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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	3037	Press
B.P. No.		Mis.
Dated	13-11	28 76 195

Not to be folded or roughly handled

India Office,
London, 14th September 1876.

Railway,

No. 4.

To His Excellency The Right Honourable The Governor
in Council, Fort St. George.

MY LORD DUKE,

Para. 1. I have to acknowledge the receipt of your Grace's Letter, No. 7, dated the 16th June last, forwarding a report, by your Deputy Consulting Engineer, on the progress of the Northern Extension of the South Indian Railway, and making observations on the alleged want of foresight evinced by the Railway authorities in this country, in regard to the supply of girders. Also your Letter of the 27th June, No. 8, commenting on the grant of furlough to the Company's Chief Engineer at a time when, in the opinion of your Government, his services are urgently required in India.

2. Upon their receipt, I submitted copies of these letters and of their enclosures to the Railway Board, with a request to be furnished with any observations which they might desire to offer thereon; and they have now addressed a letter* to me on the subject, a copy of which, together with copies of letters† from their Consulting Engineers and from Mr. Logan,‡ are enclosed herewith, for your Grace's information.

3. It will be observed that the Board remark on the difficulty of meeting general complaints of want of foresight in the provision of materials, and that they suggest that, should any further reference on the subject be necessary, particular instances of neglect may be cited. This is but reasonable; and I request that, should it unfortunately be again necessary to comment on the proceedings of the Company's officers, full particulars of the grounds of complaint may be given.

I have the honour to be,

My Lord Duke,

Your Grace's most obedient humble Servant,

John Lubbock

ENCLOSURES.

No. 1.

No. 237.

South Indian Railway Company,
2, Leadenhall Street,
London, E.C., 21st August 1876.

Sir,

I am directed by the Board to acknowledge receipt of your letter of 2nd August 1876, transmitting for their information copies of Despatches and enclosures from the Government of Madras, Nos. 7 and 8, dated 16th and 27th June 1876 respectively, relative to the slow progress of the northern extension of this railway.

Before considering in detail the specific grounds of complaint contained in these Despatches, the Directors desire me to draw attention generally to the work that has been executed since 1873.

In September of 1873, when the management and supervision of the Carnatic Company's works were placed in the hands of the executive of the (then) Great Southern of India Railway Company, nothing whatever had been done towards collecting material or starting work in the districts, and much of the land required had neither been marked out nor handed over to the Company. The greater part of the working season of 1874 was therefore taken up in re-staking out the line, in revising the plans and waterways, and in general preliminary operations. The year 1874, which was thus one principally of preparation, was an unusually wet one, and much damage and delay was caused by the floods.

In 1875 considerable pressure was placed on the supervising staff of the Amalgamated Company to insure the southern line being ready for opening by His Royal Highness the Prince of Wales.

The section from Trichinopoly to Madura, 96 miles, was opened on 1st September, and the remaining portion, 119 miles, was completed in December of last year.

The first through train on the northern extension, from Madras to Tindevanum (76 miles), ran on 28th June last, and little doubt now remains that this portion of the line will be thrown open to public traffic in September next.

It must be borne in mind that any disappointment that may have occurred in opening sections of the line at the periods that have been named therefor has in great measure been caused by the anxiety of the Engineer-in-Chief to state the earliest possible date, as an incentive to the executive staff to use every endeavour to push on with the works as rapidly as possible. If, in his estimates of possible progress, he has been somewhat sanguine, and circumstances have intervened to prevent the realization of his anticipations, the disappointment is felt by him and by the Board as keenly as it can be by the Government.

To advert now more particularly to the grounds of complaint contained in the Despatches under reply. These are,—

- (1.) The "evident want of foresight evinced" by the railway authorities at home in the supply of girders;
- (2.) The want of supervision on the part of the Engineers at home in allowing girders to be sent out without having been properly fitted; and,
- (3.) The fact of the Board having allowed Mr. Logan to take furlough leave for twelve months at a time when, in the opinion of the Government of Madras, his services were urgently needed.

Handwritten notes:
The above is a copy of the letter from the Government of Madras to the South Indian Railway Company, dated 2nd August 1876, and is to be placed in the hands of the executive of the (then) Great Southern of India Railway Company.

1. With regard to the supply of girders, the Board are unaware of the grounds on which the statement is made that their arrangements here evince want of foresight. No materials can be supplied from this country except upon indents sanctioned in India, and after these have been received a considerable time is of necessity consumed in the preparation of the requisite drawings and specifications, the obtaining tenders, and the manufacture and delivery of the materials indented for.

It is probable that the observation in question is based upon the statement in Major Smith's Inspection Report of 19th April and 5th May 1876, that "there are seven 20-foot spans for which no girders have yet been received in this country," but which, as appears from Colonel Shaw Stewart's report of subsequent date, reached Negapatam on 8th May. In this instance the indent for the girders referred to is dated 29th April 1875, it was received here on the 29th May, specifications were prepared, tenders received, and the contract let on 20th June, and the ship conveying the girders sailed from England on 13th January following. That the vessel made a longer voyage on this than on a previous occasion is of course to be regretted, but that the opening of the line was not delayed for want of these girders is evident from the fact that they were erected in time to allow of a through train running (as has already been stated) on 28th June.

And here the Directors would remark how difficult it is to meet general complaints of this nature, where no specific instances in support are given. They can only, in reply, give as general explanations, a course which is satisfactory to neither party. In justice to themselves and to their officers, they would therefore respectfully request that, should any further references of the present character be necessary (which they trust will not be the case), they may be furnished with the particular instances of neglect or want of foresight, so that they may be enabled to make the necessary inquiries and to give such specific explanations as may be in their power.

2. The want of supervision in sending out girders not properly fitted or drilled.

From the statements contained in the Report of the Consulting Engineers, dated 8th August, a copy of which is forwarded herewith, some misapprehension would appear to have arisen in regard to this matter.

The Report in question will, it is hoped, dispel any misconception on this head, and satisfactorily explain that no bridge-work has been sent from this country without having been previously fitted together.

From the inaccuracy of the observations in Major Smith's Report on this point, as well as on that alluded to below, the Directors are led to infer that his information must have been obtained from some subordinate source, and they may be permitted to observe, if this be the case, that it would appear to be desirable that the executive officers of Government should obtain their information on such points from the responsible Heads of Departments and not from subordinates, who (unintentionally no doubt) may, as would appear to be the case in these instances, mislead them.

In the Report above referred to (para. 17), Major Smith remarks that he was told that each section of iron well curbs weighed 2 tons, and could "only be moved by special appliances; had it been notified to the manufacturers when ordering them, they could as easily have made them in four sections as in two."

It will be seen, from the Report of the Consulting Engineers, that in point of fact each of the sections of these curbs, in place of weighing 2 tons as stated, weigh under 15 cwt.

3. The permission given to Mr. Logan to come home on furlough for 12 months.

In reference to this point, the Directors feel that they cannot do better than submit a letter from Mr. Logan himself, and they accordingly desire me to enclose a copy of his communication, dated 21st July 1876.

In forwarding Mr. Logan's application for a year's furlough, the Agent of the Company remarks, "Even if Mr. Logan could not obtain furlough leave, I believe we should not be able to secure his services throughout another hot season; a medical certificate would compel me to relieve him from the charge of the Engineering Department. Under these circumstances, and having full confidence in Mr. White's ability satisfactorily to conduct the duties of the post, I recommend that the furlough leave applied for be granted."

The Board were aware that Mr. Logan had undergone much labour and anxiety in connection with the completion of the southern extension, and with his having undertaken the duties of Acting Agent during the absence of Mr. Betts in England in 1875, and both on public and personal grounds, therefore, they did not feel justified in refusing his application for furlough leave. They had the less hesitation in acceding to his request because they were aware that in Mr. White (who entered their service as an Engineer of the 1st class in 1869) they had an officer fully competent to discharge the duties of the post and to prosecute the works with ability and despatch. While they regret that the arrangements made by them are not satisfactory to the Governor in Council, the Directors do not know what better arrangements they could have made, and in this they would respectfully submit they are corroborated by the opinion expressed by the Consulting Engineer for Railways, Colonel Shaw Stewart, who, in reporting to Government the furlough leave granted to Mr. Logan, states, "The arrangements proposed for conducting the duties of Chief Engineer and Deputy Chief Engineer during Mr. Logan's absence on furlough are unobjectionable."

The Directors trust that the explanations now given will prove satisfactory to the Government.

I am, &c.,

(Signed)

HENRY W. NOTMAN,
Managing Director.

The Under Secretary of State
for India.

No. 2.

Report No. 57.

South Indian Railway,
Engineer's Office, 5, Delahay Street,
Westminster, London, 8th August 1876.

Dear Sir,

We have carefully perused the copies of Proceedings of the Madras Government, "Public Works Department," of the 1st and 2nd June last, and the letter from the Secretary of State for India of the 2nd instant thereon.

With reference to the furlough leave granted to the Chief Engineer, Mr. Logan, we are convinced, from our interviews with that gentleman since his arrival in England, that the state of his health demanded rest and change. We know that it was with extreme reluctance that he applied for leave at all, at a time when the works in progress are, to an Engineer, of a specially interesting character.

From our knowledge of Mr. White, the Acting Chief Engineer, we are satisfied that the work will not suffer in his hands during the term of Mr. Logan's absence.

Whilst we realize the importance of an early opening of the line throughout, and are convinced that every pains will be taken to ensure it, we would concur with Major Smith in deprecating any undue pressure upon the Engineering Department in this direction, as it is of still

greater moment that the work should be substantially finished in all its details. This remark applies with special force in the case of the foundations of the bridges, where neither time nor labour should be spared to ensure the abutments and piers being carried down to a proper depth, and founded upon a solid stratum.

With regard to the girders of the bridge over the "Adyar," we should be glad to be informed in what way, and to what extent, they were found "deficient in rigidity." Having regard to the depth of the main girders, to the fact that the strengths are rather above those required by the Board of Trade regulations in England, and to the cross bracing, which was sent out with the girders, we should have expected the results to be entirely satisfactory. If, as we gather from Mr. Logan, the deficiency referred to consists of a tendency in the bottom tables of the girders to vibrate, we would point out that this is of very little importance, but can be easily checked by the insertion of some very simple horizontal bracing between the bottom tables. We understand that the ironwork of this bridge, though carefully prepared here for shipment and properly stowed, was much damaged in course of being landed at Madras.

We should be glad to be informed, both as regards this bridge and all other large bridges as they are from time to time erected, as to the exact tests applied with the deflections and permanent setts.

With reference to the remarks made in para. 7 of the Report of Major Smith, dated 8th May 1876, commented on in para. 2 of the Despatch No. 18 from Lieutenant-Colonel Shaw Stewart, and in the General Order thereon dated 1st June 1876, as to the ironwork of the "Carangooley" bridge, we have to state that these girders, as all others sent out under our supervision, were put together complete in the manufacturer's yard, with temporary bolts in the joints left unriveted, and were seen by us in that position. We have been careful in our own designs to reduce the amount of work to be done in India to a minimum, but it cannot be expected that joints which have been exposed to blows and strains during transport and shipment should invariably come together without some adjustment. The connections between the main and cross girders, where they are to be rivetted together, may also be expected to require some fitting in India, as, although correct when they leave the maker's yard, they would be thrown out of truth by a very slight bending of the main girders during transit. We have taken special pains with the inspection of this bridge-work, placing the work in charge, not of ordinary Inspectors, but of Engineering Assistants, and we make a point of visiting the works ourselves very frequently.

In the case of the larger bridges, we not only insist upon every girder being put together complete, but we test one bridge of each span with locomotive and waggons to ensure the proper adjustment of the bracing and other details.

The remark as to the weight of iron curbs in para. 17 of Major Smith's Report, is based upon a misapprehension, which would be avoided in future if the Heads of Departments were applied to for any official information which may be required. Reference to the invoices will show that each curb weighed a little under one and a half tons, and was of a ton, instead of two tons, as stated by Major Smith on information he had received. These curbs were manufactured to a design received from India. If the Engineers had had information sufficient to enable them to indent for these iron curbs before, instead of after the bridge-work, some delay would have been avoided. They were urged forward as rapidly as possible as soon as asked for.

We observe that, referring, no doubt, to a remark in para. 2 of the Despatch from Lieutenant-Colonel J. M. Shaw Stewart, His Grace the Governor in Council expresses dissatisfaction at a supposed delay in forwarding girders from England.

We would, in the first place, remind the Board that there is no power on this side of expediting such matters, as, until indents have been prepared in India and sanctioned by Government, no action can be taken here.

We wrote on several occasions both to Mr. Dibblee and to Mr. Logan, pointing out the importance of remitting indents for the bridges at an early date, and we have reason to know that those officers did all in their power to carry out our suggestions. Indents, not only for bridge-work, but for other materials, and specially for general stores required for immediate use, often arrive at such late dates as to make it impossible to prevent delays.

As regards the specific girders referred to, Indents Nos. 92 and 93, containing them, are dated 29th April 1875, were received here on the 29th of May, the drawings and specifications were at once prepared, and tenders invited, and the contract let on the 29th June, and the vessel containing the bridges sailed from London on the 13th January 1876. We feel that these facts prove, not only that there was no delay, but that every possible effort was made to expedite the work. We need hardly assure the Board that this has been the case throughout.

We agree with Lieutenant-Colonel Shaw Stewart and with Major Smith in considering that the proposed use of the booms of the Palar Bridge for the temporary crossing of certain small openings would have been most objectionable. The result would very probably have been to cause serious difficulty in applying them afterwards to their permanent use.

We are glad to see that any necessity for such an expedient had passed away.

We are, &c.,
(Signed) GEORGE B. BRUCE,
CHARLES DOUGLAS FOX.

No. 3.

7, Montague Villas, Richmond, Surrey,
21st July 1876.

Dear Sir,

I have read Madras Government G. O., Nos. 1,365 and 137, of 1st and 2nd June 1876 respectively.

There is in these papers an implication that, although I stood in need of rest and change, that rest and change would have been sufficiently afforded had I arranged to be absent from India during the hot months only.

I need scarcely assure you, or any one who knows me well, that it was with the very greatest reluctance that I came to the decision that I ought, in justice to the work as well as to myself, to ask for my furlough, which became due in January last, after a continuous service on the plains of India of seven years.

This reluctance was due, not to any feeling that the works would suffer by my absence, for I felt, and feel, every confidence in Mr. White's practical ability to do the best that can be done for them, but because of the interesting nature of the operations which it is hoped will be brought well on to completion during the present year. I was particularly anxious to be in charge of the works while the large bridges were being constructed and the girders erected, as a matter of great professional interest, putting out of sight the desire to be present as each section of the line came to be opened to the public.

If another and very powerful reason were wanted to urge abstention from taking my furlough unless I considered it imperative to do so, it would be found in the fact that I should, by taking leave, lose one half

of my pay altogether, while I should not, under present rules, be able to draw any portion of the other half until return to India at the expiration of my leave.

In these days of depreciated silver currency, with home remittances at about 1s. 6d., taking one's furlough is a very serious matter pecuniarily.

It was, therefore, altogether contrary to my desire and interests, apart from health, that I left India in April last.

I had been for seven years working under the highest pressure in the climate of the plains, with the exception of six weeks' privilege leave to Ootacamund in 1871, and I was, and am, firmly convinced that even a year's furlough is barely sufficient to meet the requirements of the case.

With reference to para. 2 of G. O. No. 1,365 of 1st June 1876, I think it is due to Mr. White to state that primarily the delay in sending out the station plans between Madras and Tindevanum took place before I left India, and that he is not therefore responsible for that delay, which arose from a variety of causes, and in spite of my efforts to avoid it.

It appears to me that, judging from Major Smith's Report (referred to in G. O. 1,365), the works are now in a fair state of forwardness; all the Engineers have done, and are doing, their best; he can suggest no measures for hastening the work. Is it unreasonable, therefore, to ask the Board to believe that their staff in India has done, and is doing, good work, and that the final result of their labours will prove, as I know it will, that no better or more economically constructed line exists in India?

I remain, &c.,
(Signed) DAVID LOGAN.

H. W. Notman, Esq.

2027-4-75 No 1168.

- 26-7-75 - 2138

- 19-8-75 - 2388

- 5-2-76 - 303 & 304.

- 17-2-76 - 437

- 28-5-76 - 784

- 9-5-76 - 1155

- 1-6-76 - 1266.

- 2-6-76 - 1374.

Let to H. G. 9 16 June 1876 (24)

- " 27 " " 8 "

P.W.D.

No 5.

200076

No 7558

Railway

14th Sept 1876.

The

Letter to Port St George

No 4 & Enclosures.

Regarding want of
foresight evinced by
the Ag. Authorities at home
in the supply of funds
and Mr. Logan's furlough
at a critical time.

Public Works Dept

Read the following:-

Despatch from the Secretary of State for
India, Railway No 4 dated 14th September 1876.

For Orders

C. M. Walker Major Genl R.
Secretary to Government

I think para 2 p. 4
may with advantage
be referred to Mr. G. Smith
for such remarks as he
may wish to make for his
own satisfaction
I do not think any
further action should
be urged.

W. H.
a/u

Govt. of 1876 Madras.
PUBLIC WORKS.

To ~~The Chief Eng^r for Rlys.~~

14/11/76

Dated

Issued

Recd

Encl.

G. O. 13th Nov 1876, No. 3037

Nos. 217/18

1. Copy — Despatch
from the Secy of State re-
-ing the alleged want of re-
-sight of the Rly authorities
at home in the supply of
fenders for the — also the
want of furlough to Mr. Logan
i.e. critical time com-
to the Cng Engr for Rlys with

11-36

No 3037/13 Nov/76

Communicated
to the Consulting Engr
for Railways for such
remarks as he may wish to
offer in respect to
para 2 of the letter
from the Managing
Director to the Under-
Secretary of State No
237 dated 21 August.

CMW

Despd 24-11-76

Chf Engr ✓
21