M R O S I—77 1-6-37.

(1) Number of pages

(2) Date of repair

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

DEPARTMENT.

G.O. No.

Press Mark.

Dated

*Not to be folded or roughly handled*

No. 309. Read the following Endorsement of the Acting Chief Engineer for Irrigation, dated Madras, 27th June 1871, No. 37:—

From the Agent and Manager of the Madras Irrigation and Canal Company, to the Chief Engineer for Irrigation, dated Madras, 23rd June 1871, No. 273.

I HAVE the honour to furnish you with copy of the last report I have received from the Company's Chief Engineer.

2. In paragraph 5 Mr. Latham mentions that "the screws and racks now "being made to replace broken ones had not all reached" their destinations. These have all been finished and dispatched from Madras.

3. With reference to the hesitation to cultivate created among the ryots by rumours of "testing," the Government will doubtless be disposed, both in the interests of the ryots and also with a view to revenue, to postpone any extra filling until the crops shall have been gathered.

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*Chief Engineer's Report to accompany Divisional Reports for May* 1871.

I AM happy to inform the Board that the divisional reports show that the canal was complete on the 1st instant, with some exceptions not worth mention except as illustrating the state of completion.

1. No. 13 Calingulah, 24th mile, the repair of which was recently sanctioned, required three weeks' work to finish it. Its progress since the 1st has been satisfactory, and it is complete except parts of the tow-path and water-cushion and the clearing away of rubbish.

2. No. 8 Culvert (about 98th mile)—Some repairs to the masonry had been postponed so long, in order for the water to dry up in the culvert, that the unusually early rains surprised it before it was finished, leaving about a fortnight's work, which will be soon done.

3. Some repairs to Bayupgoodoor bridge in 102nd mile had been left until the Government should decide whether the bridge should be widened. It will now be put in order. The repairs merely affect a few yards of parapet.

4. 100 cubic yards of stone require removal from the head sluice channel at Rajoli in the 113rd mile.

5. The screws and racks now being made to replace broken ones had not all reached the sites for which they are required.

6. The distributing channels are only being completed so far as it is expected they may be used next year, and the construction of these will not be carried on until the demand is finally ascertained by experience.

There is no reason to suppose that the estimate made by the Deputy Collector in October last, of the probable irrigation this year, will prove excessive. On this I hope to report more fully after visiting the villages this month.

I notice that in the village of Moochmurri the ryots *profess* to be preparing 1,000 acres, against under 500 entered in the Deputy Collector's estimate; and I do not know of any village in which his estimate is over the present expectation.

The water was admitted on the 3rd instant, and passed over Hindry Aqueduct on the 5th. It was then checked to allow the 24th mile tank (in which the breach occurred) to fill slowly. Next morning an old leak was running under the south abutment of Hindry Aqueduct; but a careful examination has shown that the water issues perfectly clear, and without any sand. It is due to the percolation through the bed and masonry revetment of the canal below the aqueduct, and will decrease as the silt deposits on them and on the newly placed earth on the canal bed. I am taking

means to hasten the process by throwing down a yard depth of earth over the whole breadth of canal for a distance (proposed) of 150 feet from the abutment.

I was prepared to go on with the filling of the canal to full water line, so soon as the water should have passed down the whole length of canal, had Government pressed the matter. I am very glad that this was not pressed on many accounts; and I have been able to arrange for the dismissal of all the staff engaged on construction except such as are required to wind matters up, and subordinates actually engaged on construction of sanctioned distributing channels.

The objections to *filling* the canal at once without any economical reason seemed to me to be the following:—

(1.) The conservancy staff are all new to their work. The bankers hardly know their stations, nor the Overseers the conditions of their work, and the sluice-keepers are nervous. When the water passed over the Hindry Aqueduct, the Overseer had taken all his bankers three miles away, and there was no one but a lascar watching the banks. The Tindal at No. 9 calingulah had meanwhile shut all his sluices, having quite lost his head, his orders being to keep them all open; and the signaller at Soonkasala cannot yet be trusted to answer at all the hours of day and night, as he ought to do. On the whole, however, the staff is doing very well, and this is very much due to the patience and activity of Mr. Crawford.

(2.) The consolidation of the banks and decrease of leakage improves yearly. The above reasons apply similarly to the first opening of a railway. The Government have, I believe, been very prudently content with running trains at about 18 miles an hour for the first year after opening each length: and so may a portion be content to have the canal worked at less than its full capability; for the traffic on a railway may suffer from a slow speed, but the irrigation under the canal has all the advantages the canal can possibly afford if the canal merely carry the water the land under irrigation requires

(3.) Unmistakeable indications came to my knowledge that the rumour of an expected testing of the canal was creating hesitation in the preparation of land for irrigation: the ryots complaining that they were not inclined to have unnecessary risks run with *their* crops, and threatening that they would sow dry crop for this year. This was at Moochmurri.

Since my last report the services of two more Engineers have been dispensed with, namely, Messrs. Gordon and Higginson, both Engineers whose permanent loss would be much to be regretted. Mr. Gordon has contributed greatly to the economical and punctual completion of the three lower sections; and at the same time has so far completed the reservoir plans that the only plans not yet submitted, those for the Toonga site, are complete, as well as the estimates, and only require fair copying. Nothing but the distressing domestic calamity which has so recently shocked all who know him, has prevented the completion of this. Mr. Higginson deserves all the credit which the completion of his work implies; he was thoroughly master of the situation, and saw to all the details of the works and machinery.

On the 1st July the conservancy staff will be fully appointed, and will take up their charge and duties as rapidly as possible.

KURNOOL,
10*th June* 1871.

(Signed) J. H. LATHAM,
*Chief Engineer.*

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SUBMITTED to Government.

2. The Chief Engineer observes that Government have not insisted upon the test of filling the canal. I am not aware that Government have modified the requirements stated in Government Order, No. 1,089, 18th April 1871.

3. Mr. Latham's objections to testing the canal appear to me to be reasons for that measure, even as a rehearsal and training for the new conservancy staff—



the bankers who do not know their stations and the nervous sluice-keepers—in order that they may have some notion of what will be required of them when the next natural flood fills the canal.

(Signed) J. G. RYVES, Major, R.E.,
*Acting Chief Engineer for Irrigation.*

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No. 310. ORDER THEREON, 18th July 1871, No. 1,897.

IRRIGATION, No. 17.

THE Government are scarcely surprised at the disinclination of the Company's officers to allow the full depth of water to enter the canal if they anticipate that such a course would result in breaches, but they did not expect to be told that "the Chief Engineer was prepared to go on "with the filling of the canal to full water line had Government pressed the matter "which he is very glad is not the case," for there is no authority whatever for this statement, or for the course adopted by the Company's officers in consequence of this assumption. As correctly observed by the Chief Engineer to Government for Irrigation, the Government have not modified the requirements stated in G. O., 1,089, 18th April 1871, nor has the subject been in any way brought under their consideration since that date. The Government can only attribute this continued disinclination of the Company's officers, to subject the canal to the only true test of its stability, to an apprehension that the works are not in all respects suited to the purposes for which they have been designed, and this reluctance on the part of the officers of the Company, to encounter the risk alluded to, cannot be without weight with the Government in passing their opinion as to the condition in which the works have been delivered at the close of the contract period.

(True Extract.)

Colonel, R.E.,
*Secretary to Government.*

To the Acting Chief Engineer for Irrigation.
,, Agent and Manager of the Madras Irrigation and Canal Company.

Exd. S. T. Augustin.

No 37

Letter from the Agent and Manager M. I. P. & Co.
No 273 - 23 June 1871, with the Chief Engineers Report for May 1871.—

Submitted to Government.

The Chief Engineer observes that Government have not insisted upon the test of filling the Canal. I am not aware that Government have modified the requirements stated in Government Order No. 1089 - 3p/1 18th April 1871.—

Mr. Chanie objection to testing the Canal appear to me to be reasons for that measure, even as a rehearsal and training for the new Conservancy staff, the bankers who do not know their stations and the nervous Sluice keepers; & in order that they may have some notion of what will be required of them when the next natural flood fills the Canal.—

Office of Ch. Engr. for Irrigation
Joint Secretary to Government
Madras 27th June 1871

Major R. E.
Ch. Engr. for Irrig. & Joint Secretary to Government

To

The Secretary to Government

P. W. D.

Agent and Manager.

Madras Irri: and Canal Coy
Madras 23rd June 1871.

No. 273.

From.

The Agent and Manager
M. I. & C. Coy

To.

Major J. Q. Reeves R. E.
Chief Engineer for Irri: and
Joint Secretary to Government
Madras.

Sir,

I have the honor to furnish you with Copy of the last Report I have received from the Company's Chief Engineer.

In para 5 Mr Latham mentions that "the Screws and Racks now being made to "replace broken ones had not all reached" their destinations - These have all been finished and dispatched from Madras.

With reference to the hesitation to cultivate created among the Ryots by rumours of "Testing" the Government will doubtless be disposed both in the interests of the Ryots and also with a view to Revenue, to postpone any testing until the Crops shall have been gathered. -

I have the honor to be
Sir,
Your most obedt servant
J. Mathew Thomas
Agent and Manager.

Rec'd 18th July 1871

Read 18th July 1871

Copy of Letter from the Chief Engineer for Irrigation dated 23rd June 1871 to the Agent and Manager M. I. & C. Coy

Copy of Letter from the Agent and Manager M. I. & C. Coy dated 23rd June 1871 to the Chief Engineer for Irrigation

Read 18th July 1871

Madras Irrigation and C. Co.
Chief Engineer's Office
Kurnool 10th June 1871.

# Chief Engineer's Report to accompany Divisional Reports for May 1871.

I am happy to inform the Board that the Divisional reports shew that the Canal was Complete on the 1st instant with some Exceptions not worth mentioning except as illustrating the state of Completion

1. — No 13 Culvert 24th Mile the repair of which was recently sanctioned required 3 weeks work to finish it. Its progress since the 1st has been satisfactory, and it is Complete except parts of the low path, and water Cushion, and the clearing away of rubbish.

2. No 8 Culvert (about 98th Mile) some repairs to the Masonry had been postponed so long, in order for the water to dry up in the Culvert, that the Inundation early rains surprised it before it-

it was finished, leaving about a fort=
-nights work, which will be soon done.

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expected they may be used next year;
and the construction of these will not
be carried on until the demand is finally
ascertained by experience.

There is no reason to suppose that
the Estimate made by the Deputy Collector
in October last of the probable irrigation
this year will prove excessive. On this
I hope to report more fully after visi=
=ting the villages this months.

I

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and I do not know of any village in
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expectation.

The waters was admitted on the
31st instant and passed over Hindry
Aqueduct on the 5th. It was then
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=ment of Hindry Aqueduct, but a
careful Examination has shewn
that the water passes perfectly clear,
and without any sand. It is due to
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banks, sediment of the Canal
below the Aqueduct, and will
decrease as the silt deposits on
them and on the newly placed
earth on the Canal bed.

taking

taking means to hasten the process by throwing down a yard depth of earth over the whole breadth of Canal for a distance (proposed) of 150 feet from the abutment.

I was prepared to go on with the filling of the Canal to finish water tight, so soon as the water should have passed down the whole length of Canal, had Government pressed the matter. I am very glad that this was not pressed, on many accounts; and I have been able to arrange for the dismissal of all the staff engaged on Construction except such as are required to mind matters up, and subordinates actually engaged on Construction of sanctioned Distributing Channels.

The objections to filling the Canal at once (without any communication) reason seemed to me to be the following.

1. The Conservancy Staff are all new to their work. The bankers hardly know their stations, nor the overseers the conditions of their work, and the Sluice Keepers are nervous. When the water passed over the Windy Aqueduct, the overseer had taken all his bankers 3 miles away, and there was no one but a peasant watching the bank. The Sinhalese Engineer had meanwhile shut all his sluices, having quite lost his head; his orders being to keep them all open; and the Engineer at Doombara cannot yet be trusted to answer at all the hours of day and night, as he ought to do. In other words, however, the staff is doing very well, and this is very much due, to the patience and activity of Mr Bramford.

2. The consolidation of the banks, and decrease of leakage improves yearly.

The above reasons apply similarly to the first opening of a railway. The Government have I believe been very prudently content with running trains at about 18 miles an hour for the first year after opening each length: and so may a portion

portion be content to have the Canal worked at less than its full capabilities: for the traffic on a railway may suffer from a slow speed, but the irrigation under the Canal has all the advantages the Canal can possibly afford, if the Canal merely carry the water the land under irrigation requires.

3. Unmistakeable indications came to my knowledge that the rumour of an expected testing of the Canal was creating hesitation in the preparation of land for irrigation. The ryots complaining that they were not inclined to have unnecessary risks run with their crops, and threatening that they would sow dry crop for this year. This was at Moochmurie.

Since my last report the services of two more Engineers have been dispensed with viz: Messrs Gordon and Wiggins, both Engineers whose permanent loss would be much to be regretted. Mr Gordon has contributed greatly to the economical and punctual completion of the 3 lower sections, and at the same time has so far completed the Reservoir Islands that the only Islands not yet submitted, those for the Soonga site, are complete, as well as the Estimate, and only require final Coppering. Nothing in the Waterworks connected with Cemetery, which has so recently shocked all who know him, has prevented the completion of this. Mr Wiggins deserves all the credit which the completion of this work implies; he was thoroughly master of the situation, and down to all the details of the work and machinery.

On the 1st July the Conservancy Staff will be finally appointed, and will take up their charges & duties as rapidly as possible.

(Signed) Robert H. Sattaw
Chief Engineer

Offg

No. 6.

1897

Re correspondence between Federal Government
Under date Dec 17th Inst. 1897.
Relative to Panama Canal

From Hon. Sir Chief Engineer Irrigation Dept. dated 27th Dec 1897.
To Joint Secretary to Government Dept.

The Government are
scarcely surprised at the
disinclination of the Com-
pany's officers to allow the
full depth of water to enter
the canal if they anticipate
that such a course would
result in breaches, but
they did not expect to
be told that "the Chief
"Engineer was prepared to
"go on with the filling of the
"Canal to full water line
"had Govt. pressed the
"matter which he is very
glad

"glad is not the case" - for there is no authority whatever for this statement or for (its resulting action on the part of the Company's officers) As correctly observed by the Chief Engineer to Govt. for Irrigation, the Govt have not modified the requirements stated "in G.O. 1089-18" April 1871, nor has the subject been in any way brought under their consideration since that date. The Govt can only attribute this continued disinclination of the Company's officers to subject the Canal to the only true test of its stability, to a conviction that

on application

for the course adopted by the Company's officers in consequence of this assumption. A

B/A.

that the works are not in all respects suited to the purpose for which they have been designed and their reluctance on the part of the Company to encounter the risk alluded to can be taken into consideration accordingly.

that the construction is committed to the purpose for which it was designed and in dealing with the general question the circumstance must be taken into consideration accordingly.

J.O. 16th July

in their opinion the works are in the best condition the nature of the ground admits of. A.

B/A.

The Chief Engr. for Irrign.
Agent & Manager Bn. & Kly.

Dated 19/7/71

VIE

Ms 3147

Cobl. of [illegible] Madras.

PUBLIC WORKS.

re Weir & Head Sluices for Irrigation

[illegible] 15th July [illegible] 97.

Nos. 309 & 310

Indian Office Tank. Letter
from the Secretary of State
for India transmitting a Report on the
Bill to [illegible] Tanks &c.

68 Lb 1/70 B 311