M.R.O. 1—77,006—5-6-37.

(1) Number of pages.

(2) Date of repair

(3) Initials of the Referencer

ADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 625 Press Mis.

Sdl. 62

Dated 24 3 1870.

Not to be folded or roughly handled

1/7

Proceedings of the Madras Government, Public Works Department, 24th February 1870.

No. 501. Read the following letter from the Acting Deputy Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 3rd February 1870, No. 47 :—

I HAVE the honour to report that I have inspected the Permanent Way and Works of the South-West and Bangalore Branch lines of the Madras Railway in company with the Acting Deputy Chief Engineer.

2. *Permanent Way.*—I found the road in good order, and fully ballasted up along the whole length. The half mile near Beypore, where Greaves' iron pot sleepers have lately been laid down, is rough, and no less than 82 out of 1,584 pots are already damaged : the ballast is unsuitable for this description of sleeper, and they will, I think, all have to be re-placed by timber sleepers before long. It will be in the recollection of Government* that this length was laid with iron sleepers on the recommendation of the Consulting Engineer to the Board of Directors. There is, I fear, little doubt but that the experiment is a failure.

* G. O., No. 3,234, of 7th October 1869.

3. *Fencing.*—The fencing is in good order with the exception of that from the 337th to the 341st mile, where the aloe fence is imperfect. I also observed gaps between Royapooram and Perambore.

4. *Buildings.*—The station buildings are in good order, and kept neat and clean.

5. *Bridges.*—The bridges generally are in good order. I examined the arches of the Palar Bridge and found a slight increase in the cracks in the fourth and seventh arches from the east end. The defects in the seventh arch from the west have also increased in extent, and a new crack has appeared immediately over the pier.

6. At the Kuddlehoondy Bridge the work has been delayed in consequence of the necessity for casting extra segments for some of the cylinders which have sunk below the depth at which it was originally believed that firm foundations would be found. Considerable difficulty has also been found in breaking up the material required for the concrete in the cylinders. In the absence of proper machinery for this purpose, much ingenuity has been shown in extemporizing with the materials at hand rollers for crushing laterite which are driven by steam.

7. The following cylinders yet remain to be sunk to the depths named :—

		Feet.
No. 3 Pier	left cylinder	1·49
	right do.	4·90
„ 4 „	left do.	0·93
	right do.	4·84
„ 6 „	left do.	0·36
North abutment,	right do.	17·00
„ „	left do.	15·75

Extra segments which are now being cast at Perambore are required for Piers Nos. 7, 10, and 11.

8. The cylinders of the south abutment have been filled with concrete, and it is expected that the rolling of girders will be commenced over the first opening in the course of a few days.

9. The following works also debitable to Capital Account are in progress.

10. *New Central Station.*—The masonry of the main building is in progress; some of the stone arches over doorways have been turned. The platform walls have given way in some places: this accident and the means proposed as a remedy will form the subject of a separate report.

11. *Perambore Works.*—The Coppersmith's shop is about half finished. The store-shed and siding into it cannot be finished off until the material for Engine-erecting shop has been all delivered.

12. The walls of the extension to the "Engine-erecting and Boiler shop" are six feet high on an average. At Trivellore the additional watering arrangements are being carried out on will soon be finished.

13. The protective works to bridges on the Bangalore Branch are being proceeded with; little could be done for some months past on account of the water standing.

No. 502. ORDER THEREON, 24th February 1870, No. 635.

RAILWAY, No. 62.

THE result of the experiment referred to in paragraph 2 of this letter appears to confirm the opinion that iron pot sleepers are not adapted for use where suitable ballast is not procurable.

2. Adverting to paragraph 7 Major Shaw Stewart will report what steps have been taken by the Railway authorities for carrying into effect the proposal* to re-place the arches of the Palar Bridge with wrought iron girders.

* See G. O., No. 3,015, dated 13th September 1869.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Railways

Exd. A. S. Rodgers.

Railway Department — Cons: Engr Office

No 47.

From

Captain J. G. Lindsay R. E.
Acting Deputy Cons: Engr
for Railways.

To

Colonel C. A. Orr R. E.
Secretary to Government
Public Works Department
Fort Saint George

Sir,

I have the honour to report that I have inspected the Permanent Way, and works of the South-West, and Bangalore Branch, Lines of the Madras Railway, in company with the Acting Deputy Chief Engineer.

Permanent Way. — I found the road in good order, and fully —

ballasted up, along the whole length. The half mile near Rezpore, where Greaves' Iron pot sleepers have lately been laid down is rough, and no less than 82 out of 1584 pots are already damaged; the ballast is unsuitable for this description of sleeper, and they will, I think, all have to be replaced by timber sleepers before long. It will be in the recollection of Government, that this length was laid with iron sleepers, on the recommendation of the Consulting Engineer to the Board of Directors; there is, I fear, little doubt but that the experiment is a failure.

3. Fencing. — The fencing is in good order, with the exception of that from the 337th to the 341st mile,

* G.O. No 3254 of 7th October 1869.

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consequence of the necessity for casting extra segments for some of the cylinders, which have sunk below the depth at which it was originally believed that firm foundations would be found. Considerable difficulty has also been found in breaking up the material required for the concrete in the cylinders. In the absence of proper machinery for this purpose, much ingenuity has been shown in extemporizing with the materials at hand; rollers for crushing laterite which are driven by steam.

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11 Peramboor Works.— The Copper smiths shop is about half finished. The store shed, and siding into it, cannot be finished off, until the material for Engine erecting shop has been all delivered.

The walls of the extension to the "Engine erecting and Boiler shop" are 6 feet high on an average. At Trichellore the additional watering arrangements are being carried and will soon be finished.

The protective works

13. to bridges on the Bangalore branch are being proceeded with, little could be done for some months past on account of the water standing.

I have the honour to be,

Sir,

Your most obedient servant

Madras
2nd February
1870

J. F. Lindsay Captain R. E.
Acting Dy Cons: Engineer
for Railways.

O. W. Department.

No 635

Proceedings of the Madras Government

Under date the 11th Feby 1850

Read the following

From The Acting Engineer S.W.C. No 47 of 3d February

for Railways

To

The Secy to Govt

P. W. Dept

Dated 3d Feb 1870

Rec'd 4 Feb 1870.

No 47.

Reporting upon the Permanent Railway Works of the P. W. & Bangalore Branch of the Madras Railway.

No 635 - 11th Feby 1850

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Advertising to para

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No 501

c. 16 Feby 1870 R. 18

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the brackets of the
Palar Bridge with
wrought iron girders.

Lrs G.O. No. 3015
of 13 Sept 1869.

To
The Commr
for Railways

Cue 470.

Govt. of 1870; 3rd Dept.

PUBLIC WORKS.

To

The Consulting Engineer
for Railways

Dated

Recd. Encl.

G. O., 7th July 1870, No. 635.

Nos. 501-502

Permanent way Works (Ry)

Passing orders on the letter
from the Ry Engineer reporting
on the permanent-way works
of the S.W. and Bangalore Branch
Lines of the Madras Railways.