

- (1) Number of pages _____
(2) Date of repair _____
(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	1864-65	Press
B.P. No.		Mis.
374 to 376		
Dated	22. 7.	1873.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

No. 374. Read the following letter from Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 27th June 1873, No. 346 :—

In forwarding the Administration Report for the official year 1872-73 upon the Railways in this Presidency, I have the honour to state that a copy has, as usual, been sent to the Chief Secretary to Government.

MADRAS RAILWAY.

OPEN MILEAGE.—The number of miles open for traffic is 836, the increase of four miles being due to the opening of a portion of the Neilgherry branch between Pothanore and Coimbatore on 1st February 1873. The maintenance of the whole of the North-West Line came on the Revenue Account on the 15th March, two years having then elapsed since the last portion of the line was opened to traffic.

2. THROUGH COMMUNICATION WITH BOMBAY.—Through communication with Bombay was maintained up to 1st June 1872, on which date a revised time-table was adopted, and continued in operation during the time the Kistna river was in flood. The same arrangements were made as in last year, the traffic being worked by the Madras Railway Company as far as Chicksagoor, thence by cart to the river, and across by ferry. The temporary roadway across the bed of the river was restored early in January 1873, and the Great Indian Peninsula Railway Company worked goods into Raichore from the 9th, and passengers from the 13th of that month. Great difficulty has been experienced in sinking some of the cylinders for the Kistna bridge on the Great Indian Peninsula Railway, and as work cannot be carried on when there is water in the river, it is not likely that this link in the communication will be completed before the 31st March 1874.

3. INTERRUPTION TO TRAFFIC ON THE OPEN LINE.—On the Bellary branch the temporary roadway over the Huggry river was washed away, and restored on several occasions, between the 4th May 1872 and 25th December 1872, but from the latter date up to the 31st March 1873 through communication was successfully maintained. The total number of days during which traffic was interrupted was 132.

4. ACCIDENT AT 61ST MILE, SOUTH-WEST LINE.—On the South-West Line, on the night of the 22nd November 1872, a portion of embankment at the 61st mile, between Sholinghur and Arcot, was washed away by the bursting of the Talunga tank, when a goods train ran into the gap. No loss of life occurred, the Company's servants escaping in a most fortunate way. A diversion was commenced on the following morning, and through communication restored on the afternoon of the 24th. Owing to the exceptionally heavy floods at this time, it was deemed prudent to suspend night traffic from the 22nd November to the 6th December. Several minor bridges were a good deal shaken, but owing to their having been provided with floors, none were carried away.

5. BALLAPULLY GHAUT ACCIDENT.—On the evening of the 23rd September 1872, the mail train from Madras to Bombay being unable to ascend the Ballapully Ghaut, a gradient of one in sixty, owing to the heavy weather, the driver determined to divide the train. Five wagons and a horse-box were taken to the top of

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

the ghaut, where there is a siding into which they should have been put. There was, however, some mistake about the signal given by the driver to the pointsman, and the wagons were placed upon the main line. The engine was then detached in order to run round them, and bring up the detached vehicles; but the brakes of the wagons had not been pinned down, and before the engine could get round them, they were driven by the force of the wind down the incline and came into collision with the other part of the train, which consisted chiefly of passenger vehicles. Nine passengers were injured, one of whom, a native of Bombay, afterwards died. A sum of Rupees 5,000 has been paid to his relatives as compensation.

6. **CONDITION OF LINE.**—With the exceptions above-mentioned, the line has been maintained in good working order. The stations and out-offices have been kept clean and in good condition.

7. **MEAN MILEAGE.**—The mean mileage worked over during the official year 1872-73 has been the same as in the previous year, viz., 832 miles.

8. **TRAIN SERVICE.**—The week-day train service has been equivalent to the following trains daily in each direction.

On the South-West Line.

One train between Madras and Vellore.
One do. do. and Jollarpett.
One do. do. and Coimbatore.
Two do. do. and Beypore.

On the Bangalore Branch.

Three trains between Jollarpett and Bangalore.

On the North-West Line.

One train between Madras and Raichore (Bombay Mail).
One do. Arcanum and Tiruputty.
One do. do. and Bellary.

On the North-West line the Sunday service has been the same as on week days; but on the South-West Line there have been on Sundays only one train in each direction between Madras and Coimbatore, and one between Madras and Beypore, and on the Bangalore branch two trains. Extra trains, averaging nine per day between various stations and specials, have been run according to requirements.

9. **RATES AND FARES.**—The rates in force throughout the year for the conveyance of passengers and goods have been as follow :—

Passengers.				Pies per mile.	
				Day.	Night.
First Class	...	...	...	18	22
Second "	...	...	...	5	12
Third "	...	...	...	4	0
Cooly "	...	...	...	3	4
	...	...	...	2	0

(extended to Coimbatore, 1st August 1872.)

Goods.				Pies per ton per mile.	
Special Class	...	...	...	8	
First "	...	...	...	12	
Second "	...	...	...	14	
Third "	...	...	...	18	
Fourth "	...	...	...	24	
Fifth "	...	...	...	36	

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

Reduced rates for passengers have been introduced on the occasion of festivals and holidays, and numerous special goods rates have been in force in favour of particular individuals or particular localities, in order to secure traffic which would not otherwise have been obtained.

10. **TRAFFIC AND EARNINGS.**—The number of passengers and tons of goods carried, as well as the receipts from the several descriptions of traffic, are shown in the following table for the years 1872-73 and 1871-72, in comparison :—

Madras Railway.

	1872-73.						1871-72.	
	No.			Receipts.			No.	Receipts.
	No.	No. per mile.	Per-centage of total number.	Receipts.	Receipts per mile.	Per-centage of total receipts.		
COACHING.				Rs.				Rs.
First Class	9,649	11.60	0.37	1,81,103	161.18	6.19	10,519	1,39,693
Second "	103,212	130.06	4.17	1,53,350	183.11	7.03	119,995	1,89,931
Third "	2,087,175	2,598.98	80.81	17,22,898	2,070.80	79.54	1,954,612	15,89,470
Fourth or Cooly Class	392,923	472.27	15.12	1,56,725	183.37	7.24	269,540	1,06,337
Total...	2,593,259	3,122.91	100.00	21,66,076	2,603.46	100.00	2,354,696	20,16,436
Miscellaneous				8,03,798	372.35			2,53,421
Total...				24,73,874	2,975.81			22,71,857
Goods.				Tons.			Tons.	
Merchandise	384,730	458.81	98.89	38,02,286	4,570.06	99.06	335,036	37,89,996
Live Stock				17,919	21.57	0.47	1,170	17,404
Railway materials	4,274	5.14	1.11	13,210	21.92	0.47	3,884	52,640
Total...	386,004	463.95	100.00	38,33,475	4,613.55	100.00	340,090	38,60,040
Miscellaneous				8,153	9.80			11,057
Total...				38,46,628	4,623.35			38,71,097
Electric Telegraph.				21,317	25.66			19,059
Sundry Sources				1,98,959	239.12			2,07,605
Grand Total...				65,42,799	7,863.94			61,69,618

The receipts from all sources exceed those of 1871-72 by Rupees 448 per mile, and those of 1870-71 by Rupees 721 per mile.

11. **PASSENGER TRAFFIC.**—Comparing the figures for the year under review with those for the year 1871-72, it will be seen that there is a slight decrease in first and second class passengers, but a considerable increase in the third and cooly classes, both in numbers carried and in receipts. The total receipts from passengers per mile are greater by Rupees 182 than in last year, which seems to show that traffic is being developed over the lately opened portions of the line. On the 1st August 1872 the cooly class traffic was extended from Jollarpett to Coimbatore, and the result has been satisfactory. Third-class carriages were added to all night trains after the 1st July 1872.

12. **GOODS TRAFFIC.**—The goods traffic receipts show an increase of Rs. 201 per mile over the corresponding receipts for 1871-72, which must be considered

Proceedings of the Madras Government, Public Works Department,
22nd July 1873.

satisfactory. The following is a comparative statement of the receipts from the chief commodities carried:—

Staples.	Receipts in 1871-72.	Receipts in 1872-73.	Increase.	Decrease.
	RS.	RS.	RS.	RS.
Betel ...	60,316	73,223	6,877	
Cloth and Piece Goods ...	1,09,991	1,13,472	3,478	
Coffee ...	1,00,019	69,041		30,978
Commissariat ...	13,200	58,592	45,392	
Cotton ...	5,77,066	3,51,903		2,25,163
Firewood ...	39,942	47,300	7,358	
Grain ...	68,319	72,731	4,385	
Gram ...	1,31,015	1,42,718	8,703	
Gunnies ...	41,479	43,755	276	
Iron of all kinds ...	89,190	70,331		18,859
Jaggery ...	77,836	77,949	113	
Oil of all kinds ...	67,602	65,540		2,062
Potatoes ...	41,051	47,075	3,024	
Raggy ...	42,522	60,989	18,467	
Rice ...	5,88,831	6,51,505	65,671	
Salt ...	3,11,477	3,09,063		2,414
Seeds of all kinds ...	1,02,741	1,49,341	46,600	
Skins ...	78,192	1,22,665	44,473	
Sundries ...	4,61,015	6,83,597	2,22,582	
Tamarind ...	32,899	41,271	8,372	
Timber ...	57,101	77,894	20,793	
Tobacco ...	28,536	30,352	1,816	
Twist ...	74,850	80,803	5,953	
Wines and Spirituous liquors ...	48,452	24,778		23,674
Total...	32,59,711	34,70,894	5,14,333	3,03,150

It will be seen that the chief increases have been in Commissariat stores, rice, seeds, skins, and sundries, while there has been a large falling off in cotton. The increase in sundries is due to the carriage of permanent-way materials which were purchased from the Great Southern of India Railway Company by the Government of India for use on the Nizam's State Railway, the receipts under this head being Rupees 2,28,307.

13. COTTON TRAFFIC.—The cotton traffic has not fulfilled last year's anticipations, there being a decrease both in tonnage and receipts. The following figures show the number of tons carried, of loose and pressed cotton, and the total receipts during the last five years:—

Official years.	Loose Cotton.	Pressed Cotton.	Total.	Proportion of pressed Cotton to total.	Receipts.
	Tons.	Tons.	Tons.		RS.
1868-69 ...	21,970	1,142	23,112	4.9	7,83,758
1869-70 ...	16,287	1,712	17,999	9.5	6,57,783
1870-71 ...	3,632	4,510	8,142	55.4	2,18,073
1871-72 ...	6,665	12,682	18,347	69.1	5,77,066
1872-73 ...	4,710	12,232	16,942	72.2	3,51,903

The decrease in the tonnage of cotton has perhaps been partly due to the comparative smallness of the crops; but the quantity carried by rail has also without doubt been materially affected by the successful competition which, from some cause or other, the bullock carts on the road have of late been able to maintain. The decrease in tonnage has, of course, affected the receipts to a certain extent, but

Proceedings of the Madras Government, Public Works Department,
22nd July 1873.

the greater part of the falling off in the latter is due to the fact that the bulk of the cotton is now more densely pressed than formerly in order that advantage may be taken of the differential rates in force. This will be evident from the following figures which show the per-centage which the amount of pressed cotton carried at each of the differential rates bears to the total amount of pressed cotton carried during the last six months of the year, as compared with the figures for the same period in the year 1871-72:—

Description of Cotton.	Pies per ton per mile.	1871-72.	1872-73.
A pressed to 10 lbs. per cubic foot ...	24	29.7	0.5
B " " " " " " " " " "	19	24.5	13.3
C " " " " " " " " " "	16	0.3	1.1
D " " " " " " " " " "	14	27.0	34.2
E " " " " " " " " " "	12	18.5	50.9
Total...	...	100.0	100.0

On the 7th June, 1872, the following reductions were made in the rates for carriage of cotton loose pressed:—

Loose cotton from 42 to 36 pies per ton per mile.

A pressed	28 to 24	"	"
B " "	22 to 19	"	"
C " "	19 to 16	"	"
D " "	16 to 14	"	"
E " "	14 to 12	"	"

and on the 16th August, 1872, further reductions were made in the rates for D and E classes from Raichore, Adoni, and Bellary to Madras, in order to ~~diminish~~ *induce full pressing at those stations.*

In the year under review a larger proportion of cotton than in the previous year was carried to Raichore (on its way to Bombay) instead of being brought to Madras, the receipts of the Company being decreased owing to the diminished mileage over which it was conveyed.

14. WORKING EXPENSES AND PROFITS.—The following figures show the working expenses in the several departments and the profits for the year under review:—

Madras Railway.

Department.	1872-73.			
	Amount.	Amount per mile open to traffic.	Per-centage of total expenses.	Per-centage of gross earnings.
	RS.	RS.		
Maintenance of way, etc. ...	10,45,899	1,423	31.514	15.985
Locomotive Expenses ...	11,11,384	1,336	33.487	16.984
Carriage and Wagon expenses ...	2,16,614	260	6.526	3.311
Traffic expenses ...	5,28,182	635	15.915	8.073
General charges expenses ...	3,31,620	399	9.992	5.063
Special and Miscellaneous expenses ...	85,170	102	2.568	1.302
Total...	33,18,869	3,989	100.00	50.725
Profits...	32,23,930	3,875	...	49.275
Gross Earnings...	65,42,799	7,864	...	100.00

* Including Rupees 1,27,021 expenditure in connection with Choyan bridge.
† Per mile maintained out of Revenue, 735 miles.

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

15. The corresponding figures for 1871-72 were as follow:—

Department.	Total expenses.	Expenses per mile open to traffic.	Per-centage of total expenses.	Per-centage of gross earnings.
Maintenance of way, etc.	Rs. 9,76,039	Rs. 11,400	31.62	15.82
Locomotive	11,57,233	1,591	37.49	18.76
Carriage and Wagon	1,75,176	219	5.68	2.81
Traffic	4,91,889	591	15.94	7.97
General Charges	1,97,614	238	6.40	3.20
Special and Miscellaneous	88,454	107	2.87	1.41
Total	30,86,435	3,709	100.00	50.03
Balance being profits	30,83,183	3,706	...	49.97
Gross Earnings	61,69,618	7,415	...	100.00

16. COMPARISON OF WORKING EXPENSES.—Comparing the figures for 1872-73 with those for the previous year, it will be seen that there is a considerable increase in the working expenses of all departments except the Locomotive. The increased expenditure under the head "Maintenance of way, etc.," is owing to thirty-eight miles more of the line having been maintained out of Revenue funds, and to the inclusion of Rupees 1,27,924 on account of the new Cheyaur bridge, the allocation of which has not yet been determined. The excess in the Traffic Department is due to a larger establishment being required for the increased traffic, and to the appointment, in May and June last, of three Assistant Traffic Managers. In "General charges" the great increase is due to a much larger proportion of these charges falling on Revenue, owing to the decrease in Capital expenditure. Between 80 and 90 per cent. of these charges are now debited to the Revenue Account. There were also some additions to the establishments and increases to salaries, aggregating about Rupees 10,000 annually.

17. DIVIDEND.—The total expenditure on Capital account up to 31st March 1873 has been Rupees 10,91,09,477. The profits for the year, Rupees 32,23,930, are, therefore, equivalent to a dividend at the rate of £2-19-1 per cent. per annum.

PROGRESS OF WORKS.

18. NEW CHEYAU BRIDGE.—The temporary restoration of the Cheyaur bridge has stood well, and there has been no interruption to traffic over it during the year. The new bridge is making good progress. Up to 31st March 1873 about 75 per cent. of the masonry work had been completed, and the sinking of the cylinders has since then been put in hand.

19. HUGGRY BRIDGE.—No work has been done on the Huggrly bridge during the past year, owing to the non-receipt of the cylinders from England. About 10 per cent. of the whole work may be said to have been executed. The cylinders are expected soon, and it is hoped that good progress will be made during 1873-74.

20. MADRAS CENTRAL STATION.—The line between the Salt Cotaurs and the new Central Station having been doubled, the latter was opened for traffic on the

* Including Rupees 1,13,363 expenditure in connection with Cheyaur bridge.
† Per mile maintained out of Revenue, 697 miles.

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

7th April 1873. On the same date the Royapoorum and Perambore Stations were closed, but on a petition being presented to His Excellency the Governor by the residents of Perambore, setting forth the great inconvenience to which they were put, this station has since been re-opened.

21. PROTECTIVE WORKS.—In February 1871, consequent on the failure of the Cheyaur bridge, a Committee was appointed by Government to examine the foundations of all the large bridges on the line, and the result of their labours, which have just been concluded, is the recommendation that floorings, with up and down-stream curtain walls, be added to the bridges over the Palar, Poiney, Gooriattum, and Naggery rivers, and to some other smaller works. The sanction of Government has been obtained to the estimates, amounting to about seven lacs of rupees, and a large capital expenditure may be expected under this head during the current year.

22. NEILGHERRY BRANCH.—The whole of the works on the Neilgherry Branch were completed on 31st March 1873, with the exception of three large bridges, aggregating ten spans of 64 feet, and some minor bridges, the girders for all of which were over-carried to Calcutta in November 1872, and have not yet been returned. They are now reported to be on the way to Madras, so that it is hoped that this branch will be opened for traffic in September next. As stated at the commencement of this Report, four miles of line from Pothanore to the town of Coimbatore were opened on the 1st February 1873.

GREAT SOUTHERN OF INDIA RAILWAY.

23. OPEN MILEAGE.—The number (163) of miles open for traffic upon this line is the same as at the close of the last official year.

24. TRAIN SERVICE.—The train service has been equivalent on week days to two trains daily in each direction between Negapatam and Erode, and to one train in each direction on Sundays. Extra and special trains have been run according to requirements.

25. CONDITION OF LINE.—The line has been maintained in good working order throughout.

26. RATES AND FARES.—The rates charged for passengers and goods have been as follow:—

						PIES PER MILE.	
						Up to 30th June.	From 1st July
Passengers.							
First Class	...	...	...	...	...	18	12
Second	...	...	...	...	...	5	5
Third	...	...	...	...	...	3	2
Goods.						Per ton per mile.	
Special Class	...	...	...	...	...	8	
First	...	...	...	...	...	12	
Second	...	...	...	...	...	14	
Third	...	...	...	...	...	18	
Fourth	...	...	...	...	...	24	
Fifth	...	...	...	...	...	36	

3213

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

On the 1st November a new arrangement for the charging of goods was brought into force, by which nearly all goods which had been previously rated as second, third, fourth and fifth classes were reduced to the first class, and charged at the rate of one anna per ton per mile. This simplifies transactions with native merchants, and the change appears to be working satisfactorily as regards receipts.

27. **TRAFFIC EARNINGS.**—The amount of the traffic and the receipts realized therefrom are shown in the following table for the years 1872-73 and 1871-72, in comparison:—

Great Southern of India Railway.

	1872-73.						1871-72.	
	No.			Receipts.			No.	Receipts.
	No.	No. per mile.	Per cent- age of total number.	Receipts.	Receipts per mile.	Per cent- age of total receipts.		
COACHING.				Rs.	Rs.	Rs.		Rs.
Passengers.								
First Class ...	1,999	11.89	0.17	7,704	44.69	1.69	1,965	9,320
Second „ ...	9,516	56.61	0.81	10,732	63.88	2.26	12,260	12,417
Third „ ...	1,161,235	6,929.96	99.02	4,55,463	2,711.08	96.05	815,197	4,12,154
Total ...	1,175,750	6,998.49	100.00	4,73,703	2,819.63	100.00	829,412	4,33,891
Miscellaneous	...	...	...	29,143	173.48	...	...	10,016
Total ...	...	...	...	5,02,846	2,993.11	...	...	4,43,907
Goods.								
Merchandise ...	Tons. 87,790	522.53	90.41	8,33,765	1,086.70	80.08	Tons. 74,659	3,23,829
Live Stock ...	...	...	...	872	2.22	...	...	354
Railway materials ...	9,278	55.72	9.56	78,072	401.72	19.93	448	3,285
Total ...	97,068	577.77	100.00	4,12,709	2,483.61	100.00	75,107	3,26,464
Miscellaneous	...	...	...	605	3.60	...	...	850
Total ...	...	...	...	4,13,314	2,487.21	...	...	3,27,318
Electric Telegraph	...	...	...	5,585	33.25	...	...	4,805
Sundries ...	...	...	...	12,216	72.89	...	...	10,915
Grand Total ...	...	...	...	9,33,493	5,556.49	...	...	7,95,945

23. **COMPARISON OF TRAFFIC.**—The figures for the year under review compare favourably with those for 1871-72, the receipts from all sources showing an increase of Rupees 819 per mile.

PASSENGER TRAFFIC.—The number of passengers carried is greater by 3,46,328 (nearly 30 per cent.), and the receipts are larger by Rupees 39,812, (nearly 8 per cent.)

29. **COMBACONUM FESTIVAL.**—The whole of the latter increase is more than accounted for by the Combaconum festival, which is held only once in twelve years, and occurred in February 1873. The receipts from the sale of cheap return tickets were Rupees 28,158, but owing to the reduced fares introduced on the 1st July 1872, a great number of ordinary third-class tickets were also sold, so that the total estimated receipts on account of this festival were about Rupees 45,000. The Srirangum festival was not so well attended this year, the falling off in receipts from cheap return tickets being Rupees 7,000; as a set off against this, however, there was an increase of Rupees 3,000 in the receipts from ordinary tickets sold

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

during the same time. The result of the reduced fares appears to have been that a greater number of passengers were carried with slightly decreased receipts. A special report upon this subject will be submitted after 30th June 1873, when the reduced fares will have been in operation for twelve months.

30. **GOODS TRAFFIC.**—In the goods traffic there is an increase both in tonnage and receipts, and the latter are much augmented by the carriage of the permanent-way materials, which were sold to the Government of India for the Nizam's State Railway, upwards of Rupees 70,000 being entered on this account under the head "Railway materials." The principal fluctuations have been in the receipts on account of grain, salt, stone, and laterite, and curry-stuffs.

GRAIN.—There is a decrease of Rupees 13,000 in the receipts from grain, owing to the absence of activity in the markets, the ruling prices having been less than in the previous year.

SALT.—The receipts from salt have diminished by Rupees 7,600, which is due to the supply at Negapatam having on two occasions run short, traders being unable to obtain any stock from the Government Depot there.

STONE AND LATERITE.—The decrease of Rupees 27,000 in stone and laterite is chiefly due to the stoppage of the laterite trains during the last three months of the year, when from the pressure in the traffic by the conveyance of the permanent-way materials for the Nizam's Government it was found impossible to run them.

CURRY-STUFF.—There is an increase of Rupees 11,250 in the receipts from curry-stuffs.

31. **WORKING EXPENSES AND PROFITS.**—The working expenses in the several departments, and the net profits for the two years 1872-73 and 1871-72, are shown in comparison in the following table:—

Department.	1872-73.				1871-72.
	Amount.	Amount per mile.	Per-centage of total expenses.	Per-centage of gross earnings.	Amount.
	RS.				RS.
Maintenance of way, etc. ...	1,12,700	670.84	24.42	12.07	1,07,787
Locomotive expenses ...	1,76,370	1,049.82	38.21	18.94	1,70,045
Carriage and Wagon expenses ...	40,978	243.92	8.88	4.38	37,112
Traffic Expenses ...	61,128	387.66	14.11	6.96	64,322
General Charges expenses ...	50,876	299.85	10.92	5.38	60,230
Special and Miscellaneous ...	15,980	95.12	3.46	1.71	15,270
Total ...	4,61,532	2,747.21	100.00	49.44	4,54,766
Profits ...	4,71,961	2,869.28		50.56	3,41,179
Gross earnings ...	9,33,493	5,556.49		100.00	7,95,945

32. **COMPARISON OF WORKING EXPENSES.**—The amounts expended in the several departments differ but little from the corresponding figures of the previous year. The small increase under the head "Maintenance of way, etc.," is due to the whole of the Resident Engineer's salary and his office expenses having become

Proceedings of the Madras Government, Public Works Department,
22nd July 1873.

debitable to Revenue, there being no construction work in hand on the open line. In like manner the whole of the Locomotive Superintendence staff was charged to Revenue, and this accounts for the increase in the Locomotive and Carriage and Wagon Departments. The decrease under the head "General Charges" is owing to the division of these charges on a plan different from that hitherto carried out. The apportionment between Capital and Revenue has not yet been finally determined, the question being now under reference to the Government of India.

33. **DIVIDEND.**—The total capital expenditure up to 31st March 1873 was Rupees 166,62,310, and the net profits Rupees 4,71,961, being at the rate of £2-16-8 per cent. per annum. If the value (Rupees 23,61,591) of permanent-way materials sold to the Nizam's Government, and which amount was only credited to Capital on the 23rd March, be taken into account, the dividend will be at the rate of £2-9-7½ per cent.

34. **SOUTHERN EXTENSION.**—In April 1872 sanction was accorded to an estimate, amounting to Rupees 96,12,000, for constructing a line 215½ miles in length on the metre gauge from Trichinopoly, via Dindigul and Madura, to Tinnevely and Tuticorin. Work was at once commenced, and has been pushed on with vigour; but owing to the exceptionally heavy rains in the end of November 1872 and again in February 1873, the progress of the work has been somewhat retarded. Notwithstanding this, however, up to the 31st March 1873, 49 per cent. of the earthwork had been done, 81 minor bridges had been completed out of 503 (the remainder with the large bridges being in progress), and five miles of fencing had been fixed. The temporary telegraph, which is being erected for the Company's use during construction, had been completed, and is now open for the transmission of public messages.

35. **REVISED ESTIMATE FOR SOUTHERN EXTENSION.**—Owing to the great rise in the price of iron in England during the last eighteen months, it has been necessary to frame revised estimates at the current prices of the day, the result being that the cost of the line will be increased to Rupees 106,64,022, or at the rate of Rupees 49,600 per mile.

36. **AMALGAMATION WITH THE CARNATIC RAILWAY.**—It is understood that an amalgamation has been arranged in England between this Company and the Carnatic Railway Company (Limited). This latter Company was formed in the year 1870, when it took over the Indian Tramway Company's line between Arconum and Conjeveram; and a concession for the construction of a line between Madras and Cuddalore on the metre gauge has since been granted to it. The terms of the amalgamation, as well as a draft of the bill to be submitted to Parliament for legalizing the same, were to be discussed at the annual Meeting of the Company in London on 27th May. By extending the line from Cuddalore to join the Negapatam-Erode line, (which will be eventually converted to the metre gauge,) there will be an unbroken narrow gauge communication from Madras, via Cuddalore, Tanjore, Trichinopoly, Dindigul, and Madura, to Tinnevely and Tuticorin.

37. **SALE OF PERMANENT-WAY MATERIALS.**—A quantity of permanent-way materials for the 5' 6" gauge having been sent out in 1870 before it was deter-

Proceedings of the Madras Government, Public Works Department,
22nd July 1873.

mined to construct the Southern Extension on the metre gauge, these were sold to the Government of India for use on the Nizam's State Railway, at the current market prices of the day, subject to an allowance of 8 lbs. per yard in the weight of the rails. The value of 86 miles of these materials, Rupees 23,61,591, was paid to the Company in March 1873, and credited to the Capital Account.

CARNATIC RAILWAY.

38. **OPEN MILEAGE.**—The number (19) of miles open for traffic upon this line remains the same as at the close of the last official year.

39. **TRAIN SERVICE.**—The train service was performed throughout the year by one mixed train daily in each direction. Additional trains have been run on special occasions according to requirements.

40. **RATES AND FARES.**—The rates and fares in force throughout the year were as follow:—

Passengers.								Pies per mile.
First Class	...	...	...	...	...	...	...	12
Second „	...	...	...	...	...	...	...	6
Third „	...	...	...	...	...	...	...	4
Goods.								Pies per ton per mile.
Special Class	...	...	...	...	...	...	...	10
First „	...	...	...	...	...	...	...	12
Second „	...	...	...	...	...	...	...	14
Third „	...	...	...	...	...	...	...	18
Fourth „	...	...	...	...	...	...	...	24
Fifth „	...	...	...	...	...	...	...	36

Third-class passengers between Conjeveram and Madras were booked through for one rupee, and several special rates for goods between the same places were in force.

41. **CONDITION OF THE LINE.**—The line sustained serious damages by floods on the 23rd November 1872 and the 3rd February 1873, by which traffic was suspended for a total period of 27 days. On the former occasion several tanks lying immediately above the railway burst, and the water coming down on to the line, five bridges and culverts were carried away, and the banks breached in many places. In the Cortelliar river the water rose one foot above rail level, but the bridge was saved by large breaches occurring in the embankment on either side. The bridges were temporarily restored and traffic resumed on 12th December 1872, but on 3rd February 1873 most of the temporary works were carried away, and the line was breached afresh in other places. These were again made good and traffic was resumed on 10th February. Since then the temporary bridges have been re-placed by permanent works, increased waterway being allowed in some cases. With these exceptions the line has been maintained in good order.

42. **TRAFFIC AND EARNINGS.**—The amount of traffic, and the receipts realized therefrom, are shown in the following table for the years 1872-73 and 1871-72, in comparison:—

Proceedings of the Madras Government, Public Works Department.
22nd July 1873.

Description.	1872-73.						1871-72.	
	NUMBER.			RECEIPTS.			Number.	Receipts.
	Number.	Number per mile.	Per-cent- age of total number.	Receipts	Receipts per mile.	Per-cent- age of total receipts.		
COACHING.				RS.				RS.
Passengers.								
First Class ...	415	22.13	0.46	389	20.70	1.30	428	391
Second " ...	6,206	331.02	6.79	3,235	172.50	10.82	6,197	3,269
Third " ...	84,740	4,519.51	92.75	26,294	1,402.30	87.88	85,546	28,479
Total ...	91,361	4,872.59	100.00	29,918	1,595.60	100.00	92,171	32,139
Miscellaneous ...				435	23.20			464
Total ...				30,353	1,618.80			32,603
Goods.								
Merchandise ...	4,482	239.00	100.00	4,422	235.81	99.84	1,988	2,843
Live stock ...				5	30	16		
Railway materials ...								6
Total ...				4,427	236.11	100.00		2,849
Miscellaneous ...				7	37			
Total ...				4,434	236.48			
Electric Tele- graph ...				120	6.40			80
undry sources.				741	39.52			94
Total ...				35,618	1,901.20			35,626

43. COMPARISON OF PASSENGER TRAFFIC.—Owing to the traffic having been suspended on two occasions for an aggregate of twenty-seven days, it is somewhat difficult to compare the results of the year under review with those for the previous official year. The loss during the time the line was closed cannot be accurately estimated, as without doubt the effect of an interruption is felt for some days after the running of trains has been resumed. The following figures show the ordinary passenger and festival traffic for the years 1872-73 and 1871-72, in comparison:—

	1872-73.		1871-72.	
	Number.	Receipts.	Number.	Receipts.
Total passenger traffic ...	91,361	RS. 29,918	92,171	RS. 32,139
Festival traffic ...	14,638	4,369	12,420	5,051
Total ...	76,723	25,549	79,751	27,088
Add proportion due to 27 days on which traffic was suspended...	6,138	2,044		
Ordinary passenger traffic ...	82,861	27,593	79,751	27,088

Proceedings of the Madras Government, Public Works Department.
22nd July 1873.

44. It will thus be seen that allowing for the twenty-seven days during which traffic was suspended at the daily average throughout the year, the results show an increase in the ordinary traffic of the year under review as compared with 1871-72, both in numbers carried and in receipts. The festival traffic shows an increase in numbers but a decrease in receipts, which is due to the reduced return fares which were brought into operation during the year.

45. Statements which have been submitted to Government prove the financial success of the one-train service which was introduced on the 1st January 1872, and there can be no doubt that, with the present rates, no increase to the passenger traffic would result from a reversion to the two-train service, while the running expenses, up-keep of rolling stock, and maintenance of way, would be considerably augmented.

46. GOODS TRAFFIC.—As compared with the year 1871-72, there is a considerable increase both in the weight of goods carried and in the receipts therefrom, and this traffic appears to be gradually improving. In the year under review Rupees 4,422 were realized from the carriage of 4,482 tons of goods, while in 1871-72 the receipts were Rupees 2,843 from 1,988 tons carried; and this increase may be attributed to the reduced rates which have been introduced and which enable the railway successfully to compete with the cart traffic.

47. The working expenses during the year under review compare as follows with the expenses in 1871-72:—

Department.	1872-73.			1871-72.		
	Expenses.	Per-centage of total Expenses.	Per-centage of gross Earnings.	Expenses.	Per-centage of total Expenses.	Per-centage of gross Earnings.
	RS.			RS.		
Maintenance of Way, etc.	9,127	23.75	16.00	4,736	21.39	13.29
Locomotive ...	5,707	38.00	23.62	6,036	27.26	16.94
Carriage and Wagon ...	1,069	4.45	3.49	622	2.81	1.75
Traffic ...	2,660	11.09	7.47	2,967	13.26	8.34
General ...	5,402	22.48	16.15	7,781	35.14	21.84
Special and Miscellaneous	57	2.3	15	31	0.14	0.09
Total ...	24,023	100.00	67.39	22,143	100.00	62.15
Net profit or loss ...	11,625		32.61	13,483		37.85
Gross earnings ...	35,648		100.00	35,626		100.00

48. It will be seen that the working expenses for the year under review exceed those for 1871-72 by Rupees 1,880, which is more than accounted for by the repairs to the line rendered necessary by the floods of November and February. Under the head "Maintenance of Way, etc.," Rupees 4,163 are included on this account. There was a saving in the Locomotive Department of Rupees 1,000 consequent on the reduction in the train service, but an increase on account of repairs to engines. The large decrease under "General charges" is due to the

Proceedings of the Annual Convention, Public Works Department,
22nd July 1873.

division of the Home and Indian Agency charges in a proportion more favourable to Revenue.

49. DIVIDEND.—The total Capital expenditure up to the 31st March 1873 was Rupees 9,77,676, the net earnings of the year, Rupees 11,645, being equivalent to a dividend of £1-3-9½ per cent. per annum.

50. LINE FROM MADRAS TO CUDDALORE.—On the 26th March 1873, the sanction of Government was accorded to the construction of a line on the metro gauge from Madras to Cuddalore, a distance of 128 miles. The estimates amount to Rupees 69,10,522, being at the rate of Rupees 53,988 per mile; but owing to a further rise in the price of iron since these were framed, it is probable that the actual cost of the line will be somewhat in excess of the amount sanctioned. The line is being lockspitted, and as the extra Engineers required for the work have now arrived from England, it is hoped that considerable progress will be made during the year 1873-74.

51. **EXTENSION FROM CUDDALORE TO TANJORE.**—The surveys for an extension of the sanctioned line southwards from Cuddalore have been made by the Carnatic Railway Company as far as the Coleroon river, a distance of 28 miles, the remaining 61 miles to join the Negapatam-Erode line at Tanjore having been carried out by the Great Southern of India Railway Company. This has been done on the understanding that the Government do not bind themselves to concede the construction of this portion of line to either Company. Passing as it will through one of the richest districts in this Presidency, and being a link in the direct communication between Madras and Tinnevely, it will be probably carried out by the amalgamated Company. The general direction is via Chellumbram, Shelly, Myaveram and Combaconum. The estimates will be submitted for the orders of Government at an early date.

52. **EXTENSION OF TRAMWAY FROM CONJEVERAM TO CHINGLEPUT.**—A survey has been made for continuing the Arconum-Conjeveram line, which will be reduced to the metro gauge, to join the Madras-Cuddalore line at Chingleput, so that traffic going west and north by the Madras Railway will go direct to Arconum instead of being carried round by Madras.

(Signed) J. H. M. SHAW-STEWART, Lieut.-Colonel, R.E.,

MADRAS,
27th June 1873.

Consulting Engineer for Railways.

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

RETURN C.
Madras Presidency Railways for the year 1872-73.

Names of Railways.	Miles opened during the year.	Total miles opened.	PASSENGERS DURING THE YEAR.					Total.	Receipts from Passengers.	Receipts from Miscellaneous.	Receipts from Railways materials.	Total receipts from Passengers and Goods.	Working expenses for the year 1872-73.	Net profits or losses for the year 1872-73.	No. of European staff.	No. of Native staff.	Total Capital expended up to 31st March 1873.
			First-class.	Second-class.	Third-class.	Cooly-class.	Total.										
Madras	...	4	886	9,643	108,812	2,087,475	302,923	2,598,232	Rs. 21,66,073	Rs. 38,02,280	Rs. 18,24,050	Rs. 56,002,331	Rs. 18,869	Rupees 32,23,880 being at the rate of Rs. 19-1 per cent. per annum.	806	7,933	10,91,99,477
Great Southern of India	...	...	103	1,999	9,516	1,164,235	...	1,175,750	4,73,703	3,33,765	78,072	8,55,540	4,01,532	Rupees 4,71,961 being at the rate of Rs. 16-8 per cent. per annum.	178	1,817	1,60,62,319
Carnatic	...	...	19	415	6,206	81,740	...	91,361	29,918	4,422	...	34,346	24,023	Rupees 11,625 being at the rate of Rs. 13-94 per cent. per annum.	6	68	9,77,676

• If the value of permanent-way materials sold (Rupees ₹3,61,501) and which sum was credited to the Capital Account on 23rd March, be included, the dividend will be at the rate of £2.9.7½ per cent.

MADEAS,
27th June 1873.

1 3/67. 3/69 43213

*Proceedings of the Madras Government, Public Works Department,
22nd July 1873.*

No. 375.

ORDER THEREON, 22nd July 1873, No. 1,861.

RAILWAY, No. 40.

ORDERED that the following letter be
sent :—

(Here enter No. 1,865, dated 22nd July 1873.)

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Consulting Engineer for Railways.

Exd. S. T. Austin.

Spare Copies.

PUBLIC WORKS DEPARTMENT,
OOTACAMUND, 22nd July 1873.

No. 376.

No. 1,865.

FROM

COLONEL 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. 41.

I AM directed to forward herewith
the Railway portion of the Administra-
tion Report of the Madras Presidency
for the year 1872-73.

I have the honour to be,

Sir,

Your most obedient servant,

Colonel, R.E.,

Secretary to Government.

Exd. S. T. Austin.

Spare Copies.

Railway Department.

CONSULTING ENGINEER'S OFFICE.

No. 346

From

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

Consulting Engineer for Railways,

To

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

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

In forwarding the Administration Report for the financial year 1872-73 upon the Railways in this Presidency I have the honour to state, that a copy has, as usual, been sent to the Chief Secretary to Government.

*I have the honour to be
Sir
Your most obedient servant.*

W. H. M. Shaw Stewart L.T.C.E.,

Consulting Engineer for Railways.

*Madras
June 1873*

W. H. M. Shaw Stewart

P. 3

23

Madras Railway

Open Mixture. 1.

1. The number of miles open for traffic is 836, the increase of four miles being due to the opening of a portion of the Neilgherry branch between Pothanore and Coimbatore on 15th February 1873. The maintenance of the whole of the North-West line came on the Revenue account on the 15th March, two years having then elapsed since the last portion of the line was opened to traffic.

Through Com - 2. Through communication
-munication with Bombay was maintained up
with Bombay. to 1st June ^{1872,} on which date a revised
time-table was adopted, and continued

in

1893
RAILWAY DEPARTMENT.

From

**The Consulting Engineer
for Railways,**

T₀

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

Dated 2/
Recd. 2

Dated 2nd June 1873.

Recd.

No. 14. 6

Enc.

Subcommittee
Administrative Support
upon the Conduct of
their Proceedings for
the Official Year 1897-98

11
No 1264-1965. 22nd July/77

in operation during the time the Hind-
-ma river was in flood. The same
arrangements were made as in last
year, the traffic being worked by
the Malabar Railway Company as far
as Chikmagalur, thence by cart to the
river, and across by ferry. The tem-
-porary roadway across the bed of the
river was restored early in January
1873, and the Great Indian Penin-
-sular Railway Company worked goods
into Raichur from the 9th, and
passengers from the 13th of that month.
Great difficulty has been experienced
in sinking some of the cylinders for
the Bidra bridge on the Great

Indian

Indian Peninsula Railway, and as
work cannot be carried on when
there is water in the river, it is not
likely that this link in the communi-
-cation will be completed before the
31st March 1874.

Interruption to
traffic on the
open line.

3. On the Bellary branch
the temporary roadway over the Huggery
river was washed away and restored
on several occasions between the 4th
May 1872 and 25th December 1872 but
from the latter date upto the 31st
March 1873 through communication
was successfully maintained. The
total number of days during which
traffic was interrupted was 132.

Accident at 4.
6th mile. S.W.

On the South-West
line on the night of the 22nd November 1872,

a portion of embankment at the 61st mile, between Sholinghur and Arcot was washed away by the bursting of the Talunga tanks, when a goods train ran into the gap. No loss of life occurred, the Company's servants co-operating in a most fortunate way.

A diversion was commenced on the following morning, and through communication restored on the afternoon of the 24th. Owing to the exceptionally heavy floods at this time, it was deemed prudent to suspend night traffic from the 22nd November to the 6th

December

5
December. Several minor bridges were a good deal shaken, but owing to their having been provided with floors, none were carried away.

Balloppully 5.

On the evening of the 28th September 1872, the mail train from Madras to Bombay being unable to ascend the Balloppully ghaut, a gradient of 1 in 60, owing to the heavy weather, the driver determined to divide the train. Five wagons and a horse were taken to the top of the ghaut, where there is a siding into which they should have been put.

There

There was, however, some mistake about the signal given by the driver to the pointman, and the wagons were placed upon the main line. The engine was then detached in order to run round them, and bring up the detached vehicles; but the brakes of the wagons had not been pinned down, and before the engine could get round them, they were driven by the force of the wind down the incline, and came into collision with the other part of the train, which consisted chiefly of

of passenger vehicles. Nine passengers were injured, one of whom, a native of Bombay, afterwards died - a sum of Rs. 5,000 has been paid to his relatives as compensation.

notion of b.
no.

With the exceptions above mentioned, the line has been maintained in good working order - The stations and out-offices have been kept clean and in good condition.

can mileage. 7.

The mean mileage worked over during the official year 1872-73 has been the same

as in the previous year, viz: 832 miles.

8. The week-day train service has been equivalent to the following trains daily in each direction on the South-West line.

Train Service

- one train between Madras and Vellore
- one - do - - - - - do - and Jolarpet
- one - do - - - - - do - and Chinnai
- Two - do - - - - - do - and Bangalore

On the Bangalore branch
Three trains between Jolarpet and Bangalore

On the North-West line.
One train between Madras and Riche (Bombay Mail)
one - do - - - - - Arcot and Tirupattur
one - do - - - - - do - and Bellary.

On the North-West line the
sunday

sunday service has been the same as on week days; but on the South-West line there have been on Sundays only one train in each direction between Madras and Chinnai, and one between Madras and Bangalore, and on the Bangalore branch two trains.

Extra trains, averaging nine per day between various stations, and specials, have been run according to requirements.

Rates and Fares.

9. The rates in force throughout the year for the conveyance of passengers and goods have been as follow:

Passengers.

<u>Passengers</u>	<u>Pice per mile</u>	
	<u>Day.</u>	<u>Night</u>
First class. _____	16	22
Second — " —————	5	12
/ between Coimbatore and Bangalore 14		
Third — " —————	3	4
Coaly — " — between Madras and Jolarpet — 2		

(extended to Coimbatore 1st August 1872.)

<u>Goods.</u>	<u>Pice per ton per mile</u>
Special class. _____	8
First — " —————	12
Second — " —————	14
Third — " —————	18
Fourth — " —————	24
Fifth — " —————	36

Reduced rates for passengers have been

been introduced on the occasion of festivals and holidays, and numerous special goods routes have been in force in favour of particular individuals or particular localities, in order to secure traffic which would not otherwise have been obtained.

Traffic and earnings.

The number of passengers and tons of goods carried, as well as the receipts from the several descriptions of traffic, are shown in the following table for the years 1872-73 and 1871-72, in comparison.

Madras Railway

	1872-73						1871-72					
	No.	No. per mile	Receipts	Receipts per mile	Per centage of total	No.	No.	Receipts	Receipts per mile	Per centage of total	No.	Receipts
<u>Passengers</u>												
First class	9,649	11.60	0.37	134,103	161.15	6.19	10,519	139,698				
Second class	1,08,212	130.06	4.17	1,52,350	185.11	7.03	1,19,995	1,86,931				
Third class	20,87,475	2,568.70	80.54	17,22,878	2,070.80	79.54	19,54,642	15,79,470				
Fourth or Cooly class	3,92,923	472.27	15.12	1,56,725	188.37	7.24	2,62,540	1,66,337				
Total	25,98,259	3,122.71	100.00	21,16,076	2,603.41	100.00	2,354,676	20,16,436				
Miscellaneous	"	"	"	3,09,798	372.35	"	"	2,55,421				
Total	"	"	"	24,75,574	2,975.81	"	"	22,71,857				
<u>Goods</u>												
Merchandise	381,730	458.81	98.89	38,02,286	4,570.06	99.66	33,50,036	35,39,396				
Live stock	"	"	"	17,949	21.57	0.47	1,170	17,404				
Railway materials	4,274	5.14	1.11	18,240	21.92	0.47	3,884	52,640				
Total	386,004	463.95	100.00	38,38,475	4,613.55	100.00	34,90,990	36,60,040				
Miscellaneous	"	"	"	8,153	9.80	"	"	11,057				
Total	"	"	"	38,46,628	4,623.35	"	"	36,71,097				
Electric Telegraph	"	"	"	21,347	25.66	"	"	19,057				
Shedding sources	"	"	"	1,98,950	239.12	"	"	2,07,605				
Grand Total	"	"	"	65,43,779	7,863.94	"	"	61,69,618				

The receipts from all sources exceed those of 1871-72 by Rs. 448 per mile, and those of 1870-71 by Rs. 721 per mile.

Passenger traffic. II.

Comparing the figures

for the year under review with those for the year 1871-72, it will be seen that there is a slight decrease in first and second class passengers, but a considerable increase in the third and cooly classes, both in numbers carried and in receipts. The total receipts from passengers per mile are greater by Rs. 182 than in last year, which seems to show that traffic is being developed over the lately opened portions of the line. On the 1st August, 1873, the

the early class traffic was continued from Jallapitt to Grimburen, and the result has been satisfactory. Third class carriages were added to all night trains after the 1st July 1872.

12. The goods traffic — Goods traffic receipts show an increase of Rs. 201 per mile over the corresponding receipts for 1871-72, which must be considered satisfactory. The following is a comparative statement of the receipts from the chief commodities carried:—

Staples	Receipts in 1871-72 Rs.	Receipts in 1872-73 Rs.	Increase	Decrease
Betel	66,346	73,223	6,877	
Cloth and Piece Goods	1,09,994	1,13,472	3,478	
Coffee	1,00,019	69,041		30,978

Commodities	1871-72	1872-73	1873-74	1874-75
Bamboo	12,200	52,592	45,392	
Bottom	5,77,066	3,51,903		2,25,163
Firewood	39,942	47,300	7,358	
Grain	68,349	72,734	4,385	
Gum	1,34,015	1,42,718	8,703	
Gunnies	145,479	45,755	276	
Iron of all kinds	89,190	70,331		18,859
Jaggery	77,836	77,949	113	
Oil of all kinds	67,602	65,540		2,062
Potatoes	44,051	47,075	3,024	
Raggy	142,522	60,989	18,467	
Rice	5,88,834	6,54,505	65,671	
Salt	3,11,477	3,09,063		2,414
Seeds of all kinds	1,02,744	1,49,344	46,600	
Skins	78,192	1,22,665	44,473	
Surebics	4,61,015	6,83,597	2,22,582	
Tamarind	32,899	41,271	8,372	
Timber	57,101	77,894	20,793	
Tobacco	28,536	30,352	1,816	
Twist	74,850	80,803	5,953	
Wine & spirituous liquors	48,452	24,778		23,674
Total	32,59,711	34,70,894	5,14,333	3,03,150

It will be seen that the chief increases have been in Commisariat stores, rice, seeds, skins and sundries; while there has been a large falling off in cotton. The increase in sundries is due to the carriage of permanent way materials which were purchased from the Great Southern of India Railway Company by the Government of India, for use on the Vizam's State Railway, the receipts under this head being Rs. 2,28,307.

13. The cotton traffic has Cotton traffic not fulfilled last year's anticipations, there being a decrease both in tonnage and receipts. The following figures show the number of tons carried

11 59
carried, of loose and pressed cotton, and the total receipts during the last five years: -

Official Years	Loose Cotton Tons	Pressed Cotton Tons	Total Tons	Proportion of loose cotton to total	Receipts Rupees
1868-69	21,970	1,142	23,112	4.9	783,758
1869-70	16,287	1,712	17,999	9.5	657,783
1870-71	3,632	4,510	8,142	55.4	2,16,073
1871-72	5,665	12,682	18,347	69.1	5,77,066
1872-73	4,710	12,232	16,942	72.2	3,57,903

The decrease in the tonnage of cotton has perhaps been partly due to the comparative smallness of the crops; but the quantity carried by rail has also without doubt been materially affected by the successful competition which, from some cause or other,

the

the bullock carts on the road have
of late been able to maintain. The
decrease in ~~tenure~~ has of course
affected the receipts to a certain
extent, but the greater part of the
falling off in the latter is due to the
fact that the bulk of the cotton is
now more densely packed ^(than formerly) in order that
advantage may be taken of the differen-
tial rates in force. — This
will be evident from the following
figures which show the percentages
which the amount of pressed cotton
carried at each of the differential rates
bears to the total amount of pressed
cotton carried during the last six months
of the year, as compared with the
figures for the same period in the
year

year 1871-72:—

Description of Cotton

Pice
per bale 1871 72 1872-73.
per mile

A. pressed to 10th per cubic foot.	28	29.7	0.5
B. ————— 15 —————	22	24.5	13.3
C. ————— 19 —————	19	0.3	1.1
D. ————— 25 —————	16	27.0	34.2
E. ————— 35 —————	14	18.5	50.9
	100.0	100.0	

In the year under review a larger
proportion of Cotton than in the previous
year was carried to Poichare, (on its way
to Bombay) instead of being brought
to Madras, the receipts of the Com-
pany being decreased owing to the
diminished mileage over which it
was conveyed.

Working ex-
penses and
profits.

14.

The following figures

show

show the working expenses in the several departments and the profits for the year under review:

Madras Railway

Department.

1872-73.

Amount per mile of total of gross traffic expenses earnings

* Do x Do

Maintenance of Way &c.	10,45,899	1,423	31.514	15.985
Locomotive Expenses	11,11,384	1,336	33.487	16.986
Carriage and Wagon expenses.	2,16,614	260	6.526	3.311
Traffic expenses.	5,28,182	635	15.915	8.073
General charges expenses.	3,31,620	399	9.992	5.068
Special and Miscellaneous expenses.	85,170	102	2.566	1.302

Total 33,18,869 3,989 100.00 50.725

Profits 32,23,930 3,875 . 49.275

Gross Earnings 65,42,799 7,864 " 100.00

* Including Rs. 1,27,924 --- expenditure in connection with Chyaur Bridge.

x Per mile maintained out of Revenue 735 miles.

15.

The corresponding figures

for 1871-72 were as follows:-

Department.

Total expenses per mile of total of gross traffic expenses earnings

* Do + Do

Maintenance of Way &c.	9,76,039	1,400	31.62	15.82
Locomotive	11,57,233	1,391	37.49	18.76
Carriage and Wagon	1,75,176	210	5.68	2.84
Traffic	4,91,889	591	15.94	7.97
General Charges	1,97,644	238	6.40	3.20
Special and Miscellaneous.	88,454	107	2.87	1.44

Total 30,86,435 3,709 100.00 50.03

Balance being Profits 30,83,183 3,706 . 49.97

Gross Earnings 61,69,618 7,415 . 100.00

* Including Rs. 1,15,368 expenditure in connection with Chyaur Bridge

+ Per mile maintained out of revenue, 697 miles.

Comparison of working expenses.

16. Comparing the figures for 1872-73 with those for the previous year, it will be seen that there is a considerable

increase

increase in the working expenses of all departments except the Locomotive. The increased expenditure under the head "Maintenance of way &c." is owing to 38 miles more of the line having been maintained out of Revenue funds, and to the inclusion of Rs. 1,27,921- on account of the new Chyaur bridge, the allocation of which has not yet been determined. The excess in the Traffic department is due to a larger establishment being required for the increased traffic, and to the appointment in May and June last of three Assistant Traffic Managers. In "General Charges" the great increase is due to a much larger proportion of these charges falling on Revenue, owing to the decrease in Capital expenditure. Between 80 and 90 per cent of these charges

14.
charges are now debited to the Revenue account. There were also some additions to the establishments and increases to salaries, aggregating about Rs. 10,000 annually.

Dividend.

17. The total expenditure on Capital account up to 31st March 1873, has been Rs. 10,91,09,477. The profits for the year, Rs. 32,23,930, are, therefore, equivalent to a dividend at the rate of Rs. 2.19.1 per cent per annum.

Progress of Work.

New Chyaur Bridge.

18.

The temporary restoration of the Chyaur Bridge has stood well, and there has been no interruption to traffic even during the year. The new bridge is making good progress. Up to 31st March 1873 about 70 per cent

of

of the masonry work had been completed, and the sinking of the cylinders has since then been put in hand.

19. No work has been done Buggy bridge on the Buggy bridge during the past year owing to the non-receipt of the cylinders from England. About 10 per cent of the whole work may be said to have been executed. The cylinders are expected soon, and it is hoped that good progress will be made during 1873-74.

20. The line between the Salt Cavers and the New Central station having been doubled, the latter was opened for traffic on the 7th April 1873. On the same date the Royapuram

Maddur & Central station.

Royapuram

Royapuram and Perambur stations were closed, but on a petition being presented to His Excellency the Governor by the residents of Perambur, setting forth the great inconvenience to which they were put, this station has since been reopened.

Protective works.

21. In February 1871, consequent on the failure of the Cheyauw bridge, a Committee was appointed by Government to examine the foundations of all the large bridges on the line, and the result of their labours, which have just been concluded, is the recommendation that floorings, with up and down stream curtain walls, be added to the bridges over the Palay, Peinay, Goeriatum and

Buggery

Nagany rivers, and to some other smaller works. The sanction of Government has been obtained to the estimates, amounting to about 7 lacs of Rupees, and a large Capital expenditure may be expected under this head during the current year.

22. The whole of the works on the Nilgherry branch were completed on 31st March 1873, with the exception of three large bridges aggregating 10 spans of 64 feet, and some minor bridges, the girders for all of which were over-carried to Calcutta in November 1872 and have not yet been returned. They are now reported to be on the way to Madras, so that it is hoped that this branch will

Nilgherry
Branch.

10
49
will be opened for traffic in September next. As stated at the commencement of this report, four miles of line from Pothanore to the town of Coimbatore were opened on the 1st February 1873.

Great Southern of India Railway.

Open mileage. 23. The number of miles open for traffic upon this line is the same as at the close of the last official year.

Train Service 24. The train service has been equivalent on week days to two trains daily in each direction between Negapatam and Erode, and to one train in each direction on Sundays. Extra and special trains have been run according to requirements.

25. The line has been main-Condition of
-tained in good working order throughout. Line.

26. The rates charged for Post and fare
passengers and goods have been as
follows:-

Passengers.

Rate per mile
Up to 30 Miles
Sum July

First class.	18	12
Second class.	5	5
Third class.	3	2

Goods.

Rate per ton per mile

Special class.	
First	8
Second	12
Third	14
Fourth	18
Fifth	24
Sixth	36

On the 1st November a new
arrangement for the charging of goods
was brought into force, by which
nearly all goods which had been
previously

previously rated as second, third, fourth
and fifth classes were reduced to the
first class, and charged at the rate
of one anna per ton per mile. This
simplified transactions with native
merchants, and the change appears to
be working satisfactorily as regards
receipts.

Traffic earnings 27.

The amount of the traffic
and the receipts realised therefrom
are shown in the following table for
the years 1872-73 and 1871-72, in
comparison:-

Great

153

Comparison of
Traffic

28.

28. The figures for the year under review compare favourably with those for 1871-72, the receipts from all sources showing an increase of (£. 819 per mile).

Passenger
traffic

The number of passengers in

carried is greater by 3,46,328 (nearly 30 per cent)
and the receipts are larger by Rs. 39,812 (nearly
8 per cent).

Lambacangin
Festival.

29.

For whole of the latter in-

-crease is more than accounted for by the
Lombacorum festival, which is held only
once in twelve years, and occurred in
February 1873. The receipts from the sale of
cheap return tickets were £28,58 but
owing to the reduced fares introduced on
the 1st July 1872, a great number of ordinary
third class tickets were also sold, so that
the total estimated receipts on account
of

19
65
this festival were about Rs. 45,000. The
Pirangum festival was not so well atten-
ded this year, the falling off in receipts
from cheap return tickets being Rs. 7,000,
as a set off against this, however, there
was an increase of Rs. 3,000 in the receipts
from ordinary tickets sold during the same
time. The result of the reduced
fares appears to have been that a
greater number of passengers were
carried with slightly decreased receipts.
A special report upon this subject
will be submitted after 30th June
1893, when the reduced fares will have
been in operation for twelve months.

30. In the goods traffic goods traffic
there is an increase both in tonnage and
receipts

receipts, and the latter are much aug-
mented by the carriage of the perma-
nent way materials which were sold
to the Government of India for
the Nizam's State Railway, upwards
of Rs. 70,000 being entered on this
account under the head "Railway
materials". The principal fluctu-
ations have been in the receipts
on account of grain, salt, stone
and laterite, and curry stuffs.

Grain.

There is a decrease of Rs. 12,000
in the receipts from grain, owing to
the absence of activity in the mar-
kets, the ruling prices having been
less than in the previous year.

Salt.

The receipts from salt have
diminished by Rs. 7,600, which is

due

due to the supply at Negapatam having on two occasions run short, traders being unable to obtain any stock from the Government depôts there.

The decrease of Rs. 27,000 in stone and laterite is chiefly due to the stoppage of the laterite trains during the last three months of the year, when from the pressure in the traffic by the conveyance of the permanent way materials for the Vizagam - Government it was found impossible to run them.

There is an increase of Rs. 11,250 in the receipts from curry stuffs.

31. The working expenses in the several departments, and the net.

22.
net profits for the two years 1872-73 and 1871-72, are shown in comparison in the following table:—

Department.	Amount	1872-73		1871-72	
		Amount per mile	Percentage of total expenses	Percentage of gross earnings	Amount
Maintenance of Way &c.	1,12,700	670.84	24.42	12.07	1,07,787
Locomotive expenses.—	1,76,370	1,049.82	38.21	18.94	1,70,045
Carriage & Wagon expenses.	40,978	243.92	8.88	4.38	37,112
Traffic expenses.—	65,128	387.66	14.11	6.96	64,322
General charges expenses.—	50,376	299.85	10.92	5.38	60,230
Special & Miscellaneous—	15,980	95.12	3.46	1.71	15,270
Total—	4,61,532	2,747.21	100.00	49.44	4,54,766
Profits—	4,71,961	2,809.28	.	50.56	3,41,179
Gross earnings	9,33,493	5,556.49	.	100.00	7,95,945

Comparison of working expenses.

32. The amounts expended in the several departments differ but little from the corresponding figures.

of the previous year. The small increase under the head "Maintenance of Way &c." is due to the whole of the Resident Engineer's salary and his office expenses having become debitable to Revenue, there being no construction work in hand on the open line. In like manner the whole of the Locomotive Superintendence staff was charged to Revenue, and this accounts for the increase in the Locomotive, and Carriage and Wagon, departments. The decrease under the head "General Charges" is owing to the division of these charges on a plan different from that hitherto carried out. The apportionment

between

22
21
between Capital and Revenue has not yet been finally determined, the question being now under reference to the Government of India.

Dividend. 33.

The total Capital expenditure upto 31st March 1873 was Rs. 166,62,310, and the net profits Rs. 4,71,961, being at the rate of £2. 16. 8 per cent per annum. If the value (Rs. 23,61,591) of permanent way materials sold to the Nizam's Government, and which amount was only credited to Capital on the 23rd March, be taken into account, the dividend will be at the rate of £2. 9. 7½ per cent.

Southern
Extension. 34.

In April 1873

11 3167, 3169 18615
sanction was accorded to an esti-
-mate, amounting to Rs. 96,12,000,
for constructing a line $215\frac{3}{4}$ miles
in length on the metre gauge
from Trichinopoly, via Dinidigul
and Madurai, to Tinnevely and
Tuticorin. Work was at once
commenced, and has been
pushed on with vigour; but
owing to the exceptionally heavy
rains in the end of November
1872 and again in February 1873,
the progress of the work has
been somewhat retarded. Not-
withstanding this, however, up
to the 31st March 1873 49 per
cent of the earthwork had been

22
done: 81 minor bridges had been com-
-pleted out of 503, (the remainder with
the large bridges being in progress): and
five miles of fencing had been fixed.
The temporary telegraph, which is being
erected for the company's use during
construction, had been completed,
and is now open for the transmission
of public messages.

Revised esti- 35.

-mate for
Southern section.
-view-

Owing to the great rise
in the price of iron in England during
the last 18 months, it has been necessary
to frame revised estimates at the
current prices of the day: the result
being that the cost of the line will
be increased to Rs. 106,64,022, or at
the rate of Rs. 49,600 per mile.

Amalgamation 36.

with the Car-

-native Railway.

It is understood that
an amalgamation has been arranged
in

in England between this company and the Carnatic Railway Company (Limited). This latter company was formed in the year 1870; when it took over the Indian Tramway Company's line between Arcanum and Banjicram; and a concession for the construction of a line between Madras and Cuddalore on the metre gauge has since been granted to it. The terms of the amalgamation, as well as a draft of the bill to be submitted to Parliament for legalising the same, were to be discussed at the annual meeting of the company in London on 27th May. By extending the line from Cuddalore to join the Negapatam - Erode line, (which will be eventually converted to the metre gauge)

gauge)

gauge,) there will be unbroken narrow gauge communication from Madras, via Cuddalore, Tanjore, Trichinopoly, Dindigul and Madurai, to Tinnevely and Tuticorin.

Sale of permanent way materials.

37. A quantity of permanent way materials for the 5'-6" gauge, having been sent out in 1870, before it was determined to construct the Southern Extension on the metre gauge, these were sold to the Government of India for use on the Vizagapatam State Railway, at the current market prices of the day, subject to an allowance of 8 lbs per yard in the weight of the rails. The value of 86 miles of these materials, Rs. 23,61,591, was paid to the company in March, ^{1873,} and credited to the Capital Account.

Carnatic

Carnatic Railway

38. The number (19) of open mile^s miles open for traffic upon this line, remains the same as at the close of the last official year.

39. The train service was performed throughout the year by one mixed train daily in each direction. Additional trains have been run on special occasions according to requirements.

40. The rates and fares in force throughout the year were as follows:-

<u>Passengers</u>	<u>Pies per mile</u>
First class. _____	12
Second —. _____	6
Third —. _____	4

Goods.

24

<u>Goods</u>	<u>Pies per ton per mile</u>
Special class. _____	10
First —. _____	12
Second —. _____	14
Third —. _____	18
Fourth —. _____	24
Fifth —. _____	36

Third class passengers between Conjeveram and Madras were booked through for one rupee, and several special rates for goods between the same places were in force.

Condition of the line.

41. The line sustained serious damages by floods on the 23rd November 1892 and the 3rd February 1893, by which traffic was suspended for a total period of 27 days. On the former occasion several tanks lying immediately above the

railway

railway level, and the water coming
 down on to the line, five bridges
 and culverts were carried away, and
 the banks breached in many places.
 In the Cartellian river the water rose
 one foot above rail level, but the
 bridge was saved by large breaches
 occurring in the embankment on either
 side. The bridges were temporarily res-
 tored and traffic resumed on 12th
 December 1872, but on 3rd February
 1873 most of the temporary works
 were carried away, and the line was
 breached afresh in other places.
 These were again made good and traffic
 was resumed on 10th February. Since
 then the temporary bridges have been
 replaced by permanent works, increased
 waterway being allowed in some cases.
 With these exceptions the line has
 been

been maintained in good order.

Traffic and
earnings.

42. The amount of traffic, and
 the receipts realized therefrom, are shown in
 the following table for the years 1872-73 and
 1871-72, in comparison:—

Description	1872-73							1871-72	
	Numbers			Receipts				No.	Receipts
	No.	Mile	Per cent. of total	Receipts per mile	Per cent. of total	Receipts per mile	Per cent. of total		
Coaching									
Passengers									
First class	415	22.13	0.46	389	20.70	1.30	1128	391	
Second do	6,206	331.02	6.77	3,235	172.50	10.82	6,197	3,219	
Third do	84,740	4,519.54	92.75	26,294	1,402.30	87.88	65,546	28,479	
Total	91,361	4,872.69	100.00	29,918	1,595.60	100.00	72,171	32,139	
Miscellaneous				435	23.20	"	"	464	
Total				30,353	1,618.80	"	"	32,603	
Goods									
Merchandise	4,482	239.00	100.00	4,422	235.81	99.814	1,988	2,843	
Livestock	"	"	"	5	.30	.16	"	"	6
Railway materials	"	"	"	"	"	"	"	"	"
Total				4,427	236.11	100.00	"	2,849	
Miscellaneous				7	.37	"	"	"	"
Total				4,434	236.48	"	"	"	"
Electric Telegraph				120	6.40	"	"	"	80
Sundry sources				741	39.52	"	"	"	94
Grand Total				35,648	1,901.20	"	"	35,621	

43.

(Owing to the traffic having the comparison of passenger traffic been suspended on two occasions for an aggregate of 27 days, it is somewhat difficult to compare the results of the year under review with those for the previous official year. The loss during the time the line was closed cannot be accurately estimated, as without doubt the effect of an interruption is felt for some days after the running of trains has been resumed. The following figures show the ordinary passenger and festival traffic for the years 1872-73 and 1871-72 in comparison:—

	1872-73		1871-72	
	Numbers	Receipts	Numbers	Receipts
Total passenger traffic	91,361	29,918	92,171	32,139
Festival traffic	14,638	4,369	12,420	5,051
Add proportion due to 27 days on which traffic was suspended	76,723	25,549	79,751	27,088
Ordinary passenger traffic	82,861	27,593	79,751	27,088

44.

It will thus be seen that, allowing for the 27 days during which traffic was suspended at the daily average throughout the year, the results show an increase in the ordinary traffic of the year under review as compared with 1871-72, both in numbers carried and in receipts. The festival traffic shows an increase in numbers but a decrease in receipts, which is due to the reduced return fares which were brought into operation during the year.

45.

Statements which have been submitted to Government prove the financial success of the one train service which was introduced on the 1st January 1872, and there can be no doubt that, with the present rates, no increase to the passenger traffic would result from a reversion to the

the two-train service, while the running ex-
penses, up-keep of rolling stock, and
maintenance of way, would be considerably
augmented.

46. As compared with the goods traffic
year 1871-72, there is a considerable increase
both in the weight of goods carried and
in the receipts therefrom, and this traffic
appears to be gradually improving. In
the year under review Rupees 4422 were
realised from the carriage of 4482 tons of
goods, while in 1871-72 the receipts were
Rs. 2843 from 1988 tons carried; and this
increase may be attributed to the reduced
rates which have been introduced and
which enable the railway successfully
to compete with the cart traffic.

47. The working expenses
during the year under review compare as
follow

follow with the expenses in 1871-72:— 27

Department.	1872-73.			1871-72		
	Expenses	Percentage of total expenses	Percentage of gross earnings	Expenses	Percentage of total expenses	Percentage of gross earnings
Maintenance of Way &c. —	9,127	23.75	16.00	4,736	21.39	13.29
Locomotive —	5,707	38.00	23.62	6,036	27.26	16.94
Cars and Wagon —	1,069	4.45	3.99	622	2.81	1.75
Traffic —	2,660	11.09	7.47	2,937	13.26	8.34
General —	5,402	22.48	16.15	7,781	35.14	21.84
Special and Miscellaneous —	57	.23	.15	31	0.14	0.09
Total —	24,023	100.00	67.39	22,143	100.00	62.15
Net profit or loss —	11,625	.	32.61	13,483	.	37.85
Gross earnings —	35,648	.	100.00	35,626	.	100.00

48. It will be seen that the
working expenses for the year under review
exceed those for 1871-72 by Rs. 1880, which
is more than accounted for by the repairs
to the line rendered necessary by the floods
of November and February. Under the
head 'Maintenance of Way &c.' —

Rupers 4,163 are included on this account. There was a saving in the Locomotive department of Rupers 1,000 consequent on the reduction in the train service; but an increase on account of repairs to engines.

The large decrease under "General Charges" is due to the division of the Home and Indian Agency charges in a proportion more favourable to Revenue.

49. The total Capital expenditure up to the 31st March 1873, was Rupers 9,77,676, the net earnings of the year, Rupers 11,625, being equivalent to a dividend of £1. 3. 9½ per cent per annum.

50. On the 26th March 1873, the sanction of Government was accorded to the construction of a line on the metre gauge from Madras to Gudalalare, a distance of 128 miles. The estimates

amount

2573
amount to Rupers 69,10,522, being at the rate of Rupers 53,988 per mile; but owing to a further rise in the price of iron since these were framed, it is probable that the actual cost of the line will be somewhat in excess of the amount sanctioned. The line is being lockpitted, and as the extra engineers required for the work have now arrived from England, it is hoped that considerable progress will be made during the year 1873-74.

extension from 51.
Gudalalare to
Anjore.

The surveys for an extension of the sanctioned line southwards from Gudalalare have been made by the Carnatic Railway Company as far as the Coleroon river, a distance of 28 miles, the remaining 61 miles to join the Negapatam - Erode line at Tanjore having been carried out by the Great Southern of India Railway Company. This has been done on the understanding that the Government do

not

not bind themselves to concede the construction of this portion of line to either Company. Passing as it will through one of the richest districts in the Presidency, and being a link in the direct communication between Madras and Tinnevely, it will be probably carried out by the amalgamated Company. The general direction is via Chellumbur, Pheally, Myaveram and Combaconum. The estimates will be submitted for the orders of Government at an early date.

52. A survey has been made for continuing the Arconum - Conjeeveram line, which will be reduced to the metre gauge, to join the Madras-Bristolalare line at Chingleput, so that traffic going west and north by the Madras Railway will go direct to -
Arconum

Arconum instead of being carried round by Madras.

Madras
14th June 1873
J. H. D.
Secy. G. O.

10/

22
7
Mantle
Lieut. Col. R. S.
Cons. Engineer for Railways

Madras Presidency Railways for the years 1892-93.

[illegible]

* If the value of Permanent Way materials sold / Rs 23,61,597 and which sum was credited to the Capital Account on 23rd March, be included, the dividend will be at the rate of 2.9.7 i per cent.-

• Nachras
20. June 1878

127

Cons. Exp't. for Railways.

1878

77

On the 7th June 1872 the following reductions were made in the rates for carriage of cotton.

Loose pressed	
Loose Cotton	from 42 to 36 pice per ton per mile.
A pressed	28 to 24 — " —
B — " —	22 to 19 — " —
C — " —	19 to 16 — " —
D — " —	16 to 14 — " —
E — " —	14 to 12 — " —

and on the 16 August 1872 further reductions were made in the rates for D and E classes from Raichore, Adoni and Bellary to Madras in order to ~~desire~~ as far as possible this traffic from Bombay induce full pres. ~~ding~~ at those stations (S.D. C. No. 349.) —

h⁷ 374-376.

Suppl. to 374-376.

32157. 5184
No 1866
Part of the number

81

From the Messrs. J. & J.

5 following:-
345 of 27 June/73

Recd that the
letter has sent.

To the Cong. Eng.
for Railways.
Dated 1/8/73

3. 12. dolet /
1865

To
Secretary to the
Government of India
(P.W.)

I am directed to
enclose herewith the
copy portion of the
ministration Report
of the Madras Presidency
for the year 1872/73.

G.M.W.

Dated 1/8/73
Page No 1864

Ch 3702
Govt. of 1873 Madras
PUBLIC WORKS.

To The Consulting Engineer
for Railways
And
To The Secretary to the
Govt of India

Attd.

Recd.

Encl. /

22 July 1873 1864-1865

No. 374-375 & 376

Administrative Report.

Copy for the
Administration of
the Madras
for 1873
The Government
of India.