

Public Works (1897) Department.

25/8/97

G.O., No. 583-84 R

DATED 21. August 1897

[Despatch Abstract.]

South Indian Railway: The Govt Inspector's report of inspection of the — for the half year ended the 30th June 1897. Coupled to the Agent of that Railway for necessary action and a copy of the Pro. ordered to be forwarded to the Govt of India.

South Indian Railway: For raising 6 1/2 of Pro. embodying the Govt Inspector's Report of inspection of the — for the half year ended the 30th June 1897.

11/25/97

23/8/97

[illegible]

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

Government (1897) of Madras.
PUBLIC WORKS.

Spare copies

AUGUST.

Forwarding copy of Proceedings embodying the Government Inspector's report of inspection of the — for the half-year ended the 30th June 1897.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

Inspection report on the South Indian Railway for the half-year ended the 30th June 1897.

The inspection took place between the 6th and 16th July. I was accompanied throughout by the Chief Engineer; and by the Divisional Locomotive, Traffic, and Engineering officers over their respective divisions.

2. *Last Inspection Report.*—As less than four months have elapsed since I made the last inspection, a number of points raised in that report have not yet been attended to. The following paragraphs of the previous report may be considered as being repeated in this report:—Paragraphs 4, 6, 14, 15, 16, 17, 25, 28, 33, 35, 38, 40, 42, 45, 46, 48, 52, 53, 62, 63, 67, 70, 71, 75 (a), 76 (a) and 77.

3. The necessity for new works, recommended both in this report and in the paragraphs enumerated above of the last report, must of course be considered as subject to the recent orders of the Government of India asking that all expenditure, which can possibly be avoided, be postponed.

4. *Earth-work.*—The side walks on the Māvavaram-Mutupet Railway are narrow and low in many places.

5. *Bridges, Culverts.*—*Paravanur Bridge*, 2×150 feet girders, mile 136.—One of the vertical tension links has become somewhat seriously laminated. It is being carefully watched and will be renewed if the lamination increases.

6. Some timbers on this bridge require renewal.

7. 1×30 feet girder, mile 156.—This new girder was inspected and passed for traffic. The girder is an old 40 feet cut down to 30 and is very nearly up to type engine strength including wind pressure and well over O-class engine strength.

8. 3×40 feet girder, at mile 220/1 (*Māvavaram-Mutupet Railway*).—Road over this bridge is very rough.

9. *Kudamudi River*—mile 253 (*Erode Branch*).—The Madras Public Works Department have now agreed to extend their road bridge in conjunction with the extension of the railway bridge.

10. *Pālār bridge*, 13×150 feet, mile 194 (*Villupuram-Dharmavaram Section*).—The red oxide paint has perished although the bridge was painted only two years ago.

11. 1×30 feet girder, mile 220/2 (*Māvavaram-Mutupet Railway*).—Rusting badly. This is one of the cracked abutment bridges and has recently been very strongly strutted.

12. *Level Crossings.*—The railway only maintains that portion of the level-crossing roads which lies within their own fences and therefore are not responsible for the almost impassable condition of many of the approaches—particularly in the Trichinopoly and Tanjore districts.

13. At present both white and green lights are used on different parts of the line as allright signals on crossing gates. It would be as well to abolish white altogether as an allright signal.

14. Attention is again drawn to the great number of cases of cattle being run over on this railway. During the three months ended June 1897 there were 111 such accidents, of which 82 occurred on the fenced line. This result is doubtless due to the poor condition of the aloe fence and to the great number of unprotected level-crossings, the gates of which, although supposed to be self-closing, either do not act properly or are wilfully tied back by the villagers.

15. *Ballast.*—A great deal of ballasting work has been got through during the last few months on the Māvavaram-Mutupet Railway—*vide* paragraph 4.

16. *Permanent-way.*—The steel sleepers which have been removed from the Villupuram-Dharmavaram section during the last few months were examined at various stations. Rusting is going on, though not to the extent which was at first feared. Only about 10 per cent. of those removed were really badly corroded.

17. The road was very rough between Vencatachellum and Manubolu stations, Nellore branch.

18. The Gudur diversion was in very good order. The Bezwada-Madras Railway hope to complete their re-girding operations within a couple of months and so enable the South Indian Railway to run their trains over the permanent line before the north-east monsoon is due.

19. The running was very good over the section between Tiruvannāmalai and Villupuram and also between Villupuram and Madras.

20. The old creosoted pine sleepers of the Pondicherry Branch are now nearly completely worn out. Renewals are heavy and very necessary.

21. It has now been decided to renew the old 68 lb. broad gauge rails on the Negapatam and Erode branches with 52 lb. bull-headed rails specially designed to fit the 68 lb. chairs. The 50 lb. rail has now been laid to mile 420/0, leaving a gap of $5\frac{1}{4}$ miles only of 40 lb. road still to be replaced.

22. *Station Buildings.*—Four new trial stations which have been promised and for which the inhabitants are naturally impatient seem to have been needlessly delayed.

23. *Villupuram.*—A Native women's waiting room has been opened at this station and closed again, as it was found that it was used as a latrine. In my opinion the experiment has not had a fair chance. In external appearance the erection very much resembles the South Indian Railway pattern of latrine, there is neither a name-board signifying what the building is, nor is there an attendant in charge. At the same time I do not think waiting rooms for women are needed in this presidency.

24. *Negapatam.*—The foundations of the wall round this station yard have become undermined in places, owing to the roadways which skirt the wall on the outside not having been kept in repair and consequently have become worn away by the action of successive monsoons. I think it is the duty of the municipality to effect the necessary repairs without delay.

25. *Madras.*—The Tramway Company are now relaying the portion of their line contiguous to the Beach station. The South Indian Railway boundary is here defined by the municipal lamp-posts. The distance between the sunshade of the tram cars and the lamp posts will be 16 inches only. The Railway Company will be quite unable to give up any of their land, and if the 16 inches is not considered sufficient clearance, the Tramway Company will be well advised to consider the position of their centre line before proceeding further with the work.

26. *Signals, Station Yards, Points and Crossings.*—*Kadiri.*—A proposal to convert the lay-bye siding into a loop and to extend both the passengers and goods sheds is approved.

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36. *Station Machinery.*—As Gudur will be a future terminus of the South Indian Railway a new turn-table will be necessary. The turn-table now at Katpadi is never used and might advantageously be transferred.

37. Weigh-bridges for weighing trucks should be provided at all the important junctions and traffic centres. At present there are no means for readily checking the weight of contents of wagons loaded at roadside stations.

38. *Staff Quarters.*—There is at present accommodation at Pakala for three European drivers, the bungalows intended for them being used by lower-paid subordinates.

39. *Traffic.*—I noticed at all stations that the foreign railway time-tables were out of date. There seems to be a want of system in the supply of these time-tables.

40. It seems strange that at an important station like Tanjore no composite carriages are kept spare. On the occasion of the inspection train passing through some inconvenience was witnessed in consequence of a composite on one of the ordinary trains having to be detached for repairs.

41. I noticed that at Vadamadura (and at some other stations also) the pointsman was in possession of the keys of the facing points, although by the rules the station-master is supposed to keep them in his own possession.

42. The inspection train on the 13th instant crossed No. 8 train at Vadamadura. At 9.35 or eight minutes before No. 8 was due to arrive the stationmaster had the line clear ticket for the inspection train ready; signed and timed 9.45. On examining his books it was seen that he had already wired the arrival of No. 8 although the train was not then even in sight, the message being timed 9.43. The enquiry for line clear for the special was timed 9.44. Serious notice should be taken of this clear case of booking false time and of the preparation of a bogus line clear ticket.

43. There seems to be a very great delay in the preparation of the revised engine load table.

44. The refreshment-rooms have now been taken over by Messrs. Spencer & Co. of Madras, and a very marked improvement, both in the quality of the refreshments supplied and in the style in which these are served, has taken place. The arrangements for the supply of dinner tickets are unsatisfactory and should receive early attention.

45. A native refreshment-room is nearly completed at Villupuram. There are two rooms—one for Hindus and one for Muhammadans. I do not think the Hindu room will ever be a success until partitioned off. The native contractor in charge should be allowed a free hand in partitioning the interior so that Hindus of different castes can partake of meals. Care must be taken that he charges the same prices to all castes so that he cannot, by exorbitant charges, exclude the lower castes.

46. *Watering Arrangements.*—The wells at Pileru, Mungalampeta and Pakala have all run dry. An efficient water-supply for Pakala is urgently needed.

47. A new water-supply scheme for Tiruvalúr is under preparation. The Locomotive Department ask for a daily supply of 50,000 gallons, but as the Locomotive consumption cannot now be more than 15,000, I think a scheme for a daily supply of 25,000 gallons should suffice.

48. *Rolling Stock.*—I am of opinion that the fitting of the vacuum brake should be pushed forward more vigorously. The Madras local trains especially require to be quickened up; this can only be done by the use of the continuous brake—see Appendix ii.

49. A carriage is being experimentally fitted with the electric light.

50. It was found that, on the temporary mixed gauge which will shortly be laid through from Gudur to Nellore, the metre gauge engine cow-catcher nearly fouls the broad gauge rails. I think it will be found convenient to detail one or two engines to work all the trains on this section, their cow-catchers being specially altered to suit.

51. To facilitate shunting round the sharp curves of the Beach lines at Tuticorin I think a four-wheeled tank shunting engine should be procured. Such an engine would be useful for shunting work anywhere.

52. *Train Service.*—The inhabitants of Tirupati complain of inconvenient train service and non-connection of trains at Renigunta with those of the Madras Railway. In Appendix iii I have given the outline of a revised time-table for the Villupuram-Nellore-Dharmavaram section which would, I think, prove more satisfactory than the existing timings.

53. The inhabitants of Tirutturaippundi ask that the train from Mutupet due at Tiruvalúr at 17.50 be arranged to connect with the train due out from there for Tanjore at 17.36. This connection can easily be effected and should be attended to at once.

MADRAS,
19th July 1897.

C. T. R. SCOVELL,
Government Inspector of Railways.

Remarks by the Senior Government Inspector of Railways, Madras.

Since the inspection of the South Indian Railway was made by Mr. Scovell, I have been over practically the whole of the line myself in company with the Agent. In para. 2 of his report for 30th June 1897, Mr. Scovell complains that no attention had as yet been paid to the suggestions made in certain paragraphs in his report on his March inspection. I have talked over all these with the Agent and learn from him that the matters referred to in paragraphs 4, 6, 14, 15, 25, 33, 35, 38, 40, 45, 52, 53, 62, 67, 71, 75a, and 77 of the March report are all in process of being attended to. As regards the others I gather that the state of affairs is as follows: *Para. 16.*—Trial is about to be made of a piccottah style of gate as used on certain continental railways. *Para. 17.*—The question of fencing will be taken up comprehensively. The Kiloray thorn is said not to grow except in a certain limited area. *Para. 28.*—The construction of a trial station at Noyel, on the Erode branch, is hung up for want of funds. *Para. 42.*—This is a matter for the Madras Railway. *Para. 46.*—The erection of home bracket signals at the points is a large one and is deferred until funds become

available. *Para. 48.*—I think that the disc signals at the points all over the older parts of the line had better be abolished altogether; they are not found necessary elsewhere. The Cuddalore disc signals referred to by Mr. Scovell, if retained, ought to be treated as advised by him. *Para. 63.*—The cause of the slowness of the Madras-Chingleput local train is not due to the absence of brakes but to the large number of trains and to the insufficiency of crossing places on the single line. *Para. 70.*—Certain tricomposite carriages are intended to be provided. *Para. 76a.*—Tataparai has been selected as the site of the proposed cooly dépôt.

It came to my notice that mail trains do not stop at Tindivanam which is a sub-divisional head-quarters; this ought, if possible, to be remedied. At mile 86, the waterway of a bridge over the Gingee river has been largely increased, but no steps have been taken to open out the ground so as to let the new spans do a fair share of work. The running between Tanjore and Trichinopoly on my journey out and back was too rough for the mail train speeds; this part of the road should be got into decent running order as speedily as possible.

In his para. 27 Mr. Scovell refers to the points of a catch-siding at *Tirupati West*. There are other stations besides this which are situated on short bits of level on an otherwise continuous down grade; but the Railway authorities do not seem to have thought it necessary elsewhere to put in a catch-siding. The reason apparently is that only one mile farther on there is a station called *Tirupati East* where passenger trains stop and where there is no through siding. The idea of the catch-siding, so called, at Tirupati East, with its points weighted so as to trap a runaway train, is that such a train may not smash into a train standing at Tirupati East. But the remedy is rather a heroic one, for the so-called catch-siding is in reality an ordinary station lay-bye, and as a matter of fact stock is kept standing on it. There ought to be either a real catch-siding or none at all, and trains ought to be so braked as to be incapable of getting out of hand on the 1 in 100 grades. Otherwise—and this seems to be the preferable course—Tirupati East ought to be made a regular station and supplied with a through siding.

With reference to Mr. Scovell's para. 50. The height of the cow-catchers over the broad gauge rails is 2" and over the metre gauge rails 3". The cow-catchers of the engines intended to work the mixed gauge section between Gudur and Nellore ought to be raised 1½" and life-guards added to them. This must be done before I can permit them to run on the mixed gauge.

At Saidapet the entrance points at the north end of the station might, with great advantage, be moved so as to come south of the level crossing; and to make up for the shortened length of siding the south facing-points might be moved south up to the other level crossing.

The question of the great accumulation of stores on the South Indian Railway is, I see, being taken up in earnest by the Agent, and quite time too; the stock of engine boiler tubes, for instance, appeared to me to be a ten year stock, though the Locomotive Superintendent assured me that it was only enough for 18 months. The stock of certain sizes of bars too seems susceptible of great reduction.

MADRAS,
10th August 1897.

F. J. E. SPRING,
Senior Govt. Inspector of Railways, Madras.

APPENDIX I.

STATEMENT showing renewals of permanent-way (excluding the extraordinary renewals referred to in paragraph 21) during the half-year ended 30th June 1897.

South Indian Railway including the Villupuram-Dharmavaram section and branches—

817 rails, iron, 68 lb., have been replaced by 817 rails, iron, 68 lb.	163 "	" 41 lb.	" "	163 "	" 41 lb.
39 "	" 35 lb.	" "	" "	39 "	" 41 lb.
261 "	steel, 41 lb.	" "	" "	261 "	steel, 41 lb.
10 "	" 50 lb.	" "	" "	10 "	" 50 lb.
2,133 sleepers, pine	" "	" "	" "	2,133 "	sleepers, pingadu.
3,889 "	pingadu	" "	" "	3,889 "	" "
22 "	teak	" "	" "	14 "	" "
133 pairs of C.I. pots	" "	" "	" "	8 "	" teak.
78 sleepers steel	" "	" "	" "	133 pairs of C.I. pots.	
78 "	Denham and Oppert's	" "	" "	78 sleepers steel.	
				78 Donham and Oppert's.	

Pondicherry Railway.

24 rails, iron, 41 lb., have been replaced by 24 rails, iron, 41 lb.	
1,090 sleepers, pine	1,090 sleepers, pingadu.

Mayavaram-Mutpet Railway.

635 rails, iron, 41 lb., have been replaced by 635 rails, iron, 41 lb.	
91 sleepers, pingadu	91 sleepers, pingadu.

APPENDIX II.

STATEMENT showing the quantity of rolling stock fitted and piped for the vacuum brake.

Description.	Total on the line.	Fitted.	Piped.	Not fitted or piped.
Locomotives	203	20	NIL.	183
Coaching stock	911	93	38	780
Goods stock	3,357	NIL.	NIL.	3,357

APPENDIX III.

TABLE showing proposed revised timing on the Villupuram-Dharmavaram-Nellore Section.

Read Down.					Stations.		Read Up.				
..	2-15	..	13-30	dep.	Villupuram ..	..	arr.	..	22-00	..	11-00
..	7-15	..	20-00	arr.	Vellore ..	..	dep.	..	18-00	..	4-15
2-20	7-30	14-20	21-30	dep.			arr.	8-40	15-45	22-45	4-00
2-50	7-55	14-45	22-00	arr.	Katpadi J.	..	dep.	8-15	15-15	22-20	3-30
..	8-10	15-15	22-20	dep.			arr.	8-00	14-50	21-45	..
..	10-40	17-45	0-20	arr.	Pakala J. ..	..	dep.	5-45	12-50	19-15	..
..	12-00	18-30	0-30	dep.			arr.	5-30	12-40	17-45	..
..	13-45	20-00	1-40	arr.	Tirupati ..	..	dep.	3-50	11-10	15-45	..
10-00	14-00	20-15	1-45	dep.			arr.	3-45	11-05	15-30	..
10-30	14-30	20-45	2-15	arr.	Renigunta J.	..	dep.	3-15	10-40	15-00	..
..	15-00	..	3-30	dep.			arr.	2-00	10-15	..	..
..	20-30	.. *	9-00	arr.	Nellore ..	..	dep.	20-30	5-00	..	..
Dharmavaram Branch.											
..	6-00	13-00	..	dep.	Pakala J. ..	..	arr.	..	11-30	18-00	..
..	11-00	17-30	..	arr.	Chinna Tip. ..	..	dep.	..	7-00	13-10	..
..	11-00	..	..	dep.	Samudram ..	..	arr.	..	..	13-00	..
..	17-00	..	..	arr.	Dharmavaram J.	..	dep.	..	..	7-00	..

ORDER—No. 583 R., dated 21st August 1897.

Communicated to the Agent, South Indian Railway, for information and necessary action.

2. A copy of these Proceedings will be forwarded to the Government of India.

[Here enter No. 584 R., dated 21st August 1897.]

(True Extract.)

(Signed) F. J. E. SPRING,
Offg. Joint Secy. to Govt.,
Railway Branch.

To the Agent, South Indian Railway.
" Local and Municipal Department.

ENDORSEMENT—No. 584 R., dated 21st August 1897.

Forwarded.

(By order.)

(Signed) F. J. E. SPRING,
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AN RAILWAY.

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40. It seems strange that at an important station like Tanjore no composite carriages are kept spare. On the occasion of the inspection train passing through some inconvenience was witnessed in consequence of a composite on one of the ordinary trains having to be detached for repairs.

41. I noticed that at Vadamadura (and at some other stations also) the pointsman was in possession of the keys of the facing points, although by the rules the station-master is supposed to keep them in his own possession.

42. The inspection train on the 13th instant crossed No. 8 train at Vadamadura. At 9-35 or eight minutes before No. 8 was due to arrive the stationmaster had the line clear ticket for the inspection train ready; signed and timed 9-45. On examining his books it was seen that he had already wired the arrival of No. 8 although the train was not then even in sight, the message being timed 9-43. The enquiry for line clear for the special was timed 9-44. Serious notice should be taken of this clear case of booking false time and of the preparation of a bogus line clear ticket.

43. There seems to be a very great delay in the preparation of the revised engine load table.

44. The refreshment-rooms have now been taken over by Messrs. Spencer & Co. of Madras, and a very marked improvement, both in the quality of the refreshments supplied and in the style in which these are served, has taken place. The arrangements for the supply of dinner tickets are unsatisfactory and should receive early attention.

45. A native refreshment-room is nearly completed at Villupuram. There are two rooms—one for Hindus and one for Muhammadans. I do not think the Hindu room will ever be a success until partitioned off. The native contractor in charge should be allowed a free hand in partitioning the interior so that Hindus of different castes can partake of meals. Care must be taken that he charges the same prices to all castes so that he cannot, by exorbitant charges, exclude the lower castes.

46. *Watering Arrangements.*—The wells at Pileru, Mungalampeta and Pakala have all run dry. An efficient water-supply for Pakala is urgently needed.

47. A new water-supply scheme for Tiruvalúr is under preparation. The Locomotive Department ask for a daily supply of 50,000 gallons, but as the Locomotive consumption cannot now be more than 15,000, I think a scheme for a daily supply of 25,000 gallons should suffice.

48. **Rolling Stock.**—I am of opinion that the fitting of the vacuum brake should be pushed forward more vigorously. The Madras local trains especially require to be quickened up; this can only be done by the use of the continuous brake—see Appendix ii.

49. A carriage is being experimentally fitted with the electric light.

50. It was found that, on the temporary mixed gauge which will shortly be laid through from Gudur to Nellore, the metre gauge engine cow-catcher nearly fouls the broad gauge rails. I think it will be found convenient to detail one or two engines to work all the trains on this section, their cow-catchers being specially altered to suit.

51. To facilitate shunting round the sharp curves of the Beach lines at Tuticorin I think a four-wheeled tank shunting engine should be procured. Such an engine would be useful for shunting work anywhere.

52. **Train Service.**—The inhabitants of Tirupati complain of inconvenient train service and non-connection of trains at Renigunta with those of the Madras Railway. In Appendix iii I have given the outline of a revised time-table for the Villupuram-Nellore-Dharmavaram section which would, I think, prove more satisfactory than the existing timings.

53. The inhabitants of Tirutturaippúndi ask that the train from Muttupet due at Tiruvalúr at 17-50 be arranged to connect with the train due out from there for Tanjore at 17-36. This connection can easily be effected and should be attended to at once.

MADRAS,
19th July 1897.

(Signed) C. T. R. SCOVELL,
Government Inspector of Railways.

Remarks by the Senior Government Inspector of Railways, Madras.

Since the inspection of the South Indian Railway was made by Mr. Scovell, I have been over practically the whole of the line myself in company with the Agent. In his paragraph 2 of his 30th June 1897 report, Mr. Scovell complains that no attention had as yet been paid to the suggestion made in certain paragraphs in his report on his March inspection. I have talked over all these with the Agent and learn from him that the matters referred to in paragraphs 4, 6, 14, 15, 25, 33, 35, 38, 40, 45, 52, 53, 62, 67, 71, 75a, and 77 of the March report are all in process of being attended to. As regards the others I gathered that the state of affairs was as follows: *Paragraph 16.*—Trial is about to be made of a piccottah style of gate as used on certain continental railways. *Paragraph 17.*—The question of fencing will be taken up comprehensively. The Kiloray thorn is said not to grow except in a certain limited area. *Paragraph 28.*—The construction of a trial station at Noyel, on the Erode branch, is hung up for want of funds. *Paragraph 42.*—This is a matter for the Madras Railway. *Paragraph 46.*—The erection of home bracket signals at the points is a large one and is deferred until funds become available. *Paragraph 48.*—I think that the disc signals are not found necessary elsewhere. The Cuddalore disc signals referred to by Mr. Scovell, if retained, ought to be treated as advised by him. *Paragraph 63.*—The cause of the slowness of the Madras-Chingleput local train is not due to the absence of brakes but to the large number of trains with insufficient crossing places on the single line. *Paragraph 70.*—Certain tricomposite carriages are intended to be provided. *Paragraph 76a.*—Tataparaí has been selected as the site of the proposed cooly depôt.

It came to my notice that mail trains do not stop at Tindivanam which is a sub-divisional head-quarters; this ought, if possible, to be remedied. At mile 86, the waterway of a bridge over the Gingee river has been largely increased, but no steps have been taken to open out the ground so as to let the new spans do a fair share of work. The running between Tanjore and Trichinopoly on my journey out and back

was too rough for the mail train speeds; this part of the road should be got into decent running order as speedily as possible.

In his paragraph 27 Mr. Scovell refers to the points of a catch-siding at *Tirupati West*. There are other stations besides *Tirupati* situated on short bits of level on an otherwise continuous down grade! But the Railway authorities do not seem to have thought it necessary elsewhere to put in a catch-siding. The reason apparently is that only one mile farther on there is a station called *Tirupati East* where passenger trains stop and where there is no through siding. The idea of the catch-siding, so called, at *Tirupati East*, with its points weighted so as to trap a runaway train, is that such a train may not smash into a train standing at *Tirupati East*. But the remedy is rather a heroic one, for the so-called catch-siding is in reality an ordinary station lay-bye, and as a matter of fact stock is kept standing on it. There ought to be either a real catch-siding or none at all, and trains ought to be so braked as to be incapable of getting out of hand on the 1 in 100 grades. Otherwise—and this seems to be the preferable course—*Tirupati East* ought to be made a regular station and supplied with a through siding.

With reference to Mr. Scovell's paragraph 50. The height of the cow-catchers over the broad gauge rails is 2" and over the metre gauge rails 3". The cow-catchers of the engines intended to work the mixed gauge section between Gudur and Nellore ought to be raised 1½" and life-guards added to them. This must be done before I can permit them to run on the mixed gauge.

At Saidapet the entrance points at the north end of the station might, with great advantage, be moved so as to come south of the level crossing; and to make up for the shortened length of siding the south facing-points might be moved south up to the other level crossing.

The question of the great accumulation of stores on the South Indian Railway is, I see, being taken up in earnest by the Agent, and quite time too; the stock of engine boiler tubes, for instance, appeared to me to be a ten year stock, though the Locomotive superintendent assured me that it was only enough for 18 months. I take it that a sufficient stock to keep in hand now-a-days is a complete set of tubes for one out of every ten engines on the line. The stock of certain sizes of bars too seems susceptible of great reduction.

MADRAS,
10th August 1897.

(Signed) F. J. E. SPRING,
Senior Govt. Inspector of Railways, Madras.

Para. f
this whole para f

Para. f

10-1000

APPENDIX I.
STATEMENT showing renewals of permanent-way (excluding the extraordinary renewals referred to in paragraph 21) during the half-year ended 30th June 1897.

South Indian Railway including the Villupuram-Dharmavaram section and branches—

817 rails, iron, 68 lb., have been replaced by	817 rails, iron, 68 lb.
163 " " 41 lb. "	163 " " 41 lb.
39 " " 35 lb. "	39 " " 41 lb.
261 " steel, 41 lb. "	261 " steel 41, lb.
10 " " 50 lb. "	10 " " 50 lb.
2,133 sleepers, pine "	2,133 " sleepers, pingadu.
3,889 " pingadu "	3,889 " " "
22 " teak "	8 " " teak.
133 pairs of C.I. pots "	133 pairs of C.I. pots.
78 sleepers steel "	78 sleepers steel.
78 " Denham and Oppert's "	78 Denham and Oppert's.

Pondicherry Railway.

24 rails, iron, 41 lb., have been replaced by 24 rails, iron, 41 lb.
 1090 sleepers pine " " 1,090 sleepers pingadu.

Máyavaram-Mutupet Railway.

635 rails, iron, 41 lb., have been replaced by 635 rails, iron, 41 lb.
 91 sleepers, pingadu " " 91 sleepers, pingadu.

APPENDIX II.

STATEMENT showing the quantity of rolling stock fitted and piped for the vacuum brake.

Description.	Total on the line.	Fitted.	Piped.	Not fitted or piped.
Locomotives	203	20	N/L.	183
Coaching stock	911	93	38	780
Goods stock	3,357	N/L.	N/L.	3,357

APPENDIX III.

TABLE showing proposed revised timing on the Villupuram-Dharmavaram-Nellore Section.

Read Down.				Stations.		Read Up.			
..	2-15	13-30	dep.	Villupuram ..	arr.	..	22-09	..	11-00
..	7-15	20-00	arr.	} Vellore ..	dep.	..	16-00	..	4-15
2-20	7-30	21-30	dep.		arr.	8-40	15-45	22-45	4-00
..	7-55	22-00	arr.	} Katpadi J.	dep.	8-15	15-15	22-20	3-30
2-50	8-10	22-20	dep.		arr.	8-00	14-50	21-45	..
..	10-40	0-20	arr.	} Pakala J. ..	dep.	5-45	12-50	19-15	..
..	12-00	0-30	dep.		arr.	5-30	12-40	17-45	..
..	13-45	1-40	arr.	} Tirupati ..	dep.	3-50	11-10	15-45	..
10-00	14-00	1-45	dep.		arr.	3-45	11-05	15-30	..
..	14-30	2-15	arr.	} Renigunta J.	dep.	3-15	10-40	15-00	..
10-30	15-00	3-30	dep.		arr.	2-00	10-15	..	..
..	20-30	9-00	arr.	Nellore ..	dep.	20-30	5-00	..	..
Dharmavaram Branch.									
..	6-00	13-00	dep.	Pakala J. ..	arr.	..	11-30	18-00	..
..	11-00	17-30	arr.	} Chinna Tip. ..	dep.	..	7-00	13-10	..
..	11-00	..	dep.		arr.	..	..	13-00	..
..	17-00	..	arr.	Dharmavaram J.	dep.	..	..	7-00	..

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

His Excellency the Governor
The Honble Sir Henry Bliss, K.C.B.
The Honble Mr. J. Gross, C.B.

Communicated to the
Agent S. E. R. for necessary
action.

2. A copy of these Progs
will be forwarded to the
Bnt of India.

2 The April 1. 94
" Local and Municipal

64. S. N. = 584. R 9 21st August/97

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