

Public Works (1899) Department.

G.O., No.

1288 W

DATED 15 May 1899.

[Despatch Abstract.]

Nilgiri Railway, P.W. Pros: in the Railway
Branch on the Cons: Engineer's Report of an
inspection of the — Comd to the S.E. D. for
submission of an estimate as soon as possible for
Constructing a road to connect Rungt mede station
with the public road.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

The Supt. Ingr., Vehicle

12. 99.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper:—

G.O., No. 1521 Ry., dated 10th December 1898.

Read also the following paper:—

Report by the Consulting Engineer for Railways, Madras, dated the 6th April 1899.

Yesterday, April 5th, I inspected the Nilgiri Railway in company with Mr. H. J. Thompson, Resident Engineer of the Madras Railway, who has charge of the capital works in progress, and with Messrs. Butcher and Alexander, Engineers lately in Mr. Weightman's employ and now working under Mr. Thompson.

2. A great deal of flattening of slopes has been completed; fully three-fourths, perhaps, of what is necessary. It is extremely difficult to judge when flattening is or is not necessary; all that can be done is to profit by the lesson of last monsoon and to flatten wherever experience shows that clay of the sort encountered will not stand at a steep slope. The leading characteristic of the slopes which have given most trouble is that they consist of great and small boulders from several hundred tons downward, buried in softer or harder clay. Very little loosens them, and in coming down they smash rack and rails and everything.

3. The road is now impassable in ten or twelve places where the flattening process is going on. Many of the cuttings, judged by the experience of last monsoon, will probably go on slipping more or less for years. But, on the whole, I judge that the chances of the line being kept open have been greatly improved by the work which has been done in the last few months.

4. The new Glenmore retaining wall is making good progress. It has been a most troublesome piece of work. I think that when it is completed, and when the slopes at the back of it have been gullested and drained, it ought to give very little more trouble. It is being built amply strong to a height of from 11 to 15 feet above formation; about 50 feet of the old wall being retained, and about 350 feet of new being built.

5. The right hand side (going up) of the cutting at 200 looks as if it would want more sloping. The cutting at 92 has yet a lot to be done in the way of draining. Similarly the cutting at 241 where a heavy retaining wall about 50 feet long and 16 feet high is being built; also that at 270. The diversion around the old landslip, chain 360, beneath Lamb's rock, wants a lot more doing to it.

6. At the slip near Burliar, referred to usually as the great boulder slip, 220 feet of "cut and cover" is being built. This is the completion of Mr. Weightman's intention. It is proposed to build the downstream wall only up to formation before

opening, and to complete it after trains are running, with an arch consisting of bent rails buried in concrete, the whole to be covered with a good sloping cushion of earth over which it is hoped that debris will roll harmlessly. 70 feet of the upper end of the tunnel near Adderley is to be roofed with rail ribs covered with concrete. Arrangements to do this have been made. The other tunnels seem all right.

7. The attention of the Engineers is called to the details of the fastening of the down end and the free sliding of the up end of each girder. This must be properly done in all cases of over 20 feet span before I can open the line. It was in progress when Mr. Weightman left, but a lot of it has been only clumsily done.

8. It would be a great public convenience if the Provincial Public Works Department could make the 400 or 500 yards of road which are necessary to connect Runnymede station with the public road. The attention of the road authority is invited to a lot of road drainage which is allowed to run over the slope of the railway cutting at railway chain 163. It can easily be diverted.

9. In dealing with the acquisition of certain land through the Benhope estate the Collector has, I am informed, caused some complication by arranging with the estate owner, Mr. Rhodes James, for the coffee bushes being if possible saved when not immediately included by the railway within the area of its newly flattened slopes. The result is that work is being delayed, and there is danger of the opening of the railway being deferred. It is quite impossible to say how much of the land that has been scheduled will or will not be needed for slopes. To save the railway it may be necessary at an hour's notice to dig up to the edge; but under the present arrangement the estate owner may step in and prevent this. The land should be acquired in the regular way under the Land Act, and should be made over absolutely and unconditionally to the Railway Company; and then, to save complications about coffee stealing, the bushes within the area should be at once destroyed. No more land has been declared for than may at any moment be found necessary to keep trains running.

10. The rails and rack have been greatly bent and broken in a very large number of places. As this may go on happening during the monsoons it is quite essential that there should be a sufficient reserve in store of sleepers, rails, rack bars, chairs and fastenings to allow of traffic being restored with the minimum of delay, if interrupted.

11. As regards the new bridge which Mr. Weightman built to replace that broken by the great landslip near mile 11½, (in which by the way I saw some execrable mortar), I approve of Mr. Thompson's proposal to replace it by a barrel culvert with a deep strong drop wall, and to fill it up at the back, level with formation, with stone pitching, in order that if any further slipping of the ground should occur it may be practicable to slew the road. The 30 foot girder bridge which was knocked away by the big boulder at 400 is now ready for its new girders; a great clearance of loose boulders has been made from the ravine above it.

12. The cabooses built at the end of certain of the waggons for the use of the brakemen on goods trains seem a good job, as also the attachment of a hand adhesion brake on the carriages. I did not see Byer & Peacock's man, but they told me that he seems likely to succeed in getting the engines to steam full power.

13. I have now got to consider how far it will be safe to open the Nilgiri Railway for all traffic without undue risk of making shareholders' interests safe at the cost of the Government guarantee. In their letter No. 821 R.C., dated the 9th June 1896, the Government of India furnished the Madras Government with a copy of a despatch from the Secretary of State, No. 31 R., dated the 16th April 1896, in which it was intimated that a new Company had been registered, to take over the concession of the old Company, with a capital of £250,000, of which £90,000 was to be share capital and £160,000 debentures. The Secretary of State said that as soon as the arrangements had been approved by the Madras High Court the necessary contract would be prepared for execution. In our letter to the Government of India, No. 477 R., dated the 20th July 1897, we informed them that the arrangements had been approved by the Madras High Court, and asked that we might be furnished with a copy of the contract when completed. To this letter no reply has ever been received, and I can

only suppose that the execution of the contract has been delayed because it seemed advisable that it should also cover the case of the projected extension to Ootacamund. In the absence therefore of a contract I am obliged to refer to the old contract with the original Company of 26th February 1886, subject to a certain modification which in his despatch above referred to the Secretary of State said that he intended to make in clause 26 thereof. The modified clause 26 I now quote from the despatch—

Clause 26.—From and after the completion and opening of the said railway for traffic throughout, and during the continuance of this agreement, the Secretary of State shall pay and advance to the Company in Madras, half-yearly on every first day of January and first day of July, such sum as, with the gross earnings of the Company during the preceding half-year, shall be equal to the sum of Rs. 1,00,000. Provided always that the payment of any such half-yearly sum shall be subject to the condition of the Company having, up to the date on which each such payment shall become due, faithfully and diligently performed their duties as public carriers without interruption or failure except as hereinbefore in the 11th section of these presents provided.

Turning now to the 11th clause of the old contract of 1886 I find it settled that—

If and whenever, from any cause whatsoever, the said railway shall be interrupted or its equipment be injured or out of order the Company shall, pending the restoration of the said railway or equipment, carry by animal or other power all such passengers, goods, mails and other things as the Company may be under engagement to carry at rates to be approved of by the Secretary of State. Provided always that if the interruption be caused by no default of the Company the Secretary of State shall allow a reasonable time for the restoration of the said railway or equipment as the case may be and a reasonable extension of the time for carriage of such passengers, goods, mails and other things as aforesaid.

14. I might here enlarge upon the ease with which various interpretations of the intention of clause 11 might be put forward; e.g., does "under engagement to carry" refer solely to goods, &c., already actually booked, or to goods, &c., which the Railway Act compels the Company to carry? Again does "a reasonable extension of the time" refer to time-tables, or does it refer to the period for restoring communications? Leaving all this however, I must now consider how the wording of the above terms of the intended contract may be read as justifying or otherwise my opening the railway for all traffic while there is a risk of lengthy interruptions.

15. It seems to me that the guarantee covers the entire half-year inclusive of periods of interruption, provided that during such periods the Company do not fail to book through, using carts and tongas if necessary. But I take it that if for any period they fail to book through, the guarantee ceases until they resume such booking. Such I read to be the intention of the Secretary of State. Now experience of the effects of last monsoon tells me that for many years to come there will be interruptions of longer or shorter duration, probably every year, perhaps for a day or two, perhaps for a month or two. I think that the measures now in progress will very greatly reduce the risk of interruptions; but I cannot believe, with my experience of this and of the Darjeeling line, that interruptions will not occur. Until the extension to Ootacamund kills the cart and tonga traffic, it seems certain that the Company will be able to "carry by animal or other power" all passengers or goods which but for the interruption they would have been compelled by the Railway Act to carry. But in a very few years after the line has been opened to Ootacamund, the carts and the tongas will probably have disappeared and the Company will be unable to fulfil their obligation to carry traffic by animal or other power during periods of interruption. The Company are earnestly and diligently endeavouring, by the flattening of slopes, &c., now in progress, to minimise the chances of interruption. But it is in the nature of things on such a line as this that there should be occasional interruptions.

16. On the understanding that the guarantee will run so long as the Company effect through booking in spite of breaks and interruptions but that the guarantee will be in abeyance if they should fail to book through, I am prepared to advise the Government of India to open the Nilgiri Railway for all traffic as soon as the works which are now in hand, or which between now and the final inspection I may consider necessary, shall have been satisfactorily carried out.

17. It is in the interests of the Madras Railway Company under their agreement with the Nilgiri Railway Company to see that all that it is possible to do is done to prevent interruption. They are quite awake to this, and are doing all that seems necessary, but not in my opinion too much.

FRANCIS J. E. SPRING,
Consulting Engineer for Railways.

6th April 1899.

ORDER—No. 463 Ry., dated 24th April 1899.

A copy of these Proceedings will be forwarded to the Agent, Madras Railway Company, for information and guidance. A copy will also be forwarded to the Secretary to the Board of Directors of the Nilgiri Railway Company. The attention of the Chief Engineer, Public Works Department, is invited to paragraph 8 of the Consulting Engineer's report. The necessary orders have issued in the Revenue Department in regard to the matter brought to notice in paragraph 9 of the Consulting Engineer's report. A copy of these Proceedings will be forwarded to the Government of India, who will doubtless issue such orders in regard to paragraphs 13—17 of the Consulting Engineer's report as may seem to them to be necessary.

[Here enter No. 464, Ry., dated 24th April 1899.]

(True Extract.)

J. H. D. Lyle
Under Secretary.

To the Agent and Manager, Madras Railway.
" Secretary to the Board of Directors of the Nilgiri Railway Company.
" Chief Engineer, Public Works Department.
" Revenue Department.
" Examiner, Guaranteed Railway Accounts.

Exd. Shaik Karim.

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