M.R.O. 1—77,006—8-6-31.

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 3092 Press
Mis.
93-96

Dated 5. 6. 1867.

Not to be folded or roughly handled

No. 93. Read the following Endorsement of the Acting Consulting Engineer for Railways, dated Madras, 23rd September 1867, No. 262:—

Read the following letter from the Deputy Consulting Engineer for Railways, to the Acting Consulting Engineer for Railways, dated Madras, 20th September 1867, No. 9.

1. I have the honor to report, that on the 16th and 17th September 1867 I inspected the works of the Errode Extension of the Great Southern of India Railway, between Kudumudi and Errode.

2. The rails were laid as far as the 14th mile from Kudumudi, which is about nine miles from Errode. All the banks and cuttings, between the end of the rails and Errode, are so far advanced that they could, if necessary, be finished in a fortnight, and the bridges might be completed in a month. A supply of fish plates has arrived from England, and plate laying is in rapid progress. Ten miles of the road now in use was put down without fishing the rails; fish plates will be introduced before the line is opened for general traffic. If all goes well, the extension will be open throughout before Christmas.

3. The masonry works in progress and finished of the second section of the 4th District appear to be sound, but in the first section flaws appear in five of the small arches. The arch at 1 mile 21 chains has been removed, the abutments of the bridge have been built up, and timber girders placed over the opening.

4. It would appear that heavy traffic, of from ten to thirty trains a day, was allowed to pass over the bridges after heavy rain and before the mortar had thoroughly set: the result is that nearly vertical cracks have opened in the arches and abutments at about three feet from their faces, these cracks are in no case so large that they can admit any probe larger than the blade of a penknife.

5. The arches are segmental, witht he exception of one which is semi-circular; they are all of small span, none of them exceed fifteen feet; they are built of rubble masonry with cut-stone quoins and flat wing-walls. The abutments are backed with sand, well watered and punned. One of the arches cracked about two months ago, but the mischief has not increased since then. The others sweated profusely for two days, a white mark, as of lime washed from the joints, delineated the position of the coming fissure, three small cracks appeared on the 14th instant, in some cases at the crown, but generally near the springing of the intrados of the arch. In no case do the flaws reach the foundations, and all the foundations appear to be good.

6. One arched bridge, which has splayed wing-walls, showed no signs of weakness on the 16th, except the white lime mark.

7. It seems probable that all the bridges will be quite safe, unless heavy rain and heavy traffic produce mischief in the next few weeks. The Chief Engineer, who inspected the works with me, is quite aware of the necessity of carefully watching for symptoms of weakness; the drivers have been ordered to slacken speed when passing the bridges, and not the slightest danger is incurred by allowing trains to pass over them.

8. It is suggested that, in future, the extrados of all arches shall be covered with asphalte, and that as a rule bridges shall have splayed wing-walls with counterforts to the abutments, and that the backing of the abutments shall be carried on in layers of six inches simultaneously with the masonry.

finished. of the 2d. Section of the 4 District appear to be sound

9. I was sorry to observe that tamping bars of iron were used for blasting operations in the rock cuttings, copper or brass tools should invariably be used in tamping and re-boring.

10. Ransom and Bidel's patent chilled box-crossings are laid at the Kudumudi station. Similar box-crossings have been laid in many of the stations on the Great Southern Railway, they are economical and effective.

11. The line of railroad near Coottapoliem runs on the site of the old cart road, passengers are now allowed to proceed within the railway boundaries beside the line, but it would be advisable to provide for local traffic before the opening of the section, as it will then be necessary to prevent trespass.

---

1. Submitted for the information of Government.

2. The Agent has been requested to call the special attention of the Chief Engineer to the condition of the small arches noticed in paragraphs 3 to 7 of Major Prendergast's report, and to impress upon him the necessity of carefully and constantly watching them, with a view to the immediate detection of any symptoms of increased weakness.

3. The Chief Engineer has been requested, through the Agent, to direct the immediate discontinuance of the very dangerous practice alluded to by Major Prendergast in paragraph 9 of his report.

4. The Agent's early attention has been called to the remarks contained in paragraph 11.

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Acting Consulting Engineer for Railways.

No 94. ORDER THEREON, 5th October 1867, No. 3,092.

RAILWAY, No. 5. Ordered to be recorded.

(True Extract.)
(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Railways.
" Editors' Table.

Exd. S. T. Augustin.

Railway Deptt

Consulting Engineer's Office

No. 9-

From

Major W. N. D. Prendergast V.C. R.E.
Dep. Consulting Engineer for Railways

To. Major J. H. M. Shaw Stewart R.E
Acting Consulting Engineer for Railways

Sir

I have the honor to report that on the 16th and 17th September 1867 I inspected the works of the Erroade Extension of the Great Southern of India Railway between Kudumudi and Erroade.

2. The rails were laid as far as the 16th mile from Kudumudi, which is about 4 miles from Erroade. All the banks and cuttings between the end of the rails and Erroade are so far advanced that they could if necessary be finished in a fortnight and the bridges might be completed in a month. A supply of fish plates has arrived from England and plate laying is in rapid progress. Ten miles of the road now in use was put down without fishing the rails; fish plates will be introduced before the line is opened for general traffic; if all goes well, the extension will be open throughout before Christmas.

3. The masonry works in progress and finished of the 2d Section of the 4th District appear to be sound

formed, but flaws appear in five of the small arches in the 1st Section.
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the abutments of the Bridge have been built up and
timber Girders placed over the opening.

4. It would appear that heavy traffic of from
10 to 30 Trains a day was allowed to pass over the
bridges after heavy rain and before the mortar had
thoroughly set. the result is that nearly vertical
cracks have opened in the Arches and abutments
at about three feet from their faces, these cracks
are in no case so large that they can admit any
probe larger than the blade of a penknife.

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tion of one which is Semicircular. they are all of
small span, none of them exceed 15 feet. they are
built of rubble masonry with cut stone quoins and
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Cracked about two Months ago, but the mischief has
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Similar

Similar box crossings have been laid in many of the Stations on the Great Southern Railway, they are economical and effective.

11. The line of railroad near Coottapolliem runs on the site of the Old Coal road, passengers are now allowed to proceed within the Railway boundaries beside the line, but it would be advisable to provide for local traffic before the opening of the Section as it will then be necessary to prevent trespass.

I have the honor to be
Sir
Your most obed.t sert.

Madras
20 September
1867

H.St.Prendergast. Major. V.C.R.E
Dep. Consulting Engr for Rys.

No. 262.

Submitted for the information of Government.

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3. The Chief Engineer has been requested through the Agent, to direct the immediate discontinuance of the very dangerous practice alluded to by Major Prendergast in para 9 of his report.

4. The Agent's early attention has been called to the remarks contained in para 11.

Madras
23d September
1867

V. Thuillier Major R.E.
Acting Cons: Engr for Rys

To The Secretary to Govt
P.W. Department
Fort St. George

Rec'd from Govt. for Execution
1867 No 3092.

RAILWAY DEPARTMENT.

From

The Consg. Engineer for Railways,

To

The Secretary to Government,
P. W. Dept.

Dated 20th September 1867.
Received 21st }

No. 262

Enclosures, No. nil

No. 3092 - 5th Octr 1867

Submitting for the Government's information a Report & Sketch, & requesting Orders from Major Rundall, thereon, for the Construction of the Guard Stations & Rest Houses on the Madras Railway.

Lt. 903-94

Copied 18/X/67

Cir

3092

No 3092

Orders recorded -

M.

Fort St George
5th Octr 1867

Rly. Engr

Editors' Table

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Rec'd 7/10/67