Public Works (1897) Department.

G.O., No. 822-23R

DATED 14 October 97

[Despatch Abstract.]

Report by the Heads of Departments of Kenkonao Railway: Ordered that the — for the half-year ended the 30th June 97 be forwarded to the High Court

1

Forwarded.

W Hudson

[P.W. 25. 5,000—30-11-96.]

Indexed. 20/10/97

BACK PAPERS.

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

FURTHER PAPERS.

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MADRAS RAILWAY.

REPORTS BY HEADS OF DEPARTMENTS FOR THE HALF-YEAR ENDING 30TH JUNE 1897.

MADRAS RAILWAY COMPANY,

MADRAS, *23rd September* 1897.

No. 2328.

To

JULIAN BYRNE, ESQ.,
Secretary,
Madras Railway Company,
LONDON.

SIR,

I have the honour to submit, for the information of the Directors, the following summary of the operations of the Company for the half-year ended 30th June 1897. The detailed reports by the undermentioned Heads of Departments were sent to you on the undermentioned dates :—

The Ag. Chief Engineer ...	23rd Sept. 1897.	The Loco. Superintendent...	23rd Sept, 1897.
„ Ag. Traffic Manager...	„ „	„ Ag. Telegraph Engineer.	„ „
„ Chief Auditor ...	16th Sept. „	„ Medical Officer ...	„ „

2. The **Financial** results of the last four half-years are shown in the annexed table :—

Half-year ended	Gross earnings.	Total expenditure.	Net revenue.	Working expenses per cent.	Receipts per mile per week.	Half-yearly dividend.
	Rs.	Rs.	Rs.			
1895, December ...	55,01,371	26,47,541	28,53,830	48·13	252·93	2·36
1896, June ...	54,68,400	27,44,045	27,24,355	50·18	250·18	2·26
„ December ...	54,11,851	27,50,916	26,60,935	50·83	248·15	2·20
1897, June ...	57,89,562	26,99,926	30,89,636	46·63	265·61	2·56

The increase in gross earnings, as compared with the earnings for the corresponding half-year of 1896, amounts to Rs. 3,21,162, and the decrease in working expenses to Rs. 44,119. The net revenue shows an increase of Rs. 3,65,281, equivalent to 13·41 per cent.

Both the gross revenue and the net earnings are the largest the Company has ever obtained, while the percentage of working expenses, with one exception, has never been so low. In June 1893 half-year the percentage was 46·26, but the expenditure for that period was reduced by abnormal credits. In the period under review, although the credits given are not unusually high, the expenditure of all departments, excepting the Engineering, shows decreases compared with the corresponding period of last year, and this is very satisfactory, considering the additional number of passengers carried and the heavy increase in the goods traffic that had to be dealt with.

3. During the half-year 1,262,217 train miles were run as against 1,237,502 during the corresponding period. 5,154,884 passengers and 626,298 tons of goods were carried against 4,905,147 passengers and 541,587 tons of goods.

4. The result of the half-year's working is a dividend at the rate of £5-2-5 per annum, and from statement XVI of the Revenue accounts, it will be observed that, after allowing for on account of outstandings, we have earned surplus profits amounting to Rs. 1,71,937-4-10, of which one half or Rs. 85,968-10-5 is the Company's proportion.

5. The number of **passengers** (excluding troops and police) carried in each class and the gross receipts therefrom, during the first halves of the last four years, are shown in the following table :—

Half-year ended	First Class.		Second Class.		Third Class.		Total.	
	No. carried.	Money earned.	No. carried.	Money earned.	No. carried.	Money earned.	No. carried.	Money earned.
		Rs.		Rs.		Rs.		Rs.
June 1894	8,156	78,286	31,637	85,527	4,954,352	15,09,596	4,994,145	16,73,409
Do. 1895	10,078	95,371	39,057	1,01,003	4,471,310	18,29,510	4,520,445	20,25,884
Do. 1896	10,903	97,384	48,101	1,09,790	4,814,350	17,86,841	4,873,354	19,94,015
Do. 1897	12,870	1,03,125	45,484	1,06,688	5,057,896	17,18,522	5,116,250	19,28,335

There is an increase in the number of first class passengers carried, as compared with the corresponding half-year, of 1,967, or 18·04 per cent., and in the money earned of Rs. 5,743, or 5·89 per cent.

There is a decrease in the number of second class passengers carried of 2,617, or 5·44 per cent., and in the money earned of Rs. 3,102, or 2·82 per cent.

In the number of third class passengers carried, there is the large increase of 243,546, or 5·06 per cent., while in the earnings there is a decrease of Rs. 68,319. With regard to the reduction in earnings, there is no doubt that the famine in the districts traversed by our North-West Line seriously affected our passenger receipts, and they were further influenced by the reduction in the short distance fares which came into operation about the middle of February 1896. The additional number carried came under this latter head, as the Chief Auditor's report of the 2nd instant on third class traffic shows, and the receipts obtained from them were not sufficient to counterbalance the falling off in the passenger traffic in the famine districts and the loss due to the reduction of the fares for short journeys.

We have re-gained numerically the passengers lost by the raising of the third class ordinary fare in 1895, the total carried during the past half-year being the highest on record, but the deficiency in revenue, which is considered attributable to the concession made last year in the interests of short distance travellers, has not yet been recovered.

6. The progress of the **goods traffic** during the same four half-years was—

Half-year ended	Goods traffic exclusive of Madras Railway material and revenue stores.	Government stores and Foreign Railway material.	For the public.		Average receipt per ton lifted.
			Weight.	Receipts.	
	Rs.	Rs.	Tons.	Rs.	Rs.
June 1894	29,16,054	49,428	407,288	28,66,626	7·12
Do. 1895	31,18,135	38,099	430,754	30,80,036	7·22
Do. 1896	29,34,790	37,600	423,809	28,97,190	6·84
Do. 1897	32,96,519	47,163	498,408	32,49,356	6·52

The total tonnage carried over the Railway during the past half-year, exclusive of Railway materials for construction and revenue stores, was 499,818 against 425,201 in the

corresponding half-year, or an increase of 17·55 per. cent., while the receipts were Rs. 32,96,519 against Rs. 29,34,790, or an increase of 12·32 per cent.

The principal commodities in which there are increases are coal, dyes and tans, grain foods, hides and skins, kerosine oil, metals and timber. Decreased receipts have been obtained from raw cotton, castor and other oil seeds, and unrefined sugar.

Of the total increase in the goods traffic, 54,798 tons and Rs. 2,64,241, occur under the head of grain, and are attributable to the famine in the north of India and in certain districts of this Presidency, large consignments having been despatched to meet the demand in those parts.

7. The **maintenance** charge per mile, compared with the three previous half-years, is as follows :—

Half-year.	Ordinary.	Extra.	Total.
	Rs.	Rs.	Rs.
1895, December... ...	540	35	575
1896, June	545	54	599
,, December... ...	556	79	635
1897, June	562	48	610

The cost of maintenance per mile for the half-year under review is slightly higher than for the corresponding half-year of 1896, owing to the increase in the number of rails renewed, and the decrease in value of the rails removed and taken into stock, as well as to the cost of restoration of the bridges at the 95th and 107th miles seriously damaged by the floods last year.

The insertion of the new 30-feet rails of bull-headed section, when first laid, has not been attended with favourable results as regards smooth running, for reasons explained in the Acting Chief Engineer's report, and the condition of the road demands careful watchfulness and attention, now that the speed of the Mail trains has been increased. On these grounds, I fully support the Acting Chief Engineer's opinion that the time has come when the District Engineer—on the N. W. Line especially—should be provided with some inexpensive type of inspection carriage.

The strengthening of weak girders has made steady progress; most of the bridges of 50-feet span have been completed, and the 64-feet spans are now being dealt with.

In regard to new extensions, although the Calicut-Cannanore project has been virtually sanctioned by Government, permission to commence construction has been withheld pending the investigation of certain portions in which an improvement in the alignment has been suggested by the Consulting Engineer as possible. It is hoped, however, that sanction to begin work at once on the first 36 miles, of which the final alignment has been approved, will be accorded, so that the approaching working season may not be lost, and indents for the permanent-way and bridge-work may be transmitted to England without delay. The Shoranur-Cochin and Arcot-Ranipett branches, for which detail estimates have been forwarded, as well as the Podanur-Dindigal and Mettupalaiyam-Erode extensions, for the survey of which application has been submitted, are still under the consideration of the Government, from whom an early decision is eagerly awaited.

8. The total cost of the **Locomotive Department** during the last four half-years has been as under :—

Half-year.	Total mileage.	Total cost including all charges.	Total cost per mile run.		
	No.	Rs.	Rs.	A.	P.
1895, December	1,527,332	13,20,196	0	13	9·96
1896, June	1,502,267	13,60,700	0	14	5·90
„ December	1,519,722	13,56,991	0	14	3·44
1897, June	1,535,936	13,28,234	0	13	10·04

Compared with the corresponding period of 1896, the expenses of the Locomotive Department may be stated as follows :—

Locomotive	Running	decrease	Rs. 4,507.
„	Repairs and renewals	„	„ 3,228.
Carriage and Wagon	Running	increase	„ 1,949.
„	Repairs and renewals	decrease	„ 12,418.

The large reduction in expenses, although the total mileage worked was so much higher than in the corresponding half-year, is very gratifying.

The saving in the locomotive expenses is mainly due to a reduction in the cost of wood fuel. There was a large increase in the cost of oil, the market rate having risen greatly in consequence of the failure of the castor seed crop.

The decrease in the carriage and wagon expenses is due principally to the smaller number of vehicles repaired during the half-year. The figures are 2,665 as against 2,803 in the corresponding period of 1896.

During the half-year 19 additional vehicles were fitted for gas-lighting. More rapid progress will be made with this work on receipt from England of the material which has been indented for.

Eight engines and 79 vehicles were fitted during the half-year with the vacuum brake, and the use of the brake has now been extended to the Mail and Passenger trains on the Bangalore Branch.

It is hoped the Government will shortly sanction the estimate for the joint stock intended for the Madras-Bombay Mail service. These carriages, added to the three bogie composites, already sanctioned solely for this Company's use, will be a welcome addition to the stock and be highly appreciated by the travelling public.

9. The **Electric Telegraph** wires, block, needle and Morse instruments, electric starting semaphores and intercommunication in trains were maintained satisfactorily during the half-year. Seventeen engines and 121 vehicles were fitted with electrical intercommunication appliances during the half-year.

10. The **Medical Officer** reports that there was a decrease of 320 in the number of employés, to whom it was found necessary to grant sick certificates. There were in all during the half-year 5,386 cases of sickness dealt with against a total of 5,706 cases for the corresponding half-year. There were 14 cases of cholera and 12 of small-pox, and 23 deaths were reported during the half-year.

11. **Railway Schools** are now maintained at nine of the important stations on the line, a school having been opened at Katpadi. The total number of children on the register at 30th June was 421, and the average attendance 332. The cost to the Company of maintaining these schools during the period under review was Rs. 4,254.

12. The amount of the Company's contribution to the **Provident Institution** amounted for the half-year to Rs. 20,722-14-2, and this sum will be found entered in Abstract G of the Capital and Revenue Accounts. The total amount at the credit of the institution

on the 30th June was Rs. 7,80,563-13-4. An additional bonus of Rs. 10,223-13-2 will be paid to the credit of the institution when the accounts have been accepted by Government.

13. The following movements in the **Company's Staff in India** are recorded :—

Mr. E. W. Stoney, District Engineer, proceeded on 18 months' furlough on the 4th April 1897.

„ H. J. Thompson, District Engineer, was appointed to act as Chief Engineer, with effect from the 4th April 1897.

„ J. A. Percy, Temporary Assistant Engineer, resigned the Company's service on the 8th February 1897.

„ J. Punter, Inspector of Points and Crossings, resigned the service on the 2nd May 1897.

„ J. W. Gallagher was appointed temporary Assistant Engineer on the 19th March 1897, and resigned on the 16th August 1897.

Foreman H. Berry resigned the Company's service on the 31st March 1897.

Covenanted Driver H. F. Simpson resigned the service on the 10th April 1897.

Loco. Foreman William Barefoot retired from the Company's service on the 20th May 1897.

Foreman E. Driver returned from leave and resumed charge of his duties on the 5th April 1897.

Foreman R. B. Ward, returned from leave and resumed charge of his duties on the 26th June 1897.

Covenanted Erector and Fitter Percy Fielding entered on his duties on the 21st June 1897.

Mr. E. R. Ross, Assistant Traffic Manager, returned from furlough leave on the 13th May 1897.

„ A. H. Francis, Fourth Assistant Auditor, entered on his duties on the 18th January 1897.

„ T. Wake, First Assistant Auditor, proceeded on 8 months' furlough on the 4th April 1897.

Messrs. A. Corben, J. Mitchell and A. H. Francis were appointed to act as First, Second and Third Assistant Auditors, respectively, with effect from the 4th April 1897.

Mr. G. K. Winter, Telegraph Engineer, proceeded on furlough leave on the 3rd April 1897.

„ R. E. Pigott, Assistant Telegraph Engineer, was appointed to act as Telegraph Engineer, with effect from the 3rd April 1897.

„ F. O'Sherman, General Storekeeper, retired from the Company's service on the 18th May 1897.

„ J. Mitchell, Third Assistant Auditor, was appointed General Storekeeper, with effect from the 18th May 1897, but continues to act as Second Assistant Auditor.

„ R. G. Bamford, Chief Loco. Draftsman, was appointed to act as General Storekeeper during the employment of Mr. Mitchell on other duty.

I have the honor to be,
Sir,
Your Most Obedient Servant,
HENRY C. WEST,
Ag. Agent and Manager.

MADRAS RAILWAY COMPANY,
CHIEF ENGINEER'S OFFICE,
MADRAS, 14*th September* 1897.

No.

To

THE ACTING AGENT AND MANAGER,

Madras Railway Company.

SIR,

I have the honor to submit my report on the Way and Works for the half year ending 30th June 1897.

The inspection of the N. W. Line was made on the 5th, 6th and 7th July, and that of the Madras Terminal stations, the Ennur Branch and S. W. Line between 22nd and 29th July.

1. **Earth-work.**—During the half year under review the cuttings and embankments have been well maintained throughout the line.

Stone drains have been inserted in the bank from 2 miles to 3¼ Miles, S. W. Line, which, it is hoped, will prevent a recurrence of the slips that took place during the North-East monsoon of 1396.

The details of the training works in connection with the proposed diversion of the Koduru River, sanctioned in the Board's letter, No. 957, of 18th June 1897, are still under discussion with the Consulting Engineer for Railways, to whom a revised plan has been submitted for sanction.

2. **Fences.**—The vegetable fence is generally in fair order but considerable lengths of it, especially between Katpadi and Jalarpet, will require to be replaced by wire fencing in the near future and the necessary estimates are under preparation.

On the Kolar Gold Fields Railway the erection of wire fencing throughout the line has been sanctioned by the Mysore Durbar, and is in progress.

3. **Stations.**—The Stations, Station Yards and Staff Quarters are neat, clean, and have been well maintained.

In several of the large Station Yards, where the siding accommodation has been added to from time to time to meet the requirements of an increasing traffic, a re-arrangement of the sidings is desirable to facilitate the work of the stations and enable the sidings to be used to the best advantage.

At Rayapuram such alterations have become imperative on the grounds of safety, and a plan and estimate for this work have been submitted for sanction.

Plans are also being prepared at the request of the Consulting Engineer for Railways for alterations to the sidings at Adoni, Raichur and Bangalore Cantonment with a view to reduce the number of facing points in the Main Line. A great portion of the work to be executed will consist of taking up and relaying permanent-way, much of which can be carried out gradually by the Maintenance Gangs without incurring extra expenditure.

At Bangalore City the new Station House has been completed in accordance with the revised plans, but the roofing of the proposed covered platform is still in abeyance pending receipt of the ironwork required.

The new Engine Shed, Turntable, and Quarters for staff in connection with the conversion of Nandalur into an Engine-changing Station have been finished.

At Tiruvallur a commodious 3rd class Waiting Room with Refreshment Stall and Water Pandal has been erected for the convenience of Native Passengers attending the Monthly Festivals at the Temple near this station.

4. Bridges.—The bridges are all well maintained, and on my inspection stops were made to examine the sleepers and fastenings at several small openings in addition to the usual inspection of the large bridges over the Booga, Papagni, Chitravatti, Penner, Tungabhadra, Cauvery, Tirur, Kadalundi, Ferok and Kallai Rivers.

The conversion of the 30-feet semi-circular arch at 168/10 miles, Bangalore Branch, into a 30-feet girder opening to provide extra waterway is in progress.

The new bridge at 95/2–3 miles, N. W. Line—2 spans of 23 feet—to replace the 3–12 feet openings destroyed by flood in November 1896 was approaching completion at the end of the half-year. The repairs to the Koduru Bridge were in progress, but the foundations of the new pier and abutment have given considerable trouble owing to the difficulty experienced in keeping the water down in the cofferdams and the tendency of the main line bank on the North side of the river to slip. In order to avoid an expensive diversion of the main line whilst the repairs to the Bridge were being executed, temporary piers and an additional span were erected and traffic has been carried on over the bridge. Under the circumstances mentioned above, progress has necessarily been slow, but it is hoped that the work will be complete before the North-East monsoon sets in when floods are likely to occur.

On the Kolar Gold Fields Railway it has been found that inferior workmanship was put into some of the minor bridges and, after a joint inspection by our District Engineer and an Engineer belonging to the Mysore Public Works Department, it was decided that the cost of making the bridges secure should be borne by the Mysore Durbar to whom an estimate will be forwarded for sanction.

The strengthening of weak girders of 50-feet span is in progress and 14 spans have been completed to date as shewn below :—

Bridge No.	Mileage.	Description.	Remarks.
R. 4.	1/14 Ms. S. W. L.	1-50 ft. Cochrane's Canal.	Completed.
129	70/1-2 Ms. N. W. L.	1-50 ft.	
183	79/13-14 ,, N. W. L.	1-50 ft.	
232	95/13-14 ,, N. W. L.	1-50 ft.	
251	107/10-11 ,, N. W. L.	5-40 ft. (Skew)	
598	179/1 ,, N. W. L.	5-50 ft.	
84	175/5 ,, B. Branch	1-50 ft.	In progress.
82	175/16 ,, ,,	2-50 ft.	Not begun. Waiting for girders indented for on England.

The weak girders of 64-feet span will be next taken in hand, and plans and estimates are being prepared for the 12 bridges which it has been arranged shall be strengthened by the construction of masonry piers at the centre of existing spans.

Several schemes have been suggested for dealing with the Tungabhadra Bridge, but the plan to be adopted is still under consideration, and in a separate report I have supplied you with the necessary data to enable you to decide, in accordance with the Board's instructions, whether the waterway is to be contracted and the cost of renewing the girders thereby reduced.

5. Water-supply.—Owing to the continued drought the condition of the water-supply between Katpadi and Bangalore and throughout the N. W. Line has been the cause of considerable anxiety.

At Jalarpet the excavation of a new well was carried down to a depth of 30 feet but the work had to be abandoned, as the supply of water was found to be much less than was anticipated from the borings, and it is probable that water for the Loco. Department and Staff will have to be obtained for this station from a considerable distance.

At Gooty, which is also a large Engine Station, the existing watering arrangements are unsatisfactory and it is proposed to abandon the well in the station compound and pump all the water required from the Basanapalli Vonkah at 258/10 miles, where a perennial supply of good water is available, and lead it thence into the station by pipes.

The ironwork required for the new watering arrangements at Whitefield and Nandalur is being manufactured at Perambur Works, and it is probable that both schemes will be completed before the next dry season.

6. Permanent-way.—I found the Permanent-way generally in good order throughout the line, but the running at high speeds is not, in my opinion, as smooth on the lengths where the ballast has been covered with broken stone as it was formerly. In this connection I may remark that the stone has to be removed and replaced whenever the line has to be lifted or any repairs have to be executed, and the work of the gangs is thereby considerably increased. Moreover, the Maistries are no longer able to detect small slacks by the disturbance of the sand or moorum ballast, the latter being hidden by the stone covering.

On portions of the road relaid with 30-feet bull-headed rails a great deal of scillation is felt in fast trains.

The laying of these rails entails the insertion of an additional sleeper under each rail in every 30 feet and the respacing of the remainder of the sleepers and, until the road bed has again become thoroughly consolidated, the oscillation is likely to continue. The change of section in the rail head also accounts for some of the bad running, as tyres which have been running over the double-headed rails, the top radius of which is 5¼ inches, and have adapted themselves more or less to this section have a tendency to slip laterally on the new rails, the tables of which have a radius of 15 inches.

As the length of bull-headed rails increases this cause of bad running will gradually disappear, but in future supplies of rails an alteration of the section to a 10-inch top radius is, I consider, desirable.

Numerous complaints have been received from passengers of the discomfort experienced in travelling by the up-mail train over this section of the line, but the District Engineers are doing their best to get the line into good order. In the absence, however, of an Inspection carriage which could be attached to the rear of mail trains to enable the District Engineer and the several Inspectors, on whose lengths the 30-feet rails are laid, to regularly test the road and localize defects, the difficulties of working up the line into a fit state for a fast train service are considerable.

I desire to call attention to the fact that, since receipt of the Board's letter No. 943 of 23rd October 1896, in which the question of Inspection carriages was dealt with, an accelerated Mail Service between Madras and Bombay has been introduced for which the time-table was compiled for a maximum speed of 45 miles an hour. Where grades are in favor of the

train, or when making up time, the actual speed undoubtedly exceeds the limit mentioned above and, having in view the fact that this train is running over a pot-sleeper road ballasted with sand and moorum, I am of opinion that the District Engineer in charge of the N. W. Line should be provided with an Inspection carriage for the purpose of regularly testing the road from the rear of the Mail Train.

During the half-year 27·58 miles of rails were placed by—

	Miles.
2,738 bull-headed 30-feet steel rails	7·78
4,797 new and 2nd-hand 20-feet double-headed 75 lbs. steel rails	9·08
132 new and 2nd-hand flat bottom 20-feet steel rails ...	0·25
5,528 2nd-Hand double headed 20-feet iron rails ...	10·47

as compared with 26·62 miles in the previous half-yalf. Of the 11,844 iron rails removed, 6,534 were fit for relaying elsewhere, the number of rails condemned during the half-year being 5,310.

The diagram attached shews the number of rails of each description in the line on the 30th June.

7. **Pot-sleepers.**—7,557 pot-sleepers were renewed during the six months under notice, or ·231 per cent. of the total number in the line.

So far as can be judged at present, the Stoney's Joint Pots, laid in 1896 in the up-line at 5/15—16 miles, are successful in supporting the rail joints and reducing the wear of the rail ends. The results of the experiment are, I consider, sufficiently satisfactory to justify the insertion of these pots under the joints of the new bull-headed rails for a length of 5 miles, in order that they may be given a fair and more extended trial.

8. **New Type Fish-plates.**—The new type fish-plates indented for last year have been received and are gradually being fitted to the 20-feet double-headed steel rails. The following table shews the total number and miles of heavy fish-plates laid in the line up to 30th June :—

—	New type fish-plates used with bull-headed steel rails.		New type fish-plates used to replace old patterns on double-headed steel rails.		Total.	
	Miles.	Number.	Miles.	Number.	Miles.	Number.
Done up to 31st Dec. 1896.	54·07	38,064	257·53	248,913	311·60	286,977
Done during the half-year ending 30th June 1897...	7·78	5,564	26·17	26,346	33·95	31,910
Total done up to 30th June 1897	61·85	43,628	283·70	275,259	345·55	318,887

9. **Maintenance.**—The cost of maintenance per mile for the entire Railway compared with that of the two previous half-years is as follows :—

Half-year ending 30th June 1896.

	Rs.	A.	P.
Total cost of Maintenance including Sidings	599	6	2
Extra expenditure	54	5	2
Ordinary expenditure ...	545	1	0

Half-year ending 31st December 1896.

	Rs.	A.	P.
Total cost of Maintenance including Sidings	635	8	9
Extra expenditure	79	2	8
Ordinary expenditure ...	556	6	1

Half-year ending 30th June 1897.

	Rs.	A.	P.
Total cost of Maintenance including Sidings	610	14	10
Extra expenditure	48	8	8
Ordinary expenditure ...	562	6	2

	Rs.	A.	P.	Rs.	A.	P.
Total cost of Maintenance during the half-year ending 30th June 1896	7,26,971	2	10			
Less Value of old rails and other items taken into stock ...Rs.	1,08,108	0	0			
Less Cost of working Kolar Gold Fields Railway ... ... ,,	9,223	12	6			
				1,17,331	12	6
				6,09,639	6	4

Cost of ordinary expenditure per mile including Kolar Gold Fields Railway ... ... Rs. $\frac{5,62,775\text{-}14\text{-}3}{1,032\frac{1}{2}}$ = 545 1 0

The details of extraordinary expenditure for the half-year ended 30th June 1896 are as follows :—

		Rs.	A.	P.	Rs.	A.	P.
S. W. Line.	Covering dusty portion of the line with broken stone	4,540	0	0			
	Revenue portion of sanctioned Schedule Works	6,751	12	7			
	New Engineering Workshops, Arkonam	4,593	4	7			
	Arcot-Ranipet Survey	3,973	7	9			
					19,858	8	11
N. W. Line.	Covering dusty portion of the line with broken stone	13,974	14	3			
	Strengthening Weak Girders ...	12,392	11	2			
	Revenue portion of sanctioned Schedule Works	9,861	2	3			
					36,228	11	8
					56,087	4	7

Cost of extra expenditure per mile ... ... Rs. $\frac{56,087\text{-}4\text{-}7}{1,032\frac{1}{2}}$ = 54 5 2

	Rs.	A.	P.	Rs.	A.	P.
Total cost of Maintenance during the half-year ending 30th June 1897	7,88,525	6	4			
Less Value of old rails and other items taken into stock ...Rs.	1,55,067	1	5			
Less Cost of working Kolar Gold Fields Railway ... ... ,,	13,352	1	5			
				1,68,419	2	10
				6,20,106	3	6

Cost of ordinary expenditure per mile including Kolar Gold Fields Railway ... ... Rs. $\frac{5,83,125\text{-}7\text{-}0}{1,036\frac{1}{2}}$ = 562 6 2

The details of extraordinary expenditure for the half-year ending 30th June 1897 are as follows:—

					Rs.	A.	P.	Rs.	A.	P.
S. W. Line.	Covering dusty portion of the line with broken stone	Rs.	1,018	14	2					
	Revenue portion of sanctioned schedule works	„	18,840	1	7					
	Repairing damages done to Station buildings, by strong gale in May 1897...	„	327	14	2					
	Strengthening girders by timber struts for bridge over Cochrane's Canal, &c., at $\frac{1}{14}$ miles	„	805	15	10					
	30-feet opening in lieu of 30-feet arch at $\frac{168}{10}$ miles, Bangalore Branch.	„	195	6	11					
						21,188	4	8		
N. W. Line.	Covering dusty portion of the line with broken stone	„	15,446	14	10					
	Revenue portion of sanctioned schedule works	„	590	10	10					
	Restoration of bridge at $\frac{95}{2\text{-}3}$ miles...	„	5,590	6	5					
	Restoration of bridge at $\frac{107}{10\text{-}11}$ miles ...	„	7,516	9	2					
						29,144	9	3		
									50,332	13 11
Cost of extra expenditure per mile					Rs. $\frac{50,332\text{-}13\text{-}11}{1036\frac{3}{4}}$ =				48	8 8

10. Covering sand ballast with broken stone.—6¼ miles on the Bangalore Branch and 38¼ miles on the N. W. Line have been covered during the half-year, the total length now completed being 370 miles on the S. W. Line and 135¾ miles on the N. W. Line.

11. Signals and interlocking.—The several installations of interlocking apparatus on the N. W. Line have worked satisfactorily.

The additional fittings required for the Saxby and Farmer's hydraulic apparatus at Nagari were only recently received and the interlocking at that station has not yet been brought into use.

In accordance with the orders of Government 267 Distant signals have been altered, so that they will shew a danger signal if any connection breaks and 7 remain to be done. The alterations to the Home signals have just been commenced.

12. Arcot-Ranipet Survey.—Revised plans and estimates for this Branch on the alignment suggested by Mr. E. W. Stoney have been submitted.

13. Calicut-Cannanore Extension.—Revised plans and estimates for this extension have been forwarded to you, a ruling grade of 1 in 150 having been adopted as it was found that the extra working expenses which a 1 in 100 ruling grade would entail more than counterbalanced the additional cost of the former grade.

A resurvey of the length from Mahé to Cannanore and a new survey for a further extension to Baliapatam, the centre of a large timber trade, is required by Government, and it is proposed to put this work in hand in October under the supervision of Mr. G. A. F. French as Engineer-in-Chief.

The construction of the line from Calicut to Mahé, a distance of 37 miles, should, if possible, be commenced at the same time.

14. Engineering Staff.—

Mr. F. A. Pawley was still on furlough.

Mr. E. W. Stoney proceeded on 18 months' furlough on 4th April when Mr. H. J. Thompson was appointed to act as Chief Engineer.

I have the honor to be,

Sir,

Your most obedient servant,

HARRY J. THOMPSON,

Ag. Chief Engineer.

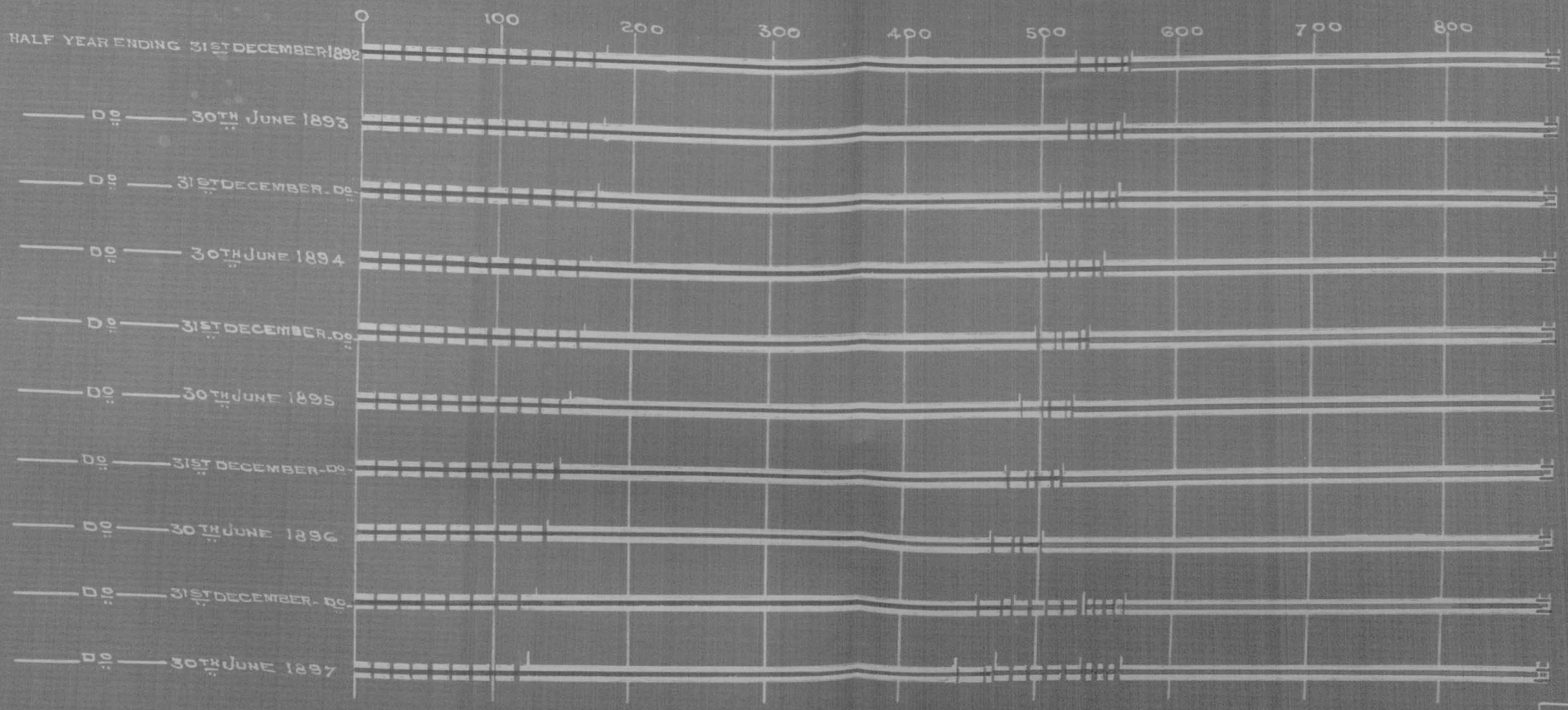
Nº 1

MADRAS RAILWAY

DIAGRAM SHEWING THE DIFFERENT DESCRIPTION OF RAILS ON THE MAIN LINE FOR 10 HALF YEARS FROM 1892 TO 1897

MADRAS RAILWAY

SCALE 100 MILES TO 1 INCH



K.G.F. RAILWAY

SCALE 5 MILES TO 1 INCH

REFERENCE

Harry P. Simpson
A.G. CHIEF ENGINEER
SEPTEMBER 1897

SUMMARY

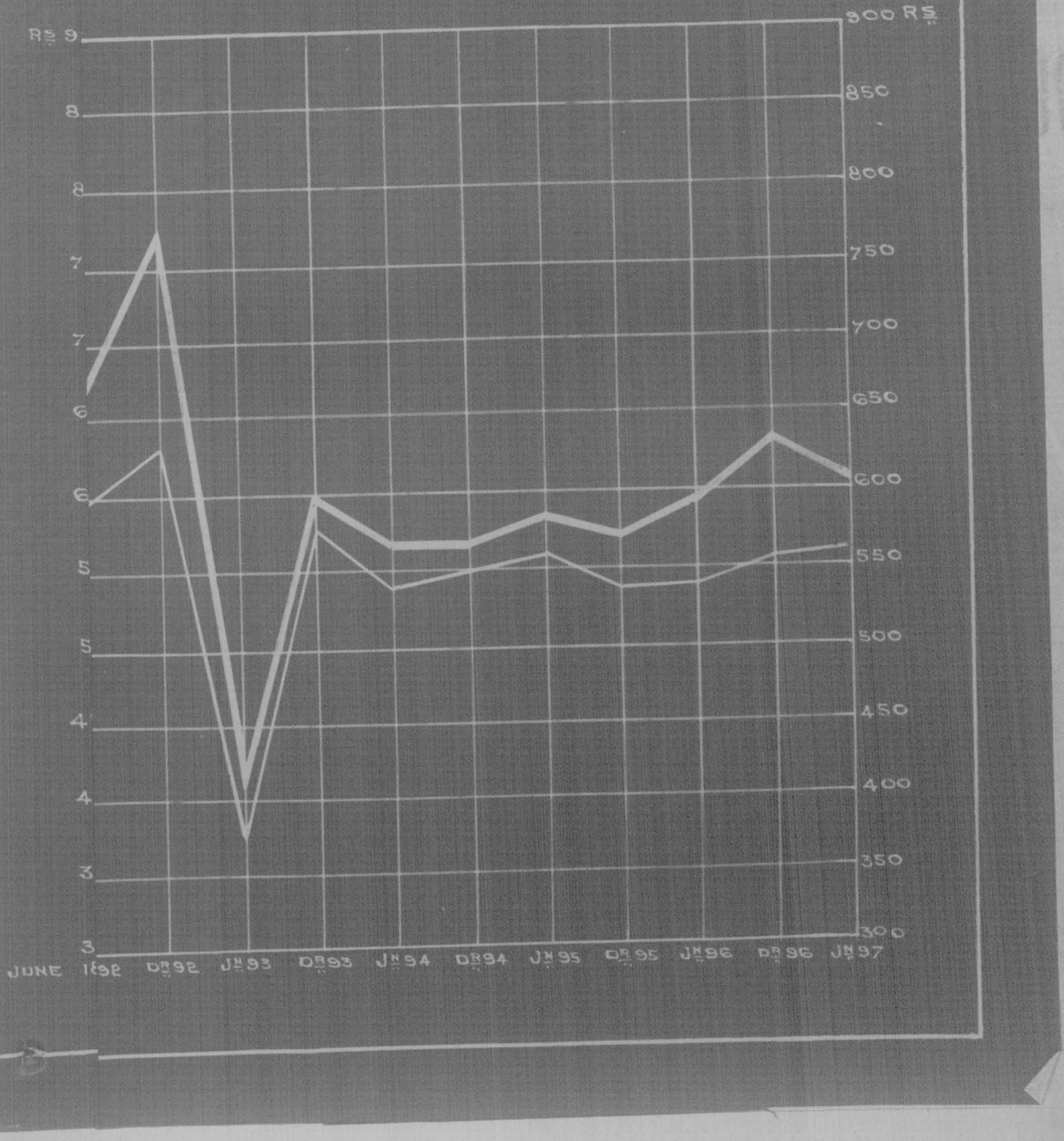
SHEWING TOTAL MILES OF DIFFERENT DISCRIPTION OF RAILS LAID ON MADRAS RAILWAY UP TO 30TH JUNE 1897

DESCRIPTION OF RAILS		LENGTH IN MILES M.RY	LENGTH IN MILES K.G.F.RY
IRON	65 lbs RAILS	127.17	"
	75 lbs Do	315.79	7.61
	84 lbs Do	27.78	0.12
STEEL	FLAT BOTTOM RAILS	5.68	"
	76 lbs 30FT BULL Nº RAILS	61.85	"
	75 lbs 30FT DOUBLE Nº RAILS	32.38	"
	75 lbs 20FT AND OTHERS DOUBLE Nº RAILS	310.98	2.27
	TOTAL	881.63	10.00

ENT WAY

Harry L. Thompson

AG: CHIEF ENGINEER
SEPTEMBER 1897



MADRAS RAILWAY COMPANY,

CHIEF AUDITOR'S OFFICE,

MADRAS, *4th September* 1897.

THE ACTING AGENT AND MANAGER,
Madras Railway Company.

DEAR SIR,

I beg to forward herewith the usual statements of the Company's Accounts for the half-year ending 30th June 1897.

CAPITAL.

1. *Statement No. V.*—The Capital expenditure for the half-year amounted to Rupees 2,79,285-3-1, and was incurred chiefly on alterations and additions to stations and station-yards, gas-making plant and rolling stock, including fitting with automatic brake gear.

2. *Statement No. VI.*—The total Capital outlay including suspense from the commencement of operations to end of the half-year under review was Rs. 12,14,48,020 and the expenditure excluding suspense Rupees 11,89,07,516, which gives an average of Rupees 1,41,688 per mile open.

REVENUE.

General Results.

3. The following table shews the general results of working :—

——	Half-year ending June 1896.	Half-year ending June 1897.	DIFFERENCE.	
	Miles.	Miles.	Miles.	Per cent.
Mean mileage worked	839·22	839·22	...	...
Train-mileage	1,237,502	1,262,217	+ 24,715	+ 2·00
	No.	No.	No.	
Average number of trains over the whole line daily in both directions...	8·10	8·31	+ ·21	...
	Rs.	Rs.	Rs.	Rs.
Gross Earnings	54,68,400	57,89,562	+ 3,21,162	+ 5·87
Working Expenses	27,44,045	26,99,026	− 44,119	− 1·61
Net Earnings ...	27,24,355	30,89,636	+ 3,65 281	+ 13·41
Percentage of Working Expenses to Gross Earnings	50·18	46·63	− 3·55	...
Percentage of Net Earnings to Capital Outlay, including Suspense ...	2·26	2·56	+ ·30	...

4. The Gross Earnings per mean mile worked per week averaged Rupees 265 against Rupees 251 and were realized at a cost of 46·63 per cent. against 50·18 per cent. in the corresponding half of the previous year.

5. The Net Earnings gave, after paying the interest charges and contribution to the Provident Institution for the half-year a surplus of Rs. 1,66,902-6-11, which, subject to realization of outstandings on traffic account, is divisible in equal parts between the Company and Government.

Gross Earnings.

6. The following table shows the Gross Earnings for the two half-years :—

——	Half-year ending June 1896.	Half-year ending June 1897.	Difference.	
			Amount.	Per Cent.
	Rs.	Rs.	Rs.	Rs.
Coaching	23,44,715	22,89,695	− 55,050	− 2·35
Goods	30,2°,150	33,95,726	+ 3,73,576	+ 12·36
Electric Telegraph	9,816	10,460	+ 644	+ 6·56
Steam-boat	...	...	...	...
Sundries	91,689	93,681	+ 1,992	+ 2·17
Total ...	54,68,400	57,89,562	+ 3,21,162	+ 5·87

7. **Abstract H.**—*Coaching Traffic.*—The number of passengers of the various classes carried including troops and police and season tickets, and the earnings therefrom, compare as follows :—

——	First Class.		Second Class.		Third Class.		Total.	
	No.	Earnings.	No.	Earnings.	No.	Earnings.	No.	Earnings.
		Rs.		Rs.		Rs.		Rs.
First half of 1896 ...	11,326½	1,01,826	52,289	1,24,461	4,841,532	18,18,677	4,905,147½	20,44,964
First half of 1897 ...	13,386	1,08,271	50,892	1,23,416	5,090,606	17,55,265	5,154,884	19,86,952
Increase	2,059½	6,445	...	...	249,074	...	249,736½	...
Decrease	...	...	1,397	1,045	...	63,412	...	58,012

8. The increases and decreases in the various descriptions of passenger traffic are shown in the detail statement of Abstract H, *vide* para. 119.

9. The first class traffic shows an increase in numbers of 2,059½ and Rs. 6,445, the greater portion being due to ordinary traffic.

10. In second class a decrease of 1,397 and Rs. 1,045 is recorded.

11. Third class traffic shows an increase of 249,074 in numbers with a decrease of Rs. 63,412. This is practically all due to ordinary traffic and as in the two previous half-years may be attributed to the lowering of the short distance fares. The Board have repeatedly expressed the desire that particular attention should be paid to the falling off in the number of passengers travelling, which was noticed when the third class fares were raised in January 1895. This point was referred to in my preliminary Report submitted to you on the 26th July last, and the above results will, I apprehend, be very gratifying. The total number of third class passengers carried (5,090,606) is the highest on record, and compared with the June 1895, half-year, shows an increase of 745,000. We have however earned Rs. 1,00,000 less than in that period, and it would now appear to be desirable that some attention should be paid towards an attempt to improve the pecuniary results.

12. Passengers' luggage shows an increase of Rs. 5,911.

13. The Receipts from Horse, Carriage and Dog Traffic, both ordinary and military, have remained stationary.

14. Military baggage shows a small decrease amounting to Rs. 937.

15. *Parcels for the Public*—The receipts under this head show a small increase of Rs. 880

16. **Abstract I.**—*Goods Traffic.*—The following is a summary of the tonnage of goods lifted and the earnings therefrom, as compared with the corresponding period of 1896 :—

——	Half-year ending June 1896.		Half-year ending June 1897.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Merchandise, General	383,126	27,40,171	440,528	30,28,042
Military Stores	903	34,844	890	44,819
Railway materials for construction	583	1,846	1,229	3,896
Coal (including Locomotive Revenue)	51,864	1,72,484	73,212	2,39,050
Revenue Stores (excluding Locomotive Coal)	105,111	42,143	110,439	49,541
Other Goods Traffic	...	30,662	...	30,378
	541,587	30,22,150	626,298	33,95,726
Less—Outstandings irrecoverable or not recovered ...	...	...	...	...
Total ...	541,587	30,22,150	626,298	33,95,726

17. *Merchandise, General.*—Under this head the very large increase of tons 57,402 and Rs. 2,87,871 occurs. The improvement in Grain and Pulse, principally Gram, Jawar and Bajra amounts to Rs. 3,00,000. Decreases are noted in Paddy and Oil Seeds; the fluctuations of these and other principle commodities are dealt with in another paragraph.

18. *Railway materials for construction*—Increase tons 646 and Rs. 2,050.

19. *Coal (including Locomotive Revenue.)*—Increase tons 21,348 and Rs. 66,566. This improvement occurs almost entirely in public traffic.

20. *Other Goods Traffic.*—Decrease Rs. 284.

21. The following table shows some of the principal commodities included above under the head of "Merchandise, General" carried during the two half-years under comparison :—

——	Half-year ending June 1896.		Half-year ending June 1897.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Cotton—				
Raw	8,953	1,31,632	8,003	1,18,116
Dyes and Tans—				
Others	7,310	76,637	8,962	96,822
Grain and Pulse—				
Rice in the husk	8,562	58,463	5,363	22,039
Rice not in the husk	24,965	1,53,923	50,606	2,13,757
Jawar and Bajra	2,983	16,911	16,024	99,711
Gram and Pulse	14,400	95,519	32,074	2,31,499
Others	21,746	1,40,967	23,731	1,65,221
Hides and Skins—				
Skins of Sheep, &c.—				
(*a*) Dressed or Tanned	3,615	57,749	3,832	57,060
(*b*) Raw	7,278	94,699	8,597	1,08,475
Metals—				
Iron	7,315	73,794	11,470	99,628
Oils—				
Kerosine	3,113	42,537	4,921	66,236
Oil Seeds—				
Castor	8,499	60,227	3,371	21,763
Others	8,038	55,325	5,715	38,403
Provisions—				
Others	32,830	2,41,115	32,854	2,42,801

	Half-year ending June, 1896.		Half-year ending June, 1897.	
	Quantity.	Earnings.	Quantity.	Earnings.
Salt	25,160	1,42,106	26,034	1,45,421
Sugar— Unrefined, *viz.*, Molasses and Jaggery or Gur and other Saccharine Produce	25,919	1,72,633	13,192	92,041
Timber	56,523	1,86,427	63,053	2,32,396
Tobacco— Unmanufactured	5,734	55,220	6,227	56,976
All other Articles of Merchandise	33,987	3,21,395	34,448	3,57,606

Note.—The Traffic Manager's Report will give the causes of the principal differences in the receipts from the various commodities.

22. **Cotton, Raw.**—Decrease tons 950 and Rs. 13,516.

23. **Dyes and Tans**—*Others.*—Increase tons 1,652 and Rs. 20,185.

The improvement is due to traffic from foreign lines *via* Raichur and Guntakal.

24. **Grain and Pulse**—*Rice in the husk.*—Decrease tons 3,199 and Rs. 36,424. The greater part of this falling off is in traffic from Rayapuram to local stations.

25. **Grain and Pulse**—*Rice not in the husk.*—Increase tons 25,641 and Rs. 59,834. This increase is mainly in local traffic from S. W. line stations between Olavakkot and Podanur and from Katpadi; small increases are also recorded in traffic from foreign lines *via* Katpadi and *via* Guntakal and to G. I P. stations *via* Raichur.

26. **Grain and Pulse**—*Jawar and Bajra.*—Increase tons 13,041 and Rs. 82,800. A very large increase is recorded in traffic from M. Ry. stations to G. I. P. and the north *via* Raichur. The local increase is in traffic from Tiruppur, Erode and other S. W. line stations.

27. **Grain and Pulse**—*Gram and Pulse.*—Increase tons 17,674 and Rs. 1,35,980. An increase, amounting to nearly Rs. 50,000, occurs in local traffic from Coimbatore, Palghat, Tiruppur and Erode also contribute to the improvement. A very large increase is also recorded in traffic from M. Ry. stations to the north *via* Raichur.

28. **Grain and Pulse**—*Others.*—Increase tons 1,985 and Rs. 24,254.

29. **Hides and Skins**—*Skins of Sheep, &c., Dressed or Tanned.*—Increase tons 217 and decrease Rs. 689.

30. **Hides and Skins**—*Skins of Sheep, &c., Raw.*—Increase tons 1,319 and Rs. 13,776.

31. **Metals**—*Iron.*—Increase tons 4,155 and Rs. 25,834. This increase is almost entirely in local traffic from Madras.

32. **Oils**—*Kerosine.*—Increase tons 1,808 and Rs. 23,699. The traffic from M. Ry. stations to the north *via* Raichur accounts for a considerable portion of this increase. The local traffic from Rayapuram shows an increase of some Rs. 7,000.

33. **Oil Seeds**—*Castor.*—Decrease tons 5,128 and Rs. 38,464. Rs. 10,000 of this decrease is in local traffic from Salem, Raichur, Adoni and Gooty in the month of February.

Abnormal traffic occurred at these stations in the corresponding period. Considerable decreases are also noted in traffic handed to this Company at Bangalore City and Guntakal Junctions.

34. **Oil Seeds**—*Others.*—Decrease tons 2,323 and Rs. 16,922. The bulk of this decrease is in foreign traffic distributed between the various Junctions. Bangalore City and Guntakal being most noticeable.

35. **Provisions**—*Others.*—Increase tons 24 and Rs. 1,686.

36. **Salt**—Increase tons 874 and Rs. 3,315.

37. **Sugar**—*Unrefined.*—Decrease tons 12,727 and Rs. 80,592. A very considerable increase was noted in this traffic in the corresponding period. About Rs. 30,000 of this falling off is in local traffic from stations on the S. W. Line west of Erode. Bangalore City also shows a decrease of some Rs. 15,000. A very large decrease is recorded in traffic handed to us at Guntakal Junction.

38. **Timber**—Increase tons 6,530 and Rs. 45,969. Practically the whole of this increase is in traffic to the Kolar Gold Fields.

39. **Tobacco**—*Unmanufactured.*—Increase tons 493 and Rs. 1,756.

40. **All other articles of Merchandise**—Increase tons 461 and Rs. 36,211.

Working Expenses.

41. The working expenses compare as follows with those of June 1896 half-year:—

	First Half of 1896.		First Half of 1897.		Difference.	
	Amount.	Per cent. on Gross Earnings.	Amount.	Per cent. on Gross Earnings.	Amount.	Per cent.
	Rs.		Rs.		Rs.	
Maintenance	6,09,640	11·15	6,20,106	10·71	+ 10,466	+ 1·72
Locomotive	10,50,269	19·21	10,38,798	17·94	− 11,471	− 1·09
Carriage and Wagon ...	3,10,430	5·68	2,89,436	5·00	− 20,994	− 6·76
Traffic	4,45,373	8·14	4,04,684	6·99	− 40,689	− 9·14
General...	2,88,769	5·28	2,84,635	4·92	− 4,134	− 1·43
Steam-boat	*Nil.*	...	*Nil.*	...	...	...
Special and Miscellaneous ...	39,564	·72	62,267	1·07	+ 22,703	+ 57·38
Total ...	27,44,045	50·18	26,99,926	46·63	− 44,119	− 1·61

42. **Abstract A.**—A net increase of Rs. 10,466 is to be observed under Maintenance Charges.

43. Under "General Superintendence" there is a net decrease of Rs. 6,889, the greater part of which is due to Mr. West's pay being charged to Abstract E as Acting Agent and Manager during Mr. Moss' absence on furlough. There are also decreases to a considerable amount owing to the absence of Mr. Pawley and Mr. Stoney on furlough, to Mr. Pigott having been re-transferred to the Telegraph Department from which he was lent in 1896, the lower rate of exchange compensation paid in the half-year under review and to the gratuities paid to P. W. Inspectors in the first half of 1896. There are also small savings under Subordinates: the total decreases amount to Rs. 16,735, but they are reduced to the above sum of Rs. 6,889 by sundry increases amounting to Rs. 9,846, the principal of which are—increased pay for Mr. H. J. Thompson as Acting Chief Engineer, full pay drawn by Mr. French and Mr. R. Chisholm returned from furlough and acting pay drawn by the latter as District Engineer, also acting allowances drawn by Messrs. Strange, Sandford and Gale: an increase of Rs. 1,368 is due to the appointment of a temporary Engineer from 19th March 1897, of Rs. 900 to the pay of the Engineering Assistants having been charged to Surveys early in 1896, and there are also sundry smaller increases under Subordinates.

44. "Maintenance and Renewal of Permanent Way."—A decrease occurs here of Rs. 1,437: there is an increase of Rs. 51,002 under Materials for ordinary work, which is more than covered by a decrease under Wages and larger credit for the returned stores.

45. "Repairs of Bridges, &c."—Increase Rs. 2,514, entirely due to ordinary outlay.

46. "Repairs of Stations and Buildings."—Increase Rs. 5,443 caused by the Revenue charges for repairs of buildings being Rs. 14,884, higher than in 1896, the excess is reduced to the amount of net increase by the additional credit for returned stores.

47. "New Minor Works."—Increase Rs. 1,687.

48. "Unclassified expenditure."—The increase of Rs. 13,278 is due to the extra charge (Rs. 11,222) for loss by exchange owing to the large amount of English stores used and to the cost of carriage of Revenue stores being Rs. 6,160 higher than in the first half of 1896: the gross increase is reduced by there being no charge in the June 1897 half-year for Arcot-Ranipet Survey.

49. There is a further credit to maintenance charges of Rs. 4,128 for working the Kolar Gold Fields Railway as compared with the corresponding half of 1896.

50. The number of miles of rails removed during the half-year was 56·4340 against 40·4394 in the first half of 1896.

51. The cost of maintaining a mile of single track including sidings was Rs. 610·94 against Rs. 599·42. The figures in this and preceding paragraphs include the mileage maintained for the Kolar Gold Fields Railway.

52. **Abstract B.**—*Locomotive Expenses.*—A decrease of Rs. 11,471.

53. Under "General Superintendence" of Abstract B and C there is a net decrease of Rs. 818. The decreases are Rs. 1,848 due to Mr. Lefebure's resignation in August 1896, Rs. 1,145 in exchange compensation owing to higher rates ruling, Rs. 1,128 in Office expenses due to the Chief Draughtsman acting as General Storekeeper from 15th March 1897, and Rs. 1,470 in stationery and other charges. There are increases of Rs. 2,100, salary paid to Mr. Porteous, the new 2nd Assistant Locomotive Superintendent, of Rs. 2,070 in salaries of subordinates wholly due to the pay of the Weigh Bridge Inspector being charged to the Locomotive Department instead of to the Traffic as before and petty increases under allowances.

54. "Running Expenses"—Decrease Rs. 101.

55. "Fuel."—There is a very satisfactory decrease of Rs. 12,989 under this head, notwithstanding an increase of 33,669 engine miles: the saving is due to the lower issue rate of fuel (both coal and wood) during the half-year under review.

56. "Water including Wages and Stores."—An increase of Rs. 5,363, principally due to the charge for upkeep of water columns, hydrants, &c, having been transferred to the Locomotive Department in the first half of 1897: also to the supply of 2 new boilers to pumping engines at a cost of Rs. 900.

57. "Oil, Tallow and other stores"—Increase of Rs. 3,220 due to the introduction of a more efficient system of cleaning engines and the use of a better quality of oil for cylinder lubrication, also to increased cost of Castor Oil.

58. "Maintenance and Renewals of Locomotive Engines"—A net decrease of Rs. 2,708 is due to the lower cost of two new locomotives (Rs. 4,635), increase of Rs. 5,353 in value of returned stores and Rs. 10,000 received by sale of an old engine: the total decrease of about Rs. 20,000 is reduced to the above sum of Rs. 2,708 by an increase of over Rs. 17,000 in ordinary expenditure.

59. "Maintenance and Renewals of Machinery, &c."—Decrease of Rs. 521.

60. "Unclassified Expenditure."—Increase of Rs. 3,729 wholly under Carriage of Revenue Stores.

61. There are increased credits under this abstract of Rs. 4,489 and Rs. 1,471 for working the Kolar Gold Fields and Madras-Ennur Railways respectively.

62. The cost of the department per train-mile was annas 13·14 against annas 13·47 and per engine mile annas 11·08 against annas 11·39 in the first half of 1896.

63. **Abstract C.**—*Carriage and Wagon Expenses.*—The final result is a decrease of Rs. 20,995, brought about by decreases of Rs. 13,725 under Repairs, &c., of vehicles and Rs. 9,214 under loss by exchange, modified by small increases under other heads.

64. "Repairs and Renewals of Vehicles"—Decrease Rs. 13,725 caused by the smaller number of vehicles repaired during the half-year under review.

65. "Repairs, &c., of Machinery."—Increase Rs. 1,307 caused by a decrease in the value of returned stores.

66. "Cleaning and Oiling Vehicles."—Rs. 1,949 increase caused by Rs. 1,151, extra wages paid to Carriage Examiners, &c., and Rs. 798, increase in stores used.

67. "Unclassified Expenditure."—Decrease of Rs. 9,661 caused by lower charges for loss by exchange (Rs. 9,214) and carriage of revenue stores (Rs. 447).

68. Extra credits amounting to Rs. 1,551 were given to this abstract: for working the Kolar Gold Fields Railway Rs. 1,049, working the Madras-Ennur Railway Rs. 331, and Fire Insurance Fund Rs. 171.

69. The Carriage and Wagon Expenses per train mile were annas 3·66 against 3·98 and per 1,000 vehicles miles run by Home vehicles Rs. 10·14 against Rs. 12·11 in the corresponding half of 1896.

70. **Abstract D.**—*Traffic Expenses.*—A net decrease of Rs. 40,689.

71. "Salaries, wages, &c." show a net decrease of Rs. 3,313. The principal items are Rs. 1,800 due to the transfer of the Weigh Bridge Inspector to the Locomotive Department, Rs. 1,793 less paid for exchange compensation owing to higher exchange prevailing, Rs. 1,546 in travelling allowances due to the amounts paid in the first half of 1896 to Mr. Taylor for expenses on traffic surveys, Cannanore to Baliapatam and Podanur to Dindigul, also to transfer of Mr. Greenall to the Agent's office in May 1897 and the absence of Mr. Read. There is also a decrease of Rs. 639 paid for commission on Tourists tickets. The saving in salaries due to Mr. Read's absence is absorbed by increases to the other Traffic officers. An increase appears under "Station Staff" to the extent of Rs. 1,814, due to minor changes.

72. "Fuel, Lighting, &c."—A decrease of Rs. 25,602 appears. Of this Rs. 23,024 appears under Fires, Lights, &c., the greater part of which is due to the abnormal charge of Rs. 14,025 in the first half of 1896 cost of old lamps replaced by gas: there is also an additional recovery of Rs. 1,393 from the Postal Department for gas lighting charges. A saving of Rs. 2,036 occurs under "Wagon covers, &c.," due to the less number of paulins manufactured in the half-year under review.

73. "Printing, Stationery and Tickets" show a decrease of Rs. 4,690. The greater part of this is due to the decreased consumption of printed books and forms—there is also a satisfactory saving in cost of the Ticket Printing Office, which is now under the control of the Chief Auditor.

74. "Payments to other Lines."—Here there is a decrease of Rs. 5,143, entirely due to the extra debit in the first half of 1896 on account of Guntakal Joint Station.

75. There were increased credits for working the Kolar Gold Fields and Madras-Ennur Railways of Rs. 1,196 and Rs. 409 respectively.

76. The charges for Station Staff, the tonnage of goods lifted, and the ton-mileage of goods carried compare as follows:—

—	First half of 1896.	First half of 1897.	Difference.	
	Tons.	Tons.	Tons.	Per Cent.
Tonnage of Goods	541,587	626,298	+ 84,711	+ 15·64
	Ton-miles.	Ton-miles.	Ton-miles.	
Ton-mileage of Goods	68,857,336	79,049,199	+ 10,191,863	+ 14·80
	Rs.	Rs.	Rs.	
Station Staff	1,93,858	1,95,672	+ 1,814	+ ·94
Train Staff	51,349	52,945	+ 1,596	+ 3·11

77. The total cost of the department averaged annas 5·12 as against annas 5·71 per train-mile in the first half of 1896.

78. **Abstract E.**—General Charges show a net decrease of Rs. 4,134.

79. "Salaries of Indian Management."—Increase of Rs. 605. In the Agent's Office there is an increase of Rs. 3,630, more than accounted for by the additional charge made here on account of the Chief Engineer acting for Mr. Moss on furlough; there are also other small increases due to Mr. Greenall acting for Mr. Edwards from 27th May 1897 on privilege leave and higher rate of salary paid to Mr. Edwards for the whole of the first half of 1897. There are decreases of Rs. 1,367 under Exchange compensation owing to higher exchange ruling and of Rs. 155 under Travelling Allowances.

80. In the Departments under the Chief Auditor there is a net decrease of Rs. 3,235. Of this Rs. 646 is due to less exchange compensation and nearly the whole of the balance to less charges for subordinates and to the recovery from Mr. Woodliffe of the cost of his passage (Rs. 862). Full salaries for the Engineering Account Clerks were charged to the Auditor's Office in the half-year under review, whereas only four months salaries for a portion of them were charged in the corresponding half of 1896.

81. *General Stores.*—A net increase of Rs. 976 is explained by the salary of the Locomotive Chief Draughtsman being charged to the General Stores while he officiated for Mr. O'Sherman who was on privilege leave from 15th March to 18th May 1897—there was also an increase of Rs. 311 under Warders and Clerks.

82. *Medical Department.*—A decrease of Rs. 697 occurred through lower charge for exchange compensation (Rs. 136) and less pay of Apothecaries (Rs. 561).

83. *Rents of Buildings and Land.*—An increase of Rs. 842 was caused by the extra charges for land in Siruvallur (Perambore).

84. A decrease of Rs. 1,477 appears under "Medicines, &c.," owing to one consignment of drugs having been charged off in the first half of 1897 against two in the corresponding half of 1896.

85. "*Police.*"—Here there is an increase of Rs. 563, mainly due to the charge for the Mysore Police being for the full half of 1897 as against four months only in 1896.

86. The expenditure under "Electric Telegraph" is practically the same as before.

87. Under "Unclassified Expenditure" there is an apparent increase of Rs. 860 caused by the increased expenditure on fire engines, which, however, is cleared by the corresponding credit at foot of the Abstract. The real decrease is Rs. 4,243 caused by lower charges for carriage of revenue stores (Rs. 233) and less loss by exchange (Rs. 4,010), the latter being caused by the smaller charge on Home expenditure owing to the better rates of exchange ruling during the first half of 1897.

88. There are extra credits to Abstract E for working the Kolar Gold Fields and Madras-Ennur Railways of Rs. 1,252 and Rs. 433 respectively.

89. **Abstract G.**—Special and Miscellaneous expenditure shows a net increase of Rs. 22,703.

90. "Law Charges" show an increase of Rs. 1,635 due to the Solicitors' bills for two half-years being included on this occasion: see para. 82 of my last half-year's report.

91. "Rates and Taxes."—Increase of Rs. 3,742—a matter beyond our control.

92. "Payments to other Lines."—Decrease of Rs. 2,834—the receipts for mileage and demurrage of foreign stock for the first half of 1897 amount to more than the charges, and there is consequently a credit under Abstract K, which see.

93. "Miscellaneous."—An increase of Rs. 20,377. Of this Rs. 14,440 is due to Commission and Stamp-duty on Debentures and Loss by Exchange thereon Rs. 6,754. There is a decrease of Rs. 1,506 under Railway Schools.

94. Extra credits appear in the Abstract of Rs. 560 for working the Kolar Gold Fields Railway and Rs. 195 for working the Madras Ennur-Railway—also of Rs. 199, recoveries from the Fire Insurance Fund.

95. *Kolar Gold Fields Railway.*—A sum of Rs. 50,020, being the cost of working this line for the half-year to 30th June 1897 (exclusive of Rs. 4,943 for hire of rolling stock), has been recovered and distributed over the several abstracts of the Madras Railway Revenue accounts as shown against each.

96. *Madras-Ennur Section of the Bezwada-Madras Railway.*—A sum of Rs. 18,657, being the cost of working this line for the first half of 1897 (exclusive of Rs. 1,729 for hire of rolling stock), has been recovered. Of this sum Rs. 6,162 represents the actual cost of engineering maintenance and the balance has been distributed over the other abstracts of expenditure in the Madras Railway Revenue Accounts as credits. A credit is given the Madras-Ennur line for Rs. 480, being refund made by your instructions of charges previously made for hire of telegraph instruments.

97. Statement of train-mileage No. 14.—As compared with the first half of 1896, there was an increase in the train-mileage of 25,222, or about 1·99 per cent.; the miscellaneous engine-mileage was 18·62 per cent. of train-mileage against 13·33 per cent. in the corresponding half of the previous year.

SUPPLEMENTARY.

Capital.

98. The total capital expenditure of the half-year has been as follows:—

	Rs.	A.	P
Cash...	1,00,269	8	4
Stores...	„ 1,79,015	10	9
	Rs. 2,79,285	3	1

99. The following particulars show in detail the capital outlay of the half-year :—

ALTERATIONS AND ADDITIONS TO STATIONS AND STATION YARDS.

	Rs.	A.	P.	Rs.	A.	P.
Bangalore City	35,577	11	3			
Nandalur	29,103	14	3			
Perambur	18,301	8	11			
Gooty	11,713	3	2			
Bowringpet	8,955	2	6			
Jalarpet	8,637	3	7			
Podanur	6,667	4	2			
Tiruvallur	3,859	3	9			
Nagari	2,091	7	10			
Guddiyattam	1,908	15	3			
Bisanattam	1,812	8	6			
Olavakkot	1,577	8	1			
Washermanpet	1,468	12	9			
Guntakal	1,452	8	9			
Palghat	1,445	9	4			
Cuddapah	1,365	6	10			
Other Stations	5,373	12	0			
				1,41,311	12	11
18 houses for Subordinates of Traffic Department				3,869	13	0
12 huts for Police Force on Bangalore Branch				2,762	2	4
Restoration of Bridge at $\frac{95}{2\text{-}3}$ mile, N. W. Line				1,277	8	5
Alteration of distant signals				1,203	10	8
Electric Telegraph				Cr. 395	11	0
				1,50,029	4	4
Plant—						
Locomotive Shop Plant	7,054	9	8			
Stations and Office Furniture	1,493	6	7			
				8,548	0	3
Rolling Stock—						
2 composites bogie day						
17 third class carriages						
2 do. do. with brakes						
2 ordinary brake vans				46,165	1	10
Fitting steam sanding gear				128	0	0
Fitting 10 engines and 50 carriages with vacuum brake gear				26,674	4	9
Do. do do do				34,925	0	1
Fitting automatic brake gear to 4 engines				4	1	0
2 new locomotive engines for working Ennur Branch				11,757	3	9
1 bogie corridor composite carriage				1,054	3	1
			Rupees ...	2,79,285	3	1

100. The following is a summary of the operations on the Store Accounts during the half-year :—

	Rs.	A.	P.	Rs.	A.	P.
Store balances at 31st December 1896				25,62,818	8	9
Add Receipts—						
From England	Rs. 5,69,646	13	0			
„ local purchases	„ 7,97,463	9	7			
				13,67,110	6	7
				39,29,928	15	4
Deduct Issues—						
Capital Account	Rs. 1,79,015	10	9			
Revenue Stores	„ 10,01,101	4	7			
By Sales	„ 1,68,163	4	6			
				13,48,280	3	10
Stores balances at 30th June 1897			Rs....	25,81,648	11	6

101. The following particulars show the balances of the several Store Accounts at 30th June 1897 as compared with 31st December 1896 :—

	31st December 1896.	30th June 1897.
General Store Account ...Rs.	3,35,763	Rs. 3,16,734
Locomotive Store and Workshop Account... „	14,71,375	„ 13,94,436
Engineering do. do. ... „	5,18,550	„ 5,32,076
All others, including stores in transitu ... „	2,37,130	„ 3,38,403
Total Rs.	25,62,818	Rs. 25,81,649

102. These figures show small reductions in the General Stores and Locomotive and small increases under Engineering and Stores in transitu.

103. The total of Rs. 25,81,649 includes Rs. 3,05,277 for returned stores, of which Rs. 48,336 belongs to the Locomotive Department, Rs. 6,631 to the Telegraph, and the balance Rs. 2,50,310 to the Engineers.

REVENUE.

104. The percentage of expenditure to gross earnings for the past three half-years has been as under—

June 1896	50·18 per cent.
December 1896	50·83 „
June 1897	46·63 „

105. The net revenue amounts to Rs. 30,89,636-4-9 as compared with Rs. 27,24,355-5-4 in the corresponding half of 1896. It gives at 1*s.* 10*d.* per rupee, £283,216-13-2, equal to £2-11-3 per cent. for the half-year on the Capital bearing interest at the 30th June 1897, *viz.*, £11,057,630.

106. The net earnings exceed the guaranteed interest by Rs. 1,97,284-8-5 as will be seen from the following particulars—

By net profits of the half-year						Rs. 30,89,636	4 9
To guaranteed interest on debentures :—							
£ 200,000 at $2\frac{1}{2}$ per cent. per annum...				£ 2,013	13 11		
£ 60,000 „ $2\frac{3}{4}$ „ „ ...				£ 825	0 0		
£ 337,800 „ 3 „ „ ...				£ 5,067	0 0		
£ 202,200 „ $3\frac{1}{4}$ „ „ ...				£ 3,285	15 0		
	£ 11,191	8	11	at 1*s.* 10*d.*		Rs. 1,22,088	8 0
						29,67,547	12 9
On subscribed Capital.—							
£ 8,757,670 at 5 per cent. per annum.				£ 218,941	15 0		
£ 999,960 „ $4\frac{3}{4}$ „ „ .				£ 23,749	1 0		
£ 500,000 „ $4\frac{1}{2}$ „ „ .				£ 11,250	0 0		
	£ 253,940	16	0	at 1*s.* 10*d.*		Rs. 27,70,263	4 4
						Surplus Rs. 1,97,284	8 5

107. The following results of our traffic operations in the way of dividend are continued from the last report:—

Period.	Miles open.	Capital raised at 31st December.	Net Revenue.			Average per cent. per annum for periods of five years, &c.		
		£	£	s.	d.	£	s.	d.
Average for 5 years, 1871—75 ...	845	10,280,682	235,549	1	0	2	6	0
Do. 1876—80 ...	858	10,526,673	224,439	17	6	2	2	9
Do. 1881—85 ...	860	10,638,258	245,448	10	6	2	6	1
Do. 1886—90 ...	842	10,697,630	327,998	6	9	3	1	3
Do. 1891—95 ...	840	11,017,630	448,194	19	8	4	1	4
The year 1896	840	11,057,630	493,651	12	6	4	9	3
First half of 1897	840	11,057,630	* 283,216	13	2	5	2	5

* Must be doubled to give percentage per annum.

108. With reference to para. 97 of my half-year's report to 31st December 1896, the following statement in continuation of that given in para. 104 of my December 1895 half-year's report shews the final disposition of the amount of Rs. 885-11-6 then outstanding:—

	Rs.	As.	P.
Outstanding on 31st December 1895	885	11	6
Less amount included in above not appertaining to the half-year	34	7	0
	851	4	6
Less-cleared by book adjustment ...	785	3	0
	66	1	6
Deduct one per cent. due to Provident Institution	0	10	7
Divisible balance of surplus profits	65	6	11
Moiety due to the Company	32	11	6

109. The Revenue Accounts for the half-year under review show the best results that have ever been attained on the Madras Railway: the gross revenue (Rs. 57,89,562) is the highest on record, and so is the net revenue Rs. 30,89,636.

110. The increase over the corresponding half of 1896 is Rs. 3,21,162, and this has been obtained with a reduction in working expenses of Rs. 44,119; the per centage of working expenses to gross earnings is only 46·63, the lowest on record except in 1893 when the percentage was much lowered by abnormal credits: all Departments but the Engineers' show considerable decreases in their expenditure.

111. The whole of the increased earnings is in goods traffic, which shows a net increase of Rs. 3,73,576, coaching traffic showing a decrease of Rs. 55,050, although the numbers of passengers carried are the highest on record.

112. The results of our working show surplus profits of Rs. 1,71,937 to be divided between the Government and Company (see Form XVI of Revenue Account), the Company's share being Rs. 85,969.

113. The Provident Institution shares in the surplus profits to the extent of Rs. 10,224, and both the Company and the Institution will also participate in a share of the recovered portion of the Rs. 10,741 now outstanding.

114. In Form XVI appears for the first time a debit for interest on overdrawn Capital (Rs. 20,158): the greater portion of this is due to the charge for interest during January and February 1897 upon the £200,000 advanced by the Secretary of State for repayment of debentures, fresh capital not having been raised until February. The amount of overdrawn Capital at 30th June 1897 was £59,886.

115. The amount charged to Revenue for "loss by exchange" on the cost of Revenue Stores and Home Expenditure was Rs. 1,65,067, being Rs. 3,042 more than in the corresponding period of 1896, the rate of exchange being 14·906, *d* per rupee, which is ·787 *d*. above the rate for June 1896 half-year.

116. The following particulars are taken from the accounts of the Kolar Gold Fields Railway:—

Receipts—

From coaching traffic		Rs.	26,383 5 5
„ goods „		„	72,208 0 8
„ electric telegraph		„	133 7 0
„ sundries		„	129 10 6
Total		Rs.	98,854 7 7

Expenses—

Madras Railway for cost of working ...	Rs.	50,020 5 10	
„ „ for use of rolling-stock	„	4,942 11 7	
			54,963 1 5
Net Revenue...	Rs.		43,891 6 2

equal to a return of over 11 per cent. per annum on the Capital outlay, including suspense of the Mysore Durbar, which is stated at Rs. 7,49,690.

117. The following particulars are taken from the accounts of the Madras-Ennur section of the Bezwada-Madras Railway:—

Receipts—

From coaching traffic		Rs.	24,727 9 8
„ goods „		„	9,689 15 0
„ electric telegraph		„	24 11 0
„ sundries		„	140 8 9
Total Rs. ...			34,582 12 5

Expenses—

Actual cost of engineering maintenance ...	Rs.	6,162 3 11	
Madras Railway percentage proportion for other expenses ...	„	12,494 12 2	
Hire of rolling-stock, &c. ...		1,249 2 3	
			19,906 2 4
Net Revenue...	Rs.		14,676 10 1

This is equal to a return at the rate of 5·04 per cent. per annum on the Capital outlay (exclusive of charge for capitalization of land revenue) Rs. 5,82,541.

The total expenditure, exclusive of engineering maintenance on the combined undertakings, the Madras, Kolar Gold Fields and Madras-Ennur lines works out to Rs. 1-10-5 per train-mile run, while the sum of Rs. 12,494-12-2 recovered by the Company from the Madras-Ennur line represents only Rs. 0-13-8 per train-mile on the 14,644 train-miles run for that Branch.

Earnings.

118. Abstract H, Coaching Traffic, Form No. X of the Accounts, presents the following results when compared with the corresponding half-year :—

	Rs.	A.	P.
Abstract H., June 1896	23,44,745	1	0
Do. „ 1897	22,89,694	10	1
Decrease ...	55,050	6	11

119. The details of the above results are given in the following table :—

TRAFFIC.	Half-year ending June 1896.			Half-year ending June 1897.			Increase.			Decrease.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Ordinary Passengers, 1st Class.	96,859	5	8	1,01,255	13	0	4,396	7	4	...	...	...
Periodical ...	524	6	5	1,869	9	8	1,345	3	3	...	...	...
2nd Class ...	1,06,258	10	2	1,03,789	6	7	...	...	...	2,469	3	7
Periodical ...	3,531	0	7	2,898	7	1	...	...	...	632	9	6
3rd Class ...	17,84,206	5	9	17,15,802	10	10	...	...	...	68,403	10	11
Periodical ...	2,634	14	11	2,719	0	5	84	1	6	...	...	...
Troops and Police, 1st Class...	4,441	15	6	5,145	14	0	703	14	6	...	...	...
2nd Class...	14,671	13	0	16,728	0	9	2,056	3	9	...	...	...
3rd Class...	31,835	10	7	36,742	12	5	4,907	1	10	...	...	...
Passengers' Luggage ...	67,442	13	7	73,353	14	11	5,911	1	4	...	...	...
Carriages ...	10,215	12	6	9,991	1	8	...	...	...	224	10	10
Horses ...	30,904	11	11	31,114	9	5	209	13	6	...	...	...
Dogs ...	3,142	5	7	2,871	14	8	...	...	...	270	6	11
Parcels ...	1,42,225	5	4	1,43,104	14	6	879	9	2	...	...	...
Do. for Revenue ...	2,377	6	10	3,009	1	7	631	10	9	...	...	...
Special Trains ...	2,540	0	0	569	0	0	...	...	...	1,971	0	0
Miscellaneous ...	812	3	7	564	3	1	...	...	...	248	0	6
Haulage and hire of Post Office vans ...	25,545	4	3	24,438	6	2	...	...	...	1,106	14	1
MILITARY.												
Military baggage ...	10,737	4	7	9,800	9	9	...	...	...	936	10	10
Carriages ...	...	...	...	...	...	...	...	...	...	...	...	...
Horses ...	3,810	10	10	3,881	10	0	70	15	2	...	...	...
Dogs, &c. ...	26	15	5	43	9	7	16	10	2	...	...	...
	23,44,745	1	0	22,89,694	10	1	21,212	12	3	76,263	3	2
										Deduct Increase ...	21,212	12	3
										Net Decrease ...	55,050	6	11

120. The ordinary coaching traffic, ascertained by eliminating all troops and police, and military items of traffic is continued from the last report—

	Rs.	A.	P.
December 1880	11,47,898	1	5
June 1881	12,54,404	1	5
December 1881	12,18,181	7	10
June 1882	12,78,447	11	0
December 1882	13,02,002	4	1
June 1883	12,97,015	15	6

	Rs.	A.	P.
December 1883	12,73,014	2	7
June 1884	14,10,745	4	7
December 1884	13,85,847	11	7
June 1885	14,63,321	5	7
December 1885	15,29,401	15	10
June 1886	15,02,885	3	6
December 1886	15,49,747	3	4
June 1887	15,84,759	3	3
December 1887	15,31,357	3	9
June 1888	16,61,024	2	10
December 1888	17,13,097	12	10
June 1889	17,81,789	6	8
December 1889	17,75,541	7	2
June 1890	17,64,039	8	10
December 1890	18,19,560	1	1
June 1891	17,68,118	0	7
December 1891	16,52,970	14	10
June 1892	17,24,126	14	10
December 1892	18,03,769	5	4
June 1893	19,49,056	4	11
December 1893	18,72,896	13	4
June 1894	19,27,016	3	8
December 1894	20,47,177	7	9
June 1895	23,03,421	12	8
December 1895	22,46,345	3	11
June 1896	22,79,220	11	1
December 1896	21,63,575	1	6
June 1897	22,17,352	1	7

121. Statement showing 3rd and 4th Class Receipts minus Troops and Police from 1873 to June, 1897.

PERIOD.	3rd-Class Single Journey, excess, Return Journey and Season Tickets.			4th or Cooly Class.			Total 3rd and 4th Classes.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Half-year ending June 1873 ...	8,54,760	15	9	93,640	13	0	9,48,401	12	9
„ December 1873 ...	8,41,653	1	4	1,08,073	9	0	9,49,726	10	4
„ June 1874 ...	7,89,366	1	11	1,13,226	15	0	9,02,593	0	11
„ December 1874 ...	8,31,655	4	7	1,18,789	11	0	9,50,444	15	7
„ June 1875 ...	7,32,250	15	8	1,68,858	13	0	9,01,109	12	8
„ December 1875 ...	6,72,465	4	6	1,73,676	13	0	8,46,142	1	6
„ June 1876 ...	7,16,531	11	6	2,03,373	9	0	9,19,905	4	6
„ December 1876 ...	7,41,657	1	7	2,19,170	13	0	9,60,827	14	7
„ June 1877 ...	6,38,448	12	8	2,42,352	2	6	8,80,800	15	2
„ December 1877 ...	8,79,633	13	10	1,20,088	11	0	9,99,722	8	10
„ June 1878 ...	9,01,376	1	3	67,642	11	0	9,69,018	12	3
„ December 1878 ...	8,04,743	8	3	1,14,829	12	0	9,19,573	4	3
„ June 1879 ...	6,35,114	10	2	2,65,729	13	0	9,00,844	7	2
„ December 1879 ...	9,29,071	10	9	...	...	...	9,29,071	10	9
„ June 1880 ...	9,04,920	9	10	...	...	...	9,04,920	9	10
„ December 1880 ...	8,96,463	1	1	...	...	...	8,96,463	1	1
„ June 1881 ...	9,52,306	12	1	...	...	...	9,52,306	12	1
„ December 1881 ...	9,43,731	12	9	...	...	...	9,43,731	12	9
„ June 1882 ...	9,72,568	4	7	...	...	...	9,72,568	4	7
„ December 1882 ...	10,05,113	6	2	...	...	...	10,05,113	6	2
„ June 1883 ...	10,10,789	4	7	...	...	...	10,10,789	4	7
„ December 1883 ...	9,61,665	0	1	...	...	...	9,61,665	0	1
„ June 1884 ...	10,58,699	12	8	...	...	...	10,58,699	12	8
„ December 1884 ...	10,47,457	10	4	...	...	...	10,47,457	10	4
„ June 1885 ...	10,95,135	7	6	...	...	...	10,95,135	7	6
„ December 1885 ...	11,65,264	9	5	...	...	...	11,65,264	9	5
„ June 1886 ...	11,59,988	9	10	...	...	...	11,59,988	9	10
„ December 1886 ...	11,84,455	6	3	...	...	...	11,84,455	6	3
„ June 1887 ...	12,20,247	9	0	...	...	...	12,20,247	9	0
„ December 1887 ...	11,61,859	8	10	...	...	...	11,61,859	8	10
„ June 1888 ...	12,48,832	15	11	...	...	...	12,48,832	15	11
„ December 1888 ...	13,34,289	7	9	...	...	...	13,34,289	7	9

PERIOD.	3rd-Class Single Journey, excess, Return Journey, and Season Tickets.			4th or Cooly Class.			Total 3rd and 4th Classes.		
	RS	A.	P.	RS.	A.	P.	RS.	A.	P.
Half-year ending June 1889 ...	13,57,252	6	7	...	...	..	13,57,252	6	7
,, December 1889 ...	13,92,223	13	3	...	...	...	13,92,223	13	3
,, June 1890 ...	13,69,221	5	1	...	...	...	13,64,221	5	1
,, December 1890 ...	14,48,927	4	1	...	...	...	14,48,927	4	1
,, June 1891 ...	14,00,154	9	11	...	...	...	14,00,154	9	11
,, December 1891 ...	12,73,641	14	9	...	...	...	12,73,641	14	9
,, June 1892 ...	13,53,452	15	6	...	...	...	13,53,452	15	6
,, December 1892 ...	14,11,625	15	5	...	...	...	14,11,625	15	5
,, June 1893 ...	15,37,298	5	4	...	...	...	15,37,298	5	4
,, December 1893 ...	14,57,772	11	4	...	...	...	14,57,772	11	4
,, June 1894 ...	15,09,595	15	2	...	...	..	15,09,595	15	2
,, December 1894 ...	15,78,599	10	11	...	..	..	15,78,599	10	11
,, June 1895 ...	18,29,510	14	1	...	...	...	18,29,510	14	1
,, December 1895 ...	17,36,777	1	3	...	...	...	17,36,777	1	3
,, June 1896 ...	17,86,841	4	8	...	...	...	17,86,841	4	8
,, December 1896 ...	16,99,951	5	3	...	...	...	16,99,951	5	3
,, June 1897 ...	17,18,521	11	3	...	...	...	17,18,521	11	3

122. The number, mileage and earnings of 3rd-Class Ordinary traffic, leaving out Troops and Police are as follows :—

PERIOD.	Number.	Mileage.	Earnings			
				RS.	A.	P.
Half-year ending December 1879	1,774,690	76,638,889½	(a)	9,29,071	10	9
,, June 1880	1,964,346	79,706,402	(b)	9,04,920	9	4
,, December 1880	1,943,145	86,424,275		8,96,463	1	1
,, June 1881	2,111,075	91,844,076		9,52,306	12	1
,, December 1881	2,067,218½	90,818,781		9,43,731	12	9
,, June 1882	2,189,409	93,761,162		9,72,568	4	7
,, December 1882	2,046,457	96,895,425		10,05,113	6	2
,, June 1883	2,195,218½	97,623,795		10,10,789	4	7
,, December 1883	2,150 308	97,581,832	(c)	9,61,665	0	1
,, June 1884	2,593,543	108,370,675		10,58,699	12	8
,, December 1884	2,488,817	108,124,439		10,47,457	10	4
,, June 1885	2,639,473½	112,860,077		10,95,135	7	6
,, December 1885	2,798,556	121,224,909		11,65,264	9	5
,, June 1886	2,928,490	120,522,393		11,59,988	9	10
,, December 1886	3,288,543½	135,980,143	(d)	11,84,455	6	3
,, June 1887	3,543,684½	140,170 209		12,20.247	9	0
,, December 1887	3,372,135½	133,848,628		11,61,859	8	10
,, June 1888	3,724,290	142.695,239	(e)	12,48,832	15	11
,, December 1888	3,951 553½	151,690,598		13,34 289	7	9
,, June 1889	4,198,943	155,414,335		13,57,252	6	7
,, December 1889	4,218,179	159,361,635		13,92,223	13	3
,, June 1890	4,184,208	156,902,111	(f)	13,69,221	5	1
,, December 1890	4,133,756½	162,833,527	(g)	14,48,927	4	1
,, June 1891	4,206,099½	156,004,790		14.00,154	9	11
,, December 1891	3,919,473	148,726,896	(h)	12.73,641	14	9
,, June 1892	4,259,953½	159,063,622		13,53,452	15	6
,, December 1892	4.487.133	165.641,362		14.11.625	15	5
,, June 1893	4.998,677	180,292,338		15,37,298	5	4
,, December 1893	4,675,724	170,719,562		14,57,772	11	4
,, June 1894	4,954,351	177,046,939		15,09,595	15	2
,, December 1894	5,018,748	185,288,555		15,78,599	10	11
,, June 1895	4,314,512	166,901,011	(i)	18.29,510	14	1
,, December 1895	4,327,774	157,966,610	(k)	17,36,777	1	3
,, June 1896	4,814,350½	162,524,803		17,86,841	4	8
,, December 1896	4,727,77?½	155.332,652		16,99,951	5	3
,, June 1897	5,057,896½	157,058,852		17,18,521	11	3

Note.—(*a*). Half-year ending 1879, 2 pies for Ordinary trains from 1st July, 1879, and 4 pies for Mail trains.

(*b*). Half-year ending June, 1880, 2 pies are charged for Ordinary trains and 4 pies for Mail trains for first four months, and 2 pies by all trains for the last 2 months, viz., from 1st May, 1880.

(*c*). Fare and half for Return tickets from 1st October, 1883.

(*d*). One and half pies for single journey passengers for Ordinary trains and 2 pies for Mail trains, but to and from stations between Podanur and Mettupalaiyam and Podanur and Beypore, 1½ pies rate charged by Mail trains.

(*e*). Half-year ending June, 1888, on and after 5th March, 1888, 2 pies are charged for passengers booked to and from stations west of Podanur by Mail trains except that for stations on the Nilgiri and Palghat branches the fares by Mail trains are 1½ pies per mile.

(*f*). From 1st March, 1890, the fares by Mail trains throughout the Line are 2 pies per mile.

(*g*). From 1st October, 1890, the fares by Mail trains throughout the line are 3 pies per mile.

(*h*). From 1st August, 1891, the fares by Mail trains are 2½ pies per mile except that for stations between Podanur and Calicut and Palghat branches the fares by Mail trains are 1½ pies per mile.

(*i*). From 1st January 1895 the fares by Mail trains between Podanur and Olavakkot and between Tirur and Calicut are raised from 1½ to 2½ pies per mile and between Olavakkot and Tirur from 1½ to 2 pies per mile.

The fares by ordinary trains all over the line are increased from 1½ to 2 pies.

(*k*). From July 1895, the above figures include periodical ticket traffic as number of trips, instead of number of tickets issued.

123. The Receipts from Parcels traffic (Public) during the past ten years have been as follows :—

		RS.	A.	P.
Half-year ending	December 1886	1,00,021	9	5
,,	June 1887	99,437	10	6
,,	December 1887	1,10,502	0	8
,,	June 1888	1,13,351	13	6
,,	December 1888	1,22,872	15	4
,,	June 1889	1,14,325	6	2
,,	December 1889	1,22,051	4	4
,,	June 1890	1,06,372	12	1
,,	December 1890	1,23,187	6	8
,,	June 1891	1,04,585	8	4
,,	December 1891	1,18,642	12	8
,,	June 1892	1,01,956	0	11
,,	December 1892	1,34,095	5	1
,,	June 1893	1,15,188	2	4
,,	December 1893	1,49,422	7	5
,,	June 1894	1,30,321	15	4
,,	December 1894	1,67,055	9	8
,,	June 1895	1,33,435	13	3
,,	December 1895	1,47,925	7	4
,,	June 1896	1,42,225	5	4
,,	December 1896	1,44,519	8	3
,,	June 1897	1,43,104	14	6

124. It will be seen from a comparison of the several heads of Abstract I, that the following have been the fluctuations which have led to the net increase of Rs. 3,73,575-12-0.

TRAFFIC.	Half-year ending June 1896.			Half-year ending June 1897.			Increase.			Decrease.		
	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.
1. Merchandise, General ...	27,40,170	11	2	30,28,041	14	10	2,87,871	3	8	...	...	...
2. Military Stores ...	34,844	5	0	44,818	11	0	9,974	6	0	...	...	...
3. Railway Materials ...	1,845	13	7	3,895	12	2	2,049	14	7	...	...	...
4. Coal	1,72,484	8	0	2,39,050	0	4	66,565	8	4	...	...	...
5. Revenue Stores ...	42,142	14	0	49,541	4	8	7,398	6	8	...	...	...
6. Live Stock	14,843	7	0	12,077	5	0	...	...	...	2,766	2	0
7. Military Live Stock ...	4,331	4	8	8,435	15	6	3,604	10	10	...	...	...
8. Rents and Demurrage ...	7,646	2	2	6,177	5	5	...	...	...	1,468	12	9
9. Interest on Outstanding Bills	... 3,340	... 13	... 2	3,687	5	10	346	8	8	...	...	...
10. Miscellaneous												
TOTAL...	30,22,149	14	9	33,95,725	10	9	3,77,810	10	9	4,234	14	9
							Deduct Decrease ..			4,234	14	9
							Net Increase ...			3,73,575	12	0

125. The following table prepared from the Analysis will show the progress of our business and the economy observed in conducting it :—

TRAFFIC.	Dec. 1884.	June 1885.	Dec. 1885.	June 1886.	Dec. 1886.	June 1887.	Dec. 1887.	June 1888.	Dec. 1888.	June 1889.	Dec. 1889.	June 1890.	Dec. 1890.	June 1891.	Dec. 1891.	June 1892.	Dec. 1892.	June 1893.	Dec. 1893.	June 1894.	Dec. 1894.	June 1895 *	Dec. 1895. *	June 1896. †	Dec. 1896. †	June 1897. †
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total earnings per train-mile ...	3·280	3·483	3·389	3·553	3·459	3·587	3·448	3·584	3·552	3·778	3·908	3·977	3·757	3·802	3·612	3·811	3·828	4·064	3·888	4·031	4·171	4·53	4·31	4·38	4·34	4·57
„ Working expenses per train-mile ...	1·993	2·004	1·926	2·036	2·129	2·267	2·289	2·093	2·097	2·128	2·405	2·109	1·948	2·220	2·094	2·147	2·086	1·880	1·965	2·089	2·181	2·13	2·08	2·21	2·22	2·14
Total net earnings per train-mile...	1·287	1·479	1·463	1·517	1·330	1·320	1·159	1·491	1·455	1·650	1·503	1·868	1·809	1·582	1·518	1·664	1·742	2·184	1·923	1·942	1·990	2·40	2·23	2·17	2·12	2·43
COACHING TRAFFIC.																										
Average sum received for carrying a unit one mile.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.
First class	13·65	14·90	13·09	13·95	11·81	15·29	10·50	13·54	10·95	14·67	9·37	11·66	10·16	11·24	9·73	10·32	10·32	10·18	9·94	11·65	10·42	10·46	10·37	11·55	9·83	10·08
Second class	6·06	5·96	5·85	5·56	5·97	6·03	5·51	6·10	5·58	5·51	5·21	5·33	4·52	5·48	5·16	5·29	5·34	5·18	4·92	5·25	5·19	5·01	4·72	4·52	4·98	4·79
Lowest class	1·86	1·87	1·85	1·85	1·66	1·66	1·67	1·70	1·70	1·68	1·68	1·68	1·72	1·73	1·65	1·63	1·64	1·64	1·64	1·64	1·64	2·10	2·11	2·11	2·10	2·09
Average for all classes	2·09	2·11	2·05	2·06	1·88	1·86	1·86	1·92	1·87	1·87	1·81	1·84	1·86	1·90	1·81	1·78	1·79	1·78	1·79	1·80	1·78	2·26	2·30	2·27	2·26	2·27
Average cost of hauling a Coaching unit one mile.																										
Per passenger unit	·95	·98	·93	·96	·98	1·10	1·21	1·03	1·01	·99	1·07	·90	·91	1·09	1·03	1·04	1·03	·82	·90	·92	·89	·90	·96	·99	1·04	·95
Average profit per passenger ...	1·14	1·13	1·12	1·10	·90	·76	·65	·89	·86	·88	·74	·94	·95	·81	·78	·74	·76	·96	·89	·88	·89	1·36	1·34	1·28	1·22	1·32
Average sum received for other coaching traffic per ton per mile.	28·89	36·95	34·46	35·35	35·01	36·53	36·27	35·59	37·30	39·25	35·31	38·60	37·60	39·77	37·34	37·92	36·88	39·07	32·21	37·66	31·32	36·98	35·69	36·80	35·22	34·22
Average cost of hauling other coaching traffic per ton per mile.	13·06	15·21	14·16	15·25	15·68	15·57	16·80	13·49	13·46	14·06	14·39	12·17	11·81	14·00	12·52	13·29	11·81	11·16	9·31	11·96	9·12	11·11	9·92	11·52	10·67	9·91
Average profit per ton ...	15·83	21·74	20·30	20·10	19·33	20·96	19·47	22·10	23·84	25·19	20·92	26·43	25·79	25·77	24·82	24·63	25·07	27·91	22·90	25·70	22·20	25·87	25·77	25·28	24·55	24·31
GOODS TRAFFIC.																										
Average sum received for carrying a ton one mile	7·69	7·93	7·65	7·76	7·59	7·73	7·75	7·83	7·79	7·90	7·60	7·83	7·49	7·42	7·16	8·33	8·27	8·12	8·25	8·57	8·52	8·46	8·34	8·49	8·43	8·34
Average cost of hauling a goods unit, viz., one ton one mile ...	5·57	5·16	5·00	5·00	5·25	5·23	5·38	4·91	5·02	4·73	4·88	4·13	4·05	4·46	4·25	4·63	4·41	3·76	4·30	4·58	4·67	4·38	4·48	4·72	4·70	4·20
Average profit on working a goods unit (viz., one ton), one mile ...	2·12	2·77	2·65	2·76	2·34	2·50	2·37	2·92	2·77	3·17	2·72	3·70	3·44	2·96	2·91	3·70	3·86	4·36	3·95	3·99	3·85	4·08	3·86	3·77	3·73	4·14

* Including Kolar Gold Fields State Railway.
† „ „ „ and Madras-Ennur Railway.

126. The following Classification of all Goods carried is designed to show Country and Foreign Trade :—

DESCRIPTION.	Half-year ending June 1896.		Half-year ending June 1897.	
	Maunds.	Rupees.	Maunds.	Rupees.
COUNTRY TRADE.				
Food Grains	2,009,795	4,73,819	3,501,527	7,38,060
Miscellaneous articles for Domestic consumption	2,326,008	6,65,230	2,008,511	6,29,675
Salt and Saltpetre	690,994	1,43,624	712,172	1,46,689
Materials used in Building, Construction and Manufacture	2,291,370	3,12,436	2,773,383	3,86,440
Cloths, Piece Goods and Twist (Indian) ...	159,195	79,901	156,143	75,553
Sundries	1,071,167	3,77,803	1,087,101	4,15,093
Total...	8,549,472	20,52,813	10,328,837	23,91,460
FOREIGN TRADE.				
Exports or Colonial Produce...	1,690,255	6,23,989	1,457,833	5,79,271
Imports, Cloths, Piece Goods and Twist (European)	80,059	45,965	88,134	51,259
	122,002	49,492	127,414	49,525
European Stores for consumption in India ...	1,120,804	1,59,775	1,559,764	2,23,659
Coal and Coke for the Public	291,043	12,709	403,233	15,391
Do. for the Company	29,194	4,602	47,606	6,240
Railway Materials, &c.				
Total...	3,333,357	8,96,532	3,713,984	9,24,345
Grand Total...	11,881,829	29,49,345	14,042,821	33,15,806

127. The following Statement is framed to give a comparison of the Internal Trade, (sub-divided into Food Grains and other Commodities) and the External or Foreign Trade (Exports or Imports) passing over the Railway for a series of years :—

PERIODS.	Country Trade.				Foreign Trade, Exports or Imports.		Railway Stores.		Total.	
	Food Grains.		Other Commodities.							
	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.
	Maunds.	Rupees.	Maunds.	Rupees.	Maunds.	Rupees.	Maunds.	Rupees.	Maunds.	Rupees.
December 1876	6,448,865	15,09,576	8,276,612	17,24,504	1,961,615	10,20,858	31,521	4,791	16,718,613	42,59,729
Do. 1877	20,037,072	47,11,730	5,526,394	17,51,285	1,323,601	5,65,916	36,818	6,159	26,923,885	70,35,090
Do. 1878	6,068,324	12,59,187	6,897,239	15,83,706	1,508,633	6,72,187	38,055	4,646	14,512,251	35,19,726
Do. 1879	5,724,530	12,24,775	10,068,871	16,84,744	1,791,713	7,66,609	27,769	3,755	17,612,883	36,79,883
Do. 1880	3.553,664	6,58,852	11,107,066	17,94,168	1,876,213	7,99,668	51,461	8,685	16,588,404	32,61,373
Do. 1881	3,377,162	6,38,158	8,070,509	18,42,019	2,112,658	8,52,893	85,805	16,013	13,646,134	33,49,083
Do. 1882	3,380,180	6,44,323	7,131,950	20,54,220	2,676,042	10,35,624	2,723	528	13,190,895	37,34,695
Do. 1883	3,158,585	4,90,871	8,168,934	21,47,050	2,679,301	9,82,154	5,067	1,387	14,011,887	36,21,462
Do. 1884	4,757,712	7,03,707	8,628,133	22,07,239	3,044,239	9,05,763	2,242,349	20,133	18,672,433	38,36,842
Do. 1885	5,392,637	7,60,500	9,320,806	23,08,174	2,366,882	7,83,519	716,531	2,81,658	17,736,856	41,33,851
Do. 1886	4,919,219	7,42,809	9,505,486	22,55,441	3,070,405	10,77,417	612,079	2,16,169	18,107,189	42,91,836
Do. 1887	4,764,534	7,00,158	11,045,625	24,08,793	3,022,418	10,77,268	977,516	2,80,148	19,810,093	44,66,367
Do. 1888	5,397,284	8,55,062	11,414,388	25,09,664	2,796,380	10,41,747	556,794	82,813	20,164,846	44,89,286
Do. 1889	5,903,788	11,08,772	11,610,840	25,13,396	3,348,244	12,13,195	1,335,291	1,95,869	22,198,163	50,31,232
Do. 1890	6,233,007	10,96,066	12,956,764	25,85,619	3,532,286	12,80,920	859,999	1,97,166	23,582,056	51,59,771
Do. 1891	7,816,784	14,15,899	11,428,971	25,85,640	3,939,242	11,73,211	1,004,857	1,88,837	24,189,854	53,63,587
Do. 1892	6,250,715	13,20,407	11,291,235	27,89,039	4,706,829	13,65,830	1,406,171	59,357	23,654,950	55,34,633
Do. 1893	7,195,917	16,31,950	11,684,042	29,37,169	5,561,551	15,57,186	371,355	35,269	24,812,865	61,61,574
Do. 1894	5,070,000	11,65,590	11,926,771	30,26,752	6,090,168	16,35,151	817,187	30,858	23,904,126	58,58,351
Half-year ending June 1895	2,416,549	6,15,478	6,349,401	16,17,511	3,294,080	8,98,535	292,626	8,343	12,352,656	31,39 867
Do. Dec. 1895	2,519,471	6,12,928	6,315,821	15,39,915	3,263,231	8,23,563	40,004	5,152	12,138,527	29,81,558
Do. June 1896	2,009,795	4,73,819	6,538,677	15,78,934	3,304,163	8,91,930	29,194	4,602	11,881,829	29,49,345
Do. Dec. 1896	2,955,018	6,36,533	6,056,013	14,52,034	3,620,975	8,64,239	402,012	32,222	13,034,018	29,85,028
Do. June 1897	3,501,527	7,38,060	6,827,310	16,53,400	3,666,378	9,18,105	47,606	6,240	14,042,821	33,15,806

The total in the foregoing for the past half-year, *viz.*, Rupees 33,15,806 is made up from items in Abstract I of the Revenue Account, thus :—

1.	Merchandise	Rs.	30,28,042
2.	Military Stores	,,	44,818
3.	Railway Materials	,,	3,896
4.	Coal for the Public, &c. ...	,,	2,39,050
		Rs.	33,15,806

128. The following are the chief Commodities interchanged with Foreign Railways working with the Madras Railway in the half-year under review, and the corresponding half-year in 1896 :—This statement shews an increase in weight of 34,941 tons and in amount of Rs. 2,13,175 during the past half-year.

DESCRIPTION OF COMMODITY.	To and from Foreign Railways.			
	Half-year ending June 1896.		Half-year ending June 1897.	
	Tons.	Rs.	Tons.	Rs.
I. Coal and Coke carried for the Public and Foreign Railways	39,724	1,53,186	53,348	2,07,115
	2,164	27,381	1,697	22,679
II. Cotton Raw				
III. Cotton Manufactured—				
1. Twist and Yarn, European ...	304	5,335	438	7,659
2. Do. Indian	1,181	10,845	1,088	11,767
3. Piece Goods, European	396	7,582	518	8,885
4. Do. Indian	1,861	27,454	1,726	22,623
IV. Drugs and Chemicals—				
1. Intoxicating, other than Opium ...	...	...	...	...
2. Non-intoxicating—				
(a). Cinchona bark	...	5,172	...	9,260
(b). Others	479		718	
V. Dyes and Tans—				
1. Indigo	171	3,069	155	2,967
2. Myrabolams	322	2,424	234	1,636
3. Cutch	709	5,221	413	2,800
4. Turmeric	8,737	46,714	5,558	66,634
5. Aniline dyes				
6. Others				
VI. Grain and Pulse—	1,053	7,195	753	5,333
1. Wheat	2,619	16,358	1,067	4,132
2. Rice in the husk	5,576	32,159	8,674	54,391
3. Rice not in the husk	1,641	8,387	10,152	58,684
4. Jawar and Bajra	6,856	45,662	12,656	1,01,749
5. Gram and Pulse	9,681	69,334	9,143	70,396
6. Others ...				
VII. Hides and Skins—	339	6,099	65	802
1. Hides of Cattle—	903	17,947	1,260	24,413
(a). Dressed or tanned				
(b). Raw	1,798	34,023	1,323	25,031
2. Skins of Sheep, &c.—	5,342	81,813	6,437	91,755
Dressed or tanned ...			48	610
(a). Raw				
VIII. Horns			56	913
IX. Jute—	1,430	10,081	1,089	11,163
1. Raw				
2. Gunny bags and Cloth ...			...	...
X. Lac—			...	...
1. Stick			...	1,001
2. Shell	51	1,577	59	
XI. Leather Manufactured ...				
XII. Liquors—	655	17,726	966	15,978
1. Beer	818	5,172	896	5,915
2. Spirits				
3. Wines				
XIII. Metals—				
1. Copper, unwrought ...			...	...
2. Brass, unwrought ...			...	...
3. Copper, wrought ...	143	2,083	88	1,326
4. Brass, wrought ...	3,079	32,876	3,651	37,361
5. Iron	156	2,279	105	1,364
6. Others ...				
XIV. Oils—	699	12,818	1,183	24,105
1. Kerosine	1,160	1,950	1,164	2,764
2. Castor	117	1,198	210	2,496
3. Cocoanut	630	4,300	848	5,738
4. Others				
Carried forward...	96,044	7,10,370	127,766	9,10,445

DESCRIPTION OF COMMODITY.	To and from Foreign Railways.			
	Half-year ending June 1896.		Half-year ending June 1897.	
	Tons.	Rs.	Tons.	Rs.
Brought forward...	96,044	7,10,370	127,786	9,10,445
XV. Oil Seeds—				
1. Linseed	...	...	...	...
2. Rape and Mustard	125	868	68	518
3. Til or Jingili	2,996	20,844	2,244	18,156
4. Poppy	...	...	...	...
5. Earthnuts	1,048	2,259	662	1,485
6. Castor	2,839	19,130	881	4,175
7. Others	3,451	27,238	1,822	13,588
XVI. Opium	...	...	...	...
XVII. Paper and Paste Board	60	1,005	43	751
XVIII. Provisions—				
1. Ghee	460	7,225	332	4,769
2. Dried fruits and nuts	168	1,678	197	2,243
3. Others	11,237	94,706	10,281	78,625
XIX. Railway Plant and Rolling Stock *carried for the Public and Foreign Railways.*				
1. Loco. Engines and Tenders and parts thereof	...	...	78	602
2. Carriages and Truck and parts thereof	...	...	...	...
3. Materials	...	...	...	...
(*a*). Steel Rails and fish plates...	...	...	293	1,074
(*b*). Sleepers and keys of steel and cast iron	...	...	...	...
(*c*). Other sorts	...	...	...	...
XX. Salt	2,585	12,748	3,146	10,992
XXI. Saltpetre, &c.—				
1. Saltpetre	...	...	...	...
2. Other Saline substances ...	...	...	...	...
XXII. Silk, Raw—				
1. Foreign	...	...	...	...
2. Indian	...	...	34	721
XXIII. Silk, Piece Goods—				
1. Foreign	...	...	...	...
2. Indian	...	...	...	...
XXIV. Spices—				
1. Betel nuts	2,624	29,893	2,522	27,494
2. Pepper	344	4,906	400	4,598
3. Ginger	55	710	90	767
4. Chillies	767	6,269	2,668	19,733
5. Cardamoms	...	...	...	...
6. Others	496	5,418	687	6,326
XXV. Stone and Lime	2,114	7,048	7,245	15,838
XXVI. Sugar—				
1. Refined or crystallized including Sugarcandy	1,087	7,713	1,755	12,878
2. Unrefined, viz., Mollasses and Jaggery or gur and other Saccharine produce	11,234	72,901	6,728	48,671
XXVII. Tea—				
1. Foreign	...	...	...	...
2. Indian	38	1,942	36	1,418
XXVIII. Timber	21,631	63,111	26,165	1,06,746
XXIX. Tobacco—				
1. Unmanufactured	1,043	10,006	1,694	14,266
2. Manufactured—				
(*a*). Cigars	400	5,246	383	4,955
(*b*). Other sorts	176	2,288	353	4,412
XXX. Wool, Raw	75	607	94	673
XXXI. Wool, Manufactured—				
1. Piece Goods, European ...	...	...	...	...
2. Piece Goods, Indian	172	2,160	166	2,432
3. Shawls	...	...	...	...
XXXII. All other Articles of Merchandise ...	11,826	1,53,450	11,183	1,65,563
Total...	175,095	12,71,739	[210,036	14,84,914

129. The interchange of Passenger Traffic with the Railways that are connected with the Madras Railway is given in the following table, and shews a decrease in number by 181 and in amount of Rupees 9,132-14-4 as compared with the corresponding half-year :—

PASSENGERS' TRAFFIC.	To and from Foreign Railways.							
	Half-year ending June 1896.				Half-year ending June 1897.			
	No.	Amount.			No.	Amount.		
		Rs.	A.	P.		Rs.	A.	P.
Passengers ... ... 1st Class	3,275	33,297	9	10	3,797½	36,290	0	3
,, ... 2nd Class	8,946	39,843	3	11	8,248½	36,344	9	4
,, ... 3rd Class	395,694½	3,65,457	2	1	398,524	3,54,739	4	9
,, ... 1st Class	343	3,418	15	0	404	3,627	13	0
Soldiers ... ... 2nd Class	2,924	11,030	15	3	2,945½	9,344	5	0
,, ... 3rd Class	15,286½	23,852	0	7	18,780½	27,613	10	4
,, ... 1st Class	84	1,520	2	0	68	932	12	0
Return Fares ... ... 2nd Class	125	66	0	0	203	1,243	11	0
,, ... 3rd Class	12,012	315	1	3	5,538	359	6	10
,, ... 1st Class	...	754	14	0	...	954	11	6
Excess ... ... 2nd Class	...	308	0	0	...	171	12	0
,, ... 3rd Class	...	466	11	8	...	280	13	3
,, ... Total ..	438,690	4,80,935	11	7	438,569	4,71,802	13	3

Expenditure.

130. The notes against each head of Expenditure in the following table shew, generally, in a comparative form, the work done in each department for each half-year :—

DEPARTMENTS.	Half-year ending June 1896.					Half-year ending June 1897.				
	Work of Departments.	Cost.			Per cent.	Work of Departments.	Cost.			Per cent.
	Ms. chs. ft.	Rs.	A.	P.		Ms. chs. ft.	Rs.	A.	P.	
Abstract **A.** Maintenance of Way, Works and Stations ...	1,039 65 20½	6,28,925	1	3	11·31	1,047 34 33½	6,39,620	8	10	10·80
Abstract **B.** Locomotive Expenses ...	Gross Mileage of Engines, 1,502,267 Number of Engines under repair at any one time, 37.	10,69,011	3	2	19·21	Gross Mileage of Engines, 1,535,936 Number of Engines under repair at any one time, 31.	10,63,500	8	5	17·95
Abstract **C.** Carriage and Wagon Expenses ...	Number of Vehicles under repair at any one time, 239. Number constructed and renewed, 63.	3,15,971	11	9	5·68	Number of Vehicles under repair at any one time, 217. Number constructed and renewed, 89.	2,96,356	13	0	5·00
Abstract **D.** Traffic Expenses ...	Profitable Train Mileage, 1,269,581 Number of Stations, 158.	4,53,111	0	10	8·15	Profitable Train Mileage, 1,294,803 Number of Stations, 160.	4,14,026	10	1	6·99
Abstract **E.** General Charges ...	Miles 855.	2,94,065	7	4	5·28	Miles 857.	2,90,908	3	9	4·91
Abstract **G.** Special and Miscellaneous Expenditure	.....	44,996	12	5	·81	.....	70,382	1	10	1·20
	Total...	28,06,081	4	9		Total...	27,74,794	13	11	

Railway Schools.

131. The particulars of attendance and cost of all Railway Schools during the half-year as under :—

NAME OF SCHOOL.	Number on Register.	Average attendance.	Expenditure.			Receipts.			Net Cost.		
			Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Perambur	141	114·00	(a)2,493	15	8	1,657	13	6	836	2	2
Arkonam	25	21·66	424	8	9	79	6	8	345	2	1
Katpadi	15	10·08	260	12	1	101	1	7	159	10	6
Jalarpet	60	46·50	1,264	9	8	733	7	3	531	2	5
Salem	31	24·49	887	14	1	359	3	3	528	10	10
Podanur	49	39·66	1,324	14	4	591	2	0	733	12	4
Renigunta	10	11·00	382	3	3	103	7	11	278	11	4
Gooty	67	47·24	1,059	13	11	705	11	5	354	2	6
Raichur	25	17·83	882	14	11	456	3	3	426	11	8
Railway School Library	...	...	60	0	0	...	...	...	60	0	0
TOTAL ...	...	...	9,041	10	8	4,787	8	10	4,254	1	10

(a). The expenditure on Perambur School includes the cost of Gymnastic Instructors.

Madras Railway Provident Institution.

132. The following details are given in continuation of those contained in my report for the half-year ending 31st December 1896 :—

Number of Subscribers.

	30th December 1896.	30th June 1897.
Obligatory	3,299	3,312
Voluntary	78	83
TOTAL ...	3,377	3,395

Amount at credit at 30th June 1897 :—

	Rs.	A.	P.
Obligatory	6,89,849	7	3
Voluntary	51,885	9	0
Bonus	20,722	14	2
Profit and Loss Account...	5,922	12	2
Reserve Fund	10,353	7	0
Subscribers, Old Provident Fund	1,414	10	0
Uncashed Cheque	415	1	9
TOTAL...	7,80,563	13	4

The above bonus has been included in the accounts of the half-year under review.
The following Securities were purchased during the half-year :—

Calcutta Municipal Debentures ... ... Rs. 20,000

Staff.

133. Mr. A. H. Francis arrived on the 16th January 1897 and took up his appointment as Fourth Assistant Auditor in place of Mr. Woodliffe, resigned.

Mr. T. Wake, First Assistant Auditor, went on furlough on the 4th April 1897 for eight months, and Messrs. Corben, Mitchell and Francis moved up each one post higher in acting appointments.

Mr. Mitchell, Third Assistant Auditor, was appointed General Storekeeper by the Board in place of Mr. O'Sherman (who retired from the service on the 18th May 1897), but he continues to act as Second Assistant Auditor until Mr. Wake's return in December next.

134. A list of statements forwarded herewith is annexed.

Yours faithfully,

F. DUNSTERVILLE,
Chief Auditor.

MADRAS RAILWAY COMPANY.
CHIEF AUDITOR'S OFFICE,
MADRAS, *7th September* 1897.

To
THE ACTING AGENT AND MANAGER,
Madras Railway Company.

DEAR SIR,

I beg to report as follows on the working of the Mysore State Kolar Gold Fields Railway for the half-year ending 30th June 1897.

CAPITAL.

Statements Nos. V, VI and XVIII.—No capital expenditure was incurred during the half-year. The total capital outlay, including suspense, from the commencement of operations to the end of the half-year under review, is Rs. 7,49,690-3-6 and the expenditure, excluding suspense Rs. 7,28,208-4-10, which gives an average of Rs. 72,821 per mile open.

REVENUE.

General Results.

The following table shews the General results of working :—

	Half-year ending June 1896.	Half-year ending June 1897.	Difference.	
	Miles.	Miles.	Miles.	Per cent.
Mean mileage worked	10	10	...	...
Train mileage	15,856	17,942	+ 2,086	+ 13·16
	No.	No.	No.	
Average number of trains over the whole line daily in both directions	8·71	9·91	+ 1·20	...
	Rs.	Rs.	Rs.	Rs.
Gross earnings	70,213	98,854	+ 28,641	+ 40·79
Working expenses	40,857	54,963	+ 14,106	+ 34·53
Net earnings	29,356	43,891	+ 14,535	+ 49·51
Percentage of working expenses to gross earnings	58·19	55·60	— 2·59	...
Percentage of net earnings to capital outlay including suspense	3·95	5·85	+ 1·90	...

The gross earnings per mean mile worked per week averaged Rs. 380 against Rs. 270 and were realized at a cost of 55·60 per cent. against 58·19 per cent. in the corresponding half of the previous year.

The net earnings amounted to Rs. 43,891-6-2, which gives a return at the rate of 11·71 per cent. per annum on the capital outlay, including suspense.

Gross Earnings.

The following table shews the gross earnings for the two half-years :—

	Half-year ending June 1896.	Half-year ending June 1897.	Difference.	
			Amount.	Per cent.
	Rs.	Rs.	Rs.	Rs.
Coaching	21,896	26,383	+ 4,487	+ 20·49
Goods	48,064	72,208	+ 24,144	+ 50·23
Electric Telegraph	122	133	+ 11	+ 9·02
Steam-boat	...	...	...	...
Sundries	131	130	— 1	— ·76
Total ...	70,213	98,854	+ 28,641	+ 40·79

Abstract H.—*Coaching Traffic.*—The number of passengers of the various classes carried including Troops and Police and Season tickets, and the earnings therefrom are as follows:—

—	First Class.		Second Class.		Third Class.		Total.	
	No.	Earnings.	No.	Earnings.	No.	Earnings.	No.	Earnings.
		Rs.		Rs.		Rs.		Rs.
First half of 1896 ..	1,212	539	6,214	1,213	256,092	18,921	263,518	20,673
First half of 1897 ...	1,637	662	7,761½	1,388	324,501½	23,156	333,900	25,206

The Receipts from passengers' luggage amount to Rs. 831.
The Earnings under Horse, Carriage and Dog traffic are Rs. 81.
Parcels for the public shew a receipt of Rs. 186.

Abstract I.—*Goods' Traffic.*—The following is a summary of the tonnage of goods lifted and the earnings therefrom, as compared with the corresponding period of 1896:—

—	Half-year ending June 1896.		Half-year ending June 1897.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Merchandise, General	15,424	14,319	28,533	26,502
Military Stores	...	...	...	...
Railway materials for construction...	4	3	191	50
Coal (including Locomotive Revenue)	39,434	33,561	53,153	45,234
Revenue Stores (excluding Locomotive Coal) ...	132	44	1,578	249
Other Goods traffic	...	137	...	173
	54,994	48,064	83,455	72,208
Less outstanding irrecoverable or not recovered ...	...	...	...	...
Total ...	54,994	48,064	83,455	72,208

The following table shews some of the principal commodities carried during the two half-years:—

—	Half-year ending June 1896.		Half year ending June 1897.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Coal	39,434	33,561	53,153	45,234
Metals—				
Iron...	919	857	1,914	1,756
Stone and Lime...	1,608	1,366	3,891	3,414
Timber	7,651	6,782	17,156	15,325

Working Expenses.

The Kolar Gold Fields Railway is worked by the Madras Railway Company, and the charge to the Mysore Durbar therefor is ascertained in the manner set forth in the foot-note to Statement No. 8 of the printed accounts.

The Kolar Gold Fields Railway having earned surplus profits from the commencement, I have claimed one per cent. of its net earnings for the Provident Institution as per Agreement; this matter was overlooked on previous occasions.

Statistics.

The usual statements accompany this report for the information of the Durbar.

Yours faithfully,

F. DUNSTERVILLE,

Chief Auditor.

MADRAS RAILWAY COMPANY,
CHIEF AUDITOR'S OFFICE,
MADRAS, *7th September* 1897.

To

THE ACTING AGENT AND MANAGER,
Madras Railway Company.

DEAR SIR,

I beg to report as follows on the working of the Madras-Ennore section of the Bezwada-Madras Railway for the half-year ending 30th June 1897:—

CAPITAL.

Statements Nos. V, VI and XVIII.—The capital expenditure for the half-year, which amounted to Rs. 3,980-10-5, after crediting a sum of Rs. 1,817-2-0, being sale-proceeds of superstructure on lands acquired, &c., was chiefly incurred on Electric Telegraph. The total capital outlay (excluding capitalization of abatement of land revenue) from the commencement of operations to the end of the half-year under review is Rs. 5,82,540-10-8, which gives an average of Rs. 68,940 per mile open.

REVENUE.

General Results.

The following table shews the general results of working:—

—	Half-year ending June 1896.	Half-year ending June 1897.	Difference.	
	Miles.	Miles.	Miles.	Per cent.
Mean mileage worked	6·04	8·45	+ 2·41	...
Train mileage	16,223	14,644	— 1,579	— 9·73
	No.	No.	No.	
Average number of trains over the whole line daily in both directions	14·77	9·57	— 5·20	...
	Rs.	Rs.	Rs.	Rs.
Gross earnings	24,670	34,583	+ 9,913	+ 40·18
Working expenses	21,179	19,906	— 1,273	— 6·01
Net earnings	3,491	14,677	+11,186	+ 320·42
Percentage of working expenses to gross earnings	85·85	57·56	— 28·29	...
Percentage of net earnings to capital outlay including suspense	·85	2·52	+ 1·67	...

The gross earnings per mean mile worked per week averaged Rs. 157 against Rs. 157 and were realized at a cost of 57·56 per cent. against 85·85 per cent. in the corresponding half of the previous year.

The net earnings amounted to Rs. 14,676-10-1, which gives a return of 5·04 per cent. per annum on the total capital outlay including suspense.

Gross Earnings.

The following table shews the gross earnings for the half-year under review :—

	Half-year ending June 1896.	Half-year ending June 1897.	Difference.	
			Amount.	Per cent.
	Rs.	Rs.	Rs.	Rs.
Coaching	19,937	24,728	+ 4,791	+ 24·03
Goods	4,626	9,690	+ 5,064	+ 109·47
Electric Telegraph	16	25	+ 9	+ 56·25
Steam Boat	...	...	...	...
Sundries	91	140	+ 49	+ 53·85
Total ...	24,670	34,583	+ 9,913	+ 40·18

Abstract H.—*Coaching Traffic.*—The number of passengers of the various classes carried including troops and police and season tickets, and the earnings therefrom are as follows :—

	First Class.		Second Class.		Third Class.		Total.	
	No.	Earnings.	No.	Earnings.	No.	Earnings.	No.	Earnings.
		Rs.		Rs.		Rs.		Rs.
First half of 1896 ...	902	295	3,574	757	327,339	18,541	331,815	19,593
First half of 1897 ...	1,035½	416	2,489½	481	392,378½	23,041	402,903½	23,938

The receipts from Passengers' luggage amount to Rs. 736.
The earnings under Horse, Carriage and Dog traffic are Rs. 21.
Parcels for the Public shew a receipt of Rs. 16.

Abstract I.—*Goods' Traffic.*—The following is a summary of the tonnage of goods lifted and the earnings therefrom, as compared with the corresponding period of 1896 :—

	Half-year ending June 1896.		Half-year ending June 1897.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Merchandise, General	7,912	4,421	20,499	9,282
Military Stores...	...	...	...	...
Railway materials for construction	16	2	1	...
Coal (including Locomotive Revenue)	...	...	5	2
Revenue Stores (including Locomotive coal) ...	3,032	199	9,805	376
Other Goods traffic	...	4	...	30
	10,960	4,626	30,310	9,690
Less outstanding irrecoverable or not recovered ...	...	...	...	...
Total ...	10,960	4,626	30,310	9,690

The following table shews some of the principal commodities carried during the two half-years :—

	Half-year ending June 1896.		Half-year ending June 1897.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Metals—	1,295	1,096	7,862	3,986
Iron	6,253	2,977	8,218	2,915
Timber				

Working Expenses.

The working arrangement is embodied in letter, No. 159, dated 28th February 1896, addressed by you to the Consulting Engineer for Railways, Madras, the chief provisions being that the actual expenditure incurred upon the maintenance and renewal of way, works and stations shall be charged, other expenses to be calculated at the same percentage of the gross earnings of the State line as shall in each half-year be found to represent the percentage of working expenses (exclusive of maintenance and renewal of way, works and stations) on gross earnings of the amalgamated undertaking. Five per cent. of gross earnings of the State line to be paid to Madras Railway for use of rolling-stock.

The following figures are taken from the printed accounts :—

Actual outlay on maintenance of way, works and stations...	Rs.	6,162	3 11
Percentage expenses under other Abstract heads	,,	12,494	12 2
Hire of rolling-stock, &c.	,,	1,249	2 3

The actual outlay on engineering maintenance, Rs. 6,162, is equal to 17·82 per cent. of the gross receipts as compared with 10·71 per cent. on the Madras Railway.

The sum of Rs. 12,495 paid to Madras Railway Company for charges under other Abstract heads of expenditure is equal to a payment of Rs. 0-13-8 on each of the 14,644 train miles run over the Madras-Ennore line, while the actual expenditure incurred by the Madras Railway under those heads of expenditure on the whole undertaking amounted to Rs. 1-10·5 per train-mile.

The Madras-Ennore Railway having earned surplus profits during the half-year under review, I have claimed one per cent. of net earnings for the Provident Institution under the agreement.

Yours faithfully,

F. DUNSTERVILLE,
Chief Auditor.

MADRAS RAILWAY COMPANY,
LOCOMOTIVE SUPERINTENDENT'S OFFICE,
PERAMBUR WORKS, *8th September* 1897.

H. C. WEST, ESQ.,
Ag. Agent and Manager,
MADRAS RAILWAY.

SIR,

I have the honor to submit my Report upon the working of the Locomotive and Carriage and Wagon Departments for the half-year ending 30th June 1897.

2. A tabular statement is attached, shewing the expenditure in detail, under each of the several sub-heads of account, as compared with similar figures for the previous and corresponding half-years, the figures in red shewing the normal expenditure of the Department, after deducting the charges for the two new locomotive engines placed on the line at the cost of Revenue, in each of the three half-years under reference.

3. The general totals, as shewn in this statement, are as follows :—

Half-year ending	Mileage.	Total cost of Department, including all charges.			Total cost per mile.		
		Rs.	A.	P.	Rs.	A.	P.
June 1896	1,502,267	13,60,699	8	6	—	14	5·90
December 1896	1,519,722	13,56,990	10	9	—	14	3·44
June 1897	1,535,936	13,28,233	12	9	—	13	10·04

and, on comparing these figures, the final results will be found to be :—

	HALF-YEAR ENDING 30TH JUNE 1897 AS COMPARED WITH	
	Preceding half-year.	Corresponding half-year.
	Per cent.	Per cent.
Miles run...	Increase 1·07	Increase 2·24
Total cost of Department, including working and repairs of engines and vehicles, loss by Exchange, carriage of Revenue stores, &c.	Decrease 2·12	Decrease 2·39
Total cost as above, per mile	Decrease 3·15	Decrease 4·52

4. There is an increase, as compared with the corresponding half-year, of 33,669 in the gross mileage worked, equal to 2·24 per cent., and it is eminently satisfactory to note that in spite of this the total expenditure of the Department has declined by a sum of no less than Rs. 32,466, or by 2·39 per cent.

Locomotive Engines: Running.

5. In wages and salaries of Drivers and Firemen there is a reduction of Rs. 2,708, although, as above noted, considerably more work was done. This has been partly brought about by an increase in the mileage worked by Drivers in certain of the links, and partly by the substitution of men on lower salaries for Covenanted and other more highly paid Drivers, wherever this has been possible. An increase is noticed in wages of cleaners and water and fuel coolies, and this may be attributed partly to the greater mileage worked, and, in the case of the water coolies, to the necessity that has existed, owing to the prevailing drought, for opening a large number of stand-by watering stations. Included in this total are further the

charges for the repairs and maintenance of all watering arrangements, which are now debited to this Department, instead of, as in former years, forming a charge against the maintenance of the Engineering Department. The total expenditure under Wages and Salaries is, however, less, being anna 1, pies 10·98 per mile, as compared with anna 1, pies 11·18 in the corresponding term, or a reduction of 0·86 per cent.

6. In coal consumption there is a slight increase, both in quantity and cost, though as compared with the figures for the preceding half-year the difference is but trifling. A part of this excess may be attributed to the fact that, during the earlier months of the hot weather, a number of cases of fire occurred in the coal heaps, both at Madras and Raichur. In Madras one heap in particular smouldered for over a month before it could be put out, and the damage done to the coal by water, and by pulling the heaps down, apart altogether from the actual damage done by the fires themselves, necessarily brought about a heavier consumption. Some part of the excess may also be due to the fact that the Madras mixed train engines were, during nearly the whole of the time, using the Jherria coal, to which reference is made in the 12th and 13th paras of my last report, and the quality of which was not good.

7. Dealing with the figures for the consumption of wood, a reduction of lbs. 3·60 in quantity, and pies 6·12 in money is observed. The reduction in the quantity burnt is possibly due in part to the late arrival of the monsoon on the West Coast, since it is generally the case that during the months of May and June the rains are very heavy in that District, and consequently the wood, being wet, is not burnt to good advantage. This year the rains began so much later that the conditions were not identical. The saving in cost has been due to a reduction of 1 anna per ton, which it has been possible to make in the issue price, owing to contracts having been made at more favourable rates.

8. The saving in the wood has more than counter-balanced the somewhat higher expenditure incurred in the coal-burning engines, the total cost per mile of fuel of all kinds shewing a reduction of pies 2·89, or 5·02 per cent. upon the expenditure under this head during the half-year ending 30th June 1896.

9 In oil, tallow and waste, a slight increase has occurred, the total excess amounting to Rs. 6,007, of which more than half is due to the very heavy enhancement that has taken place in the market rate of castor-oil. The balance is more than accounted for by the increase in the mileage.

10. The total reduction that has been effected in the cost of running amounts to Rs. 4,507, which, in view of the larger mileage worked, will, I think, be held to be very satisfactory; the more so, when, with the heavier mileage, the following figures are borne in mind :—

——	Half-year ending		Excess per cent.
	30th June 1896.	30th June 1897.	
Average number of Vehicles in a Goods Train	28·06	28·96	3·21
Average load of a loaded Goods Vehicle, Tons	6·04	6·34	4·97
Average weight of a Goods Train, Tons	375·24	392·18	4·51
Average gross Ton mileage	230,701,651	255,056,809	10·56

11. As is recorded in my last half-yearly report, experiments were carried out with certain of the Bengal coals, with a view of ascertaining, if possible, the suitability of these coals, as compared with Singareni coal.

12. The fuels tested were :—

Shampore coal, supplied by Messrs. Henderson & Co., of Calcutta.

Jardine's Navigation coal, from the Jherria District, purchased from Messrs. Binny & Co., of Madras.

Gourangdhi coal, supplied by the Borakar Coal Company and purchased from Messrs. Best & Co., of Madras.

13. The Shampore coal did not do well, being found to be difficult coal to burn, and by no means so free in steaming as the Singareni. The consumption was also found to be about 2lbs. per mile heavier than the Singareni coal.

14. The Jardine's Navigation coal was reported upon as being a good steaming coal, but requiring frequent attention to prevent fires becoming blocked. The consumption was about 1lb. per mile heavier than Singareni. Part of this difference was no doubt due to the fact that the men are better acquainted with the latter fuel, and it is probable that, with larger experience, the consumption of the Jardine's Navigation would have come down to about the same as the Singareni coal.

15. The Gourangdhi coal was very highly spoken of, and, judging from the sample tested, there is probably little doubt but that it is an excellent locomotive fuel. It steamed well, and though, like all Indian coals, it was rather dirty, it was probably not more so than is Singareni, and after a trip or two the men found no difficulty in using it. Its consumption compared very favourably with Singareni coal, shewing a saving of about 3½lbs. per mile, the figures being 64·05lbs. and 67·5lbs. per mile, respectively.

16. Since these tests have been completed, tenders for the supply of coal for the ensuing 12 months have been called for and opened, with the result that a contract is now being made with Messrs. Best & Co. for the supply of 21,000 tons of this coal for the Madras District, at a price which will enable us to put it down in the Royapuram Yard at annas 6 per ton less than that hitherto paid for Singareni coal. There can be no doubt that if experience shews that it is possible to obtain a constant supply of coal of this quality, the Singareni will have found in it a very formidable rival, for, if on more extensively using it, it is found to give results even approximating those secured with the sample tested, Singareni to hold its own will have to be offered at a considerable reduction.

17. That it is possible to obtain the Singareni coal at much cheaper rates than hitherto asked, I firmly believe, but unfortunately, so long as the existing monopoly as to the supply is maintained by the Deccan Mining Company, any substantial reduction in price seems to be hopeless. Whether this monopoly will be broken down when direct railway communication with the Mines is established, remains to be seen, but it is in the meantime very satisfactory to know that we have at last been able to make arrangements for obtaining coal from the Bengal coal fields at what appears to be favourable rates.

Locomotive Engines: Repairs.

18. Forty-seven engines passed through the Workshops during the period under review, and underwent ordinary repairs of a more or less important kind, while two of the K. C_2 engines were erected and charged off; the numbers for the corresponding half-year were 38 engines repaired and 2 K. C_2 engines erected.

19. A saving of Rs. 5,139 was effected in material used, and a slight increase of Rs. 1,910 is apparent in the wages paid. The saving in the material is more than covered by a reduction under boilers and tyres, slightly larger expenditure having been incurred under boiler tubes, cylinders, and sundry stores. The nett saving in engine repairs amounts to Rs. 3,228, which works out to an equivalent of 3·41 per cent. per mile.

20. In the total cost of locomotive running and repairs, there is a net saving of Rs. 15,200, or of pies 4·62, equivalent to 3·73 per cent. per mile.

Carriages and Wagons : Running.

21. It has been found necessary, in consequence of the increase in the traffic, and introduction of the vacuum brake, to slightly strengthen the Carriage Examining Staff, Assistant Carriage Examiners having been appointed at Salt Cotaurs, Arkonam and Bangalore City, and additional Wheel-tappers and native Examiners at one or two other stations. This will account for the slight increase apparent under wages. An increase in the cost of oil has also been incurred, due to the advance in the issue rate of castor-oil, referred to above.

22. The total cost of carriage and wagon running exceeds that of the corresponding half-year by about Rs. 1,949, which, considering the extra mileage, is not of much import.

Carriages and Wagons : Repairs.

23. During the half-year the following work was done as compared with that during the first half of 1896 :—

	Half-year ending	
	30th June 1896.	30th June 1897.
Total number of vehicles repaired	2,803	2,665
Renewals: Covered Goods wagons	40	20
Brake vans	1	2
Ballast wagons	...	6
Total renewals	41	28
Work done on Capital Account :—		
3rd Class carriages	...	2
Brake vans	...	2
Kerosine oil tank wagon	...	1
Gas truck	1	...
Total construction on Capital Account	1	5

24. In addition to the above, 30 covered goods wagons were completed and turned out of the Workshops, but were not handed over to the Traffic Department until after the close of the half-year, owing to the stock of buffer springs having been exhausted. The total renewals were therefore 28+30, or 58, as compared with a total of 41, dealt with in the period with which comparison is being made.

25. In spite of the larger number of vehicles renewed, the total cost of carriage and wagon repairs shews a reduction of Rs. 12,418, while upon the total of vehicle maintenance there is a gross reduction of Rs. 11,333, a result which, as the mileage was also heavier, may be considered satisfactory.

Summary.

26. A saving of Rs. 5,933 appears under loss by exchange and carriage of Revenue stores, and, as pointed out in para. 4 of this report, the final total cost of the Department shews a gross reduction of Rs. 32,466, and a reduction in total cost per mile worked amounting to pies 7·86, or 4·52 per cent.

General.

27. Since my last report, 19 additional vehicles have been fitted for gas-lighting, but progress upon this work has been temporarily almost entirely suspended, pending the receipt from England of material for which indents have been submitted.

28. The use of kerosine oil for gas-making has been attended with much success, the cost of the gas averaging now about Rs. 12-0-0 per 1,000 cubic feet, inclusive of all charges, as against Rs. 16-0-0, when work was first commenced, and the gas was made from shale oil imported from England.

29. Eight engines and 79 vehicles have further during the half-year been fitted with the vacuum brake, and the use of the brake has been extended to the Mails and Passenger trains working over the Bangalore Branch.

30. Material for 200 vehicles and 6 engines is under indent, and so soon as this is received, and vehicles fitted, it is proposed to use the brake upon the S. W. Mail over a portion, if not the whole, of the line, and as vehicles are available, upon the Passenger trains also between Jalarpet and Madras.

31. Arrangements are in contemplation to build five I and II Class composite carriages with accommodation for servants of I Class passengers, and also five III Class carriages with reserved accommodation for Eurasians and Europeans and for native women. It is proposed to build all these carriages 60 feet in length and on bogies, and they will be used as joint M. R. C. and G. I. P. R. stock for the through service between Madras and Bombay.

32. Three other composite carriages, of a slightly different pattern, 58 feet long, have also been sanctioned for service on the Mail trains, either between Madras and Bombay, or over the S. W. Line. These will however be Madras Railway carriages, and will not be, as will the others, joint stock.

Staff.

33. The recommendation referred to in para. No. 40 of my last half-year's report, that Mr. H. J. Stanley, the Second Assistant, should be promoted to First Assistant Locomotive Superintendent, was approved by the Board, and Mr. Stanley's promotion took effect from the 1st August 1896. Mr. P. G. Porteous, on completion of the six months' probation, as was also recorded, was confirmed in the appointment as Second Assistant Locomotive Superintendent from the 1st December 1896 in succession to Mr. Stanley.

34. Locomotive Foreman W. Barefoot, who, as recorded in my last report, had been granted six months' extension of furlough by the Board, submitted his resignation of the Company's service, owing to ill-health, on the 11th February 1897, which resignation the Board accepted.

35. Messrs. E. Driver and R. B. Ward, Locomotive and Erecting Shop Foremen, returned to duty on the 5th April and 26th June 1897, respectively.

36. In accordance with instructions from the Acting Agent and Manager, Mr. R. G. Bamford, Chief Draughtsman of this Department, as acting General Storekeeper, took over charge of the General Stores Department from Mr. O'Sherman on the 13th March 1897, which appointment he still holds, Mr. W. Ward, Draughtsman, being promoted to act as Chief Draughtsman during Mr. Bamford's absence.

37. Mr. H. Berry, Lathe Shop Foreman, resigned the Company's service from the 1st April, and Mr. E. Outon, Covenanted Erector and Fitter, was appointed Foreman in his place.

38. Mr. P. Fielding was appointed by the Board Covenanted Erector and Fitter in succession to Mr. Outon, and arrived in India on the 21st June 1897.

I have the honor to be,
Sir,
Your most obedient servant,
C. E. PHIPPS,
Locomotive Superintendent.

Abstract Half-year ending 30th June 1897.

Half-year ending	Total Engine Miles worked.	Drivers and Firemen.			Average Cost per Mile of Coal, Patent Fuel and Fire-wood.			Oil, Tallow, Waste, &c.						Total Cost.			Cost per Mile.		
								Actual Cost.			Cost per Mile.								
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P	Rs.	A.	P.
June 1896 ...	1,502,267	1,46,433	6	0	0	4	9·62	26,834	15	10	0	0	3·43	6,59,006	13	3	0	7	0·23
Dec. 1896 ...	1,519,722	1,45,084	2	0	0	4	7·67	29,907	11	6	0	0	3·78	6,55,788	12	7	0	6	10·85
June 1897 ...	1,535,936	1,43,725	7	0	0	4	6·73	32,842	7	4	0	0	4·11	6,54,500	3	9	0	6	9·82

ENGINES—Gross Cost of Running and Repairs.

	Cost of Repairs.		Total Cost.			Deduct for K. G. F. Ry., Madras-Ennur Ry. & Fire Insurance Fund.			Nett Total.			Cost per Mile.		
	Rs.	A. P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Figures in red show actual expenses during the respective half-years, after deducting value of two locomotive engines replaced at cost of Revenue in each half-year.	J[illegible]	2	9,88,732	3	6	18,741	14	9	**9,69,990**	**4**	**9**	**0**	**10**	**3·97**
			9,49,224	7	1				9,21,482	2	4	0	9	9·77
	D[illegible]	9	9,92,508	12	6	24,344	6	1	**9,68,164**	**6**	**5**	**0**	**10**	**2·32**
			9,44,756	7	2				9,20,412	1	1	0	9	8·28
	J[illegible]	4	9,79,492	11	7	24,702	5	3	**9,54,790**	**6**	**4**	**0**	**9**	**11·35**
			9,26,192	15	11				9,01,460	10	8	0	9	4·69

CARRIAGONS—Gross Cost of Running and Repairs.

Half-year ending	Total Engine Miles worked.	Co[illegible] Material.			Total.			Deduct for K. G. F. Ry., Madras-Ennur Ry. and Fire Insurance Fund.			Nett Total.			Cost per Mile.		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
June 1896 ...	1,502,267	12,196	1	10	2,83,940	13	11	5,541	7	8	**2,78,399**	**6**	**3**	**0**	**2**	**11·58**
Dec. 1896 ...	1,519,722	11,632	5	7	2,84,853	7	0	7,483	8	3	**2,77,369**	**14**	**9**	**0**	**2**	**11·04**
June 1897 ...	1,535,936	12,994	12	9	2,74,158	5	8	7,092	4	11	**2,67,066**	**0**	**9**	**0**	**2**	**9·38**

[illegible] Department.

	[illegible]ost of		Final Total Cost per Mile.		
	A.	P.	Rs.	A.	P.
	8	**6**	**0**	**14**	**5·90**
	0	6	0	13	8·14
	10	**9**	**0**	**14**	**3·44**
	10	3	0	13	6·30
	12	**9**	**0**	**13**	**10·04**
	13	5	0	13	0·52

PERAMBUR WORKS,
8th September 1897.

C. E. PHIPPS,
Locomotive Superintendent.

Private.

MADRAS RAILWAY COMPANY,

TRAFFIC MANAGER'S OFFICE,

MADRAS, 16*th September* 1897.

To

THE ACTING AGENT AND MANAGER.

Madras Railway Company,

RAYAPURAM.

SIR,

I have the honor to submit my report upon the traffic of the Madras Railway for the half-year ending 30th June 1897.

2. **OPEN MILEAGE**.—The open mileage (including the Kolar Gold Fields and Madras-Ennur Railways worked by the Madras Railway Company) on the 30th June 1897, was the same as on the 31st December 1896, viz., 859 miles.

3. **TRAIN SERVICE.**—The train service during the half-year under review remained the same as during the half-year ending December 1896.

4. **FARES AND RATES**.—There was no alteration in the **PASSENGER FARES** for the half-year ending 30th June 1897. They are shown below:—

First class	...	12 pies.
Second class	...	6 ,,
Third class { Mail	...	2½ ,,
Third class { Other trains	...	2 ,,

but the Third class fares for distances of less than 25 miles were in some cases adjusted to meet the conditions of the short distance traffic.

The following changes in the **GOODS RATES** were made during the half-year:—

JANUARY

Commodities.	Conditions.	Rates per 27 mds. per mile.	Alterations.	Rates per 27 mds. per mile.	Remarks.
Oilmanstores ...	3rd Class ...	18 pies.	2nd Class, O.R., from Madras to Bangalore.	13·61 pies.	In competition with Cart traffic.
			Do. ...	Do.	
Vinegar in bottles	3rd Class, O.R. ...	Do.	In wagon loads of 270 mds. at O.R., from Bombay to Madras *via* Raichur.	4·90 pies through.	Sea competition.
Kerosine Oil ...	In wagon loads of 200 mds. at O.R.	8 pies.			

FEBRUARY

Grain and Seeds, Common, and Tamarind, Raw.	Special Class, O.R.	8·53 pies.	Special O.R. between Narasarapet and Madras.	3·45 pies.	
Saltpetre ...	1st Class ...	10 pies.			
Brass, Copper, Iron — Manufactured	Special Class ...	8 ,,			
	1st ,, ...	10 ,,			
	2nd ,, ...	13·61 ,,	Do. ...		
	3rd ,, ...	18 ,,			
Brass, Copper, Iron — Unmanufactured	2nd Class, O.R. ...	13·61 ,,	Do. ...	4·78 pies.	Canal Competition.
	3rd ,, C.R. ...	18 ,,			
Cloth ...	2nd ,, ...	13·61 ,,	Do. ...		
Cotton screwed...	Spl. Class, O.R. ...	8 ,,			
Kerosine Oil ...	1st ,, C.R. ...	10 ,,	Do. ...		
Twist pressed to 25 lbs.	3rd Class ...	18 ,,			
Do. over 25 lbs.	2nd Class ...	13·61 ,,	Do. ...		

MARCH

Commodities.	Conditions.	Rates per 27 mds. per mile.	Alterations.	Rates per 27 mds. per mile.	Remarks.
Balapam Stones...	Special Class ...	8 pies.	In wagon loads of 312 mds. at O.R for distances of 200 miles and over in local booking only.	6·80 pies	To encourage the traffic.
State Ry. materials and stores.	1st Class ...	10 pies.	.....	6 pies.	For Nilgiri Ry. materials and Stores. Ex-Madras to Mettupalaiyam.
Vehicles ...	With minimum of 5 annas per truck per mile.	9 pies.	Per wagon per mile ...	3½ annas.	
Engines ...	Per Engine per mile.	12 annas with a minimum of 5 annas per mile per truck used.	Per Engine per mile ...	8 annas with a minimum of 3½ annas per mile per truck used.	

APRIL

Melons ...	1st Class, O.R. ...	10 pies.	For distances of over 50 miles weight not to exceed the carrying capacity of the wagon in local booking only	4½ annas per wagon per mile.	To avoid damage to fruit with a view to encourage the traffic.

MAY

Mangalore Tiles.	In wagon loads of 216 mds. at O.R. for distances of 300 miles and over.	5 pies.	When booked from Calicut, Kallai, Edakolam, Ferok and Palghat to Bangalore in wagon loads of 270 mds. at O.R.	4·53 pies.	In competition with local manufactures.

JUNE

S. M. Ry. Unserviceable Stores sold by auction.	...	...	In small lots ...	8 pies.	
			In wagon loads of 270 mds ...	5 pies.	

5. TRAFFIC TRAIN MILES.—The traffic train mileage for the June half-years of 1896 and 1897 is shown in the following table :—

Allocation.	Description of train.	June 1896. Madras Railway.	K. G. F. Railway.	Madras Ennur Railway.	Total.	June 1897. Madras Railway.	K. G. F. Railway.	Madras Ennur Railway.	Total.
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Coaching ...	Mail ...	319,621	...	...	319,621	318,404	...	...	318,404
	Passenger ...	171,548	...	10,048	181,596	171,916	...	8,896	180,812
	Special ...	2,643	...	280	2,926	3,644	...	472	4,116
	Troops ...	1,994	...	...	1,994	1,777	...	...	1,777
Mixed ...	Ordinary ...	607,469	14,560	2,080	624,109	601,479	14,560	2,896	618,935
Goods ...	Ordinary ...	31,759	...	...	31,759	39,398	...	544	39,942
	Extra ...	44,083	1,296	...	45,379	70,359	2,970	...	73,329
	Ballast trains for construction.	3,580	...	2,551	6,131	2,131	...	557	2,688
	Light Engines ...	22,005	...	288	22,293	23,577	42	...	23,619
	Maintenance ...	14,105	...	976	15,081	11,333	370	1,279	12,982
	Fuel ...	18,692	...	...	18,692	18,199	...	...	18,199
	Total ...	1,237,502	15,856	16,223	1,269,581	1,262,217	17,942	14,644	1,294,803

Excluding maintenance and fuel mileage the total train mileage of the Madras Railway was 1,232,685 against 1,204,705 for the corresponding period of 1896 or an increase of 27,980 miles, equivalent to 2·32 per cent.

Taking the figures as shown in the Capital and Revenue accounts where Mixed and Light Engine mileage is divided between the Coaching and Goods traffic, a decrease of 8,843 occurs in Coaching and an increase of 36,823 in Goods train mileage on the Madras Railway, a decrease of 507 in Coaching and an increase of 2,223 in Goods on the K. G. F. S. Railway and a decrease of 968 in Coaching and a decrease 914 in Goods on Madras Ennur Railway.

6. GROSS AND NET EARNINGS.—Compared with the corresponding period of 1896 the gross earnings from all sources were Rs. 57,89,562 against Rs. 54,68,400 or an increase of Rs. 3,21,162 equivalent to 5·87 per cent.

The net earnings were Rs. 30,89,636 against Rs. 27,24,355 or 53·37 per cent. of revenue.

The working expenses were Rs. 26,99,926 against Rs. 27,44,045 or 46·63 per cent. of revenue.

The average receipts per train mile work out to Rs. 4·59 against Rs. 4·42.

The increases and decreases in the several heads of the gross earnings are shown in the following table :—

Heads.	Earnings. Half-year ending June 1896.	Half-year ending June 1897.	Increase.	Decrease.	Net Increase.
	Rs.	Rs.	Rs.	Rs.	Rs.
Passengers	19,94,014	19,28,335	...	65,679	
Troops and Police ...	50,951	58,617	7,666	...	
Passengers' luggage ...	78,180	83,155	4,975	...	
Parcels	1,42,225	1,43,105	880	...	
Parcels (Revenue) ...	2,377	3,009	632	...	
Horses, carriages and dogs.	48,101	47,903	...	198	
Special trains	2,540	569	...	1,971	
Goods	29,34,790	32,96,519	3,61,729	...	
Goods (Revenue) ...	54,853	64,933	10,080	...	
Railway material ...	1,846	3,896	2,050	...	
Live stock	19,674	20,513	839	...	
Rents and demurrage ...	7,646	6,177	...	1,469	
Miscellaneous	4,153	4,252	99	...	
Haulage of postal vans ...	25,545	24,438	...	1,107	
Sundries	91,689	93,681	1,992	...	
Telegraph	9,816	10,460	644	...	
Total ...	54,68,400	57,89,562	3,91,586	70,424	3,21,162

7. The net decrease in the working expenses is explained, as follows :—

Heads.	Expenditure. June 1896.	June 1897.	Increase.	Decrease.	Net Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.
Permanent way	6,09,640	6,20,106	10,466	...	...
Locomotive	10,50,269	10,38,798	...	11,471	...
Repairs to carriages & wagons.	3,10,430	2,89,436	...	20,994	...
Traffic	4,45,373	4,04,684	...	40,689	...
General charges	2,88,769	2,84,635	...	4,134	...
Special and miscellaneous ...	39,564	62,267	22,703	...	...
Total ...	27,44,045	26,99,926	33,169	77,288	44,119

8. PASSENGER TRAFFIC.—The receipts from passengers (exclusive of troops and police) were Rs. 19,28,335 against Rs. 19,94,014, or a decrease of Rs. 65,679 equivalent to 3·29 per cent. The lowest class contributed in money 89·12 per cent. against 89·61 per cent. and in number 98·86 per cent. against 98·79 per cent.

9. The receipts from each class of passengers are shown in the following table :—

Half-years ending	First class.	Second class.	Third class.	Total.
	Rs.	Rs.	Rs.	Rs.
30th June 1897	1,03,125	1,06,688	17,18,522	19,28,335
Do. 1896	97,383	1,09,790	17,86,841	19,94,014
Increase in 1897	5,742	...	...	...
Decrease in 1897	...	3,102	68,319	65,679
Increase per cent.	5·90	...	...	...
Decrease do.	...	2·83	3·82	3·29

10. The numbers carried in each class were :—

Half-years ending	First class.	Second class.	Third class.	Total.
	No.	No.	No.	No.
30th June 1897	12,869½	45,484	5,057,896½	5,116,250
Do. 1896	10,903	48,101	4,814,350½	4,873,354½
Increase in 1897	1,966½	..	243,546	242,895½
Decrease in 1897	...	2,617	...	...
Increase per cent.	18·04	...	5·06	4·98
Decrease do.	...	5·44	...	...

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

Period.	Percentage of numbers.			Average mileage.		
	First class.	Second class.	Third class.	First class.	Second class.	Third class.
Half-year ending 30th June 1897.	0·25	0·89	98·86	154	97	31
Do. do. 1896.	0·22	0·99	98·79	149	100	34

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

Period.	First class.	Second class.	Third class.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Half-year ending 30th June 1897	8 0 2	2 5 6	0 5 5
Do. do. 1896	8 14 11	2 4 6	0 5 11

13. In the first class Passenger traffic there was an increase of 18·04 per cent. in number and of 5·90 per cent. in money. In the 2nd class there was a decrease of 5·44 per cent. in number and of 2·83 per cent. in money. In the 3rd class there was an increase of 5·06 per cent. in number and a decrease of 3·82 per cent. in money. The average sum paid by a

third class passenger by *all* trains was annas 5-5 against annas 5-11. The average sum by *Mail* trains was annas 11-5 against annas 12-3 and the average sum by *other trains* annas 4-4 against annas 5-0. The percentage of numbers carried by Mail and Other trains remained the same as in the corresponding half-year of 1896, *viz.*; 16 and 84 respectively.

14. The Return fare and Festival traffic is shewn in the following table :—

Period.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
Half-year ending 30th June 1897...	2,503	2,848	12,090	4,086	232,847	12,556	247,440	19,490
Do. 1896 .	1,276	2,047	14,902	4,165	219,774	9,193	235,952	15,405
Increase ...	1,227	801	...	...	13,073	3,363	11,488	4,085
Decrease ...	...	...	2,812	79	...	...	...	...

15. The number of third class passengers booked by all trains on different sections of the line, excluding Troops and Police, Return, Excess and Season ticket traffic, in the first half-years of 1896 and 1897, is shown in the following table :—

Between	Half-year ending June		Increase per cent.	Decrease per cent.
	1896.	1897.		
Madras to Jalarpet	1,650,706½	1,767,737	7·09	...
Tirupattur to Podanur	587,862	633,069	7·69	...
Bangalore Branch	483,496	565,787	17·02	...
Nilgiri Branch	272,604½	269,927½	...	0·98
Madukarai to Calicut	631,345½	618,028½	...	2·11
Tiruttani to Cuddapah	487,000½	472,488	...	2·98
Krishnapuram to Raichur	481,561½	498,012½	3·42	...
Total ...	4,594,576½	4,825,049½	5·02	...

16. The numbers carried and receipts derived from 3rd class passengers (exclusive of Troops and Police) during the half years ending June 1888 to June 1897 inclusive are given below.

Period.	Numbers.	Receipts.
		Rs.
Half year ending June 1888	3,724,290	12,48,833
do. 1889	4,198,943	13,57,252
do. 1890	4,184,208	13,69,221
do. 1891	4,206,099½	14,00,155
do. 1892	4,259,953½	13,53,453
do. 1893	4,998,677	15,37,298
do. 1894	4,954,851	15,09,596
do. 1895	4,314,512	18,29,511
do. 1896	4,814,350½	17,86,841
do. 1897	5,057,896½	17,18,522

17. It will be seen that the numbers are now the highest on record having exceeded the number attained before the introduction of the 2 pies fare in 1895. We have not however yet succeeded in overtaking the revenue of that year owing to the reversion in February 1896 to the 1½ pies rate for short distance fares.

In 1894 the fare by trains other than mail was 1½ pies. In 1895 it was 2 pies. In th half year under report it was 2 pies for distances over 25 miles and 1½ pies for shorter

distances. The minimum fare had also been reduced from 6 pies to 3 pies. The mail train fares were unaltered in all three periods with the exception of a slight adjustment in fractions of the short distance fares.

The following comparison of the traffic for the three periods is taken from the Chief Auditor's special reports upon the III class traffic.

	Numbers.	Unit-Mileage.	Earnings.
	No.	No.	Rs.
Mail Trains June 1894	679,495	35,884,509	4,16,210
do. „ 1895	715,019	44,600,813	5,65,807
do. „ 1897	798,337	44,808,675	5,68,500
Ordinary Trains June 1894	4,032,109	137,507,506	10,74,278
do. „ 1895	3,555,767	119,430,666	12,43,659
do· „ 1897	4,026,712	109,727,678	11,33,392
Total Traffic June 1894	4,711,604	173,392,015	14,90,488
do. „ 1895	4,270,786	164,031,479	18,09,465
do. „ 1897	4,825,049	154,536,353	17,01,892

These figures which exclude return tickets and therefore do not agree with para. 16 show a steady improvement in the mail train traffic where results have not been affected by any change of fare and this has been more than sufficient to balance the loss in numbers by day trains. They show that in the traffic by other trains, the reduced short distance fare has very nearly brought back the numbers of 1894 but owing to the smaller unit mileage the earnings are still seriously below those of 1895. I think this reduction in the unit mileage must be chiefly attributed to the famine on the North West line which has undoubtedly had a serious effect upon the travelling of the people and this is supported by paras. 6 and 7 of the Chief Auditor's special report which shows that the ordinary train bookings from the North West line sections to the other parts of the Madras Railway fell from 89,798 to 63,773. Para. 12 of the same report shows that the result of the lowering of the fare between contiguous stations was to increase the bookings by day trains from 748,812 to 920,227 and the earnings from Rs. 38,882 to Rs. 43,407, but as pointed out in this office letter No. A $\frac{27904}{29570}$ of the 25th May last, I do not think the result has been so satisfactory in the case of the remaining stations within the 25 mile radius.

18. PARCELS.—Compared with the corresponding period of 1896 there was an increase of 3·98 per cent. in number and 0·62 per cent. in money. The increased revenue from local parcels traffic has been principally due to fish, fruits, tobacco and betelnuts on the South West line and melon traffic on the North West line.

19. The following table shows the number carried and revenue derived from parcels during the June half-years of the last ten years :—

Half-years ending June.	Number.		Receipts.		Total.	
	Local.	Foreign.	Local.	Foreign.	Number.	Receipts.
			Rs.	Rs.		Rs.
1888	65,466	44,915	68,557	44,794	110,381	1,13,351
1889	56,437	56,730	59,795	54,531	113,167	1,14,326
1890	63,692	60,641	56,190	50,182	124,333	1,06,372
1891	66,089	53,112	56,217	48,369	119,201	1,04,586
1892	55,070	57,347	55,837	46,118	112,417	1,01,955
1893	59,572	66,066	59,886	55,302	125,638	1,15,188
1894	68,060	80,858	66,581	63,741	148,918	1,30,322
1895	82,507	82,886	66,183	67,254	165,393	1,33,437
1896	85,494	106,586	66,228	75,997	192,080	1,42,225
1897	77,582	122,140	67,478	75,627	199,722	1,43,105

20. GOODS TRAFFIC.—Compared with the corresponding half year of 1896, the receipts from Goods Traffic (exclusive of Railway Material and Revenue Stores) were Rs. 32,96,519 against Rs. 29,34,790 equivalent to an increase of 12·33 per cent. The tonnage carried was 499,818 against 425,201 in the corresponding half year or an increase of 17·55 per cent. The average sum earned per ton carried was Rs. 6·60 against Rs. 6·90, and the average sum per ton per mile was pies 8·40 against 8·52 pies. The fluctuations in the commodities which contributed to this result are shown in para. 23.

21. The following table represents the weight of and revenue from the Goods traffic carried for the public, for the ten years ending June 1897 :—

Years.	Goods traffic exclusive of Madras Railway material and Revenue stores.	Government stores and Foreign Railway material.	For the Public.	
			Weight.	Receipts.
	Rs.	Rs.	Tons.	Rs.
1887–1888	43,13,070	1,64,189	699,206	41,48,881
1888–1889	46,91,781	1,06,599	727,583	45,85,182
1889–1890	50,16,899	2,63,139	791,394	47,53,760
1890–1891	52,85,836	2,81,908	841,463	50,03,928
1891–1892	53,94,534	1,35,179	814,826	52,59,355
1892–1893	58,57,767	90,001	866,670	57,67,766
1893–1894	59,58,478	88,375	836,549	58,70,103
1894–1895	60,12,175	74,743	830,389	59,37,432
1895–1896	58,98,534	76,610	854,122	58,21,924
1896–1897	62,63,526	1,21,250	940,096	61,42,276

22. Statement showing earnings from and tonnage of Goods traffic for the half-years ending 30th June 1896 and 1897 :—

Details.	Half-year ending June 1896.	Half-year ending June 1897.
Receipts from goods ... ... Rs.	29,34,790	32,96,519
Tonnage of goods ... ... Tons	425,201	499,818
Average receipt, per ton carried ... ... Rs.	6·90	6·60
Do. per ton per mile ... ... Pies	8·52	8·40

23. The increase and decrease in each commodity composing the goods traffic for the half-year ending 30th June 1897 appear in the following statement :—

Description.	Increase.		Description.	Decrease.	
	Tons.	Rs.		Tons.	Rs.
Coal and Coke ...	17,228	63,884	Cotton, Unmanufactured.	950	13,516
Drugs and Chemicals ...	180	4,632	Jute ...	116	4,503
Dyes and Tans ...	1,473	17,916	Oil seeds ...	12,878	75,357
Grain and Pulse ...	54,798	2,64,241	Sugar ...	11,124	69,109
Hides and Skins ...	1,824	14,607			
Metals ...	3,980	24,006			
Oils ...	1,848	26,630	Commodities which yielded a total revenue of less than Rs. 1,000 each during the half-year	541	712
Salt ...	874	3,315			
Spices ...	2,376	8,057			
Stone and Lime ...	7,198	4,029			
Timber ...	6,530	45,969			
Tobacco ...	695	4,502			
Wool, raw ...	170	3,455			
All other Articles of Merchandise.	461	36,211			
Commodities which yielded a total revenue of less than Rs. 1,000 each during the half-year.	591	3,492	By Increase...	74,617	3,61,729
Total...	100,226	5,24,926	Total...	100,226	5,24,926

24. *Grain.*—The total quantity of Grain carried was 128,627 tons, yielding a revenue of Rs. 7,38,060 against 73,829 tons and a revenue of Rs. 4,73,819 or an increase of 74·22 per cent. in weight and 55·77 per cent. in money. The average amount earned per ton carried was Rs. 5·74 against Rs. 6·42. This large movement of grain has been due to the famine in the north of India and in the northern districts of the Madras Presidency and as will be seen from the table in the following para. the direction of the traffic has been to a great extent abnormal.

Coal and Coke and *Timber* show the next largest increases. These have been due to the improving demands on the Gold Mines.

Under *Oils* the improvement has been chiefly due to increased movement of Kerosine oil.

Cotton.—The decrease under this head has been due to bad crops, and also, as will be seen from para. 31, to the export trade having been further diverted to Bombay.

Sugar.—The reduction is due to large stocks of Jaggery having been held at the places of production due to bad markets in Madras and Europe. A satisfactory increase of 1,603 tons and Rs. 11,483 occurs in refined sugar due chiefly to the out-turn of the Ranipett factory.

Salt.—There has been a slight improvement in the exports from Madras.

Iron shows an increase due to Nilgiri Railway material and stores for the Gold Mines.

Oil Seeds.—Decrease due to bad crops of ground nuts and castor seeds.

25. The following table is designed to show the tonnage of Grain *sent* from and *received* at each district during the half-years ending 30th June 1896 and 1897 :—

Districts.	1896.				1897.			
	Sent from		Received in		Sent from		Received in	
	Tons.	Percentage of tons.	Tons.	Percentage of tons.	Tons.	Percentage of tons.	Tons.	Percentage of tons.
Madras	6,826	9·2	12,551	17·0	3,201	2·5	13,515	10·5
North Arcot ...	17,232	23·3	5,214	7·1	31,264	24·3	4,867	3·8
Salem	7,370	10·0	5,413	7·3	17,078	13·3	2,261	1·8
Coimbatore	1,396	1·9	18,079	24·5	22,529	17·5	7,489	5·8
Malabar	2,473	3·3	13,362	18·1	12,401	9·6	49,031	38·1
Cuddapah	1,037	7·1	1,509	4·7	2,963	2·3	4,668	3·6
Bellary	12,983	18·8	2,181	13·2	9,548	7·4	11,732	9.1
South Indian Railway.	5,212	1·4	3,478	2·0	8,189	6·4	2,086	1·6
Great Indian Peninsula Railway.	3,748	17·6	120	2·9	990	0·8	10,890	8·5
Mysore Dominions ...	13,891	5·1	9,718	0·2	11,104	8·6	11,744	9·1
Intra	1,661	2·3	2,204	3·0	9,360	7·3	10,344	8·1
Total...	73,829	100·0	73,829	100·0	128,627	100·0	128,627	100·0

26. The tonnage of Grain brought into Madras by Sea, by the Buckingham Canal, and by the Madras Railway, during the two periods under notice, was :—

Means of Transport.	1896.	1897.
	Tons.	Tons.
Sea	12,867	6,330
Buckingham Canal	13,795	7,876
Madras Railway	11,667	12,471
Total ..	38,329	26,677

The reduced imports by Sea and Canal are largely due to grain formerly brought by water from Coconada and other East Coast ports, and much of which was carried by the Madras Railway to Bangalore being now carried by the East Coast Railway to Bangalore *viâ* Bezwada, and also to the grain having been diverted to the famine districts in the North.

27. The Cotton was contributed by the following stations:—

Stations.	Half-year ending 30th June 1896.			Half-year ending 30th June 1897.		
	Pressed.	Loose.	Total.	Pressed.	Loose.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Southern Mahratta Railway ...	1,671	89	1,760	1,348	1	1,349
Adoni	2,062	219	2,281	1,173	346	1,519
Raichur	422	83	505	332	17	349
Tadpatri	1,031	211	1,242	813	176	989
Timmancherla	443	42	485	...	1	1
Nancherla	...	14	14	...	1	1
Yerraguntla	466	76	542	1,349	...	1,349
Muddanuru...	...	165	165	...	...	...
Krishnapuram	45	...	45	29	...	29
Great Indian Peninsula Railway...	112	...	112	68	...	68
Tiruppur	696	212	908	835	286	1,121
Coimbatore...	35	24	59	35	22	57
Somanur	161	...	161	289	12	301
Singanallur	21	7	28	95	3	98
Erode	207	46	253	117	260	377
Sankaridrug	...	16	16	...	29	29
Malabar Dist.	74	156	230	25	184	209
Minor Stations	14	133	147	...	157	157
Total...	7,460	1,493	8,953	6,508	1,495	8,003

28. And was distributed as under:—

Stations.	Half-year ending 30th June 1896.			Half-year ending 30th June 1897.		
	Pressed.	Loose.	Total.	Pressed.	Loose.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Madras	6,933	314	7,247	5,735	137	5,872
Southern Mahratta Railway ...	72	28	100	134	48	182
Adoni	...	20	20	...	13	13
Malabar	247	205	452	442	373	815
Guntakal	10	270	280	...	312	312
Cuddapah	...	56	56	...	...	...
Bellary District	...	257	257	...	...	...
Great Indian Peninsula Railway..	132	24	156	47	...	47
South Indian Railway	6	20	26	7	31	38
Tiruppur	...	43	43	...	87	87
Coimbatore...	51	151	202	...	172	172
Mysore Dominions...	2	45	47	143	251	394
Minor Stations	7	60	67	...	71	71
Total...	7,460	1,493	8,953	6,508	1,495	8,003

29. The condition in which the Cotton was carried is shown in the following table :—

Condition.	June 1896.		June 1897.	
	Tons.	Rs.	Tons.	Rs.
Loose	1,493	18,519	1,495	19,821
Full pressed	7,460	1,13,113	6,508	98,295
Total...	8,953	1,31,632	8,003	1,18,116

30. The quantity of Cotton brought into Madras during the two half-years under comparison was as follows :—

Districts.	1896.	1897.
	Tons.	Tons.
North-West Line	4,488	3,106
Southern Mahratta Railway...	1,671	1,348
Great Indian Peninsula Railway	112	400
Coimbatore and Salem	976	1,018
Total ...	7,247	5,872

31. Tonnage of Cotton delivered at Madras by Railway and the tonnage exported therefrom during the last and corresponding half-years :—

Period.	Delivered by Railway at Madras.	Exported at Madras.
	Tons.	Tons.
Half-year ending June 1896	7,247	3,678
Do. do. 1897	5,872	1,738

32. The following figures show the Cotton traffic during the June half of the last ten years :—

Period.	Pressed.	Loose.	Total.	
			Weight.	Receipts.
	Tons.	Tons.	Tons.	Rs.
June 1888	8,269	2,550	10,819	1,40,171
Do. 1889	10,648	2,986	13,634	1,87,003
Do. 1890	8,835	3,401	12,236	1,51,116
Do. 1891	6,403	3,789	10,192	1,29,669
Do. 1892	4,865	1,702	6,567	93,370
Do. 1893	7,120	3,919	11,039	1,32,934
Do. 1894	6,382	2,384	8,766	1,35,458
Do. 1895	8,333	1,696	10,029	1,55,236
Do. 1896	7,460	1,493	8,953	1,31,682
Do. 1897	6,508	1,495	8,003	1,18,116

33. The following figures show the Ground-nut traffic for the last ten half-years :—

Period.	Total Weight.	Total Receipts.
	Tons.	Rs.
Half-year ending 31st December 1892	3,455	7,139
Do. 30th June 1893	10,218	29,674
Do. 31st December 1893	5,799	18,983
Do. 30th June 1894	7,476	26,997
Do. 31st December 1894	3,378	15,101
Do. 30th June 1895	5,769	17,772
Do. 31st December 1895	2,326	7,576
Do. 30th June 1896	5,765	19,055
Do. 31st December 1896	2,401	6,418
Do. 30th June 1897	2,245	7,744

34. The total quantity of Salt carried over the whole system was 26,034 tons yielding a revenue of Rs. 1,45,421 against 25,160 tons with a revenue of Rs. 1,42,106 or an increase of 874 tons in weight, and of Rs. 3,315 in money. The sum earned per ton carried was Rs. 5·6 against Rs. 5·5. The export from Madras amounted to 12,191 tons, or 47 per cent. of the Salt carried against 10,854 tons and 43 per cent. in the corresponding half-year.

35. The following statement shows in tons the Salt carried from stations other than Madras, and the districts to which it was sent :—

Stations.	Half-year ending 30th June 1896.		Half-year ending 30th June 1897.	
	Sent from	Received at	Sent from	Received at
	Tons.	Tons.	Tons.	Tons.
Tirur	1,542	...	956	...
Ferok	596	...	736	...
Calicut	9,363	...	8,260	...
Salem	11	...	...	...
Erode	74	...	7	...
Coimbatore	...	...	28	...
Kallayi	67	...	104	...
North Arcot District	...	37	...	...
Salem ,, ...	...	3,498	...	3,653
Coimbatore ,, ...	...	4,722	...	2,966
Malabar ,, ...	...	2,991	...	3,284
Mysore Dominions	...	405	...	164
Cuddapah District	...	...	...	12
South Indian Railway	...	...	...	12
Total...	11,653	11,653	10,091	10,091

36. Tonnage of Salt carried out of Madras to the various districts during the half-years ending 30th June 1896 and 1897 :—

Districts.	1896.		1897.	
	Tons.	Tons.	Tons.	Tons.
Between Madras, Arkonam and Conjeveram. ...	...	712	...	657
Cuddapah	220	...	60	...
Other Stations on North-West Line ...	2,228	...	2,265	...
		2,448		2,325
Arcot and Katpadi	...	2,306	...	2,321
Between Gudiyattam and Vaniyambadi ...	...	1,258	...	1,242
Bangalore	120	...	123	...
Other Stations on Bangalore Branch ...	770	...	933	...
		890		1,056
Salem	10	...	48	...
Other Stations in Salem District... ...	1,286	...	1,830	...
		1,296		1,878
Erode, Tiruppur and Coimbatore... ...	...	1,493	...	2,306
Southern Mahratta Railway	...	72	...	51
South Indian Railway	...	379	...	353
Kolar Gold Field State Railway	...	...	...	2
Total ...	...	10,854	...	12,191

37. The following table shows the Salt traffic carried out of Madras in each year for the five years ending 30th June 1897 :—

Districts.	1893.	1894.	1895.	1896.	1897.
	Tons.	Tons.	Tons.	Tons.	Tons.
Between Madras and Conjeveram ...	1,768	2,110	1,697	1,607	1,278
Cuddapah	1,747	1,646	1,098	958	180
Other Stations on North-West Line ...	8,105	7,501	5,915	4,957	4,023
Arcot and Katpadi	5,592	6,323	5,313	4,696	4,629
Gudiyattam and Vaniyambadi	2,985	3,219	3,207	2,799	2,421
Bangalore	2,406	2,654	2,110	1,035	559
Mysore State Railway	239	4	20	30	10
Other Stations on Bangalore Branch ...	1,619	1,627	1,716	1,654	1,626
Salem	859	470	693	60	298
Other Stations in Salem District... ...	3,928	4,832	4,894	3,692	3,818
Erode, Tiruppur and Coimbatore ...	6,557	7,370	6,821	4,686	5,100
Great Indian Peninsula Railway	...	5	10	...	...
Southern Mahratta Railway	1,426	1,369	730	291	210
South Indian Railway	956	803	762	823	648
Kolar Gold Field State Railway ...	...	...	...	...	2
Total ...	38,187	39,933	34,986	27,288	24,802

38. Approximate Statement of traffic to the Gold Mines for the two half-years ending June 1896 and 1897.

Staples.	Half-year ending June 1896.						Half-year ending June 1897.					
	Total traffic at Bisanattam, Kamasamudram and Bowringpet.		Total traffic at Stations on the K. G. F. S. Ry.		Total.		Total traffic at Bisanattam, Kamasamudram and Bowringpet.		Total traffic at Stations on the K. G. F. S. Ry.		Total.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and Coke	438	1,666	39,337	1,58,830	39,775	1,60,496	1	10	53,780	2,44,797	53,781	2,44,807
Timber	2,055	14,019	1,893	15,543	3,948	29,562	3,410	21,524	6,829	54,418	10,239	75,942
Firewood	2,316	1,814	6,819	11,336	9,135	13,150	4,867	4,867	10,651	14,368	15,518	19,235
Machinery	71	852	1,544	17,100	1,615	17,952	60	675	2,271	30,070	2,331	30,745
Unclassified Articles... ...	6,171	35,195	4,150	33,307	10,321	68,502	6,187	37,317	8,558	49,374	14,745	86 691
Total ...	11,051	53,546	53,743	2,36,116	64,794	2,89,662	14,525	64,393	82,089	3,93,027	96,614	4,57,420

39 A brief explanation of the variations in the commodities referred to in para. 23 is given below :—

		From		To
Coal and Coke—Increase.	Larger despatches of Coal and Coke.	Rayapuram	...	K. G. F. S. Railway.
		G. I. P. Railway	...	Arcot.
Drugs and Chemicals—Increase...	Larger despatches of Intoxicating Drugs other than Opium.	North Arcot District.		Madras.
		Palghat	...	Malabar District.
	Larger despatches of Chinchona Bark.	Mettupalaiyam	...	Madras.
		Do.	...	Calicut.
		Palghat	...	Madras.
		Do.	...	Malabar District.
	Larger Despatches of Other Drugs and Chemicals.	Madras	...	Bangalore Branch.
		Do.	...	S. M. Railway.
		G. I. P. Railway	...	Madras.
		Do.	...	Coimbatore.
		S. M. Railway	...	Madras.
		Bowringpet	...	Do.

		From		To
Dyes and Tans—Increase.	Larger despatches of Indigo.	Cuddapah District...		S M. Railway.
		Do.	...	Bellary District.
		S. M. Railway	...	Madras.
	Larger despatches of Myrabolams.	Madras	...	North Arcot District.
		Do.	...	G. I. P. Railway.
		Do.	...	S. M. Railway.
		Bangalore City	...	Madras.
		Vaniyambadi	...	Do.
		Salem	...	Do.
	Smaller despatches of Other Dyes and Tans.	Bangalore	...	Madras.
		Do.	...	Coimbatore District.
		Gooty	...	Madras.
		G. I. P. Railway	...	Do.
		S. M. Railway	...	Do.
		S. I. Railway	...	North Arcot District.
		Do.	...	Madras.
Grain and Pulse—Increase...	Larger despatches of Rice not in the Husk.	Salem	...	Malabar District.
		Do.	...	Bangalore Branch.
		Do.	...	Cuddapah District.
		Palghat	...	Malabar District.
		Parli	...	Do.
		Katpadi	...	Do.
		Do.	...	Bangalore Branch.
		S. M. Railway	...	Madras.
		Do.	...	Bellary District.
		Do.	...	Raichur.
		S. I. Railway	...	Malabar District.
		Do.	...	Bangalore Branch.
	Larger despatches of Jawar and Bajra (Cholum and Cumboo).	Salem	...	Malabar District.
		Do.	...	Bellary District.
		Do.	...	G. I. P. Railway.
		Erode	...	Calicut.
		Do.	...	Raichur.
		Do.	...	G. I. P. Railway.
		Tiruppur	...	Malabar District.
		Do.	...	S. M. Railway.
		Cuddapah	...	G. I. P. Railway.
		Adoni	...	Do.
		S. I. Railway	...	Malabar District.
		Do.	...	Raichur.
		Do.	...	Bellary District.
		S. M. Railway	...	Do.
	Large despatches of Gram and Pulse.	Tirupattur	...	Bangalore Branch.
		Do.	...	North Arcot District.
		Salem	...	G. I. P. Railway.
		Erode	...	S. M. Railway.
		Do.	...	North Arcot District
		Do.	...	Malabar District.
		Tiruppur	...	S. M. Railway.
		Do.	...	Malabar District.
		Do.	...	Cuddapah District.
		Coimbatore	...	Madras.
		Do.	...	Malabar District.
		Do.	...	G. I. P. Railway.
		Do.	...	S. M. Railway.
		Palghat	...	Malabar District.
		S. I. Railway	...	Madras.
		Do.	...	Salem District.
		Do.	...	Malabar District.
		Do.	...	Cuddapah District.
		Vaniyambadi	...	Madras.
		Do.	...	North Arcot District.
		Do.	...	S. M. Railway.
	Larger despatches of other Grains.	Bangalore City	...	Madras.
		Do.	...	Coimbatore District.
		Malur	...	North Arcot District.
		Do.	...	Salem District.
		Do.	...	Madras.
		Salem	...	Malabar District.
		Do.	...	Raichur.
		Do.	...	G. I. P. Railway.
		Tiruppur	...	Malabar District.
		Do.	...	S. M. Railway.
		Do.	...	Bellary District.
		S. I. Railway	...	North Arcot District.
		Do.	...	Bangalore Branch.

		From		To
Hides and Skins—Increase...	Larger despatches of Cattle Hides, Raw.	Madras	...	North Arcot Distric
		G. I. P. Railway	...	Madras.
		S. I. Railway	...	North Arcot District.
		Do.	...	Salem District.
	Larger despatches of Cattle Hides, Dressed or Tanned.	Ambur	...	Madras.
		Bangalore	...	Do.
		G. I. P. Railway	...	Do.
	Larger despatches of Sheep Skins, Raw.	Tirupattur	...	S. I. Railway.
		Cuddapah	...	Madras.
		G. I. P. Railway	...	Do.
		S. M. Railway	...	Do.
		Do.	...	North Arcot District.
		S. I. Railway	...	Do.
		Do.	...	Salem District.
		Vaniyambadi	...	Madras.
Metals—Increase ...	Larger despatches of Copper, Unwrought.	Madras	...	Salem District.
		Do.	...	Coimbatore District.
		Do.	...	G. I. P. Railway.
		Malabar District	...	S. I. Railway.
	Larger despatches of Brass, Unwrought.	Madras	...	Katpadi.
		Do.	...	Coimbatore District.
	Larger despatches of Wrought Iron and Steel.	Rayapuram	...	Perambore.
		Do.	...	Mettupalaiyam.
		Do.	...	Madras Ennur Ry.
		Do.	...	S. I. Railway.
		Do.	...	K. G. F. S. Railway.
	Larger despatches of Manufactured Iron and Steel.	Rayapuram	...	Perambur,
		Do.	...	Madras Ennur Ry.
		Do.	...	Arcot.
		Madras	...	Bangalore Branch.
		Ferok	...	Mettupalaiyam.
Oils—Increase ...	Larger despatches of Kerosine Oil.	Rayapuram	...	Bangalore Branch.
		Do.	...	G. I. P. Railway.
		Tirur	...	North Arcot District.
		Do.	...	Tiruppur.
		Do.	...	Malabar District.
		Calicut	...	Salem District.
		Do.	...	Coimbatore District.
		Do.	...	S. I. Railway.
	Larger despatches of Castor Oil.	Salem District	...	Madras.
		Do.	...	North Arcot District.
		Do.	...	Bangalore Branch.
		Do.	..	S. I. Railway.
	Larger despatches of Cocoanut Oil.	Tirur	...	Malabar District.
		Shoranur	...	Do.
		Calicut	...	Bangalore Branch.
		Do.	...	S. I. Railway.
		Do.	...	G. I. P. Railway.
Spices—Increase ...	Larger despatches of Pepper.	Palghat	...	S. I. Railway.
		Do.	...	Malabar District.
		Tirur	...	Do.
		Malabar District	...	Madras.
		Do.	...	Coimbatore District.
	Larger despatches of Ginger.	Palghat	...	S. I. Railway.
		Parpanangadi	...	Malabar District.
		Tirur	...	Do.
		Do.	...	S. I. Railway.
	Larger despatches of Chillies.	Madras	...	NorthArcot District.
		S. M. Railway	...	Madras.
	Larger despatches of Other Spices.	North Arcot Dt.	...	Salem District.
		Do.	...	S. M. Railway.
		Bellary District	...	Do.
		Do.	...	G. I. P. Railway.
		Sankaridrug	...	North Arcot District

		From		To
Stone and Lime-Increase.	Larger despatches of Stone and Lime.	Ambattur	...	Madras.
		Avadi	...	Do.
		Sholinghur	...	Do.
		Do.	...	Madras Ennur Ry.
		Bowringpet	...	Bangalore Branch.
		Tirupattur	...	K. G. F. S. Railway.
Timber—Increase ...	Larger despatches of Timber and Firewood.	Rayapuram	...	Madras Ennur Ry.
		Do.	...	S. I. Railway.
		Renigunta	...	Madras.
		Mulanur	...	Kamasamudram.
		Malur	...	K. G. F. S. Railway.
		Devankundi	...	Do.
		Whitefield	...	Do.
		Walayar	...	Coimbatore District.
		Palghat	...	S. I. Railway.
		Do.	...	Bangalore Branch
		Kallayi	...	K. G. F. S. Railway.
Tobacco—Increase ...	Larger despatches of Unmanufactured Tobacco	Tiruppur	...	North Arcot District.
		Do.	...	Malabar District.
		Do.	...	Bowringpet.
		Coimbatore	...	Malabar District.
		S. M. Railway	...	Madras.
		Do.	...	Bowringpet.
	Larger despatches of Manufactured Tobacco (Cigars.)	Coimbatore District		Madras.
		Do.	...	Gudiyattam.
		Do.	...	Bangalore Branch.
		Do.	...	G. I. P. Railway.
		Razampeta	...	Madras.
	Larger despatches of Tobacco, Other Sorts.	Madras	...	Bangalore.
		S. I Railway	...	Bangalore Branch.
		Razampeta	...	S. M. Railway.
Wool Raw—Increase ...	Larger despatches of Wool, Raw.	Madras	...	Bangalore.
		Adoni	...	Bangalore City.
		Do	...	G. I. P. Railway.
All other Articles of Merchandise.—Increase	Larger despatches of Other Articles of Merchandise.	Madras	...	K. G. F. S. Railway.
		Bangalore City	...	Madras.
		Do.	...	Salem District
		Do.	...	Coimbatore District.
		Do.	...	Malabar District.
		Edakkolam	...	Bangalore Branch.
		S. I. Railway	...	Salem District.
		Do.	...	Bangalore Branch.
Cotton Unmanufactured—Decrease...	Smaller despatches of Cotton Unpressed	Coimbatore	...	Kallayi.
		Bellary District	...	Cuddapah District.
		Do.	...	Guntakal.
		Tadpatri	...	Do.
		Do.	...	Bellary District.
		Muddanuru	...	Madras.
	Smaller despatches of Cotton Pressed	S. M. Railway	...	Madras.
		Tadpatri	...	Do
		Adoni	...	Do

		From		To
Jute—Decrease	Smaller despatches of Gunny Bags and Cloth.	Bangalore City	...	Arcot.
		Do	...	Coimbatore Dist.
		Salem	...	Madras.
		Do	...	S. I. Railway.
		S. M. Railway.	...	Bellary District.
		Do	...	Raichur.
		S. I. Railway.	...	North Arcot Dist.
		Do.	...	Salem District.
		Do.	...	Bangalore Branch.
Oil Seeds—Decrease	Smaller despatches of Linseed.	Adoni	...	G. I. P. Railway.
	Smaller despatches of Til or Gingelly Seeds.	Tadpatri	...	Madras.
		Do.	...	Erode
		Do.	...	Cuddapah District.
		Do.	...	Guntakal.
		Razampeta	...	Madras.
		Do	...	S. I. Railway.
		Raichur	...	Madras.
		Do	...	Erode.
	Smaller despatches of Earthnuts & Groundnuts	Nagari	...	Madras.
		Tiruttani	...	Do.
		Puttur	...	Do.
		Pudi	...	Do.
		Chinnamapet	...	Do.
		Bangalore	...	Do.
		Morappore	...	Do.
		Salem	...	Do.
		Gooty	...	Do.
		Raichur	...	Do.
		S. M. Railway	...	Do.
		Tirupattur	...	Do.
		Do.	...	S. I. Railway.
	Smaller despatches of Castor Seeds.	Bangalore City.	...	North Arcot District.
		Do.	...	S. I. Railway.
		Vaniyambadi	...	Madras.
		Do.	...	S. I. Railway.
		Cuddapah	...	Madras.
		Do.	...	S. I. Railway.
		Raichur	...	Madras.
		Do.	...	Coimbatore District.
		S. M. Railway	...	Do.
		Do.	...	Cuddapah District.
	Smaller despatches of Other Oil Seeds..	Kuppam	...	Madras.
		Do.	...	Arcot.
		Do.	...	S. I. Railway.
		Bowringpet	...	Madras.
		Do.	...	North Arcot District.
		Do.	...	Malabar District.
		Do.	...	Bangalore Branch.
		Bangalore City	...	Madras.
		Do.	...	S. I. Railway.
		Do.	...	Malabar District.
Sugar—Decrease	Smaller despatches of Unrefined (Molasses or Jaggery, &c.)	Tirupattur	...	Madras.
		Do.	...	North Arcot District.
		Do.	...	Calicut.
		Do.	...	Bangalore Branch.
		Sankaridrug	...	Madras.
		Do.	...	S. I. Railway.
		Palghat	...	Do.
		Do.	...	Madras.
		S. M. Railway	...	Do.
		McDonald's Choultry		Do.
		Perundurai	...	Do.
		Uttukuli	...	Do.
		Do.	...	Coimbatore District.

40. The interchange of the principal commodities with Foreign Railways during the two half-years under review, is shown below :—

Commodities.	1896.		1897.	
	Tons.	Rs.	Tons.	Rs.
Cotton, raw	2,164	27,331	1,697	22,679
Do. manufactured	3,690	51,216	3,770	50,934
Dyes and Tans	4,948	57,465	6,366	73,072
Grain and Pulse	27,426	1,79,095	42,445	2,94,685
Hides and Skins	8,381	1,39,382	9,085	1,42,001
Liquors	1,809	23,564	1,882	22,285
Metals	3,433	37,350	3,919	40,921
Oils	2,607	20,266	3,405	35,103
Oil Seeds	11,234	72,880	5,707	38,103
Provisions	11,865	1,03,609	10,811	85,637
Railway Plant and Rolling Stock...	411	2,419	381	1,704
Salt	2,585	12,748	3,146	10,992
Spices	4,290	47,267	6,368	58,942
Sugar	12,230	80,614	8,483	61,549
Timber	21,620	63,111	26,165	1,06,746
Tobacco	1,619	17,540	2,430	23,633
All other Articles of Merchandise.	10,271	1,44,486	10,923	1,62,593

41. ABSTRACT OF COMMODITIES.—A detailed statement of the principal commodities carried during the half-years under review will be found printed on pages 19,20 and 21 of the Capital and Revenue Account prepared by the Chief Auditor for the half-year ending June 1897.

42. WORKING EXPENSES.—A detailed comparison of the working expenses of the Traffic Department for the last three half years will be found in appendix 20. The final result as compared with the corresponding half year is a saving of Rs. 40,689, the percentage of gross receipts for the two half years having been 8·14 and 6·99 respectively.

The following is an explanation of the principal fluctuations.

General Supervision.—Reduction due to more officers on furlough and less travelling allowances having been drawn.

Station and Train staff. Increase due to the staff of the Ennur Railway having been employed for the full half year against 4 months in the corresponding period and to extra staff required at certain stations.

The large saving under *Fire, lights and general stores,* and *Wagon covers* is partly due an abnormal charge in the June 1896 half year of Rs. 14,000 for the revenue portion of the estimate for Pintsch's gas lighting, and to reduced cost and consumption of Cocoanut oil, also to a smaller number of wagons covers manufactured.

There are also savings under printing and stationery, expenses at joint stations and loss by exchange.

43. KOLAR GOLD FIELD RAILWAY.—The Revenue account of this line shows that the gross receipts increased from Rs. 70,213 for the half year June 1896 to Rs. 98,854 for the half year under report or 40·6 per cent. The number of passengers carried has increased from 248,238 to 304,180 or 22·5 per cent besides season tickets which have risen from 137 to 253 and the tonnage of Goods lifted from 54,994 to 83,455 or 51·8 per cent. The Mysore State after drawing 4 per cent per annum on its capital of 7½ lacs has received since 1892 Rs. 1,18,823 in surplus profits. In this office Letter No. A. $\frac{36671}{30349}$ of 9th September 1897, I have shewn why the cost of working this branch is exceptionally heavy and the time seems to have arrived when the Madras Railway may reasonably ask for a share of the large profits which this undertaking has returned to its owners.

44. MADRAS ENNUR RAILWAY.—The accounts show that this line has earned surplus profits for the State to the amount Rs. 3,028 for the half year but a comparison of the amount allowed for working expenses with the train mileage will show that it has been worked at a loss by the Madras Railway. The passenger traffic has been steady, the goods traffic has consisted almost entirely of Railway material for construction. Much further development is not probable until the line obtains through traffic by the opening of further sections of the Madras-Bezwada Railway.

45. GENERAL.—The half year has been a record one in respect of gross receipts, percentage of working expenses, number of passengers carried and surplus profits earned. A large portion of this result has no doubt been due to the famine in Northern India and the abnormal traffic earned thereby, but there have also been satisfactory developments in other directions and especially in the coal and other traffic for the Gold Mines.

APPENDICES

The undermentioned statements are enclosed:—

1. Coaching traffic Receipts in each month.
2. Goods do. do.
3. Comparison of Coaching Receipts for 1896 and 1897.
4. Do. Goods do. do.
5. Average Receipts per mile open and per mile run during 1896 and 1897.
6. Expenditure table for 1896 and 1897.
7. Percentage of Working Expenses for 1896 and 1897.
8. Do. Revenue do. do.
9. Passenger traffic exclusive of return fares and soldiers for 1897.
10. Average of Passenger traffic exclusive of return fares do. do.
11. Passenger traffic inclusive of return fares but exclusive of soldiers for 1897.
12. Average of Passenger traffic do. do. do.
13. Return fare traffic for 1897.
14. Comparison of Passenger traffic inclusive of return fares but exclusive of soldiers for 1896 and 1897.
15. Comparison of Passenger traffic exclusive of return fares and soldiers for 1896 and 1897.
16. Comparison of Return fare traffic for 1896 and 1897.
17. Parcels, Treasure and Passengers' luggage for 1896 and 1897.
18. Gross Earnings and Tonnage of Goods traffic.
19. Comparison of Goods traffic for 1896 and 1897.
20. Comparative statement of Traffic Expenses for 1896 and 1897.
21. Table of Coaching traffic in and out at stations for 1896 and 1897.
22. Table of Goods do. do. do. do.

I have the honor to be,

Sir,

Your obedient Servant,

(Signed) D. ROSS-JOHNSON,

Ag. Traffic Manager.

APPENDIX

TO

TRAFFIC MANAGER'S HALF-YEARLY REPORT FOR 30th JUNE 1897.

1. *Coaching Traffic receipts in each month for the half-year ending 30th June 1897.*

Months.	Passengers.		Passengers' luggage.		Carriages, horses and dogs.		Parcels.		Special trains.	Miscellaneous.	Haulage of post office vehicles.	Total.
	Passengers and season tickets.	Troops and Police.	Ordinary.	Military.	Ordinary.	Military.	Ordinary.	Revenue.				
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.
January ...	3,00,181	12,018	10,115	3,499	5,630	897	22,848	510	359	58	4,080	3,60,205
February ...	3,06,058	7,953	11,268	1,637	5,312	595	22,214	402	...	220	4,082	3,59,741
March ...	3,25,50	11,147	11,675	2,096	10,747	986	25,560	497	200	62	4,064	3,92,525
April ...	3,15,210	9,885	17,452	833	11,318	527	25,575	478	...	71	4,064	3,85,413
May ...	3,44,874	8,155	11,559	792	5,312	283	24,741	541	...	80	4,081	4,00,418
June ...	3,36,511	9,459	11,236	944	5,658	637	22,167	581	...	73	4,067	3,91,383
Total...	19,28,335	58,617	73,354	9,801	43,978	3,925	1,43,105	3,009	569	564	24,438	22,89,695

2. *Goods Traffic receipts for each month for the half-year ending 30th June 1897.*

Months.	Merchandise and military stores and coal for the public.	Railway materials for construction.	Revenue stores.	Live Stock.		Rents and demurrage.	Miscellaneous.	Total.
				Ordinary.	Military.			
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
January ...	4,63,788	592	9,118	2,459	2,031	1,092	704	4,79,784
February ...	5,16,867	272	9,867	2,075	5,715	1,303	449	5,36,548
March ...	6,06,654	1,439	11,703	2,585	259	1,136	498	6,24,274
April ...	6,05,801	227	10,600	1,890	150	1,539	705	6,20,912
May ...	5,58,163	525	11,550	1,576	55	1,396	635	5,73,894
June ...	5,45,246	841	12,095	1,498	226	— 289	697	5,60,314
Total...	32,96,519	3,896	64,933	12,077	8,436	6,177	3,688	33,95,726

3. *Comparison of the Coaching traffic for the half-years ending June and December 1896 and June 1897.*

Half-years.		Passengers.		Passengers' luggage.		Carriages, horses and dogs.		Parcels.		Special trains.	Miscellaneous.	Haulage of post office vehicles.	Total.
		Passengers and season tickets.	Troops and Police.	Ordinary.	Military.	Ordinary.	Military.	Ordinary.	Revenue.				
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
June	1896...	19,94,014	50,951	67,443	10,737	44,263	3,838	1,42,225	2,377	2,540	812	25,545	23,44,745
December	1896...	18,94,155	58,347	58,835	11,432	37,355	4,006	1,44,520	2,844	1,280	714	23,872	22,37,360
June	1897...	19,28,335	58,617	73,354	9,801	43,978	3,925	1,43,105	3,009	569	564	24,438	22,89,695

4. *Comparison of the Goods traffic for the half-years ending June and December* 1896, *and June* 1897.

Half-years.	Merchandise and military stores and coal for the public.	Railway material for construction.	Revenue stores.	Live Stock.				Rents and demurrage.	Miscellaneous.	Total.
				Ordinary.		Military.				
				Horses.	Other live stock.	Horses.	Other live stock.			
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
June 1896...	29,34,790	1,846	54,853	7,266	7,577	4,831	...	7,646	3,341	30,22,150
December 1896...	29,67,007	1,610	62,662	5,473	6,897	2,413	...	9,900	4,260	30,60,222
June 1897...	32,96,519	3,896	64,983	3,633	8,444	8,436	...	6,177	3,688	33,95,726

5. *Average receipt per "mile open" and per "mile run" for the same periods.*

Period.	Per mile open.	Per mile run.
	Rs.	Rs.
Half-year ending June 1893	6,510·00	4·42
Do. do. December 1896	6,442·68	4·35
Do. do. June 1897	6,892,34	4·59

6. *Table of expenditure for the half-years ending June and December* 1896 *and June* 1897.

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 June 1896	6,09,640	10,50,269	3,10,430	4,45,373	2,88,769	39,564	27,44,045
Do. do. December 1896	6,45,543	10,51,453	3,05,538	4,16,454	2,86,821	45,107	27,50,916
Do. do. June 1897	6,20,106	10,38,798	2,89,436	4,04,684	2,84,635	62,267	26,99,926

7. *Percentage of working expenses for the same periods.*

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 June 1896	22·22	38·28	11·31	16·23	10·52	1·44	100·00
Do. do. December 1896	22·47	38·22	11 10	15·14	10·43	1·64	100·00
Do. do. June 1897	22·97	38·47	10·72	14·99	10·54	2·31	100·00

8. *Percentage of revenue for the same periods.*

Period.	Permanent way.	Locomotive.	Repairs to carriages and wagons.	Traffic.	General charges.	Special and miscellaneous.	Profits.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Half-year ending June 1896...	11·15	19·21	5·68	8·14	5·28	0·72	49·82	100·00
Do. do. Dec. 1896...	11·93	19·43	5·65	7·69	5·30	0·83	49·17	100·00
Do. do. June 1897...	10·71	17·94	5·00	6·99	4·92	1·07	53·37	100·00

9. *Passenger traffic, exclusive of return fares and soldiers in each month for the half-year ending June* 1897.

Months.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
January	1,726½	15,440	5,466	17,733	710,764	2,64,846	717,956½	2,98,019
February	1,588	13,465	5,077½	14,563	751,219½	2,74,161	757,885	3,02,189
March	1,945½	18,159	5,634½	16,419	824,202½	2,86,851	831,782½	3,21,429
April	1,877	19,970	5,551	17,254	794,856	2,74,745	802,284	3,11,969
May	1,497½	15,514	5,957½	18,236	892,525½	3,09,109	899, 80½	3,42,859
June	1,732	17,471	5,707½	18,222	851,482	2,95,544	858,921½	3,31,237
Total...	10,366½	1,00,019	33,394	1,02,427	4,825,049½	17,05,256	4,868,810	19,07,702

10. *Average of passenger traffic, exclusive of return fares and soldiers for the half-year ending June* 1897.

	Average miles open.	First class.	Second class.	Third class.	Total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Average receipt per mile open ...	840	119 1 1	121 15 0	2,030 1 1	2,271 1 2
Average percentage of numbers ...	...	0·21	0·69	99·10	100·00
Average mileage of passengers ...	...	155	98	82	...
Average percentage of receipts ...	...	5·24	5·37	89·39	100·00

11. *Passenger traffic in each month, inclusive of return fares, but exclusive of soldiers, for the half-year ending June* 1897.

Months.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
January ...	1,954½	15,696	7,329	18,358	761,970	2,66,126	771,244½	3,00,180
February ...	1,998	13,806	7,919½	15,096	792,556½	2,77,156	801,574	3,06,058
March ...	2,029½	18,256	7,196½	17,176	847,928½	2,90,068	857,154½	3,25,500
April ...	2,291	20,496	8,496	18,219	849,784	2,76,495	860,571	3,15,210
May ...	1,825½	15,965	8,147½	18,950	913,601½	3,09,958	923,574½	3,44,873
June ...	2,780	18,906	7,295½	18,888	892,056	2,98,718	902,131½	3,36,512
Total...	12,869½	1,03,125	45,484	1,06,687	5,057,896½	17,18,521	5,116,250	19,28,333

12. *Average of passenger traffic, inclusive of return fares, but exclusive of soldiers, for the half-year ending 30th June 1897.*

	Miles open.	First class.	Second class.	Third class.	Total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Average receipt per mile open ...	840	122 12 3	127 0 2	2,045 13 9	2,295 10 2
Average percentage of numbers ...		0·25	0·89	98·86	100·00
Average mileage of passengers ...		154	97	31	...
Average percentage of receipts ...		5·35	5·53	89·12	100·00

13. *Return fare traffic for the half-year ending 30th June 1897.*

Months.	Periodical tickets.								Return tickets.							
	First class.		Second class.		Third class.		Total.		First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
January ...	200	127	1,840	471	48,640	667	50,680	1,265	19	129	23	155	2,566	613	2,608	897
February ...	400	215	1,920	433	29,200	398	31,520	1,046	10	126	22	100	12,137	2,597	12,169	2,823
March ...	80	2	1,520	409	11,760	215	13,360	626	4	94	42	349	11,966	3,003	12,012	3,446
April ...	400	224	2,920	785	50,400	603	53,720	1,612	14	302	25	181	4,528	1,146	4,567	1,629
May ...	320	272	2,160	453	18,640	399	21,120	1,124	8	179	30	261	2,436	451	2,474	891
June ...	1040	1029	1,560	349	31,760	438	34,360	1,816	8	149	28	140	8,814	2,036	8,850	2,315
Total...	2440	1869	11,920	2900	190,400	2720	204,760	7,489	63	979	170	1186	42,447	9,836	42,680	12,001

14. *Comparison of the passenger traffic, inclusive of return fares, but exclusive of soldiers, for the half-years ending June and December 1896 and June 1897.*

Half-years.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
Half-year ending June 1896	10,903	97,383	48,101	1,09,790	4,814,350½	17,86,841	4,873,354½	19,94,014
Do. do. December 1896	12,272½	92,361	42,830½	1,01,941	4,727,778½	16,99,951	4,782,881½	18,94,153
Do. do. June 1897	12,869½	1,03,125	45,484	1,06,687	5,057,896½	17,18,521	5,116,250	19,28,333

15. *Comparison of the passenger traffic, exclusive of return fares and soldiers, for the half-years ending June and December 1896 and June 1897.*

Period.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
June 1896 ...	9,627	95,237	33,199	1,05,623	4,594,576½	17,77,648	4,637,402½	19,78,608
December 1896 ...	9,554½	88,739	31,799½	97,899	4,511,483½	16,90,311	4,552,837½	18,76,949
June 1897 ...	10,366½	1,00,019	33,394	1,02,427	48,25,049½	17,05,256	4,868,810	19,07,702

16. *Comparison of the return fare traffic for the half-years ending June and December 1896 and June 1897.*

Period.		First class.		Second class.		Third class.		Total.	
		No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
Half-year ending June 1896.	Trivellore ...	...	...	...	...	18,157	4,510	18,157	4,510
	Other excursions ...	1,276	2,047	14,902	4,165	201,617	4,683	217,795	10,895
		...	...	...	...	13,714	3,388	13,714	3,388
Half-year ending Dec. 1896.	Trivellore ...	...	...	...	...	...	...	...	...
	Other excursions ...	2,718	3,524	11,031	4,039	202,581	6,252	216,330	13,815
		...	...	...	...	25,376	6,300	25,376	6,300
Half-year ending June 1897.	Trivellore ...	...	...	...	...	207,471	6,256	222,064	13,190
	Other excursions ...	2,503	2,848	12,090	4,086				

17. *Parcels, treasure and passengers luggage for the half-years ending June and December 1896 and June 1897.*

Period.		Parcels.			Luggage.				
		No.	Rs.	Revenue parcels.	Ordinary.		Military.		Total.
					Public.	Treasure.	By ordinary trains.	By troop trains.	
				Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
June 1896 ...		192,080	1,42,225	2,377	39,858	27,585	5,276	5,462	78,181
December 1896 ...		182,159	1,44,520	2,844	55,110	23,725	5,221	6,211	70,267
June 1897 ...		199,722	1,43,105	3,009	41,020	32,334	6,469	3,331	83,154

18. *Gross earnings and tonnage of goods, exclusive of Railway materials and Revenue stores, for the half-year ending 30th June 1897.*

Months.	Tons.	Rupees.
January ...	78,539	4,63,788
February ...	79,945	5,16,867
March ...	94,353	6,06,654
April ...	87,807	6,05,801
May ...	79,865	5,58,163
June ...	79,318	5,45,246
Total ...	499,818	32,96,519

19. *Comparison of the goods traffic, exclusive of Railway materials and Revenue stores, for the half-years ending June and December 1896 and June 1897.*

Period.	Tons.	Rupees.
Half-year ending June 1896 ...	425,201	29,34,790
Do. do. December 1896 ...	456,924	29,67,907
Do. do. June 1897 ...	499,818	32,96,519

20. *Comparative statement of the traffic expenses for the half-years ending June and December 1896 and June 1897.*

Period.	Traffic Manager and Assistants.	Office establishment.	Travelling allowances.	Contingencies.	Station Masters, Clerks and Porters.	Guards and Assistant Guards and Overtime allowances.	Fire, lights, water and general stores.	Wagon covers & ropes.	Office and station fittings and furniture.	Clothing of Guards and Porters.	Printing, stationery and tickets.	Miscellaneous.	Traffic expenses at joint stations.	Loss on exchange.	Carriage of revenue stores.	Charges for delivery and collection of goods.	Deduct Cost of Working K. G. F. S. and Madras Ennur Railways	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1896 June	48,160	23,603	4,874	581	1,93,858	51,350	59,143	4,019	703	5,817	33,363	2,879	12,391	5,033	1,182	1,090	7,738	4,45,373
1896 Dec.	44,652	23,722	3,626	510	1,92,070	52,409	41,274	3,327	1,826	5,757	34,780	1,685	10,819	6,788	1,372	1,209	9,382	4,16,454
1897 June	43,191	23,553	3,327	485	1,95,672	52,945	36,119	1,983	162	5,426	33,678	2,756	7,248	4,766	1,432	1,284	9,343	4,04,684

MADRAS RAILWAY,
TRAFFIC MANAGERS OFFICE,
Madras, 16th September, 1897.

(Signed) D. ROSS-JOHNSON,
Ag, Traffic Manager.

SUPPPLEMENTARY STATEMENTS,

TO BE ADDED TO THE

ACTING TRAFFIC MANAGER'S HALF YEARLY REPORT FOR 30TH JUNE 1897.

Dated 16th September, 1897.

LAWRENCE ASYLUM PRESS, MADRAS.

The following Table shows the Coaching Traffic in and out of the following Stations on the Madras Railway for the half-years ending 30th June 1896 and 1897.

STATIONS.	Number of Passengers.						Coaching Receipts.					
	1896.			1897.			1896.			1897.		
	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.
	No.	No.	No.	No.	No.	No.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Madras	305,009	307,875	612,884	319,247	313,613	632,860	3,64,235	3,74,932	7,39,167	3,32,870	3,86,957	7,19,827
Salt Cotaurs	...	...	...	...	...	...	...	...	...	...	...	...
Rayapuram	77,705	97,718	175,423	85,293	98,862	184,155	6,162	20,615	26,777	5,225	17,927	23,152
Washermanpet Junction	82,826	94,540	177,366	87,448	101,987	189,435	8,945	21,214	30,159	8,489	20,247	28,736
Veyasarpaudy*	...	..	...	6,087	9,052	15,139	...	...	...	132	543	675
Perambur	126,678	128,491	255,169	132,086	158,855	290,941	9,389	22,581	31,970	9,166	24,037	33,203
Connur	40,771	42,806	83,577	46,626	48,438	95,064	2,927	3,600	6,527	3,057	3,753	6,810
Ambattur	19,168	18,079	37,247	22,627	20,862	43,489	1,794	1,832	3,626	1,995	2,039	4,034
Avadi	66,149	64,903	131,052	68,498	67,521	136,019	11,148	12,048	23,196	10,252	11,272	21,524
Tinnanur	41,122	41,836	82,958	46,600	46,962	93,562	4,497	6,764	11,261	6,762	7,002	13,764
Sevvapet Road	18,075	18,339	36,414	19,944	20,541	40,485	3,122	3,242	6,364	3,136	3,217	6,353
Trivellore	126,140	102,295	228,435	143,063	104,715	247,778	34,677	27,626	62,303	36,702	25,236	61,938
Kadambattur	24,886	25,606	50,492	24,707	25,552	50,259	4,865	5,344	10,209	4,437	4,728	9,165
Manur	12,574	12,947	25,521	13,193	14,096	27,289	2,008	2,232	4,240	1,881	2,224	4,105
Chinnamapet	13,637	14,852	28,489	13,312	12,811	26,123	2,955	3,506	6,461	2,610	2,660	5,270
Mosur	5,315	5,518	10,833	5,501	5,731	11,232	791	1,036	1,827	784	981	1,765
Arkonam Junction	147,043	141,199	288,242	160,388	156,337	316,725	72,520	67,259	1,39,779	68,976	64,942	1,33,918
Tiruttani	68,274	60,984	129,258	69,335	63,001	132,336	14,675	12,909	27,584	12,924	11,274	24,198
Ponpadi	7,967	8,682	16,649	9,357	9,890	19,247	819	985	1,804	778	920	1,698
Nagari	41,001	41,458	82,459	39,511	40,208	79,719	9,354	8,820	18,174	7,210	7,597	14,807
Vepagunta	5,547	6,297	11,844	6,699	7,414	14,113	800	1,021	1,821	940	1,150	2,090
Puttur	40,578	42,655	83,233	37,340	38,632	75,972	8,396	9,263	17,659	7,137	7,720	14,857
Pudi	21,332	22,512	43,844	21,787	23,737	45,524	4,229	4,693	8,922	3,993	4,489	8,487
Renigunta Junction	81,255	80,387	161,642	74,022	73,625	147,647	51,682	53,033	1,04,715	42,104	45,881	87,985
Mamanduru	2,375	2,739	5,114	3,682	3,372	7,054	303	427	730	499	565	1,064
Peddapadu	6,369	6,557	12,926	6,628	6,646	13,274	1,327	1,496	2,823	1,327	1,474	2,801
Koduru	18,773	18,468	37,241	17,625	17,521	35,146	5,386	5,242	10,628	4,925	4,797	9,722
Urampadu	11,640	11,666	23,306	8,878	8,699	17,577	2,089	3,140	5,229	1,523	2,110	3,633
Reddipalli	13,750	14,424	28,174	14,541	15,001	29,542	3,108	4,398	7,506	3,051	3,409	6,460
Razampeta	29,706	29,156	58,862	26,877	26,712	53,589	9,228	8,721	17,949	8,068	8,049	16,117
Nandalur	22,453	21,941	44,394	20,478	20,152	40,630	5,433	5,474	10,907	4,960	5,073	10,033
Vontimitta	21,492	20,972	42,464	21,590	21,590	43,180	5,094	5,554	10,648	5,177	6,056	11,233
Siddhavattam	2,003	2,760	4,763	1,871	2,459	4,330	354	407	761	809	373	1,182

* Opened 1st December 1896.

Cuddapah	59,125	58,706	117,831	58,658	59,774	118,432	31,366	34,374	65,740	31,671	34,033	65,704
Krishnapuram	13,293	11,706	24,999	14,780	12,565	27,345	2,146	2,348	4,494	2,203	2,311	4,514
Gangayapalli	10,324	10,623	20,947	11,472	11,976	23,448	1,380	1,498	2,878	1,259	1,418	2,677
Kamalapuram	29,738	21,436	42,174	19,951	20,679	40,630	5,942	5,863	11,805	4,172	4,333	8,505
Yerragudipadu	4,996	5,433	10,429	4,956	5,406	10,362	730	1,037	1,767	672	939	1,611
Yerraguntla	24,386	23,449	47,835	23,906	23,321	47,227	11,831	12,055	23,886	10,875	11,409	22,284
Kalamala	5,423	5,203	10,626	5,316	4,947	10,263	1,093	1,239	2,332	1,007	1,154	2,161
Muddanuru	15,390	15,942	31,332	15,537	15,536	31,073	6,374	6,376	12,750	6,428	5,859	12,287
Mangapatnam	3,665	3,596	7,261	3,882	4,046	7,928	737	868	1,605	694	1,000	1,694
Kondapuram	13,186	13,116	26,302	10,340	10,219	20,559	4,407	4,778	9,185	3,373	3,374	6,747
Regadipalli*	...	...	...	3,825	4,070	7,895	...	...	...	628	935	1,563
Vanganur	6,977	6,995	13,972	5,731	5,698	11,429	1,865	2,027	3,892	1,457	1,578	3,035
Tadpatri	31,746	32,582	64,328	29,980	30,464	60,444	13,163	12,730	25,893	11,769	11,042	22,811
Penneru	11,144	10,460	21,604	11,332	10,358	21,690	2,465	2,496	4,961	2,075	1,985	4,060
Rayalcheruvu	15,615	16,082	31,697	15,163	15,533	30,696	3,772	4,089	7,861	3,327	3,387	6,714
Jakkulacheruvu	4,636	5,155	9,791	4,624	4,753	9,377	873	1,067	1,940	736	848	1,584
Gooty	33,509	32,970	66,479	39,045	38,420	77,465	11,835	13,706	25,541	12,006	14,322	26,328
Patakottacheru	4,962	5,415	10,377	5,324	5,780	11,104	641	830	1,471	687	787	1,474
Timmancherla	11,481	12,332	23,813	12,437	12,746	25,183	3,431	3,822	7,253	3,092	3,128	6,220
Guntakal Junction	42,122	32,111	74,233	41,005	35,399	76,404	40,377	30,509	70,886	34,496	26,085	60,581
Nancherla	3,591	3,763	7,354	3,333	3,488	6,871	939	995	1,934	798	840	1,638
Molagavalli	3,887	3,847	7,734	4,033	3,907	7,940	692	845	1,537	675	802	1,477
Aspari	6,924	6,990	13,914	7,639	7,762	15,401	1,561	1,593	3,154	1,706	1,821	3,527
Nagarur	3,953	4,502	8,455	4,017	4,409	8,426	502	692	1,194	510	617	1,127
Adoni	50,665	50,349	101,014	53,927	53,878	107,805	20,628	17,423	38,051	20,631	18,341	38,972
Kupgal	9,854	9,178	19,032	12,449	11,249	23,698	1,383	1,353	2,736	1,621	1,774	3,395
Kosgi	16,330	16,724	33,054	18,225	18,187	36,412	3,510	3,624	7,134	3,734	3,614	7,348
Tungabhadra	10,134	10,280	20,414	10,753	10,577	21,330	4,349	2,944	7,293	3,405	2,850	6,255
Matmari	10,281	10,283	20,564	12,668	12,902	25,570	1,684	1,898	3,582	1,917	2,095	4,012
Raichur Junction	27,479	27,002	54,481	27,465	28,397	55,862	33,731	29,431	63,162	29,049	28,137	57,186
Munnal	14,641	15,408	30,049	14,251	15,576	29,827	2,121	2,831	4,952	1,925	2,701	4,626
Sholinghur	28,996	28,861	57,857	29,231	29,142	58,373	9,361	9,608	18,969	8,584	8,425	17,009
Thalangai	3,001	3,800	6,801	2,921	3,781	6,702	390	573	963	292	469	761
Arcot	81,817	78,944	160,761	77,609	75,895	153,504	37,273	37,195	74,468	32,900	32,800	65,700
Ponnai Road	4,044	5,765	9,809	4,655	6,547	11,202	427	962	1,389	386	941	1,327
Tiruvalam	18,175	19 200	37,375	18,357	19,556	37,913	6,393	7,009	13,402	6,227	7,586	13,813
Katpadi Junction	134,935	122,245	257,180	142,429	130,077	272,506	75,348	68,479	1,43,827	73,862	67,747	1,41,609
Latteri	5,398	7,284	12,682	5,890	7,937	13,827	532	959	1,491	581	1,026	1,607
Virinchipuram	17,665	17,048	34,713	19,471	19,681	39,152	4,322	5,190	9,512	4,818	74,63	12,281
Gudiyattam	56,422	55,127	111,549	61,054	59,001	120,055	17,391	18,624	36,015	17,132	18,730	35,862
Valathoor	12,305	11,520	23,825	15,358	12,901	28.259	2,161	2,661	4,822	2,527	2,574	5,101
Mailpatti	23,849	26,488	50,337	26,789	30,388	57,177	7,105	7,893	14,998	7,217	7,846	15,063
Ambur	49,429	51,831	101,260	60,259	62,855	123,114	13,538	18,420	31,958	14,740	26,069	40,809
Vinnamangalam	4,189	5,710	9,899	5,408	7,115	12,523	505	1,022	1,527	525	1,171	1,696
Vaniyambadi	65,707	65,471	131,178	77,018	76,183	153,201	20,250	20,541	40,791	21,362	20,989	42,351

* Opened 1st July 1896.

The following Table shows the Coaching Traffic in and out of the following Stations on the Madras Railway for the half-years ending 30th June 1896 and 1897—continued.

STATIONS.	Number of Passengers.						Coaching Receipts.					
	1896.			1897.			1896.			1897.		
	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.
	No.	No.	No.	No.	No.	No.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kettandapatti	6,005	7,288	13,293	8,234	9,571	17,805	614	1,230	1,844	825	1,390	2,215
Jalarpet Junction	71,170	69,578	140,748	84,037	81,550	165,587	29,645	29,024	58,669	29,800	29,915	59,715
Patchur	12,093	13,912	26,005	14,340	16,175	30,515	2,684	3,973	6,657	3,003	4,564	7,567
Mulanur	6,101	5,842	11,943	7,722	7,374	15,096	689	887	1,576	707	880	1,587
Kuppam	28,180	28,338	56,518	35,937	37,123	73,060	8,696	8,420	17,116	9,738	9,700	19,438
Gudupalli	8,158	10,467	18,625	9,992	11,992	21,984	1,160	2,136	3,296	1,310	2,155	3,465
Bisanattam	9,234	9,097	18,331	14,142	13,985	28,127	2,307	3,136	5,443	4,408	5,434	9,842
Kamasamudram	17,392	16,669	34,061	20,907	19,742	40,649	3,959	3,323	7,282	4,381	3,386	7,767
Bowringpet Junction	71,989	62,090	134,079	82,316	72,686	155,002	40,591	30,362	70,953	43,183	32,319	75,502
Tyakal	17,833	17,596	35,429	22,008	22,142	44,150	2,988	2,867	5,855	3,197	3,185	6,382
Malur	34,262	33,548	67,810	38,082	36,945	75,027	13,662	13,424	27,086	14,327	14,815	29,142
Devankundi	14,976	15,077	30,053	17,738	17,543	35,281	2,577	2,663	5,240	2,880	2,963	5,843
Whitefield	31,066	27,740	58,806	36,229	32,707	68,936	5,674	5,677	11,351	6,170	5,575	11,745
Krishnarajapuram	16,586	18,628	35,214	19,615	22,552	42,167	2,196	3,196	5,392	2,620	3,522	6,142
Bangalore Cantonment	122,746	85,064	207,810	140,343	94,761	235,104	1,72,335	1,23,677	2,96,012	1,76,946	1,18,119	2,95,065
Do. City Junction	43,119	66,548	109,667	44,648	72,669	117,317	17,141	56,918	74,059	21,474	55,148	76,622
Do. Pettah	...	12,815	12,815	...	14,925	14,925	3	11,870	11,873	7	13,275	13,282
Tirupattur	67,877	63,065	130,942	74,828	70,958	145,786	26,080	24,204	50,284	26,450	24,865	51,315
Kagankarai	9,871	10,402	20,273	11,112	11,894	23,006	1,659	2,009	3,668	1,596	1,856	3,452
Samalpatti	13,875	13,498	27,373	14,761	14,588	29,349	4,724	4,664	9,388	4,286	4,444	8,730
Kallavi	7,698	8,511	16,209	8,918	9,796	18,714	1,623	1,921	3,544	1,815	2,054	3,869
Morappur	20,454	19,791	40,245	21,584	20,511	42,095	8,792	8,272	17,064	8,922	7,993	16,915
Buddireddippatti	6,696	6,514	13,210	7,598	7,273	14,871	1,804	1,971	3,775	1,975	2,003	3,978
Mallapuram	12,954	13,527	26,481	12,814	12,879	25,693	4,040	4,363	8,403	3,972	4,017	7,989
Lokur	2,010	1,773	3,783	2,492	2,154	4,646	251	293	544	260	322	582
Kadiampatti	9,505	9,647	19,152	9,617	10,359	19,976	2,130	2,002	4,132	2,089	2,076	4,165
Thinnappatti	13,537	12,389	25,926	13,676	12,800	26,476	2,049	2,098	4,147	1,831	2,016	3,847
Salem	87,402	85,401	172,803	88,633	86,741	175,374	57,841	62,263	1,20,104	58,234	60,489	1,18,723
Ariyanur	5,621	7,966	13,587	6,441	8,939	15,380	897	1,334	2,231	913	1,493	2,406
McDonald's Choultry	15,038	16,245	31,283	15,687	16,798	32,485	3,226	3,694	6,920	2,890	3,347	6,237
Sankaridrug	29,513	27,366	56,879	31,817	29,751	61,568	7,224	7,098	14,322	7,226	7,130	14,356
Anangur	4,231	4,063	8,294	6,774	6,378	13,152	421	412	833	600	585	1,185
Cauvery	4,653	4,702	9,355	10,005	14,571	24,576	776	1,026	1,802	1,000	1,455	2,455
Erode Junction	91,627	92,014	183,641	104,733	99,921	204,654	55,804	54,196	1,10,000	58,061	52,140	1,10,201
Totiapalaiyam	2,172	3,034	5,206	2,900	3,838	6,738	178	295	473	238	364	602
Perundurai...	23,354	20,891	44,245	24,586	20,606	45,192	5,128	4,670	9,798	5,179	4,209	9,388
Ingur*	...	...	...	4,364	5,812	10,176	...	...	...	718	1,371	2,089
Viziamangalam	6,931	7,559	14,490	7,361	7,469	14,830	1,780	2,066	3,846	1,809	1,834	3,643
Uttukuli	13,202	13,631	26,833	14,454	15,098	29,552	3,961	4,061	8,022	3,925	4,128	8,053
Kulipalaiyam	1,734	2,218	3,952	2,109	3,065	5,174	278	457	735	279	478	757
Tiruppur	42,045	38,821	80,866	43,893	40,606	84,499	18,486	16,035	34,521	18,586	16,372	34,958
Mangalam	21,245	19,462	40,707	20,239	18,302	38,541	6,037	5,636	11,673	5,525	5,106	10,631
Somanur	11,283	11,483	22,766	11,990	11,972	23,962	2,687	2,937	5,624	2,690	2,739	5,429
Sulur	12,974	13,320	26,294	13,170	14,086	27,256	3,124	3,210	6,334	2,785	3,099	5,884
Singanallur...	11,255	11,643	22,898	12,443	12,328	24,771	2,212	2,708	4,920	2,459	2,506	4,965
Podanur Junction	60,088	61,268	121,356	69,086	69,506	138,592	17,161	17,937	35,098	17,449	18,621	36,070
Coimbatore...	135,839	131,117	266,956	131,592	125,299	256,891	58,612	56,550	1,15,162	52,352	48,675	1,01,027
Tudiyalur	13,734	14,351	28,085	15,638	15,965	31,603	2,107	2,125	4,232	2,011	2,145	4,156
Periyanayakkanpalayam	9,087	10,615	19,702	10,188	11,952	22,140	1,163	1,429	2,592	1,181	1,429	2,610
Karaimadai...	28,649	25,657	54,306	23,788	21,647	45,435	4,764	4,410	9,174	3,520	3,364	6,884
Mettupalaiyam	67,629	69,739	137,368	66,789	68,959	135,748	99,536	61,786	1,61,322	1,02,494	64,883	1,67,377
Madukarai	6,353	7,864	14,217	7,504	8,747	16,251	1,529	1,784	3,313	1,618	1,631	3,249
Walayar	5,757	6,767	12,524	6,081	6,871	12,952	1,059	1,550	2,609	1,100	1,257	2,357
Kanyikod	11,872	12,062	23,934	11,995	12,854	24,849	3,456	3,927	7,383	3,465	4,035	7,500
Olavakkot Junction	45,046	54,195	99,241	42,346	52,008	94,854	17,937	22,377	40,314	16,580	20,264	36,844
Palghat	49,741	39,586	89,327	48,653	38,613	87,266	30,121	21,401	51,522	30,077	21,163	51,240
Parli	11,174	12,615	23,789	11,478	13,091	24,569	2,879	3,174	6,053	2,944	3,345	6,289
Mankarai	13,193	14,370	27,563	13,085	13,810	26,895	4,737	4,774	9,511	4,358	4,617	8,975
Lakkiti	21,126	22,521	43,647	20,697	21,922	42,619	5,498	5,791	11,289	5,548	5,913	11,461
Ottappalam...	27,715	26,357	54,072	28,565	28,118	56,683	7,461	6,999	14,460	7,880	7,624	15,504
Shoranur	36,348	34,505	70,853	34,695	33,724	68,419	22,988	20,482	43,470	21,891	19,009	40,900
Pattambi	27,538	26,882	54,420	26,609	26,255	52,864	12,902	11,752	24,654	11,038	11,804	22,842
Pallipuram	10,216	11,029	21,245	9,918	10,554	20,472	2,312	2,749	5,061	2,284	2,508	4,792
Kuttippuram	10,926	11,479	22,405	10,227	10,799	21,026	2,951	3,141	6,092	2,714	2,873	5,587
Edakkolam...	16,067	17,866	33,933	15,215	16,816	32,031	4,486	5,092	9,578	4,269	4,764	9,033
Tirur	47,835	46,949	94,784	45,627	44,480	90,107	15,828	14,677	30,505	13,696	14,344	28,040
Tanore	22,584	23,205	45,789	22,262	22,671	44,933	3,729	5,204	8,933	3,418	4,491	7,909
Parpanangadi	49,085	48,433	97,518	45,836	44,992	90,828	7,855	8,127	15,982	6,452	6,651	13,103
Kadalundi	14,718	15,066	29,784	13,262	13,597	26,859	1,579	1,757	3,336	1,341	1,440	2,781
Ferok	58,865	59,976	118,841	57,453	58,919	116,372	6,714	7,100	13,814	6,144	6,705	12,849
Kallayi	25,594	38,197	63,791	25,037	36,004	61,041	4,706	8,397	13,103	4,787	7,918	12,705
Calicut	116,491	102,526	219,017	104,807	93,873	198,680	66,605	56,105	1,22,710	60,607	55,274	1,15,881
Madras Ennur Railway	39,350	26,162	65,512	36,491	27,428	63,919	1,173	910	2,083	1,043	773	1,816
Southern Mahratta Railway ...	41,161	49,008	90,169	40,376	46,401	86,777	87,993	82,972	1,70,965	87,327	74,680	1,62,007
Great Indian Peninsula Railway...	17,677	19,549	37,226	16,029	16,673	32,702	1,22,045	1,06,577	2,28,622	1,27,489	88,405	2,15,894
South Indian Railway	69,068	89,783	158,851	67,257	84,095	151,352	79,407	92,362	1,71,769	83,991	93,912	1,77,903
Kolar Gold Fields State Railway...	38,680	48,256	86,936	50,140	53,623	103,763	30,695	51,942	82,637	39,188	55,790	94,978

* Opened 1st January 1897.

N.B.—This statement is intended to shew the relative importance of each station on the Madras Railway, but the actual total receipts for any particular section of the railway cannot be obtained from it.

22. *The following Table shows the Goods Traffic in and out of the following Stations on the Madras Railway for the half-years ending 30th June 1896 and 1897, together with the gross traffic receipts.*

STATIONS.	Tonnage of Goods and Railway Materials.						Goods Receipts.						Gross Receipts, Coaching & Goods, Inwards and Outwards.	
	1896.			1897.			1896.			1897.				
	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	1896.	1897.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Madras ...	...	...	...	...	...	...	4,980	3,745	8,725	4,303	2,717	7,020	7,47,892	7,26,847
Salt Cotaurs ...	108,271	41,038	149,309	95,993	47,455	143,448	8,65,523	4,78,371	13,43,894	7,44,721	5,63,397	13,08,118	13,43,894	13,08,118
Rayapuram ...	84	60,679	60,763	1,567	70,553	72,120	316	2,66,753	2,67,069	2,134	3,01,022	3,03,156	2,93,846	3,26,308
Washermanpet Junc.	24	...	24	1	...	1	107	4	111	9	16	25	30,270	28,761
Veyasarpaudi* ...	...	...	...	...	...	...	...	...	...	...	...	...	...	675
Perambur ...	538	122	660	2,152	392	2,544	2,425	694	3,119	3,988	2,286	6,274	35,089	39,477
Connur ...	77	1	78	76	20	96	221	23	244	640	35	675	6,771	7,485
Ambattur ...	20	4,324	4,344	35	7,331	7,366	61	2,382	2,443	50	3,797	3,847	6,069	7,881
Avadi ...	345	2,499	2,844	326	6,099	6,425	2,036	2,220	4,256	2,746	6,122	8,868	27,452	30,392
Tinnanur ...	62	11	73	102	62	164	250	51	301	395	176	571	13,562	14,335
Sevvapet Road ...	16	114	130	104	22	126	64	161	225	298	103	401	6,589	6,754
Trivellore ...	1,145	470	1,615	1,160	744	1,904	5,888	1,268	7,156	5,129	2,463	7,592	69,459	69,530
Kadambattur ...	323	758	1,081	238	479	717	1,382	1,740	3,122	1,134	1,282	2,416	13,331	11,581
Manur ...	30	266	296	37	195	232	123	505	628	150	449	599	4,868	4,704
Chinnamapet ...	225	1,048	1,273	138	923	1,061	548	2,091	2,639	474	1,567	2,041	9,100	7,311
Mosur ...	13	54	67	10	39	49	64	171	235	41	117	158	2,062	1,923
Arkonam Junction...	1,964	1,805	3,769	1,127	1,857	2,984	9,030	6,652	15,682	4,787	7,602	12,389	1,55,461	1,46,307
Tiruttani ...	1,630	2,608	4,238	1,376	1,592	2,968	7,786	6,493	14,279	6,305	4,567	10,872	41,863	35,070
Ponpadi ...	22	21	43	20	94	116	108	87	195	99	338	437	1,999	2,135
Nagari ...	1,113	3,010	4,123	882	1,622	2,504	5,303	9,784	15,087	3,914	6,019	9,933	32,261	24,740
Vepagunta ...	35	66	101	33	52	85	76	235	311	117	230	347	2,132	2,437
Puttur ...	766	2,936	3,702	574	2,177	2,751	2,796	9,123	11,919	2,210	7,103	9,313	29,578	24,170
Pudi ...	281	895	1,176	240	561	801	1,015	3,949	4,964	894	2,713	3,607	13,886	12,094
Renigunta Junction..	840	2,713	3,553	424	3,454	3,878	4,186	10,025	14,211	2,311	11,974	14,285	1,18,926	1,02,270
Mamandurn ...	1	279	280	4	295	299	11	1,014	1,025	41	1,149	1,190	1,755	2,254
Peddapadu ...	45	1,702	1,747	43	1,567	1,610	165	8,572	8,737	164	6,214	6,378	11,560	9,179
Koduru ...	351	1,283	1,634	511	1,331	1,842	1,356	6,431	7,787	1,941	7,317	9,258	18,415	18,980
Urampadu ...	89	572	661	36	302	338	458	2,225	2,683	170	1,419	1,589	7,922	5,222
Reddipalle ...	74	392	466	141	400	541	359	2,418	2,777	555	2,789	3,344	10,283	9,804
Razampeta ...	1,271	1,626	2,897	1,412	1,834	3,246	6,439	11,808	18,247	8,214	13,357	21,571	36,196	37,688
Nandalur ...	308	172	480	389	59	448	817	1,212	2,029	1,143	366	1,509	12,936	11,542

* Opened 1st December 1896.

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Voztimitta ...	110	379	489	149	339	488	984	3,251	4,235	828	2,981	3,809	14,883	15,042
Siddhavattam ...	1	33	34	2	7	9	27	179	206	12	50	62	967	1,244
Cuddapah	4,349	4,076	8,425	6,088	5,677	11,765	30,141	38,788	68,929	37,433	42,597	80,030	1,34,669	1,45,734
Krishnapuram ...	558	458	1,016	288	659	947	2,731	3,405	6,136	1,704	4,527	6,231	10,630	10,745
Gangayapally ...	163	31	194	79	43	122	994	148	1,142	628	436	1,064	4,020	3,741
Kamalapuram ...	585	270	855	335	143	478	3,299	2,329	5,628	2,062	1,081	3,143	17,433	11,648
Yerragudipadu ...	44	21	65	21	6	27	235	91	326	128	48	176	2,093	1,787
Yerraguntla ...	1,110	5,333	6,443	2,144	4,209	6,353	8,915	34,339	43,254	16,253	35,509	51,762	67,140	73,946
Kalamala ...	3	88	91	22	24	46	28	496	524	72	249	321	2,856	2,482
Muddanuru ...	816	782	1,598	1,727	548	2,275	6,114	9,254	15,368	14,327	3,971	18,298	28,118	30,585
Mangapatnam ...	31	54	85	40	27	67	159	544	703	241	176	417	2,308	2,111
Kondapuram ...	162	610	772	214	359	573	799	4,687	5,486	1,074	2,798	3,872	14,671	10,619
Regadipalli* ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,563
Vanganur	89	156	245	60	74	134	393	959	1,352	324	483	807	5,244	3,842
Tadpatri	2,078	3,570	5,648	3,138	2,795	5,933	15,394	33,769	49,163	22,994	27,230	50,224	75,056	73,035
Penneru	86	278	364	50	337	387	409	1,368	1,777	265	761	1,026	6,738	5,086
Rayalcheruvu ...	213	240	453	300	215	515	1,243	1,756	2,999	1,425	1,999	3,424	10,860	10,138
Jakkulacheruvu ...	17	7	24	10	5	15	83	33	116	55	36	91	2,056	1,675
Gooty	1,066	1,798	2,864	1,677	671	2,348	9,838	17,137	26,975	12,404	6,289	18,693	52,516	45,021
Patakottacheru ...	6	149	155	25	25	50	35	987	1,022	53	213	266	2,493	1,840
Timmancherla ...	548	1,118	1,666	369	210	579	4,162	11,047	15,209	3,737	1,122	4,859	22,462	11,079
Guntakal Junction..	660	273	933	640	234	874	6,018	2,127	8,145	6,903	1,824	8,727	79,031	69,308
Nancherla	126	156	282	167	59	226	793	889	1,682	1,858	274	2,132	3,616	3,770
Molagavalli ...	151	126	277	81	8	89	251	1,072	1,323	193	93	286	2,860	1,763
Aspari	47	225	272	227	146	373	292	1,846	2,138	2,839	1,289	4,128	5,292	7,655
Nagarur	3	4	7	3	...	3	15	23	38	19	...	19	1,232	1,146
Adoni	6,122	6,081	12,203	8,720	4,274	12,994	28,881	52,533	81,414	47,753	35,466	83,219	1,19,465	1,22,191
Kupgal	93	50	143	45	171	216	592	251	843	183	3,002	3,185	3,579	6,580
Kosgi	463	170	633	579	209	788	3,235	1,811	5,046	3,863	1,656	5,519	12,180	12,867
Tungabhadra ...	25	190	215	24	90	114	189	390	579	152	482	634	7,872	6,889
Matmari	57	506	563	52	221	273	164	2,536	2,700	349	1,430	1,779	6,282	5,791
Raichur Junction...	2,936	3,595	6,531	5,382	1,142	6,524	31,746	38,057	69,803	61,664	13,970	75,634	1,32,965	1,32,820
Munnal	209	196	405	275	198	473	999	752	1,751	940	676	1,616	6,703	6,242
Sholinghur ...	662	2,171	2,833	557	3,771	4,328	3,508	5,488	8,996	2,899	7,099	9,998	27,965	27,007
Thalangai	3	3	6	1	9	10	13	13	26	4	41	45	989	806
Arcot	8,216	7,419	15,635	12,888	8,911	21,799	46,640	49,801	96,441	61,207	60,546	1,21,753	1,70,909	1,87,453
Ponnai Road ...	7	43	50	2	16	18	36	209	245	15	206	221	1,634	1,548
Tiruvalam ...	141	402	543	60	345	405	1,152	1,785	2,937	529	1,605	2,134	16,339	15,947
Katpadi Junction...	5,507	12,066	17,573	6,627	14,647	21,274	45,679	75,693	1,21,372	51,821	99,895	1,51,716	2,65,199	2,93,325
Latteri	1	15	16	3	16	19	11	85	96	13	119	132	1,587	1,739
Virinchipuram ...	89	128	217	146	114	260	854	899	1,753	1,368	741	2,109	11,265	14,390
Gudiyattam ...	3,180	2,853	6,033	3,360	2,548	5,908	27,208	17,066	44,274	25,898	15,166	41,064	80,289	76,926
Valathoor	358	236	594	244	105	349	4,233	1,304	5,537	2,329	658	2,987	10,359	8,088
Mailpatti	627	1,510	2,137	912	1,091	2,003	5,075	8,600	13,675	6,172	7,671	13,843	28,673	28,906
Ambur	2,318	2,611	4,929	2,117	2,205	4,322	18,364	14,130	32,494	14,113	12,174	26,287	64,452	67,096
Vinnamangalam ...	3	32	35	3	45	48	21	308	329	60	438	498	1,856	2,194
Vaniyambadi ...	12,113	4,275	16,388	4,487	3,996	8,483	38,717	26,560	65,277	28,120	24,288	52,408	1,06,068	94,759
Ketandapatti ...	21	113	134	31	71	102	117	497	614	122	336	458	2,458	2,673

* Opened 1st July 1896.

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The following Table shows the Goods Traffic in and out of the following Stations on the Madras Railway for the half-years ending 30th June 1896-1897.—cont.

STATIONS.	Tonnage of Goods and Railway Materials.						Goods Receipts.						Gross Receipts, Coaching & Goods, Inwards and Outwards.	
	1896.			1897.			1896.			1897.				
	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	1896.	1897.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Jalarpet Junction...	485	1,094	1,579	387	891	1,278	2,105	4,379	6,484	2,128	3,796	5,924	65,153	65,639
Patchur	267	608	875	252	671	923	920	1,625	2,545	793	2,289	3,082	9,202	10,649
Mulanur	68	1,329	1,397	9	2,029	2,038	95	1,408	1,503	41	2,007	2,048	3,079	3,635
Kuppam	1,195	3,356	4,551	1,195	1,726	2,921	5,323	7,614	12,937	6,090	4,812	10,902	30,053	30,340
Gudupalli	157	35	192	17	242	259	137	56	193	67	187	254	3,489	3,719
Bisanattam ...	1,572	14	1,586	2,304	15	2,319	3,398	123	3,521	3,383	87	3,470	8,965	13,312
Kamasamudram ...	1,531	317	1,848	3,320	228	3,548	1,585	818	2,403	2,581	663	3,244	9,685	11,011
Bowringpet Junc....	8,026	3,721	11,747	8,902	3,655	12,557	49,118	21,152	70,270	58,588	16,902	75,490	1,41,223	1,50,992
Tyakal	59	527	586	61	691	752	458	1,479	1,937	508	1,522	2,030	7,792	8,412
Malur	610	2,971	3,581	734	5,313	6,047	4,140	13,358	17,498	4,442	11,567	16,009	44,584	45,151
Devankundi ...	116	1,000	1,116	98	3,708	3,806	424	2,190	2,614	672	5,432	6,104	7,854	11,947
Whitefield ...	547	3,181	3,728	432	6,219	6,651	4,278	14,433	18,711	3,933	15,715	19,648	30,062	31,393
Krishnarajapuram..	207	1,418	1,625	88	852	940	1,923	5,060	6,983	1,098	3,848	4,946	12,375	11,088
Bangalore Cant. ...	12,774	6,101	18,875	17,546	5,423	22,969	1,41,407	67,844	2,09,251	1,48,772	65,620	2,14,392	5,05,263	5,09,457
Do. City Jun.	7,797	14,331	22,128	11'226	12,184	23,410	68,040	1,14,896	1,82,936	1,30,361	1,03,232	2,33,593	2,56,995	3,10,215
Do. Pettah...	...	...	...	...	...	...	...	...	...	...	63	63	11,873	13,345
Tirupattur... ...	4,598	9,392	13,990	3,844	10,516	14,360	29,610	44,077	73,687	23,213	47,090	70,303	1,23,971	1,21,618
Kagankarai ...	10	64	74	6	13	19	51	453	504	35	74	109	4,172	3,561
Samalpatti ...	123	415	538	204	634	838	952	2,642	3,594	1,909	3,547	5,456	12,982	14,186
Kallavi	41	442	483	27	356	383	272	3,030	3,302	137	2,155	2,292	6,846	6,161
Mórappur	1,384	2,753	4,137	1,100	2,675	3,775	11,317	17,100	28,417	9,243	18,045	27,288	45,481	44,203
Buddireddippatti...	29	706	735	21	299	320	171	3,735	3,906	119	2,337	2,456	7,689	6,434
Mallapuram ...	96	783	879	132	417	549	556	4,381	4,937	698	2,204	2,902	13,340	10,891
Lokur ...	...	38	38	...	84	84	5	207	212	2	416	418	756	1,000
Kadiampatti ...	599	486	1,085	648	668	1,316	3,616	3,797	7,413	4,380	3,251	7,631	11,545	11,796
Thinnappatti ...	28	31	59	9	40	49	84	102	186	36	72	108	4 333	3,955
Salem	10,080	7,718	17,798	8,108	12,718	20,826	90,956	57,559	1,48,515	73,295	1,12,216	1,85,511	2,68,619	3,04,234
Ariyanur	1	6	7	1	40	41	4	53	57	8	515	523	2,288	2,929
McDonald's Choultry	312	1,312	1,624	346	715	1,061	2,310	8,046	10,356	2,586	5,664	8,250	17,276	14,487
Sankaridrug ...	1,991	4,625	6,616	2,117	4,849	6,966	13,068	18,701	31,769	13,900	21,123	35,023	46,091	49,379
Anangur	9	20	29	5	1	6	38	48	86	23	4	27	919	1,212
Cauvery	66	480	546	81	824	905	587	2,507	3,094	667	4,279	4,946	4,896	7,401
Erode Junction ...	6,174	3,819	9,993	4,729	7,046	11,775	43,786	46,111	89,897	31,654	72,269	1,03,923	1,99,897	2,14,124
Totiapalayam ...	1	31	32	...	71	71	9	180	189	4	406	410	662	1,012
Perundurai ...	283	814	1,097	227	300	527	1,966	6,236	8,202	1,929	2,087	4,016	18,000	13,404
Ingur* ...	...	...	...	1	15	16	...	...	...	4	103	107	...	2,196
Viziamangalam ...	4	504	508	33	238	271	30	3,576	3,606	56	833	889	7,452	4,532
Uttukuli	326	1,365	1,691	219	1,131	1,350	1,407	8,789	10,196	889	4,641	5,530	18,218	13,583
Kulipalaiyam ...	16	96	112	13	62	75	103	851	954	110	692	802	1,689	1,559
Tiruppur	6,076	2,903	8,979	4,970	12,054	17,024	47,313	41,020	88,333	39,521	1,11,505	1,51,026	1,22,854	1,85,984
Mangalam ...	3,995	338	4,333	1,099	365	1,464	30 962	2,552	33,514	6,520	2,316	8,836	45,187	19,467
Somanur	323	533	856	144	553	697	1,585	6,159	7,744	383	6,541	6,924	13,368	12,353
Sulur	195	833	1,028	134	944	1,078	1,419	11,178	12,597	828	10,744	11,572	18,931	17,456
Singanallúr ...	406	342	748	130	378	508	3,622	4,017	7,639	594	4,116	4,710	12,559	9,675
Podanur Junction...	1,896	943	2,839	1,411	1,163	2,574	4,286	6,298	10,584	7,374	7,817	15,191	45,682	51,261
Coimbatore ...	18,569	7,126	25,695	18,285	15,729	34,014	1,04,026	51,669	1,55,695	78,532	1,24,437	2,02,969	2,70,857	3,03,996
Tudiyalur ...	133	309	442	39	204	243	283	771	1,054	111	901	1,012	5,286	5,168
Periyanayakkanpalayam	8	...	8	1	2	3	62	...	62	3	8	11	2,654	2,621
Karaimadai ...	375	311	686	483	308	791	1,961	1,818	3,779	1,647	1,793	3,440	12,953	10,324
Mettupalaiyam ...	11,690	3,205	14,895	13,936	4,060	17,996	1,11,232	33,271	1,44,503	1,22,564	32,786	1,55,350	3,05,825	3,22,727
Madukarai ...	31	424	455	36	328	364	133	3,336	3,469	112	2,424	2,536	6,782	5,785
Walayar ...	188	1,169	1,357	3	1,438	1,441	1,084	1,276	2,360	19	1,455	1,474	4,969	3,831
Kanyikod ...	298	3,636	3,934	69	4,549	4,618	1,900	5,897	7,797	337	9,971	10,308	15,180	17,808
Olavakkot Junction	431	6,790	7,221	318	5,319	5,637	1,335	36,750	38,085	939	26,611	27,550	78,399	64,394
Palghat	8,053	10,236	18,289	8,407	15,987	24,394	49,339	68,436	1,17,775	47,261	87,996	1,35,257	1,69,297	1,86,497
Parli	528	1,026	1,554	465	3,508	3,973	2,652	4,935	7,587	2,158	13,361	15,519	13,640	21,808
Mankarai ...	222	258	480	164	594	758	804	1,575	2,379	704	2,758	3,462	11,890	12,437
Lakkiti	569	347	916	484	792	1,276	2,498	2,069	4,567	2,174	2,984	5,158	15,856	16,619
Ottappalam ...	485	897	1,382	716	1,861	2,577	2,145	3,810	5,955	2,741	8,576	11,317	20,415	26,821
Shoranur ...	1,699	841	2,540	3,491	941	4,432	9,768	6,639	16,407	18,286	6,561	24,847	59,877	65,747
Pattambi	381	1,044	1,425	393	822	1,215	1,763	7,361	9,124	1,729	5,463	7,192	33,778	30,034
Pallipuram ...	36	75	111	62	165	227	159	739	898	245	1,592	1,837	5,959	6,629
Kuttippuram ...	223	139	362	269	133	402	1,143	1,030	2,173	1,273	1,027	2,300	8,265	7,887
Edakkolam ...	154	917	1,071	206	1,223	1,429	758	5,911	6,669	746	9,529	10,275	16,247	19,308
Tirur	4,307	4,752	9,059	6,061	6,023	12,084	30,119	27,053	57,172	35,780	34,772	70,552	87,667	98,592
Tanore	1,218	1,348	2,566	1,041	1.269	2,310	5,934	12,490	18,424	4,112	11,699	15,811	27,357	23,720
Parpanangadi ...	1,198	802	2,000	1,399	1,013	2,412	7,730	5,909	13,639	5,380	6,206	11,586	29,621	24,689
Kadalundi ...	19	552	571	312	433	745	81	2,370	2,451	1,375	2,076	3,451	5,787	6,232
Ferok	3,887	2,786	6,673	5,383	2,973	8,356	32,661	22,219	54,880	41,050	26,446	67,496	68,694	80,345
Kallayi	2,240	5,737	7,977	2,655	11,158	13,813	13,975	45,783	59,758	17,563	88,352	1,05,915	72,861	1,18,620
Calicut	14,043	15,543	29,586	36,082	13,247	49,329	1,35,469	1,14,450	2,49,919	2,73,735	1,03,495	3,77,230	3,72,629	4,93,111
Madras Ennur Ry.	7,572	328	7,900	6,571	13,933	20,504	3,209	2,175	5,384	5,259	41,848	47,107	7,467	48,923
S. M. Railway ...	10,231	42,983	53,214	15,609	39,897	55,506	1,35,957	1,35,937	2,71,894	1,55,012	2,47,498	4,02,510	6,12,858	5,64,517
G. I. P. do. ...	6,329	14,780	21,109	23,033	13,679	36,712	77,509	2,09,801	2,87,310	2,13,571	2,11,234	4,24,805	5,15,932	6,40,699
S. I. do. ...	25,345	16,618	41,963	24,039	23,460	47,499	1,44,193	81,643	2,25,836	1,24,980	1,36,237	2,61,217	3,97,605	4,39,120
K. G. F. S. Ry. ...	53,900	392	54,292	78,980	434	79,414	2,23,796	1,967	2,25,763	3,40,405	2,548	3,42,953	3,08,400	4,37,931

* Opened 1st January 1897.

N.B.—This statement is intended to show the relative importance of each station on the Madras Railway, but the actual total receipts for any particular section of the Railway cannot be obtained from it.

LAWRENCE ASYLUM PRESS.

MADRAS RAILWAY COMPANY,
TELEGRAPH ENGINEER'S OFFICE,
ARKONAM, 30*th August* 1897.

No. 8266/2949.

THE ACTING AGENT AND MANAGER,
Madras Railway.

DEAR SIR,

REPORT FOR THE HALF-YEAR ENDING 30TH JUNE 1897.

I beg to submit my report for the half-year ending 30th June 1897.

Offices and Fittings.

Telegraph instruments, fittings, &c., were shifted and refixed at the following stations in consequence of alterations to station buildings by the Engineering Department :—

Tiruvallur.	Tanur.
Ambur.	Mettupalaiyam.
Podanur.	Patchur.

Block instruments were fixed at Mangapatnam on the North-West Line.

Electric Starting Semaphores.

Electric Starting Semaphores were fixed at Mangapatnam.

The undermentioned Electric Starting Semaphores were renewed :—

South-West Line.	*North-West Line.*
Podanur, West.	Pudi, South.
Kuttipuram, West.	Kondapuram, North.
	Tadpatri, South.
	Rayalcheru, North.
	Kosgi, South.

Comparative Statement of percentage of Semaphore failures for the Half-year ending 30th June 1897.

—	Half-year ending 30th June 1896.	Half-year ending 30th June 1897.
Total number of Semaphore operations (not including those for ballast and locomotive wood trains)	138,906	146,532
Number of failures—		
(*a*) Due to station staff	86	104
(*b*) Due to faults in apparatus caused by lightning and interference without Inspector's knowledge	26	29
(*c*) Due to faults in apparatus	91	88
Total...	203	221
Percentage of failures to number of operations	0·15	0·15

Line Work.

The telegraph wires throughout the line are well maintained, and the work of renewing the Morse and speaking instrument wires, which were erected when the Railway was constructed, with a new and lighter wire, is being carried on. During the period under review, the old No. 5 wires referred to above were dismantled, and No. 9 wire substituted, from the 129th to the 131st mile, South-West Line.

Thirteen Siemen's posts, broken where the rolled iron top fits into the cast iron socket, were renewed on the South-West Line. These breakages are due to the expansion of the cement used in fixing the socket and top together owing to the heat. We now use Portland cement instead of that originally sent out by the manufacturers, and thereby overcome this difficulty.

The alignment and termination of the wires at Connur, Mamanduru, Patchur, Bowringpet and mileage $\frac{95}{1}$ to $\frac{95}{3}$, North-West Line, had to be altered in consequence of work done by the Engineering Department.

An extra wire was erected in order to establish telephonic communication between Washermanpet and Veyasarpaudy—Veyasarpaudy and Goods shed Junction—Goods shed Junction and Central Station Block Cabin.

Lightning Conductors.

In consequence of extensions made to the Podanur station building, three lightning conductors were erected.

The following are comparative statements of interruptions on the telegraph lines and block lines :—

Interruptions on Telegraph Lines.

—	Interruptions caused by the neglect and carelessness of the Signallers.	Accidental interruptions.	Total.
Half-year ending 30th June 1897	4	62	66
Half-year ending 30th June 1896	7	48	55

Of the accidental interruptions—

16 were due to Instrumental faults.
34 ,, to Line faults.
4 ,, to Lightning.
7 ,, to Unknown causes.
1 was due to Battery fault.

Interruptions of Block Sections.

—	Miles open.	Number of Circuits.	Interruptions caused by the neglect and carelessness of the Signallers.	Accidental interruptions.	Total.
Half-year ending 30th June 1897... ...	857½	126	8	75	83
Half-year ending 30th June 1896... ...	857½	122	13	51	64

Of the accidental interruptions—

42 were due to Instrumental faults.
7 ,, to Line faults.
7 ,, to Battery faults.
19 ,, to Lightning.

"Lightning" was the cause of 23 interruptions, and a further number, due to "Line faults," was the result of some very violent dust storms which were experienced during the hot weather. Insects of various sorts, which are a regular pest after a heavy shower of rain, were responsible for 14 "Instrumental faults" by getting caught between contact points and so causing a disconnection.

Intercommunication.

The undermentioned vehicles were fitted with Electrical Intercommunication Appliances at the Perambur Works :—

—	Vehicles newly fitted.	Vehicles refitted.
Third Class Carriages	2	34
Do. Brakes	2	...
Ballast Wagons	6	1
Powder Brake Van	1	...
Covered Goods	41	4
Engines	8	9
Open Goods	1	1
Brake Vans	5	14
Composite Carriages	...	5
First Class do.	...	2
Second Class do.	...	1
Goods Brake Van	...	1

Statement showing the working of the Electrical Intercommunication in trains :—

—	Half-year ending 30th June 1896.	Half-year ending 30th June 1897.
Total mileage of fitted trains	1,196,944	1,219,144
Mileage of fitted trains with complete communication...	1,190,289	1,213,722
Percentage of interruption	0·55	0·44

List of cases in which Electrical Intercommunication was used and trains stopped during the half-year :—

Date.	Particulars taken from the Guards' Journals.
1897.	**Fire.**
February ...	The 17-15 o'clock train was stopped near Muddanuru by a 1st Class passenger to put out a fire in the train.
	Derangement in the Rolling Stock.
	The 18-40 o'clock mail was stopped at 83rd mile to rectify a defect in a Brake Van.

Electric Clocks.

Statement showing the working of the Electric Clocks during the half-year.

	1897.						Mean of six months.
	January.	February.	March.	April.	May.	June.	
Clock Failures. Caused by circumstances beyond Signallers' control ...per cent.	0·00	3·15	1·14	3·53	2·28	0·59	1·78
Clock Failures. Caused through the negligence of Signallers, per cent.	1·14	0·00	0·38	0·00	0·38	0·98	0·48
Clock errors two minutes and over ... .per cent.	0·00	0·00	0·00	0·00	0·00	0·20	0·03
Clock errors under two minutes, but one minute and over, per cent.	0·19	0·84	0·19	0·00	0·19	0·39	0·30
Clock errors under one minute, per cent.	98·48	95·59	97·72	95·29	97·15	97·25	96·92
Clock stopped ...per cent.	0·19	0·42	0·57	1·18	0·00	0·59	0·49
	100·00	100·00	100·00	100·00	100·00	100·00	100·00

Staff.—

Mr. G. K. Winter proceeded on furlough for 7 months and 15 days on April 3rd, 1897.

Appended is a statement showing the total cost of maintenance of the Electric Telegraph during the half-year under report.

Yours faithfully,

R. E. PIGOTT,

Acting Telegraph Engineer.

MADRAS RAILWAY COMPANY,
MEDICAL OFFICER'S OFFICE,
RAYAPURAM, *2nd September* 1897.

No. 1061.

To

THE ACTING AGENT AND MANAGER,
Madras Railway.

SIR,

I have the honour to forward you my report on the health of the Company's employés, and on the conservancy of the stations on the line, for the half-year ending 30th June 1897.

It is a great satisfaction to me to be able to say that the number of cases treated, during the half-year under review, is the smallest within my recollection. A few years ago, the number was hardly ever under 7,000: during the corresponding half of last year, it was 5,706 while this year it is only 5,386. It is evident from this that either the health of the line is improving year by year, or that Apothecaries are more careful in seeing that only suitable and deserving cases are admitted to the sick list. Apothecaries, especially the native ones, have great difficulty often in trying to do so, for many Eurasian and European subordinates, who cannot conveniently get privilege leave through the ordinary channels, at the time they desire it, imagine that in such circumstances they have only to go to the Apothecaries and report sick, and so obtain the leave they were denied by their own departments. If the Native Apothecary sees no reason to admit the applicant and declines to do so, he is in many cases subjected to abuse and intimidation. Eurasian Apothecaries are well able to protect themselves, and so are some native ones, but there are others of the latter class who are too timid to withstand successfully the angry reproaches of unreasonable subordinates, and I shall make it my special duty to protect such as far as I can, hoping at the same time that you, as it is in the Company's interests, will support me when I bring cases of the kind before you.

Mortality.—The number of deaths amongst the Company's employés was 23, 17 of them being cases of natives, and the remainder Eurasian. There must be many more cases amongst the lower subordinate and cooly classes of which no record can be obtained. They are not members of the Provident Institution, and so no record of them is kept there, or they may go to their villages and are never heard of again. Amongst the Eurasian deceased is Mr. J. D. Jones, who at the time of his death, had been in the service of the Company as an Apothecary for over 20 years. He was a very conscientious, well-conducted man, and was well liked by employés, as he never spared himself in attending to the interests of his patients. Cholera broke out at his station, Arkonam, in January last, and he battled with it night and day to stamp it out. He not only attended patients medically, but he also nursed them, although he could have quite conscientiously left that duty to their friends. He paid for his devotion with his life, and it may truly be said of him that he died a martyr to duty.

Cholera.—This disease has manifested itself at various stations on the line, but it never got a footing at any station. Apothecaries were on the alert, and by adopting effective and careful measures of disinfection, hardly more than a couple of cases occurred at any station. Podanur, Katpadi, Jalarpet, Madras and Erode were each responsible for 1 case, Salem, Olavakkot and Renigunta each for 2 and Arkonam for 3. There were thus 14 cases altogether, of which 9 terminated fatally.

Small-pox.—There were 12 cases of small-pox during the half-year, leaving a balance in its favour of 9 compared with the corresponding period of last year. The disease was never epidemic except in Perambur as the cases were well distributed over the line. Arkonam, Katpadi, Bangalore and Cuddapah have each to be debited with 1 case while Perambur claims 8.

Quarantine.—On account of small-pox being prevalent in their houses, 29 employés were placed in quarantine, *i.e.*, they were not allowed to leave their homes and were paid full wages for their enforced idleness. The wages paid amounted to Rs. 219-9-9, Perambur being responsible for two-thirds of the total sum.

Staff.—The medical and conservancy staff have performed their duties, as a rule, to my entire satisfaction. Mr. Thos. Tranfield, a Government Pensioned Apothecary of large experience, was appointed as Apothecary of Arkonam in place of the late Mr. J. D. Jones.

I have made the customary inspection of all the dispensaries on the line, as well as the sanitation of the stations and their compounds, and found everything well attended to.

Appended is a comparative statement of the number and kinds of cases that have come under the notice of the Medical Staff during the corresponding half-years of 1896 and 1897, and also a list giving the number of vaccinations practised during the half-year under review.

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

J. CURRIE,
Medical Officer,
Madras Railway.

Comparative Statement of Cases treated during the half-years ending 30th June 1896 and 1897.

Date.	Small-pox.	Measles.	Influenza.	Simple Fever.	Malarial Fever.	Remittent Fever.	Cholera.	Choleraic Diarrhœa.	Dysentery.	Diarrhœa.	Accidents and other Diseases.	Total treated.
1896.												
January	3	...	1	17	274	1	...	...	14	24	490	824
February...	6	2	19	8	267	4	...	...	21	46	565	938
March	5	2	21	15	340	1	...	...	35	42	600	1,061
April	4	1	18	12	293	1	...	...	39	42	536	946
May	...	...	4	14	223	1	...	...	42	55	653	993
June	3	...	...	10	240	2	...	...	38	53	598	944
Grand Total ...	21	5	63	76	1,637	10	1	...	189	262	3,442	5,706
1897.												
January	1	...	...	33	237	...	9	...	22	58	511	871
February...	3	...	2	53	173	...	2	...	27	38	503	801
March	4	4	5	53	224	6	1	2	40	43	554	946
April	3	...	5	31	223	1	...	...	34	34	586	917
May	1	...	5	43	248	1	12	...	29	64	571	964
June	...	...	1	39	215	...	...	...	32	57	543	887
Grand Total ...	12	4	18	252	1,330	8	14	2	184	294	3,268	5,386

MADRAS RAILWAY.

Return of Vaccination for the half-year ending 30th June 1897.

Number vaccinated.	Traffic Department.				Locomotive Department.				Engineering Department.				Audit Department.			
	Sex.				Sex.				Sex.				Sex.			
			Children.				Children.				Children.				Children.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
46	15	...	2	4	11	...	3	6	...	...	3	1	1	...	...	...

(No. II.)

No. 9745
922

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE,

Madras, 23rd September 1897.

C. No. 4183
Recd. 24/9/97

From

The Ag: Agent and Manager.
M. R. Co

To

The Offg: Consulting Engineer for Railways.
Madras.

SIR,

In continuation of my letter No. 9745/884 dated 14th September 1897, I have the honour to forward herewith 32 copies of each of the Reports by the undermentioned Heads of Departments for the half year ending 30th June 1897:—

The Ag: Agent & Manager,
" Ag: Chief Engineer,
" Loco: Superintendent.
" Ag: Traffic Manager,
" Ag: Telegraph Engineer
" Medical Officer.

I have the hono
Sir,
Your most obedien

Ag: Agen

(A. & M. VIII.)

Madras Railway Company,

No.

AGENT & MANAGER'S OFFICE,

RAYAPURAM TERMINUS,

Madras, 30th Sept. 1897.

Memo

31 copies of Ag: Traffic Manager's Report for H. y. 30th June/97.

32 copies of Supplement to the Ag: Tr: Mgr: report

16 copies of Ag: Chief Engineer's Report for H. y. 30th June/97.

The above are the enclosures due to Ar's his letter No. 9745/922 of 23rd Sept/97.

The Consulting Engineer for Rys.

No. 822. R dated 14. 10. 97.

(R.) Form No. 3.

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

B/-

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Letter from the Agent & Manager, Madras Railway } No. 9745/884 of 14th September 1897

Do —— Do —— Do No. 9745/922 of 23rd September 1897

ORDERED that the Reports by the Heads of Department of the Madras Railway for the half year ended the 30th June 1897, be forwarded to the Govt of India.

To

The Consulting Engineer for Rys.
The Agent & Manager M. Ry.
The Examiner of Ry Accts.

R & E. No. 823 R. of 14th Oct 97.

To

The Secretary to the Government of India P. W. D.

Sir

Sir

I am directed to forward six copies of the Reports by the Heads of departments of the Madras Railway for the half-year ended the 30th June 1897.

I have &c
(Sd) [illegible]
for Secretary

Documents sent

6 copies of reports referred to

(Sd) [illegible]