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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. 2605-06 (Rt) Press
B.P.—No. —Mis.—

Dated 10-9- 1875.

Not to be folded or roughly handled

No. 242. Read the following letter from Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 26th August 1875, No. 474 :—

G. O., No. 2,530, dated 7th September 1874.
* No. 559, dated 27th May 1875.
Madras Railway.
With half-yearly Report for period ended 31st December 1874.
Chief Engineer's Report.
Telegraph do. do.
Locomotive Superintendent's Report.
Traffic Manager's do.
Chief Accountant's do.
Consulting Physician's. do.
Chief Auditor's. do.
† Dated 29th April 1875, letter to Board of Directors.

REFERRING to this office letter No. 384, dated 2nd July 1874, I have the honor to forward herewith, for the information of Government, the accompanying reports by the Agents of the Madras* and South† Indian Railway Companies on the working of their respective lines during the official year 1874-75.

From R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, to Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, dated Madras, 27th May 1875, No. 559.

I HAVE the honor to report as follows, for the information of the Government, with reference to the operations of this Company during the official year 1874-75.

2. The following Covenanted Officers and servants returned to England, resigned the service, &c. :—

Name.	Grade.	Remarks.
	Engineering Department.	
W. R. Robinson	Acting Deputy Chief Engineer.	Proceeded to England on sick leave, 4th July 1874.
E. W. Stoney	1st-class Assistant Engineer ...	Proceeded to England on one year's furlough, 14th July 1874.
B. Anderson	Chief Engineer	Proceeded to England on duty, 18th January 1875.
	Locomotive Department.	
James Barefoot	Locomotive Foreman	Proceeded to England on sick leave, 3rd May 1874.
Edward Read	Do. do.	Died, 4th September 1874.
Joseph Irons	Erector and Fitter	Resigned the service and returned to England, 8th December 1874.
	Chief Auditor's Department.	
F. Church	Chief Auditor	Proceeded to England on three months' privilege leave, 13th April 1874.

3. The following officers and servants arrived from England, &c. :—

Name.	Grade.	Date of arrival.
	Engineering Department.	
G. R. Watson	3rd-class Assistant Engineer ...	Arrived, 13th May 1874.
H. C. West	1st-class do. do. ...	Returned from furlough, 11th July 1874.
B. Anderson	Chief Engineer	Returned from sick leave, 24th October 1874.
G. E. Smith	2nd-class Assistant Engineer ...	Returned from furlough, 9th December 1874.
George Stacey	Diver	5th September 1874.
Charles Smith	Diver	5th " "
	Locomotive Department.	
W. R. Wray	Erector and Fitter	22nd June 1874.
Thomas Putnam	Engine Driver	19th August 1874 (re-engaged).
James Barefoot	Locomotive Foreman	Returned from sick leave, 24th October 1874.
	Chief Auditor's Department.	
F. Church	Chief Auditor	Returned from privilege leave, 28th September 1874. Leave extended by the Board, *vide* paragraph 4 of Secretary's letter, No. 535.

4. On the 9th September 1874, by my letter No. 794, I reported to you the death on the 4th idem from Phthisis, of Edward Read, the Locomotive Foreman at Royapooram.

5. The mileage worked over during the year 1874-75 was the same as that worked over in 1873-74, *viz.*, 858 miles.

Traffic Department.

6. There was no alteration in the rates and fares, but the following special rates were introduced during the official year :—

8th October 1874.—Private baggage conveyed in extra troop trains at 1 Pie per maund per mile.

27th October 1874.—Redwood for S. Saravanamootu Pillay, Coodoor to Madras, at Rupees 5 per ton, provided that 1,000 tons are forwarded within the space of one month.

16th March 1875.—Carriages, the property of the Nilgiri Carrying Company, at 3 Annas per truck per mile.

7. The traffic on the whole of the Railway was, as you are aware, very prejudiciously affected by the damage done to the way and works by floods, caused by the heavy rain which fell at the end of October last, and by the cyclone of May 1874. Full particulars of this are given in paragraph 5 of the Traffic Manager's report for the last half-year, a copy of which was forwarded to you on the 6th instant with my letter No. 472.

8. The following table shows the gross receipts and expenditure during the year as compared with the year ending the 31st of March 1874 :—

—	Gross Receipts.	Working Expenses.	Net Revenue.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1874	65,30,047 12 9	39,82,818 7 6	25,47,229 5 3
1875	59,19,550 9 6	39,72,678 5 9	19,46,872 3 9
Decrease ...	6,10,497 3 3	10,140 1 9	6,00,357 1 6

9. This falling off is accounted for by the dullness of trade, the very serious and prolonged interruptions, and the total cessation of all through traffic on the North-west Line for a period of 58 days.

10. *South-west Line.*—The average cost of maintaining the South-west Line and Bangalore and Nilgiri branches, including renewals with pot sleepers, amounted to Rupees 117-2-11 per mile per mensem, as compared with Rupees 131-9-2 per mile in 1873-74.

11. As referred to above, several serious interruptions to through traffic occurred during last year, owing to the way and works on the South-west Line having been damaged by floods.

12. The most important of these was at the bridge over the Goriattum river, the western portion of which, consisting of five 30 feet arches, was carried away by the floods that occurred at the end of October.

13. Two other smaller bridges on this line, near the Vaniembaddy and Mailputty stations, were also carried away during the cyclone that occurred in the month of May.

14. It has been determined to rebuild that portion of the Goriattum bridge that failed, and to build entirely new bridges near Vaniembaddy and Mailputty. The necessary sanctions for these new works have been obtained and the construction is now in progress, the traffic having in the meantime been carried on by temporary means.

15. With the above exceptions, the bridges on the South-west Line were kept up in good repair.

16. The fencing was efficiently maintained throughout the line. On some parts of the 4th Division and Nilgiri branch, where the aloe fencing was not thriving, it was considered advisable to substitute stone walling for the vegetable fence.

17. In consequence of the back-waters of the Ponany and Thoota rivers rising during the monsoon on the Western Coast in several places, between the 373rd and 377th miles, nearly to the top of the embankment, and the rails having in two instances been submerged to the depth of 6 to 8 inches, it was determined to raise the line at those points. The sanction of Government to the expenditure necessary for carrying out the work was conveyed to me in your letter No. 1,166, dated 8th December 1874.

18. *Bangalore Branch Line.*—The way and works on this line, as on the South-west, suffered greatly owing to the heavy rain which fell during September and October last. A 6 feet bridge at the 203rd mile was washed away, and, with a view to prevent further damage on this line by the bursting of tanks, it was considered desirable to cut gaps in the embankments. This caused an interruption to traffic for several days.

19. Another interruption to traffic was caused in November last, owing to a large boulder of rock at the Tiger Rock cutting, near the summit of the Coopum Ghaut, having been undermined by the heavy rain which fell during the last monsoon. The danger of this boulder falling over on to the line was considered so great that steps were taken to blast the rock, which operation was successfully carried out, not however without causing an interruption of through traffic for several days; steps are now being taken to render this part of the line safe, by building retaining walls to support the boulders which remain and prevent them from slipping.

20. *Nilgiri Branch Line.*—The way and works on this line were maintained in a satisfactory condition during the year.

21. *North-west Line.*—The maintenance of this line cost Rupees 114-0-7 per mile per mensem as compared with Rupees 93-11-9 per mile in 1873-74. This increase is attributable to the large expenditure on account of damages from floods.

22. The permanent-way, earthwork, station buildings, &c., were all maintained in good order. On the 24th October last, serious damage was done to the earthwork and ballast on certain parts of the line by an unusually heavy fall of rain, which caused many of the large tanks in the neighbourhood of the railway to burst and flooded the whole country.

23. The Acting Deputy Chief Engineer in his report for the quarter ended 31st December 1874, writes as follows on this subject :—

"I am informed on good authority that 26 inches of rain were registered on 24th, 25th and 26th October near Cuddapah, and further it is supposed there was a much greater fall on the hills

which supply our large rivers. When it is remembered that the average rainfall for the year in England is only 42½ inches, the manner in which our banks stood so severe a test must be considered very satisfactory. Where the banks were badly breached such breaches were almost invariably due to the bursting of tanks."

24. Very serious damage was also done to the Cheyaur, Paupugnee, Chittravutty and Pennair bridges, on the North-west Line, by the floods of October. Full reports stating the extent of the damage and the measures proposed for repairing these bridges have already been submitted to Government.

25. *Cheyaur and Huggry Bridges.*—The new bridge in course of construction over the Cheyaur river was but slightly damaged by the floods, and fair progress was made with that work during the year, though, as you are aware, unexpected difficulties have arisen both at this and at the Huggry bridge, and, under present circumstances, it is almost impossible to say with any degree of certainty when the completion of those bridges may be expected.

26. *Protective Works.*—The progress of these additional works to the Poiney, Goriattum, Palar, and Naggery bridges, has been somewhat retarded by the extraordinarily wet season we have experienced, commencing with the cyclone of May 6th.

27. The fencing on this line has been well and efficiently maintained.

28. *Electric Telegraph.*—The working of the telegraph has been very satisfactory during the year.

From T. H. GOING, Esq., Acting Chief Engineer of the Madras Railway Company, to the Chairman and Directors, Madras Railway Company, London, dated Madras, 5th March 1875.

I HAVE the honor to submit my report for the half-year ending 31st December 1874.

2. The way and works are in good condition throughout.

3. *Damages by Floods.*—The damages sustained by the Railway during the unprecedented floods which came down in the last days of October have been fully detailed in this office letters Nos. 729 and 792 of 3rd November and 1st December respectively, as well as in a letter from the Government Consulting Engineer, to the Secretary to Government, Public Works Department, published with G. O., No. 395, of 12th February 1875.

I shall now state what has been done towards restoring interrupted communication up to the date of this report.

4. The less serious of the injuries to embankment and small bridges were all repaired by 12th November. That caused by the bursting of Chintagoontah tank bund on 30th October, which made a wreck of the earthwork and fencing over almost 4 miles of line near Moodanore station, was made good by 17th November.

5. Of the five large bridges which suffered injury, that over the Goriattum river (South-west Line) was rendered passable by trains on the 5th November. The temporary repairs were effected by means of short girders supported on sleeper piers.

6. It was also found practicable to render the Pennair bridge (North-west Line) fit for traffic by building up by sleeper piers, to replace those of masonry which had been destroyed and which had left the ends of two sets of girders suspended. This bridge was thus restored in a temporary manner on 17th November.

7. The damages to the other three bridges, Cheyaur, Paupugnee and Chittravutty (North-west Line), were of too extensive a nature to be dealt with in a similar way, and it was not till the month of January that the water of these rivers had sufficiently subsided to enable us to lay down roads over their beds. Through communication was in this manner established over the Cheyaur river bed on 14th January, and over the beds of the Paupugnee and Chittravutty on 18th idem.

8. A road was also laid down on the bed of the Goriattum river as soon as the water had fallen so far as to permit of it, and traffic has been passed over by this means since 7th January,

previous to which time the bridge, as repaired in the temporary manner described in paragraph 5, had been used for the passage of trains.

9. There is thus but one of the damaged bridges over which traffic is now carried, *viz.*, the Pennair, and I hope to be able to replace the two fallen piers of this bridge without interrupting the course of traffic over it.

10. *Repairs of Damages.*—So much then for the temporary means adopted to establish through communication during the dry season. In the meantime the necessary steps have been taken for reconstructing the damaged portions of the bridges, so as to render them capable of passing trains when the season of floods returns. Designs for these works have been duly submitted and have received the sanction of Government. They are being executed with the greatest possible energy. How far we shall succeed in completing them without interruption from floods is a matter of some little uncertainty, depending on the character of the season as regards rainfall.

The Cheyaur, Paupugnee, and Chittravutty are so far forward, however, that I think myself safe in assuring the Board that these three bridges will be ready for traffic by 15th April. If no heavy freshes come down before the end of May, I think we may expect the bridge over the Pennair river to be restored by that time. There is rather more cause for apprehension respecting the date of completion of the Goriattum bridge, as rains are of earlier occurrence in the district through which that river passes. The contract time, however, which has been fixed for its completion is 20th May, and the work progresses in a satisfactory manner.

11. As regards the future permanency of these bridges, when the repairs now being executed have been completed, a few remarks should be here made.

12. So far as the Cheyaur is concerned, this bridge may be left out of the consideration as the new Cheyaur bridge now under construction will supersede it. The Goriattum bridge may also be fully relied on as soon as the additional waterway comprised in the design for reconstruction, which is now being carried out, has been provided and the protective works to foundations of the old portion of the bridge completed.

13. As for the three remaining bridges, however, *viz.*, the Paupugnee, Chittravutty and Pennair, the most that can be said is that they will be, when restored, of a slightly more permanent character than when originally built.

The scour in these rivers during the floods of October 1874 reached, in the case of the Paupugnee, to a depth of not less than 22 feet, and in that of the Pennair not less than 12 feet, these being the respective depths at which the ruined piers in these bridges had been founded.

The piers which failed had their foundations as deep as those which have stood (except in the Chittravutty, where nineteen of the centre piers are of screw piles at considerable depth). They all rested, as the sound piers do, at a short depth below the surface of a bed of decomposed gneiss and trap, which underlies the sand of which the beds of these rivers are composed.

The fact of their failure depended on the cross set of the current in each case, and this probably takes a new direction in every successive great flood. Such is the character of these rivers.

14. It will therefore be unsafe for the future to rely on the three bridges in question, and your Chief Engineer, now at home, will no doubt, after consultation with Sir John Hawkshaw, advise you as to the best course to adopt in respect of them, as well as in the matter of increased waterway for the Cheyaur and Paupugnee, the necessity for which is apparent.

15. The two bridges (at Mailputty and Vaniembaddy) destroyed by the cyclone of 6th May 1874 are being replaced by new structures affording considerable increased waterway, and their progress is satisfactory.

16. *Cheyaur new Bridge.*—It has not been possible to make much progress with the sinking of the pier cylinders since the date of my last report (25th August 1874). All the cast iron segments in hand had been used up at that time in sinking the line of western cylinders. From

the correct section of river bed, thus for the first time obtained, I was enabled to indent for the balance of segments required to complete the piers. These were delivered at Madras on 17th November, but the flooded state of the river and the work to be done in repairing the old bridge have retarded progress in the new structure. We are now however prepared for a fresh start, and a good deal will be done within the current half-year towards sinking the second row of cylinders down to the same depths as the others have reached.

17. All the cylinders will then rest on a stratum overlying rock from one to three feet.

18. The depths attained below river bed are as follows *viz.* :—

15 Piers varying from 70 to 93 feet deep.
3 " " from 60 to 69 " "
14 " " from 16 to 52 " "

19. When first recommending the application of the Pneumatic process to the preparation of a level bed for the cylinder piers of this bridge (with my letter No. 828, of 10th December 1873,) I expressed an opinion that it need not be applied to such of the cylinders as had reached very great depths, and the reasons for this opinion are stated in my letter No. 335, of 21st May 1874, paragraph 3. It has however been ruled by the Company's Consulting Engineer, that the Pneumatic process shall be applied to all the piers of the bridge, and that they shall be sunk through the hard overlying stratum to rock surface. I have accordingly sent home an indent for two sets of Pneumatic apparatus capable of working to 95 feet deep, in addition to those already supplied, which are capable of working only to 70 feet deep. It still remains to be proved whether, in this climate, workmen can endure the pressure within the cylinders of four atmospheres which will be required to expel the water to that depth.

20. *Huggry Bridge.*—Since my last half-yearly report rock has been unexpectedly encountered by the cylinders in sinking, and the divers who arrived from England in September last for working the Pneumatic apparatus are at present employed in preparing by their means the pier foundations. But little has been done as yet however in this latter process owing to interruptions from floods, and the necessity of removing the steam engine to Goriattum for pumping out the foundations of the new portion of that bridge. I shall visit the Huggry in a few days and will report specially on the work.

21. *Protective Works.*—The progress of these additional works to the Poiney, Goriattum, Palar and Naggery bridges has been greatly retarded by the extraordinary wet season we have had, commencing with the cyclone of 6th May.

It was not possible to resume operations, almost suspended since that date, till about the middle of January of this year, and since that time very good progress has been made with Goriattum, Poiney, and Naggery. The water in Palar river keeps so high that little progress has been made at the works of that bridge up to date. Land for the manufacture of bricks for the Poiney was only placed in possession of the Company on 3rd October 1874. Had it not been for this delay the protective works there would probably have been finished before last monsoon. Every exertion will be made to complete the protective works of the four bridges before next monsoon, but I hardly expect to see it done.

22. The Naggery river protective works 3 miles above the bridge have been completed.

23. Since my last half-yearly report I sent forward an estimate, which has been duly sanctioned, for raising the line at 373rd and 377th miles, South-west Line. The necessity for this was explained in paragraph 7 of that report. The work is now in progress and will cost less than Rupees 7,000.

24. *Maintenance.*—The cost of maintaining the line for the half-year has been Rs. 680-14-6 as against Rupees 735-14-10 for the corresponding half-year in 1873.

This may be considered satisfactory, as the expenditure under the head of "Maintenance" in the last quarter of 1874 includes large outlay on account of damages from floods.

25. *Electric Telegraph.*—The working of the telegraph has been very satisfactory, and the cost of its maintenance has been somewhat lower than for the corresponding half of 1873.

26. With this report are furnished the usual quarterly statements of expenditure in maintaining the way and works during the last quarter of 1874, with the Deputy Chief Engineer's report for that period. Also the statement of expenditure in maintaining the Electric Telegraph for the half-year ending December 1874, with the Telegraph Engineer's report for that period.

(True Copy.)

(Signed) J. MELLIS,
for *Agent and Manager.*

From G. K. WINTER, Esq., Telegraph Engineer, to T. H. GOING, Esq., Acting Chief Engineer of the Madras Railway Company, dated Arconum, 24th February 1875, No. 54.

Report for the half-year ending 31*st December* 1874.

During the half-year ending 31st December 1874, Morse instruments on my duplex principle were fixed on the circuit between Salem and Beypore, and have been working very satisfactorily.

2. The final alterations have now been made to the Needle instruments. The old drop handle has been abandoned, and finger keys substituted somewhat on the model of the English Post Office pattern. Two side or controlling magnets have been added, one each side of the induced needle. The substitution of the finger keys will largely reduce the wear and tear of the instrument, and consequently the cost of repairs; while the controlling magnets greatly increase the sensitiveness of the instrument, and at the same time enable the signallers to neutralize the effect of earth currents, and keep the needle vertical, and in its most sensitive and convenient position. These alterations have been very economically carried out, as may be gathered from the fact that the cost of maintenance for the half-year is considerably less than that during the corresponding half of the previous year.

3. The telegraph suffered very severely during the heavy rains of October last, but the damage was quickly repaired. The following is an account of the damage:—

1*st.*—On the South-west Line one Siemen's long post was carried away at the Goriattum river, and has not since been found. Both wires were submerged, but fortunately not broken. The interruption lasted 26 hours.

2*nd.*—On the North-west Line, at the 81st mile, one Hamilton's standard was thrown down and the insulators broken. No interruption was caused, and the pole was recovered.

3*rd.*—107th mile, one Hamilton's standard was thrown down, and the insulators broken. No interruption was caused and the pole was recovered.

4*th.*—134th mile, about a quarter of a mile of telegraph washed away, the wires broken, and carried into the fields. All the posts except one have been recovered and reset. The damage occurred on the night of the 25th October. The break was impassable up to the night of the 26th, but communication across it was restored on the morning of the 27th.

5*th.*—Cheyaur Bridge. The wires were broken in two places, three Hamilton's standards and two teak brackets having been carried away. Of these two of the standards were recovered and reset, communication across the Cheyaur was established on the morning of the 29th.

6*th.*—173rd mile, one Hamilton's standard complete carried away.

7*th.*—Paupugnee River. Two Siemen's long posts and one teak bracket were carried away and have not been found. The wires were broken in two places. Communication across the Paupugnee was restored on the 29th.

8*th.*—Chittravutty River. Two teak brackets complete were carried away. The wires were not broken but were in contact with each other and with the iron work of the bridge. Communication was restored on the afternoon of the 29th.

9*th.*—Huggry River. Two Hamilton's standards complete were carried away. One has been recovered. Communication was restored on the 2nd November. My Inspector was cut off from the Bellary branch for several days. I have to thank an Inspector of the Government Telegraph Department for assisting us at this place.

	Value of Stores lost. Rs.	A.	P.
3 Siemen's long posts iron	59	14	9
1 Do. short do.	18	0	0
3 Hamilton's galvanized iron posts	81	0	0
3 Teak Brackets	27	0	0
4 Cwt. No. 5 galvanized iron wire	44	0	0
6 Siemen's Insulators	7	2	0
30 White invert Insulators...	26	4	0
30 Iron arms...	26	4	0
Labor employed for repairing the damage	288	8	9
	58	11	6
	347	4	3

4. I trust some part of the lost stores may be recovered during the dry weather.

5. Notwithstanding the unusual weather, however, the actual number of interruptions was less than that during the corresponding half of the previous year. The following table will give the comparative figures:—

	South-west Line.		North-west Line.		Total.
	Interruptions caused by the neglect and carelessness of the Signallers.	Accidental Interruptions.	Interruptions caused by the neglect and carelessness of the Signallers.	Accidental Interruptions.	
Half-year ending 31st December 1873 ...	5	19	8	4	36
Half-year ending 31st December 1874 ...	6	13	4	5	28

6. Of the eighteen accidental interruptions three only were caused by lightning.

7. The cost of maintenance is given in the annexed table. This shows a total decrease of Rupees 29,908-7-5 as compared with the corresponding half of previous year, from this, however, must be deducted Rupees 27,028, *viz.*, the extraordinary expenditure on account of the substitution of Siemen's posts for the wooden poles on the South-West Line. I also annex a statement of the working of the electric clocks.

Summary of the working of Electric Clocks for the months of July, August, September, October, November, and December 1874.

		1874.						Mean of 6 months.
		July.	August.	September.	October.	November.	December.	
Clock failures.	Caused by circumstances beyond the Signallers control							
	Per cent.	100·00	100·00	100·00	100·00	100·00	100·00	100·00
	Caused through the negligence of Signallers							
Clock errors 2 minutes and over		2·76	1·84	1·90	6·55	2·56	1·69	2·88
Do. do. under 2 minutes and over		2·08	3·22	1·66	1·40	0·0	2·18	1·75
Do. stopped		0·69	0·0	0·0	0·46	1·79	1·21	0·69
Do. under 1 minute		3·91	2·99	2·61	3·51	2·82	8·49	4·05
Do. do. 1 minute		0·69	0·69	0·23	0·46	0·0	0·97	0·50
		89·87	91·26	93·60	87·62	92·83	85·46	90·13
		100·00	100·00	100·00	100·00	100·00	100·00	100·00

ARCONUM,
24th February 1875.

(Signed) G. K. WINTER,
Telegraph Engineer.

Abstract of Cost of maintaining Electric Telegraph during the half-years ending 31st December 1873 *and* 1874.

Date.	Maintenance of Line. Superintendence. Engineer.	Inspector.	Office Establishment.	Proportion of Chief Engineer's Establishment.	General. Labor.	Materials	Carriage, &c.	Total.	Maintenance of Stations. Superintendence. Engineer.	Inspector.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Half-year ending 31st December 1873 ...	2,930 15 3	3,914 1 6	728 2 1	...	853 0 11	27,615 1 8	...	36,041 5 5	2,930 15 4	3,914 1 8
Half-year ending 31st December 1874 ...	2,905 14 6	3,314 15 9	550 1 0	...	911 9 10	463 2 5	...	8,145 11 6	2,905 14 6	3,314 15 11

Abstract of Cost of maintaining Electric Telegraph during the half-years ending 31st December 1873 *and* 1874.—(Concluded.)

Date.	Maintenance of Stations.—(Concluded.) Superintendence.—(Concld.) Office Establishment.	Proportion of Chief Engineer's Establishment.	General. Labor.	Materials.	Carriage, &c.	Total.	Grand Total.	No. of Miles open.	Expenditure per Mile.	No. of Stations open.	Expenditure per Station.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.		Rs. A. P.
Half-year ending 31st December 1873...	728 2 2	...	3,828 15 3	3,264 11 6	...	14,666 13 11	50,708 3 4	857½	42 1 6	85	174 7 7
Half-year ending 31st December 1874...	550 1 0	...	3,823 3 8	2,059 13 4	...	12,654 0 5	20,799 11 11	858¾	9 7 9	85	148 10 2

(Signed) G. K. WINTER,
Telegraph Engineer.

ARCONUM,
24th February 1875.

From E. C. BOODLE, Esq., Acting Locomotive Superintendent, to R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, dated Perambore, 9th April 1875, No. 51.

I HAVE the honor to submit my report for the half-year ending the 31st December 1874.

2. Three statements accompany the report, numbered respectively 1, 2, and 3.

3. No. 1 is an abstract exhibiting the expenditure incurred in each month, under various heads, in working and upholding locomotive engines and tenders and rolling stock during the 6 months.

4. No. 2 is an abstract furnishing similar information for the last three half-years, for the purpose of comparison.

5. No. 3 is a statement showing the classes and numbers of locomotive engines and vehicles on the line, exhibiting also the number of the several descriptions of rolling stock constructed during the half-year, and those at present in course of manufacture in the Workshops.

6. *Locomotive Engines and Tenders.*—The locomotive engines and tenders throughout the line are generally in good order.

7. The repairs to locomotives have been very extensive and heavy during the past half-year. This was anticipated in previous reports, and a large outlay under this head must continue for some time.

8. Three engines were thoroughly renewed during the half-year, and repairs were executed to thirty-six engines. Of this latter number the repairs to nineteen were such as almost to amount to partial renewal. The total number of engines under, and awaiting, repair and renewal on the 31st December was thirty-two.

9. The total mileage run during the period under review is in excess of that shown for the two preceding half-years, being 1,270,493 miles against 1,264,024 miles in the half-year ending June 1874 and 1,250,776 miles in that ending December 1873.

10. The heaviest mileage run was during the month of August, when it stands at 222,912; the least is during November, when it was so low as 193,129; the cause of the reduced mileage in November being due to the number of trains necessarily cancelled in consequence of the interruption to traffic caused by the breaks on the North-west Line.

11. *Carriage and Wagon Stock.*—The carriage stock is in good working order.

12. The wagon stock generally is also in good running order. The repairs to wagons during the past half-year have been unusually heavy, but the expenditure under this head has been very considerably augmented by the outlay involved in the renewal of timber trucks; the reconstruction of fifty-nine of these wagons having been completed between July and December last. Further renewals of vehicles of this class will be necessary, and the expenditure on this account, combined with the cost of heavy repairs to the wagon stock generally which may be anticipated, will probably cause a continuance of the present heavy outlay under this head.

13. *Working Expenses.*—*Working and repairs of Locomotive Engines and Tenders.*—The results, as exhibited in abstract No. 1, show that the monthly expenditure in working locomotives has not varied to any great extent, the total cost per mile under this head being shown as Annas 5 Pies 4·76 in July against Annas 5 Pies 5·27 in December.

14. The cost per mile in July for Enginemen and Firemens' wages is shown as Anna 1 Pies 0·59, and in December as Anna 1 Pies 0·87. The wages of cleaners, cokemen and watermen stand for these two months respectively at Pies 3·79 and Pies 3·86 per mile, and the mileage outlay for all descriptions of fuel consumed is shown in July at Annas 3 Pies 9·91, and in December at Annas 3 Pies 10·10 per mile.

15. Under the head of Superintendence and Office Expenses, as shown in the summary of abstract No. 1, it will be observed that the amount incurred in the month of November is greatly in excess of the monthly outlay on this account in the remaining months of the half-year. The charges for superintendence, as exhibited in the Revenue Statements, are obviously liable to fluctuation to some extent in consequence of the variation in the monthly proportion of superintendence borne respectively by the Capital and Revenue Accounts. The increased superintendence charges in November are, however, principally due to the addition to the ordinary expenditure in that month of the sum of Rupees 5,000, drawn, under sanction, by Mr. W. Barton Wright, and included by desire of the Chief Auditor in the accounts of this depart-

Proceedings of the Madras Government, Public Works Department,
10th September 1875.

16. Comparative Abstract No. 2 exhibits the total mileage cost of working and upholding locomotives and tenders during the past half-year at Annas 8 Pies 3·86 as compared with Annas 7 Pies 11·68 per mile in the previous, and Annas 7 Pies 8·29 in the corresponding half year, or an increased cost per mile of Pies 4·18 and Pies 7·57 respectively. The increase arising in the comparison of the expenditure with that of the preceding half-year will be found to be attributable to the very large additional outlay incurred between July and December 1874 in the repair and renewal of engines, the increase in the expenditure in labor and material on this account reaching to so large a sum as Rs. 28,864-4-0 or 20·83 per cent. in excess of the expenditure of the previous six months. In the comparison with the corresponding half-year in 1873, the increase in expenditure will be observed to occur partly in the cost of working and partly under the head of Repairs. That under the head of Working is due to the enhanced prices which, as mentioned in my report for the half-year ending June 1874, it was found necessary to fix upon issues of coal.

17. The cost per mile of Enginemen and Firemens' wages for the past half-year contrasts very favorably with that during the two preceding periods. The figures stand at Anna 1 Pies 0·83 against Anna 1 Pies 1·54 during the previous, and Anna 1 Pies 1·87 during the corresponding six months. The mileage cost of cleaners, cokemen, and watermen, as also the expenditure, under the head of oil, tallow, and waste, remain so uniform as to need no comment.

18. The results shown under the head of total coke, coal, and patent fuel consumed per mile are also favorable as regards the quantity used, the consumption in the past half-year being lbs. 25·59 per mile as compared with lbs. 26·08 and lbs. 25·64 per mile during the previous twelve months. The cost per mile is higher consequent upon a revision and further slight increase in the prices of coke and coal. Taking, however, the average cost per mile of all descriptions of fuel consumed, the difference between the figures shown under this head for the past half-year and those for that preceding it is very slight. They stand respectively at As. 3 Pies 8·57, and As. 3 Pies 8·40 per mile.

19. *Carriages and Wagons.*—As shown in Abstract No. 1, the cost of running carriages and wagons has decreased during the past half-year, it having stood at Pies 4·22 per mile in July, while in December it was as low as Pies 3·78 per mile. In the comparison of the three half-years (Abstract 2) the cost per mile under this head stands for the past half-year at Pies 4·09, which is lower than that shown for the two preceding periods.

20. A considerable variation appears in the monthly outlay incurred under the head of Repairs of Carriages and Wagons; that shown for the month of July being Rupees 29,367-7-6 against Rupees 15,508-11-2 in the last month of the half-year. The heavy outlay shown in July was caused by a large proportion of the wood-work necessary for the reconstruction of timber trucks having been drawn from stores in that month. To the same cause may be attributed the enhanced expenditure under this head in the month of August. In Abstract No. 2, the cost per mile of labor and materials for the repairs of carriages and wagons is shown as Anna 1 Pies 4·47. This, it will be observed, considerably exceeds previous half-yearly expenditure under this head. The causes of the increased outlay I have already indicated in paragraph 12 of this report.

21. *Summary.*—The results, as summarized in Abstract No. 2, are favorable as regards the working and running expenses, both for engines and tenders, and for carriages and wagons. The very heavy additional expenditure under the head of Repairs has, however, raised the total cost very considerably, and it stands as high as Annas 10 Pies 2·41 per mile. The average number of vehicles hauled per mile is in excess of the two previous half-years, and is shown as 16·84.

22. *Staff.*—The conduct of the staff generally has been satisfactory. Fever has been very prevalent at Jollarpett Station, and a large number of the employés there have been temporarily incapacitated from work. With this exception the health of the employés generally has been good.

23. It is with much regret that I have to record the death, on the 4th September last, of Foreman Edward Read. Foreman Read's service extended over a period of nearly 20 years, and his death has deprived the Company of a most energetic and zealous servant.

24. The only other casualties which I have to report are the resignation of Covenanted Fitter and Erector Joseph Irons, who left Madras on the 8th December last; and the re-entertainment as a Covenanted Engineman of Thomas Putnam, who arrived here on the 19th August.

MADRAS RAILWAY.

LOCOMOTIVE DEPARTMENT.

No. 1.

Comparative Abstract of Expenditure for working and upholding Locomotive Engines and Tenders from July to December 1874.

	MILES RUN.					WORKING.					
										COKE CONSUMED.	
	With Train.	Empty.	Assisting.	Piloting and Shunting.	Total.	Enginemen's and Firemen's Wages.	Cost per Mile.	Cleaners', Cokemen's, and Watermen's Wages.	Cost per Mile.	Quantity.	Cost.
						Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Cwt.	Rs. A. P.
July 1874	177,288	3,157	...	41,020	220,459	14,459 7 9	0 1 0·59	4,354 11 0	0 0 3·79	1,163$\frac{43}{112}$	1,978 0 11
August ,, ...	178,132	2,514	...	42,266	222,912	14,447 15 5	0 1 0·44	4,350 5 1	0 0 3·75	1,018$\frac{112}{112}$	1,731 11 4
September ,, ...	166,692	2,869	8	38,259	207,728	13,654 14 10	0 1 0·63	4,328 0 4	0 0 4·00	716$\frac{112}{112}$	1,218 14 2
October ,, ...	166,178	3,928	...	41,467	211,568	14,392 6 5	0 1 1·06	4,407 13 1	0 0 4·00	529$\frac{112}{112}$	900 9 2
November ,, ...	150,807	3,125	...	39,197	193,129	13,543 8 2	0 1 1·46	4,240 14 7	0 0 4·23	425$\frac{88}{112}$	723 1 9
December ,, ...	168,548	2,758	8	43,883	214,697	14,386 12 2	0 1 0·87	4,323 11 1	0 0 3·86	488$\frac{112}{112}$	830 11 4
Total ...	1,007,539	17,346	16	245,592	1,270,493	84,883 11 9	0 1 0·83	26,005 7 2	0 0 3·93	4,343$\frac{112}{112}$	7,383 0 8

Abstract of Expenditure for working and upholding Locomotive Engines and Tenders, &c.—(Continued.)

	WORKING.—(Continued.)									
	COAL CONSUMED.		PATENT FUEL CONSUMED.		TOTAL COKE, COAL AND PATENT FUEL CONSUMED PER MILE.		WOOD CONSUMED.		WOOD CONSUMED PER MILE.	
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.
	Cwt.	Rs. A. P.	Cwt.	Rs. A. P.	lbs.	Rs. A. P.	lbs.	Rs.	lbs.	Rs. A. P.
July 1874	18,941$\frac{112}{112}$	26,519 6 2	433$\frac{84}{112}$	520 1 4	26·45	0 5 4·05	10,733,500	21,467	80 41	0 2 6 87
August ,, ...	19,005$\frac{112}{112}$	26,607 11 10	51$\frac{112}{112}$	62 1 7	26·69	0 5 4·72	11,321,000	22,642	81 64	0 2 7 35
September ,, ...	17,792	24,908 12 10	74$\frac{14}{112}$	88 14 8	24 96	0 5 0 38	9,509,000	19,018	76 46	0 2 5 36
October ,, ...	17,718$\frac{84}{112}$	24,806 4 5	75$\frac{84}{112}$	90 15 7	24·89	0 5 0 08	9,943,500	19,887	77·01	0 2 5 57
November ,, ...	15,039$\frac{84}{112}$	21,055 3 7	920$\frac{84}{112}$	1,104 9 7	23·81	0 4 9·01	8,664,500	17,329	74 65	0 2 4 66
December ,, ...	19,022$\frac{84}{112}$	26,631 6 10	1,056	1,267 8 2	26 51	0 5 3·47	10,304,000	20,608	80 63	0 2 6 96
Total ...	107,519$\frac{112}{112}$	1,50,527 13 8	2,611$\frac{84}{112}$	3,133 13 11	25 59	0 5 1·72	60,475,500	1,20,951	79 59	0 2 6·18

Abstract of Expenditure for working and upholding Locomotive Engines and Tenders, &c.—(Continued.)

	WORKING.—(Concluded.)						REPAIRS.	
	WOOD CONSUMED FOR LIGHTING.		Average Cost of Coke, Coal, Patent Fuel and Firewood consumed per Mile.	Cost of Oil, Tallow, and Waste, &c.	Cost per Mile.	Total Cost of Working.	Cost per Mile.	ENGINES.
	Quantity.	Cost.						Wages.
	lbs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
July 1874	1,116,000	2,232 0 0	0 3 9·91	2,833 9 8	0 0 2·47	74,363 4 10	0 5 4·76	14,706 11 9
August ,, ...	1,122,500	2,245 0 0	0 3 9·90	2,915 4 0	0 0 2·51	75,002 1 8	0 5 4·60	14,194 8 4
September ,, ...	1,050,000	2,100 0 0	0 3 7·75	2,861 12 10	0 0 2·65	68,179 5 8	0 5 3·02	14,104 7 5
October ,, ...	1,069,500	2,139 0 0	0 3 7·40	2,701 13 3	0 0 2·45	69,325 13 11	0 5 2·91	16,211 15 1
November ,, ...	987,170	1,974 5 5	0 3 5·94	2,559 8 9	0 0 2·54	62,528 14 10	0 5 2·16	16,742 14 1
December ,, ...	1,107,006	2,214 0 2	0 3 10·10	2,727 11 9	0 0 2·44	72,989 8 6	0 5 5·27	14,111 7 5
Total ...	6,452,176	12,904 5 7	0 3 8·57	16,599 12 3	0 0 2·51	4,22,389 1 0	0 5 3·83	90,072 0 1

Abstract of Expenditure for working and upholding Locomotive Engines and Tenders, &c.—(Concluded.)

	REPAIRS.—(Concluded.)							
	TENDERS.		Total Cost of Repairs.	Cost per Mile.	Proportion of Superintendents, Clerks, and other Servants' Wages and Office Expenses.	Cost of Superintendence per Mile.	Total Cost of Working and Repairs.	Total Cost per Mile.
	Wages.	Materials.						
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
July 1874	331 10 5	373 12 3	29,552 5 11	0 2 1·74	8,003 14 6	0 0 6·97	1,11,919 9 3	0 8 1·47
August ,, ...	430 12 8	472 14 0	28,167 2 9	0 2 0·26	9,725 12 7	0 0 8·38	1,12,895 0 7	0 8 1·24
September ,, ...	502 2 10	1,637 1 3	33,051 7 2	0 2 6·55	8,917 2 2	0 0 8·24	1,10,147 15 0	0 8 1·81
October ,, ...	497 10 4	2,245 12 5	36,672 10 5	0 2 9·28	10,394 4 10	0 0 9·43	1,16,392 13 2	0 8 9·63
November ,, ...	554 7 10	3,306 7 9	29,770 8 3	0 2 5·60	13,531 6 6	0 1 1·45	1,05,830 13 7	0 8 9·21
December ,, ...	510 9 9	668 0 11	21,781 14 11	0 1 7·48	8,856 11 4	0 0 7·92	1,03,628 2 9	0 7 8·67
Total ...	2,827 5 10	8,704 0 7	1,78,996 1 5	0 2 8·05	59,429 3 11	0 0 8·98	6,60,814 6 4	0 8 3·86

Cost of Running and Repairs of Carriages and Wagons from July to December 1874.

	RUNNING.							REPAIRS.						
	Workmen's Wages.	Materials.	Total.	Cost per Mile.	Proportion of Superintendents, Clerks, and other Servants' Wages and Office Expenses.	Cost of Superintendence per Mile.	Total.	Workmen's Wages.	Materials.	Total.	Cost per Mile.	Proportion of Superintendents, Clerks, and other Servants' Wages and Office Expenses.	Cost of Superintendence per Mile.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
July 1874 ...	1,298 2 2	3,552 3 10	4,850 6 0	0 0 4·22	873 9 1	0 0 0·33	5,223 15 1	7,181 0 0	22,186 7 6	29,367 7 6	0 2 1·58	2,261 13 0	0 0 1·97	31,629 4 6
August ,, ...	1,294 10 6	4,521 5 1	5,815 15 7	0 0 5·01	548 4 7	0 0 0·47	6,364 4 2	6,035 10 11	12,571 3 8	18,606 14 7	0 1 4·03	1,754 1 8	0 0 1·51	20,361 0 3
September ,, ...	1,260 10 5	3,313 9 6	4,574 3 11	0 0 4·23	402 14 10	0 0 0·37	4,977 3 9	6,214 9 1	7,167 3 1	13,381 12 2	0 1 0·37	1,178 11 11	0 0 1·09	14,560 8 1
October ,, ...	1,810 9 3	2,773 0 6	4,083 9 9	0 0 3·71	400 6 7	0 0 0·36	4,484 0 4	6,537 4 4	9,995 3 10	16,532 8 2	0 1 3·00	1,621 1 0	0 0 1·47	18,153 9 2
November ,, ...	1,227 2 10	2,264 0 11	3,491 3 9	0 0 3·47	511 11 3	0 0 0·51	4,002 15 0	6,395 5 11	9,171 7 3	15,566 13 2	0 1 3·48	2,281 9 7	0 0 2·27	17,848 6 9
December ,, ...	1,232 8 8	2,994 6 3	4,226 14 11	0 0 3·78	395 0 6	0 0 0·35	4,621 15 5	5,973 4 6	9,535 6 8	15,508 11 2	0 1 1·87	1,449 5 6	0 0 1·30	16,958 0 8
Total ...	7,623 11 10	19,418 10 1	27,042 5 11	0 0 4·09	2,681 14 10	0 0 0·40	29,674 4 9	38,337 2 9	70,627 0 0	1,08,964 2 9	0 1 4·47	10,546 10 8	0 0 1·59	119,510 13 5

Sum

mary.

	Miles.	ENGINES AND TENDERS.				CARRIAGES AND WAGONS.				SUPERINTENDENCE AND OFFICE EXPENSES.		Total Cost.	Cost per Mile.	Average No. of Vehicles.	Average Cost of Haulage of each Vehicle.
		WORKING.		REPAIRS.		RUNNING.		REPAIRS.							
		Cost.	Cost per Mile.	Cost.	Cost per Mile.	Cost.	Cost per Mile.	Cost.	Cost per Mile.	Cost.	Cost per Mile.				
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.
July 1874.	220,459	74,363 4 10	0 5 4·76	29,552 5 11	0 2 1·74	4,850 6 0	0 0 4·22	29,367 7 6	0 2 1·58	10,639 4 7	0 0 9·27	1,48,772 12 10	0 10 9·57	17·11	0 0 7·57
August ,,	222,912	75,002 1 8	0 5 4·60	28,167 2 9	0 2 0·26	5,815 15 7	0 0 5·01	18,606 14 7	0 1 4·03	12,028 2 10	0 0 10·36	1,39,620 5 0	0 10 0·26	17·63	0 0 6·82
Sept. ,,	7,728	68,179 5 8	0 5 3·02	33,051 7 2	0 2 6·55	4,574 3 11	0 0 4·23	13,381 12 2	0 1 0·37	10,498 12 11	0 0 9·70	1,29,685 9 10	0 9 11·87	16·12	0 0 7·44
October ,,	211,568	69,325 13 11	0 5 2·91	36,672 10 5	0 2 9·28	4,083 9 9	0 0 3·71	16,532 8 2	0 1 3·00	12,415 12 5	0 0 11·27	1,39,030 6 8	0 10 6·17	16·66	0 0 7·57
Nov. ,,	193,129	62,538 14 10	0 5 2·16	29,770 8 3	0 2 5·60	3,491 3 9	0 0 3·47	15,566 13 2	0 1 3·48	16,324 11 4	0 0 4·23	1,27,682 3 4	0 10 6·94	15·99	0 0 7·94
Dec.. ,,	214,697	72,989 8 6	0 5 5·27	21,781 14 11	0 1 7·48	4,226 14 11	0 0 3·78	15,508 11 2	0 1 1·87	10,701 1 4	0 0 9·57	1,25,208 2 10	0 9 8·97	17·38	0 0 6·44
Total ...	1,270,493	4,22,389 1 0	0 5 3·83	1,78,996 1 5	0 2 3·05	27,042 5 11	0 0 4·09	1,08,964 2 9	0 1 4·47	72,607 13 5	0 0 10·97	8,09,999 8 6	0 10 2·41	16·84	0 0 7·27

PERAMBORE WORKS,
9th April 1875.

(Signed) E. C. BOODLE,
Acting Locomotive Superintendent.

Locomotive Department.

No. 2.

Comparative Abstract of Expenditure for working and upholding Locomotive Engines and Tenders from July 1873 to December 1874.

	Miles Run.					Working.					
										Coke consumed.	
	With Train.	Empty.	Assisting.	Piloting and Shunting.	Total.	Enginemen's and Firemen's Wages.	Cost per Mile.	Cleaner's, Cokemen's and Watermen's Wages.	Cost per Mile.	Quantity.	Cost.
						Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Cwt.	Rs. A. P.
1873, Mixed Trains, July to December ...	1,016,460	11,360	48	222,908	1,250,776	90,344 5 4	0 1 1·87	25,811 15 6	0 0 3·96	8,271 42/112	13,234 3 2
1874, Do., January to June ...	1,017,051	14,309	103	232,562	1,264,024	89,142 13 2	0 1 1·54	25,683 9 11	0 0 3·90	7,485 8/112	11,976 1 9
1874, Do., July to December ...	1,007,539	17,346	16	245,592	1,270,493	84,883 11 9	0 1 0·83	26,005 7 2	0 0 3·93	4,342 104/112	7,383 0 8

Comparative Abstract of Expenditure for working and upholding Locomotive Engines and Tenders, &c.—(Continued.)

	Working.—(Continued.)										
	Coal consumed.		Patent Fuel consumed.		Total Coke, Coal and Patent Fuel consumed per Mile.		Wood consumed.		Wood consumed per Mile.	
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.
	Cwt.	Rs. A. P.	Cwt.	Rs. A. P.	lbs.	Rs. A. P.	lbs.	Rs. A. P.	lbs.	Rs. A. P.
1873, Mixed Trains, July to December ...	94,794 28/112	94,794 14 3	25,361 41/112	30,433 13 0	25·64	0 3 11·39	57,171,000	1,14,342 0 0	82·89	0 2 7·83
1874, Do., January to June ...	107,266 44/112	1,39,446 4 1	10,917 14/112	13,101 2 9	26·03	0 4 10·52	57,484,191	1,14,968 6 1	79·36	0 2 6·43
1874, Do., July to December ...	107,519 109/112	1,50,527 13 8	2,611 60/112	3,133 13 11	25·59	0 5 1·72	60,475,500	1,20,951 0 0	78·59	0 2 6·18

Comparative Abstract of Expenditure for working and upholding Locomotive Engines and Tenders, &c.—(Continued.)

	Working.—(Concluded.)						Repairs.	
	Wood consumed for Lighting.		Average Cost of Coke, Coal, Patent Fuel and Firewood consumed per Mile.	Cost of Oil, Tallow and Waste, &c.	Cost per Mile.	Total Cost of Working.	Cost per Mile.	Engines.
	Quantity.	Cost.						Wages.
	lbs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1873, Mixed Trains, July to December ...	6,183,900	12,367 12 9	0 3 4·70	15,999 7 3	0 0 2·46	3,97,328 7 3	0 5 0·99	79,448 1 1
1874, Do., January to June ...	6,415,810	12,831 10 0	0 3 8·40	16,796 1 6	0 0 2·55	4,23,946 1 3	0 5 4·40	76,229 11 2
1874, Do., July to December ...	6,452,176	12,904 5 7	0 3 8·57	16,599 12 3	0 0 2·51	4,22,389 1 0	0 5 3·83	90,072 0 1

Comparative Abstract of Expenditure for working and upholding Locomotive Engines and Tenders, &c.—(Concluded.)

	Repairs.—(Concluded.)							
	Tenders.		Total Cost of Repairs.	Cost per Mile.	Proportion of Superintendents, Clerks, and other Servants' Wages and Office Expenses.	Cost of Superintendence per Mile.	Total Cost of Working and Repairs.	Total Cost per Mile.
	Wages.	Materials.						
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1873, Mixed Trains, July to December ...	3,248 14 9	6,407 11 8	1,59,432 13 5	0 2 0·47	44,461 6 9	0 0 6·83	6,01,222 11 5	0 7 8·29
1874, Do., January to June ...	2,702 11 1	9,807 2 0	1,51,110 4 1	0 1 10·95	54,832 14 2	0 0 8·33	6,29,889 3 6	0 7 11·68
1874, Do., July to December ...	2,827 5 10	8,704 0 7	1,78,995 1 5	0 2 3·05	59,429 3 11	0 0 8·98	6,60,814 6 4	0 8 3·86

Cost of Running and Repairs of Carriages and

	RUNNING.					
	Workmen's Wages.	Materials.	Total.	Cost per Mile.	Proportion of Superintendents, Clerks, and other Servants' Wages and Office Expenses.	Cost of Superintendence per Mile.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1873, Mixed Trains, July to December	7,344 9 0	24,415 11 2	31,760 4 2	0 0 4·88	2,547 14 11	0 0 0·39
1874, Mixed Trains, January to June	7,519 13 0	25,211 8 10	32,731 5 10	0 0 4·97	3,123 15 11	0 0 0·47
1874, Mixed Trains, July to December	7,623 11 10	19,418 10 1	27,042 5 11	0 0 4·09	2,631 14 10	0 0 0·40

Sum

	Miles.	ENGINES AND TENDERS.				CARRIAGES
		Working.		Repairs.		Run
		Cost.	Cost per Mile.	Cost.	Cost per Mile.	Cost.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1873, Mixed Trains, July to December	1,250,776	3,07,328 7 3	0 5 0·99	1,59,432 13 5	0 2 0·47	31,760 4 2
1874, Mixed Trains, January to June	1,264,024	4,23,946 1 3	0 5 4·40	1,51,110 4 1	0 1 10·93	32,731 5 10
1874, Mixed Trains, July to December	1,270,493	4,22,389 1 0	0 5 3·83	1,78,996 1 5	0 2 3·05	27,042 5 11

PERAMBORE WORKS,
9th April 1875.

Wagons from July 1873 *to December* 1874.

Total.	REPAIRS.						
	Workmen's Wages.	Materials.	Total.	Cost per Mile.	Proportion of Superintendents, Clerks, and other Servants' Wages and Office Expenses.	Cost of Superintendence per Mile.	Total.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
34,308 3 1	23,142 7 11	49,374 2 3	72,516 10 2	0 0 11·13	5,741 15 8	0 0 0·88	78,258 9 10
35,855 5 9	24,242 2 11	37,132 14 3	61,375 1 2	0 0 9·32	5,657 15 3	0 0 0·86	67,033 0 5
29,674 4 9	38,337 2 9	70,627 0 0	1,08,964 2 9	0 1 4·47	10,546 10 8	0 0 1·59	1,19,510 13 5

mary.

AND WAGONS.								
NING.	REPAIRS.		SUPERINTENDENCE AND OFFICE EXPENSES.		Total Cost.	Cost per Mile.	Average No. of Vehicles.	Average Cost of Haulage of each Vehicle.
Cost per Mile.	Cost.	Cost per Mile.	Cost.	Cost per Mile.				
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.
0 0 4·88	72,516 10 2	0 0 11·13	52,751 5 4	0 0 8·09	7,13,789 8 4	0 9 1·57	16·27	0 0 6·74
0 0 4·97	61,375 1 2	0 0 9·32	63,614 13 4	0 0 9·66	7,32,777 9 8	0 9 3·31	16·20	0 0 6·87
0 0 4·09	1,08,964 2 9	0 1 4·47	72,607 13 5	0 0 10·97	8,09,999 8 6	0 10 2·41	16·84	0 0 7·27

(Signed) E. C. BOODLE,
Acting Locomotive Superintendent,

LOCOMOTIVE DEPARTMENT.

A Statement of Rolling Stock furnished up to 30th June, that constructed during the half-year ending 31st December 1874, and the stock in course of construction up to latter date.

Engines.	Erected up to 30th June 1874.	Erected during the half-year ending 31st Dec. 1874.	Reduction of Stock.	Total Stock erected.	In the course of erection on the 31st December 1874.	Remarks.
Passenger Locomotives.						
Tender Engines, Nos. 1 and 2 ...	2	...	...	2	...	
Tank Engines, Nos. 7 to 16 ...	10	...	...	10	...	
Goods Locomotives.						
Tender Engines, Nos. 3, 4, and 25 to 126.	104	...	...	104	2	
Tank Engines, Nos. 5, 6 and 17 to 24.	10	...	...	10	...	

Vehicles.	Constructed up to 30th June 1874.	Constructed during the half-year ending 31st Dec. 1874.	Reduction of Stock.	Total Stock constructed.	In the course of construction on the 31st Dec.	Remarks.
Sleeping Carriages	4	...	...	4	...	
Saloon (for His Excellency the Governor).	...	2	...	2	...	
1st-class Carriages	15	...	...	15	...	
2nd-class "	55	...	...	64	...	
3rd-class "	181	...	...	181	...	
3rd-class " with brakes ...	30	9	...	30	...	
Res.	2	...	...	2	...	
Upper Storied Carriages.	*26	...	...	*25	...	*One composite carriage converted into inspection carriage for Consulting Engineer.
Composite Carriages ...	13	...	...	13	...	
Night Composite Carriages ...	4	...	...	4	...	
Double Saloon 1st-class Night Carriages.	40	...	...	40	...	
Covered Carriages or Cooly Class.	2	...	...	2	...	
Invalid Carriages	1	...	...	1	...	
Engineer's Inspection Carriage with brake.	...	...	...	...	...	
Inspection Carriage for Consulting Engineer.	332	...	...	*1	...	
Open Goods Wagons ...	1,857	...	...	331	...	
Open Sided Goods Wagons ...	5	...	...	1,823	...	
High Sided Open Goods Wagons ...	244	...	...	5	...	
High Open Goods Wagons ...	388	...	34	211	...	
Ballast Wagons ...	7	...	...	388	...	
Coke "	35	...	33	7	...	
Road "	22	...	...	35	...	
Cattle "	48	...	...	22	...	
Road Brake "	30	...	...	48	...	
Covered Goods Wagons	144	...	...	30	...	
Carriage Trucks	6	...	...	144	...	
Timber Trucks	4	...	...	6	...	
Platform Trucks	25	...	...	4	...	
Water Trucks with Tank	60	...	...	25	...	
Passenger Luggage Vans	3	...	...	60	...	
Goods Brake Vans	4	...	...	3	...	
Gunpowder Vans	50	...	...	4	...	
Oil Store Vans				50	...	
Travelling Crane on Trucks ...						
Horse Boxes						
Total ...	3,639	11	67	3,583	...	

9th April 1875.

(Signed) E. C. BOODLE,
Acting Locomotive Superintendent.

From H. E. CHURCH, Esq., Traffic Manager, to R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, dated Madras, 15th April 1875.

I HAVE the honor to submit my report upon the traffic for the half-year ended December 1874.

2. *Open Mileage.*—The mileage worked over was 858, as compared with 851 for the corresponding period of 1873.

3. *Rates and Fares.*—There has been no change in the ordinary rates and fares, but the following special rates for goods were introduced during the half-year:—

Article.	Reduction per Ton per Mile. From	To	In Wagon loads.	Condition.
	PIES.	PIES.		
Kerosine oil	36	18	...	Madras to Raichore.
Plantains	14	12	60 Maunds ...	Erode to Madras.
Salt	12	8	6 Tons... ...	Madras to Tudialore, Karamady, and Mettapolliem.
Stone	12	8	6 „	Arcot and Tiruvellem to Madras.

4. *Train Mileage.*—The train mileage for the last and corresponding half-year of 1873 was as follows:—

Description of Train.	1873.	1874.
Mail	331,662	319,656
Passenger and Mixed	351,490	330,684
Goods	182,018	204,223
Extra Passenger and Extra Troop...	4,630	3,719
„ Goods	94,225	97,210
Special	609	624
Ballast for construction	10,211	1,507
Total...	974,845	957,623

5. *Interruption to Traffic.*—Serious interruption to traffic occurred during the half-year. Through booking to and from Bangalore was suspended from the 18th to the 28th September in consequence of a break at the 203rd mile on the Bangalore branch, and from the 17th November to the 2nd December in consequence of the removal of a part of the Tiger Rock on the Coopum Ghaut. Through booking was suspended on the South-West Main Line from the 25th October to the 14th November, and a day service of trains for mails and passengers was only maintained by transhipment at the Goriattum river. On the North-West Line, where the floods were much more severe, traffic was entirely suspended between Tirupetty and Ghooty on the 25th, 26th, and 27th October. On the 28th October a day service of trains was resumed between Tirupetty and Rajampett (130 miles from Madras). On the 30th October a day service of trains was resumed between Nundalore and Cuddapah, thus providing a daily service for passengers and mails between Madras and Cuddapah, the distance between Rajampett and Nundalore stations (7 miles) being performed partly by road and across the Cheyair river on rafts. On the 3rd November a day service of trains was resumed for passengers and mails between Cuddapah and the south bank of the Paupugnee river, between the north bank of the Paupugnee and Moodanoor station, and between the north bank of the Pennair river and Ghooty, still leaving a gap of 37 miles between Moodanoor and the south bank of the Pennair to be performed on foot or by country cart. Passengers and mails were carried across the rivers on rafts. On the 17th November a day service of train for passengers and mails was resumed between Moodanoor and the south bank of the Chit-

travutty River and between the north bank of the Chittravutty and south bank of the Pennair, thus completing a day service between Cuddapah and Gooty, enabling passengers and mails to perform the journey between Madras and Bellary in two days, and between Madras and Raichore in two and-a-half days; passengers and mails were then carried across the rivers in bullock carts. The goods traffic was entirely suspended on the North-West Line between Rajampett and Gooty from the 25th October to the 17th November, when communication was restored between Tadpatri and Gooty by hand-shunting wagons over the Pennair Bridge. On the 12th December goods traffic was booked through between Cuddapah and stations south, all traffic being transhipped at the Cheyair River. On the 21st December goods traffic was resumed throughout the North-West Line by transhipping at the Cheyair, Paupugnee, and Chittravutty Rivers.

6. *Gross and Net Earnings.*—Compared with the corresponding period of 1873, the earnings from all sources were Rupees 29,48,829 against Rupees 31,19,012, and the net earnings were Rupees 9,71,556 against Rupees 10,12,829, which cannot be regarded, under the very exceptional circumstances above alluded to, as other than satisfactory. The falling off in the gross earnings will be found in the following items of traffic, viz.:—

Decrease in passengers			
Soldiers	Rs. 3,486		
Horse, carriage, &c.	1,250		
Extra troop trains	4,805		
Goods	21,221		
Sundries	1,19,178		
	7,864		
		1,78,848	
Increase in luggage and parcels	3,368		
Materials	2,235		
Demurrage	1,084		
Telegraph	2,929		
		9,635	
	Net decrease ...	1,69,213	

The working expenses stood as follows :—

Increase maintenance			
Locomotive	31,116		
Carriage and wagons	61,759		
Traffic	38,461		
Special	12,501		
	6,578		
		1,50,415	
Decrease in general charges	46,582		
Cheyair Bridge	2,31,773		
		2,78,355	
		1,27,940	

7. The falling off in the traffic is very easily accounted for by the very serious and prolonged interruptions, and, looking at the total cessation of all through traffic on the North-West Line for a period of fifty-eight days, there is great reason for congratulation that the falling off was not very much larger.

8. The increase in the departmental working expenses may be generally attributed to the cost of working the Nilgiri branch and the accelerated mail service for six months against four months in 1873 and to the additional cost of working the passenger traffic and mails on the North-West Line during the breaks, there being no less than seven different trains engaged in carrying this traffic between Madras and Raichore, a distance of 351 miles.

9. *Passenger Traffic.*—The receipts from passenger traffic (exclusive of Soldiers) were Rupees 10,64,991 against Rupees 10,68,477, or a decrease of Rupees 3,486.

The receipts from each class will be found in the following table :—

Period.	First Class.	Second Class.	Third Class.	Cooly Class.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
December 1874	60,245	54,301	8,31,655	1,18,790	10,64,991
„ 1873	64,143	54,607	8,41,653	1,08,074	10,68,477
Increase in 1874	...	...	...	10,716	...
Decrease in 1874	3,898	306	9,998	...	3,486
Increase per cent.	...	...	...	9·9	...
Decrease „	6·0	0·55	1·1	...	0·3

10. The number of passengers carried was as follows :—

Period.	First Class.	Second Class.	Third Class.	Cooly Class.	Total.
December 1874	6,825	24,744	1,067,679	292,029	1,391,277
„ 1873	5,894	22,207	1,044,426	268,477	1,341,004
Increase in 1874	931	2,537	23,253	23,552	50,273
Decrease in 1874	...	...	...	...	...
Increase per cent.	15·7	11·4	2·2	8·7	3·7
Decrease „	...	...	...	...	...

11. The percentage of numbers and average mileage in each class were as follow :—

Period.	Percentage of Numbers.				Average Mileage.			
	First.	Second.	Third.	Cooly.	First.	Second.	Third.	Cooly.
1874	0·50	1·78	76·74	20·98	142	81	51	38
1874	0·44	1·66	77·88	20·02	158	89	52	38

12. The average fare paid by each class of passenger was as follows :—

Period.	First.	Second.	Third.	Cooly.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
December 1874	8 13 3	2 3 1	0 12 6	0 6 6
„ 1873	10 14 1	2 7 4	0 12 10	0 6 5

13. The return fare and festival traffic was as follows, and shows an increase in all classes:—

Period.	First Class.		Second Class.		Third Class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
December 1874.	3,483	22,392	4,645	15,204	1,03,404	89,612	111,532	1,27,208
„ 1873.	2,963	21,663	4,327	13,621	98,492	83,979	105,782	1,19,263
Increase 1874.	520	729	318	1,583	4,912	5,633	5,750	7,945

14. The following table exhibits the second-class traffic between Coimbatore and Beypore where an exceptional fare of 4 pies per mile has been in operation since the 1st March 1869.

Period.	Through Passengers at 5 Pies per Mile.	Local Passengers at 6 Pies per Mile	Total	Rupees
December 1869	...	...	Rs.	
„ 1870	319	32,158	32,158	18,742
„ 1871	299	34,423	34,744	19,706
„ 1872	372	38,673	39,165	21,261
„ 1873	698	38,939	39,311	21,731
„ 1874	854	5,026	5,724	3,411
		5,285	6,139	4,042

15. The result of the passenger traffic was a decrease in money of 0·3 per cent. and an increase in number of 3·7 per cent., but, except in the cooly class, the increase in number is to a certain extent fictitious, as passengers carried over the North-West Line during the breaks were booked three or four times during the journey. Compared with 1873, the receipts from ordinary traffic were less by Rupees 11,432, while the extraordinary or festival traffic shows an increase of Rupees 7,945. The falling off in the ordinary traffic will be found in the first, second and third classes, and amounted to Rupees 22,147, the cooly class having increased by Rs. 10,716. The falling off in the first, second, and third classes is easily traced to the breaks on the North-West Line, the traffic on the South-West Line having manifestly increased, except between Pothanore and Beypore, where there is very little apparent development, leading to the inference that the change in the constitution of the trains in July 1873 has not yet been attended with any financial success. It will be seen from paragraph 14 that, consequent on this change, the second-class traffic between Coimbatore and Beypore has fallen off largely both in number and receipt.

16. The falling off under the head of "Extra Troop Trains" is due in part to some of the reliefs of the season being marched, and in part to the inability of the Company to move troops over the North-West Line.

17. The increase under the head of "Parcels" is due, not to any particular development in the parcels traffic *per se*, but to the fact that large quantities of betel leaves were carried at the ice, fish, and vegetable rate, at the special request of producers who considered it worth their while to pay an enhanced rate for quicker despatch than the goods train afforded. The through parcels traffic with the Railways north of Raichore was entirely suspended from the 25th October until through trains were resumed in January of this year.

18. *Goods Traffic.*—Compared with the corresponding period of 1873, the receipts from goods (exclusive of materials for construction) were Rupees 16,19,526 against Rupees 17,59,703, and the tonnage was 196,570 against 195,245, the average mileage having fallen from 160·7 in 1873 to 151·84 in 1874. The falling off in receipt will be found in the following table :—

Increase.			Decrease.		
Article.	Tons.	Rupees.	Article.	Tons.	Rupees.
Brass and copper	83	1,052	Ballast and stone	1,584	2,622
Chillies	327	2,412	Bamboos	311	1,530
Cloth and piece-goods ...	62	...	Betel-nuts	334	6,178
Cotton (pressed to 25 lbs.) ...	686	10,458	Charcoal, &c.	318	2,346
Do. (do. 35 lbs.) ...	339	...	Chunam and lime ...	29	...
Dye or redwood	814	3,972	Cloths and piece-goods ...	...	12,689
Firewood	1,621	3,564	Coffee	85	1,070
Fruit and vegetables ...	693	6,974	Commissariat stores ...	446	12,236
Gram	2,344	8,324	Cotton (loose)	208	7,031
Grain	1,455	...	Cotton (pressed to 15 lbs.)	138	3,739
Ground-nuts	156	...	Cotton (do. 35 lbs.)	...	7,385
Iron	340	1,472	Ghee	104	3,789

Proceedings of the Madras Government, Public Works Department, 10th September 1875.

Increase.			Decrease.		
Article.	Tons.	Rupees.	Article.	Tons.	Rupees.
Paddy	855	4,871	Grain	...	4,045
Salt-fish	709	5,602	Gunnies	48	2,220
Saltpetre	224	3,933	Jaggery	568	5,731
Seeds	4,209	19,750	Luggage	50	1,508
Sugar	427	5,662	Oil	186	3,871
Tobacco	900	2,052	Potatoes	706	14,160
Items under 1,000 Rs. ...	474	3,302	Raggy	2,257	12,463
			Rice	2,685	27,382
			Salt	426	4,276
			Skins	166	10,720
			Sundries	655	34,727
			Tamarind	670	4,479
			Timber	2,936	20,238
			Twist	61	13,905
			Items under 1,000 Rs. ...	421	3,238
Total ...	16,718	83,400	Total ...	15,392	2,23,578
	1,326	...		...	1,40,178

19. The following table exhibits the receipt from each class of goods for the two half-years :—

Class.	1873.	1874.
	Rs.	Rs.
Special and first class	11,97,150	10,94,954
Second class	2,43,006	2,54,662
Third „	1,38,104	1,46,533
Fourth „	1,03,132	83,884
Fifth „	78,311	39,493
Total ...	17,59,703	16,19,526

20. The tonnage of goods in each class for the same period was as follows :—

Class.	1873.	1874.
Special and first class	157,141	157,414
Second class	21,560	22,525
Third „	9,540	10,649
Fourth „	4,292	4,014
Fifth „	2,712	1,968
Total ...	195,245	196,570

21. The average receipt per ton carried in each class was—

Classes.	1873.	1874.
	RS.	RS.
Special and first class	7·61	6·96
Second class	11·27	11·31
Third ,,	14·47	13·76
Fourth ,,	24·02	20·90
Fifth ,,	28·87	20·07
Total ...	9·01	8·24

22. The average receipt per ton per mile in each class was—

Classes.	1873.	1874.
	PIES.	PIES.
Special and first class	9·17	8·90
Second class	13·62	15·57
Third ,,	17·03	16·93
Fourth ,,	22·02	21·67
Fifth ,,	33·10	33·41
Total ...	10·76	10·42

23. The total quantity of cotton carried over the whole of the Company's system was tons 12,047, yielding a receipt of Rupees 1,77,508 against a tonnage of 11,317 and a receipt of Rupees 1,84,629 for the corresponding half of 1873. In other words, there was an increase in weight of 730 tons, but a decrease in money of Rupees 7,121. The increase in tonnage, however, is to some extent fictitious, as some 130 tons of pressed cotton, booked during the breaks, were booked three or four times during the journey, and in this way the tonnage, as shown above, was increased by some 500 tons. The explanation of the falling off in the receipt is that a smaller quantity of "loose" cotton was brought into Madras, the ryot apparently preferring to sell it where it was grown, whence it was carried by Railway to the Cotton Factories to be pressed. The quantity so carried was 1,039 tons, and the whole of this found its way on to the Railway again "pressed" and fit for shipment.

24. The following table exhibits the condition in which the cotton was carried:—

Condition.	1873.		1874.	
	TONS.	RS.	TONS.	RS.
Loose ...	1,939	21,120	1,732	14,0[illegible]
Half-pressed ...	140	3,760	53	597
Full ,, ...	9,238	1,59,750	10,262	1,62,823
Total ...	11,317	1,84,630	12,047	1,77,508

25. The average receipt per ton carried was—

Condition.	1873.	1874.
	RS.	RS.
Loose ...	11	8
Half-pressed ...	27	11
Full ,, ...	17	16

The small average receipt per ton carried of "full-pressed" cotton was due to the fact that, whereas in 1873 only 66 tons of cotton were sent from Madras Railway Stations (Bellary and Adoni) to Bombay, no less than 674 tons were so sent in 1874, in consequence of the breaks on the North-West Line.

26. The quantity of cotton sent from Bellary and Adoni to Madras and Bombay was as follows:—

	Madras.	Bombay.	Total.
Bellary ...	3,272	477	3,749
Adoni ...	2,318	197	2,515
Total ...	5,590	674	6,264

27. The following table exhibits the tonnage of cotton brought into Madras by Railway and the tonnage exported in the two half-years:—

District.	Brought by Railway.		Exported.	
	1873.	1874.	1873.	1874.
Arcot and Vellore... ...	154	...	...	...
Coimbatore and Salem ...	1,311	1,470	...	...
North-West Line ...	8,158	7,723	...	...
Total ...	9,623	9,193	10,685	9,403

28. The following figures will be interesting as showing the progress which has been made in pressing cotton in the interior:—

Tonnage of cotton carried over the whole system during the half-years ending December 1870, 1871, 1872, 1873, and 1874.

Half-years.	Half-pressed.	Full-pressed.	Loose.	Total,	
				TONS.	RS.
1870 ...	362	2,112	1,915	4,389	1,13,504
1871 ...	4,039	3,706	3,716	11,462	3,70,343
1872 ...	1,054	4,593	1,917	7,564	1,54,053
1873 ...	140	9,238	1,939	11,317	1,84,630
1874 ...	53	10,262	1,732	12,047	1,77,508

29. The tonnage of coffee carried over the whole line and tonnage carried from Bangalore to Madras will be found in the following table.

Half-years.	Over the whole Line.		From Bangalore to Madras.		
	Tons.	Amount.	Total.	Messrs. Binny & Co.	Other Merchants.
		Rs. A. P.			
December 1870	706	13,845 7 0	336	...	336
" 1871	957	16,893 2 0	364	168	196
" 1872	354	6,780 15 0	157	8	149
" 1873	980	12,102 3 0	291	45	246
" 1874	894	11,032 2 0	182	3	179

30. The tonnage of food grains carried during the two half-years was as follows:—

Half-years.	East and South.		West and North.		Total.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
1873... ...	29,749	1,54,054	42,955	3,58,750	72,704	5,12,804
1874... ...	33,716	1,50,428	38,700	3,31,680	72,416	4,82,108
Increase "	3,967	...	...	...	...	...
Decrease "	...	3,626	4,255	27,070	288	30,696

31. This traffic was, no doubt, very seriously effected by the breaks on the North-West Line but to what extent it is difficult at present to say with any degree of certainty. Before the breaks on the North-West Line, upwards of 500 tons of grain per mensem passed from the Great Indian Peninsula Railway to Madras, Vellore, and Bangalore on this line, and this traffic, of course, ceased on the 23rd October. From the returns of foreign traffic furnished direct to this office by Station Masters, it would appear that, during the breaks, this grain found a market at Bellary and Adoni, and increased very largely. For instance, the total traffic received from the Great Indian Peninsula at stations north of Tadputry during the first four months of the half-year was 2,910 tons, or at the rate of 725 tons per mensem. But in th e last two months of the half-year the traffic averaged 1,400 tons per mensem. For the same reason the traffic sent to the Great Indian Peninsula by stations north of Tadputry increased from 874 tons in 1873 to 1,359 tons in 1874, while the traffic from stations south of Royalcheroo fell from 1,460 tons in 1873 to 987 tons in 1874.

32. Assuming that "earth" salt held its own last year, the falling off in "sea" salt sent from Madras to the North-West Line was upwards of 700 tons as will be seen from the following table:—

33. Salt traffic for the half-years ending December 1873 and 1874.

Districts.	1873.		1874.	
	Tons.	Tons.	Tons.	Tons.
Between Madras and Arconum	...	1,198	...	900
Cuddapah	490		310	
Other stations on the North-West Line	2,575		2,004	
Arcot and Vellore		3,065		2,314
Between Goriattum and Vaniembady	...	5,600	...	5,415
Bangalore	...	938	...	956
Other stations on Bangalore Branch	2,385		2,316	
Salem	549		704	
Other stations in Salem District...		2,925		3,020
Erode, Avenashy, and Coimbatore	1,779		1,589	
	1,879		2,605	
		3,658		4,194
Total	...	2,534	...	2,621
	...	19,918	...	19,420

34. The following table exhibits that salt traffic out of Madras in each year for the five years ending December:—

Districts.	1870.	1871.	1872.	1873.	1874.
	Tons.	Tons.	Tons.	Tons.	Tons.
Between Arconum and Conjeveram	3,098	1,775	2,639	2,484	1,902
Cuddapah	2,248	1,550	1,347	1,225	727
Other stations on North-West Line	6,692	6,620	5,747	5,527	4,441
Arcot and Vellore	10,625	8,482	11,033	10,618	10,142
Goriattum and Vaniembady	2,795	2,165	2,122	2,101	1,984
Bangalore	4,249	4,389	3,761	4,312	4,040
Other stations on Bangalore Branch	1,365	1,465	1,268	1,097	1,221
Salem	1,593	1,876	1,522	2,989	2,922
Other stations in Salem District	3,571	4,210	3,110	3,936	4,805
Erode, Avenashy, and Coimbatore	6,767	6,348	5,586	6,366	5,247
Total ..	44,803	38,880	38,135	40,655	37,431

35. Receipt from each class of goods moved northward and westward during the half-years ending December 1873 and 1874:—

Class.	1873.	1874.
	Rs.	Rs.
Special and first class	6,59,309	6,37,803
Second class	88,089	92,007
Third "	62,563	82,606
Fourth "	88,954	69,125
Fifth "	54,154	25,309
Total ...	9,53,068	9,06,920

The falling off in this direction will be found principally in cloths and twist, food grains, salt, sundries, skins, timber and Commissariat stores, and is undoubtedly due to the interruption on the North-West Line. Details of the increase and decrease in the several commodities will be found in the following tables:—

36. Increase in commodities moved westward.

Tons.	Commodities.	Amount.
		Rs. A. P.
58·51	Ballast and stone	1,005 7 0
72·80	Brass and copper	...
65·42	Chillies	...
119·49	Cloths and piece-goods	1,811 5 7
376·19	Cotton, loose	3,473 12 0
555·64	Do. E-pressed	2,366 5 0
927·32	Firewood	1,652 15 0
235·69	Fruit and vegetable	28,284 3 0
3071·20	Gram	...
51·10	Grains	...
91·43	Gunnies	3,096 6 10
441·58	Iron of all kinds	3,428 9 0
306·99	Jaggery	

Tons.	Commodities.	Amount.
		RS. A. P.
268·53	Oil of all kinds	2,010 13 0
284·29	Paddy	3,606 6 0
4471·12	Seeds of all kinds	26,513 8 4
370·98	Sugar of all kinds	3,359 12 0
750·83	Tobacco	1,996 4 1
126·87	Wines and spirituous liquors	1,233 15 10
286·40	Minor items less than 1,000 Rs.	1,362 8 4
12,935·38	Total ...	85,202 3 0

37. Decrease in commodities moved westward—

Tons.	Commodities.	Amount.
		RS. A. P.
81·85	Charcoal, coke, and coal	1,170 4 0
...	Cloths and piece-goods	10,070 1 9
402·87	Commissariat stores	9,871 15 6
...	Grains	3,022 1 0
38·76	Luggage	1,268 0 2
3484·96	Raggy	20,727 11 0
4176·84	Rice	35,211 2 5
498·32	Salt	4,538 15 5
271·26	Skins	5,106 13 0
188·71	Sundries	12,267 13 11
221·70	Tamarind	2,056 4 0
1124·39	Timber	7,883 12 0
...	Twist	9,763 1 4
572·54	Minor items less than 1,000 Rs.	8,393 6 8
11,062·20	Total ...	1,31,351 6 2

38. Receipts from each class of goods moved southward and eastward—

Classes.	1873.	1874.
	RS.	RS.
Special and first class	5,37,841	4,57,151
Second class ...	1,54,916	1,62,585
Third „ ...	75,542	63,928
Fourth „ ...	14,159	14,759
Fifth „ ...	24,157	14,183
Total...	8,06,634	7,12,606

The falling off in this direction will be found in betel-nut, large quantities of which are carried from Bellary and were shut out by the breaks; in grain which found a better market in the other direction; in potatoes owing to an indifferent crop; in sundries which cannot at present be satisfactorily explained; and in timber which finds its way in large quantities from the Western Coast to the North-West Line. The particulars of the increase and decrease in the several items will be found below.

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39. Increase in commodities moved eastward—

Tons.	Commodities.	Amount.
		RS. A. P.
261·62	Chillies	3,318 5 4
678·16	Cotton, D-pressed	10,345 11 0
815·51	Dye and redwood	3,950 14 6
693·59	Firewood	1,197 15 7
457·20	Fruits and vegetables	5,321 7 0
1403·94	Grains	...
119·50	Indigo	1,577 9 0
570·50	Paddy	1,264 6 2
1227·97	Raggy	8,264 5 11
1491·26	Rice	7,829 1 9
712·58	Salt-fish	5,576 5 6
244·25	Saltpetre	4,094 5 0
105·55	Skins	...
55·65	Sugar of all kinds	2,302 0 4
11·42	Wines and spirituous liquors	...
556·12	Minor items less than 1,000 Rs.	2,137 2 2
9404·84	Total ...	57,179 9 3

40. Decrease in commodities moved eastward—

Tons.	Commodities.	Amount.
		RS. A. P.
1642·49	Ballast and stone	2,175 10 0
322·53	Bamboos	1,613 2 9
284·55	Betel-nuts	5,517 0 1
235·95	Charcoal, coke, and coal	1,175 15 0
57·02	Cloth and piece-goods	2,619 1 0
60·77	Coffee	1,156 1 0
43·68	Commissariat stores	2,364 0 0
584·45	Cotton, loose	8,842 12 0
105·54	Do. B-pressed	2,845 11 0
216·17	Do. E-pressed	10,858 8 0
122·84	Ghee	4,172 11 10
726·72	Gram	19,960 2 11
...	Grain	1,023 3 7
137·70	Gunnies	1,789 7 11
101·79	Iron of all kinds	1,624 6 0
875·09	Jaggery	9,159 14 7
454·85	Oil of all kinds	5,882 1 4
670·67	Potatoes	13,726 5 3
262·06	Seeds of all kinds	6,763 10 7
...	Skins	5,613 1 0
466·82	Sundries	22,459 8 11
447·80	Tamarind	2,422 13 8
1811·90	Timber	12,354 13 4
90·74	Twist	4,141 13 5
228·39	Minor items less than 1,000 Rs.	946 6 10
9952·52	Total ...	1,51,208 6 0

41. The percentage of tonnage moved month by month during the half-year in each direction, based upon the ton mileage, was as follows :—

Months.	East.	West.
July ...	45	55
August	43	57
September	41	59
October	37	63
November	35	65
December	37	63
Total ...	40	60

42. The tonnage of materials carried on revenue account "free of charge" was as follows :—

Department.	Tonnage.	Average Mileage.
Engineering	4,574	112
Locomotive	3,348	171
Stores	14	179
Total ...	7,936	137

43. *Working Expenses.*—The increase in the departmental working expenses is explained as follows :—

Traffic Manager and Assistants...	Increase of Deputy Traffic Manager's salary.
Office Establishment	Additional staff of Clerks and salaries of Travelling Ticket Collectors for which no specific sanction existed.
Station Masters	Increased pay to Station Masters and Pointsmen, and new appointments.
Guards	Promotion to higher grade and additional staff.
Fire, lights	Sixteen months' bill of the Locomotive Department, amounting to Rupees 7,725, under dispute, for renewing centre chains, adjusting weighing machines, and minor repairs charged in this half-year.
Wagon covers	Decrease due to short stock of canvas.
Office fittings	Renewal of commode stands and other station fittings.
Clothing	Chargeable to previous half-year, but paid this half-year.
Printing and stationery ...	Decrease due in part to more favorable contract prices for printing and in part to issues of books in previous half-year in excess of requirements.
Mileage of foreign stock ...	Increased foreign traffic received.

(Signed) H. E. CHURCH,
Traffic Manager.

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APPENDIX A.

1. Gross Traffic Receipts in each month for the half-year ending December 1874.

Months.	Coaching. Passengers.	Coaching. Soldiers and Extra Troop Trains.	Coaching. Parcels and Luggage.	Goods. Horses, Carriages, Dogs, and Special Trains.	Goods. Merchandise and Miscellaneous.	Goods. Materials.	Total Receipts.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
July	1,72,784 4 5	3,502 3 0	11,223 9 11	6,133 9 0	3,08,920 9 4	2,218 11 0	5,04,817 14 8
August ...	1,76,416 6 2	3,489 1 0	11,499 11 0	7,325 6 0	3,26,488 3 5	859 15 0	5,26,078 10 7
September ...	2,14,047 15 1	4,416 11 0	11,031 8 0	6,562 8 0	2,21,910 13 4	417 2 0	4,61,416 9 5
October ...	1,45,709 13 0	4,731 1 0	10,593 5 0	6,885 0 0	2,47,591 8 0	1,916 3 0	4,17,426 14 0
November ...	1,60,158 11 11	8,261 7 0	11,786 11 0	8,904 15 0	2,19,726 8 0	297 10 0	4,09,136 1 11
December ...	1,95,873 7 0	5,549 0 0	10,756 5 0	7,356 14 0	2,97,781 5 0	290 3 0	5,17,607 2 0
Total...	10,64,990 12 7	29,979 7 0	66,896 1 11	43,163 4 0	16,25,418 15 1	6,029 12 0	28,36,483 4 7

2. Comparison of the Gross Traffic for the half-years ending December 1873 and June and December 1874.

Half-years.	Coaching. Passengers.	Coaching. Soldiers and Extra Troop Trains.	Coaching. Parcels and Luggage.	Goods. Horses, Carriages, Dogs, and Special Trains.	Goods. Merchandise and Miscellaneous.	Goods. Materials.	Total Receipts.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
December 1873 ...	10,68,477 10 4	51,959 12 0	63,523 7 9	48,474 8 0	17,65,085 4 4	3,774 13 0	30,01,300 7 5
June 1874 ...	10,28,673 8 11	1,14,725 10 0	77,009 2 2	55,246 14 0	15,64,919 2 8	9,983 13 0	28,50,558 2 9
December " ...	10,64,990 12 7	29,979 7 0	66,896 1 11	43,163 4 0	16,25,418 15 1	6,029 12 0	28,36,483 4 7

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3. *Average Receipt per Mile open and per Mile run for the same period.*

Period.	Per Mile open.	Per Mile run.
Half-year ending December 1873	3526·79	3·14
Do. do. June 1874	3322·92	2·94
Do. do. December ,, ...	3305·92	2·96

4. *Table of Expenditure for the half-years ending December 1873, June and December 1874.*

Period.	Permanent-way.	Locomotive.	Repairs to Carriages and Wagons.	Traffic.	General Charges.	Special and Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Half-year ending Dec. 1873 ...	5,99,250	6,02,420	1,12,337	2,90,894	2,37,619	2,63,093	21,05,213
Do. do. June 1874 ...	5,92,822	6,30,380	1,02,918	2,88,,222	2,00,654	20,963	18,42,259
Do. do. Dec. ,, ...	6,30,360	6,64,179	1,51,398	3,03,395	1,91,037	36,998	19,77,273

5. *Percentage of Working Expenses for the same period.*

Period.	Permanent-way.	Locomotive.	Repairs to Carriages and Wagons.	Traffic.	General Charges.	Special and Miscellaneous.	Total.
Half-year ending Dec. 1873 ...	28·47	28·61	5·33	13·82	11·29	12·45	100·00
Do. do. June 1874 ...	32·13	34·22	5·59	15·66	10·89	1·46	100·00
Do. do. Dec. ,, ...	31·88	33·59	7·66	15·34	9·66	1·87	100·00

6. *Percentage of Revenue for the same period.*

Period.	Permanent-way.	Locomotive.	Repairs to Carriages and Wagons.	Traffic.	General Charges.	Special and Miscellaneous.	Profits.	Total.
December 1873 ...	19 22	19 32	3·62	9·33	7·62	8·41	32 48	100 00
June 1874 ...	20·04	21·31	3·48	9·76	6·79	0·91	37·71	100·00
December ,, ...	21·33	22 52	5·13	10·29	6·48	1·25	32 95	100 00

7. *Passenger Traffic in each month for the half-year exclusive of the Return Force and Soldiers.*

Months.	First Class.		Second Class.		Third Class.		Cooly Class.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
July	463	6,482 10 0	2,843	6,305 14 0	147,152	1,18,899 10 3	49,119	20,116 1 0	199,577	1,51,804 3 3
August	538	7,188 11 0	3,044	6,523 10 0	159,161	1,29,809 14 2	52,231	21,484 14 0	214,994	1,65,007 1 2
September	463	5,856 13 0	2,956	6,564 8 0	160,468	1,32,082 15 1	50,177	20,279 8 0	214,064	1,64,783 12 1
October	523	6,895 11 0	2,931	6,135 0 0	138,475	1,08,818 7 0	44,497	17,792 3 0	186,426	1,39,641 5 0
November	711	6,656 5 0	3,915	6,244 4 0	175,200	1,24,034 6 11	44,724	17,701 8 0	224,550	1,54,636 7 11
December	624	4,772 3 0	4,410	7,324 8 0	183,819	1,28,397 14 0	51,281	21,415 9 0	240,134	1,61,910 2 0
Total ...	3,342	37,852 5 0	20,099	39,097 12 0	964,275	7,42,043 3 5	292,029	1,18,789 11 0	1,279,745	9,37,782 15 5

	Miles open.	First Class.	Second Class.	Third Class.	Cooly Class.	Total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
8. Average receipt per mile open	858	44 1 10	45 9 1	864 13 8	138 7 2	1,092 15 9
Do. percentage of numbers...	...	0·27	1·57	75·34	22·82	100·00
Do. mileage of passengers	...	151	67	47	38	...
Do. percentage of receipts	...	4·03	4·17	79·13	12·67	100·00

9. *Passenger Traffic in each Month inclusive of Return Fares, but exclusive of Soldiers.*

Months.	First Class.		Second Class.		Third Class.		Cooly Class.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.
July	1,094	10,409 10 0	3,714	8,627 14 0	174,960	1,33,630 11 5	49,119	20,116 1 0	228,887	1,72,784 4 5
August	1,069	10,655 3 0	3,679	9,228 1 0	175,311	1,35,048 4 2	52,231	21,484 14 0	232,290	1,76,416 6 2
September	958	8,920 5 0	3,720	9,089 12 0	187,814	1,75,758 6 1	50,177	20,279 8 0	242,669	2,14,047 15 1
October	961	9,940 1 0	3,365	7,932 6 0	142,751	1,10,045 3 0	44,497	17,792 3 0	191,574	1,45,709 13 0
November	1,158	9,008 15 0	4,277	7,498 5 0	180,740	1,25,950 2 11	44,724	17,701 8 0	230,899	1,60,158 14 11
December	1,585	11,310 7 0	5,989	11,924 14 0	206,103	1,51,222 9 0	51,281	21,415 9 0	264,958	1,95,873 7 0
Total ...	6,825	60,244 9 0	24,744	54,301 4 0	1,067,679	8,31,655 4 7	292,029	1,18,789 11 0	1,391,277	10,64,990 12 7

	Miles open.	First Class.	Second Class.	Third Class.	Cooly Class.	Total.
		RS A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
10. Average receipt per mile open	858	70 3 5	63 4 7	969 4 9	138 7 2	1,241 3 11
Do. percentage of numbers	...	0·50	1·78	76·74	20·98	100·00
Do. mileage of passengers	...	142	81	51	38	...
Do. percentage of receipts	...	5·66	5·10	78·09	11·15	100 00

11. *Return Fare Traffic for the half-year ending December 1874.*

Months.	Periodical Tickets.				Return Tickets.						Total.	
	First Class.		Second Class.		First Class.		Second Class.		Third Class.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.
July ...	7	264 0 0	9	67 12 0	624	3,663 0 0	862	2,254 4 0	27,808	14,731 1 2	29,310	20,980 1 2
August ...	5	139 0 0	9	106 8 0	506	3,327 8 0	626	2,597 15 0	16,150	5,238 6 0	17,296	11,409 5 0
September ...	3	68 0 0	10	109 0 0	492	2,995 8 0	754	2,356 4 0	27,346	43,075 7 0	28,605	49,264 3 0
October ..	8	251 0 0	16	268 2 0	430	2,793 6 0	418	1,529 4 0	4,276	1,226 12 0	5,148	6,068 8 0
November ...	5	86 0 0	14	77 11 0	442	2,266 10 0	348	1,176 6 0	5,540	1,915 12 0	6,349	5,522 7 0
December ...	3	7 8 0	7	10 6 0	958	6,530 12 0	1,572	4,590 0 0	22,284	22,824 11 0	24,824	33,963 5 0
Total ...	31	815 8 0	65	699 7 0	3,452	21,576 12 0	4,580	14,504 1 0	103,404	89,612 1 2	111,532	1,27,207 13 2

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12. *Soldiers' Traffic.*

Months.	First Class.		Second Class.		Third Class.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
July ...	2	26 0 0	29	176 12 0	1,550	3,299 7 0	1,581	3,503 3 0
August ...	1	120 0 0	89	215 2 0	1,398	3,153 15 0	1,488	3,489 1 0
September ...	...	...	27	200 0 0	1,827	4,246 11 0	1,854	4,446 11 0
October ...	5	78 8 0	79	537 8 0	1,624	4,115 1 0	1,708	4,731 1 0
November ...	33	615 0 0	87	653 12 0	2,393	5,902 10 0	2,513	7,171 6 0
December ...	10	99 1 0	74	449 13 0	2,229	5,000 2 0	2,313	5,549 0 0
Total ...	51	938 9 0	835	2,233 15 0	11,021	25,717 14 0	11,407	28,889 6 0

13. *Comparison of the Passenger Traffic inclusive of Return Fares, but exclusive of Service of Soldiers for the half-years ending Dec.* 1873 *and June and Dec.* 1874.

Period.	First Class.		Second Class.		Third Class.		Cooly Class.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
December 1873 ...	5,894	64,143 8 0	29,207	54,607 8 0	1,044,426	8,41,653 1 4	268,477	1,08,073 9 0	1,841,004	10,68,477 10 4
June 1874 ...	7,923	65,538 8 0	27,514	60,542 5 0	1,044,213	7,89,366 1 11	277,777	1,13,226 15 0	1,857,426	10,28,673 8 11
December 1874 ...	6,825	60,244 9 0	24,744	54,301 4 0	1,067,679	8,31,655 4 7	292,029	1,18,789 11 0	1,391,277	10,64,990 12 7

14. *Comparison of the Passenger Traffic exclusive of Return Fares and Soldiers for the half-years ending Dec.* 1873 *and June and Dec.* 1874.

Period.	First Class.		Second Class.		Third Class.		Cooly Class.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
December 1873 ...	2,931	42,479 15 0	17,880	40,986 8 0	945,384	7,57,674 3 10	268,477	1,08,073 9 0	1,235,322	9,49,214 3 10
June 1874 ...	3,965	46,523 10 0	13,077	45,491 2 0	935,975	7,56,206 1 2	277,777	1,13,226 15 0	1,230,794	9,61,446 12 2
December 1874 ...	3,843	37,862 5 0	20,099	39,097 12 0	964,275	7,43,043 3 5	292,029	1,18,789 11 0	1,279,745	9,37,782 15 5

15. *Comparison of the Return Fare Traffic for the half-years ending December* 1873 *and June and December* 1874.

Period.	First Class.		Second Class.		Third Class.		Total.	
	No	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
Half-year ending Dec. 1873. Trivellore ..	70	52 8 0	922	336 0 0	24,779	5,828 8 0	25,771	6,217 0 0
Half-year ending Dec. 1873. Other excursion...	2,893	21,611 1 0	3,405	13,285 0 0	73,713	78,150 5 6	80,011	1,13,046 6 6
Half-year ending June 1874. Trivellore...	90	66 12 0	752	318 12 0	44,248	10,467 4 0	45,090	10,852 12 0
Half-year ending June 1874. Other excursion...	3,867	18,948 13 0	8,685	14,732 7 0	63,990	22,692 12 9	76,542	56,374 0 9
Half-year ending Dec 1874. Trivellore...	138	98 4 0	732	266 4 0	31,862	7,461 4 0	32,732	7,825 12 9
Half-year ending Dec 1874. Other excursion...	3,845	22,294 0 0	3,913	14,937 4 0	71,542	82,150 13 2	78,800	1,19,382 1 2

16. *Soldiers' Traffic for the three half-years ending December* 1873 *and June and December* 1874.

Period.	First Class.		Second Class.		Third Class.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
Half-year ending Dec. 1873...	51	796 10 0	306	2,412 15 0	10,698	26,968 13 0	11,035	30,178 6 0
Do. June 1874...	59	1,189 0 0	460	4,473 3 0	12,445	39,472 8 0	12,964	45,134 11 0
Do. Dec. „	51	932 9 0	335	2,233 15 0	11,021	25,717 14 0	11,407	28,889 6 0

17. *Parcels, Treasure, and Passengers' Luggage Traffic for the half-years ending December* 1873 *and June and December* 1874.

Period.	Parcels.	Treasure.	Passengers' Luggage	Total
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Half-year ending Dec. 1873.	35,886 15 3	7,063 3 0	20,578 5 6	63,528 7 9
Do. June 1874.	33,810 2 2	15,841 15 0	27,357 1 0	77,009 2 2
Do. Dec. „	36,563 11 11	9,134 1 0	21,258 5 0	66,896 1 11

GOODS TRAFFIC.

18. *Gross Earnings and Tonnage of Goods exclusive of Railway Material for the half-year ending December 1874.*

Months.	Weight.	Receipt.		
	Tons.	Amount.		
		RS.	A.	P.
July ...	33,305	3,08,014	12	4
August ...	36,861	3,25,556	12	5
September ...	27,727	2,24,313	1	4
October ...	31,019	2,46,581	1	0
November ...	30,238	2,18,379	3	0
December ...	37,420	2,96,680	13	0
Total ...	196,570	16,19,525	11	1

19. *The direction in which the Goods have been moved.*

Months.	Eastward.				Westward.			
	Tons.	Amount.			Tons.	Amount.		
		RS.	A.	P.		RS.	A.	P.
July ...	16,626	1,49,709	3	7	16,679	1,58,305	8	9
August ...	17,866	1,50,564	0	6	18,995	1,74,992	11	11
September ...	13,373	99,718	7	6	14,354	1,24,594	9	10
October ...	14,507	98,615	5	0	16,512	1,47,965	12	0
November ...	14,986	88,457	0	0	15,252	1,29,922	3	0
December ...	18,132	1,25,542	2	3	19,288	1,71,138	10	9
Total ...	95,490	7,12,606	2	10	101,080	9,06,919	8	3

20. *Salt Traffic in each month for the half-year ending December 1874.*

Months.	Weights.	Receipts.		
	Tons.	Amount.		
		RS.	A.	P.
July ...	3,725	24,302	12	6
August ...	3,950	26,911	11	0
September ...	4,016	26,121	0	0
October ...	3,070	19,974	11	0
November ...	3,603	22,902	7	0
December ...	4,312	29,947	2	0
Total ...	22,676	1,50,159	11	6

Proceedings of the Madras Government, Public Works Department, 10th September 1875.

21. *Comparison of the Traffic exclusive of Railway Material for three half-years ending December 1873 and June and December 1874.*

Period.	Weights.	Receipts.		
	Tons.	Amount.		
		RS.	A.	P.
Half-year ending December 1873 ...	195,245	17,59,703	11	0
Do. June 1874 ...	173,995	15,57,225	15	8
Do. December 1874 ...	196,570	16,19,525	11	1

22. *Tonnage and Receipts from Salt Traffic from the opening of the Line.*

Years.	Half-years ending	Tons.	Amount.		
			RS.	A.	P.
1856	December ...	136	330	6	4
1857	June ...	1,429	4,011	5	0
"	December ...	3,085	9,212	1	7
1858	June ...	5,187	15,447	6	0
"	December ...	4,517	14,182	5	9
1859	June ...	5,966	19,003	12	0
"	December ...	6,759	21,189	0	5
1860	June ...	8,937	32,169	5	9
"	December ...	10,696	41,073	15	2
1861	June ...	11,655	51,493	13	10
"	December ...	13,031	67,879	9	0
1862	June ...	14,174	77,383	8	5
"	December ...	17,923	1,04,873	0	6
1863	June ...	19,760	1,13,876	15	11
"	December ...	20,672	1,17,017	2	1
1864	June ...	26,723	2,01,015	1	3
"	December ...	27,397	1,95,687	10	9
1865	June ...	22,312	1,66,870	8	0
"	December ...	23,041	1,81,163	0	10
1866	June ...	23,220	2,07,628	9	10
"	December ...	26,309	2,41,179	9	4
1867	June ...	24,696	2,20,261	5	11
"	December ...	23,845	2,14,411	8	6
1868	June ...	25,061	2,03,738	14	3
"	December ...	28,293	2,20,670	11	11
1869	June ...	24,863	1,86,297	5	3
"	December ...	26,032	1,94,082	3	9
1870	June ...	25,331	1,85,666	13	4
"	December ...	24,603	1,84,124	1	10
1871	June ...	22,279	1,64,720	9	7
"	December ...	22,099	1,59,427	10	5
1872	June ...	21,695	1,51,367	11	2
"	December ...	21,588	1,43,531	13	6
1873	June ...	23,712	1,62,197	0	11
"	December ...	23,101	1,54,435	14	11
1874	June ...	20,376	1,36,801	10	7
"	December ...	22,676	1,50,159	11	6

23. *Comparative Statement of the Traffic Expenses for the half-years ending December* 1873 *and June and December* 1874.

Period.	Traffic Manager, Assistant, &c.	Office Establishment.	Travelling Allowances.	Contingencies.	Station Masters, Clerks, Porters, &c.	Guards and Assistant Guards.	Overtime Allowances.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Dec. 1873 ...	23,819 13 6	15,269 4 1	3,788 3 1	11,817 14 3	1,25,046 1 6	31,188 9 1	17 2 7
June 1874 ...	23,454 7 6	16,183 10 11	3,458 9 6	9,778 1 0	1,24,307 6 7	31,699 1 9	78 11 5
Dec. ,, ...	24,545 6 6	17,547 6 6	3,509 7 0	9,839 14 8	1,30,088 1 11	33,147 4 1	153 9 4

23. *Comparative Statement of the Traffic Expenses for the half-years ending, December* 1873, *&c.*—(Concluded.)

Period.	Fire, Lights, Water, General Stores, &c.	Wagon Covers and Ropes.	Office and Station Fittings and Furniture.	Clothing of Guards and Porters.	Printing, Stationery, and Tickets.	Mileage of Foreign Rolling Stock.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Dec. 1873 ...	28,466 1 7	16,182 13 6	860 10 10	4,163 14 11	25,815 0 5	4,957 14 10	2,90,893 8 2
June 1874 ...	31,335 5 11	7,918 13 9	2,063 0 0	1,309 11 5	26,965 5 7	9,969 5 1	2,88,521 10 5
Dec. ,, ...	32,945 11 7	14,02 2 811	2,254 13 11	9,104 14 10	17,310 0 6	8,926 2 1	3,03,395 5 10

Commodity Statement for the half-years ending December 1873 and 1874.

Description.	EASTWARD.				WESTWARD.			
	December 1873.		December 1874.		December 1873.		December 1874.	
	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
Baggage (Military) ...	2·65	80 0 0	2·64	82 4 0	67·41	1,725 0 0	32·36	1,229 7 0
Ballast and stones ...	3,095·93	6,609 6 0	1,453·44	4,433 12 0	114·47	927 4 0	172·98	480 9 0
Bamboos	1,668·05	6,827 8 9	1,345·52	5,214 6 0	629·74	3,176 2 0	640·69	3,259 6 0
Beer	12·70	140 0 0	9·44	114 14 0	322·05	5,516 0 0	283·51	4,955 3 0
Betel nuts	3,490·79	38,126 11 1	3,206·24	32,609 11 0	161·41	1,572 11 0	112·00	911 12 0
Brass and copper ...	114·31	1,008 5 0	124·49	1,054 13 0	326·65	4,592 1 0	309·45	5,597 8 0
Charcoal, coke, and coal	355·59	1,532 1 0	119·64	356 2 0	122·18	1,470 6 0	40·33	300 2 0
Chillies	580·67	5,306 8 8	842·29	8,624 14 0	688·34	5,050 11 0	753·76	4,144 1 0
Chunam and lime ...	230·18	667 8 0	289·29	1,210 8 0	276·83	704 4 0	188·15	635 14 0
Cloths and piece goods	744·58	14,226 9 4	687·56	11,607 8 4	2,275·68	53,533 7 10	2,395·17	43,463 6 1
Cocoanuts	946·87	6,835 11 0	752·62	6,223 15 0	576·00	3,907 14 0	513·99	3,348 3 0
Coffee	734·66	9,715 6 0	673·89	8,559 5 0	244·99	2,386 13 0	220·22	2,472 13 0
Commissariat stores ...	90·59	3,317 1 0	46·91	953 1 0	1,550·57	30,857 11 3	1,147·70	20,985 11 9
Cotton, loose	1,417·30	17,291 6 0	832·85	8,448 10 0	522·01	3,828 1 5	898·20	5,639 7 0
Do., A pressed ...	...	2,845 11 0	...	...	...	893 8 0	...	...
Do., B do. ...	105·54	21 2 0	52·75	597 0 5	32·92	...	44·48	520 8 0
Do., C do. ...	1·57	36,673 10 0	2,731·19	47,019 5	36·81	408 4 0	631·47	3,889 8 0
Do., D do. ...	2,053·03	1,22,252 6 0	6,856·27	1,11,393 14	75·83	415 12 0	13·48	82 4 0
Do., E do. ...	7,072·44	3,816 6 6	1,515·71	7,767 5	14·95	60 9 0	1,617·46	4,054 14 0
Dye or redwood ...	700·20	11,207 8 5	3,878·12	12,405 8	690·14	1,688 9 0	657·11	4,193 12 0
Firewood	3,184·53	16,931 5 2	2,327·99	22,252 12	421·42	2,540 13 0	87·86	1,932 14 0
Fruits and vegetables ...	1,870·79	644 15 0	29·02	559 15	124·72	2,582 10 8	108·80	1,239 4 0
Furniture	31·51	11,613 0 10	472·74	7,440 5	90·00	856 2 0	6,667·67	53,927 13 4
Ghee	595·58	49,635 5 11	6,749·37	29,675 3	3,596·47	25,643 10 4	1,260·66	12,208 1 0
Gram	7,476·09	26,883 1 7	4,936·15	25,859 14	1,209·56	15,230 2 0	291·56	1,770 1 2
Grains	3,532·21	820 1 10	457·68	1,397 5	351·37	2,446 13 0	965·09	8,391 14 9
Ground nuts	241·93	16,174 2 0	1,240·23	14,384 10	873·66	8,823 1 1	7·42	47 12 0
Gunnies	1,379·93	75 0 0	·51	8 15 0	...	...	...	...
Hay	11·13							

Commodity Statement for the half-years ending December 1873 and 1874.—(Concluded.)

Description.	EASTWARD.						WESTWARD.					
	December 1873.			December 1874.			December 1873.			December 1874.		
	Weight.	Amount.		Weight.	Amount.		Weight.	Amount.		Weight.	Amount.	
		Rs.	A. P.		Rs.	A. P.		Rs.	A. P.		Rs.	A. P.
Indigo	253·80	3,990	2 0	373·30	5,567	11 0	188·09	2,712	11 0	143·03	1,879	1 0
Iron of all kinds	387·80	3,411	5 0	286·01	1,786	15 0	2,411·27	30,816	1 2	2,852·85	33,912	8 0
Jaggery	2,275·16	17,815	11 7	1,400·07	8,655	13 0	2,989·98	22,357	2 0	3,296·97	25,785	11 0
Luggage	269·08	5,411	13 4	257·95	5,172	1 0	224·19	4,177	6 4	185·43	2,909	6 2
Oil of all kinds	2,391·43	20,587	15 4	1,936·58	14,705	14 0	741·60	8,681	12 0	1,010·13	10,592	9 0
Ordnance stores	100·61	3,201	13 0	102·41	3,275	10 0	433·58	15,683	2 0	638·08	15,824	5 0
Paddy	580·78	1,200	15 10	1,151·30	2,465	6 0	1,344·82	5,107	15 0	1,629·11	8,714	5 0
Pitch, tar, and asphalte ...	5·54	33	3 0	2·53	19	2 0	97·54	1,181	12 10	58·59	867	1 0
Potatoes	1,677·49	24,345	12 3	1,006·82	10,619	7 0	231·80	1,665	14 0	196·53	1,231	9 0
Powder and ammunition (combustible)	7·70	207	5 0	4·08	90	11 0	39·31	2,754	12 0	46·47	3,216	5 0
Raggy	5,526·14	40,229	15 7	6,754·11	48,494	5 6	6,153·84	40,835	0 0	2,668·88	20,107	5 0
Rice	12,634·81	36,106	7 6	14,126·07	43,935	9 3	30,652·38	2,71,934	7 3	26,475·54	2,36,723	4 10
Salt	3,183·20	15,390	4 0	3,255·32	15,653	0 0	19,918·11	1,39,045	10 11	19,419·79	1,34,506	11 6
Salt-fish	903·49	7,783	0 6	1,616·07	13,359	6 0	159·58	1,344	5 8	156·41	1,370	1 0
Saltpetre	145·47	2,670	8 0	389·72	6,764	13 0	108·12	687	8 0	87·50	526	10 0
Seeds of all kinds	3,758·98	26,591	4 7	3,496·92	19,827	10 0	1,420·68	10,099	6 5	5,891·80	36,612	14 9
Skins	2,886·27	42,055	15 0	2,991·82	36,442	14 0	629·60	9,915	8 0	358·34	4,808	11 0
Sugar of all kinds	1,383·17	9,980	8 2	1,438·82	12,282	8 6	827·08	7,076	15 0	1,198·06	10,436	11 0
Sundries	6,393·70	76,970	2 10	5,926·88	54,510	9 11	6,996·78	99,402	6 6	6,808·07	87,134	8 7
Tamarind	2,339·08	12,131	14 8	1,891·28	9,709	1 0	1,102·96	6,299	11 0	881·26	4,243	7 0
Timber	5,816·20	30,346	3 11	4,004·30	17,991	6 7	3,009·79	22,666	1 0	1,885·40	14,782	5 0
Tobacco	870·47	6,683	4 0	1,016·45	6,739	2 0	1,493·19	7,991	12 11	2,247·02	9,988	1 0
Twist	362·35	7,712	9 5	271·61	3,570	12 0	1,864·43	42,045	12 8	1,894·33	32,282	11 4
Wines and spirituous liquors..	144·52	997	15 0	155·94	710	14 6	772·02	17,547	5 2	898·89	18,781	5 0
Total...	96,038·59	8,06,634	15 7	95,490·91	7,12,606	2 10	99,206·92	9,53,068	11 5	101,080·10	9,06,919	8 3

From J. CRAMP, Esq., Chief Accountant, to R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, dated Madras, 8th April 1875, No. 120.

I BEG to send you, herewith, the usual statements of the Company's accounts for the half-year ending 31st December 1874.

2. The addition to the capital expenditure during the half-year amounts to Rs. 2,81,091-1-4, made up of cash and stores in the following proportion :—

			Rs.	A.	P.	Rs.	A.	P.
Cash Outlay.								
In England	*Cr.*		7,144	6	2			
In India	...		1,64,149	9	8			
						1,57,005	3	6
						1,24,085	13	10
Store issues	...		...					
		Total ...				2,81,091	1	4

3. The general details of this expenditure will be found in form No. 5 of the printed series in which the principal heads of expenditure are the following :—

Permanent-way Rupees 11,422 incurred on the 4th division, South-West Line, for renewal of line with pot sleepers between Avenashy and Palghaut, Cheyaur bridge, Rs. 10,410, being one-sixth of the total expenditure on this work during the half-year.

Stations and buildings Rupees 10,132 principally for station machinery.

Construction of line Rupees 72,681 including a sum of Rupees 12,020 for the Huggry bridge, and Rupees 34,384 for protective works on the 1st divisions of the South-West and North-West Lines.

Nilgiri branch Rupees 34,269 includes a sum of Rupees 20,364 expended on the large bridges at 5 miles 68 chains, 11 miles 7 chains, and 19 miles 4 chains of this branch.

Preliminary expenses Rupees 15,821, being the amount transferred from "Miscellaneous Surveys Account" for the cost of the Raichore survey, per Consulting Engineer's letter No. 841, dated 7th September 1874.

Engines and tenders Rupees 28,357 cost and fitting of the two engines purchased from the Calcutta and South-Eastern State Railway.

Carriages Rupees 23,621 chiefly due to the construction of second-class sleeping carriages.

Wagons Rupees 10,473 is the cost of fitting an additional plate to springs and of axle-box oil keeps.

Locomotive Shop Plant Rupees 24,464 for which authority was given in Consulting Engineer's letter No. 309, dated 1st April 1874.

4. The following summary shows the receipts and issues of stores during the half-year :—

				Rs.	A.	P.
Balance of stores on hand, 1st July 1874				3,766,139	1	4
Receipts.						
From England			5,35,068	5	0	
From purchases, India			3,86,501	3	1	
				9,21,569	8	1
				46,87,708	9	5
Issues.						
Capital Account			1,24,085	13	10	
Revenue ,, ...			7,33,930	11	1	
Sales			58,416	12	5	
				9,16,433	5	4
Store balances, 31st December 1874 ...				37,71,275	4	1

5. The cash expenditure on stores in India, as shown above, amounts to Rupees 3,86,501-3-1, the principal items on which it has been expended being the following :—

			Rs.	A.	P.	Rs.	A.	P.
General Store Account.								
Firewood			99,926	14	4			
Oils			48,848	8	0			
Indian coal			45,149	15	11			
Canvas			25,139	6	6			

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		RS.	A.	P.	RS.	A.	P.
General Store Account.—(Concluded.)							
Ropes		7,520	5	9			
Printing and binding...		7,295	11	4			
Landing charges		18,818	5	4			
Miscellaneous		38,974	12	4			
					2,91,673	15	6
Engineering Store and Workshop Account.							
Sleepers		38,313	3	4			
Timber		8,105	12	9			
Miscellaneous		5,436	13	9			
					51,855	13	10
Locomotive Store and Workshop Account.							
Two engines		16,798	0	0			
Manufactures, &c.		26,037	15	7			
					42,835	15	7
Traffic store account					135	6	2
	Total ...				3,86,501	3	1

6. The balance sheet shows a sum of Rupees 82,917-13-6 at the debit of "Bank of Madras, Bellary." This sum is the amount of traffic collections paid into the Bellary branch of the Bank of Madras from 31st October to 31st December 1874, in consequence of the breaks on the North-West Line. During the month of January 1875, a further sum of Rupees 59,600-10-8 was also paid into this account for the same reason, making a total of Rupees 1,42,518-8-2. This money was withdrawn when through communication was again established, and the account at Bellary closed on the 26th January 1875.

7. It will be remembered that the forms of account Nos. 1-18 of the Government series have been revised during the half-year per G. O., No. 3,344, dated 26th November 1874. The revised forms are used for the first time for the statements herewith submitted. The following alterations will be noticed :—

FORM No. 6.—A column is added to show "Total Expenditure to end of the previous half year."

FORM No. 9.—Abstract A expenditure on the Cheyaur bridge is included under "Repairs of bridges," and not shown separately, but a note is added to show the amount so charged.

FORM No. 15.—Distribution statement of audited salaries. The proportions charged to Capital and Revenue are made to agree with the other forms in consequence of which the usual memorandum is omitted.

FORM No. 18.—The balance sheet of the Indian books is now given complete, and divided between the Capital and Revenue Accounts.

8. A list of statements that accompany is annexed.

LIST OF STATEMENTS.

Forms Nos. 1—18 of the series issued by the Government of India.

19. Balance Sheet for the Half-year ending 31st December 1874.
20. Statement of Capital Receipts and Expenditure to 31st December 1874, as per Secretary's letter, dated 21st October 1873.
21. Details of Cash Expenditure on the purchase of Stores and Issues [illegible] of Stores on Capital and Revenue Accounts.
22. Fire Insurance Fund Account.
23. Sleeper Statement.
24. Statement of Stores in Transitu.
25. The Agent and Manager in Account with London Office.

26. Memorandum of Materials Lost Account.
27. Do. of Short Landings.
28. Do. in Explanation of Short Landings.
29. Statement of Interest on Monthly Balance.
30. Do. of Wood Fuel.
31. Do. of Payments made in England for quarter ending 31st December 1874.
32. Certificates of Locomotive Superintendent, Chief Engineer, Cashier, Traffic Manager, and General Storekeeper, of Cash Balances against them.
33. Certificates of the Agent of the Oriental Bank Corporation, regarding Fire Insurance Fund.
34. Do. of Cash Balances in the Bank of Madras and Oriental Bank Corporation.
35. Certificates of Balance of Cash on fixed Deposits, held by the Bank of Madras, Oriental Bank Corporation, Messrs. Arbuthnot and Co., and Chartered Mercantile Bank of India, London, and China, and of fixed Deposit Receipts held by Messrs. R. B. Elwin and F. Church for safe custody.
36. Six printed copies of the Government Series of Accounts.

(Signed) J. CRAMP,
Chief Accountant.

8*th* *April* 1875.

From Surgeon E. F. BROCKMAN, Acting Consulting Physician, Madras Railway Company, to R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, dated Royapoorum, 22nd February 1875, No. 90.

1. *Annual Return of Sick.*—During the past year ending 31st December 1874 the number of sick amounted to 6,779, which in addition of 78 remaining on the 31st December 1873, makes up the total 6,857 treated during the above-named period. Of this number 3 died, and 82 remained under treatment on the 31st December last. By comparison with the year 1873, an increase of 817 in the number of admissions will be observed in the preceding year above that of the year 1873.

The principal disease were fevers of kinds which numbered 2,177 being about 500 in excess of 1873. This may be in part attributed to the large amount of malarial fever which followed the heavy rains and the flooding of the country during the south-west and north-east monsoons.

Diseases of the bowels furnished 1,640 of the admissions. None of these were of any serious importance. Two admissions were made from cholera.

This year is remarkable for the absence of Dengue.

2. *Accidents.*—The following accidents have been reported to this office :—

(*a.*) At Jollarapett, a Carriage Examiner was run over by a pilot engine and killed.

(*b.*) At Vellore, a Cooly sustained a very severe injury of the head which was smashed. The man died almost immediately. Also a woman, the wife of a Ticket-collector, slipped and fell, fracturing both bones of the right leg. She was transferred to the Civil Dispensary at Vellore.

(*c.*) At Arconum, a Pointsman died from an injury of a very severe nature, caused by a wheel running over the leg carrying away the calf of the leg from the ham to the heel.

(*d.*) At Tripetty, a Gang Cooly sustained an injury to the left foot by an engine wheel passing over it. The man was sent to the General Hospital, Madras.

(*e.*) The Cook at the station at Pothanore was run over by a wagon and was sent to the Civil Hospital at Coimbatore, where amputation of both legs was performed by the Civil Surgeon. The man subsequently died.

(*f.*) At Cuddapah, two accidents are reported to have occurred. One in the person of a Head Porter whose left foot was smashed by an engine running over it. The man was sent to the Civil Dispensary where he died. Another happened to a Watchman who was run over by the engine of the mail train. This man also died.

(*g.*) At Bellary, a simple case of fracture is reported which recovered.

(*h.*) At the Cheyaur Bridge, while at work two men coolies were killed by the sudden sinking of a cylinder loaded with 700 iron rails.

(*i.*) The most important and disastrous of all took place at the Paupugnee Bridge on the 16th June 1874 by the trial train running off the line. On this occasion Mr. Robinson and Mr. Haworth met with bruises and cuts, besides receiving a general concussion of the body. At the same time Engine Driver Lem was scalded over the greater portion of his body, extremities, and head, besides meeting with severe cuts on the face. He was brought down to the General Hospital, Madras, for treatment.

Mr. Satur, a Eurasian, lost his life on the same occasion, and two native Firemen died subsequently in the Civil Hospital at Cuddapah from the severity of the injuries sustained by them. An account of the accident and of the state of the injured persons was duly forwarded on the 18th June to the Agent and Manager from this office.

3. *Invalided Officers.*—The Locomotive Superintendent, Mr. W. Barton Wright, is the only officer of the Company who went home sick during the past year.

4. *Medical Staff.*—This comprises 19 Apothecaries. During the past year two were dismissed for intemperate habits, *viz.*, Messrs J. Pettigrew and H. Secluna, six resigned their appointments, *viz.*, J. Mergler, J. Martin, E. G. Scott, J. Stokes, J. West, and W. Watson.

Apothecaries J. Chandi, Rungasawmy Naiker, and Bowie have been admitted on the staff to fill the vacancies caused by the removal of the above-named from the service of the Company. Apothecary Peroomal has rejoined his appointment and is conducting his duties.

5. *Conservancy Establishment.*—No change has occurred in this staff from that of last year. It consists of Inspectors 15, Peons 14, and Toties 67.

6. *Fines.*—These amount to Rupees 77-3-7; of this sum Rupees 45 were levied on the Apothecaries for dereliction of duty, &c. The Writer in this office was fined Annas 8, the Peons Rupees 3-15-9, and the Toties Rupees 27-11-10, making up the difference between the sum total and the fines on the Apothecaries.

7. *Registration.*—These are received and recorded regularly. There is nothing of special interest to bring to notice under this head.

8. *Vaccination.*—No cases of vaccination have been reported. This is a matter to which I shall direct my attention in the coming year.

9. *Claims of Medical Officers.*—The only claims against the Company are those brought forward by Dr. Rogers of Coimbatore of Rupees 45 attendance on Mr. Armstrong, and Rupees 100 for amputation of both legs in the case of the Cook at Pothanore station.

10. *Cost of Medicines.*—I regret to say that the expenditure of medicines amounts to a larger sum than the preceding one, being an increase of Rupees 791-11-1 above that of the year 1873 or Rupees 4,009-6-0. Deducting from this sum the amounts recovered from the families of employès from Great Indian Peninsula and Great Southern Indian Railways, the sum of Rupees 3,431-7-4 will be found to have been actually expended for medicines, or at the rate of about Annas 8 for each patient, being in excess of the preceding year by Anna 1 Pie 1.

I hope to be able to show a considerable decrease in the outlay for medicines for the year 1875 by exercising a strict supervision over the quantities supplied to the various stations.

11. *Recoveries for Medicines.*—These have amounted to Rupees 577-14-8, being made up as follows:—

	Rs.	A.	P.
Supplied to the families			
Great Southern of India Railway	525	9	2
Great Indian Peninsula	17	1	10
Office collection	8	10	10
	26	8	10
Total ...	577	14	8

An inspection of the stations was performed in August last by Dr. Vansomeren, and in December last by myself. Reports of these have been duly forwarded.

Annual Return of Sick, Madras Railway Company, 1874.

Classes.	Diseases.	Remained 31st December 1873.	Admitted. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Total treated.	Cured.	Died.	Remaining.
I. General Diseases.	Small-pox ...	...	3	1	4	1	1	2	...	...	...	1	...	1	14	14	13	...	1
	Chicken-pox ...	...	...	1	2	2	...	...	...	...	...	...	1	...	6	6	6	...	...
	Measles ...	...	1	...	...	1	1	...	176	163	152	147	359	247	1,767	1,797	1,752	1	45
	Ague ...	30	106	91	104	63	65	89	176	163	152	147	359	247	1,767	1,797	1,752	1	45
Sub-Division A.	Remittent fever ...	4	9	1	25	13	12	5	6	4	13	8	20	30	146	150	148	...	1
	Simple cont. fever ...	4	6	7	8	8	9	5	10	7	4	8	8	13	93	97	91	...	6
	Febricula	2	7	5	8	14	7	13	10	11	9	7	39	41	171	173	170	...	3
	Influenza	...	5	3	3	1	2	1	1	1	1	...	8	1	18	18	18	...	...
	Erysipelas	...	...	...	...	...	...	1	...	1	1	...	...	...	3	3	3	...	...
	Cholera	...	...	...	...	...	...	...	...	1	1	...	1	...	2	2	2	...	...
	Mumps	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	3	...	...
Sub-Division B.	Acute rheumatism ...	3	12	14	16	23	18	19	13	22	17	16	15	12	197	200	198	...	2
	Chronic do. ...	1	2	2	1	1	...	2	1	...	...	1	1	1	11	12	11	...	...
	Lumbago	...	1	1	2	2	2	2	...	...	2	3	3	...	10	10	10	...	...
	Dropsy	1	...	...	...	...	2	2	1	2	3	...	1	...	5	5	5	...	...
	Primary syphilis ...	...	2	2	2	3	2	2	5	2	...	3	...	...	23	24	24	...	...
	Secondary do. ...	...	2	1	1	2	1	...	1	1	2	2	1	2	14	14	14	...	...
	Anæmia	...	3	7	3	4	1	1	2	1	1	1	9	4	50	50	50	...	...
	Neuralgia	1	1	...	2	1	1	1	3	2	1	3	...	...	1	2	2	...	...
	Sunstroke	...	...	...	...	...	...	...	...	...	...	...	...	...	7	7	7	...	...
	Paralysis	...	...	...	...	...	...	...	...	...	...	...	...	...	21	21	21	...	...
II. Local Diseases.	Odontalgia	...	...	...	...	...	...	...	...	...	...	...	...	...	91	91	91	...	...
	Cephatœa	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
Nervous system.	Loss of sensation ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Delirium tremens ...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	...	...
	Chorea	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Deafness	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...

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Annual Return of Sick—Madras Railway Company, 1874.—(Continued.)

Classes.	Diseases.	Remained 31st December 1873.	Admitted. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Total treated.	Cured.	Died.	Remaining.
2. Eye	Conjunctivitis	2	7	8	8	7	7	11	11	13	17	10	5	...	104	106	106	...	...
	Stye	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Sclerotitis	...	...	...	...	...	...	...	..	1	...	...	...	...	1	1	1	...	...
	Infl. Memb. of Tymp	1	2	2	...	1	1	1	1	...	2	4	1	...	15	16	16	...	...
3. Ear... ...	Otitis	...	...	4	5	5	8	6	1	4	5	6	2	7	53	53	53	...	...
	Otarrhœa	...	1	...	1	...	...	...	..	...	...	...	...	...	2	2	2	...	...
	Atrophia	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
5. Circulatory...	Aneurism	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1	...	...
7. Glands ...	Tonsillitis	...	2	2	7	5	1	4	...	2	1	1	...	...	25	25	25	...	...
	Palpitation	...	...	...	1	...	...	...	...	...	..	..	...	...	1	1	1	...	...
	Asthma	...	3	1	1	...	2	3	...	3	2	1	11	1	28	28	28	...	...
	Bronchitis	...	12	8	5	2	6	2	1	1	7	3	8	6	61	61	61	...	...
	Catarrh	1	2	3	9	6	13	9	3	3	10	13	7	5	83	84	84	...	...
8. Respiratory...	Phthisis Pulmonalis	...	1	2	...	...	...	...	...	1	...	...	...	...	4	4	4	...	...
	Pleuritis	...	1	2	...	1	...	...	...	...	...	...	...	1	5	5	4	...	1
	Œdema	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	1	...	...
	Dyspepsia	...	11	15	21	21	18	20	11	13	12	10	17	5	174	174	174	...	...
	Dysentery	2	10	15	13	5	11	10	18	13	7	4	16	14	136	138	134	2	2
	Diarrhœa	2	14	8	6	11	16	20	20	17	12	12	13	17	166	168	164	...	4
	Colic	...	16	9	17	10	17	26	10	23	17	10	41	4	200	200	200	...	...
	Constipation	2	119	129	177	110	161	174	121	179	136	112	107	115	1,640	1,642	1,642	...	...
	Hepatitis	...	3	...	...	1	...	...	1	1	...	...	2	1	9	9	8	...	1
	Ascaris Lumbricoides	...	2	3	3	2	3	3	1	3	1	...	...	...	21	21	21	...	...
	Hæmorrhoids	...	3	2	2	1	...	1	1	1	...	...	1	1	13	13	13	...	...
	Jaundice	...	...	...	1	1	...	1	...	1	...	2	1	1	8	8	8	...	...
	Aphtha	...	1	2	...	...	...	...	...	...	...	...	...	...	3	3	3	...	...
	Splenitis	...	...	...	2	...	...	...	1	...	1	...	1	1	6	6	6	...	...
9. Digestive ...	Worms	...	...	...	...	...	...	2	1	1	...	...	...	...	4	4	4	...	...
	Hernia	...	1	...	1	...	...	...	...	...	...	...	...	1	3	3	3	...	...
	Tepia Solium	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	1	...	...
	Gastritis	...	1	...	...	1	...	...	...	1	...	...	...	...	3	3	3	...	...
	Glossitis	...	1	...	1	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Hœmoptisis	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	4	...	...
	Sorethroat	...	...	...	...	1	...	...	...	...	...	...	...	...	6	6	6	...	...
	Stomatitis	...	...	...	...	2	...	...	...	...	...	...	...	...	4	4	4	...	...
	Fistula in ano	...	...	...	...	...	1	...	...	...	...	...	...	...	2	2	2	...	...
	Enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Peritonitis	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	...	...
	Breast pang	3	5	6	8	7	6	6	5	5	1	3	6	4	62	65	65	...	...
	Gonorrhœ	...	1	...	1	...	1	1	...	1	...	...	2	...	4	4	4	...	...
	Nephritis	...	...	...	2	2	4	1	1	2	...	1	3	3	15	15	15	...	...
	Stricture Urethra	1	1	...	...	1	1	...	1	...	1	1	...	...	11	12	12	...	...
	Bubo	...	...	...	...	1	...	...	...	...	...	...	...	...	2	2	2	...	...
	Chancre	...	...	...	...	2	...	...	...	...	...	...	...	...	2	2	2	...	...
	Disuria	1	...	...	...	...	...	2	...	...	1	1	...	...	5	5	1	...	...
	Strain of Spermatic cord ...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
10. Urinary ...	Cystitis	...	...	...	1	...	...	...	...	...	...	...	...	...	3	3	3	...	...
	Leprosy	...	...	...	...	1	...	...	...	...	2	...	...	...	4	4	4	...	...
	Lithiasis	...	...	...	...	1	...	...	...	...	...	...	...	...	2	2	2	...	...
	Diuresis	...	...	...	...	...	...	1	...	...	...	...	...	...	2	2	2	...	...
	Diabetes	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	...	...
	Paraphimosis	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Catarrh visic	...	...	...	...	...	...	...	...	...	...	...	...	...	37	37	37	...	...
	Gleet	...	...	...	2	5	3	6	2	4	...	7	4	3	2	2	2	...	...
	Orchitis	...	...	...	...	1	...	1	...	...	...	...	...	1	3	3	1	...	1
11. Generative...	Spermatorrhœa	...	...	...	...	1	...	...	...	...	1	...	...	...	...	1	1	...	...
	Hydrocele	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...
	Necrosis	...	...	...	...	1	...	1	...	...	...	...	...	...	99	101	101	...	1
12. Locomotive.	Synovitis	...	...	...	...	...	...	1	...	...	...	...	...	...	201	202	201	...	2
	Ostitis	2	13	7	9	9	7	12	11	5	4	5	9	8	162	163	161	...	...
13. Cellular Tissue.	Abscess	1	12	15	7	7	9	21	31	13	33	25	15	6	8	8	8	...	...
	Ulcer	1	13	5	1	18	22	18	29	12	20	9	3	9	25	25	25	...	...
	Boil	...	...	...	...	4	1	1	2	...	...	...	...	...	1	1	1	...	...
	Herpes	...	...	1	...	5	3	5	4	2	...	2	2	...	161	164	156	...	8
	Guinea-worm	...	...	...	...	...	...	...	...	...	...	...	...	...	12	12	12	...	...
14. Cutaneous ...	Ring-worm	3	12	10	18	8	11	7	9	2	9	8	18	19	2	2	2	...	...
	Itch	...	1	1	4	2	...	...	1	1	...	...	...	1	6	6	6	...	...
	Eczema	...	...	...	...	...	1	1	3	...	...	...	...	...	1	1	1	...	...
	Urticaria	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Paronychia	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
	Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Annual Return of Sick, Madras Railway Company, 1874.—(Concluded.)

Classes.	Diseases.	Remained 31st Dec. 1873.	Admitted. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Total treated.	Cured.	Died.	Remaining.
III. Conditions, &c.	General debility	...	2	3	3	3	2	1	4	...	1	1	1	1	22	22	22	...	...
IV. Poisons	Scorpion sting	...	...	...	...	...	1	1	...	1	3	...	...	...	6	6	6	...	...
	Dog bite	...	...	...	3	...	2	3	1	1	...	...	...	...	15	15	15	...	...
	Snake bite	...	1	...	...	2	2	1	...	...	2	...	...	...	8	8	8	...	...
V. Injuries	Wound	...	12	11	22	21	13	27	11	15	11	7	18	15	183	189	187	...	2
	Sprain	...	6	10	7	6	8	10	7	...	3	4	4	3	68	68	68	...	...
	Fracture	...	...	1	2	1	1	5	...	4	1	1	1	1	18	20	19	...	1
	Scald	...	1	...	1	2	3	3	...	...	1	...	1	4	16	16	16	...	...
	Contusion	...	5	10	17	12	18	12	12	11	11	5	9	11	140	140	140	...	...
	Dislocation of shoulder	...	...	...	2	...	...	...	...	...	...	...	...	...	2	2	2	...	...
	Total ...	78	464	448	621	543	622	522	628	544	470	801	639	639	6,779	6,857	6,772	3	82
	Monthly average ...	...	56¼	52¼	68¼	49¾	53¼	60¼	71¼	50¼	53⅔	67¼	79¾		713	...	...	...	...

Average numerical strength, Europeans and East Indians ... ... No. 588
Natives ... ... No. 6,936

General Abstract of the Annual Return of Sick.

Diseases.	Remained.	Admitted.	Total.	Cured.	Died.	Remaining.
General Diseases	45	2,496	2,541	2,481	1	59
Local do.	24	3,808	3,832	3,810	2	20
Conditions, &c.	1	48	49	49	...	...
Injuries	8	427	435	432	...	3
Total ...	78	6,779	6,857	6,772	3	82

MADRAS,
22nd February 1875.

(Signed) E. F. BROCKMAN,
Acting Consulting Physician, M. R. C.

From F. CHURCH, Esq., Chief Auditor, to R. B. ELWIN, Esq., Agent and Manager, Madras Railway Company, dated Madras, 7th April 1875, No. 1,587.

I HAVE the pleasure to submit a report on the Revenue Accounts, &c., for the half-year ending 31st December 1874.

2. Mileage open for traffic was 858 against an average of 851 in the corresponding half of 1873.

3. The traffic, however, was subjected to the following interruptions:—

On the 24th October the Cheyaur and Paupugnee bridges, and on the 25th October the Chittravutty and Pennair, and on the 26th October the Gooriattum bridges were rendered useless for the purposes of traffic. On the 5th November the last-named bridge (Gooriattum) was made available for traffic, but through communications were not resumed at the other points named until the 18th January 1875. On the 17th November traffic on the Bangalore branch, with the exception of passengers, parcels, and mails was stopped, and was not resumed until 2nd December.

4. Thus, for upwards of two months out of the six, the communications of the North-West Line were so obstructed, as to be useless, comparatively speaking, for the purposes of traffic, whilst the traffic on the South-West Line was considerably interfered with on two different occasions for 10 days and 15 days, respectively.

5. These disasters must have paralysed trade to a very considerable extent; therefore, the following figures will be regarded with considerable satisfaction, inasmuch as a much greater loss was to have been expected under the circumstances.

6. The gross revenue of the half-year was Rs. 29,48,828-14-10 against Rs. 31,18,042-3-4 in the corresponding half, showing the comparatively small loss of Rupees 1,19,213-4-6 on the half-year.

7. The expenditure was Rupees 19,77,273-2-8 as compared with Rupees 21,05,212-15-1, but it has to be borne in mind that the latter includes a sum of Rupees 2,31,772-9-5 on account of the reconstruction of the Cheyaur bridge. Making a deduction on this account from the expenditure of 1873, and deducting Rupees 52,053-9-9 from the expenditure of 1874, the figures in the two half-years compare thus:—

	Rs.	A.	P.
December 1874	19,25,219	8	11
December 1873	18,73,440	5	8

The increase in expenditure in 1874, as compared with 1873, is therefore 2·76 per cent.

8. The net revenue was Rupees 9,71,555-12-2 as compared with Rupees 10,12,829-4-3 in the corresponding half-year; it gives at 1*s.* 10*d.* exchange £89,059-5-7 sterling equivalent to a dividend at the rate of £1-15-1 per cent. per annum on the half-year. Taking the whole of 1874 together, the percentage is £1-17-8.

9. The following are the results of our traffic operations in the way of dividend continued from my last report.

	Miles open.	Capital raised at 31st December.	Net Revenue.	Equal to per cent. per annum.
	Average	£	£ s. d.	£ s. d.
1868	656	9,748,339	331,217 6 11	3 7 11
1869	690	9,763,765	286,012 19 0	2 18 6
1870	711	9,939,075	233,518 17 10	2 6 11
1871	826	10,161,854	267,608 3 0	2 12 8
	Actual			
1872	832	10,155,344	271,945 0 6	2 13 6
	Average			
1873	851	10,154,432	271,697 9 6	2 13 6
	Actual			
1874	858	10,156,730	191,305 9 5	1 17 8

10. The following table gives the results under each of the four heads into which the revenue is divided :—

	Half-year ending December 1874.	Half-year ending December 1873.	Increase.	Decrease.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Coaching traffic ...	11,99,778 11 6	12,23,473 11 1	...	23,694 15 7
Goods do. ...	16,37,262 13 8	17,77,841 12 4	...	1,40,578 14 8
Electric telegraph ...	11,668 14 7	8,740 4 8	2,928 9 11	...
Sundries	1,00,118 7 1	1,07,986 7 3	...	7,868 0 2
Total ...	29,48,828 14 10	31,18,042 3 4	2,928 9 11	1,72,141 14 5

11. The following are the items of goods traffic from which increased revenue above Rupees 5,000 has been derived. For further particulars, see Statement No. 19 :—

	Tons.	Amount.
		RS.
Cotton, D-pressed	686	10,458
Fruits and vegetables	693	6,975
Gram	2,344	8,324
Salt-fish	710	5,602
Seeds of all kinds...	4,209	19,750
Sugar of all kinds	427	5,661

12. The falling are the items in goods traffic which show a falling off in revenue above Rupees 5,000 :—

	Tons.	Amount.
		RS.
Betel-nuts	334	6,178
Cloths and piece-goods	...	12,689
Commissariat stores	446	12,236
Cotton, loose	208	7,031
Cotton, E-pressed...	...	7,385
Jaggery	568	5,731
Potatoes	706	14,161
Raggy	2,257	12,464
Rice	2,685	27,382
Skins	166	10,719
Sundries	656	34,728
Timber	2,936	20,239
Twist	61	13,904

Proceedings of the Madras Government, Public Works Department,
10th September 1875.

13. The following classification of our goods traffic was opened last half-year, and is repeated on this occasion with a comparison of the corresponding period in 1873 :—

	Half-year ending December 1874.		Half-year ending December 1873.	
	Weight.	Amount.	Weight.	Amount.
Country Trade.	MDS. S.	RS. A. P.	MDS. S.	RS. A. P.
Food grains...	2,226,983 26½	5,38,551 11 8	2,120,252 36½	5,49,497 12 0
Articles of domestic consumption ...	614,682 20½	1,79,268 14 4	601,439 32	1,96,227 6 7
Salt and saltpetre	630,257 17	1,57,451 2 6	635,770 38½	1,57,793 14 11
Firewood and fuel	153,956 21	17,116 10 0	118,482 22½	15,898 8 5
Materials used in building, construction, and manufacture	328,771 8½	86,331 12 7	407,621 38½	1,05,730 7 8
Sundries	418,777 29½	1,72,503 2 6	439,295 14½	2,10,959 0 1
Exports or Colonial produce	698,819 15½	3,02,248 15 6	665,456 31	3,16,513 7 8
Imports, cloths, piece-goods, and twist ...	142,881 4	90,924 5 9	142,836 27½	1,17,518 7 3
European stores for consumption in India ...	86,689 12½	24,562 4 6	34,062 8	24,201 4 2
Government stores	55,005 39	45,657 6 9	62,404 ½	57,826 12 3
Railway do.	44,274 29	4,914 5 0	87,893 24	7,536 10 0
Total ...	5,351,099 23½	16,19,525 11 1	5,315,016 33½	17,59,703 11 0

14. The following are the chief commodities interchanged with the Great Indian Peninsula Railway :—

	To and from Great Indian Peninsula Railway.			
	Half-year ending December 1874.		Half-year ending December 1873.	
	Weight.	Amount.	Weight.	Amount.
	Tons.	RS. A. P.	Tons.	RS. A. P.
Baggage	15	625 8 0	9	413 14 0
Chillies	104	1,263 10 0	203	2,553 4 0
Cloths and piece-goods	187	3,240 9 0	86	2,622 10 0
Cocoanuts	276	2,197 12 0	441	4,226 8 0
Commissariat stores	33	1,124 3 9	469	12,943 1 3
Cotton, E-pressed	623	3,728 1 0	65	239 9 0
Gram and pulse	6,284	47,771 3 0	2,496	13,896 12 0
Gunnies	122	1,350 3 0	40	379 14 0
Indigo	51	796 13 0	34	636 12 0
Iron of all kinds	167	1,418 1 0	189	1,078 15 6
Jaggery	184	1,406 7 0	256	2,522 1 0
Luggage	34	1,237 15 0	41	1,543 14 0
Ordnance stores	300	7,742 0 0	148	6,295 0 0
Seeds of all kinds	85	586 8 0	91	643 6 0
Skins	507	9,417 0 0	704	17,112 2 0
Sugar of all kinds	289	4,284 15 6	56	637 10 0
Sundries	61	1,567 0 3	55	2,435 6 0
Wines	18	510 13 0	12	419 15 0
Cigars	24	867 11 0	21	927 3 0
Wheat	639	7,407 15 0	1,546	21,402 14 0
Jawaree	3,760	20,947 14 0	689	4,534 12 0
Turmeric	88	687 15 0	17	161 13 0
Dye roots	105	581 8 0	68	315 7 0
Other items	814	8,229 6 0	2,040	35,122 9 9
Total ...	14,770	1,28,990 15 6	9,776	1,33,065 4 6

15. The interchange of passenger traffic is given in the accompanying table, and shows a very marked increase in numbers as well as a large increase in amount.

	To Great Indian Peninsula Railway.				From Great Indian Peninsula Railway.				To and from Great Indian Peninsula Railway.			
	Half-year ending December 1874.		Half-year ending December 1873.		Half-year ending December 1874.		Half-year ending December 1873.		Half-year ending December 1874.		Half-year ending December 1873.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
Passengers, first class...	92	2,245 6 0	139	4,001 7 0	77	1,822 9 0	141	4,211 8 0	169	4,067 15 0	280	8,212 15 0
Do. second „ ...	184	1,932 0 0	154	2,143 0 0	118	949 1 0	173	1,967 10 0	302	2,881 1 0	327	4,110 10 0
Do. third „ ...	4,881	9,091 10 0	435	1,754 5 0	303	36,319 11 0	748	3,125 12 0	7,914	15,411 5 0	1,183	4,880 1 0
Soldiers „ „ ...	3	12 0 0	1	5 3 0	102	513 12 0	...	...	105	525 12 0	1	5 3 0
Return journey, third class	676	491 12 0	...	...	676	491 12 0	...	...	1,352	983 8 0	...	...
Periodical, first class...	9½	407 12 0	15½	760 9 0	9½	407 12 0	15½	760 9 0	19	815 8 0	31	1,521 2 0
Do. second class	19	296 11 6	22	397 9 0	19	296 11 6	22	397 9 0	38	593 7 0	44	795 2 0
Total ...	5,864½	14,477 3 6	766½	9,062 1 0	4,034½	10,801 4 6	1,099½	10,463 0 0	9,899	25,278 8 0	1,866	19,525 1 0

16. *The notes against each head of expenditure in the following table shows generally in a comparative form the work done in each Department for each half-year :—*

Expenditure.

	Half-year ending December 1874.			Half-year ending December 1873.		
	Miles maintained.	Cost.	Per cent. of Revenue.	Miles maintained.	Cost.	Per cent. of Revenue.
		Rs. A. P.			Rs. A. P.	
Abstract A. Maintenance of way, works, and stations.	917	6,30,366 2 1	21·38	914	5,99,250 2 3	19·22
Abstract B. Locomotive expenses	Gross mileage of engines, 1,024,766. Hours in steam, 27,118. Number of engines under repair at any one time, 38.	6,64,178 9 7	22·52	Gross mileage of engines, 1,027,622. Hours in steam, 24,844. Number of engines under repair at any one time, 40.	6,02,419 9 11	19·32
Abstract C. Carriages and wagon expenses ...	No. of vehicles under repair at any one time, 258.	1,51,397 10 8	5·13	Number of vehicles under repair at any one time, 195.	1,12,937 7 0	3·62
Abstract D. Traffic expenses	Profitable train mileage, 957,623. Number of stations, 84.	3,03,395 5 10	10·29	Profitable train mileage, 974,845. Number of stations, 84.	2,90,893 8 2	9·33
Abstract E. General charges	Miles open, 858.	1,91,037 1 1	6·48	Miles open, average 851.	2,37,619 7 5	7·62
Abstract G. Special and Miscellaneous expenses ...	...	36,898 5 5	1·25	...	30,320 2 11	·97
Cheyaur Bridge Restoration... ...	...	...		...	2,31,772 9 5	7·44

17. The usual statistics are attached.

Proceedings of the Madras Government, Public Works Department, 10th September 1875.

No 1.—General Results.

For the Half-year ending—	Gross Earnings.	Expenditure.	Net Revenue.	Percentage.		Miles Open.	Earnings per Mile Open.	Train Mileage.	Earnings per Train Mile.	Expenses per Train Mile.
				Expenditure.	Profit.					
	RS. A. P.	RS. A. P.	RS. A. P.			Average.	RS. A. P.		RS. A. P.	RS. A. P.
December 1873 ...	31,18,042 3 4	21,05,212 15 1	10,12,829 4 3	67·52	32·48	851	3,663 15 7	974,845	3 3 2	2 2 7
June 1874 ...	29,57,671 8 8	18,42,258 8 9	11,15,412 15 11	62·29	37·71	853	3,447 2 9	967,850	3 0 11	1 14 5
December 1874 ...	29,48,828 14 10	19,77,273 2 8	9,71,555 12 2	67·05	32·95	858	3,436 13 10	957,623	3 1 3	2 1 0

No. 2.—Earnings under Coaching and Goods Traffic.

For the Half-year ending—	Coaching.		Goods.		Per-centage.	Total.
	Amount.	Per-centage.	Amount.	Per-centage.		RS. A. P.
	RS. A. P.		RS. A. P.			
December 1873	12,23,473 11 1	40·76	17,77,841 12 4	59·24		30,01,315 7 5
June 1874	12,69,704 6 1	44·54	15,81,034 12 8	55·46		28,50,739 2 9
December 1874	11,99,778 11 6	42·29	16,37,262 13 8	57·71		28,37,041 9 2

Proceedings of the Madras Government, Public Works Department,
10th September 1875.

No. 3.—Earnings per Mile Open.

For the Half-year ending—	Coaching.	Goods.
	Amount.	Amount.
	RS. A. P.	RS. A. P.
December 1873	1,437 11 0	2,089 1 11
June 1874	1,479 13 6	1,842 11 2
December 1874	1,398 5 6	1,908 3 8

No. 4.—Passenger Traffic including Excess Return Fares and Soldiers.

For the Half-year ending—	First-class.		Second-class.		Third-class.		Cooly-class.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		RS. A. P.		RS. A. P.		RS. A. P.		RS A. P.
December 1873...	5,925	64,940 2 0	22,513	57,020 7 0	1,055,124	8,68,621 14 4	263,477	1,08,073 9 0
June 1874 ...	7,981	66,727 3 0	27,974	65,015 8 0	1,056,658	8,28,838 9 11	277,777	1,13,226 15 0
December 1874...	6,876	61,183 2 0	25,079	56,534 3 0	1,078,700	8,57,373 2 7	292,029	1,18,789 11 0

No. 5.—Percentage of Numbers and Percentage of Receipts in each Class.

For the Half-year ending—	Per cent. of Numbers.				Per-cent. of Earnings.			
	First-class.	Second-class.	Third-class.	Cooly-class.	First-class.	Second-class.	Third-class.	Cooly-class.
December 1873	·44	1·67	78·01	19·88	6·00	5·11	78·77	10·12
June 1874	·59	2·04	77·05	20·32	6·37	5·88	76·74	11·01
December 1874	·50	1·81	76·94	20·75	5·66	5·10	78·09	11·15

No. 6.—Miscellaneous (Coaching.)

For the Half-year ending—	Parcels.	Passengers Luggage.	Horses, Carriages and Dogs.	Special Train.	Troop Extra Trains.
	Amount.	Amount.	Amount.	Amount.	Amount.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
December 1873 ...	41,900 2 3	20,578 5 6	34,610 5 0	4,897 8 0	21,781 6 0
Banghy Parcels ...	1,050 0 0	...	...	...	...
June 1874	49,652 1 2	26,307 1 0	46,399 7 0	2,896 10 0	69,590 15 0
Banghy Parcels ...	1,050 0 0	...	...	...	...
December 1874 ...	44,587 12 11	21,258 5 0	33,544 12 0	4,367 10 0	1,090 1 0
Banghy Parcels ...	1,050 0 0	...	...	...	...

No. 7.—Goods Traffic (Merchandize.)

For the Half-year ending—	Merchandize.	
	Weight.	Amount.
	MDS. S.	RS. A. P.
December 1873	5,315,016 33¼	17,59,703 11 0
June 1874	4,736,524 36⅓	15,57,225 15 8
December 1874	5,351,099 23⅛	16,19,525 11 1

No. 8.—*The weight carried and amount earned per mile open.*

For the Half-year ending—	Weight.		Amount.		
	MDS.	S.	RS.	A.	P.
December 1873	6,246	0	2,067	12	11
June 1874	5,520	0	1,814	15	2
December 1874	6,237	0	1,887	8	11

No. 9.—*Materials.*

For the Half-year ending—	Material.					Per-cent. of Gross Receipts.
	Weight.		Amount.			
	MDS.	S.	RS.	A.	P.	
December 1873	20,643	13	3,774	13	0	·12
June 1874	33,450	10½	9,983	13	0	·34
December 1874	27,526	1½	6,029	12	0	·20

No. 10.—*Miscellaneous* (*Goods Traffic.*)

For the Half-year ending—	Cattle.			Demurrage.		
	Amount.			Amount.		
	RS.	A.	P.	RS.	A.	P.
December 1873	11,748	10	0	2,614	10	4
June 1874	10,672	12	0	3,152	4	0
December 1874	8,009	3	0	3,412	15	0

No. 11.—*Abstract of Expenditure.*

Expenditure.	For the Half-year ending—			Per-cent. of Revenue.		
	December 1873.	June 1874.	December 1874.	December 1873.	June 1874.	December 1874.
	RS. A. P.	RS. A. P.	RS. A. P.			
To Maintenance of Way, Works, and Stations.	5,99,250 2 3	5,92,821 14 1	6,30,366 2 1	19·22	20·04	21·38
,, Locomotive Power ...	6,02,419 9 11	6,30,380 2 1	6,64,178 9 7	19·32	21·31	22·52
,, Repairs of Carriages and Wagons.	1,12,937 7 0	1,02,917 8 11	1,51,397 10 8	3·62	3·48	5·13
,, Traffic Expenses ...	2,90,893 8 2	2,88,521 10 5	3,03,395 5 10	9·33	9·76	10·29
,, General Charges ...	2,37,619 7 5	2,00,653 12 7	1,91,037 1 1	7·62	6·79	6 48
,, Special and Miscellaneous Expenses	30,320 2 11	26,063 8 8	36,898 5 5	·97	·91	1·25
,, Cheyaur Bridge Restoration.	2,31,772 9 5	...	...	7·44	...	...
Total...	21,05,212 15 1	18,42,258 8 9	19,77,293 2 8	67·52	62 29	67·05

Proceedings of the Madras Government, Public Works Department,
10th September 1875.

The statements which accompany the report are the following :—

No. 1.—General Results.
" 2.—Earnings under Coaching and Goods Traffic.
" 3.—Earnings per Mile Open.
" 4.—Passenger Traffic, including Excess Return Fares and Soldiers.
" 5.—Percentage of Numbers and Percentage of Receipts in each Class.
" 6.—Miscellaneous (Coaching.)
" 7.—Goods Traffic (Merchandize.)
" 8.—Weight carried and amount earned per mile open.
" 9.—Material Traffic.
" 10.—Miscellaneous Goods Traffic.
" 11.—Abstract of Expenditure.
" 12.—Return showing the Outwards and Inwards Traffic at each Station for the Half-year ending December 1874.
" 13.—Comparative Statement showing the Quantity and Amount of the Principal Commodities of Merchandize Traffic for the Half-years ending December 1874 and 1873.
" 14.—Statement of Quantity of Merchandize Traffic (mentioning the chief staples) forwarded from, and received at, the Principal Stations during the Half-year ending December 1874.
" 15.—Statement of Mileage of Vehicles for the Half-year ending December 1874.
" 16.—Statement showing the Number and Mileage of Engines and Trains run up and down, distinguishing between Passengers, Goods and Mixed; also between Engines and Trains run for Traffic, Locomotive and Maintenance for the Half-year ending December 1874.
" 17.—Statement showing the Number and Mileage of Passengers, Horses, Carriages and Dogs, the weight (in tons), and Ton Mileage of Merchandize and Materials, &c., &c., for the Half-year ending December 1874.
" 18.—Statement showing the Weight, Carrying Capacity, Number and Mileage of Vehicles run during the Half-year ending December 1874.
" 19.—Comparative Statement showing the Weight and Earnings of the Principal Commodities during the Half-years ending December 1874 and 1873.
" 20.—Statement showing the Locomotive Power for the Half-year ending December 1874.

(Signed) F. CHURCH,
Chief Auditor.

From W. S. BETTS, Esq., Agent of the South Indian Railway Company, to the Chairman and Directors of the South Indian Railway Company, dated Negapatam, 29th April 1875.

I HAVE the honor to submit my usual annual report upon the operations of the Company in India.

The Royal assent to the Act (37 and 38, Vict. Chapter CXII.) for the amalgamation of the Great Southern of India and Carnatic Railway Companies was accorded on the 16th of July last; but, as I had under my charge the Indian affairs of both Companies during the full period of the year under review, it will be convenient in this report to assume the amalgamation to have taken effect from the commencement of 1874.

The works along the Southern Extension, with the exception of laying rails and fixing of bridge girders, were nearly completed, and the Chief Engineer expects to have the section from Trichinopoly to Madura ready for public traffic by the 1st of July, and to finish this extension throughout by the 1st of November next. Upon the Northern Extension the work was retarded by an unfavorable season, but the Chief Engineer anticipates that the section from Madras to Chingleput will be sufficiently forward by the 1st of August next to admit of its being used for public traffic.

During the year the following quantities were executed :—

	Northern Extension.	Southern Extension.
	C. FEET.	C. FEET.
Earthwork	11,384,585	14,072,704
Bridges	521,606	202,376
Ballasting	4,985,753	191,214

The total capitalized expenditure amounted to Rupees 28,31,820-5-9 ; the principal portion of which was incurred on account of the construction of the line (earthwork, bridgework, &c.,) and for ballasting and permanent way.

The section of line between Chingleput and Conjeveram has not yet been commenced. In February I submitted to Government a survey and estimate for this work, and in May the detailed land plans and schedules were rendered. The Government of India in August recommended the Secretary of State for India to sanction the construction of the line, but further information has been since called for regarding its traffic prospects, and also regarding the cost of converting the gauge (3 feet 6 inches) of the section between Conjeveram to Arconum to the metre standard.

In order to secure economy in working, the Government of India decided in favor of the early conversion to the metre gauge of the entire open line, Negapatam to Erode, and estimates for this work were prepared and submitted in November last. Sanction has since been obtained to a portion only (Negapatam to Trichinopoly) of this conversion being at first effected, and the preliminary arrangements for carrying out this work are now in hand. The Government of Madras desire to reconsider the point at which the break of gauge shall take place, and this question will be reopened and determined on its own merits.

Forty-seven consignments of material, inclusive of rolling-stock and general stores, were received at the ports of Madras, Cuddalore, Negapatam and Tuticorin, representing a tonnage of 89,266. The operation of landing and afterwards distributing the material up-country was safely accomplished.

The changes in our list of officers during the year were not numerous. They include the addition of Assistant Engineers Messrs. G. Anderson, A. Beeston, C. J. Bond, A. Ellis, and C. H. Nias, and the retirement from the service of Assistant Engineers A. H. Irvine, G. E. Wellesley, and J. S. Whitlock. In the Locomotive Department Mr. J. M. Budge was appointed as an Assistant Superintendent. I regret to record a death that of Mr. Fisher, the late Agent of the Carnatic Railway Company. He had to leave India in consequence of severe sickness and died in the Red Sea the day before the steamer reached Suez.

The receipts on Revenue account amounted to Rupees 9,69,746-10-7, and the expenditure to Rupees 5,89,678-8-8 ; the net earnings were, therefore, Rupees 3,80,068-1-11, and the percentage of working expenses 60·8.

These results, in comparison with the working of the line during the previous year, show a falling off in receipts of Rupees 1,83,465, or of about 16 per cent. ; and an increased expenditure of Rupees 13,217, or of about 2¼ per cent.

The decrease under the heading of Gross Earnings is accounted for by the inclusion in the accounts of 1873 of the receipts derived from the carriage of material transferred to the Nizam's State Railway, an exceptional item of traffic which realized nearly two lakhs of Rupees. The passenger traffic produced Rupees 35,321 less ; this reduction is entirely due to the holding in 1873 of the Maha Magum feast (a festival which occurs but once in twelve years), and to that year's accounts containing the traffic arising from two feasts held at Seringham, whereas but one Seringham feast fell within the year under review.

Excluding feast receipts, the ordinary passenger traffic shows an increase in numbers of 66,706, and in money of Rupees 6,621. The total number of passengers carried was 1,515,633. The third-class passenger fare of Pies 2 per mile continues in force. The Consulting Engineer for Railways, when reporting to the Government of Madras on this subject, remarked, "as to the effect of the change in the fare upon the numbers carried, there can be no doubt ; but, after full consideration, I am bound to state my opinion that the increase has not proved financially

Proceedings of the Madras Government, Public Works Department,
10th September 1875.

successful, as the small increase in receipts does not cover the additional working expenses." The expediency of revising the existing scale of passenger fares still remains under consideration.

An increase of Rupees 15,307, or of about 5 per cent., was derived from the carriage of merchandize. The following figures give the freight value of the principal commodities carried during the last six years :—

Description.	1869.	1870.	1871.	1872.	1873.	1874.
	RS.	RS.	RS.	RS.	RS.	RS.
Grain	67,298	1,10,713	79,076	71,893	87,577	93,927
Salt	35,082	36,843	49,514	65,978	54,959	60,786
Fruit and Vegetables	5,382	11,944	12,130	22,982	14,576	17,129
Stones and Laterite	21,514	20,281	32,677	22,184	7,892	14,978
Seeds	14,066	24,973	25,036	28,260	19,748	29,555
Areca Nuts	18,238	12,970	8,513	10,925	9,693	6,482
Cloth	10,751	14,942	10,366	11,282	11,466	10,679
Curry Stuffs	5,007	10,610	10,139	15,466	2,017	22,534
Oil Cake	4,923	9,295	13,707	12,374	7,854	9,434
Oil and Ghee	4,016	13,214	12,095	11,197	7,158	6,736

The increased working expenses were principally in the Locomotive and Traffic Departments. The erection of the metre gauge rolling-stock and the approaching extension of the Locomotive Department called for an addition to the supervising staff, and an Assistant Locomotive Superintendent was appointed. Upwards of Rupees 10,000 additional expenditure had to be incurred for repairs to carriages and wagons. The high prices at which fuel ranged caused an extra outlay of Rupees 4,443 on that account, notwithstanding the train mileage was reduced by upwards of 8,300 miles.

In the Traffic Department the chief item of increased expenditure was for the use of Madras Railway rolling-stock, the debit for which amounted to Rupees 15,029 against Rupees 10,894 in the previous year.

A reduced charge of Rupees 9,172 appears under the heading of General Charges for the cost of direction in England and of management in this country ; this is a debit which varies according to the annual cash expenditure, as distinguished from the value of stores issued upon the Revenue account.

A saving of Rupees 5,000 for special and miscellaneous expenditure is occasioned by the closing of the Fire Insurance Fund.

Nos. 243 & 244. ORDER THEREON, 10th September 1875, No. 2,605.

RAILWAY, No. 27-A.

ORDERED that these reports be forwarded for the information of the Government of India.

2. It is observed from paragraph 6 of the report of the Agent and Manager of the Madras Railway that during the year under review special rates were in operation for the conveyance of redwood, and carriages, confined apparently to one individual and a firm. This statement is not in consonance with paragraph 18 of the report of the Railway Commission, from which it would appear that special rates on the Madras Railway are never restrictive in their character but are available to the public generally.

3. With reference to the section of the Chief Engineer's report dealing with the question of repair of damages to bridges by the floods of October 1874, it is remarked that plans and estimates, based on the suggestions of the Company's Consulting Engi-

Proceedings of the Madras Government, Public Works Department,
10th September 1875.

ncer at home, have since been prepared, and that the measures to be finally taken for future security have been remitted for the consideration of the Government of India.

4. The attention of the Board of Revenue will be drawn to the falling off in the salt traffic between Madras and the North-West Line of the Madras Railway, the decrease having been upwards of 700 tons, *vide* paragraph 32 of the Traffic Manager's report.

5. The Honorable the Governor in Council notices with satisfaction from the report of the Chief Auditor of the Madras Railway that, notwithstanding the serious nature of the interruptions caused by the floods of October 1874, the loss of traffic to the Company has been comparatively small.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

To the Consulting Engineer for Railways.
„ Revenue Department.
„ Board of Revenue.

PUBLIC WORKS DEPARTMENT,
OOTACAMUND, 10*th September* 1875.

No. 245.

No. 2,606.

FROM

MAJOR-GENERAL G. W. WALKER, R.E.,
Secretary to the Government of Madras,
Public Works Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
Public Works Department.

RAILWAY, No. 27-B.

SIR,—I am directed by the Honorable the Governor in Council to transmit the accompanying reports of the officers of the Madras and South Indian Railways on the operations of those Companies for the year 1874-75.

I have the honor to be,
Sir,
Your most obedient servant,

Major-General, R.E.,
Secretary to Government.

Exd. E. C. Shunker.
6 Spare Copies will follow mtk
30 sc of premises Gp

Railway Department.

CONSULTING ENGINEER'S OFFICE.

No 471 Madras 26 August 1875

From

LIEUT.-COLONEL J H. M. SHAW STEWART, R.E.,

Consulting Engineer for Railways,

To

Major General

~~COLONEL~~ G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

I. O. No 2530 4/7 Sept/74.

Referring to this office letter No 384 dated 2d July 1874, I have the honour to forward herewith for the information of Government the accompanying reports by the Agents of the Madras and South Indian Railway Companies on the working of their respective lines during the official year 1874-75.

x Endorsed No 559 d/27 May 75

– d/29 Apl 6/75 Letter to Board of Directors

I have the honour to be Sir Your Most obedt Servt Lawrence R.E; Captain for Consg Engr for Railways

R. A. Bruce

Sec: Sel. Vol. 1316/133.
Madras - - 526-527.

P. W. 1875 Sept.

RAILWAY DEPARTMENT.

No: 5521

From
The Consulting Engineer,
for Railways,

To
The Secretary to Government,
P. W. Department,
Fort Saint George.

Dated 26th August 1875.
Recd. 29th

E. 13. No. 474

Submitting Reports upon the Working of the Madras and South Indian Railway Companies for the Official year 1874-75.

S.O. 2605. 10-9-75.

187

No 3

Cir. 3-9-75 Rlt. 10-9-75
Reply sent 28-8-75

rates were in operation for the conveyance of Red Wood, and carriages, confined apparently to one individual and a firm. This statement is not in consonance with in para 18 of the report of the Railway Commission; from which it would appear that special rates in the Madras Railway are never restrictive in their character but are available to the public generally.

With reference to the section of the Chief Engineer's

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Engineer's report dealing with the question of repair of damages to bridges by the floods of October 1874, it is remarked that plans and Estimates, based on the suggestions of the Company's Consulting Engineer at home have since been prepared, and that the measures to be finally taken for future security have been remitted for the consideration of the Govt. of India.

The Hon'ble the Governor in Council notices with satisfaction from the report of the Chief Auditor of the Madras Ry. that notwithstanding the serious nature of the interruptions caused by the floods of October 1874, the loss of traffic to the Company has been comparatively small.

31 Sg 8 Order

^ The attention of the Board of Revenue will be drawn to the falling off in the salt traffic between Madras and the N.W. Line of the Madras Railway the decrease having been upwards of 700 tons - vide para 32 of the Traffic Manager's report -

SC Disp 2. 1-10-75 6 mos Conf for Bonds

12 +2 13

No. 2606 - 10 Sept/75.

To The Secy. to the Govt. of India
Public Works Dept.

Sir,

I am directed by the Hon'ble the Governor in Council to transmit the accompanying reports of the Officers of the Madras and South Indian Railways on the operations of those Companies for the year 1874-75.

Lt. W.

No 242/45

SC V 30 Sc of the previous No. disp 1st 10 - 75

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13
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83

Transmitting Abstract of the Officers of the 4 S. I. Rys: on the Cos: of those Cos: for the year 1874-75.

Enclosures

Abstract of the Officers of the Madras & S.I. Rys: on the operations of those Cos: for the year 1874-75.—Papers on letter from Consulting Engr: for India submitting ——.

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