, in other words
between very dear work or no work
at all.
17. The Enfeebled state of
almost the whole of the Europeans
especially of the subordinates,
prevented their exercising, even
when fit for duty, an efficient
supervision over the work people.
Of 19 subordinate Europeans
and East Indians who have been
employed for shorter or longer
periods on the Anicut and
Canal work during the past
eighteen months.
2. have died
4. After constant attacks of
fever were so completely
disabled that they were

Con

compelled to leave the District.
In three of these cases Epileptic
fits followed the fever.

11. Have been repeatedly on
the sick list.

3. Have had occasional fevers.

2. Only escaped the fever.

This list comprises only the
subordinates employed at this
barrier. It is proper to remark
that only one of the two deaths
was attributable to malarious
fever.

18. If so large a proportion of
the Europeans suffered, it may
be imagined how the Natives
fared, worse housed, worse fed,
and without the same pluck to
withstand the inroads of disease.

19. It will be plain how impossible
it was under such circumstances
to maintain any thing like
efficiency either in the workmen
or on their superintendents.
It was at times difficult to
prevent total disorganization,
and it was impossible at any
time

time to secure a proper amount
of work.

20. I must again repeat that
this was a contingency which at
the commencement of operations
here, in January 1861, could not
have been foreseen. No one of
the previous Expeditions or
working parties had suffered
in more than a trifling degree
from fever, and we had no reason
to suppose that this disease
could become such a formidable
obstacle as we now find it to be.

21. The two causes which I have
assigned as the Chief, but not
the only, reasons for the excess
in the cost of last years work
above the estimate, are, the
General rise in the price of
labor all over India and the
unhealthiness of the climate at
this Barrier. As these causes
will continue to affect in a
greater or less degree the cost
of the work on this River, they
are the only ones which I need to

notice

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3. Have had occasional fevers
2. Only escaped the fever.
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in more than a trifling degree
from fever, and we had no reason
to suppose that this disease
could become such a formidable
obstacle as we now find it to be.
21. The two causes which I have
assigned as the chief, but not
the only, reasons for the excess
in the cost of last years work
above the Estimate, are, the
General rise in the price of
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this Barrier. As these causes
will continue to affect in a
greater or less degree the cost
of the work on this river, they
are the only ones which I need to

Notice

notice in detail in this letter
which is intended merely to
explain the necessity for a
complete revision of the rates
allowed in the original estimates.
The time for this has arrived.
We have now a years experience
at each of the three barriers, and
some reliable data, from work
actually executed under more
unfavorable circumstances than
we are ever likely to meet with
in future.

22. With regard to the question
in para 2 of your letter under
reply, I have the honor to state
that the surveys at the 2nd and
3rd Barriers are still in a very
incomplete state and that I
see no probability of the detailed
plans and estimates for the
works at those points being
ready before the cold weather
even supposing that the Officers
and subordinates now engaged
upon them are not disabled by
illness in the meantime.

23. The survey of the 2nd Barrier
was not commenced till the month
of May. I had no Officer that
I could spare for the purpose before
then. Mr. McKennie, Assist.
Engineer, is now engaged on this duty,
but he has not made much progress.
The extreme and overpowering
heat of the last part of the hot
weather, and the heavy rains of
the last month, have been great
impediments. I hoped to have
given him the assistance of
Mr. McGregor Sub Engineer, who
might now, so far as his present
charge, the tramroad, is concerned,
be detached for this duty, but
he has suffered so constantly and
severely from fever during the
past year that I am compelled
to send him away on leave now
for a month or two.

24. At the third Barrier
Lieut. Roberts commenced the
survey in May, assisted by Mr.
Supervisor Gilchrist. Both
have however suffered from fever
the former severely, and he is now
on

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which is intended merely to
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then. Mr. McKennie, Asst.
Engineer, is now engaged on this duty,
but he has not made much progress.
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the last month, have been great
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to send him away on leave now
for a month or two.

24. At the third Barrier
Lieut. Roberts commenced the
survey on May assisted by Mr.
Supervisor Gilchrist. Both
have however suffered from fever
the former severely, and he is now
on sick

on leave. Lieut.t Montgomerie who might have taken his place for a time has been very ill too, and I only wait till I can go up to the 3.rd Barrier to send him away on leave also.

I have &c.

Haig. Captain
District Engineer N.S.

N.B. This letter was ready for signature by the 11.th ultimo, but as I was obliged to leave suddenly for Doulaisseram on that date with the Chief Commissioner Central Provinces, and only returned yesterday, it has been delayed up to the present time.

H.

This letter is but a long & laboured excuse on the part of Capt.n Haig for the inaccuracy of the Estimate which he formally submitted - of course his detailed Estimate was founded upon insufficient data his general Estimate is equally erroneous, and the copy the whole work will bear the miscarriage in the same proportion as the cost of the parts. — I am not however disposed to admit as valid the excuses brought forward by Capt.n Haig them are two in number 1.st the general rise in the value of labour throughout India - 2nd the unhealthiness of the locality — with reference to the 1.st I may observe that prices have not made any great jumps since 1861. there are two causes one of which, the radical change in the value of money during all which has been in operation for the last ten years - the other the demand for labour on Railroads has been as active for nearly the same length of time. I must say therefore that Capt.n Haig did make his estimate upon the idea that he was going to get labour at the rate of 2 annas per man & some 3½ to 5 Rupees per month for a good Quarry man. it is not to be wondered at that he is now obliged to make the confession contained in the letter — as regards the 2nd excuse - the unhealthiness of the locality I must say that in 1861 the Sweeper had a very bad character. I was advised to guard against the prevailing fever & pernicious vapours during the prevalence of the S.W. monsoon which through the season may have been a bad one the possibility of such visitations should have been calculated upon. in fact there is hardly a place in India where sickness ought not to be provided for under the head of contingencies — I have never been satisfied with the information I have received & extracts from Capt.n Haig's communications, particularly of the character of his letter. they are excuses for himself & give no information to the Govt. I am therefore very glad that the Sec.y of State has adopted his recommendation & the Govt. and has transferred the control of the work

1.st

Northern Circle Office P.W.D.

Madras 25 Sept 1862

No 1

290

From

Lieut Colonel J. Cuchterlony
for Deputy Chief Engineer, Northern Circle

To

Lieut Colonel W. J. Birdwood
Secretary to Government P.W.D.

Sir,

I have the honor to submit herewith for the information of Govt a Report from Capt Haig upon the subject of the Godavery Irrigation works giving reasons for the delay which has intervened, which has prevented him even now from submitting the Estimate called for in G.O. No 324 under date 20 Feby 1862

Under all the circumstances I conclude it is not the desire of Govt that I should offer any remarks upon the subject; my own individual opinion of the State & prospect of affairs connected with it, which is rather confirmed & strengthened than weakened by what has now transpired, having been already freely expressed in former communications.

I have
Sir
Your Obedt Servt
J. Cuchterlony Lt Col
for Dy Chief Engr Nn Circle

× No 208 dated 5th Sept/62

Enclosure
1 Letter from Chief Engr Upper Godavery dated 2nd Sept/62

$
No 8. 4/3 Feby/62
" 13 "
" 182 . 28 "
+ No 267 of 16th April/62

U.G.I. (13)

From Lieut Colonel A. Haig
Officiating Chief Engineer

To Lieut Colonel W. J. Birdwood
Secretary to Government

Dated Camp Kunavaram 29th August 1862

Rec'd 2nd Sept 1862 at Madras

Ref No 208 of 1862

Rec'd from Secretary to Government
No 218 of 28th August
regarding the execution
of the Estimate for
the works at the
Kunaram Barrage

Ans'd 15th Sept 1862 No

Note of Contents

In the Govt question under these circumstances Capt Haig left the grounds Kistnaly should then calling Capt Haig left the grounds and be forwarded to the Chief Engineer but all the papers connected with the work. Plans - Reports, Estimates Memos should be forwarded also.

Hbb

2524

No 2624

Ordered that the follow

letter be despatched to the Chief Comm

of the Central Provinces.

Were entered No 2624 dated 3rd November

No 3

2524

2624

PWD 1862 Depart

Public Works & Local Funds

No. 2923 B.

From

The Dy Chief Engineer

No.

To

The Secretary

to Government N.W.P.

Dated 26 September 1862

Recd 29 September 1862

Chesaath

3rd Nov 1862

One.

No 400

Submits letter from

Dept Engr & Supt Godavery

regarding the revision of

the Estimate for the works

at the Sinteralla Barrier

No 2624 - 3rd November

William Arden

No 87

No 37. 08.

C25 October 27 "

2nd February 1862 At 457-459

28th " " - 440-441

31st March 1862 - 565-566

3rd April " - 108-109

Copy sent to the Chief

Commissioner of the

Central Provinces of

India - dated 3rd Nov/62

No 2624 Dept.

previous correspondence on the subject, are herewith forwarded for your information. His Excellency the President has recorded a Minute containing his opinions on the several points urged by Captn Haig for the delay in the preparation of the Estimates called for; & a copy of that document is also accompanies this letter.

In two separate Communications Captn Haig alleges as cause the insufficiency of the funds placed at his disposal for expenditure during the Current official year on the Upper Godavery works, & according to the intimation received from the Home Govt with regard to the transfer of these works to the Govt of Central India, Captn Haig's application for an additional grant has been laid before the Govt of India who have been moved to sanction the same from the Famine Reserve at their disposal.

I am &c

Chop[illegible]
3d Nov/62

Dispd 6th Do "

Encl 19 May /62 — 82
Do 8 Nov /61 — 96 & 105
" 11 Jany /62 — 4 - 5
" 30 Do " — 165 166
" 25 Feb — 440 441
" 28 Do — 437 439
" 11 March — 565 - 566
" 31 Do — 565 - 566
To Govt of India 11 April — 190
Do 3d May /62 — 1

" dy 5 Sept /62, No 306
" dy 15 Do — 313 &

x Rs 200000

18 Oct /62 — No 2482

the adoption of operations, and advance of Rs 50000 has been authorized by the Madras Govt, which is to be repaid from the funds to be allotted by the Supreme Govt.

Transmitting to the Chief Commissioner of the Central Provinces of India letter from the Dy. Chief Engineer 1st Circle giving Cover to one from Captain Haig, furnishing explanation of the delay which has taken place in the preparation of revised estimates for the works at the Sutterah Barrier Fog and informing him of what has been done for supplying the latter officer with additional funds.

No 89